



DRAFT Principles for Telecommunications Infrastructure for New Subdivisions 24 June 2010

Background

Several enquiries from Local Government have been received by the TCF regarding the standards for telecommunications infrastructure for new subdivisions. Currently the TCF does not have an agreed position on minimum standards for telecommunications infrastructure and the matter has been considered by the TCF Local Government Working Party (LGWP). The LGWP has agreed that the establishment of a set of TCF principles for new subdivision infrastructure would be beneficial and as such this document has been developed which sets out the proposed principles for new subdivision infrastructure.

Preamble

The inclusion of telecommunications infrastructure by property developers at an early stage of subdivision development is essential to ensure future generations of property owners can obtain the telecommunications services they reasonably expect and avoid future disruption to the community and degradation of pavement surfaces.

The challenge for developers is to find a cost effective infrastructure solution that will endure for many years beyond the developer's direct interest in a subdivision, provide for all future technology and service enhancements, and provide for the services from service providers that property purchasers will find attractive.

Local Authorities have the opportunity to ensure future proof, yet affordable infrastructure solutions are deployed through their consent procedures for land use and development. However as this mechanism places obligations on property developers rather than telecommunications infrastructure owners there is some risk that Local Authorities may create obligations that can not be met or imposes significant unnecessary cost due to lack of understanding of the telecommunications market, technological developments, or the ongoing requirements for managing telecommunications infrastructure.

The TCF, representing its members of the telecommunications industry which include service providers and infrastructure owners, has prepared this set of

Principles for telecommunications infrastructure within subdivisions based on the knowledge, expertise, and experience of its members.

These Principles have been prepared for the consideration of Local Government when formulating policies and codes of practice for land use and development and are intended to provide some background and support for some of the recurring issues and themes that arise with subdivision infrastructure so that enduring solutions can be found.

It is intended that these Principles will stimulate further engagement between the TCF and Local Government so that enduring solutions are implemented via land use consents, standards, and codes of practice that best meet the diverse requirements of communities, customers of telecommunications services, developers, service providers, infrastructure owners and local authorities.

Proposed Principles

The TCF believes that it is a central government role to determine the extent of competition, regulation, control and market structure appropriate for the telecommunications industry and the minimum service standards that must be provided by network infrastructure owners, operators and service providers.

The TCF therefore does not support Local Government including provisions in codes of practice, engineering standards or district plans that influence market or industry structure or define minimum service requirements, e.g. broadband speed capability.

The TCF recommends that all district plans should have a minimum requirement for developers to ensure there is provision of telecommunications infrastructure and the ability to provide telecommunications services to each subdivided lot unless there is a good and specified reason to not provide services.

The TCF is an organisation with diverse membership consisting of infrastructure owners and service providers in both fixed and wireless network architectures, including copper, fibre, cellular mobile radio, point to point radio, and satellite technologies.

The TCF does not support Local Government establishing a regime of standards, codes of practice, or district plan provisions that favours any individual network technology solution or service provider or precludes any service provider or infrastructure owner from being able to provide services within a particular subdivision.

It is however accepted by the TCF that the selection of a particular infrastructure and service solution by a developer may exclude individual service providers or infrastructure owners at the initial development stage.

Purchasers of developed land will normally have a reasonable expectation that they will be able to connect to telecommunications services without further abnormal costs or abnormal delay. It can come as a surprise to land purchasers that a developer's decision not to make provision for telecommunications infrastructure, or for example, not to include a particular telecommunications infrastructure owner's cables will exclude some service providers from providing service without further significant cost. For example, decisions to provide landline

based infrastructure and services after the completion of a subdivision will be based on commercial considerations of return on investment and at significantly greater expense than if provided for during the construction of the development.

The TCF believes that prior to the release of final local authority clearance for a subdivision developers should be required to provide written confirmation that the telecommunications infrastructure owner's installation requirements have been met and also written evidence from a telecommunications provider that the appropriate network capacity is available or planned to be available to service the subdivision.

If these requirements are not met there should be a method specified by the local authority such that suitable advice notices such as LIM or Certificate of Title records are made so that land purchasers are made aware of the limitations of the subdivision.

The telecommunications industry is a complex structure of infrastructure owners, wholesalers and service providers with diverse technology options. Services range from multi service bundles of fixed and mobile voice and data to single service niche products. Telecommunications technology development is fast resulting in rapid obsolescence of some infrastructure items, while other infrastructure items are very long life. It is therefore difficult to mandate requirements for future proofing or achieving specific performance or service characteristics due to future uncertainty which could result in additional unnecessary costs being passed on to developers and end users.

The TCF believes that telecommunications system design and standards should be determined by the telecommunications service provider in response to demand and market conditions and technology development.

Fixed line telecommunications infrastructure technology and services are currently at an evolutionary point between copper based and fibre based infrastructure. The accepted end game within the industry is for fibre delivery to the premises and many Greenfield developments are now being provided with fibre only infrastructure. However there are many factors that may mean fibre delivery is not appropriate for a particular subdivision in the short to medium term, and despite current government policy such as the Ultra Fast Broadband initiative there remains much uncertainty about the actual transition period from copper to fibre infrastructure. Some councils and government agencies are advocating that Greenfield subdivisions should be future proofed to enable later installation of fibre infrastructure, for example by mandating as a consent condition for the development the installation of spare ducts which will increase the cost of the development. There is a risk that a developer could satisfy the consent requirement but the installed ducts may not be suitable for installing telecommunications infrastructure in the future.

There are a number of issues that Local Government should consider before mandating a developer to provide spare ducts such as who will own, maintain and administer access to the ducts at some unknown time in the future, and ensuring that the design and specification of the ducts is suitable for a telecommunications infrastructure owner's particular network architecture which may vary from owner to owner.

The TCF believes that telecommunications infrastructure owners are best able to assess the need for ducts for future proofing as part of their network design but if Local Government does intend to mandate the installation of ducts for future proofing purposes as a condition of the subdivision consent then the TCF recommends:

- The owner of the ducts and the purpose of the ducts (i.e for telecommunications as compared to electricity or gas) should be readily identified by appropriate colour coding and markings.
- Developers should be required to provide written confirmation that the installed ducts are certified by a telecommunications infrastructure owner as being acceptable and suitable for their future network installation (to the extent that can be confirmed).

The location of a development relative to other supporting and enabling telecommunications infrastructure can significantly influence the cost of providing telecommunications services. The attractiveness of a particular development due to location and available amenities are influenced by developers and their assessment of the land market. The pace of construction and occupation of dwellings and therefore speed of take-up of telecommunications services may occur over a long period of time resulting in considerable delay between the investment made in telecommunications infrastructure and a return on that investment.

The TCF believes that the developer should be responsible for all costs to install infrastructure.

Although consideration for telecommunications infrastructure within subdivisions is given to fixed line infrastructure within most current subdivision consent frameworks there is little consideration for mobile wireless services and fixed wireless services at subdivision stages. Customer demand is strong for mobile and fixed wireless services, however communities are concerned about the location of wireless base stations within their neighbourhoods. Much of this concern stems from a lack of visibility of the possible location of base station sites at the time a property purchase decision is being made, and the possible future impact on property values.

The TCF believes that it would be preferable, and that all district plans or related codes of practice should consider a requirement, for developers to set aside an area specifically for telecommunications radio infrastructure (Cell sites and similar) unless otherwise already provided for. The location of these sites should afford good line of sight coverage of the subdivision.

Telecommunications infrastructure owners must have ongoing and clear title and access to their infrastructure to be able to manage ongoing network and service performance, carry out maintenance, repair, replacement, and augmentation for subsequent development to ensure service continuity to their customers. These obligations may continue many decades into the future.

The TCF believes that developers should be required to provide easements in favour of the telecommunications infrastructure owner where the network is not located in road reserve.

The TCF further believes that as a general principle it is desirable to have a degree of consistency across different district plans to ensure everyone's reasonable expectations are met, and to minimise the risk of non-compliance due to plan variances.