

Construction News - Engineering

CEOM7098 – Underground Design and Construction Manual Update

- > **Easement:** Changes have been made to Clause 2.14.3 – Site Plans and Site preparation and 2.14.4 – Public Footpaths, outlining the requirements for the installation of padmount substations and switching stations and the requirement for an easement in all cases
- > **Backfill Material Testing requirements:** Additions have been made to Clause 2.32 - Trenching, with the inclusion of requirements about the test requirements for backfill material
- > **Trenchless Trenching:** Essential Energy has relaxed the requirements for 160mm pressure pipe due to its special-order requirements.

Background – what happened?

Easements: Essential Energy's Design and Certification team have been experiencing difficulties with the installation of padmount substations and switching stations in the footpath allocation. Issues include utility footpath allocations being encroached, installations being installed immediately adjacent to storm water culverts and near roadways including road islands.

Such installations can expose these assets to greater risk of damage and third-party impact and are not ideal from a safety perspective or in terms of lowest whole of life costs for customers.

Easements are assessed and established on appropriate land, that will stay free of other utility assets resolving current concerns.

Backfill Material Testing requirements: Additions have been made to CEOM7098 to include the frequency of backfill testing, and the requirement to have new stockpiles retested to ensure the currency of previously provided test reports. Test report shall be NATA certified or must have been evaluated and tested by an independent body.

The integrity of the back fill is important to allow appropriate compaction around cables and conduits and assists with heat dissipation required for cable performance. This in turn provides a longer cable life and lower maintenance costs over the asset life.

Trenchless Trenching: Previous CEOM7098 – Underground Design and Construction Manual requirements specified the use of 160mm pressure pipe for under bore installations. Due to the special-order requirements of this product Essential Energy has relaxed this ruling to allow for the use of 140mm if 160mm is not readily available.

Frequently Asked Questions

Easement:

Q. When is compliance for these improvements required?

A. Any new plans submitted for certification or re-certification (because time has lapsed) after 1 July 2021 will need to comply with these requirements. If plans have been approved prior to July 2021, construction may proceed as per the approved certification.

Q. Do all future padmount substations and switching stations require an easement?

A. Yes, as per the requirements in CEOM7098 Underground Design and Construction Manual.

Q. Can other utilities' services be installed within the padmount substation or switching station easement?

A. It is not permitted to install any other utilities' assets within a padmount substation or switching station easement.

Trenching:

Q. When is compliance to this change required?

A. As this is a minor change, the date of issue of this communications and publication of CEOM7098 will be the date to comply with this requirement.

Q. What is the maximum allowable test document age beyond which retesting is needed?

A. 12 months.

Q. Who do we provide the test document to?

A. Essential Energy's Network Assurance Facilitator responsible for that site.

Q. Do we need to keep a record of the test report?

A. Yes, a copy must be provided to the Network Assurance Facilitator on request.

Q. How do we know if the bedding material is compliant and whose responsibility is it?

A. Refer to the table and graph provided in clause 2.32 in CEOM7098 Underground Design and Construction Manual. The level 1 ASP is responsible to ensuring bedding material is compliant.

Q. What happens if a test report cannot be provided?

A. All bedding material will need to be replaced with compliant material. Site will not be energised till the affected material is replaced. If identified post energisation another outage will be required whilst replacement occurs.

Q. Is it only when the 12 months is up that the material needs to be tested?

A. No, it also needs to be tested again if another stockpile is used.

What do you need to do?

Make yourself any your team aware of the changes outlined in CEOM7098 – Underground Design and Construction Manual, including the appropriate transition periods as identified in this Construction News.



More information is available on [Standards Online](#). If you have any questions, please contact: Daniel Kelly, on 02 6589 8623 or Graeme Barnewall, on 02 6589 8748.