



## CASE STUDY: Harewood Road Project

Orion commissioned Connetics to complete a system reinforcement project between Papanui Substation and Harewood Road, Bishopdale, Christchurch.

UNDERGROUND

[www.connetics.co.nz](http://www.connetics.co.nz)

### PROJECT SCOPE

This contract involved the supply, installation and commissioning of underground reticulation to undertake an 11kV system reinforcement between Papanui Substation and Harewood Road, Bishopdale. The project parameters included the installation of 3.5km's of high voltage cable within 1.8km's of trench, and all associated construction requirements. This included cable joints and terminations, and cable testing and livening.

### CHALLENGES

Timing was a critical factor with this contract due to the tight timeframes for project completion. This was complicated by the weather dependency that posed a major challenge for staff involved. Wet weather subsequently played a part during works, causing delays when open trenches became flooded prior to cable installation.

The contract required the installation of continuous 350 metre lengths of cable to reduce the requirement for unnecessary jointing of conductors. Due to the 350 metre sections of trench being opened at any one time careful planning to manage site hazards was critical, with special emphasis on Connetics traffic management teams to minimize any site disruptions.

### SOLUTIONS

Connetics has specialised cable hauling equipment including a heavy duty winch winding loader and large quantities of cable and corner rollers. Tension monitoring is critical and break away swivels were used to manage this. Connetics have the capability to undertake works of this scale and beyond.

Harewood Road is a busy, tree lined, dual carriageway so the traffic management was crucial to the overall success of the project. Specifically Connetics traffic management experience enabled the careful control of traffic flow during peak hours and the mitigation of other minor setbacks encountered along the way.

Staff onsite controlled a specific vandalism hazard by removing vertical barriers at nights and laying these flat over the trenches, protecting the public from harm, whilst discouraging vandals from removing barriers and placing them on the roads. This reduced the hazards for pedestrians and traffic. To cope with the tight time frame two gangs were used to complete the trenching and cable laying.

### RESULTS

This large contract was managed professionally from the outset. The careful planning and resourcing of traffic management by Connetics ensured all planned outcomes were met safety, on time and to budget. Bad weather, vandalism and other disruptions were managed by Connetics to ensure desired outcomes were met. Connetics communication with both the contract principal and affected parties, and our ability to provide resource as and when required ensured this contracts successful completion.

"This project brought significant issues of managing high density vehicular and public foot traffic through a grade 2 highway. The approach Connetics took in addressing these issues assisted them to meet the demanding challenges this site presented. Although the challenges were significant, the staff involved with the project were efficient and effective in providing a safe environment for the general Public, Orion and Connetics."

Dave Southern  
Contract Manager  
Orion New Zealand Limited