Statement of Environmental Effects

Proposed Telecommunications Facility at Guthega Village, Kosciuszko National Park, NSW 2624
Lot 233 DP 704184

April 2019

CYIENT

Guthega Village

Version 3
April 2019
Prepared by Petra Patrocinor

© Petra Patrocinor
ABN 75 902 233 825

petra@petrapatrocinor.com

Executive Summary

Applicant	Telstra Corporation Limited Telstra Contact: Deepak Verma Small Cell Project Manager Telstra Operations deepak.verma@team.telstra.com
Proposal	To install one (1) omni antenna onto an existing timber light pole and electrical works across Mount Tate Road. Works will include ancillary equipment necessary to operate the omni antenna and trenching works for the electrical route under Mount Tate Road. The above proposed works will provide Telstra 4G coverage to the Alpine Resort of Guthega Village. There is currently negligible Telstra coverage at this location.
Property Details	Located off Mount Tate Road, Guthega Village NSW 2624 (Lot 233 DP704184) (opposite Guthega Inn)
Longitude Latitude	-36.38243, 148.37261 (GDA 94)
Planning Regulation	The proposal for the telecommunications facility is within Kosciuszko National Park. This application is made under *SEPP (Kosciuszko National Park Alpine Resorts) 2007.*
Consent Authority	Department of Planning & Environment
Town planning Contact	Petra Patrocinor petra@petrapatrocinor.com 0421699789 Reference: NA18546.01

Introduction

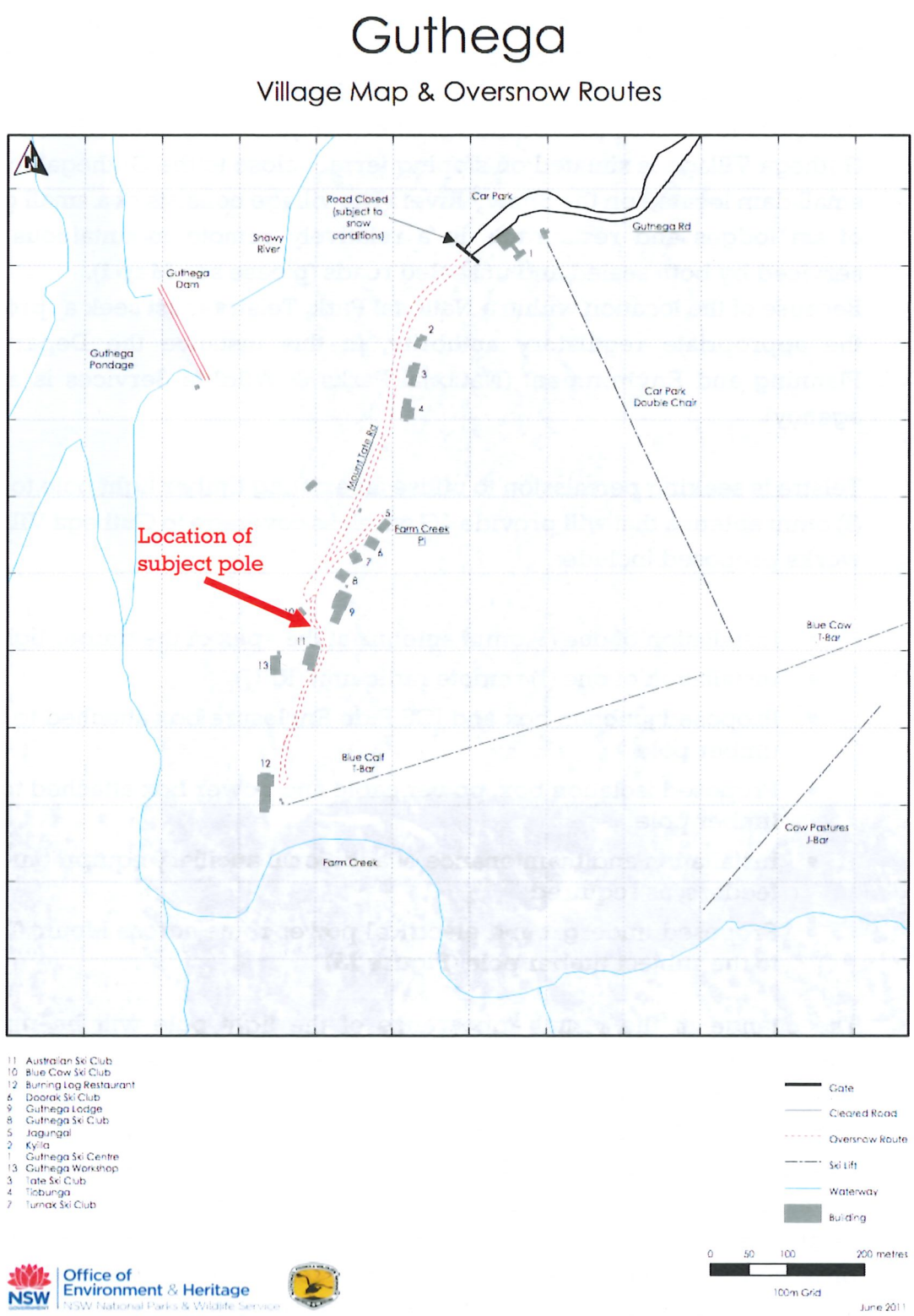
This planning submission has been prepared on behalf of Telstra Corporation Limited (Telstra) for a "mobile small cell installation" to service Guthega Village, a designated alpine resort area within Kosciuszko National Park. Guthega Village is located as part of the Perisher Range Management Unit (**Figure 3**). Guthega Village is situated on sloping terrain close to the Guthega Pondage, a small dam located on the Snowy River. The village consists of a small grouping of ski lodges and restaurants in a relatively remote mountainous location serviced by both sealed and unsealed roads (please see **Map 1**).
Because of the location within a National Park, Telstra must seek approval from the appropriate regulatory authority, in this instance the Department of Planning and Environment (National Parks & Wildlife Services is a referral agency).

Telstra is seeking permission to utilise an existing timber light pole to host one (1) omni antenna that will provide 4G wireless coverage to Guthega Village. The works proposed include:

- Installation of one (1) omni antenna at the apex of the timber light pole
- Installation of one (1) remote radio unit (RRU)
- Proposed junction box and ICS Fido Enclosure box attached to the timber pole
- Proposed isolation box, power cable and power box attached to the timber pole
- Installation and maintenance of additional ancillary equipment such as feeders, as required
- Proposed underground electrical power route across Mount Tate Road to the subject timber pole (**Figure 13**)

The change in the visual appearance of the light pole will be minimal. A compact mobile small cell installation has been specifically deployed in this environmentally sensitive area to minimise visual impacts. No matters were raised in AHIMS report for matters of aboriginal heritage and no native vegetation is proposed to be removed. The existing area is cleared and developed with services and sealed access present to the site.
Telstra is a licensed telecommunications Carrier and operates under the provisions of the *Telecommunications Act 1997* ("The Act") and the *Telecommunications Code of Practice 1997.* As per the supplied ARPANSA report the proposed facility will emit 0.93% of the allowable electromagnetic radiation, well in compliance with mandated EME emission limits.
It is considered that the use of an existing vertical structure negates the need for the construction of a new greenfield facility and minimises visual impact, fulfilling Telstra's obligation under *The Communications Alliance Industry Code C564:2018 – Mobile Phone Base Station Deployment.*

Map 1. Guthega Map



Source: https://www.environment.nsw.gov.au/resources/alpineresorts/guthegamap.pdf. Accessed 26 November 2018

Mobile Base Station Essentials

Mobile Base Stations are the collective name given to a variety of telecommunication structures which encompasses, but are not limited to, monopoles, lattice towers and rooftop facilities. Each mobile base station provides radio coverage to a **limited** geographical area known as a "cell". The greater the population in an area, the more mobile base stations are required, resulting in smaller cell sizes. **Figure 1** represents geographical cells as hexagons and the equidistant distribution of the telecommunications facilities within these cells to provide consistent wireless coverage.

However, in reality the size and distance of cells will vary dependent on terrain and the user traffic in the area, resulting in some limitations to the deployment of mobile phone base stations. The method by which mobile phone handsets and mobile base stations transmit and receive signals using electromagnetic waves (also referred to as electromagnetic fields, or radio waves) also affects how mobile base stations are sited. The use of electromagnetic waves to carry a signal has its limitations. The chief limitation being distance, hence a single mobile base station i.e. a single monopole, will only service a limited geographical area (as represented by the "cell"). Solid objects, even dense forests, can hinder wireless signals, reducing the coverage footprint. This one reason why mobile base stations are often sited on elevated terrain or structures as depicted by **Figure 2,** in order to overcome this limitation. The second reason elevated terrain is highly advantageous is in achieving Line of Sight (LOS), which is linkage into the greater network via parabolic antenna attached to the telecommunications structure (round dish antenna). If LOS cannot be achieved then fibre will provide linkage into the greater network.

These constraints result in multiple mobile base stations throughout a region. These multiple mobile phone base stations function together in a **network.** Area's lacking mobile coverage are termed a **black spot.**

Guthega Village is a blackspot area that there is negligible Telstra coverage present, a situation created by the surrounding mountainous terrain which poses an unpassable obstruction to a wireless signal. As a consequence of the surrounding terrain and sensitivity of the surrounding environment the type of proposed Telstra facility at Guthega is a **mobile small cell** which intends to only service the Guthega Village and immediate surrounds.

A **mobile small cell** is a low powered base station designed to provide wireless mobile coverage. The equipment is of a much smaller scale than a regular base station. The mobile small cell is designed to service a specific area of approximately 100m to 400m (i.e. a much smaller area than a full size mobile phone base station). For this reason, the Proposed Facility is most effective

when located within close proximity to the area it is designed to cover. Telstra often uses mobile small cells in sensitive areas as they have less visual impact and lower electromagnetic energy (EME) than a full size base station.

The proposed mobile small cell will improve and maintain local mobile network services (including voice calling and SMS), as well as video calling, video-based content services (like news, finance and sports highlights) and internet browsing.

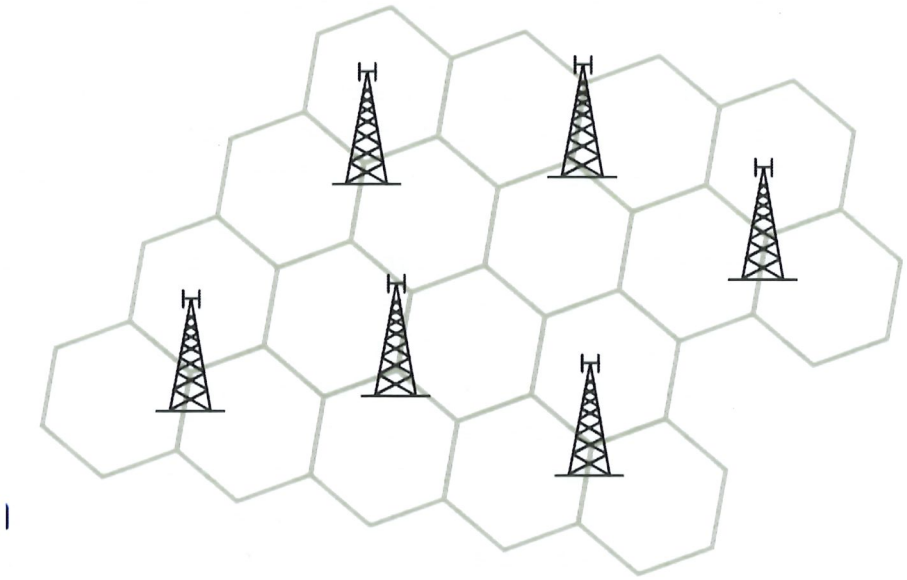


Figure 1. Schematic representation of an ideal telecommunications network equidistantly spaced [1]. However, in reality, geography and terrain can force the network spacing to be less equidistant.

Figure 2[2]. Ideal elevated location for a mobile base station which allows for unobstructed signal travel

[1] *Source: Mobile phone base stations EMF/Health Fact pack, Mobile Manufacturers Forum. In real life it may not be achievable to space the mobile base stations as equidistant.*
[2] *Source: Mobile phone base stations EMF/Health Fact pack, Mobile Manufacturers Forum*

Proposal & Subject Surrounds

Site Context

Guthega Village (the village) is an Alpine Resort within the Kosciuszko National Park. The village is zoned as part of the Perisher Range Management Unit (**Figure 3**) under the *Kosciuszko National Park Plan of Management 2006* (the *Plan 2006*).

Figures 3 to 7 illustrates the relatively remote location of Guthega Village from Kosciuszko Road (4km south) and the surrounding mountainous terrain. Guthega is listed as being part of a Major Road Corridor (section 5.5 of the *Plan 2006*). There are a number of transport routes leading to Guthega as illustrated by **Figure 4**. Some of these transport routes are closed during the snow season.

The village is located on vegetated land with a moderate westward slope towards the Snowy River. The ski lodges and restaurants are located on the sloping land. Guthega pondage and the reservoir wall are located 0.5km to the north west of the village (**Figure 6**). Basic services such as power and sealed roads are present within the village.

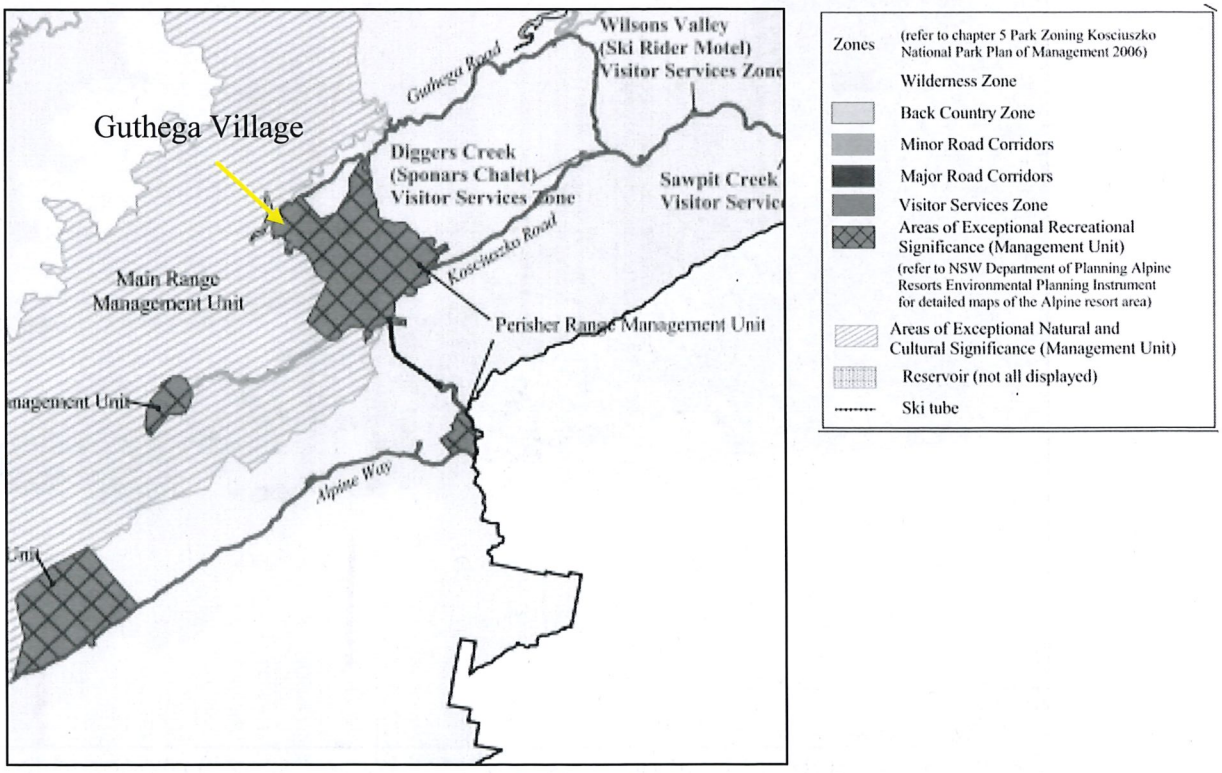


Figure 3. Kosciusko National Park Zoning Park

https://webtest.environment.nsw.gov.au/resources/nature/KNPPOMA3Map6Jun06.pdf (accessed 5 December 2018)

Figure 4. Context to surrounding main snow recreation areas, including Perisher Village and Kosciusko Road (Source: Bing Maps 2018)

Figure 5. The subject light pole (as indicated by red arrow) proposed to host telecommunications equipment (view West from Mount Tate Road during snow conditions).

Figure 6. View north west towards Guthega dam wall

Figure 7. View south west from Mount Tate Road. Proposed subject timber light pole indicated by red arrow (light pole)

Existing Telstra coverage

There is negligible Telstra coverage available at Guthega Village, as there are no dedicated Telstra mobile phone base stations in the Guthega area. The closest Telstra facility is a 25m structure located in Perisher Valley (RFNSA #2624004) (**Figure 8).** The 4.5km distance and intervening terrain results in only Perisher Valley and Kosciusko Road receiving coverage from this existing structure.

Figure 8. The closest existing Telstra facility located at Perisher Valley

Site selection considerations

A number of practical considerations go into site selection for telecommunications infrastructure. Often the consideration of an appropriate site will take several months and involves multi-disciplinary input, including but not limited to, engineers, radio frequency engineers, property and town planning personnel. A number of considerations affect site selection and a balance needs to be struck between all disciplines for the site to be feasible.

Factors determining site feasibility include but are not limited to:

a. Terrain geography and slope hazards
b. A landowner willing to grant a long tenure over a portion of their land
c. Construction and leasing costs
d. Planning permissibility and referral agency involvement
e. Geotechnical constraints
f. Community sensitive locations

g. Availability of linkage into the existing network i.e. fiber or via fixed link
h. Extent and quality of coverage from potential site locations
i. Consideration of co-location or rooftop options
j. Ease and safety of future maintenance crews
k. Visual impact
l. Availability of power and access (including ease of construction access)
m. The extent of vegetation removal required and landscaping considerations

If certain factors are absent or not reasonably achievable then a site may not proceed i.e. tenure refusal or very poor coverage outcomes from a particular location. Carriers will endeavour to find existing conditions compatible with telecommunications infrastructure, such as commercial type zonings or large recreational land uses, to ensure the facility follows the existing land use patterns and setback distances are in place from other land uses. However, in many cases, particularly in areas of expansive residential development or areas with challenging geographical terrain, these preferable options are either not present or unachievable.

In addition to the above, Carriers are required to adhere to a "precautionary approach" to the siting of infrastructure away from sensitive land uses, as outlined in the ***Industry Code C564:2018 - Mobile Phone Base Station Deployment***'[3] (Deployment Code), as developed by the Communications Alliance Ltd.

Therefore, it can be seen that each telecommunications application will be unique and site-specific selection factors considered for that individual mobile base station will be addressed in the submitted planning application.

Site locations considered

In the instance of Guthega Village it can be seen from **Figure 9** that services and buildings follow the path of Mount Tate Road. Because of the sloping terrain and the limited services in Guthega Village, any proposed telecommunications facility will have to be located near Mount Tate Road to make construction and access to services feasible.
In the case of Guthega Village two separate timber poles were considered as potential options. Both poles were located in very close proximity to the source of power. Given the remote location of Guthega Village access to power is a key consideration in locating any telecommunications site.

[3] *https://acma.gov.au/theACMA/industry-code-c5642018-mobile-phone-base-station-deployment*

Figure 10 and **Figure 11** illustrate both candidates (A&B) considered. Candidate B was structurally inadequate hence was discounted as a viable candidate.

No vegetation removal is required and the ground has been previously disturbed for construction of road and adjacent dwelling. Given the slope of the land no equipment shelter will be installed. All equipment will be attached to the timber utility pole.

Figure 9. Built structures following Mount Tate Road

Candidate A: Timber light pole (chosen candidate).

Figure 10. Timber light pole indicated by yellow arrow (view south along Mount Tate Road). The timber pole located to the right was also considered initially, however, was discounted due to rocks in the path of the power route.

Candidate B: Timber light pole outside GSC lodge – pole was structurally inadequate

Figure 11. Timber light pole (view east across Mount Tate Road)

Co-location Options

The Communications Alliance Industry Code C564:2018 – Mobile Phone Base Station Deployment is a telecommunications industry adopted Code which promotes the use of existing telecommunications sites and vertical structures for co-location to avoid the need for a new greenfield site. Carriers often prefer co-location opportunities as these options are cheaper and faster to obtain regulatory approval when compared to a new greenfield facility.

A co-location refers to the antenna being attached to the apex of existing structures such as high voltage towers, multi storey buildings, tall water reservoirs and existing telecommunications facilities. Co-location may not be a feasible option in many cases simply because there may be no existing vertical infrastructure or commercial rooftops available within the area experiencing poor or no coverage. Alternatively, existing structures may not be structurally capable of supporting the additional weight of multiple antenna.

In the case of this "cell" area there are no existing telecommunications structures which would provide both a co-location opportunity and quality coverage to this area of Guthega Village. However, other existing structures such as rooftops and utility poles were present.

In the instance of Guthega Village an existing timber utility pole (which is owned by Telstra) has been utilised negating the need for a new greenfield facility.

Services and Access

Access

The access to the timber pole will be from an existing sealed access, Mount Tate Road. Please see **Figure 12** below. There is an area located to the right of the sealed access were a maintenance vehicle can park.

Figure 12. Sealed access within Guthega Village leading to the timber utility pole (timber utility pole located off to the right of the photo). The power box can be seen to the left of the photo (encircled in yellow).

Power

A new underground electrical route from the power box across Mount Tate Road to the existing timber pole is proposed (**Figure 12** and **Figure 13**). Please see **Appendix A** for the site plans, which include the electrical route. A minimal amount of underground trenching will be required.

Direct access to the Australian Ski Club and Guthega Lodge will be disrupted for a brief period of time during the trenching works. It is noted that an unnamed road runs parallel to Mount Tate Road to Guthega Workshop and loops back to meet Mount Tate Road (can be seen on **Figure 9**). Hence a circular route is available to access these buildings via vehicle if necessary. Care will be taken to ensure construction occurs at off peak periods to reduce inconvenience to local businesses.

Figure 13. Engineers basic diagram of the proposed underground power route as represented by dashed yellow line

Acoustic

No Outdoor Equipment Units (ODU's) are proposed.

Some noise and vibration emissions may be produced during the construction phase of the project, though any noise generated will be of short duration. Telstra will liaise with National Parks & Wildlife Services (NPWS) to ensure that the relevant construction standards for the National Park are adhered to.

Construction & Traffic

Telstra would like to begin construction at the end of March 2019. Construction access will be negotiated with the Department of Environment & Planning (and NPWS).

Some additional traffic will be generated during construction of the facility (1-3 weeks sporadically), this will be only of temporary nature. Once constructed, the facility will only require periodic visits for maintenance purposes, generally 1-3 times per year. The facility will otherwise operate on a continuously unmanned basis. Access will also be determined by the weather and limitations posed by the snow season.

As a result, the traffic generation will therefore be minimal and not sufficient to create any adverse impacts in this regard or by creating a demand for parking facilities.
It can be seen from **Figure 12** that there is adequate level ground to park a maintenance vehicle in front of the subject utility pole.

Structural Assessment

Please see the structural assessment of the timber utility pole attached in **Appendix E.**

Visual Amenity

The equipment proposed to be installed by Telstra consists of small cell equipment, which by design is small and compact, specifically designed for difficult to service locations. The existing timber pole (shown in **Figure 14**) will be modified in appearance by a small measure. These changes in appearance will comprise off:

- A small omni antenna at the apex of the pole (essentially has the appearance of a small cylinder)
- Cables that will run up the length of the timber pole
- Four (4) small boxes (which service separate functions) will be attached to the timber pole

As can be seen from **Figure 14** the subject pole has existing equipment attached. The addition of the above mentioned equipment will result in minimal visual impact from the closest building approximately 25m to the south (Australian Ski Lodge). There is another light pole in close proximity to the subject pole. Please see **Figure 15.**

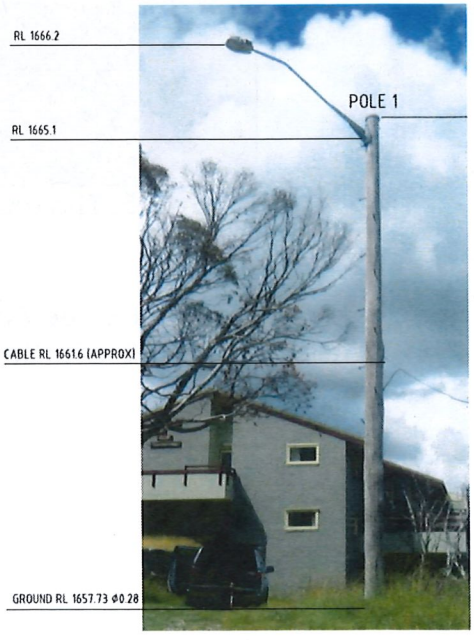


Figure 14.

Important view sheds such as those to the surrounding mountains and entry into Guthega Village will not be obstructed or affected. Due to the size of the proposed equipment it will not be visible from the viewing areas on the mountain ranges.

Please see **Figure 16** for excerpt from plans showing the small cell equipment attached, in particular the omni antenna ta the apex of the pole and the ODU at the base of the pole.

Figure 15. The existing timber light pole and surrounds.

Please also see *Kosciuszko National Park Plan of Management 2006* chapter in this SEE for further discussion on Visual Amenity.

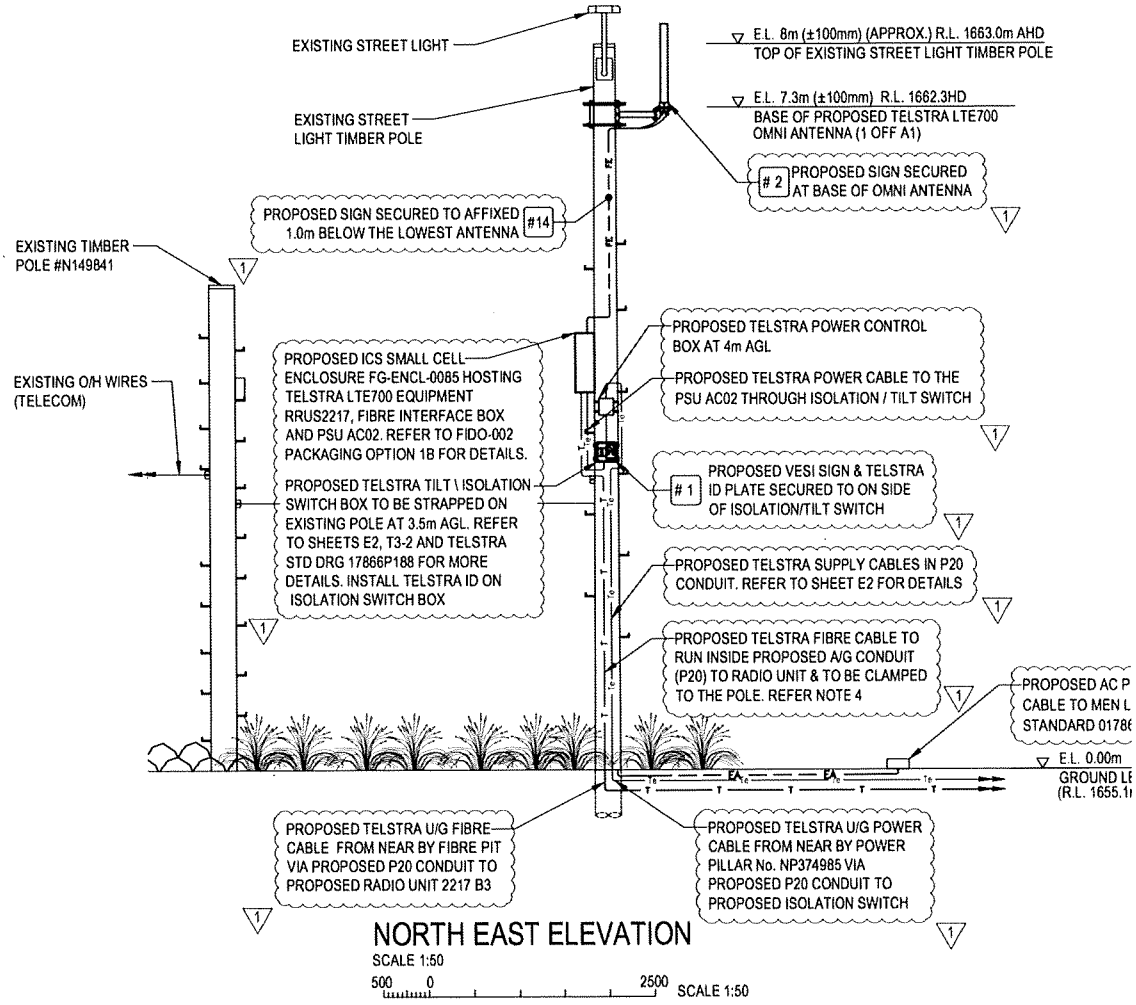


Figure 16. Excerpt from the plans showing attached equipment

Health & Safety

Telecommunications carriers such as Telstra must comply with Commonwealth Legislation and regulations regarding mobile phone facilities and equipment administered by the Australian Communications and Media Authority (ACMA).

In 2003 the ACMA adopted a technical standard for continuous exposure of the general public to RF EME from mobile base stations. The standard, known as the *Radiocommunications (Electromagnetic Radiation – Human Exposure) Standard 2003*, was prepared by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) and is the same as that recommended by ICNIRP (International Commission for Non-Ionising Radiation Protection), an agency associated with the World Health Organisation (WHO).

In addition, Telstra undertakes measures when designing the facility, to minimise the EME exposure to the general public, by installing the facility in accordance with the Australian Mobile Telecommunications Association (AMTA), *Radio frequency (RF) Safety Compliance Program – Base Station Design Guidelines Engineering for Access Control to minimise EME.*

Preventative measures include:

- Utilising Dynamic/Adaptive Power Control network feature that automatically adjusts the power and hence minimises EME from the facility.
- Varying the facility's transmit power to the minimal required level, minimising EME from the network, and
- Discontinuous transmission, a feature that reduces EME emissions by automatically switching the transmitter off when no data is being sent.

The proposed infrastructure at Guthega Village will be in compliance with the ACMA EMR regulatory arrangements. The maximum accumulative EME level at 1.5m Above Ground Level is estimated to be **0.93% of the ARPANSA Public Exposure Limits**. (please see **Appendix C**). Details about the proposed facility and its emissions can be found on the Telstra website at www.rfnsa.com.au by typing in Site No 2627023.

It is important to note that this measurement is based on the maximum case scenario, considering direct exposure at full operational capacity of the facility which is generally not a true representation of a real life scenario.

The signal from the facility is normally affected by various factors including service demand and call traffic, network support of surrounding base stations, distance, topography, physical and natural barriers (such as hills, trees, buildings etc), antenna specifications, azimuth and power input to name a few.

For members of the community still concerned about EME, ARPANSA undertook monitoring of EME levels from functioning base station from 2007 to 2013. The results can be viewed at:

https://www.arpansa.gov.au/research/surveys/mobile-phone-base-station-survey

Other useful websites include **EME Explained Series**:

http://www.emfexplained.info/

ACMA - A Guide to small cells

https://www.acma.gov.au/Home/theACMA/a-guide-to-small-cells

Regulatory Controls

Federal Framework

The following Federal level legislation applies to the proposal:

- *Telecommunications Act 1997 (Cth)*
- *Telecommunications (Low-impact Facilities) Determination 2018 (Cth)*
- *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*

Guthega Village is located within the Kosciuszko National Park, which is listed under the EPBC Protected Matters search as a protected area (**Figure 17**). Because of the locations status as a protected area (area of environmental significance), Telstra cannot utilise its carrier's powers under the *Telecommunications (Low-impact Facilities) Determination 2018* to perform installation works. As such, Telstra requires written consent to commence the proposed works from the Department of Planning & Environment, the regulatory authority as outlined under *State Environmental Planning Policy (Kosciuszko National Park – Alpine Resorts) 2007.*

Telecommunications Act 1997

The *Telecommunications Act 1997* has been operative since 1 July 1997. This legislation establishes the criteria for 'low impact' telecommunication facilities. If a proposed facility satisfies the requirements of a 'low impact' facility, the development is exempt from the planning approval process.

Under the *Telecommunications Act 1997* the Government also established the *Telecommunications Code of Practice 1997*, which sets out the conditions under which a carrier must operate. *Section 2.11* of the *Telecommunications Code of Practice 1997* sets out the design, planning and installation requirements for the carriers to ensure the installation of facilities is in accordance with industry 'best practice'.

Telecommunications (Low-impact) Determination 2018

The *Telecommunications Act 1997* establishes the criteria for 'low impact' telecommunication facilities. If a proposed facility satisfies the requirements of a 'low impact' facility, the development is exempt from the planning approval process.

Further clarification of the term 'low impact' is provided in the *Telecommunications Act 1997* and the *Telecommunications (Low Impact Facilities) Determination 2018*, which was gazetted subsequent to the Act.

The *Telecommunications (Low Impact Facilities) Determination 2018* also establishes certain facilities, which cannot be considered low impact facilities. In this instance the *Telecommunications (Low Impact Facilities) Determination 2018* cannot be used in Guthega Village because of its classification an "area of environmental significance" as outlined in *Part 1 Background to determination:*

"One effect of this determination is that a facility in an area of environmental significance cannot be a low-impact facility"

Hence regulatory approval must be sought from the approving authority.

EPBC Protected Matters Search

The *Environment Protection and Biodiversity Conservation Act 1999* (*EPBC Act 1999)* obliges telecommunications carriers to consider 'matters of national environmental significance'. Under this legislation, an action will require approval from the Minister of Environment if the action has or is likely to have an impact on a matter of 'national environmental significance'.

Guthega Village is located within the Kosciuszko National Park which is listed under the EPBC Protected Matters search as a Protected Area, as shown by the EPBC Protected Matters Search **Figure 17** below.

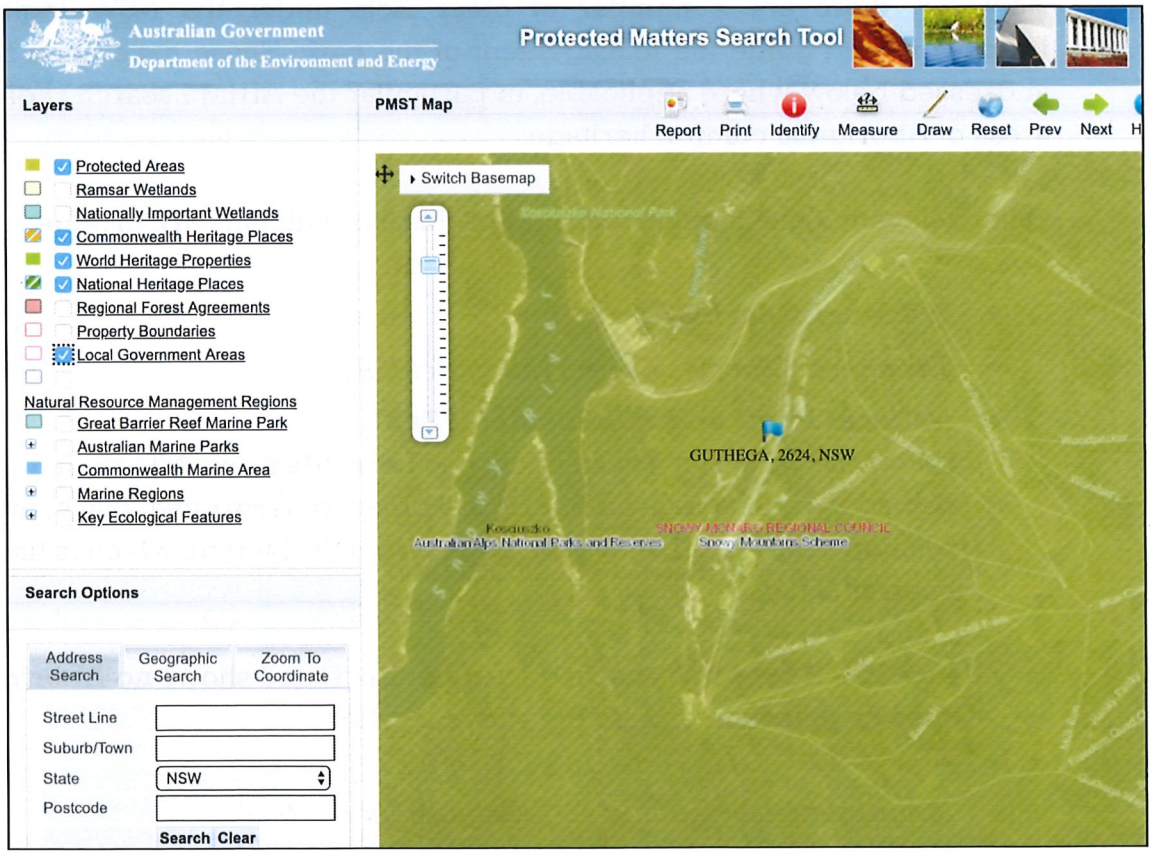


Figure 17. EPBC Protected Matters Search

http://www.environment.gov.au/epbc/protected-matters-search-tool (accessed 5 December 2018)

State Framework

State Legislation governing Kosciuszko National Park

The principal legislation governing the management of Kosciuszko National Park is the New South Wales (NSW) *National Parks and Wildlife Act 1974*. Given the simplicity of the Telstra proposal in Guthega Village, a developed and disturbed area, this section will mostly focus on the relevant State Environmental Planning Policies (SEPPS's) and the *Kosciuszko National Park Plan of Management 2006* (the *Plan 2006*).

However, there are a number of other Acts under the NSW legislative framework that guide the management of the park. These have been briefly addressed below where applicable, in particular the AHIMS search regarding areas of Aboriginal cultural heritage.

Other relevant legislation governing Kosciuszko National Park include:

- *Wilderness Act 1987*
- *Threatened Species Conservation Act 1995*
- ***National Parks and Wildlife Act 1974***
  Under the NPW Act it is an offence to harm (destroy, deface, or damage) or desecrate an Aboriginal object or Aboriginal place, or in relation to an object, move the object from the land on which is has been situated.

  An **AHIMS report** is attached in Appendix D and shows **no Aboriginal sites or places** in or near the above location.

- *Environmental Planning and Assessment Act 1979*

  It is considered that matters covered under this SEE adequately cover the requirements of the environmental impacts of the proposed minor telecommunications works.

State Environmental Planning Policy (Infrastructure) 2007

Division 21 Telecommunications and other communications facilities of *State Environmental Planning Policy (Infrastructure) 2007* (*SEPP 2007*) allows for the deployment of telecommunications infrastructure in certain circumstances. These circumstances are outlined in *sl16 Exempt Development* and *sl16A Complying Development.*

The proposal does not meet the requirements of *sl16(d)* and *sl16 2(a)* both of which refer to:

"must not be carried out on land located in an ***environmentally sensitive area*** *within the meaning of State Environmental Planning Policy (Exempt and Complying Development Codes) 2008"*

SEPP 2008 under Division 1 sl.5 provides the following definition:

"environmentally sensitive area *means any of the following:*
(h) land reserved under the National Parks and Wildlife Act 1974 or land to which Part 11 of that Act applies,"

The proposal is located within a National Park, a protected area under the *EPBC Act 1999.*

State Environmental Planning Policy (Exempt and Complying Development Codes) 2008

Under the *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008* (SEPP 2008), according to section Part 1, Division 1, Clause 1.4:

(2) This Policy does not apply to land:
(a) to which State Environmental Planning Policy (Kosciuszko National Park—Alpine Resorts) 2007 applies, and

Hence, *SEPP (Kosciuszko National Park Alpine Resorts) 2007* is the relevant SEPP under the circumstance (hereby referred to as *SEPP Alpine*), as Guthega Village is classified as an Alpine Resort.

State Environmental Planning Policy (Kosciuszko National Park – Alpine Resorts) 2007

SEPP (Kosciuszko National Park Alpine Resorts) 2007 is the relevant SEPP under the circumstance (hereby referred to as *SEPP Alpine*).

SEPP Alpine references telecommunications facilities as being permissible with consent within *Land Use Table, Perisher Range Alpine Resort, 2 Permitted with Consent.* **Figure 18** shows that Guthega Village is part of the Perisher Range resort.

According to *SEPP Alpine* the Minister is the consent authority.

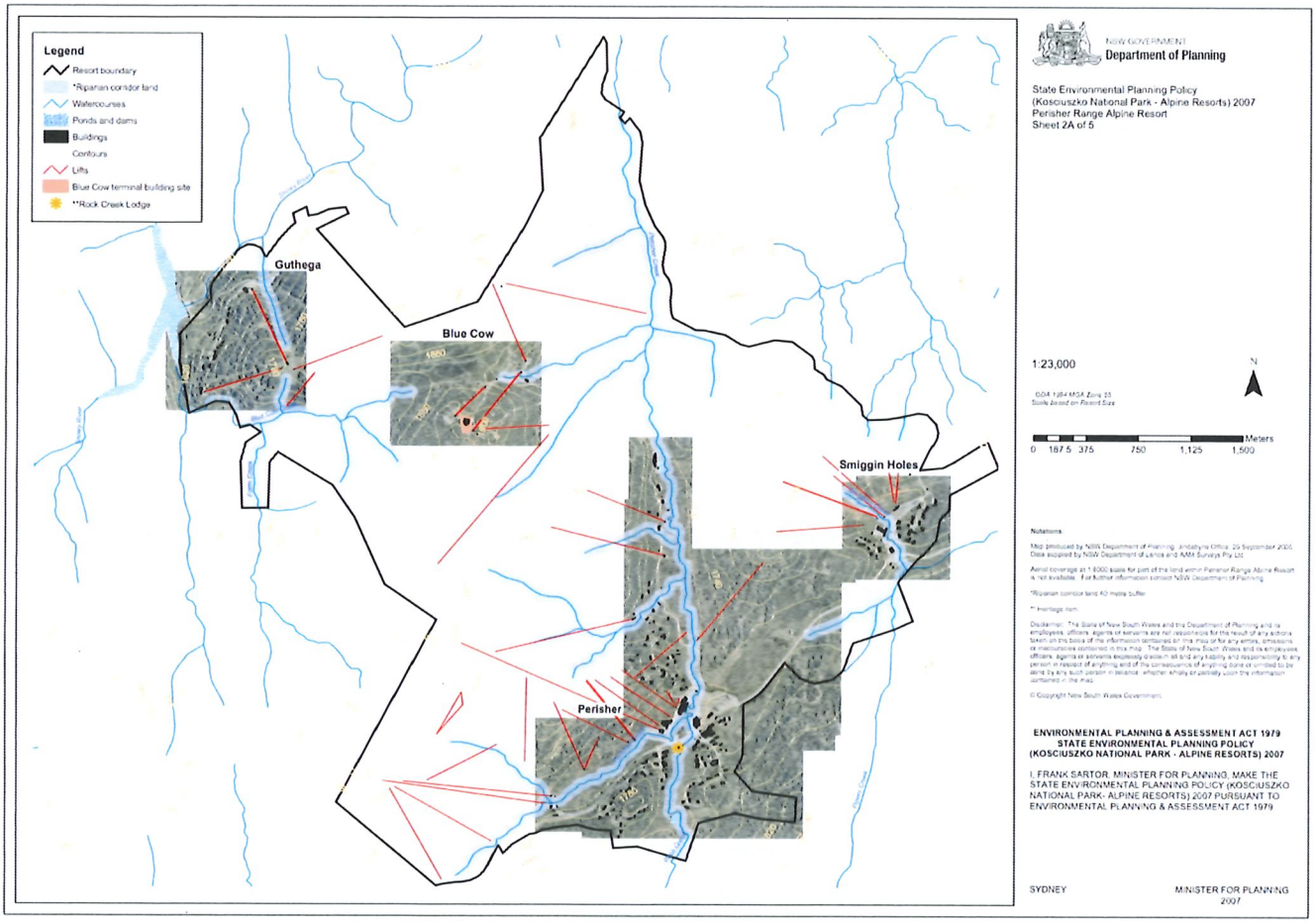


Figure 18. Perisher Range Resort Map (Guthega included)

Source: https://www.planning.nsw.gov.au/-/media/Files/DPE/Maps/map-kosciuszko-national-park-alpine-resorts-perisher-range-alpine-resort-sheet-2a-of-5-2007.ashx (accessed 6 December 2018)

Kosciuszko National Park Plan of Management

The *Kosciuszko National Park Plan of Management 2006* (the *Plan 2006*) is made under is made under *Part 5 of the National Parks and Wildlife Act, 1974.* The plan acknowledges the important role that the park serves as a venue for outdoor recreational pursuits.

Guthega Village is part of the Perisher Range Management Unit as per **Figure 19** (section 8.9 of *Plan 2006*). Under section 8.9 Guthega is recognised as one of the "general purpose trailheads" which provides access to cross-country skiing information, restaurants and ski lodge facilities. The Telstra proposal aims to provide 4G mobile coverage to the village area and to cross country skiers passing through the trailheads.

A number of sections within *Plan 2006* support the provision of utilities to support activities within the Alpine Resort:
"*working in partnership with lessees and licensees to provide high quality facilities and services*", which would encompass providing telecommunications services to these operational centres.
Further to this *Section 10.2.1 Management Objectives states* "*Permit the supply of utilities in the alpine resort management units consistent with the provisions of Section 11.6 and Chapter 12*".

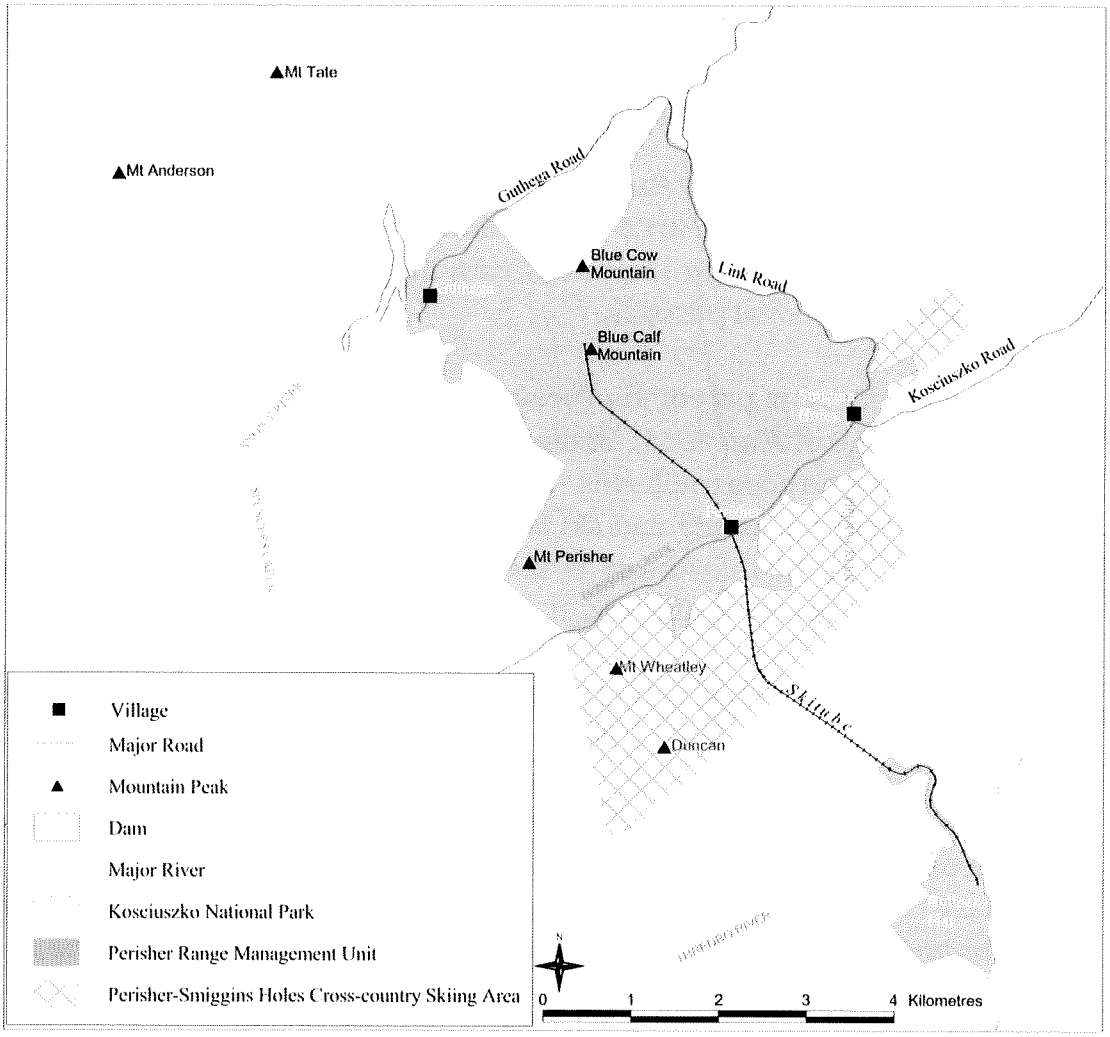


Figure 19. Perisher Range Management Unit and the major ski resorts

Section 11.6 and Chapter 12 of the Kosciuszko National Park Plan of Management 2006

Section 11.6 Environmental Quality, outlines activities that may have impact on water quality (i.e. onsite sewage systems), air pollution, hazardous waste (i.e. commercial kitchen waste), noise generation (private vehicles). The proposed co-location of telecommunications equipment on an existing timber pole will not generate any impacts as outlined above (some noise will emit on occasion from the equipment shelter which will be the equivalent of a domestic air conditioning unit). There is no solid, liquid or gaseous waste produced from the telecommunications facility, not does the facility require water.

Section 11.6 also mentions the impact of visually intrusive developments:

"On a parkwide scale, the collective infrastructure of the Snowy Mountains Hydro-electric Scheme, in the form of roads, transmission lines, power stations, aqueducts and impoundments, represents the single most visually intrusive element in the landscape"

It is considered that the Telstra proposal has responded to the sensitivity of the visual aesthetic by co-locating on an existing timber utility pole, as opposed to the construction of a new vertical element.
Please also see the chapter Visual Amenity of this SEE for further discussion on visual amenity.

Chapter 12 Operations and authorised use refer to a variety of other government agencies and private organisations undertake essential operations within the park, and their responsibilities in minimising the footprint of their activities.
As mentioned under the Construction & Traffic section of this SEE, the facility once constructed will operate on an unmanned basis. Maintenance and basic checks on the ongoing operation of the facility will likely take place 1-3 times per year involving a single vehicle. In the case of Guthega Village there is no requirement to proceed off road as there is sealed access leading to the facility. Telstra staff will adhere to any check in procedures and on-site safety procedures as instructed.

Public benefit

The last decade has seen the rapid uptake of smart devices. The use of wireless services has rapidly overtaken other forms of internet subscription. As of June 2017[4], there were approximately 26.3 million mobile handset subscribers in Australia. To put this into perspective the estimated Australian population in 2018, according to Australian Bureau of Statistics population clock[5], is nearing 25 million, which means nearly every single adult and child in Australia has at least one mobile phone. Portable wireless smart devices now not only include smart phones, but laptops and tablets which has resulted in the exponential growth in the amount of data downloaded.

The proposed facility at Guthega Village will sit amidst Kosciuszko National Park, which is part of the 1.6 million hectare chain of national parks and reserves across the Australian alps. The park is known as a recreational destination,

[4] *Australian Bureau of Statistic Internet Activity Australia, http://www.abs.gov.au/ausstats/abs@.nsf/mf/8153.0*
[5] *http://www.abs.gov.au/*

particularly during snow season. In winter, the alpine resorts become the focus of visitor activities.

Guthega Village is one of the important points of congregation for seasonal snow seekers. Being able to access wireless coverage to the designated operational area of Guthega Village would be a reasonable expectation of national park guests visiting the village facilities which includes restaurants and lodges.
In addition, providing wireless coverage to Guthega Village will help to improve visitor safety.

Conclusion

The Telstra proposal for Guthega Village is what is termed a "small cell solution", in that it consists of minimal equipment and a compact equipment shelter. Small cell solutions are often deployed in sensitive and difficult areas, were a new greenfield facility would compromise the aesthetics of the location. Telstra has responded to the environmental significance of the National Park locale by utilising an existing timber light pole as the support structure.

The proposed Telstra facility:

- Is in compliance with National EME standards
- Is in compliance with *Industry Code C564:2018- Mobile Phone Base Station Deploy*ment
- Is a permitted use under section 2 of *SEPP (Kosciuszko National Park Alpine Resorts) 2007*
- Does not contravene the *Kosciuszko National Park Plan of Management 2006*
- Is not located in an area identified as having Aboriginal heritage as outlined by the AHIMS search
- Does not require vegetation removal
- Is located in a developed and serviced Alpine Resort
- Is not causing detriment to scenic view sheds
- Has sealed access and power are available to the facility
- Operates on an unmanned basis and requires minimal maintenance

It is request as such that that the Department of Planning and Environment grant Telstra permission to construct the facility.

APPENDIX A

Preliminary Plans, including electrical route

DRAWING DESCRIPTION	DRAWING NUMBER	SHEET NO.	ISSUE NO.	ISSUE DATE	DRAWING STATUS				
					CANCELLED	PRELIMINARY	FOR CONSTRUCTION	AS BUILT	REFERENCE ONLY
SITE SPECIFIC NOTES - SHEET 1 OF 2	N110757	S0	1	21/01/19			✓		
SITE SPECIFIC NOTES - SHEET 2 OF 2	N110757	S0-1	1	21/01/19			✓		
SITE LAYOUT AND ACCESS	N110757	S1	1	21/01/19			✓		
NORTH EAST ELEVATION	N110757	S3	1	21/01/19			✓		
EME EXCLUSION ZONES - PLAN	N110757	A3	1	21/01/19			✓		
EME EXCLUSION ZONES - ELEVATION	N110757	A3-1	1	21/01/19			✓		
AC POWER CONNECTION	N110757	E2	1	21/01/19			✓		
TE/RT CONSTRUCTION WORKS	N110757	E6	1	21/01/19			✓		
OMNI ANTENNA MOUNTING DETAILS	N110757	T3	1	21/01/19			✓		
RF ISOLATION SWITCH MOUNTING DETAILS	N110757	T3-1	1	21/01/19			✓		
STRUCTURAL DESIGN CERTIFICATION PROJECT NO. NA18546.01	N110757	Z1	1	21/01/19			✓		
EQUIPMENT LAYOUT	NX31028/3	1	27	31/03/17					✓
REFERENCE DRAWINGS:									
STANDARD CONSTRUCTION NOTES	017866P05	1	2	19/11/10			✓		
ELECTRICAL SPECIFICATION	017866P160	1	3	07/12/12			✓		
AC ISOLATION SWITCH WITH MEN FOR SMALL CELL SITES	017866P188	3	1	23/02/18			✓		
LOW LIGHTING RISK - CABINET WITH DROP DOWN SUPPLY SINGLE LINE DIAGRAM	017866P190	22	1	04/12/18			✓		
TYPICAL ENHANCEMENT COMPOUND INSTALLATION TO EARTH ELECTRODE & EARTH STRAP	017866P201	5	1	11/05/11			✓		
SMALL CELL ENCLOSURE- SHEET 1 OF 3	FG-ENCAL-0085	1	A	01/06/17			✓		
SMALL CELL ENCLOSURE- SHEET 2 OF 3	FG-ENCAL-0085	2	A	01/06/17			✓		
SMALL CELL ENCLOSURE- SHEET 3 OF 3	FG-ENCAL-0085	3	A	01/06/17			✓		

Telstra

GUTHEGA FARM CREEK

NODE MANAGER ADDRESS ID: 321653

ADDRESS: OFF MOUNT TATE ROAD
GUTHEGA VILLAGE
NSW 2627

CYIENT
Level 1, 350 Collins Street Melbourne, Victoria 3000 Australia
T +61 3 8605 4815 | F +61 3 8601 1180 | www.cyient.com

UNAPPROVED DRAWING

ORDER	DRAWN	CHKD	AMENDMENT	EXAM	APPD	DATE	ISS
NA18546.01	MH	PNK	FOR CONSTRUCTION - 30069069W0053CYI - LTE700	SW	SW	21.01.19	1

Telstra

MOBILE NETWORK SITE 321653
GUTHEGA FARM CREEK
DRAWING INDEX AND DOCUMENT CONTROL
OFF MOUNT TATE ROAD, GUTHEGA VILLAGE, NSW 2627

DWG NO. N110757 SHT NO. DC

Cad file: N110757.dwg A3

DO NOT SCALE

SITE SPECIFIC NOTES

OUTDOOR EQUIPMENT

TYPE: PROPOSED TELSTRA LTE700 RRUS-2217 (B28B) (1 OFF) TO BE MOUNTED ON EXISTING TIMBER STREET LIGHT POLE
COLOR: NATURAL
FEEDER ENTRY: POLE MOUNTED

1

STRUCTURE

TYPE: EXISTING TIMBER POLE
COLOUR: NATURAL
REFERENCE DRAWING: N/A

ANTENNA ACCESS

TELSTRA: ELEVATED WORK PLATFORM
OTHERS: N/A

ANTENNA MOUNTS

TYPE: PROPOSED TELSTRA ANTENNA MOUNT
COLOUR: GALVANISED FINISH
REFERENCE DRAWING: SHEET T3

1

POWER SUPPLY

TELSTRA REMOTE END EQUIPMENT IS TO BE POWERED FROM POWER PILLAR #374985 VIA 10A PROTECTION FUSE, POWER CONTROL BOX AND ISOLATION/TILT SWITCH. DONOR END EQUIPMENT BB6303 TO BE POWERED FROM HUT DC DISTRIBUTION VIA 10A DC CB. REFER TO DRAWING NX31028/3 SHEET 1 FOR DETAILS.
DIAL 1100 BEFORE YOU DIG.

ENVIRONMENTAL ISSUES

REFER TO ENVIRONMENTAL RISK ASSESSMENT CHECKLIST 018422f10 INCLUDE ANY ANIMALS:
NESTING BIRDS: OSPREY ETC.
DANGEROUS SNAKES, WASPS & SPIDERS ETC.
MENACING CATTLE ETC.

EARTHING DETAIL

INSIDE THE HUT LTE700 RACK EARTH SHALL BE BONDED TO THE MAIN SERVICE EARTH BAR IN THE HUT. REMOTE SITE TO BE EARTHED AS PER TELSTRA STANDARD 017866P190 SHEET 22.

1

SITE ACCESS

SITE ACCESS VIA OFF MOUNT TATE ROAD, GUTHEGA VILLAGE, NSW 2627.
REFER TO SHEET S1 FOR DETAILS

SITE SIGNAGE

ALL EME SIGNAGE IS REFERENCED ON DRAWINGS S1 & S3. REFER TO DOCUMENTS 005486 FOR DETAILS.

GENERAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SPECIFIED OTHERWISE.
2. BIRD PROOFING CABLES AND ALL ACCESS POINTS ON THE STRUCTURE MUST BE BIRD PROOFED IN ACCORDANCE WITH THE METHODS SPECIFIED IN DOCUMENT NO. 003615 EXTERNAL PLANT STANDARDS FOR MOBILE BASE STATIONS, SECTION 6.3.3. FOR QUEENSLAND, ALL FEEDERS ARE TO BE BIRD PROOFED WHEN INSTALLED.
3. SERVICES, WHERE SHOWN ARE INDICATIVELY ONLY. LOCATION OF ALL RELEVANT EXISTING SERVICES SHALL BE IDENTIFIED AND CONFIRMED PRIOR TO COMMENCING WORK. THE CONTRACTOR TO LIAISE WITH RELEVANT AUTHORITIES FOR DIRECTIONS AND PERMITS REQUIRED.
   DIAL BEFORE YOU DIG 1100.
4. FEEDER CONNECTION DETAILS, ELECTRICAL AND MECHANICAL TILTS ARE TO BE OBTAINED FROM CANRAD REPORTS.
5. CONSTRUCTORS ARE TO BE AWARE OF TELSTRA DOCUMENT 007338-C8-11 AND IN PARTICULAR CLAUSE 7.3 & 10.3 WHICH DESCRIBES REQUIREMENTS PERSONNEL MUST UNDERTAKE IN RESPECT TO ASBESTOS MANAGEMENT AT TELSTRA FACILITIES.

SITE REFERENCE DETAILS

OCCUPIER	SITE NAME	SITE CODE
TELSTRA	GUTHEGA FARM CREEK	321653
RFNSA SITE NUMBER - 2627023 STRUCTURE OWNER - PRIVATE		

SERVICES LEGEND

—T—T—T—T—	OPTIC FIBRE ABOVE GROUND
—T----T----T----T----	OPTIC FIBRE BELOW GROUND
—E—E—E—	ABOVE GROUND ELECTRICAL SUPPLY
— — E — — E —	BELOW GROUND ELECTRICAL SUPPLY
— — G — — G — — G —	GAS SUPPLY
—HV—HV—HV—	HIGH VOLTAGE ELECTRICAL SUPPLY
—W—W—W—W—W—W—	WATER SUPPLY
—S—S—S—S—S—	SEWER LINE
— — SW — — SW —	STORM WATER
—FE—FE—	ABOVE GROUND FEEDER CABLES
— — FE — — FE —	BELOW GROUND FEEDER CABLES

UNAPPROVED DRAWING

COMPLIANCE BOX

COMPLETED AS PER DESIGN ☐
ALTERATIONS IN RED ☐
NAME (PRINT)
SIGNATURE DATE

NOTE: THIS DRAWING TO BE READ IN CONJUNCTION WITH SHEET S0-1

1 FOR CONSTRUCTION

ORDER	DRAWN	CHKD	AMENDMENT	EXAM	APPD	DATE	ISS
NA18546.01	MH	PNK	FOR CONSTRUCTION - 30069069W0053CYI - LTE700	SW	SW	21.01.19	1

CYIENT
Level 1, 350 Collins Street Melbourne, Victoria 3000 Australia
T +61 3 8605 4815 | F +61 3 8601 1180 | www.cyient.com

Telstra

MOBILE NETWORK SITE 321653
GUTHEGA FARM CREEK
SITE SPECIFIC NOTES - SHEET 1 OF 2
OFF MOUNT TATE ROAD, GUTHEGA VILLAGE, NSW 2627

DWG NO. N110757 | SHT NO. S0

Cad file: N110757.dwg

A3

DO NOT SCALE

EQUIPMENT NOTES - PROJECT NO. NA18546.01

ITEM	EQUIPMENT	EQUIPMENT DETAILS	EXISTING	PROPOSED	TOTAL	REFERENCE DWG
1	A/G CONDUITS (POWER)	UPVC P20 COLOUR GREY UV RESISTANT, 4m LONG	0	1	1	-
2	A/G CONDUIT (FIBRE)	UPVC P20 COLOUR GREY UV RESISTANT, 5.5m LONG	0	1	1	-
3	ERICSSON RADIO UNIT LTE700 RRUS-2217 (B28B) (ERICSSON RAIL SEF 901 305 0180 AFFIXED WITH 4 x M10 14mm BOLTS)	MOUNTED INSIDE ICS ENCLOSURE ON TELSTRA POLE	0	1	1	SHEET S1
4	FIBRE INTERFACE JUNCTION BOX	150 (W) x 95 (D) x 200mm (H)	0	1	1	SHEET S3
5	PSU-AC02	POWER SUPPLY UNIT FOR RADIO UNIT	0	1	1	SCM3007 SHEET 1 TO 4
6	AC ISOLATION/TILT SWITCH	POLE MOUNTED	0	1	1	SHEET S3
7	POWER CONTROL BOX	POLE MOUNTED	0	1	1	SHEET S3
8	TAIL FEEDER CABLES (SCF12-50J)	SCF12-50J, LENGTH 4m	0	2	2	SHEET S3
9	LTE700 OMNI ANTENNA (UNX001U-2P)	ATTACHED TO PROPOSED MOUNT	0	1	1	SHEET S3
10	RBS BB6303	PROPOSED IN PERISHER VALLEY AT GD/102B/06	0	1	1	REFER DWG NX31028/3
11	ERICSSON SIU-02	EXISTING IN PERISHER VALLEY AT GD/102A/6	1	0	1	REFER DWG NX31028/3

UNAPPROVED DRAWING

COMPLIANCE BOX
COMPLETED AS PER DESIGN ☐
ALTERATIONS IN RED ☐
NAME (PRINT)
SIGNATURE DATE

SITE DESIGN BRIEF LTE700 NA18546.01 ISSUE 01 DATED 26/03/2018

NOTE: THIS DRAWING TO BE READ IN CONJUNCTION WITH SHEET S0

1 FOR CONSTRUCTION

DO NOT SCALE

ORDER	DRAWN	CHKD	AMENDMENT	EXAM	APPD	DATE	ISS
NA18546.01	MH	PNK	FOR CONSTRUCTION - 30069069W0053CYI - LTE700	SW	SW	21.01.19	1

CYIENT
Level 1, 350 Collins Street Melbourne, Victoria 3000 Australia
T +61 3 8605 4815 | F +61 3 8601 1180 | www.cyient.com

Telstra

MOBILE NETWORK SITE 321653
GUTHEGA FARM CREEK
SITE SPECIFIC NOTES - SHEET 2 OF 2
OFF MOUNT TATE ROAD, GUTHEGA VILLAGE, NSW 2627

DWG NO. N110757 SHT NO. S0-1

Cad file: N110757.dwg A3

TN

EWP VEHICLE SHOULD BE PLACED IN THIS AREA DURING THE CONSTRUCTION OF THE TELECOM EQUIPMENT

EXISTING GRASS VERGE

EXISTING STREET LIGHT

PROPOSED AC PROTECTIVE EARTH CABLE TO MEN LINK. REFER TO TELSTRA STANDARD 017866P190 SHEET 22

1 PROPOSED TELSTRA LTE700 OMNI ANTENNA (1 OFF A1) TO BE INSTALLED ON EXISTING TIMBER POLE AT E.L. 7.3m ON PROPOSED MOUNT. REFER TO SHEET T3 FOR MOUNTING DETAILS

2000

EA

Te

PROPOSED TELSTRA U/G POWER CABLE FROM NEAR BY POWER PILLAR No. NP374985 VIA PROPOSED P20 CONDUIT TO PROPOSED ISOLATION SWITCH

PROPOSED TELSTRA U/G FIBRE CABLE FROM NEAR BY FIBRE PIT VIA PROPOSED P20 CONDUIT TO PROPOSED RADIO UNIT 2217 B3

1 EXISTING TIMBER STREET LIGHT POLE

EXISTING O/H WIRES (TELECOM)

PROPOSED TELSTRA TILT \ ISOLATION SWITCH BOX TO BE STRAPPED ON EXISTING POLE AT 3.5m AGL. REFER TO SHEETS E2, T3-1 AND TELSTRA STD DRG 17866P188 SHEET 3 FOR DETAILS. INSTALL TELSTRA ID ON ISOLATION SWITCH BOX

PROPOSED TELSTRA POWER CONTROL BOX AT 4m AGL

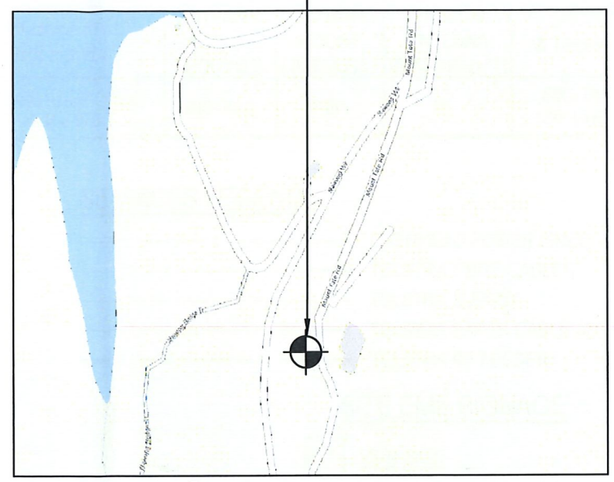
1 PROPOSED ICS SMALL CELL ENCLOSURE FG-ENCL-0085 HOSTING TELSTRA LTE700 EQUIPMENT; RRUS2217, FIBRE INTERFACE BOX AND PSU AC02. REFER TO FIDO-002 PACKAGING OPTION 1B FOR DETAILS.

SITE LAYOUT

SCALE 1:50

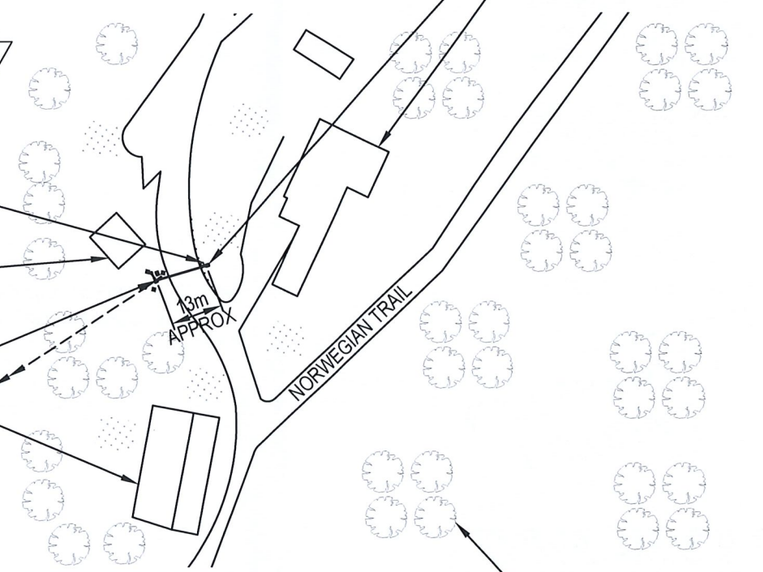
500 0 2500 SCALE 1:50

RFNSA SITE No. 2627023



LOCALITY PLAN

NOT TO SCALE



SITE ACCESS

SCALE 1:1500

30m 0 30m 60m SCALE 1:1500

UNAPPROVED DRAWING

1 FOR CONSTRUCTION

NOTES:

1. ALL FEEDER ACCESS POINTS ON THE STRUCTURE MUST BE BIRD PROOFED AS PER EXTERNAL PLANT POLICY 003615.
2. FOR SITE SPECIFIC NOTES REFER TO SHEET S0.
3. FOR EME SIGNS NOTED THUS #X REFER TO 005486 FOR DETAILS.
4. PROPOSED BB6303 IS INSTALLED AT DONOR SITE LOCATION: SITE NODE (PRVG).

COMPLIANCE BOX

COMPLETED AS PER DESIGN ☐

ALTERATIONS IN RED ☐

NAME (PRINT)

SIGNATURE DATE

DO NOT SCALE

PROPERTY DESCRIPTION

PART OF LOT (TBC) ON (TBC)
PARISH OF (TBC)
COUNTY OF (TBC)

SITE STRUCTURE CO-ORDINATES (GDA94) GPS READING ACCURACY: ± 10m CENTRE OF POLE	
LATITUDE	GDA 94 -36.38243
LONGITUDE	GDA 94 148.37261

CYIENT
Level 1, 350 Collins Street Melbourne, Victoria 3000 Australia
T +61 3 8605 4815 | F +61 3 8601 1180 | www.cyient.com

ORDER	DRAWN	CHKD	AMENDMENT	EXAM	APPD	DATE	ISS
NA18546.01	MH	PNK	FOR CONSTRUCTION - 30069069W0053CYI - LTE700	SW	SW	21.01.19	1

Telstra

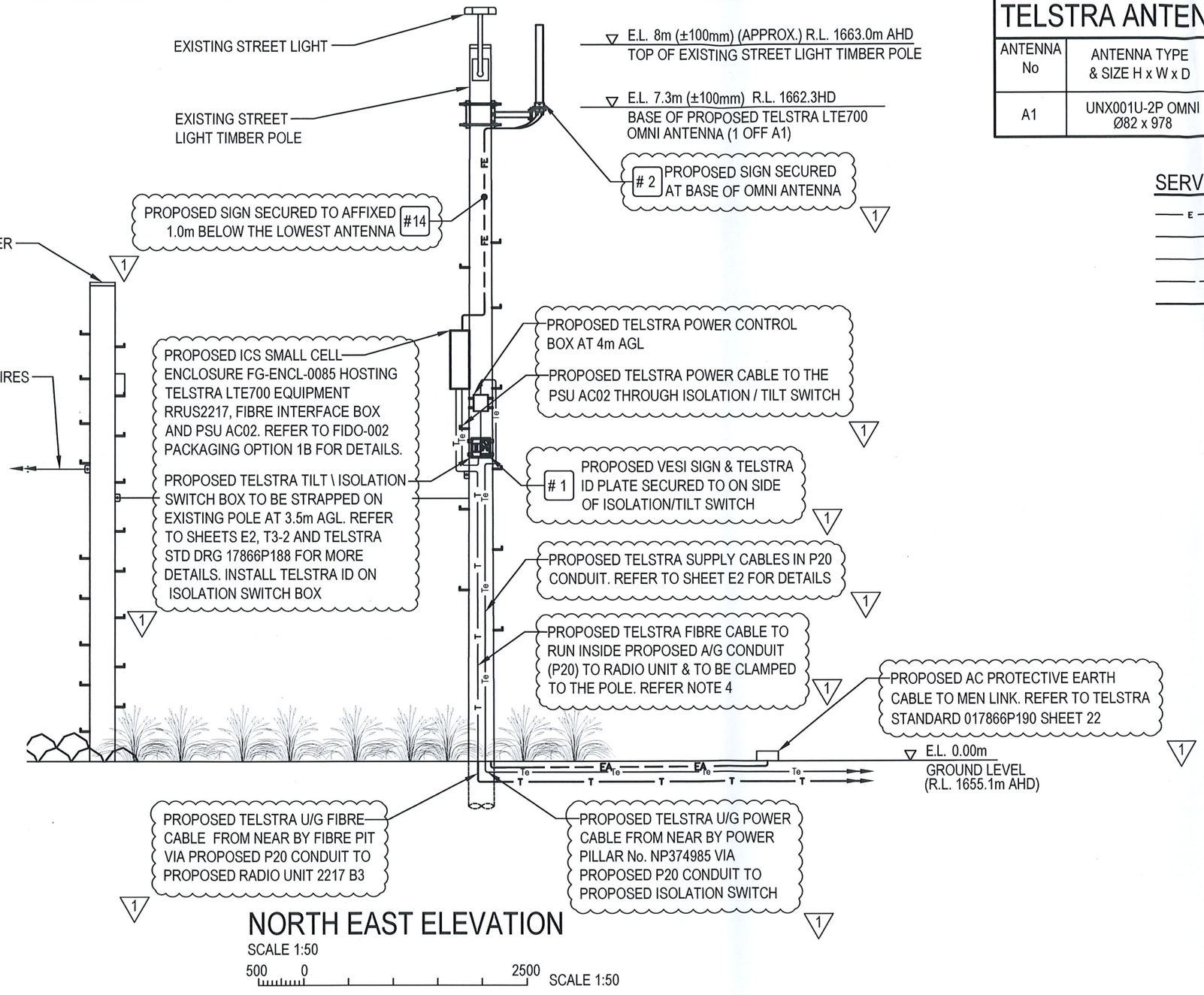
MOBILE NETWORK SITE 321653
GUTHEGA FARM CREEK
SITE LAYOUT AND ACCESS
OFF MOUNT TATE ROAD, GUTHEGA VILLAGE, NSW 2627

DWG NO. N110757 SHT NO. S1

Cad file: N110757.dwg

A3

Telstra Networks Wireless program Delivery Template - 017866P02 issue 11 02.12/ 2013



NORTH EAST ELEVATION

SCALE 1:50

500 0 2500 SCALE 1:50

TELSTRA ANTENNA CONFIGURATION TABLE

ANTENNA No	ANTENNA TYPE & SIZE H x W x D	ANTENNA ACTION REQUIRED	ANTENNA HEIGHT BASE A.G.L.	PHYSICAL ANTENNA BEARING (x°T)	SECTOR NO. & TECHNOLOGY
A1	UNX001U-2P OMNI Ø82 x 978	INSTALL	7.3m	0°	S0: LTE700 S0: LTE700

SERVICES LEGEND

- E — OVERHEAD POWER LINES
- T — TELSTRA FIBRE CABLES
- Te — TELSTRA SUPPLY
- EA — TELSTRA EARTH CABLE 19/1.53mm
- FE — TELSTRA RF FEEDER

SITE EME SIGNAGE

1 VESI SIGN
(1 OFF) PROPOSED SIGN SECURED TO ON SIDE OF ISOLATION / TILT SWITCH

2 EME TELSTRA #2 SIGN
PROPOSED SIGNS TO BE UV STABLE STICKERS AND FIXED TO BASE OF TELSTRA OMNI ANTENNA

#14 EME TELSTRA #14 SIGN
PROPOSED SIGN SECURED TO AFFIXED 1.0m BELOW LOWEST ANTENNA

TELSTRA ID PLATE
(1 OFF) TO BE INSTALLED ON SIDE OF ISOLATION / TILT SWITCH

UNAPPROVED DRAWING

COMPLIANCE BOX

COMPLETED AS PER DESIGN ☐
ALTERATIONS IN RED ☐
NAME (PRINT)
SIGNATURE DATE

1 FOR CONSTRUCTION

NOTES:

1. ALL FEEDER ACCESS POINTS ON THE STRUCTURE MUST BE BIRD PROOFED AS PER EXTERNAL PLANT POLICY 003615.
2. FOR SITE SPECIFIC NOTES REFER TO SHEET S0.
3. FOR EME SIGNS NOTED THUS #X REFER TO 005486 FOR DETAILS.
4. THE FIBRE PROTECTED CONDUIT MUST BE SECURED WITH A SEALANT ON TOP
5. PROPOSED BB6303 IS INSTALLED AT DONOR SITE LOCATION: SITE NODE (PRVG).

CYIENT
Level 1, 350 Collins Street Melbourne, Victoria 3000 Australia
T +61 3 8605 4815 | F +61 3 8601 1180 | www.cyient.com

ORDER	DRAWN	CHKD	AMENDMENT	EXAM	APPD	DATE	ISS
NA18546.01	MH	PNK	FOR CONSTRUCTION - 30069069W0053CYI - LTE700	SW	SW	21.01.19	1

Telstra

MOBILE NETWORK SITE 321653
GUTHEGA FARM CREEK
NORTH EAST ELEVATION
OFF MOUNT TATE ROAD, GUTHEGA VILLAGE, NSW 2627

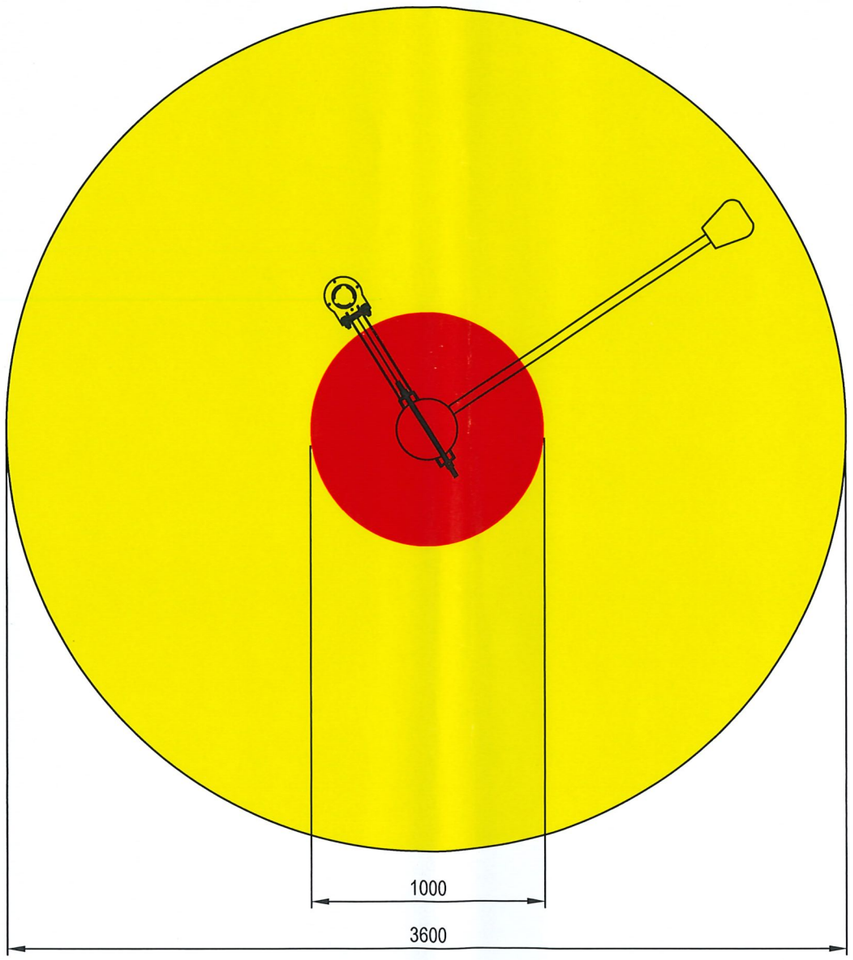
DWG NO. N110757 SHT NO. S3

Cad file: N110757.dwg

DO NOT SCALE

Telstra Networks Wireless program Delivery Template - 017866P02 issue 11 02/12/2013

A3



EME EXCLUSION ZONES - PLAN

SCALE 1:25

UNAPPROVED DRAWING

COMPLIANCE BOX

COMPLETED AS PER DESIGN ☐

ALTERATIONS IN RED ☐

NAME (PRINT)

SIGNATURE DATE

FOR CONSTRUCTION

POWER DENSITY LEGEND (100% OF ARPANSA LIMITS)

OCCUPATIONAL LIMIT - NO ACCESS

RF-WORKERS ONLY - LIMITED ACCESS

DO NOT SCALE

CYIENT
Level 1, 350 Collins Street Melbourne, Victoria 3000 Australia
T +61 3 8605 4815 | F +61 3 8601 1180 | www.cyient.com

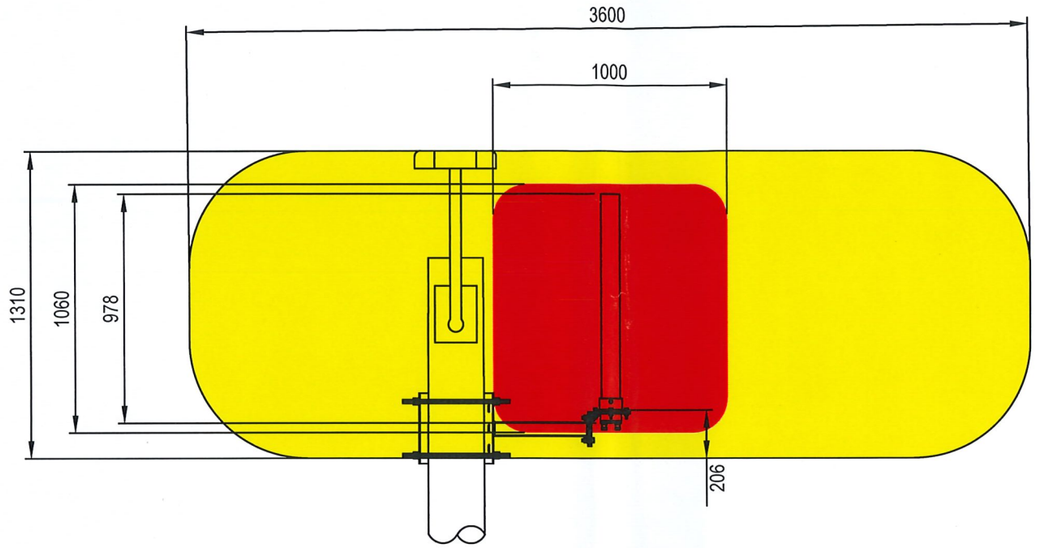
ORDER	DRAWN	CHKD	AMENDMENT	EXAM	APPD	DATE	ISS
NA18546.01	MH	PNK	FOR CONSTRUCTION - 30069069W0053CYI - LTE700	SW	SW	21.01.19	1

Telstra

MOBILE NETWORK SITE 321653
GUTHEGA FARM CREEK
EME EXCLUSION ZONES - PLAN
OFF MOUNT TATE ROAD, GUTHEGA VILLAGE, NSW 2627

DWG NO. N110757 SHT NO. A3

Cad file: N110757.dwg



EME EXCLUSION ZONES - ELEVATION

SCALE 1:25

UNAPPROVED DRAWING

COMPLIANCE BOX
COMPLETED AS PER DESIGN ☐
ALTERATIONS IN RED ☐
NAME (PRINT)
SIGNATURE DATE

FOR CONSTRUCTION

POWER DENSITY LEGEND (100% OF ARPANSA LIMITS)

OCCUPATIONAL LIMIT - NO ACCESS

RF-WORKERS ONLY - LIMITED ACCESS

CYIENT
Level 1, 350 Collins Street Melbourne, Victoria 3000 Australia
T +61 3 8605 4815 | F +61 3 8601 1180 | www.cyient.com

ORDER	DRAWN	CHKD	AMENDMENT	EXAM	APPD	DATE	ISS
NA18546.01	MH	PNK	FOR CONSTRUCTION - 30069069W0053CYI - LTE700	SW	SW	21.01.19	1

Telstra

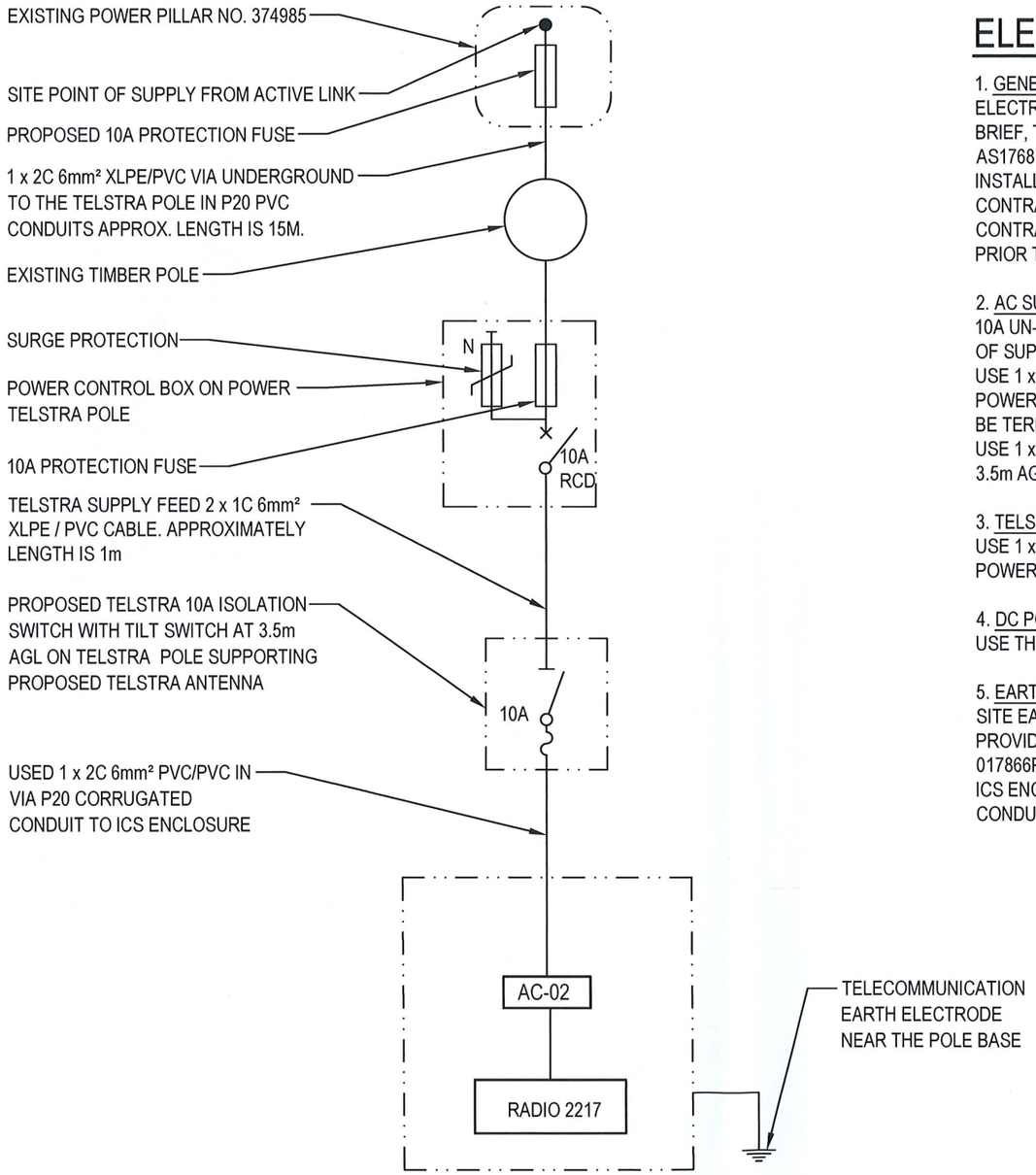
MOBILE NETWORK SITE 321653
GUTHEGA FARM CREEK
EME EXCLUSION ZONES - ELEVATION
OFF MOUNT TATE ROAD, GUTHEGA VILLAGE, NSW 2627

DWG NO. N110757 | SHT NO. A3-1

Cad file: N110757.dwg

DO NOT SCALE

A3



ICS ENCLOSURE ON TIMBER POLE SUPPORTING TELSTRA L700 PANEL ANTENNA

ELECTRICAL INSTALLATION

1. GENERAL

ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH THIS SPECIFICATION, TELSTRA SITE DESIGN BRIEF, TELSTRA CIVIL DESIGN MANUAL, TELSTRA EARTHING MANUAL, AS 3000, AS 3008, AS3015, AS3017, AS1768 AND ALL OTHER RELEVANT AUSTRALIAN STANDARDS AND NEW SOUTH WALES SERVICES AND INSTALLATION RULES. LATEST EDITIONS AND AMENDMENTS IN FORCE AT TIME OF CONSTRUCTION APPLY.
CONTRACTOR SHALL MAKE THEMSELVES AWARE OF ALL SERVICES PRESENT ON SITE.
CONTRACTOR SHALL MAKE THEMSELVES AWARE OF ALL SITE CONDITIONS AND SAFETY REQUIREMENTS PRIOR TO COMMENCING WORK ON SITE..

2. AC SUPPLY TO TELSTRA SMALL CELL

10A UN-METRED POWER SUPPLY SHALL BE TAKEN FROM ESSENTIAL ENERGY STREET NETWORK. SITE POINT OF SUPPLY IS FROM POWER PILLAR #374985 VIA PROPOSED 10A PROTECTION FUSE AND U/G SERVICE.
USE 1 x 2C 6mm² XLPE/PVC CABLES. APPROXIMATE CABLE LENGTH IS 15m.
POWER CONTROL BOX SHALL BE INSTALLED 4m AGL ON THE TELSTRA POLE . SUPPLY SERVICE CABLES WILL BE TERMINATED ON POWER CONTROL BOX.
USE 1 x 2C 6mm² PLUS EARTH PVC/PVC IN P20 CONDUIT TO THE ISOLATION / TILT SWITCH LOCATED AT 3.5m AGL ON TELSTRA POLE SUPPORTING TELSTRA ANTENNA.

3. TELSTRA POWER CABLES TO SMALL CELL

USE 1 x 2C 6mm² XLPE/PVC CABLES VIA CORRUGATED P20 PVC CONDUIT. APPROXIMATE LENGTH IS 1m.
POWER CABLES SHALL BE TERMINATED IN TELSTRA ICS ENCLOSURE ON PSU-AC02 AC TERMINALS.

4. DC POWER SYSTEM

USE THE AC TO DC PSU AC-02 TO PROVIDE DC POWER TO THE RADIO UNIT 2217.

5. EARTHING

SITE EARTHING SHALL BE IN COMPLIANCE WITH TELSTRA STANDARDS 017866P190 SHEET 22.
PROVIDE AND INSTALL AN EARTH ELECTRODE NEAR THE POLE BASE. REFER TO TELSTRA STANDARD 017866P190 SHEET 22 FOR EARTH PIT DETAIL.
ICS ENCLOSURE FRAME SHALL BE BONDED TO THE ELECTRODE USING 35mm² G/Y INSULATE EARTH CONDUCTOR.

UNAPPROVED DRAWING

LEGEND:

- kWh T — POLYPHASE METER, T = TELSTRA
- DISTRIBUTION BOARD
- CIRCUIT BREAKER
- DENOTES NO. OF PHASES
- AUTHORITY FUSES SERVICE

COMPLIANCE BOX
COMPLETED AS PER DESIGN ☐
ALTERATIONS IN RED ☐
NAME (PRINT)
SIGNATURE DATE

FOR CONSTRUCTION

CYIENT
Level 1, 350 Collins Street Melbourne, Victoria 3000 Australia
T +61 3 8605 4815 | F +61 3 8601 1180 | www.cyient.com

ORDER	DRAWN	CHKD	AMENDMENT	EXAM	APPD	DATE	ISS
NA18546.01	MH	PNK	FOR CONSTRUCTION - 30069069W0053CYI - LTE700	SW	SW	21.01.19	1

Telstra

MOBILE NETWORK SITE 321653
GUTHEGA FARM CREEK
AC POWER CONNECTION
OFF MOUNT TATE ROAD, GUTHEGA VILLAGE, NSW 2627

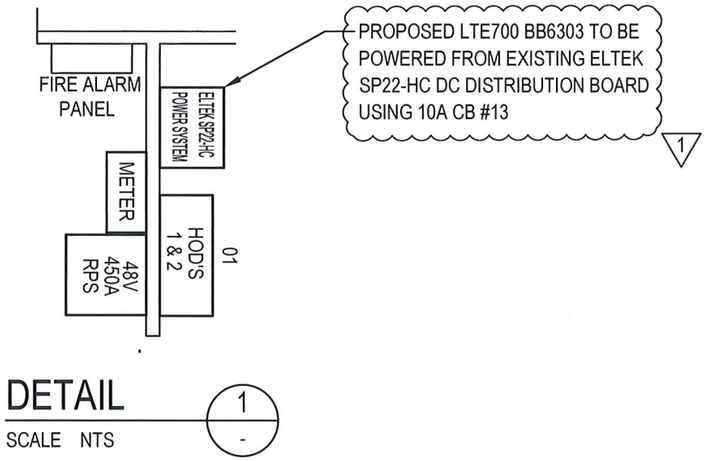
DWG NO. N110757 SHT NO. E2

Cad file: N110757.dwg

DO NOT SCALE

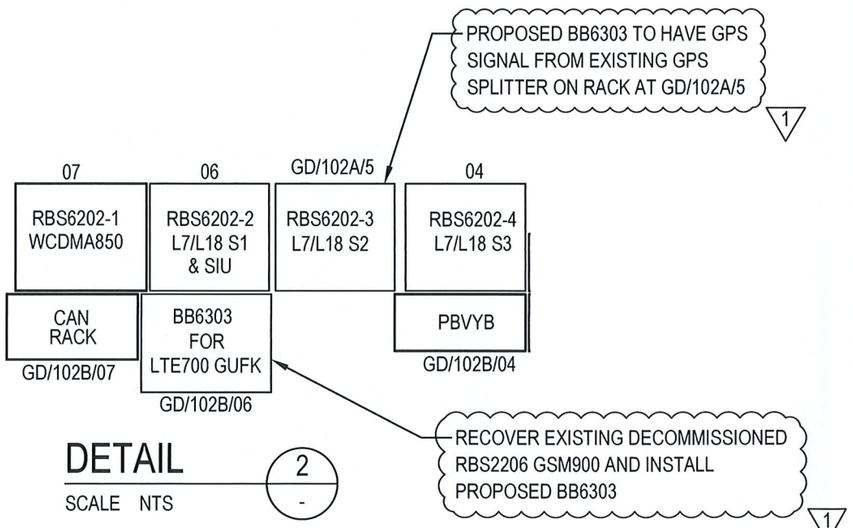
Telstra Networks Wireless program Delivery Template - 017866P02 issue 11.02.12/ 2013

A3



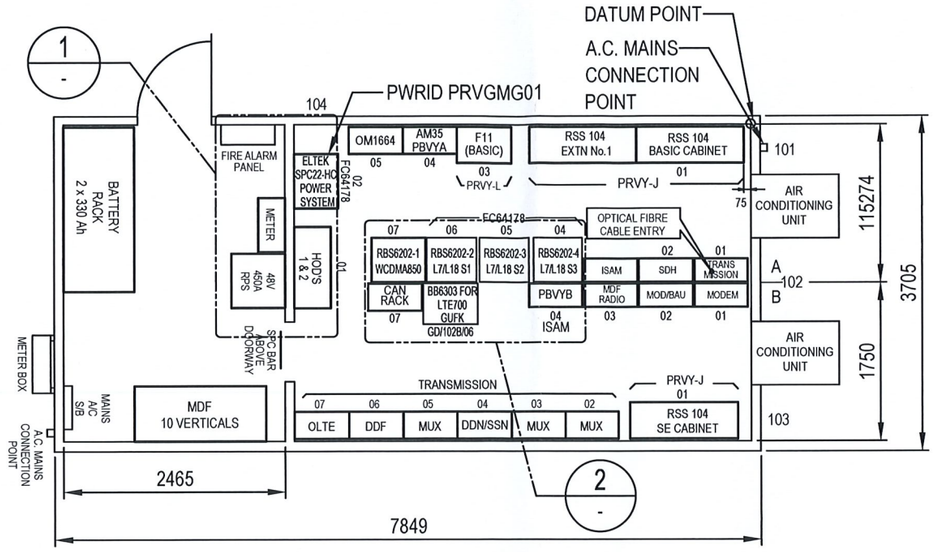
DETAIL 1/-

SCALE NTS



DETAIL 2/-

SCALE NTS



TELECOMMUNICATION EXCHANGE LAYOUT

NOT TO SCALE

UNAPPROVED DRAWING

COMPLIANCE BOX

COMPLETED AS PER DESIGN ☐

ALTERATIONS IN RED ☐

NAME (PRINT)

SIGNATURE DATE

1 FOR CONSTRUCTION

ORDER	DRAWN	CHKD	AMENDMENT	EXAM	APPD	DATE	ISS
NA18546.01	MH	PNK	FOR CONSTRUCTION - 30069069W0053CYI - LTE700	SW	SW	21.01.19	1

CYIENT
Level 1, 350 Collins Street Melbourne, Victoria 3000 Australia
T +61 3 8605 4815 | F +61 3 8601 1180 | www.cyient.com

Telstra

MOBILE NETWORK SITE 321653
GUTHEGA FARM CREEK
TE/RT CONSTRUCTION WORKS
OFF MOUNT TATE ROAD, GUTHEGA VILLAGE, NSW 2627

DWG NO. N110757 SHT NO. E6

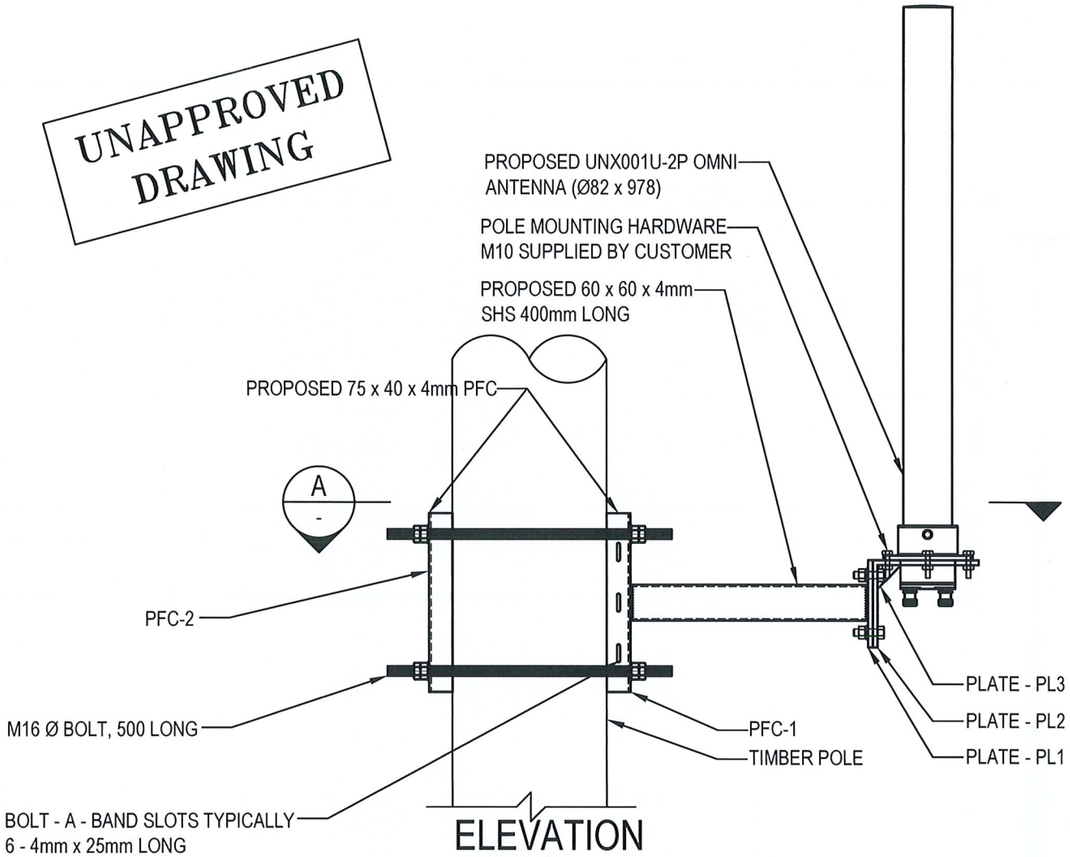
Cad file: N110757.dwg

DO NOT SCALE

Telstra Networks Wireless program Delivery Template - 017866P02 issue 11 02 /12/ 2013

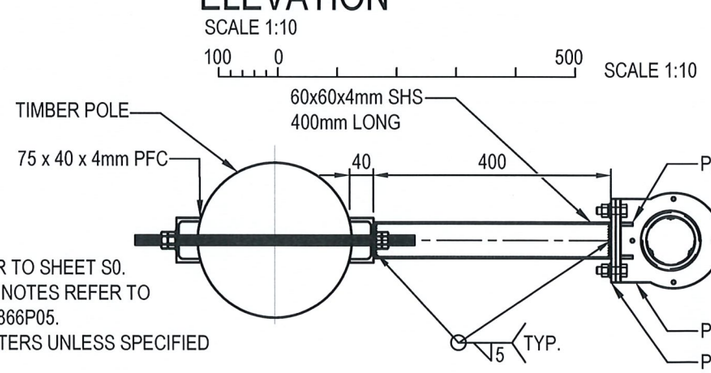
A3

UNAPPROVED DRAWING



ELEVATION

SCALE 1:10



SECTION A-A

SCALE 1:10

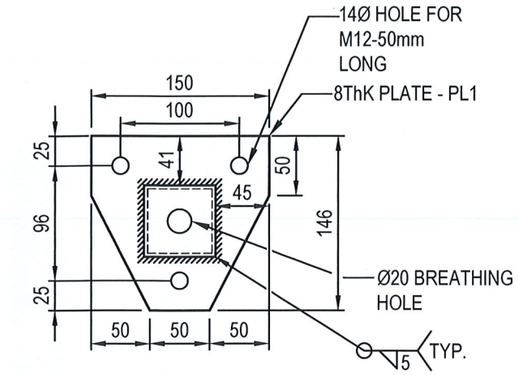
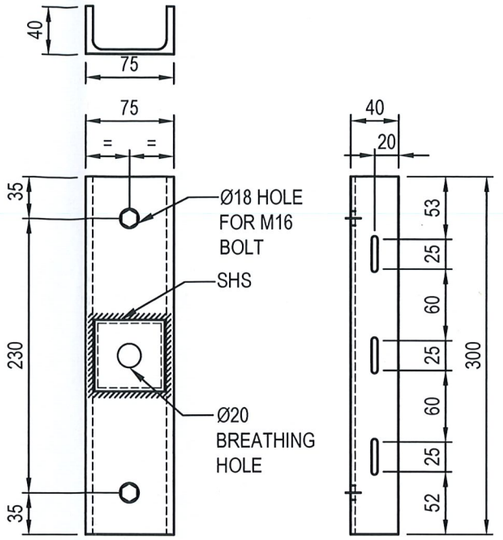


PLATE-PL1

SCALE 1:5



PFC-1

SCALE 1:5

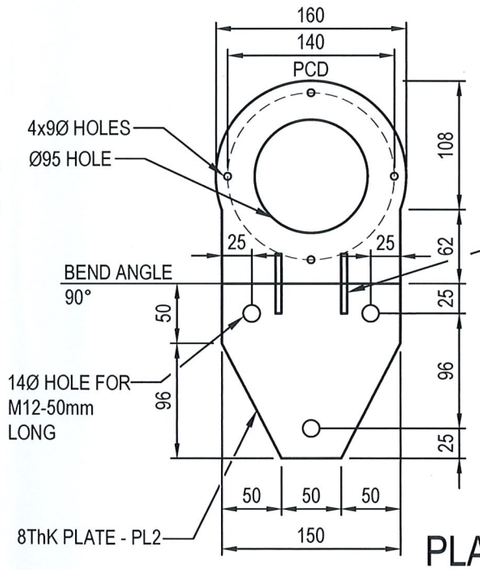
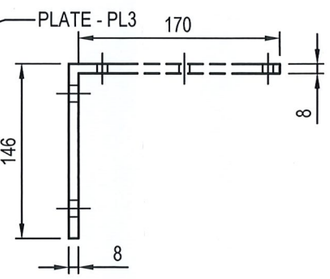


PLATE-PL2

SCALE 1:5



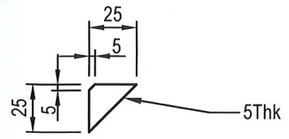
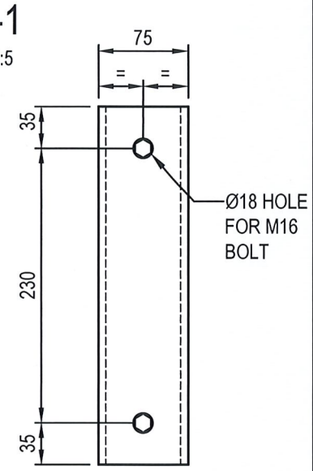


PLATE-PL3

SCALE 1:5



PFC-2

SCALE 1:5

(ONLY FOR TIMBER POLE)

NOTES:

1. FOR SITE SPECIFIC NOTES REFER TO SHEET S0.
2. FOR STANDARD CONSTRUCTION NOTES REFER TO TELSTRA STANDARD DRAWING 017866P05.
3. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS SPECIFIED OTHERWISE.
4. HIGH STRENGTH BOLTS TO AS 1252 (1996) GRADE /S U.N.O. ALL SPRING WASHERS TO AS 1968 (1976).
5. ALL HOLLOW SECTIONS TO AS 1163 (2009) GRADE C250LO U.N.O. ALL HOT ROLLED STEEL TO AS 3678 (1996) & AS 3679 (1996) GRADE 300 U.N.O.
6. ALL STEELWORK TO BE IN ACCORDANCE WITH AS 4100,AS 1551 & AS 1163.
7. ALL WELDING TO BE CATEGORY SP TO AS 1554 (2004) ALL WELDS TO BE CONTINUOUS FILLET WELDS THICKNESS AS SPECIFIED.
8. ALL STEELWORK TO BE HOT DIP GALVANIZED TO AS 4680, AS 1559 & AS 1214.
10. APPLY 2 COATS OF ZINC RICH PAINT TO ALL FRESHLY CUT, WELDED OR DRILLED STEEL ON SITE, REMOVE ALL SWARF, BURRS & SHARP EDGES.
11. POLE DIAMETER TO BE VERIFIED PRIOR TO FABRICATION OF STEEL. ASSUMED MINIMUM Ø200.

COMPLIANCE BOX

COMPLETED AS PER DESIGN ☐

ALTERATIONS IN RED ☐

NAME (PRINT)

SIGNATURE DATE

FOR CONSTRUCTION

CYIENT
Level 1, 350 Collins Street Melbourne, Victoria 3000 Australia
T +61 3 8605 4815 | F +61 3 8601 1180 | www.cyient.com

ORDER	DRAWN	CHKD	AMENDMENT	EXAM	APPD	DATE	ISS
NA18546.01	MH	PNK	FOR CONSTRUCTION - 30069069W0053CYI - LTE700	SW	SW	21.01.19	1

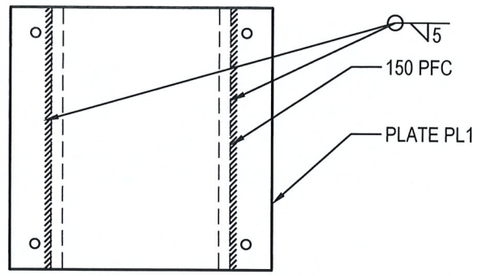
Telstra

MOBILE NETWORK SITE 321653
GUTHEGA FARM CREEK
OMNI ANTENNA MOUNTING DETAILS
OFF MOUNT TATE ROAD, GUTHEGA VILLAGE, NSW 2627

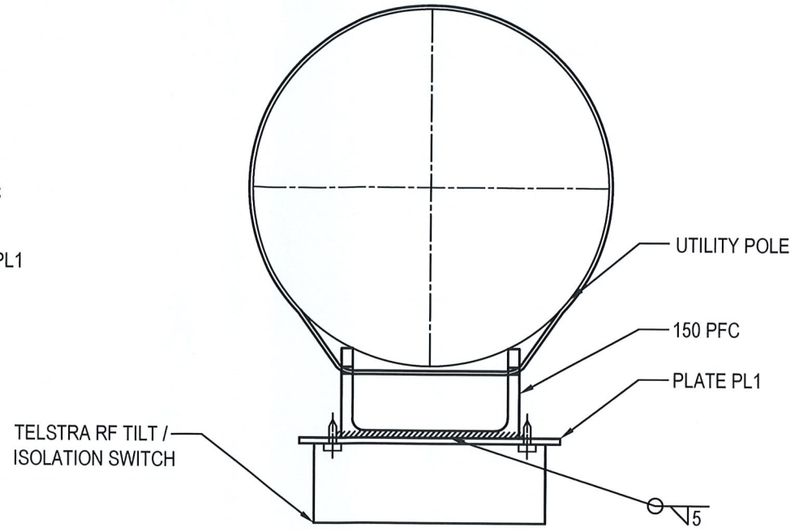
DWG NO. N110757 SHT NO. T3

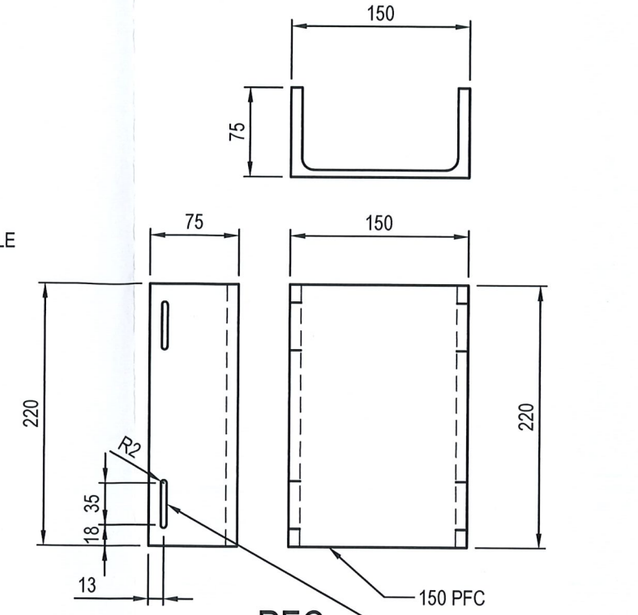
Cad file: N110757.dwg

DO NOT SCALE

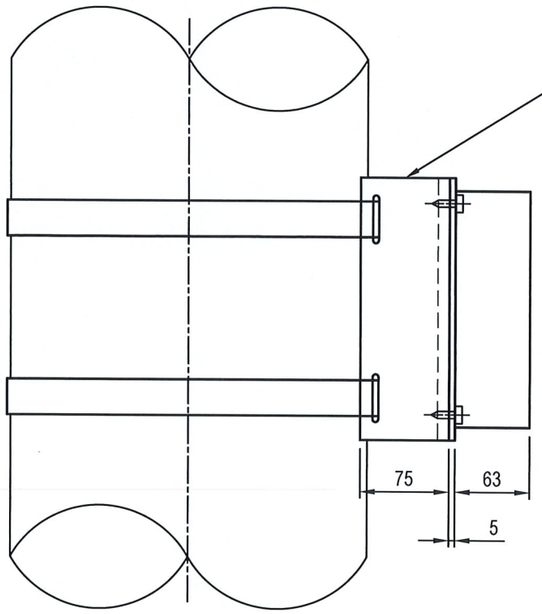


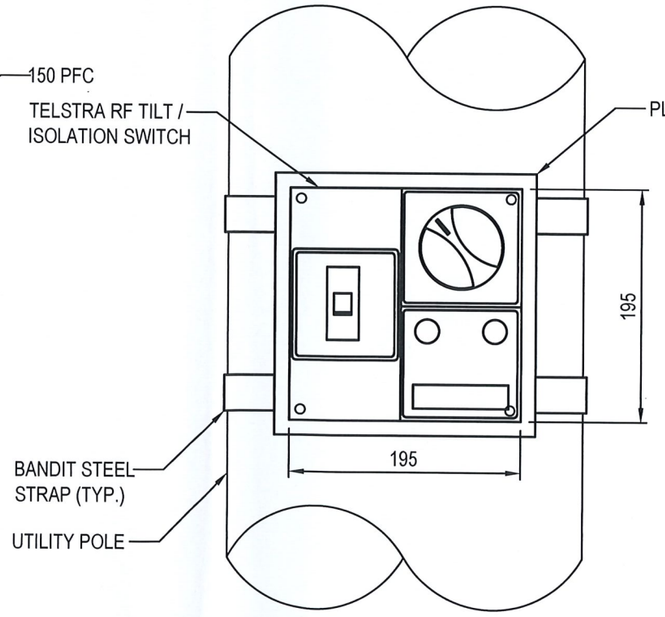
WELD DETAILS





PFC





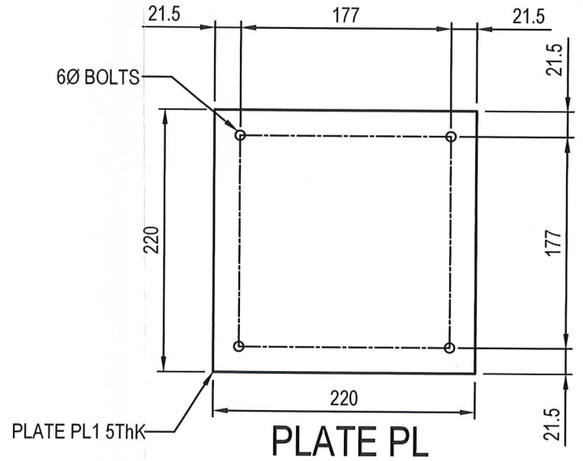


PLATE PL

TELSTRA RF ISOLATION SWITCH MOUNTING BRACKET

SCALE 1:5

COMPLIANCE BOX
COMPLETED AS PER DESIGN ☐
ALTERATIONS IN RED ☐
NAME (PRINT)
SIGNATURE DATE

FOR CONSTRUCTION

UNAPPROVED DRAWING

NOTES:
1. FOR SITE SPECIFIC NOTES REFER TO SHEETS S0 & S0-1.
2. FOR STANDARD CONSTRUCTION NOTES REFER TO TELSTRA STANDARD DRAWING 017866P05.

ORDER	DRAWN	CHKD	AMENDMENT	EXAM	APPD	DATE	ISS
NA18546.01	MH	PNK	FOR CONSTRUCTION - 30069069W0053CYI - LTE700	SW	SW	21.01.19	1

CYIENT
Level 1, 350 Collins Street Melbourne, Victoria 3000 Australia
T +61 3 8605 4815 | F +61 3 8601 1180 | www.cyient.com

Telstra

MOBILE NETWORK SITE 321653
GUTHEGA FARM CREEK
RF ISOLATION SWITCH MOUNTING DETAILS
OFF MOUNT TATE ROAD, GUTHEGA VILLAGE, NSW 2627

DWG NO. N110757 SHT NO. T3-1

Cad file: N110757.dwg

A3

DO NOT SCALE

APPENDIX B

Title

LAND REGISTRY SERVICES **Title Search** InfoTrack

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 233/704184

SEARCH DATE	TIME	EDITION NO	DATE
26/11/2018	9:47 AM	2	1/9/2009

LAND

LOT 233 IN DEPOSITED PLAN 704184
AT GUTHEGA
LOCAL GOVERNMENT AREA SNOWY MONARO REGIONAL
PARISH OF GUTHEGA COUNTY OF WALLACE
TITLE DIAGRAM DP704184

FIRST SCHEDULE

MINISTER ADMINISTERING THE NATIONAL PARKS AND WILDLIFE ACT 1974 (R AE352399)

SECOND SCHEDULE (1 NOTIFICATION)

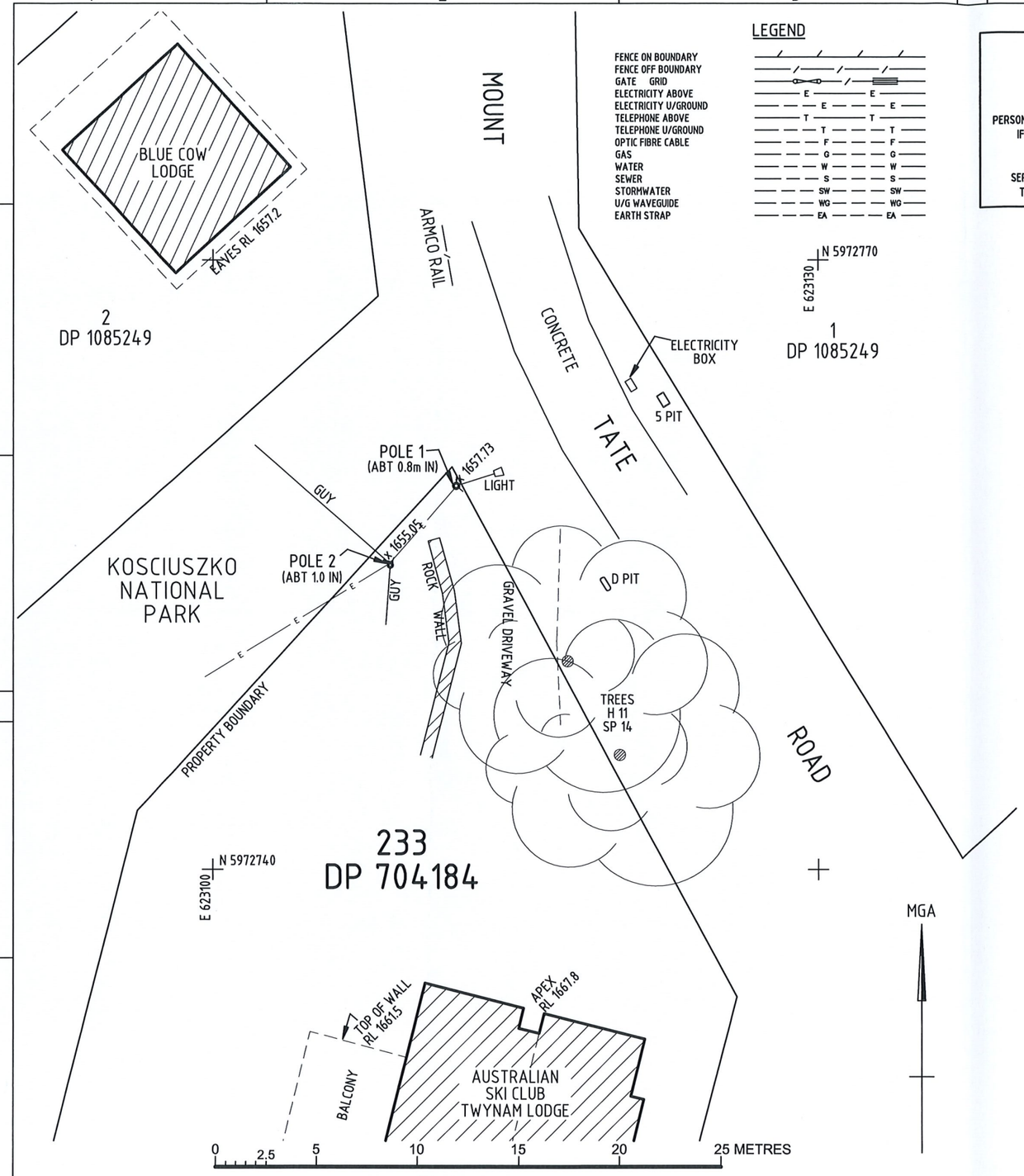
1 AE944517 LEASE TO THE AUSTRALIAN SKI CLUB CO-OPERATIVE LIMITED EXPIRES: 30/6/2028. OPTION OF RENEWAL: THREE PERIODS OF TEN YEARS.

NOTATIONS

THIS LAND MAY BE SUBJECT TO SUBSISTING INTERESTS THAT HAVE NOT BEEN RECORDED. BEFORE DEALING WITH THIS LAND INQUIRIES SHOULD BE MADE WITH NATIONAL PARKS AND WILDLIFE SERVICES

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***



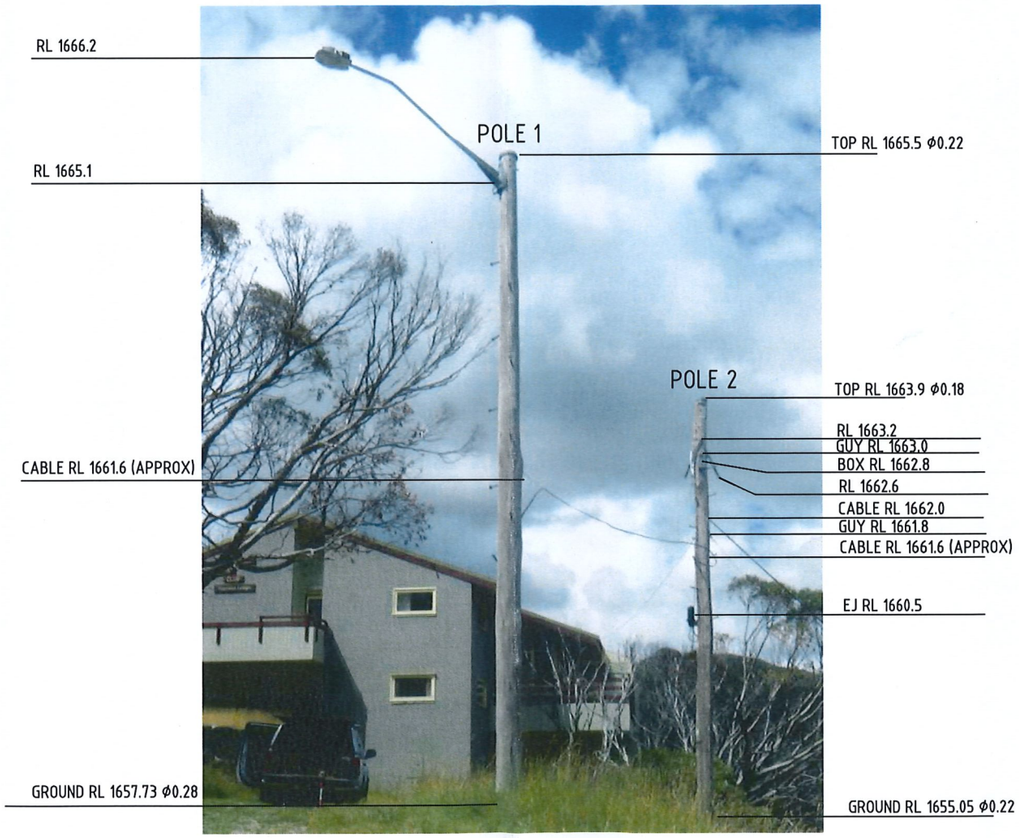
WARNING

ONLY VISIBLE SERVICES ARE DEPICTED ON THIS PLAN.
THIS IS FOR PLANNING PURPOSES ONLY.

PERSONS EXCAVATING THIS SITE MAY BE HELD FINANCIALLY RESPONSIBLE IF SERVICES ARE DAMAGED. MINIMISE THIS RISK BY CONTACTING "DIAL BEFORE YOU DIG" CALL 1100.

SERVICES ON PRIVATE PROPERTY MAY NOT BE ON PUBLIC RECORD. THE SITE OWNER MUST BE CONTACTED FOR THIS INFORMATION.

CO-ORDINATE INFORMATION	POLE 1 AHD RL. 1657.73	G.D.A.	LATITUDE (S) 36.38242° LONGITUDE (E) 148.37259°
		M.G.A. ZONE 55	E: 623112.1 N: 5972758.9
CO-ORDINATE INFORMATION	POLE 2 AHD RL. 1655.05	G.D.A.	LATITUDE (S) 36.38246° LONGITUDE (E) 148.37256°
		M.G.A. ZONE 55	E: 623108.8 N: 5972755.0
COORDINATE SOURCE: L.R.S. Surveyed ±0.05m			



NOTES
1. *All additions and amendments to this plan must be fixed by survey.*
2. *For Boundary information see*

DO NOT SCALE

SURELINE GEOMATICS
SPATIAL SOLUTIONS
25 GEOFFREY STREET
CONSTITUTION HILL NSW 2145
TEL. (02) 9896 8025

SVY	CW/KM	REF	19008

CYIENT

ORDER	DRAWN	CHKD	AMENDMENT	EXAM	APPD	DATE	ISS
NA	KM	CW	Original	SEJ	MC	8/2/19	1

Telstra

MOBILE NETWORK SITE
GUTHEGA
SITE DETAIL PLAN
MOUNT TATE ROAD, KOSCIUSZKO NATIONAL PARK, NSW 2627

DWG NO.	SG19008	SHT NO.	G2 INDEX

A3

APPENDIX C

ARPANSA Report

Environmental EME Report

Location Off Mount Tate Road Guthega Village, KOSCIUSZKO NATIONAL PARK NSW 2627

Date 24/01/2019 **RFNSA No.** 2627023

How does this report work?

This report provides a summary of levels of radiofrequency (RF) electromagnetic energy (EME) around the wireless base station at Off Mount Tate Road Guthega Village, KOSCIUSZKO NATIONAL PARK NSW 2627. These levels have been calculated by Cyient using methodology developed by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA).

A document describing how to interpret this report is available at ARPANSA's website:
A Guide to the Environmental Report.

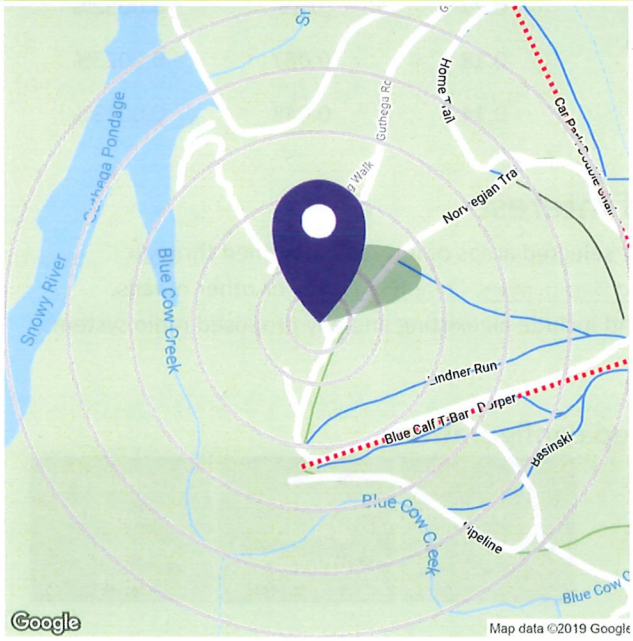
A snapshot of calculated EME levels at this site

There are currently no existing radio systems for this site.

The maximum EME level calculated for the **proposed** changes at this site is

0.93%

out of 100% of the public exposure limit, 9.41m from the location.



EME levels with the proposed changes

Distance from the site	Percentage of the public exposure limit
0-50 m	0.93%
50-100 m	0.081%
100-200 m	0.021%
200-300 m	0.0052%
300-400 m	0.0023%
400-500 m	0.0013%

For additional information please refer to the EME ARPANSA Report annexure for this site which can be found at *http://www.rfnsa.com.au/2627023*.

Radio systems at the site

This base station currently has equipment for transmitting the services listed under the existing configuration. The proposal would modify the base station to include all the services listed under the proposed configuration.

	Existing		Proposed	
Carrier	Systems	Configuration	Systems	Configuration
Telstra			4GX	LTE700 (proposed)

An in-depth look at calculated EME levels at this site

This table provides calculations of RF EME at different distances from the base station for emissions from existing equipment alone and for emissions from existing equipment and proposed equipment combined. All EME levels are relative to 1.5 m above ground and all distances from the site are in 360° circular bands.

	Existing configuration			Proposed configuration		
Distance from the site	Electric field (V/m)	Power density (mW/m^2)	Percentage of the public exposure limit	Electric field (V/m)	Power density (mW/m^2)	Percentage of the public exposure limit
0-50m				3.62	34.82	0.93%
50-100m				1.072	3.047	0.081%
100-200m				0.55	0.79	0.021%
200-300m				0.27	0.19	0.0052%
300-400m				0.18	0.087	0.0023%
400-500m				0.14	0.048	0.0013%

Calculated EME levels at other areas of interest

This table contains calculations of the maximum EME levels at selected areas of interest, identified through consultation requirements of the Communications Alliance Ltd Deployment Code C564:2011 or other means. Calculations are performed over the indicated height range and include all existing and any proposed radio systems for this site.

Maximum cumulative EME level for the proposed configuration

Location	Height range	Electric field (V/m)	Power density (mW/m^2)	Percentage of the public exposure limit
No locations identified				

APPENDIX D

AHIMS Report

AHIMS Web Services (AWS)
Search Result

Purchase Order/Reference : Guthega

Client Service ID : 385141

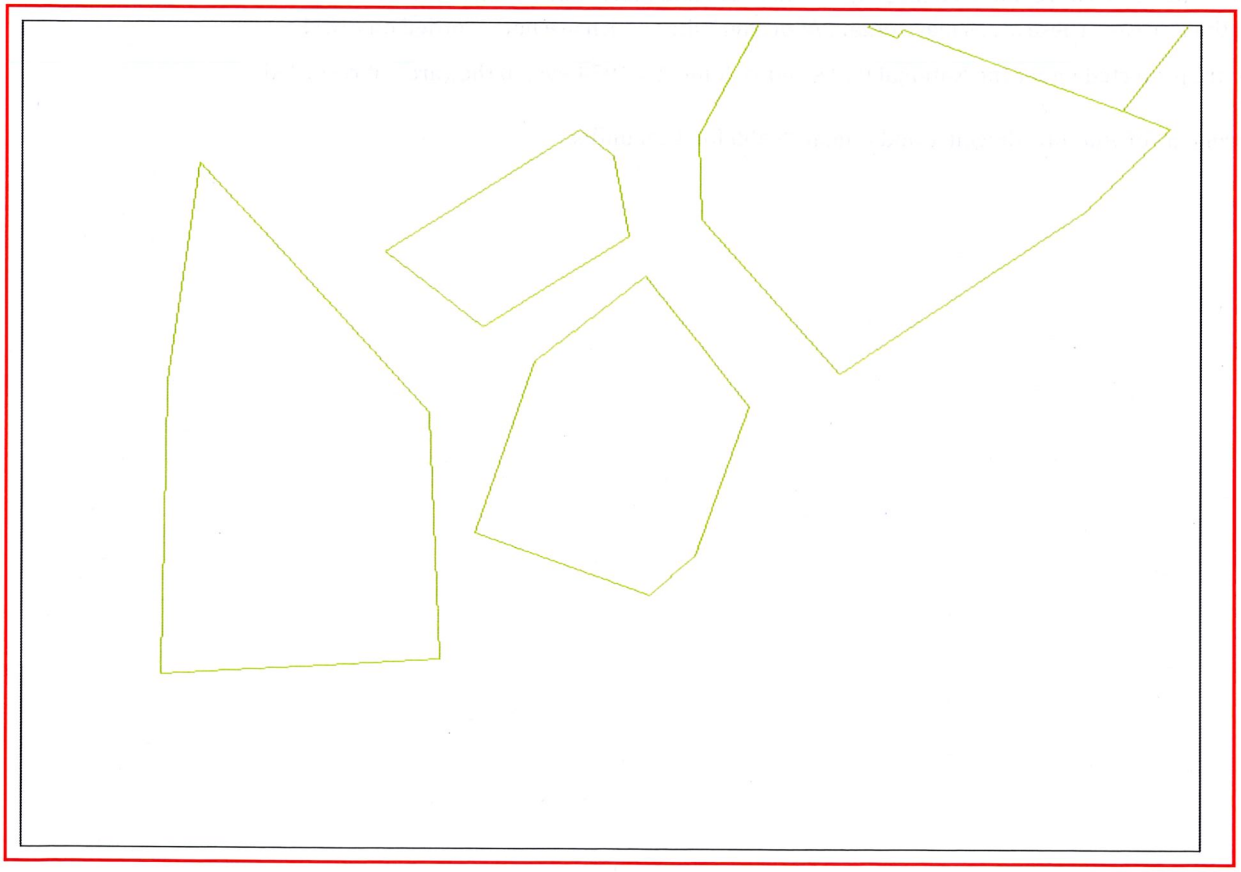
Date: 26 November 2018

Petra Kovacs
92 Chestnut Street
Cremorne Victoria 3121
Attention: Petra Kovacs
Email: petra@petrapatrocinor.com

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 233, DP:DP704184 with a Buffer of 50 meters, conducted by Petra Kovacs on 26 November 2018.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the NSW Government Gazette (http://www.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Office of Environment and Heritage's Aboriginal Heritage Information Unit upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Office of Environment and Heritage and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date .Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

3 Marist Place, Parramatta NSW 2150
Locked Bag 5020 Parramatta NSW 2220
Tel: (02) 9585 6380 Fax: (02) 9873 8599

ABN 30 841 387 271
Email: ahims@environment.nsw.gov.au
Web: www.environment.nsw.gov.au

APPENDIX E

Structural Report

CYIENT

Dated: 24/1/2019
Ref: 2018/CA1081/D

Attachment D: STRUCTURAL ASSESSMENT

Project/Site: TELSTRA MOBILE NETWORK SITE
Site ID: 321653

For: Structural assessment of existing timber pole

Structure: Existing timber pole
Location: Off mount Tate road, Guthega Village, NSW 2627

Assessment Specifications and Assumptions:

Mount Specifications:

Pole Type:	Timber pole
Foundation	Concrete bored pier founded on M and S Class soil.
Drawing Ref:	N110757
Pole Height:	8.0m
Building Height:	N/A
Pole sections	800 mm Circum @ base
Pole Material:	Timber
Bolt Type and Categories:	N/A
Importance Level	2 as per AS1170.0
Design working life	Assumed 50Yrs
Design Capacity	Based on 44 m/s Wind speed as advised by Ausgrid
	Calculated from Drawing 110519

Compliance Standards and Assessment Site Parameters:

AS 4100-1998Steel Structures, AS/NZS 7000 – 2016 Overhead line design	
AS 1170.0.1-2002 & 2- 2011 Structural Wind Design Actions	
Date of Assessment	24/1/19
Reference Documentation	N110757
Region	A3
VR:	44 m/s
Vs:	27 m/s
Terrain Category, Tc:	2.0
Wind Direction Multiplier. Md:	1.0
Topographic Multiplier, Mt:	1.0
Shielding Multiplier Ms:	1.0

Antenna Loading:

AnSS LOADING Table							
CANRAD data downloaded on:	22/11/2018	Site design brief Ref No: *(if applicable)*	NA18546.01				
CANRAD ID Numbers of Antennas and other external ancillaries	Status (Existing *(E)*, Proposed *(P)*, Reserved *(R)*etc)	Type	Mounting Height (M)	Structure Face *(ifapplic.)*	Bearing	Feeder	
						CANRAD ID No:	Type
A1	P	UNX001U-2P OMNI Ø82X978	7.3m	N/A	0^0	Refer to CANRAD	Refer to CANRAD
A2	P	ICS SMALL CELL ENCLOSURE	4.0m	N/A	0^0	Refer to CANRAD	Refer to CANRAD
ISB	P	TELSTRA TILT/ISOLATION BOX	3.5 m	N/A	0^0	Refer to CANRAD	Refer to CANRAD

Ancillaries:
Telstra fibre cable runs inside A/G conduit (P20) to radio unit. Existing O/H power line.

Method of Assessment:
Load comparison with assumed design capacity

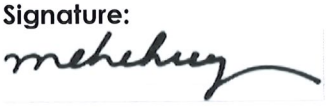
Pole Condition:
During site audit, existing timber pole were inspected as in structurally sound condition. It is expected that engineering judgement and practices will be deployed during the installation of proposed antenna and ancillaries.

Assessment Result Table:

Forces on the poles	Equivalent Tip load due to additional proposed load	Load Capacity
Tip load	Moment on Base =8.05KN.m Moment Arm= Pole height up to tip =7.0m Equivalent tip load=8.05/7.0 = =1.20kN	4 kN

Conclusion:
Assessment on the structural elements and conditions above-mentioned has indicated that the existing timber pole along with mount for Telstra omni antennas is structurally adequate and sufficient to support the existing and proposed loads.

Signature:



Ertaz H. Chowdhury
Structural Engineer
MIE Aust, CPEng, NER, 2214897 RPEQ 9942, EC 40000,
Date: 24th of January 2019

TELSTRA APPROVED DESIGN CONTRACTOR'S COVER LETTER FOR 016159f01 - STRUCTURAL DESIGN CERTIFICATION

This form is to be completed by the Telstra Approved Design Contractor engaged to complete the design works.*

No changes/modifications are permitted to the original text in grey boxes

Telstra Reference:	NA18546.01	Revision No and/or Date:	1/21.1.19
SAED Reference:	30069069WO053	Revision No and/or Date:	
3rd Party Certifier's File Reference (if any)	N/A	Revision No and/or Date:	
3rd Party File Reference (if any)		Revision No and/or Date:	
3rd Party File Reference (if any)	N/A	Revision No and/or Date:	

SITE DETAILS

Telstra Site Name & State:	Guthega Farm Creek	Node Manager Address ID:	321653
Site Address:	Off Mount Tate Road, Guthega Village NSW 2627	Geographic Co ord. : (in format GDA94 XXX.YYYYY	S- -36.38243, E 148.37261
Type of Structure:	Timber pole	Footing Type:	N/A
Brief Description of Project Scope	Structural assessment of timber pole for proposed antennas		

ListingofItems Covered by this Covering Letter

Item	Included	Excluded
New Antenna Support Structure (AnSS)		
Existing AnSS	X	
Upgrade for new or existing AnSS	X	
New extension for AnSS		
Existing extension for AnSS		
Upgrade of extension for AnSS		
New antenna mounting or headframe on AnSS	X	
Existing Telstra antenna mounting or headframe on AnSS		
Ugrade for New or Existing Antenna Mounting or Headframe on AnSS	X	
Mounting for all new external Ancillaries (eg RRUs, TMAs Interface devices etc) on AnSS	X	
New footing for AnSS		
Existing footing for AnSS	X	
Upgrade of footing for AnSS		
New feeder runway (vertical)	X	
Existing feeder runway (vertical)		
New feeder gantry (horizontal) inc footing		
Existing feeder gantry (horizontal)		
New rooftop antenna mounts		
Existing rooftop antenna mounts		
New Equipment Shelter inc footing		
Equipment shelter floor loading		
Roof loading from Telstra equipment shelter ie for rooftop sites		
Mounting for all new external ancillaries on a rooftop		
New and/or existing ground mounted solar array frame		
New and/or existing solar array footing or "roof" mount		
Other items included but not listed above specify below:		

**In all cases, thiscovering letter must be accompanied by completed 016159f01 Structural Design Certification/s for the proposed work.*

DETAILS OF 016159f01 STRUCTURAL DESIGN CERTIFICATION(S) ATTACHED *(Extra rows can be inserted as required)*				
Item	**016159f01 Structural Design Certification/s for (Certification Covered)**	**Completed By Company**	**Revision Number**	**Date Signed**
1	Structural assessment timber pole for proposed Antennas.	**Cyient**	1	24/1/2019
2				
3				
4				
5				
6				
7				
8				

TELSTRA APPROVEDDESIGN CONTRACTOR'S CERTIFICATION

(To be completed by a suitably qualified project representative from the Telstra Approved Design Contactor)

I, *(Project Representative name)#*	Mrinal Ray		
of *(Company Name)*	Cyient Limited	Company Logo *(optional)*	

certify that:

I have reviewed the 016159f01structuraldesigncertification/s attached and all associated drawings for this project.

I certify that attached 016159f01 structural design certification/s has/have been completed by a suitably qualified structural consultant and the structural design works described in the 016159f01 structural design certification(s) and the above drawings have been completed as per the requirements of 016159 Deployment Rules for Telstra Antenna Support Structures and the terms of contract.

I have reviewed the inputs and assumptions adopted by the certifier/s and am satisfied they are correct and suitable for use in this/these 016159f01 certification/s.

Signed:		Dated:	24.1.2019	Project Position (Eg Design Manager)	Project Engineer

 # In all cases, thiscovering letter CANNOT be signed by the same personthat completed the attached 016159f01 Structural Design Certification/s for the proposed work.

016159f01 - STRUCTURAL DESIGN CERTIFICATION FOR TELSTRA

This form is to be completed by the company engaged to actually complete the structural certification.
No changes/modifications to the original text in grey boxes of this 016159f01 template are to be made

Your File Reference:	NA18546.01	Revision No.:	1

Disclaimer:*Thisis Telstra's minimum certification requirement only and does not replace any regulatory requirements for additional documentation to comply with statutory regulations.*

Telstra Site Name & State:	Guthega Farm Creek	Node Manager Address ID:	321653
Site Address:	Off Mount Tate Road, Guthega Village, NSW 2627	Geographic Co ord. : (in format GDA94 XXX.YYYYY)	S -36.38243, E 148.37261
Type of Structure:	Timber pole	Footing Type:	N/A

ListingofItems Covered by this Certification

Item	Included	Excluded
New Antenna Support Structure (AnSS)	Y	
Existing AnSS	Y	
Upgrade for new or existing AnSS	Y	
New extension for AnSS		Y
Existing extension for AnSS		Y
Upgrade of extension for AnSS		Y
New antenna mounting or headframe on AnSS	Y	
Existing antenna mounting or headframe on AnSS		Y
Ugrade for New or Existing Antenna Mounting or Headframe on AnSS		Y
Mounting for all new external Ancillaries (eg RRUs, TMAs Interface devices etc) on AnSS	Y	
New footing for AnSS		Y
Existing footing for AnSS	Y	
Upgrade of footing for AnSS		Y
New feeder runway (vertical)*	Y	
Existing feeder runway (vertical) *		Y
New feeder gantry (horizontal) inc footing		Y
Existing feeder gantry (horizontal)		Y
New rooftop antenna mounts*		Y
Existing rooftop antenna mounts*		Y
New Equipment Shelter inc footing	Y	
Equipment shelter floor loading		Y
Equipment shelter roof loading ie for rooftop sites*		Y
Mounting for all new external ancillaries on a rooftop*		Y
New and/or existing ground mouted solar array frame		Y
New and/or existing solar array footing or "roof" mount		Y
Other Inclusions *Inclusions to this certificate other than listed in the above section must be clearly identified*:		
Other Exclusions *Any other exclusions to this certificate must be clearly identified:*		

**For roof top(installation attached to any kind of buildings) structural components; your certification must cover the building component/s to which structure is attached, attachment steelwork and any fixings of*

DESIGN PARAMETERS			
Structure Type : *(AS 3995) or*	N/A	Structure Height (M):	8.0m
Importance Level: *(AS 1170)*	2	Extension/s (M):	N/A
Wind Region:	A3	Design Life:	50 year
Basic Wind Speed :	45 m/s	Critical Wind Direction/s :	1.0
Wind Direction Multiplier/s#:	1.0	Topographic Multiplier#:	1.0
Terrain Category #:	2.0	Minimum Foundation Bearing Capacity at founding depth of AnSS (kPa)	N/A
List of Australian (or other) Standards referenced for this certification: *(Extra rows can be inserted as required)*			
AS 1170.0, 1 and 2 – 2011 Structural Design Actions		AS 1720.1 and 2 Timber Structure	
AS 3995 1994 Design of Steel Lattice Towers and Masts		016159 – Deployment Rules for Telstra Antenna Support Structures.	
AS/NZS 7000 – 2016 Overhead line design			

Note: *Any other design parameters (e.g.: in relation to Earth quake load, Ice load, flood loads etc) considered for design must be clearly stated in the above table. If more than one value, enter the most critical load combination factor used for design.*

 # Specify for critical wind direction

ASSUMPTIONS
The Proposed structures are built in accordance with the drawings referred to in this document.
That the existing timber framework and mounts have been visually inspected for structural integrity and approved for mounting of the new antennas and TMAs.

UPGRADES			
Previous & Proposed Upgrades to Structure	References	Designed (Y/N)	Installation Confirmed (Y/N)

AnSS LOADING Table							
CANRAD data downloaded on:	*21/1/2019*	Site design brief Ref No: *(if applicable)*	*NA18546.01*				
CANRAD ID Numbers of Antennas and other external ancillaries	Status (Existing *(E)*, Proposed *(P)*, Reserved *(R)*etc)	Type	Mounting Height (M)	Structure Face *(ifapplic.)*	Bearing	Feeder	
						CANRAD ID No:	Type
A1	P	UNX001U-2P OMNI Ø82X978	7.3m	N/A	0^0	Refer to CANRAD	Refer to CANRAD
A2	P	ICS SMALL CELL ENCLOSURE	4.0m	N/A	0^0	Refer to CANRAD	Refer to CANRAD
ISB	P	TELSTRA TILT/ISOLATION BOX	3.5 m	N/A	0^0	Refer to CANRAD	Refer to CANRAD

**Complete this table or reference & include a similar table as Attachment A if preferred.*

Brief Description of Methodolgy of Analysis

	Provide a brief description here of methodology used to arrive at your outcome.
	This can be inserted here or included as an attachment if you prefer. It is anticipated that the assessor will have a limited number of methods she/he generally employs so you may wish to prepare generic methodology statements for use and re-use.
	Refer to the Attachment D

MAXIMUM PERCENTAGE LOADINGSON AnSS	
Lattice Structure - Legs:	N/A
Lattice Structure - Bracing:	N/A
Monopole Structure Body:	<100%
Structure/Footing connection:	N/A
Structure Footing:	<100%
Guy Anchor/Footing:	N/A
Mast guys	N/A
Pole rotation (if applicable)[%]	N/A

[%]Generally only required for monopoles supporting one or more directional microwave antennas. Rotation to be calculated at the level of the M/W antenna/s at Serviceability Wind speed of 27MS^{-1}

DESIGN DRAWINGS / DOCUMENTS REFERENCES			
Drawing Number or Document ID Number	Drawing Sheet Number (if Applicable)	Issue No	Issue Date
Complete 1 line per drawing sheet or document, adding extra rows as necessary			
Any documents or drawings referenced shall be made available to Telstra. If third party documents or drawings are not available then Telstra rep is consulted for further direction			

Attachment ID	Attachment Content	Issue No or Issue Date *(or N/A if not included)*
Attachment A	AnSS Loading Table	N/A
Attachment B	Copy of manual calculations made if any	N/A
Attachment C	For guyed masts provide details of all strand sizes, construction & grade and initial tensions required	N/A
Attachment D	*Structural Assessment by Cyient*	Dated: 24/1/2019 Ref: 2018/CA1081/D
Attachment E	*Complete 1 line per Attachment, adding extra rows or deleting as necessary*	

CERTIFICATION			
Practitioners Name:	**Mohd. Ertaz H. Chowdhury** (On behalf of Cyient)		
Company Name:	Cyient Limited	Company Name:	Cyient Limited
Category of Registration:	MIEAust, CPEng, NPER, RPEQ, EC 40000	Category of Registration:	MIEAust, CPEng, NPER, RPEQ, EC 40000
I hereby certify that,the above works have been designed in accordance with the requirements of relevant Australian Standards, NCC, applicable State/Territory & Local Authority regulations and 016159 – Deployment Rules for Telstra Antenna Support Structures.			
---------- **Signature (Civil/Structural Engineer)**		24 / 1 / 2019 ----------/---------/---------- **(Date)**	

Explanatory Notes

AnSS ***Antenna Support Structure*** *(monopole, lattice tower or guyed lattice mast)*

Intent of Covering Letter: *The intent of the Covering Letter is to provide Telstra with additional surety that the 016159 f01 certification/s provided are complete and correct. Telstra relies on the expertise of our contracted consultants to provide expert oversight in the completion of the Structural Certification. Accordingly it is not appropriate (or permitted) for the 016159 Covering Letter to be signed by the 016159f01 certifier. If your company, acting as our contracted consultant, is also providing the 016159f01 certification then that certification must be reviewed independently and the covering letter must be signed by a suitably experienced and qualified project representative independent of the certifier.*

Specifically:

Covering Letter can only be signed by a Telstra Contracted supplier and must be signed by a suitably qualified Project Representative.

Structural Certification. Signed by the suitably qualified and experienced Structural engineer that completed the certification and who holds the applicable registrations eg RPEQ for works in the state of Queensland.

SITE DETAILS -Structure Type *This needs to be specific eg "30M Keppel Prince J3 Pole" or "100M EPT 45D guyed mast" etc. Details of the AnSSmust be more fully defined in the referenced drawings.*

SITE DETAILS – Footing Type *This relates only to Telstra AnSS's and can be generic eg "bored pier" or "mass concrete" or "rock anchor" etc. Details of the footing/s where known must be fully defined in the referenced drawings.*

Site Details – Other *These are to be as per CANRAD. This information will need to be provided to the 016159f01 certifier/s if they do not have access to CANRAD.*

Brief Description of Project Scope *For a mobiles project this would be for example"greenfields build for WCDMA850 and LTE700" OR "Augmentation of existing site with LTE700 including carrier aggregation with existing LTE1800. For fixed Wireless projects it may be for example "Adding SDH link to site Abcdef" OR "Adding CAN radio service to Customer Abcdef"*

Table of ITEMS COVERED *Each line item must be marked as either included or excluded. Failure to complete this section will result in the automatic rejection of the covering letter or 016159f01 certification.*

OTHER EXCLUSIONS *Record here any items not covered by the certification AND not already clearly excluded in the Table of ITEMS COVERED.*

ASSUMPTIONS *Record here any assumptions made in relation to the analysis/certification. For example this could include soil conditions assumed where no formal geotechnical investigation has been completed. Similarly you should record that all steelwork is assumed to be in "substantially as new" condition unless there is evidence contrary to this. In that case you should provide some explanatory commentary on what has been assumed in regard to actual member capacity compared to equivalent "as new" capacity.*

AnSS LOADING Table *Either complete this table within the 016159f01 formor attach similar table/s and reference it/them on the 016159 f01 form. Alternatives can be, for example, CANRAD reports on antennas and junction devices or PDFs of screen dumps from CANRAD or reference to a drawing in CadLink. The key requirements are:*

1. *A complete list of all antennas (existing, proposed, reserved, spare) which were considered in the analysis.*
2. *For each antenna separately record its CANRAD ID number (eg A7), type, height and bearing and associated feeder type/s and CANRAD ID number (eg F7).*
3. *For each externally mounted ancillary (eg RRU, TMA, Interface box etc) its type, height and CANRAD ID number (eg J7).*
4. *For certifications of antenna mounts provide a complete list of antennas and junction devices relevant to each mount.*
5. *For certifications of shelters and/or floor loadings list the relevant drawings detailing the shelter and/or floor layout.*

Brief Description of Methodolgy of Analysis *Must include sufficient detail that when combined with the completed 016159f01 would allow another certifier to get full understanding of the original design. This shall include but not be limited to:*

- *Any assumptions/ conditions that could not be detailed elsewhere on the certificate*
- *Dynamic loading analysis considered in the design*
- *Harmonic loading analysis considered in the design*
- *Fatigue analysis considered in the design*
- *Any other known information that is not included or referenced on the certificate that influenced the structural design calculations/certification.*

MAXIMUM PERCENTAGE LOADINGS ON AnSS *These %'s are required for future planning purposes only and shall not be relied upon for future certifications. They are to represent the "worst case" for each category of member.*

Third Party Drawings/Documents *Telstra is aware that some third parties may not release fabrication details for items they have designed. The SAED is to consider the potential impact of this on their obligations in regard to*

certifications at the earliest opportunity. As necessary this shall be raised with the Telstra Representative to determine the most appropriate course of action in each instance.

ATTACHMENTS

Attachment A *If all required information pertaining to AnSS loading is included within the completed certification form 016159f01, then an Attachment A is not required. "N/A" shall be inserted against this item in the certification.*

Attachment B *Attach a copy of any manual calculations performed. If no manual calculations were performed insert "N/A" against this item in the certification.*

Attachment C *If the AnSS is a guyed mast attach details of all strand sizes, construction & grade (eg 1 x 32) and initial tensions required. If AnSS not a guyed mast insert"N/A" against this item in the certification.*

Attachments D & E *Complete details in table or delete line items if no other attachments are provided.*

APPENDIX F

Political Donations

Political donations disclosure statement

NSW GOVERNMENT
Department of Planning

Office use only:

Date received: ____/____/____ Planning application no. _____

This form may be used to make a political donations disclosure under section 147(3) of the *Environmental Planning Assessment Act 1979* for applications or public submissions to the Minister or the Director-General.

Please read the following information before filling out the Disclosure Statement on pages 3 and 4 of this form. Also refer to the 'Glossary of terms' provided overleaf (for definitions of terms in *italics* below). Once completed, please attach the completed declaration to your planning application or submission.

Explanatory information

Making a planning application or a public submission to the Minister or the Director-General
Under section 147(3) of the Environmental Planning and Assessment Act 1979 ('the Act') a person:

(a) who makes a *relevant planning application* to the Minister or the Director-General is required to disclose all *reportable political donations* (if any) made within the *relevant period* to anyone by any *person with a financial interest* in the application, or

(b) who makes a *relevant public submission* to the Minister or the Director-General in relation to the application is required to disclose all *reportable political donations* (if any) made within the *relevant period* to anyone by the person making the submission or any *associate of that person*.

How and when do you make a disclosure?
The disclosure to the Minister or the Director-General of a *reportable political donation* under section 147 of the Act is to be made:

(a) in, or in a statement accompanying, the relevant planning application or submission if the donation is made before the application or submission is made, or

(b) if the donation is made afterwards, in a statement of the person to whom the relevant planning application or submission was made within 7 days after the donation is made.

What information needs to be included in a disclosure?
The information requirements of a disclosure of reportable political donations are outlined in section 147(9) of the Act.

Pages 3 and 4 of this document include a Disclosure Statement Template which outlines the information requirements for disclosures to the Minister or to the Director-General of the Department of Planning.

Note: A separate Disclosure Statement Template is available for disclosures to councils.

Warning: A person is guilty of an offence under section 125 of the *Environmental Planning and Assessment Act 1979* in connection with the obligations under section 147 only if the person fails to make a disclosure of a political donation or gift in accordance with section 147 that the person knows, or ought reasonably to know, was made and is required to be disclosed under section 147.

The maximum penalty for any such offence is the maximum penalty under Part 6 of the *Election Funding and Disclosures Act 1981* for making a false statement in a declaration of disclosures lodged under that Part.

Note: The maximum penalty is currently 200 penalty units (currently $22,000) or imprisonment for 12 months, or both.

Glossary of terms (under section 147 of the *Environmental Planning and Assessment Act 1979*)

gift means a gift within the meaning of Part 6 of the *Election Funding and Disclosures Act 1981*. Note. A gift includes a gift of money or the provision of any other valuable thing or service for no consideration or inadequate consideration.

Note: Under section 84(1) of *the Election Funding and Disclosures Act 1981* gift is defined as follows:

gift means any disposition of property made by a person to another person, otherwise than by will, being a disposition made without consideration in money or money's worth or with inadequate consideration, and includes the provision of a service (other than volunteer labour) for no consideration or for inadequate consideration.

local councillor means a councillor (including the mayor) of the council of a local government area.

relevant planning application means:

a) a formal request to the Minister, a council or the Director-General to initiate the making of an environmental planning instrument or development control plan in relation to development on a particular site, or
b) a formal request to the Minister or the Director-General for development on a particular site to be made State significant development or declared a project to which Part 3A applies, or
c) an application for approval of a concept plan or project under Part 3A (or for the modification of a concept plan or of the approval for a project), or
d) an application for development consent under Part 4 (or for the modification of a development consent), or
e) any other application or request under or for the purposes of this Act that is prescribed by the regulations as a relevant planning application,

but does not include:

f) an application for (or for the modification of) a complying development certificate, or
g) an application or request made by a public authority on its own behalf or made on behalf of a public authority, or
h) any other application or request that is excluded from this definition by the regulations.

relevant period is the period commencing 2 years before the application or submission is made and ending when the application is determined.

relevant public submission means a written submission made by a person objecting to or supporting a relevant planning application or any development that would be authorised by the granting of the application.

reportable political donation means a reportable political donation within the meaning of Part 6 of the *Election Funding and Disclosures Act 1981* that is required to be disclosed under that Part. Note. Reportable political donations include those of or above $1,000.

Note: Under section 86 of *the Election Funding and Disclosures Act 1981* reportable political donation is defined as follows:

86 Meaning of "reportable political donation"

(1) For the purposes of this Act, a reportable political donation is:
  (a) in the case of disclosures under this Part by a party, elected member, group or candidate—a political donation of or exceeding $1,000 made to or for the benefit of the party, elected member, group or candidate, or
  (b) in the case of disclosures under this Part by a major political donor—a political donation of or exceeding $1,000:
    (i) made by the major political donor to or for the benefit of a party, elected member, group or candidate, or
    (ii) made to the major political donor.

(2) A political donation of less than an amount specified in subsection (1) made by an entity or other person is to be treated as a reportable political donation if that and other separate political donations made by that entity or other person to the same party, elected member, group, candidate or person within the same financial year (ending 30 June) would, if aggregated, constitute a reportable political donation under subsection (1).

(3) A political donation of less than an amount specified in subsection (1) made by an entity or other person to a party is to be treated as a reportable political donation if that and other separate political donations made by that entity or person to an associated party within the same financial year (ending 30 June) would, if aggregated, constitute a reportable political donation under subsection (1). This subsection does not apply in connection with disclosures of political donations by parties.

(4) For the purposes of subsection (3), parties are associated parties if endorsed candidates of both parties were included in the same group in the last periodic Council election or are to be included in the same group in the next periodic Council election.

a person has a financial interest in a relevant planning application if:

a) the person is the applicant or the person on whose behalf the application is made, or
b) the person is an owner of the site to which the application relates or has entered into an agreement to acquire the site or any part of it, or
c) the person is associated with a person referred to in paragraph (a) or (b) and is likely to obtain a financial gain if development that would be authorised by the application is authorised or carried out (other than a gain merely as a shareholder in a company listed on a stock exchange), or
d) the person has any other interest relating to the application, the site or the owner of the site that is prescribed by the regulations.

persons are associated with each other if:

a) they carry on a business together in connection with the relevant planning application (in the case of the making of any such application) or they carry on a business together that may be affected by the granting of the application (in the case of a relevant planning submission), or
b) they are related bodies corporate under the *Corporations Act 2001* of the Commonwealth, or
c) one is a director of a corporation and the other is any such related corporation or a director of any such related corporation, or
d) they have any other relationship prescribed by the regulations.

Political Donations Disclosure Statement to Minister or the Director-General

If you are required under section 147(3) of the Environmental Planning and Assessment Act 1979 *to disclose any political donations (see Page 1 for details), please fill in this form and sign below.*

Disclosure statement details

Name of person making this disclosure	Planning application reference (e.g. DA number, planning application title or reference, property address or other description)
Petra Kovacs (on behalf of Telstra Corporation Ltd	**Located off Mount Tate Road, Guthega Village NSW 2624 (Lot 233 DP704184)**

Your interest in the planning application (circle relevant option below)

You are the APPLICANT **YES** / **NO** OR You are a PERSON MAKING A SUBMISSION IN RELATION TO AN APPLICATION **YES** / **NO**

Reportable political donations made by person making this declaration or by other relevant persons

** State below any reportable political donations **you have made** over the 'relevant period' (see glossary on page 2). If the donation was made by an entity (and not by you as an individual) include the Australian Business Number (ABN).*

** If you are the **applicant** of a relevant planning application state below any reportable political donations that you know, or ought reasonably to know, were made by any persons with a financial interest in the planning application, OR*

** If you are a **person making a submission** in relation to an application, state below any reportable political donations that you know, or ought reasonably to know, were made by an associate.*

Name of donor (or ABN if an entity)	Donor's residential address or entity's registered address or other official office of the donor	Name of party or person for whose benefit the donation was made	Date donation made	Amount/ value of donation
N/A	N/A	N/A	N/A	N/A

Please list all reportable political donations—additional space is provided overleaf if required.

By signing below, I/we hereby declare that all information contained within this statement is accurate at the time of signing.

Signature(s) and Date Petra Kovacs

Name(s) Petra Kovacs 17 April 2019

Cont...

Political Donations Disclosure Statement to Minister or the Director-General

Name of donor (or ABN if an entity)	Donor's residential address or entity's registered address or other official office of the donor	Name of party or person for whose benefit the donation was made	Date donation made	Amount/ value of donation
N/A	N/A	N/A	N/A	N/A