Proposed Amplitel Mobile Telecommunications Facility

Telstra Gilgandra Exchange
76 Wamboin Street, Gilgandra NSW 2827
(Lot 1/-/DP866465)

Statement of Environmental Effects

02 May 2025

ServiceStream

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Prepared by: Service Stream Limited

On behalf of: Amplitel Pty Ltd.

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1 Introduction

1.1 Executive Summary

This Statement of Environmental Effects (SEE) has been prepared by Service Stream who has been engaged by Amplitel Pty Ltd (Amplitel) for the roll out of the Telstra telecommunications network. Amplitel are part of the Telstra Group and provide wireless infrastructure for mobile carriers across Australia. The proposed site is located at 76 Wamboin Street Gilgandra NSW 2827. The proposed development will enable Telstra as a licensed carrier to provide adequate coverage to their customers in the Gilgandra township area.

Gilgandra is a regional centre in the central west of New South Wales, the town is located at the junction of the Newell, Oxley and Castlereagh Highways, approximately halfway between Brisbane and Melbourne, 40 minutes north of the regional city of Dubbo.

The local economy has historically been driven by the agricultural industry and associated service industries. Today the town itself has become a centre for aged care and health services for the wider area.

In recent years the township has expanded with residential developments to the west and south of the town. This population increase combined with businesses increased reliance on the Telstra mobile network has resulted in coverage and capacity shortcomings across the town.

To resolve these shortcomings, Amplitel propose to construct a new 45m monopole at the existing Telstra Exchange at 76 Wamboin Street. The new facility will deliver improved 4G and 5G coverage and capacity to the Gilgandra township area.

This Development Application has been prepared in accordance with relevant statutory and regulatory requirements. Potential impacts associated with this development while visible are not expected to have a significant impact on the broader area.

In this instance, the socio-economic benefits to the local community outweigh the perceived impact of such development and include:

- Providing good network coverage and capacity, including in-building coverage, to the community.
- Meeting the community's increasing demand for quality and reliable mobile phone service.
- Providing infrastructure to meet the community's social, business and educational needs.
- Improving the reliability of Telstra's incoming and outgoing services to Emergency services organizations and road users to assist in the event of an emergency.
- Increasing the level of competition in telecommunications, resulting in competitive prices, economic efficiency and increased consumer choice.

1.2 Purpose of the Development Application

The proposed base station will improve coverage and capacity to the local community, including local and home businesses in the area who require mobile and wireless broadband services.

The facility will bring the poor mobile services in Gilgandra up to date with the majority of urban areas in the State, where reliable mobile coverage has become a basic expectation. In turn, this will enable Telstra to continue to enhance and expand its mobile services to customers in the area.

1.3 Telstra – Company Profile

Telstra is Australia's leading telecommunications and information services company, with one of the best-known brands in the country. Telstra offers a full range of services and competes in all telecommunications markets throughout Australia, and provides 17.7 million retail mobile services, 4.9 million retail fixed voice services and 3.6 million retail fixed broadband services.

Some of Telstra's main activities include the provision of:

- Basic access services to most homes and businesses in Australia;
- Local and long-distance telephone calls in Australia and international calls to and from Australia;
- Mobile telecommunications services;
- Broadband access and content;
- A comprehensive range of data and internet services, including through Telstra Big Pond®, Australia's leading internet service provider.

One of Telstra's major strengths in providing integrated telecommunications services is its vast geographical coverage through both its fixed and mobile network infrastructure. This network infrastructure underpins the carriage and termination of the majority of Australia's domestic and international voice and data telephony traffic.

For more information about Telstra's company profile, follow this link: Telstra company profile.

2 The Proposed Facility

2.1 Site Location and Surrounds

The subject site for the proposed development is located at 76 Wamboin Street Gilgandra NSW 2827. The site is centrally located within the town approximately 500m west of the main commercial district. The council chambers are directly north, on the opposite side of Wamboin Street, and the swimming pool is located to the south.

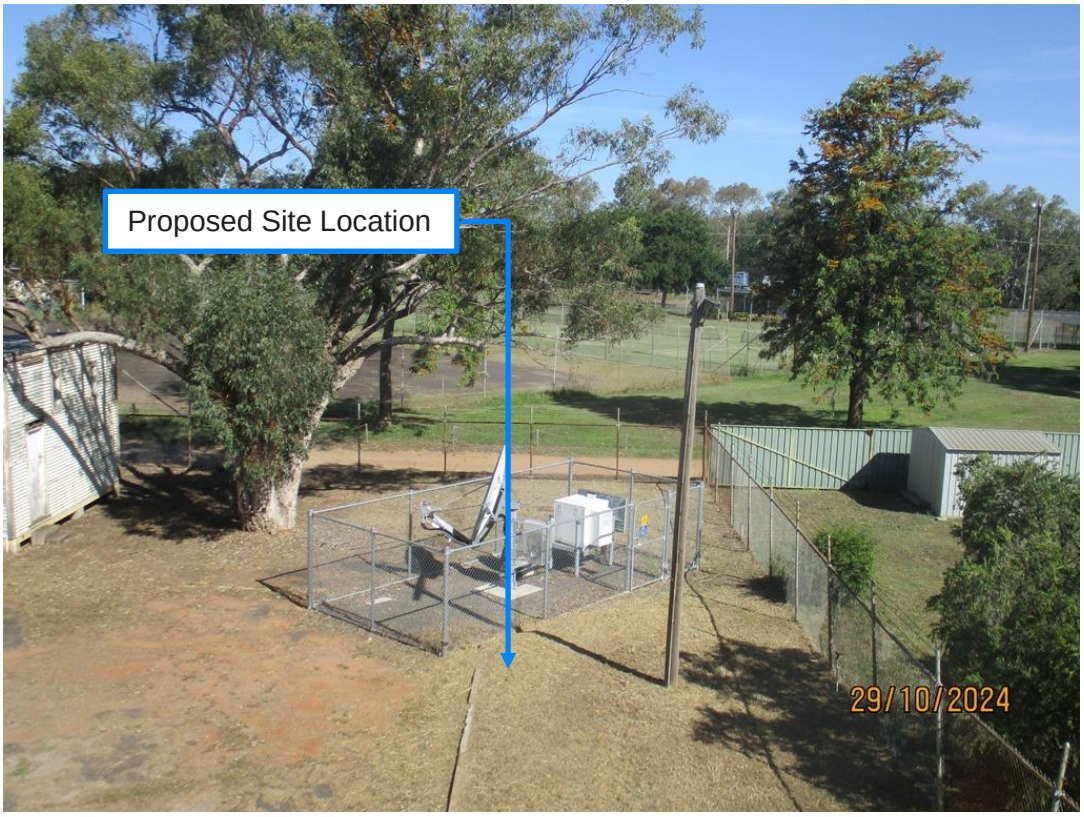
There are residential buildings adjacent to the proposed site to the east and west. To limit the visual impact on these properties a monopole design has been utilised, and the height of the structure has been kept to the minimum required to meet coverage requirements in the area.

FIGURES 1-3 BELOW IDENTIFY THE PROPOSED LOCATION ON THE PROPERTY AND WITHIN THE CONTEXT OF ITS LOCAL AREA.

FIGURE 1: VIEW OF SUBJECT LOT AND IMMEDIATE SURROUNDINGS

FIGURE 2: VIEW FACING THE PROPOSED SITE FROM WAMBOIN STREET SHOWING THE EXISTING EQUIPMENT SHELTER

FIGURE 3: VIEW FROM THE EXCHANGE BUILDING LOOKING SOUTH TOWARDS THE SWIMMING POOL



2.2 Description of the Proposal

A detailed description of the components of the facility are as follows (also see attached design drawings in **Appendix A**):

Installation details:

- One (1) 45 metre monopole with a triangular headframe (overall height 45.00 metres including the antennas);
- Six (6) Telstra panel antennas (2533mm H x 350mm W x 208mm D) mounted on the triangular headframe;
- Three (3) Telstra 5G panel antennas (793mm H x 408mm W x 235mm D) mounted on the triangular headframe;
- Removal of existing Telstra small cell infrastructure at the site.
- Installation of equipment within the existing exchange building
- Ancillary equipment associated with operation of the facility, including remote radio units, cable trays, cabling, safe access methods, earthing, electrical works and air-conditioning equipment; and

Power and Fibre

Power and Fibre will be obtained from the existing points of supply on the property and all internal equipment will be located within the existing exchange building. A power upgrade may be required this will be confirmed during the detailed design stage of the proposal.

2.3 Construction of the Facility

Construction activities will involve the following:

- Excavation of the monopole foundation;
- Delivery and pouring of concrete on site for the monopole footings;
- Installation of conduit within trenches, followed by installation of cables within conduits;
- Delivery of the monopole sections to site;
- Separate installation of each monopole section;
- Attachment of antenna mounts, headframe, cables, cable ladder to units and antenna on to the monopole;
- Installation of the earth grid and connection of the base station to the electrical supply and optical fibre cables;
- Installation and commissioning of the base station radio equipment;

The daily construction process will require three to six workers on site and an average of four to six vehicle movements. The general construction timeframe, weather dependent, is approximately 5 weeks.

2.4 Need for Proposal

The proposal is intended to improve mobile network coverage and capacity in the Gilgandra area, ensuring reliable telecommunications services are available. The facility will meet the current coverage gap and provide the most recent, high-quality Telstra mobile and data coverage to the many homes and businesses in the area and assist with meeting the capacity demands.

The proposed site is seen as a long-term investment by Telstra and is anticipated to meet predicted future coverage needs of population growth in the area. To ensure consumers continue to receive high quality services and competitive pricing Telstra requires a facility at Gilgandra.

The significant growth in demand for mobile facilities and broadband means establishing a facility at this location is essential. The rapid evolution of the sector resulting in increased usage of smart phones, tablets and other wireless devices continues to place further demand on the network.

Coverage is the ability for a base station to provide service to an area, whereas capacity is the ability for a base station to deal with mobile traffic, or demand. Voice and data connections are known as traffic and each base station has a limit as to the amount of traffic it can carry. When traffic grows, new technologies like 5G and additional technology is added to the existing site. When a site has been upgraded to its technical limit, and when the capacity is tested, often at peak times, customers then experience inconsistent service, call dropouts and/or slow data speeds.

Telstra currently has two telecommunications facilities servicing the Gilgandra township area, these are the facility on the GrainCorp Silo, off the Newell Highway, to the south of town and a small cell facility located at the subject site.

The two existing Telstra facilities are technically not capable of meeting the current demand for voice and data coverage within Gilgandra.

A new facility at Wamboin Street will resolve the current Telstra coverage deficiencies in Gilgandra, particularly in areas such as ‘The Pines’ residential development, to the west of town where, Telstra coverage has been lacking.

The 45m monopole will provide the flexibility to upgrade and modify the facility to meet future coverage demands in the area as Gilgandra expands and develops as a town.

The need to deliver quality service in the local area in conjunction with the exponential growth in the demand of network data and broadband services (such as tablets, smart phones and data cards) means that services will continue to be restricted unless the facility at this location is successfully developed.

Telecommunications carriers, such as Telstra, must continue to provide a level of service that customers have come to expect. This development is therefore required to meet the obligation of licensed telecommunications carriers to provide adequate coverage and service to its customers.

2.5 Consequences of not proceeding

The consequences of the proposal not proceeding would be:

- Continued poor coverage in Gilgandra;
- Continued poor telecommunications services in general locality, including slow data speeds, poor reception and unexpected call dropouts;
- Lack of coverage in ‘The Pines’ residential area;
- Lack of improvement in most up-to-date mobile network services including 5G in the area; and
- Reduced competition in the telecommunications industry, potentially resulting in uncompetitive practices, increased costs to consumers and reduced levels of service to customers.

3 Site Selection and Justification

As part of Amplitel’s site acquisition procedure, a comprehensive site selection process has been undertaken in order to find an appropriate location for the new facility in Gilgandra. This included looking for ‘colocation’

opportunities, in accordance with the *Telecommunications Code of Practice 2021*, as well as low impact solutions and new Greenfield sites.

The specific constraints of this project, including the built environment and the coverage target area resulted in limited site options. However, the selection process involved a number of stages and entailed identifying potential candidates by assessing each under the following considerations:

Planning:

- In accordance with the relevant Acts and Environmental Planning Instruments (EPI);
- Acceptability of the proposal to Gilgandra Shire Council and the local community;
- Location in relation to sensitive land uses such as schools, childcare centres, hospitals and nursing homes which on some occasions is difficult to avoid;
- Visual aspect and amenity;
- Compliance with the EME standards mandated by the Australian Communications and Media Authority (ACMA);
- Opportunities to collocate facilities where possible; and
- Low impact solutions.

Property:

- Availability of suitable land and likelihood of the owner entering into a tenure agreement and providing access during construction and operation.

Engineering:

- Feasibility of construction and availability of infrastructure such as access, power and fibre.

Radio Frequency Coverage and Objectives:

- Ability to be linked to the existing Telstra network and meet the radio frequency coverage objectives for the area.

3.1 Options Considered

Opportunities to Co-locate

State, Federal and Local government legislation encourages the use of existing telecommunication facilities for the colocation of antennas. In particular, Principle 2 of the Telecommunications Facilities Guideline, Including Broadband (**the Guideline**) recommends that new telecommunications facilities be co-located wherever practical. This could be achieved by locating the new facility on an existing telecommunications tower or extending the height of an existing tower to accommodate additional communications infrastructure. If it is not feasible, consideration should be given to locating the new facility on an existing building, utility structure or other structure.

As such, Amplitel's standard site selection process flags potential co-location options during its initial stage of candidate selection.

The first step with respect to co-location is to identify existing telecommunications towers/poles within or in the vicinity of the target area and assess the potential of each existing tower/pole to accommodate an additional telecommunications infrastructure capable of meeting the desired service requirements for the target area.

Due to the specific coverage constraints, there is a lack of co-location options. As depicted below in **Figure 4** and **Table 1**, the closest existing telecommunications facilities are unsuitable, and as such a new facility is required to improve coverage and capacity to the Gilgandra target area.

FIGURE 4 EXISTING SITES WITHIN THE TARGET COVERAGE AREA

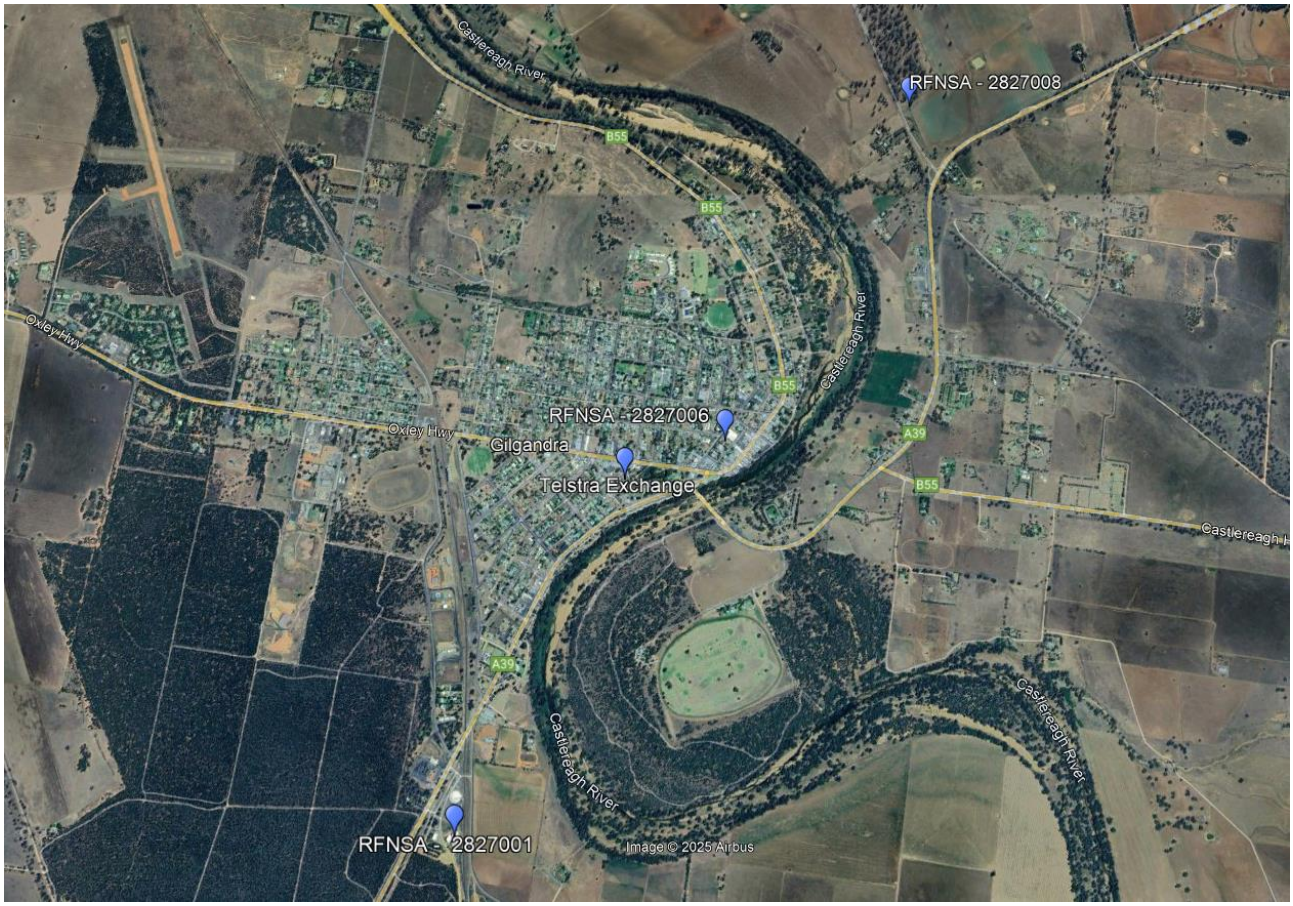


TABLE 1: OPPORTUNITIES TO CO-LOCATE

RFNSA	Description	Structure Owner	Existing Equipment	Address	Reason for dismissal
2827001	Graincorp Silo	Graincorp	Telstra Vodafone NSW TA	Newell Highway, Gilgandra NSW 2827	The existing Telstra facility servicing Gilgandra is located on the Graincorp silos. This site structurally cannot support any additional equipment. The location of the site is too far away from the township area to provide the optimum level of coverage.
2827006	Lattice tower	NSW Ambulance Service	Optus	16 Morris Street, Gilgandra NSW 2827	The facility is an older style lattice tower that is structurally unable to support additional equipment. Upgrading the facility is not feasible due to lack of available space for equipment shelters.
2827008	40m monopole	NBN	NBN	387-417 Newell Highway, Gilgandra	The NBN tower is 2.5km north of the proposed facility at Wamboin Street and outside the Telstra target coverage area. the location of the NBN tower would

				NSW 2827	only offer one sector of coverage to the commercial precinct of town and new residential developments on the western side of the township.

Upgrading an existing facility, on the periphery of the township, will not resolve the coverage and capacity that currently exist with the Telstra network in the area. A new tower in the centre of town will utilise all three sectors and is the most efficient way to resolve the current short comings of the Telstra network in the area.

Principle 5 of the Guideline requires that a proponent undertake an alternative site assessment for new mobile phone base stations. A specific number of alternative sites is not nominated. Principle 5 recommends that an adequate number of alternative sites be assessed "as a demonstration of good faith." These options are discussed further below.

Low Impact Solutions

Once it was understood that a new site was required, an assessment process was undertaken to identify any potential low impact solutions in the area. These solutions include utilising existing tall structures like buildings. Buildings and existing towers within the township were investigated however all were rejected due to insufficient height and inability to meet the coverage objectives. Telstra advised that in order to service the target area, a height of 45m, the equivalent of a 9-10 storey building is required to meet service and coverage requirements. Existing buildings in Gilgandra typically do not exceed 2-3 storeys in height, and as such a low impact roof top site was not a possibility.

Greenfield Sites

When the site assessment process reveals that a Greenfield site is the only viable option, consideration is given to the most appropriate sites located within rural, industrial and infrastructure land characteristics are preferred. Locations within large open space areas ranks close behind these other land use categories. Locations within residential areas close to dwellings should be avoided where possible, in order to optimise community acceptance and minimise impacts on residential amenity and are typically only considered where no other more suitable locations are available.

Other considerations involve the ability to service the target area, availability of tenure, the physical and special requirements for the construction of such a facility as well as access for maintenance purposes and access to power and fibre. The potential impact of the proposed development upon visual amenity and surrounding residential development has also been taken into account.

Telstra's site selection process was limited due to the specific coverage constraints meaning the search area was restricted. **Figure 5** and **Table 3** below provide an overview of the greenfield candidates considered as part of this proposal.

FIGURE 5 AERIAL VIEW OF GREENFIELD OPTIONS CONSIDERED (PRIME TELSTRA EXCHANGE BUILDING – IN GREEN)

TABLE 3: GREENFIELD CANDIDATES

Candidate	Site Details	Facility Type	Description
Candidate G	6 Castlereagh Street, Gilgandra NSW 2827	45m monopole	The site houses the Gilgandra Museum and tourist information centre. The council indicated the site was unsuitable during pre DA consultation. Additionally, the site would not meet coverage requirements.
Candidate H	63-67 Warren Road, Gilgandra NSW 2827	45m monopole	The site does not meet Telstra coverage objectives The proposed location at the showgrounds is heritage listed which would complicate future upgrades at the site.
Council Wastewater Treatment Plant	Chelmsford Avenue, Gilgandra NSW 2827	45m monopole	The site would not meet coverage requirements, the site is on the outskirts of the town, one sector would be covering the majority of the commercial and residential area of Gilgandra.
Council-owned Allotment (271 DP40883)	7-13 Hargraves Lane, Gilgandra NSW 2827	45m monopole	A 45m pole at this location will not meet Telstra coverage objectives.
Telstra Exchange Building	76 Wamboin Street, Gilgandra NSW 2827	45m monopole	This site was selected as the most suitable location for a new tower. The central location provides the best possible outcome for improving the Telstra network in Gilgandra.
New Tower at GrainCorp Property	6406 Newell Highway, Gilgandra NSW 2827	45m monopole	Telstra equipment is currently located on the silos. The location of the site limits its ability to be upgraded to improve cover over the whole of Gilgandra and The Pines residential area.

3.2 Preferred Option

As demonstrated from the site selection process a number of alternative sites were investigated, which has concluded that the existing Telstra exchange site at 76 Wamboin Street is the most appropriate location for the new facility. The preferred nominated candidate was selected based on buildability, radiofrequency objectives and ability to secure tenue, as noted in Section 3 of this report.

In summary, the site selection process set out above highlighted the following about the proposed site:

- the site is the most practicable solution to addressing the coverage gap and capacity issues in the Gilgandra area.
- the site utilises the existing Telstra Exchange property, which allows the proposal to take advantage of existing infrastructure like the exchange building, access, power and fibre.
- it will meet the radio frequency objectives of Telstra's network, giving the required coverage within the area by allowing all three antenna sectors to operate effectively.
- the preference is always to located facilities away from residential uses, however after significant scoping of the area a new facility at the proposed location was the only feasible option to provide coverage and capacity to the area; and

- it is acknowledged the proposal will have a visual presence in the immediate area and is on the edge of a general residential zoned area. The site already houses telecommunications infrastructure and will not change the existing use of the land.

In summary, a thorough examination of potential telecommunications base station sites in the surrounding area has been undertaken. There were no suitable options for colocation, and other potential Greenfield sites were ruled out because of either inability to secure tenure or RF issues.

Amplitel has concluded that a new facility at the above-described location at 76 Wamboin Street is the most appropriate location in order to service the greater Gilgandra area, including 'The Pines' residential development.

4 Environmental Assessment

Federal and State legislation and guidelines have been created to guide the development of telecommunications infrastructure in Australia.

4.1 Commonwealth Legislation

Telecommunications Act 1997

The *Telecommunications Act 1997* (TA) came into operation in July 1997. The TA sets up a framework for regulating the actions of telecommunications carriers and service providers. Telstra is a licensed carrier under the TA.

Schedule 3 – Carriers' powers and immunities, of the TA, specifies 'authorised activities' that a carrier is empowered to carry out without approval under NSW legislation. These activities include the inspection of land, and the installation and maintenance of certain facilities.

A Carrier's power to install a facility is contingent upon:

> *"the facility being a low-impact facility (as defined by the Telecommunications (Low-Impact Facilities) Determination 1997 (as amended)".*

In this case, the proposal involves the installation of a new monopole structure and therefore does not constitute a low-impact facility under the *Telecommunications (Low-Impact Facilities) Determination 1997* (as amended). As the proposed facility does not meet the criteria mentioned above, the proposal is not exempt from State and local planning laws and must obtain development consent under NSW State legislation from the consent authority. The consent authority in this instance is **Gilgandra Shire Council.**

Telecommunications Code of Practice 2021

Under the *Telecommunications Act 1997* the Government established the *Telecommunications Code of Practice 2021*, which sets out the conditions under which a carrier must operate. Part 1A.4 of the Telecommunications Code of Practice 2021 sets out the design, planning and installation requirements for the carriers to ensure the installation of facilities is in accordance with industry 'best practice'. This is required to:

> *"… minimise the potential degradation of the environment and the visual amenity associated with the facilities." [Section 1A.4(3)]*

Best practice also involves the carrier complying with any relevant industry code or standard that is registered by the Australian Communications Authority (ACA) under Part 6 of the Act.

The siting and design of this proposal has taken place in accordance with *Section 3 (Planning and Siting)* of the Australian Standard, *Siting of Radiocommunications Facilities (AS 3516.2).* The proposed site and design was selected after extensive search and analysis of potential candidates and the site was considered to

provide an optimal environmental and network solution. The proposed design achieves minimal visual impact while meeting the technical coverage requirements for the site.

On balance it is considered that the proposed site is an appropriate planning solution in accordance with site selection criteria expressed in the *Telecommunications Act 1997*, and the relevant legislative and regulative requirements of federal, state and local authorities.

C564:2025 Mobile Phone Base Station Deployment Code 2025

The *'Mobile Phone Base Station Deployment Code' Communications Alliance Ltd Industry Code (C564:2025)* is a code developed by a working committee with representatives from carriers, various levels of government, an industry group and a community action group. The Code is designed to:

- Allow the community and councils to have greater participation in decisions made by carriers when deploying mobile phone base stations; and
- Provide greater transparency to local community and councils when a carrier is planning, selecting sites for, installing and operating Mobile Phone Radiocommunications Infrastructure.

The carriers' activities are published on the internet-based Radio Frequency National Site Archive (RFNSA) as well as information relevant to each site such as EME Reports.

In the site selection and design stages of this proposal, the precautionary approach outlined in the Deployment Code has been considered (see **Table 1** below). No consultation external to that undertaken in the Development Application process is required under the Code.

TABLE 1: APPLICATION OF THE INDUSTRY CODE C564:2025 PRECAUTIONARY APPROACH TO MOBILE PHONE RADIOCOMMUNICATIONS INFRASTRUCTURE PLACEMENT AND DESIGN

Subclause	Response
Clause 4.1 Site Selection	
4.1 *Clause 4.1 applies if a Carrier proposes to select a new site for the deployment of Mobile Phone Radiocommunications Infrastructure.*	Clause 4.1 applies to this proposal
4.1.1 *A Carrier must have written procedures for site selection for Mobile Phone Radiocommunications Infrastructure in relation to factors contained in clause 4.1.4 and make them available to the public on request.*	Written procedures have been developed and will be made available to members of the public on request.
4.1.2 *Once the preferred option has been selected, the Carrier must make available to the public on request the summary of the sites considered and the reasons for the selection of the preferred option.*	The site selection summary will be made available to any member of the public should they request it.
4.1.3 *The Carrier must comply with its procedures as per clause 4.1.1.*	All procedures have been complied with.
4.1.4 *The Carrier must ensure that its written procedures for new site selection require it must have regard to:* (a) *the reasonable service objectives of the Carrier including:* (i) *the area the planned service must cover;* (ii) *power levels needed to provide quality of service;* (iii) *the amount of usage the planned service must handle*;	(a) (i) The primary requirement for installing the base station at the proposed location is to improve coverage and capacity in the Gilgandra area. (ii) The power levels of Telstra's facilities are set as low as possible to meet the required service objective, the facilities also automate

	their power requirements in response to the demand and number of connections at any one time therefore maximising power efficiency. iii) The proposed base station ensures that long-term, consistent, high-quality voice and mobile data services are provided in Gilgandra.
(b) *minimisation of EME exposure to the public*;	(b) The proposed design and location of the facility means its antennas are excluded from direct public access. Telstra facilities power levels are set as low as possible to meet the required service objective, the facilities also automate their power requirements in response to the demand and number of connections at any one time therefore maximising power efficiency and minimising EME emissions. Even at full power (see Section 6.10) exposure limits to the public are no greater than ----% of the APRANSA EME Standard (see Appendix B)
(c) *the likelihood of an area being a community sensitive location. (Examples of sites which may be considered to be sensitive include, residential areas, childcare centres, schools, aged care centres, hospitals and regional icons);*	(c) The proposed facility is located in centrally within Gilgandra. The nearest residential dwelling is approximately 30m from the proposal on the adjacent land. A number of other community sensitive uses include: • St Josephs Catholic Primary School (Approx. 459m) • Gilgandra Public School (Approx. 470m)
(d) *the objective of avoiding community sensitive locations;*	(d) The avoidance of community sensitive locations was a key factor in determining the proposed location as being suitable for the facility. However, after extensive scoping of the area the proposal is the only feasible location to provide coverage and capacity to the area.
(e) *relevant state and local government telecommunications planning policies;*	(e) All relevant state and local government planning policies have been considered regarding the proposal i.e. *Environmental Planning and Assessment Act 1979, State Environmental Planning Policy (Infrastructure) 2007*, NSW Telecommunications Facilities Guideline including Broadband 2010, see Section 5.3.
(f) *the outcomes of consultation processes with Councils and Interested and Affected Parties as set out in clause 6.7;*	(f) The consultation process will be done in accordance with the development application process.
(g) *the heritage significance (built, cultural and natural);*	(g) The proposed area is not a listed Heritage Item, nor does it contain items of Aboriginal heritage – see Section 6.4.

(h) *the physical characteristics of the locality including elevation and terrain;*	(h) Gilgandra is relativity flat with some variation in elevation throughout the town.
(i) *the availability of land and public utilities;*	(i) The proposal is located on a private block, there were no public utilities available.
(j) *the availability of transmission to connect the Mobile Phone Radiocommunications Infrastructure with the rest of the network, e.g. line of sight for microwave transmission;*	(j) The facility will utilise existing fibre at the property to obtain connectivity to the surrounding Telstra Network.
(k) *the radiofrequency interference the planned service may cause to other services;*	(k) The proposed location ensures that there will be no interference with any existing services.
(l) *the radiofrequency interference the planned service could experience at that location from other services or sources of radio emissions;*	(l) The proposed location ensures that there will be no interference with any existing services.
(m) *any obligations and opportunities to co-locate facilities; and*	(m) Co-location options were either not viable or too far away to meet the objectives of this proposal.
(n) *cost factors.*	(n) The cost factors are within the normal scope of a standard facility of similar design, location and scale.

Clause 4.2 Mobile Phone Radiocommunications Infrastructure Design	
Subclause	**Response**
4.2. *Clause 4.2 applies if a Carrier proposes to design Mobile Phone Radiocommunications Infrastructure.*	Clause 4.2 applies to this proposal.
4.2.1. *The Carrier must have written procedures for designing Mobile Phone Radiocommunications Infrastructure.*	Written procedures have been developed by Telstra.
4.2.2. *The Carrier must comply with its procedures as per clause 4.2.1 above.*	All procedures have been complied with.
4.2.3. *With the objective of minimising unnecessary or incidental RF emissions and exposure, the procedures must require that, in designing Mobile Phone Radiocommunications Infrastructure, the Carrier has regard to:*	(a) The base station is proposed to provide improved coverage and capacity in Gilgandra. The base station will ensure capacity is enhanced and that better quality services to customers are retained for the future.
(a) *the reason for the installation of the infrastructure, considering – coverage, capacity and quality;*	(b) The antennas have been positioned to minimise the obstruction of radio signals as required.
(b) *the positioning of antennas to minimise obstruction of radio signals;*	(c) The antennas will be located atop a 45m monopole with required EME signage.
(c) *the objective of restricting access to areas where RF exposure may exceed limits of the EMR standard;*	(d) (i)-(ii) The site requires a macro cell with directional antennas to meet its coverage objectives.
(d) *the type and features of the infrastructure that are required to meet service needs including:*	

(i) *the need for macro, small scale infrastructure; and* (ii) *the need for directional or non-directional antennas.* (e) *the objective of minimising power whilst meeting service objectives; and* (f) *whether the costs of achieving this objective are reasonable.*	(e) Telstra facilities automate power in response to the demand and number of connections. (f) The cost of achieving the objective is reasonable.
4.2.4. *The Carrier must make site EME assessments for Mobile Phone Radiocommunication Infrastructure in accordance with the ARPANSA prediction methodology and report format (as referenced in Appendix B).*	The supplied EME report (**Appendix B**) meets the APRANSA EME Report requirements.
4.2.5. *The ACMA may request a copy of the site EME estimate, and the Carrier must provide the estimate to the ACMA within two weeks of the request being made.*	Any requests will be complied with within two weeks of the request being made.

4.2 State Legislation

NSW Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (the Act) is the primary statute regulating the environmental planning and development in NSW. The application has been prepared with consideration for section 4.15 of the EP&A Act.

State Environmental Planning Policy (Transport and Infrastructure) 2021

The *SEPP (Transport and Infrastructure) 2021* governs telecommunications deployment in New South Wales. This development is defined as a 'Telecommunications Facility' under Clause 2.140 of the SEPP.

The proposed development does not fall within the parameters to be considered Exempt or Complying Development under the SEPP and will require development consent.

The permissibility of the development is established under Clause 2.143(1) of the SEPP, which provides that telecommunications facilities can be deployed on any land with consent. As the works are not being done on behalf of a Public Authority (per Clause 2.141) and are not considered Exempt Development, the works are permissible with the consent of Council.

Clause 2.143(2) requires that the consent authority must take into consideration any guidelines concerning site selection, design, construction and operation of telecommunications facilities issued by the Planning Secretary. The current guidelines are the NSW Telecommunications Facilities Guideline, Including Broadband (October 2022). Compliance with the principles is outlined in section 6.2.3 of this document.

NSW Telecommunications Facilities Guideline including Broadband (October 2022)

The NSW Telecommunications Facilities Guideline including Broadband has been issued by the Director General. Section 2.2 of the Guideline must be taken into consideration. **Table 2** below assesses the proposal's consistency with these principles.

TABLE 2: RESPONSES TO PRINCIPLES 1- 4 SECTION 2.2 OF THE NSW TELECOMMUNICATIONS FACILITIES GUIDELINE (INCLUDING BROADBAND)

Principle	Response
Principle 1: Design and site telecommunications facilities to minimise visual impact.	
(a) As far as practical, integrate a telecommunications facility that is mounted on an existing building or structure with the design and appearance of the building or structure.	(a) There were no existing buildings or structures suitable for co-location.
(b) Minimise the visual impact of telecommunications facilities, reduce visual clutter (particularly on tops of buildings) and ensure physical dimensions (including support mounts) are sympathetic to the scale and height of the building to which it is to be attached and to adjacent buildings.	(b) Include visual impact assessment
(c) If a telecommunications facility protrudes from a building or structure and is predominantly seen against the sky, either match the prevailing colour of the host building or structure or use a neutral colour such as pale grey.	(c) The facility will be finished in a non-reflective grey, which has been found to be the least conspicuous against the majority of backgrounds.
(d) Where possible and practical, screen or house ancillary facilities using the same colour as the prevailing background and consider using existing vegetation or new landscaping.	(d) Internal ancillary equipment will be located within the existing Telstra exchange building.
(e) Locate and design a telecommunications facility in a way that responds to its setting (rural, residential, industrial or commercial).	(e) The facility is located within a rural urban setting amongst residential and commercial uses.
(f) Site and design a telecommunications facility located on or adjacent to a listed heritage item or within a heritage conservation area with external colours, finishes and scale sympathetic to the heritage item or conservation area.	(f) The proposed facility will not impact a heritage listed item or areas. There are several locally listed heritage items in the general area of the proposal. The heritage value of these locations will not be impacted by the installation and operation of a telecommunications facility at the site. The proposed colour scheme of the monopole is factory dull grey colour. Grey facilities also tend to blend best with the skyline in all weathers, minimising visual impact on the heritage items in the area.
(g) Locate telecommunications facilities to minimise or avoid obstructing significant views of a heritage item or place, a landmark, a streetscape, vista or a panorama, whether viewed from public or private land.	(g) Care has been taken to minimise the negative impact of the proposal on surrounding sightlines. The height of the facility has been kept to the minimum required to achieve coverage objectives. A slimline monopole has been used rather than a lattice tower to reduce the visual footprint of the proposal.
(l) Accord with all relevant industry design guides when siting and designing telecommunications facilities.	(l) the proposal complies with all relevant industry guidelines and design standards as demonstrated by this Statement of Environmental Effects report.
(m) Assess potential visual impact in alternative site assessments.	(m) See Table 3

(h) Consult with relevant council when proposing pruning, lopping or removing any tree or vegetation. Obtain a tree preservation order, permit or development consent if required.	(h) The proposal does not require the removal of any vegetation. Council will be consulted as part of this development application.
(i) Remove redundant telecommunications facilities and restore the site to the condition it was in prior to the facility's construction.	(i) N/A
(j) Remove redundant components of existing facilities after upgrades. *(k) Where possible, consolidate telecommunications facilities to reduce visual clutter and work with other users on co-location sites to minimise cumulative visual impact.*	(j) The proposal will comply with the BCA and complies with relevant Industry Design Guides. In this instance two redundant omni antennas will be removed from the rooftop of the Telstra Exchange building.
	(k) Co-location option were investigated and outlined in Section 3.1 of this report. However, none were a viable option.
Principle 2: Co-locate telecommunications facilities wherever practical	
(a) As far as practical, locate telecommunications lines underground or within an existing underground conduit or duct.	(a) The fibre and power network connections will be taken from the nearest available points underground to the facility.
(b) Where practical, co-locate or attach overhead lines, antennas and ancillary telecommunications facilities to existing buildings, public utility structures, poles, towers or other radiocommunications equipment to minimise clutter.	(b) The current proposal, as previously noted, was only selected after co-location opportunities on existing telecommunications facilities had been totally exhausted. The proposal has been designed to retain the smallest, slimmest and neatest visual profile possible to minimise any visual amenity impacts on the surrounding area while achieving the required coverage.
(c) Consider extending an existing tower as a practical co-location solution to new towers.	(c) existing facilities in the vicinity are not able to be extended due to structural requirements or are too far away from the intended coverage area for an extension to be effective.
(d) Demonstrate that co-location is not practicable1 if choosing not to co-locate a facility.	(d) Telstra have conducted an exhaustive assessment of prospective co-location options, as identified in section 3 of this report. No suitable options were identified.
(e) If choosing to co-locate, design, install and operate a telecommunications facility so that resultant cumulative levels of radio frequency emissions are within the maximum human exposure levels set out in RPS S-1.	(e) Telstra have conducted an exhaustive assessment of prospective co-location options, as identified in section 3 of this report.
Principle 3: Meet health standards for exposure to radio emissions	
(a) *Design, install and operate a telecommunications facility so that maximum human exposure levels to radiofrequency emissions comply with RPS S-1 (see Appendix B).*	(a) The proposed facility will comply with the ARPANSA standard in relation to human exposure to EME. An EME report has been completed and is found in Appendix B. This report demonstrates compliance with the

	ARPANSA standard for the operation of a radio communications facility in Australia.
(b) *Using the format required by ARPANSA, report on predicted levels of EME surrounding any development covered by the Industry Code C564:2020 Mobile Phone Base Station Deployment, and how the development will comply with ACMA safety limits and RPS S-1.*	(b) The proposal is for a mobile phone network and is subject to the requirements of the Industry Code C564:2025 Mobile Phone Base Station Deployment with regard to the design, siting and notification. An EME report has been completed as per the required ARPANSA format and is found in Appendix B.
Principle 4: Minimise disturbance and risk, and maximise compliance	
(a) *Ensure the siting and height of a telecommunications facility complies with the of the Commonwealth Civil Aviation Regulations 1998 and Airports (Protection of Airspace) Regulations 1996. Avoid penetrating any obstacle limitation surface (OLS) shown on a relevant OLS plan for an aerodrome or airport (as reported to the Civil Aviation Safety Authority) within 30 km of the proposed development.* (b) *Ensure no adverse radio frequency interference with any airport, port or Commonwealth defence navigational or communications equipment, including the Morundah Communication Facility, Riverina.* (c) *Carry out the telecommunications facility and ancillary facilities in accordance with any manufacturer's installation specifications.*	(a) The provisions of the *Civil Aviation Regulations 1988 and the Airports (Protection of Airspace) Regulations 1996* were considered during the design and siting process. The site is located approximately 2.6km from Gilgandra Airport The site is within the inner horizontal surface area and has an obstacle limit of 45.0m. The proposal will not penetrate the obstacle height limit. The appropriate permits will be obtained from CASA for construction equipment.
(d) *Protect the structural integrity of any building or structure on which a telecommunications facility is erected.* (e) *Erect the telecommunications facility wholly within the boundaries of a property as approved by the relevant landowner.*	(b) Telstra will operate the radio facility within its own frequency spectrums and the facility will not cause any interference with other networks. All operating antennas will use the frequencies assigned to Telstra.
(f) *Ensure all construction of a telecommunications facility accords with Managing Urban Stormwater: Soils and Construction – Volume 1 (Landcom 2004), or its replacement.*	(c) The facility will be established and operated within the applicable specifications (if any) of the manufacturers.
	(d) N/A – new monopole is being proposed.
(g) *Mitigate obstruction or risks to pedestrians or vehicles caused by the location of the facility, construction activity or materials used in construction.*	(e) The proposed facility will be erected wholly within the boundaries of the property.
(h) *Where practical, carry out work at times that minimise disruption to adjoining properties and public access and restrict hours of work to 7.00am and 5.00pm, Mondays to Saturdays, with no work on Sundays and public holidays.* *(i) Employ traffic control measures during construction in accordance with Australian Standard AS1742.3-2002 Manual of uniform traffic control devices – Part 3: Traffic control devices for works on roads.*	(f) The activities associated with construction and installation will be conducted in accordance with sediment controls, erosion controls, stormwater controls and other controls outlined in the Blue Book (refer Section 6.6).
	(g) The majority of construction activities will take place within the lot. There will be no risks to traffic or pedestrians during the operation of the proposal. Traffic management shall be employed during construction where

(j) *Guard open trenching in accordance with Australian Standard Section 93.080 – Road Engineering AS1165 – 1982 – Traffic hazard warning lamps.*	necessary and any necessary permits from Council will be obtained.
(k) *Minimise disturbance to flora and fauna and restore land to a condition similar to its condition before the work was carried out.*	(h) All work associated with the development and installation of the facility will be between 7.00am and 6.00pm, Mondays to Saturdays, with no work on Sundays and public holidays and/or as conditioned in the consent by Council.
(l) *Identify any potential impacts on threatened species and communities in consultation with relevant authorities and avoid disturbance to identified species and communities where possible.*	(i) Where required, a Traffic Management Plan will be developed and implemented during construction and installation activities. The procedures and mitigation measures in the plan will ensure compliance with Australian Standard AS1742.3-2002 Manual of uniform traffic control devices – Traffic control devices on roads (refer Section 6.5).
(m) *Identify the likelihood of harming an Aboriginal place and/or Aboriginal object and obtain approval from the Department of Premier and Cabinet if the impact is likely, or Aboriginal objects are found*	(j) Any required trenching associated with the proposal will be covered or filled so that it is not open overnight.
(n) *Street furniture, paving or other existing facilities removed or damaged during construction should be reinstated (at the telecommunications carrier's expense) to at least the same condition as that which existed prior to the telecommunications facility being installed.*	(k) The proposal is located within the existing Telstra Exchange property. No vegetation removal has been proposed. All land surrounding the proposal will be restored to a condition that is similar to its condition before the work was carried out.
	(l) The proposal is located within the existing Telstra Exchange property. Impacts of threatened species and communities are not expected.
	(m) A search of the AHIMS has been completed and there are no known items or places of archaeological significance on the site or in the immediate surrounding area (Appendix C). The area has been disturbed previously. Notwithstanding, if any suspicious items or objects are found during excavation, work will cease immediately and the OEH will be consulted**,** and works will not re-commence until OEH have granted their consent.
	(n) If disturbed, all street furniture, paving and walkways will be reinstated at the end of construction to the standard and condition they were in prior to the construction work beginning.

Principle 5: Undertake an alternative site assessment for new mobile phone base stations	
(a) Include adequate numbers of alternative sites in the alternative site assessment as a demonstration of good faith. *(b) In addition to the new site selection matters in Section 4 of the Industry Code C564:2020 Mobile Phone Base Station Deployment:* - *only include sites that meet coverage objectives, and that have been confirmed as available, with an owner agreeable to having the facility on their land.* - *if the preferred site is a site owned by the Carrier, undertake a full assessment of the site.* - *indicate the weight placed on selection criteria undertake an assessment of each site before any site is dismissed.*	a) Twelve low impact and greenfield sites were investigated during the site selection process. This number is considered adequate and exceeds the number of sites typically investigated during the search for a new telecommunications facility site. (b) Each site investigated during the initial candidate search is described in detail in section 3.1 and the reasons the site was unsuitable for the proposal have been clearly identified.

4.3 Gilgandra Local Environmental Plan 2011

Zoning Provisions

The proposed location is subject to land use controls under the *Gilgandra Local Environmental Plan 2011* (LEP). Under the LEP the proposed site is zoned R1 General Residential (Figure 6). Telecommunications facilities are permitted only with consent from Gilgandra Shire Council.

Table 3 below sets out the objectives of the zone and an assessment of the proposal against these objectives.

FIGURE 6 LEP ZONING MAP

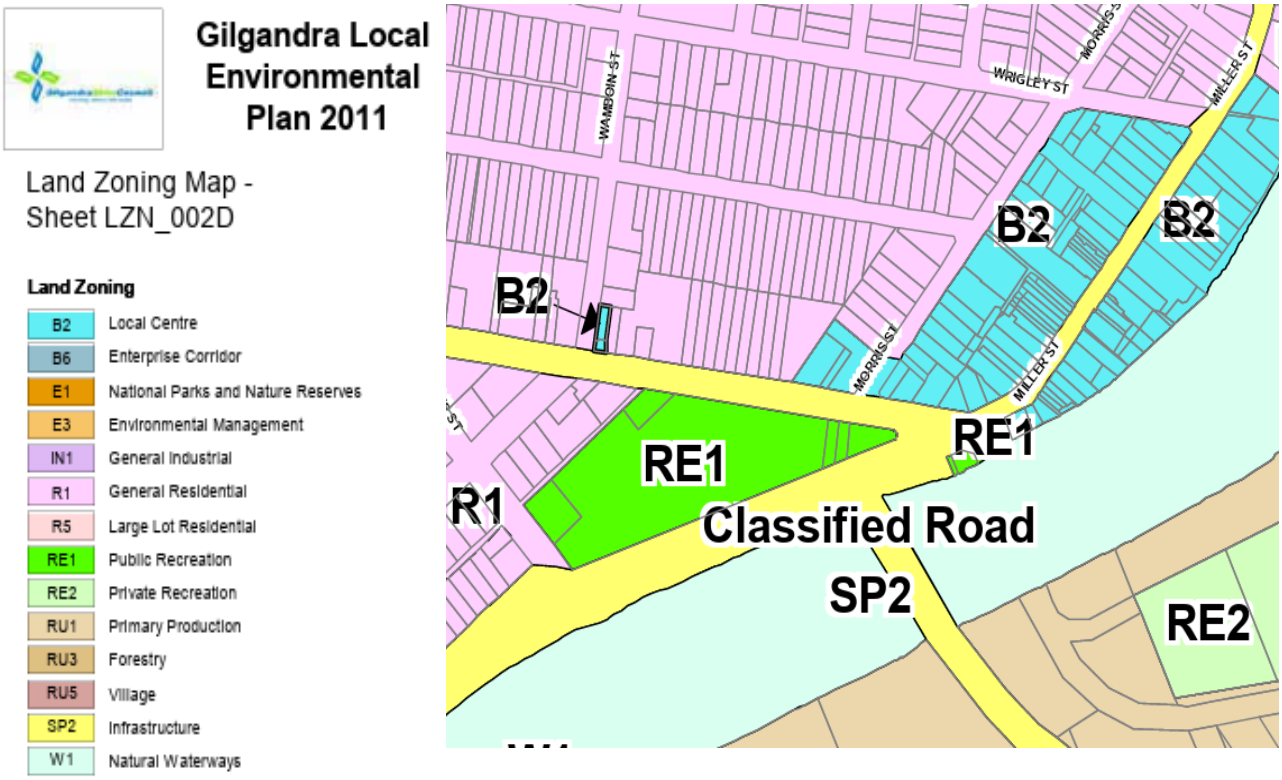


TABLE 3: ASSESSMENT OF PROPOSAL AGAINST OBJECTIVES OUTLINED IN LEP R1: GENERAL RESIDENTIAL LAND USE TABLE

Objective	Assessment
To provide for the housing needs of the community.	The proposed base station will improve access to coverage and capacity to the local community and home businesses in the area who require mobile and wireless broadband services. Access to quality mobile and data coverage has become a vital part of everyday life in households across Australia.
To provide for a variety of housing types and densities.	The proposed base station will meet the current needs of Gilgandra and meet the teleconnections needs of future residential developments in the township.
To enable other land uses that provide facilities or services to meet the day to day needs of residents.	The land is currently used as a Telstra exchange facility, the proposal will not impact on this use or the use of adjoining residential and commercial zones.

Principle Development Provisions

There are no Principal Development Standards which apply to this development.

Miscellaneous Provisions

There are no Miscellaneous Provisions which apply to this development.

Additional Local Provisions

7.8 Earthworks	
Objective	**Response**
to ensure that earthworks for which development consent is required will not have a detrimental impact on environmental functions and processes, neighbouring uses, cultural or heritage items or features of the surrounding land.	The proposed earthworks are minimal and only required for the foundation of the monopole. This will not have a detrimental impact on environmental functions and processes, neighbouring uses, cultural or heritage items or features of the surrounding land.
to allow earthworks of a minor nature without requiring separate development consent.	The proposed earthworks are considered minor and should be approved under the current application.
Development consent is required for earthworks unless	**Response**
Development consent is required for earthworks unless: (a) the work is exempt development under this Plan or another applicable environmental planning instrument, or	The proposed earthworks are necessary to build the foundations of the monopole.

(b) the work is ancillary to other development for which development consent has been given.	
Before granting development consent for earthworks, the consent authority must consider the following matters: (a) the likely disruption of, or any detrimental effect on, existing drainage patterns and soil stability in the locality, (b) the effect of the proposed development on the likely future use or redevelopment of the land, (c) the quality of the fill or the soil to be excavated, or both, (d) the effect of the proposed development on the existing and likely amenity of adjoining properties, (e) the source of any fill material and the destination of any excavated material, (f) the likelihood of disturbing relics, (g) the proximity to and potential for adverse impacts on any watercourse, drinking water catchment or environmentally sensitive area.	There will be no disruption to existing drainage patterns. The proposed development will not impact the future use or redevelopment of the land. No fill is required. Any waste excavated soil will be disposed of in accordance with statutory requirements. There will be no impact on the amenity of adjoining properties from the earthworks proposed. No fill material other than concrete will be used. Any waste excavated soil will be disposed of in accordance with statutory requirements. An AHIMS check has not identified the potential on any relics being found. The immediate area has been disturbed previously. The proposed facility will be setback 170m from the closest watercourse and will not impact it.

5 Environmental Impact Assessment

5.1 Visual Impact

It is acknowledged the site is visually prominent and will be visible from distant viewpoints. The proposed location has been determined to be the most viable location to significantly improve mobile coverage in the area.

To achieve optimal performance, telecommunications facilities require unobstructed visibility in all directions and sited where coverage is required. Locating the facility outside of town centre area would not achieve the required coverage objectives and would not efficiently integrate with the wider Telstra network. The proposed height of the structure is required to achieve Telstra's optimal mobile coverage objectives, and the proposed design has minimized the structure height and visual bulk as much as practicable. Furthermore, the use of neutral colours and non-reflective finishes will assist in minimising the structures visibility on the landscape. We have taken measures to mitigate the visual impact including:

- Using a slimline monopole design that will blend in with existing infrastructure such as street lighting, electrical poles, and the existing facility on Victoria Street adjacent the Chelmsford Hotel.
- Utilising neutral non-reflective grey colours that blend in with existing backgrounds.
- Using the existing Telstra exchange building to house ancillary equipment removes the need for an additional equipment shelter at the site; and
- Setting the facility back from the street frontage helps to reduce the visual impact of the site at ground level.

The below photomontages offer a visual representation of the facility from a distance.

FIGURE 7 THE PROPOSED FACILITY VIEWED FROM WAMBOIN STREET LOOKING SOUTH

FIGURE 8THE PROPOSED FACILITY VIEWED FROM THE TENNIS COURTS OFF WILLIE STREET LOOKING NORTH

5.2 Socio-Economic Considerations

The proposed facility will significantly improve mobile data coverage and capacity in the Gilgandra area and will resolve the short comings in the existing Telstra network that local businesses and residents have bought to Telstra's attention.

These services allow communities to enjoy:

- Greater business accessibility and flexibility, especially for commuters, tradespeople and home-based business;
- Reliable personal safety – maintaining a mobile phone for critical communications and emergencies.
- As an industry telecommunications including mobile broadband has experienced exponential growth for many years now.

The proposed development will enable carriers to remain competitive and increase the choice of mobile telephone services available to consumers. Increased competition in the market brings direct economic benefits for individual consumers and the community as a whole. The development is consistent with the objectives of the TA 1997, namely:

- To promote *"the efficiency and international competitiveness of the Australian telecommunications industry"* (s.3(1)); and

- To ensure that telecommunications *services "are supplied as efficiently and economically as practicable"* (s.3(2)(a)(ii)).

Providing telecommunications services will allow home-based businesses to operate and grow their services. Diversify in both the services they offer, and how these services are marketed – the ability to reliably use social media for promotions is particularly beneficial for local businesses. A strengthened telecommunications network will also allow the local workforce to explore opportunities which were not previously possible, including home businesses and telecommuting. This has become even more of a community expectation due prevalence of working from home which has become a normal practise in recent years.

Telstra is also responsive to public safety issues. High quality telecommunications services significantly benefit community safety by providing a vital 'first response' tool for emergency services. A strong mobile network is highly beneficial in an emergency situation, as well as more general public safety.

Telstra believe that it is in the public interest to provide a strong, resilient mobile network that, in turn, provides a high quality of service to local communities across Australia. Given the demand for the service, and the benefits noted above, we believe there is a strong justification for the telecommunications site at this location to be constructed.

The proposed facility will thus have a positive impact on the social and economic environment in Gilgandra.

Effect on Surrounding House Values

Although property values are not an area of consideration by a consent authority, local residents sometimes ask questions on this topic. To date, there is no evidence of any negative impact telecommunications facilities have on property prices. With the many thousands of facilities located all around the country, if an impact was likely, it is expected it would be apparent by now. With the increase of wireless devices, including smart phones, tablets, and mobile data devices the number of fixed line connections is decreasing, to ensure customers have access to high quality services in their home a telecommunications facility cannot be placed outside of the area requiring service.

5.3 Heritage and Cultural Values

Indigenous Heritage

The site is located within Gilgandra on a developed block of land. As a precaution an AHIMS search was conducted, and the site has not been identified as a site containing items or as an area of Aboriginal Significance (refer to **Appendix C**).

Notwithstanding, if any items of indigenous heritage are encountered, works would cease, and the NSW Office of Environment and Heritage and the National Parks and Wildlife Service will be contacted.

Non-indigenous Heritage

As part of Telstra's site selection process, a heritage and conservation register check is undertaken (including listings on the Register of the National Estate, State Heritage Register, Regional and Local Environmental Plans and database of the EPBC Act 1999).

A search of the following databases was undertaken to identify any items of non-indigenous heritage significance or conservation areas within the site or in the immediate vicinity of the site:

- Australian Heritage Database of the Australian Heritage Council;
- Australian Heritage Places Inventory;
- State Heritage Inventory of the NSW Heritage Office; and
- Heritage Items of the Gilgandra Local Environmental Plan 2011.

Results of all the above heritage searches conclude that the site is not subject to any heritage significance of Local, State and Commonwealth concern. As such, the proposal is not expected to impact upon any items of non-indigenous heritage.

It is acknowledged the site is within close proximity to four local heritage items (**Figure 10**), including:

- Gilgandra Council Chambers and Hall, located north of the subject site on Warren Road;
- Gilgandra Swimming Pool and Hunter Park, located south on the opposite side of the rear access lane.
- Gilgandra Post Office located approximately 80m northwest of the subject site

FIGURE 10 LOCAL HERITAGE ITEMS SURROUNDING THE PROPOSAL

5.4 Traffic, Access and Construction Management

Vehicular access will be provided via the existing Telstra exchange property access point off Wamboin Street. The existing access arrangements are adequate for both construction and ongoing maintenance of the site without any disruption to road use and traffic flow.

During the construction phase, one or two trucks will be used to deliver the equipment, and a crane or Elevated Work Platform (EWP) will be utilised to lift the equipment into place. Accordingly, the proposed facility will not be a significant generator of vehicular traffic and will not adversely impact local traffic flow.

Once constructed, the facility will operate on an unstaffed basis and mostly remotely. As such, operational visits to the site will be minimal and approximately only 4-6 times per year for maintenance purposes. No additional parking spaces have been proposed, activities there is adequate space on property for maintenance vehicles to park.

FIGURE 11 EXISTING ACCESS OFF WAMBOIN STREET

5.5 Contaminated Land

A search of the NSW Environment Protection Authority contaminated land database was done 13 September 2023. The subject property was not identified as being contaminated land.

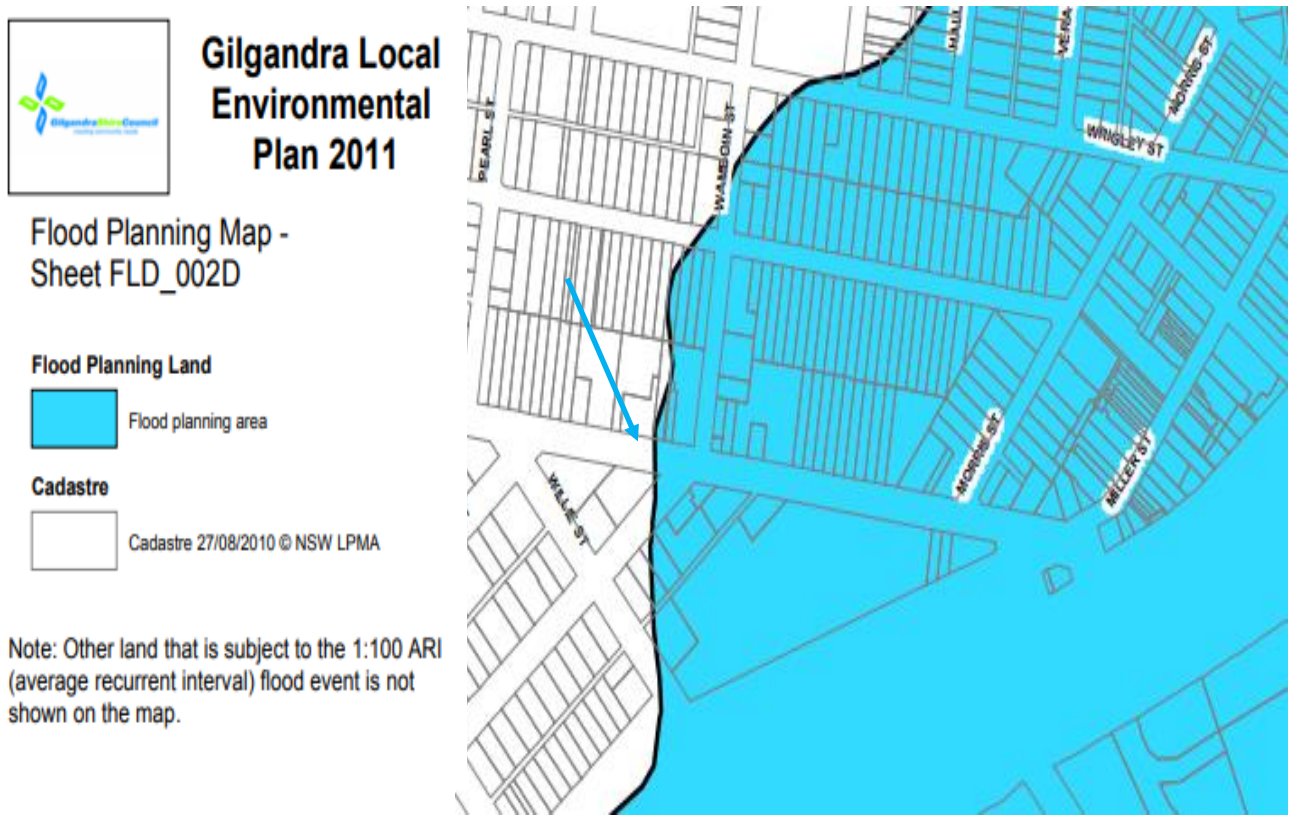
However, if any contaminated soils encountered during the proposed works will be managed in accordance with the relevant guidelines.

5.6 Flood Prone Land

The site is identified as flood prone on the mapping within the *Gilgandra Local Environmental Plan 2011*.

The monopole and footings are designed to withstand flood conditions, operational ancillary equipment is going to be installed within the existing Telstra exchange facility which is elevated --- above ground level at the site. It has been determined this is sufficient to mitigate the risk of damage to the site and for the facility to remain operational in up to 1%AEP flood.

The site is on the very edge of the flood prone area and should remain accessible for maintenance and flood mitigation work in the event of a flood event.



5.7 Utility Services

Further identification of utilities would be undertaken during the detailed design stage of the proposal, and any impacts assessed, and necessary safeguards implemented as required.

The following mitigation measures would be implemented to ameliorate any impacts on existing infrastructure:

- A 'dial-before you dig' search would be undertaken during the detailed design stage.
- Prior to construction, all infrastructure and utilities would be identified; and
- If required, prior to construction, relevant utilities and adjacent residents would be notified of any impending disruptions to services.

When operational, the site will be unstaffed, and does not require utility services such as telephone, water and sewerage.

All services required for the ongoing operation of the base station are capable of being provided to the facility without impacting on the supply or reliability of these services to any existing consumers in the locality.

5.8 Noise and Vibration

The facility will not be a significant generator of noise. Noise produced by the facility is low level noise from the air conditioning units within the equipment shelter. Cooling equipment will only operate when required and will not operate continuously. These are comparable to domestic air condition units and will comply with the background noise levels prescribed by Australian Standard AS1055. The site is setback 30m from the closest residential dwelling, however given the current use of the property is a Telstra exchange ongoing noise is not expected to be much higher than the existing air conditioning units.

Noise and vibration emissions associated with the proposed facility will be limited to the construction phase. Noise generated during the construction phase will be of short duration and will be in accordance with the standards outlined in the Protection of the *Environment Operations (Noise Control) Regulation 2017*. Construction works will only occur as per Council's daily timeframe direction.

5.9 Health and Safety

It is acknowledged that some people are genuinely concerned about the possible health effects of electromagnetic energy (EME) from mobile phone base stations and is committed to addressing these concerns responsibly.

Mobile phone carriers must strictly adhere to Commonwealth Legislation and regulations regarding mobile phone facilities and equipment administered by the Australian Communications and Media Authority (ACMA).

The facility will comply with ACMA EME regulatory arrangements in relation to emission of electromagnetic energy (EME), this specifically being the *Radiation Protection Series S-1 (Rev. 1) - Standard for Limiting Exposure to Radiofrequency Fields – 100 kHz to 300 GHz (2021)* known as *RPS-1.*

The RPS-1 Standard is set by ARPANSA and is based on the safety guidelines recommended by the *International Commission on Non-Ionising Radiation Protection (ICNIRP).* ICNIRP has recently undertaken an extensive review of the available scientific evidence and research on EME and health. ICNIRP is an agency associated with the *World Health Organisation (WHO).*

The Standard operates by placing a limit on the strength of the signal (or RF EME) that Carriers can transmit to and from any network base station. The general public health standard is not based on distance limitations, or the creation of "buffer zones". The environmental standard restricts the signal strength to a level low enough to protect everyone at all times. It has a significant safety margin, or precautionary approach, built into it.

In order to demonstrate compliance with the standard, ARPANSA created a prediction report using a standard methodology to analyse the maximum potential impact of any new telecommunications facility. Carriers are obliged to undertake this analysis for each new facility and make it publicly available.

Importantly, the ARPANSA-created compliance report demonstrates the maximum signal strength of a proposed facility, assuming that it's handling the maximum number of users 24-hours a day.

In this way, ARPANSA requires network carriers to demonstrate the greatest possible impact that a new telecommunications facility could have on the environment, to give the community greater peace of mind. In reality, base stations are designed to operate at the lowest possible power level to accommodate only the number of customers using the facility at any one time. This design function is called "adaptive power control" and ensures that the base station operates at minimum, not maximum, power levels at all times.

Using the ARPANSA standard methodology, Optus have undertaken a compliance report that predicts the maximum levels of radiofrequency EME from the proposed facility. The EME Report associated with this site is attached in **Appendix B**. The report shows that the maximum predicted EME levels will equate to **1.06%** of the maximum exposure limit under the Australian Standard.

Carriers rely on the expert advice of national and international health authorities such as ARPANSA and the World Health Organisation (WHO) for overall assessments of health and safety impacts. The WHO advises that all expert reviews on the health effects of exposure to radiofrequency fields have concluded that no adverse health effects have been established from exposure to radiofrequency fields at levels below the international safety guidelines that have been adopted in Australia.

Carriers have strict procedures in place to ensure its mobile phones and base stations comply with these guidelines. Compliance with all applicable EME standards is part of the Carrier's responsible approach to EME and mobile phone technology.

The Australian Chief Medical Officer, Brendan Murphy, issued a statement in January 2020 to provide further assurance of the safety of 5G and other mobile technologies. The statement reads:

> *"I'd like to reassure the community that 5G technology is safe. There is no evidence telecommunication technologies, such as 5G, cause adverse health impacts."*

The full extent of the statement is available here: https://www.health.gov.au/news/safety-of-5g-technology

5.10 Other Impacts During Construction

Air Quality

There is potential for dust generation during the excavation of the pole footings.

During construction all construction areas would be sprayed with water during dry and windy weather to suppress airborne dust generation.

The compound site would be appropriately restored after the completion of works to ensure no ongoing dust generation.

Waste Minimisation and Management

Due to the relatively minor nature of the works, the generation of waste resulting from construction of the proposed facility is expected to be minimal. The majority of the waste generated is expected to be excess soil as a result of construction of foundations for the monopole.

Where possible excess soil from the earthworks would be utilised on-site in association with landscaping of the facility, with the remainder disposed of at an approved waste disposal facility.

Other waste such as packaging material will be removed from site.

The operation of the facility will be mostly unstaffed and will not generate any waste during the operational phase.

6 Conclusion

Amplitel propose to construct a new telecommunications facility on the existing Telstra exchange at 76 Wamboin Street Gilgandra. The proposal is considered to be permissible under provisions of the TISEPP within the R1 – General Residential zone of the *Gilgandra Local Environmental Plan 2011*. Furthermore, it is consistent with the requirements of all other relevant planning instruments, legislation and codes relevant to telecommunications development.

This proposal will ensure that mobile telecommunications services in Gigandra are brought to the acceptably high standard residents and businesses have come to expect in urban areas. Additionally, the increasing demand for mobile services and data will be supported.

The proposal is considered to be the most prudent approach to fulfilling Telstra's mobile telecommunications coverage and capacity requirements. The proposed facility is considered appropriate for the below reasons:

- The proposal utilises a slimline monopole design that blends into the environment, decreasing adverse visual impact in the area.
- The proposed installation will be consistent with the current use of the land, as a Telstra Exchange.
- The proposal is also considered the most appropriate solution between the competing demands of planning, coverage, design, property, construction and the expectations of stakeholders.
- The proposal will provide high quality mobile telecommunication service to the township of Gilgandra, ensuring residents, visitors and businesses in the area experience uninterrupted access to what is now considered an essential service. This will in turn enable socio-economic benefits to the community; and
- The facility will comply with all Government health standards outlined by *ARPANSA.*

Given the significant public benefit afforded by the proposal we respectfully request consent be granted to undertake the project.

Appendix A

Design Drawings

Appendix B

Environmental EME Report

Appendix C

AHIMS Search

Appendix D

Title Search