



DS9 – Network Utilities

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DS9 Network Utilities – (Electricity, Telecommunications, Gas)

9.1 Responsibilities and Quality Assurance

9.1.1 Developer Responsibilities

The developer or their duly appointed representative shall be responsible for coordinating the efficient installation or upgrades of all types of utility reticulation lines (including water and drainage) and service connections. They shall be responsible for the prevention of installation clashes between different network companies.

9.1.2 Network Utility Provider Responsibilities

All testing and acceptance of the cables, pipelines and ducts is the responsibility of the Network Utility Provider.

9.1.3 Quality Assurance

Prior to the issuing of a 224C certificate the Authorising Officer shall require the developer to provide a certificate from the appropriate Network Utility Provider that all of their utilities have been installed to their satisfaction and that they have received all of the as-built information.

Where utility installation or upgrade projects require Utility Network Provider personnel to enter onto or work within proximity of Council property, an approved Road Opening Notice and/or Working on Utilities Notice shall be obtained from Council in accordance with this code. Prior to the issuing of a 224C certificate the Authorising Officer shall require the developer to provide a copy as quality assurance information in accordance with this code.

9.2 Design Standards

The utility services reticulation shall provide for acceptable system performance for the whole of the system life which shall be at least 25 years at the time of design.

Where a new underground reticulation system has to connect to an existing overhead reticulation system, then the details of this connection shall be discussed with the Council prior to the system design.



9.3 Reticulation

9.3.1 Layout

The position of services in the street shall conform to the standard layout as shown on the Drawings in DS4 - Transportation of this code. Deviation from the standard location will only be allowed with specific approval from Council.

All services are to be run parallel to the surveyed street boundary line with a horizontal tolerance of $\pm 100\text{mm}$.

The location of above-ground facilities such as transformers, switching stations or gas regulation stations shall be determined in consultation with Council. Transformers shall preferably be located in a utility reserve provided as part of the subdivision, outside the road reserve.

All utilities reticulation shall be made by means of an underground system.

Where the utility reticulation or connection is likely to be installed after roads, footpaths, entranceways and the like are constructed, ducts with draw-wires and end-caps shall be provided under these facilities to eliminate the need for trenching through the new surfaces. Alternatively, if cables are to be installed after completion of paved areas and where ducts have not been provided then trenchless installation methodologies will be required.

Wherever the network service crosses a carriageway, a side street or for a cross-street connection, the service shall be installed in a duct. The duct shall conform to the requirements of the network utility operator. Where the carriageway crossing can be made before the road base is constructed, the duct can be installed by trenching. Otherwise the duct is to be installed by using trenchless methods.

Cabling for street lighting shall be arranged with the electrical network provider, in accordance with the requirements of Section DS8 – Streetlighting.

Where above-ground facilities such as electrical transformers, switching stations, gas regulation stations or similar are required by the utility network provider, the developer shall liaise with the network utility provider and Council to determine the optimum location of the facility. The location of these facilities shall be shown on the plans that are submitted for engineering approval, prior to construction.

9.3.2 Point of Supply

The point of supply for all services is to be located on the road reserve boundary but within the lot. Provision shall be made for a connection from each utility service to each lot in the subdivision with the connection being taken to 1 metre within the lot.



9.3.3 Utilities on Bridges

The route of approach to the bridge for the services shall also be subject to specific approval of Council. Ducts leading to the bridge shall be the property of the Network Utility Company, with the exception of any duct for community communication cables.

All Utilities shall be enclosed in ducts that are mounted in positions as determined by Council. Council may elect to own the ducts and to rent space in the ducts to network utility companies.

All installation of services on bridges shall be subject to specific approval of Council. Rental charges may apply.

9.3.4 Ducts

Ducts shall be laid in straight lines, parallel to or at right-angles to the kerb and/or property boundaries.

The inside surface of the completed duct shall be clean and the draw-wire in place, with end-caps fitted.

Whenever a service is installed in the duct a replacement draw-wire is to be drawn through and the end caps fitted over the installed service.

In all business districts where services will be under paved footpaths with high pedestrian counts ducts shall be installed for all network services.

9.3.5 Trenches

All trenches for services, including reinstatement, shall comply with the requirements for road openings as set out in this Code.

9.4 Broadband Network

9.4.1 General

Further to the requirements of the District Plan, elements of a fibre optic network suitable for use by high speed broadband telecommunications companies shall be designed and installed where required by Council. The design and installation shall meet industry best practice. Where the installation of ducts or cables is not mandatory (eg Rural 1 & 2 Zone Subdivisions), reasons for not installing ducting, or fibre, shall be discussed with the Authorised Officer, as it would be expedient to install a fibre cable at the same time as power cabling is installed.



The design of the ducting network shall be checked and approved by a representative of an alternative telecommunications company.

This broadband ducting network will be additional to a copper network installed by the Developer.

9.4.2 Broadband Ducts

Where required by Council, (as shown in the District Plan) the developer shall supply and install a continuous duct-line on both sides of the street for future installation of fibre-optic cables for a broadband network to be developed within the Bay of Plenty.

The specifications for layout and installation of this duct-line shall be as specified for a telecommunications network duct. The design shall meet with the approval of an industry recognised telecommunication company. Proof of approval shall be supplied to the Authorised Officer.

The minimum duct size along at least one side of the street shall be 100mm diameter.

Ducting shall terminate at nodes, and be suitable for the installation of fibre optic cabling, to be installed by others.

Nodes shall be a footpath chamber, or approved sub surface containment chamber, integral with the ducting network, and will be suitable for terminating ducting and fibre, and the installation of necessary equipment.

The ducting network shall be left in a sealed, clean, and dry condition with draw wire in place and end caps fitted.

This ducting complete with nodes shall be vested in Council at no cost to Council, prior to issue of the 224c certificate, or completion of the works.

9.4.3 Broadband Fibre Cabling

Fibre optic cabling suitable for use in a high speed Broadband network shall be installed from the node to each individual property, terminating at the point of supply at the property, with sufficient excess cabling to enable direct connection to any future home. Approval to vary this condition shall be from the Authorised Officer. The excess cabling shall be left in a suitable protective container.

The fibre cable shall be vested in Council.



9.4.3 Other

All other appurtenances (eg aerials, cabinet boxes, nodes etc) relating to the fibre network shall be designed and installed to meet the approval of the Authorised officer. Special care shall be taken in the location of all in and above ground cabinets and must meet with the approval of the Authorised Officer.