

A teal-tinted photograph of a bridge over water. The bridge has several large concrete pillars supporting it. In the background, there are buildings and a dock with many masts of boats. A large, stylized, light blue 'U' shape is overlaid on the right side of the image. The text is in white, bold, sans-serif font.

Chapter 8:
*Electricity,
telecommunications
and gas*

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8.1. Introduction

8.1.1. Description and Expectations

This section sets out the requirements for network utilities that are not owned or managed by the WDC: electricity, telecommunications/data and gas (compressed natural gas).

The [District Plan](#) has varying requirements for the provision of network utilities depending on the Environment. There is no requirement for gas to be reticulated in future subdivisions, whereas there is an expectation that electricity and telecommunication are reticulated in urban areas.

The Developer shall liaise with the relevant Network Utility Operator(s) as necessary for the development and as required by the [District Plan](#). The cost of this work, necessary legalisation and transferring of land, installation work, and amendments to existing utilities shall be the responsibility of the Developer unless otherwise agreed in writing with the respective Network Utility Operator and/or the WDC.

8.1.2. Objectives

- a. To ensure that each network is located so as to be capable of servicing the intended users.
- b. To ensure that networks are designed to acceptable urban design (see [WDC Urban Design Guidelines](#)), landscaping and engineering standards.
- c. To ensure all networks are laid underground unless not required by the [District Plan](#).
- d. To ensure that any network that is to be located above ground within the road reserve shall be located clear of footpaths, cycleways, accessways and vehicular sightlines.

8.1.3. Reference Documents

The following documents are referenced in this Chapter:

Note it is the responsibility of the Developer to ensure the most up to date referenced document is sourced.

8.1.3.1 Statutory

[Operative District Plan](#)

8.1.3.2 New Zealand Standards

[NZS 5258:2003 - Gas distribution networks](#)

8.1.3.3 WDC Documents

[WDC Urban Design Guidelines](#)

8.1.3.4 Other Referenced Documents

[NZ Utilities Advisory Group: National Code of Practice for Utility Operators' Access to Transport Corridors - Updated Version 2, July 2019](#)

[NZECP 34:2001 - New Zealand Electrical Code of Practice for Electrical Safe distances](#)

[WorkSafe NZ Publication; Guide for Safety with Underground Services](#)

8.2. Design

8.2.1. General Requirement

- a. Where network utilities shall be installed as part of the subdivision development, a point of supply shall be provided to the boundary of each lot, or at the discretion of the Network Utility Operator it shall be provided at a selected location within 10 m of each lot. Ducting for any network utility may be laid at the discretion of the Network Utility Operator at the time of subdivision. All cables and pipes shall be underground, (preferably installed during road construction) as specified in the [District Plan](#).
- b. Where an electricity or telecommunications network is not to be installed as part of the subdivision, WDC will require the use of a 'no electricity supply encumbrance' or 'no telecommunications supply encumbrance' registered on the affected land title(s).
- c. The design of network utility reticulation and service connections shall be undertaken by a suitably qualified designer for each utility type.
- d. The Developer shall be responsible for:
 - i. All arrangements with the Network Utility Operator for the supply and installation of the relevant utilities,
 - ii. Ensuring that the network utility is installed as part of the subdivision works and in accordance with the ES, and
 - iii. Obtaining certification from the relevant Network Utility Operator that the network utility has been installed in accordance with their requirement and the ES
- e. The point of supply, such as distribution pillars and similar, shall be located in the road reserve boundary of each lot and shall not be located where they are likely to cause interference with access construction at the common boundary of access ways onto roads.
- f. It is the incoming owner's responsibility (not withstanding prior arrangements) to meet the costs of any internal (within the lot) network utility reticulation and/or any network utility upgrade that may be necessary to supply loads above that designed for.
- g. Where applicable on private land, easements shall be registered over new and existing network utility cables, lines, and plant in favour of the Network Utility Operator to ensure the security of supply.
- h. Sites for transformers, gas regulators and other equipment and facilities shall be provided where required and positioned and secured to minimise any hazard. They be located in a utility reserve outside the road reserve unless Specific Approval is obtained.

8.2.2. Reticulation Layout

The position of utilities in the road shall conform with the standard layout shown in the **Sheet 29** and **Sheet 30**.

Network Utility Operators may require their utilities to be spaced at greater distances from the minimum specifications, in which case the most restrictive requirements will govern the clearances applied.

The Developer is responsible for ensuring that all Network Utility Operator's requirements are achieved.

The following shall also apply:

- a. All utilities shall run parallel to the surveyed road boundary line, and
- b. Wherever the utility crosses a carriageway, the utility shall be installed in a duct. The duct shall conform to the requirements of the Network Utility Operator. Where the duct can be installed before the road base is constructed the duct can be installed by open trenching otherwise the duct shall be installed using trenchless methods.

8.2.3. Utilities on Bridges

The installation of utilities on bridges and the approach route shall be subject to Specific Approval.

All utilities shall be enclosed in ducts mounted in positions approved by the WDC.

8.2.4. Drawings

Drawings of utilities shall be consistent with the drawing standards outlined in [Appendix F Drawing Standards](#).

Note: Copies of the plans of the development shall be forwarded by the Developer to all of the affected Network Utility Operators at an early date to facilitate the design of the reticulation.

In preparing the Engineering Drawings the Developer shall meet the requirements of the Network Utility Operator and the Corridor Access Manager for:

- a. Minimum cover to cables and pipes,
- b. The Network Utility Operator's desired position for the cables and pipes within the road berm as agreed with the Roding Corridor Access,
- c. The minimum separation distances between power or telecommunication cables, and gas and water assets,
- d. The width of berm which shall be clear of other utilities and obstructions to enable efficient cable laying operations,
- e. The requirements of [NZS 5258:2003](#),

- f. The requirements of the [National Code of Practice for Utility Operators' Access to Transport Corridors \(Updated Version 2, July 2019\)](#), and
- g. The minimum separation distances between overhead power lines and buildings, structures and earthworks outlined in the [NZECP 34:2001](#).

8.3. Construction

8.3.1. Underground Cabling

Underground cabling shall be achieved by the most appropriate method considering the following:

- a. nature of the subsoils,
- b. the potential damage to other infrastructure, and
- c. the state of completion of other infrastructure

with the method used subject to the approval of the Corridor Access Manager.

Where open trenching is used, all backfilling and compaction of trenches shall be undertaken in accordance with the ES and to the satisfaction of the Corridor Access Manager.

8.3.2. Materials

Materials and sizes of ducts and pipes shall comply with the requirements of the Network Utility Operators and the colours shall be in accordance with the [WorkSafe NZ publication - Guide for Safety with Underground Services](#).

8.3.3. Ducting

The following shall apply:

- a. Ducts shall be laid in straight lines, parallel to or at right-angles to the kerb and/or property boundaries with horizontal tolerances of horizontal ± 300 mm and vertical ± 100 mm.
- b. Ducts shall be installed with draw-wires and endcaps where the network utility reticulation or connection is likely to be installed after roads, footpaths, entranceways and the like are constructed. This minimises the need for trenching through the new surfaces. If cables shall be installed after completion of paved areas and where ducts have not been provided, then trenchless installation methodologies shall be required.
- c. The duct size, colour and installation shall comply with the network utility provider specifications and the [WorkSafe NZ publication - Guide for Safety with Underground Services](#).

8.4. Completion of Works

8.4.1. As-Built Plans

Upon completion, the Developer shall accurately record 'as-built data' for network utility reticulation installed for the development, which shall be kept as a permanent record by the Network Utility Operator in a format suitable for use by others.



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