

# Cable locate safety information





## Safe working around cables

Damage to live electricity cables can have explosive effects: arcing current, associated fire or flames can result when the cable is penetrated by a sharp object such as the point of a tool, or due to crushing/bending.

This can cause severe and potentially fatal burns to the hands, face and body. The risk of a fatal electrical shock is very high. It is the responsibility of the person undertaking works to take all practical steps to ensure the safety of themselves and those undertaking such works.

As a responsible and safety conscious network utility operator WEL Networks Ltd (WEL) requires contractors working (or planning to work) in the vicinity of our underground cables services to understand the relevant safety requirements for safe work. The OSH publication 'Guide for safety with underground services' can assist you to work safely around buried services.

You can download a PDF via [www.osh.govt.nz](http://www.osh.govt.nz)

The position of any cables in or near the proposed work area should be located by means of a suitable locating device, in conjunction with any available service plans or other relevant information. You should not rely solely on the cable location devices for the detection of cables. Careful hand excavation needs to be completed for exact location(s) of cables.

## Emergency Work and Safe Excavation practice

In conjunction with location devices and plans, trial holes by careful hand excavation are essential before commencement of any excavation. Hand digging must continue until all of the cables have been found on the cable plan. If there is any doubt as to where the cables are located, stop work and consult with WEL.

A cable indication on the work site, indicated by the use of paint, is available from WEL. It provides a very useful indication of the whereabouts of the cables that may be encountered, but it does not relieve the personnel responsible for the excavation from carrying out all other precautions that are necessary to avoid injury and/or damage.

WEL can provide, if required, a stand over service on request. The request for a stand over should be logged by calling 0800 800 935, at least 5 days prior to the commencement of work. The stand over service will be charged out on an hourly rate basis.

All cables should be considered as **live**, and should not be used as hand or footholds by anyone climbing in or out of the trench, especially around cable joint positions.

Special care should be taken when digging above or close to the assumed cable route. Best practice hand digging is to expose the cable using the spade parallel to the cable not at right angles. Hand-held power tools or excavators should not be used within 0.6 metres of any underground cable. When a cable has been exposed by pot holing, best practice is to then dig away from the exposed cable, not towards it with excavators.



Directional drilling or thrusting parallel to WEL's 11kV or 33kV cables shall be at least 0.6 metres from the proven location of the cables. The cables must be marked out by a competent cable location technician, and trial holes by careful hand excavation shall be undertaken prior to the commencement of the work to prove the cable is parallel to the drill shot.

Underground cables are normally laid in trenches between 300 mm and 1.0 m deep, but these levels may change over time through the activities of roading or landscape works. Therefore, cables should be expected to be found at **ANY DEPTH**.

If buried cables have been found to be too shallow, or if the plans or other information have proved to be inaccurate, WEL should be informed, preferably before the excavation is back-filled, to allow the cables to be re-laid at the correct depth and/or the cable records to be amended accordingly.

Cables uncovered in an excavation may need to be supported or protected. WEL shall be contacted as soon as this situation arises. Any cables lying in the bottom of an excavation should be protected by sandbags or appropriate nail free protection device. Precautions should be taken to prevent access to exposed cables by children or other unauthorised people.

Cables should not be moved under any circumstances. Moving live cables can cause them to fault and a fatal injury could result. If a cable needs to be moved, the request should be made to WEL, who will arrange for the cable to be made safe prior to their relocation.

In the case of emergency works, every effort should be made to locate buried underground cables, prior to undertaking machine civil work. It should always be assumed that buried cables are present and that excavation work should proceed with extreme caution by careful hand excavation. (Where plans are not available in a situation, only excavation by hand should be carried out, until the location of any cable(s) has clearly been established.)

## Cable Damage

If a buried underground cable is struck or damaged, however slight, WEL must be informed immediately. Arrangements must be made to keep the public well clear of the area until the damaged cable has been repaired or otherwise made safe.

## Backfilling

Back-filling of any excavation where cables have been exposed should only proceed following advice from WEL. Fill containing items likely to damage the cables, such as large pieces of rock and hard-core or other sharp objects, shall not be used. Cables should be backfilled with fine material such as sand.

**CAUTION - If any damage is incurred, the Customer must notify WEL Faults immediately on 0800 800 935.**

# Actioning a Cable Location Request



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