



# Development Application for Planning Consent

*Proposed Upgrade to an Existing Telecommunications Facility*

*134 Oats Street*

*Carlisle WA 6101*

*Lot 222 on Plan 3903*

## Town Planning Report

**Project Reference: 3501519 Carlisle**

**RFNSA Reference: 6101006**

**December 2023**

# Document Control

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# Executive Summary

<b>Site Information</b>	<p><b>Lot description:</b> Lot 222 on Plan 3903  <b>Physical address:</b> 134 Oats Street, Carlisle WA 6101  <b>Coordinates:</b> -31.98054, 115.92458</p>
<b>Proposal</b>	<p>Indara are seeking development approval for an upgrade to an existing Telecommunications Facility at 134 Oats Street, Carlisle WA 6101 (Lot 222 on Plan 3903).</p> <p>The proposal involves the swapout of an existing lattice tower for a new monopole, which will be owned by the Indara Group and host Optus and Vodafone telecommunications equipment. The facility will provide Optus and Vodafone 4G and 5G services to Carlisle.</p> <p>The proposal involves:</p> <ul style="list-style-type: none"> <li>• Removal of one (1) 30m Indara lattice tower and associated telecommunications equipment</li> <li>• Installation of one (1) 29.4m Indara steel monopole</li> <li>• Installation and reconfiguration of telecommunications equipment previously on lattice tower onto the new steel monopole, including cabling, feeders, mounts, hybrids and other associated equipment.</li> <li>• Upgrades to the fencing, concrete footing and foundations, including an additional 1m high concrete slab and an access ladder.</li> </ul> <p>Additionally, the proposal involves the installation of new Optus and Vodafone telecommunications equipment, including:</p> <ul style="list-style-type: none"> <li>• One (1) new triangular headframe</li> <li>• Six (6) new panel antennas, approximately 2.7m in length, on new mounts</li> <li>• Six (6) new panel antennas, approximately 0.8m in length, on new mounts</li> <li>• Twenty-four (24) new and existing remote radio units (RRUs)</li> <li>• Other ancillary equipment necessary for the safe and effective functioning of the facility.</li> </ul> <p>The new monopole will be located within the reconfigured fenced compound, and will utilise the existing equipment shelter, reconfigured to support the new structure and associated equipment. The lattice tower will be removed following the installation of the monopole. The monopole and mounted equipment will be finished in non-reflective pale grey.</p>
<b>Purpose</b>	<p>Indara Infrastructure Pty Ltd (part of the Indara group), are proposing to upgrade an existing telecommunications facility at Carlisle. The upgrade will improve the structural capacity of the facility to support the provision of Optus and Vodafone 4G and 5G services in the area.</p> <p>The facility has been designed as a neutral host facility, capable of supporting co-location by other carriers, government entities and wireless service providers.</p>
<b>Planning Considerations</b>	<p><b>LGA:</b> Town of Victoria Park  <b>Zoning:</b> Commercial Zone  <b>Overlays:</b> LPS Carlisle Precinct  SPP Road and Rail Noise</p>
<b>Applicant</b>	<p>Indara Infrastructure Pty Ltd  Level 1, 110 Pacific Highway  St Leonards, NSW 2065</p> <p>Contact Person: Rohan Montgomery  Email: <a href="mailto:rohan.montgomery@indara.com">rohan.montgomery@indara.com</a>  Our Reference: 3501519 Carlisle</p>

# 1. Introduction

Indara Infrastructure Pty Ltd (Indara), part of the Indara Group, are seeking development consent for an upgrade to an existing telecommunications facility at 134 Oats Street, Carlisle WA 6101 (Lot 222 on Plan 3903).

The new facility will be comprised of a 29.4m monopole, replacing the existing 30m lattice tower, and will support Optus and Vodafone telecommunications antennas and equipment. The purpose of the project is to enhance the structural capacity of the facility to support current and future upgrades of telecommunications equipment at this site, which will allow ongoing improvements to mobile telecommunications services, including coverage and network capacity, in the Carlisle area.

This Town Planning Report provides an assessment of the project against relevant planning controls.



*Figure 1: Existing lattice tower to be removed following proposed monopole installation*

## 2. Background

### 2.1 Indara

Indara are Australia's leading independent owner and operator of digital infrastructure. We provide critical communications and data solutions that help support the digital transformation of our society. We're passionate about investing long term in our nation, building and designing digital infrastructure that creates long term value for our customers and the broader Australian community.

Indara owns and manages over 4300 mobile telecommunications facilities across Australia. Indara operate as a neutral host – our facilities are specifically designed to accommodate co-location by Australia's mobile carriers, government agencies and other wireless services providers.

Note for legal purposes, the applicant for this development application is Indara Infrastructure Pty Ltd.

### 2.2 Demand for Network Services

Access to high quality telecommunications services is vitally important to the community. Mobile usage continues to trend upward.

- 99% of Australians use a mobile phone; 76% of Australians do not have a landline phone and rely exclusively on a mobile phone<sup>1</sup>.
- Mobile data usage continues to significantly increase as the network is used in different ways. Between 2020 and 2021, the amount of data downloaded by phone increased by over 29%<sup>2</sup>. In the first quarter of 2022, global mobile data usage grew by 40%<sup>3</sup>. Streaming and video calling are major drivers of this increased demand.
- Covid-19 significantly changed the way that Australians live and work – 61% of employed Australians worked online from home in 2021<sup>4</sup>. With many Australians continuing to adopt flexible or hybrid work arrangements, additional demand has been placed on the mobile network.

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<sup>1</sup> <https://www.acma.gov.au/publications/2022-12/report/communications-and-media-australia-how-we-communicate>

<sup>2</sup> <https://www.acma.gov.au/publications/2022-12/report/communications-and-media-australia-how-we-use-internet>

<sup>3</sup> <https://www.ericsson.com/en/reports-and-papers/mobility-report/dataforecasts/mobile-traffic-update>

<sup>4</sup> <https://www.acma.gov.au/publications/2021-12/report/communications-and-media-australia-trends-and-developments-telecommunications-2020-21>

- Public safety is a significant driver behind improvements to mobile coverage. In 2021, around 78% of emergency calls were made from a mobile handset<sup>5</sup>.

More than ever, mobile telecommunications is an essential service. By extension, mobile base stations are essential infrastructure – it is important that mobile infrastructure keeps pace with this increasing demand.

If existing base stations are not upgraded with current technology to integrate amongst the existing telecommunications network, service performance can degrade and suffer. The proposed structure upgrade will ensure the facility has capacity to accommodate ongoing upgrades while minimising visual clutter and amenity impacts.

## 2.3 Upgrade Objectives

The replacement of the existing structure at this facility is proposed to reduce the visual impacts of the facility while improving mobile services in Carlisle and the surrounding areas.

Council has acknowledged the need for continuous growth and innovation in the technology and economic development sectors, which is further drawn out in Council's *ICT Asset Management Plan*. The plan highlights changes in technology use have created demand on services such as telecommunications through social shifts, including remote working. The *Town of Victoria Park Strategic Community Plan 2022-2032* notes that population increase is expected to be a challenge facing the area over the coming decade.

With an increasing population density, there is greater demand for mobile and data services. Mobile telecommunications services are vitally important to both the existing local community, and to planned future communities. It is important that existing communications services are maintained and are capable of being upgraded to accommodate future demand aligned with shifting trends in working arrangements and population growth.

The existing 30m lattice tower structure at 134 Oats Street, Carlisle, which facilitates Optus and Vodafone antennas and ancillaries, is structurally limited. In order to continue to improve coverage at this site without jeopardising visual amenity, the proposal will replace this existing structure with a new 29.4m steel monopole.

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<sup>5</sup> <https://www.triplezero.gov.au/triple-zero/How-to-Call-000/advanced-mobile-location>



## 3. Proposal Justification

### 3.1 Available Options

Before proposing a new base station, mobile carriers will attempt to resolve service issues by reconfiguring or upgrading existing base stations. If upgrades will not resolve service issues, the carrier will consider any opportunities to co-locate on an existing mobile facility, building or other structure. If there are no feasible co-location opportunities, the carrier will proceed to deploy a new 'greenfield' base station.

This section details all available options considered and outlines their expected outcomes:

**1. Do nothing:** A 'do nothing' approach would create potential service issues and disruptions into the future, with the technology lagging behind. It would also fail to support Council's objectives to support technological innovation and population growth in the coming years.

**2. Decommission the facility:** Decommissioning the existing facility would cause immediate connectivity issues for customers in the Carlisle and surrounding areas in the short term until an alternate co-location or greenfield opportunity could be identified and established. There are no available options identified for this scenario to be feasible.

**3. Strengthen the existing lattice tower:** Opportunities to strengthen the existing lattice tower are available, however they would still limit the future potential for carrier upgrades and technological improvements. Additionally, the strengthening would significantly increase the width and bulk of the lattice tower and would cause greater visual impact concerns for local residents.

**4. Replace with a new lattice tower:** Replacing the existing lattice tower with a new lattice tower would be inefficient and create similar visual impact concerns to option 3, as the structure would require a greater volume at the base. This would also not be feasible due to space constraints at ground level.

**5. Replace with a new monopole:** A new monopole would be the most feasible option in this scenario. Monopoles are far less visually obtrusive than lattice towers. Monopoles are slimline and generally blend in with existing street infrastructure, unlike lattice towers which have hundreds of steel members, joints and rods, generating visual clutter. Additionally, at ground level, a monopole is not affected by the limited space constraints that is experienced with the base area of lattice towers. As such, this option is being pursued as part of this Development Application.

## 3.2 Option Selection Justification

In this case, it was considered the subject facility could be upgraded to resolve these service issues identified. However, the upgrades would require significant strengthening works to safely support the new equipment proposed. While upgrades to existing facilities are typically permissible under low-impact pathways, in this scenario, it would have required significant strengthening works which would result in visual amenity concerns. It is considered that monopoles are far less visually obtrusive structures than lattice towers, and they can accommodate carrier equipment in a more orderly arrangement. As such, Option 5 was considered to be the ideal solution.

**Section 7** provides a detailed visual impact assessment related to this proposal.

## 4. Site Context

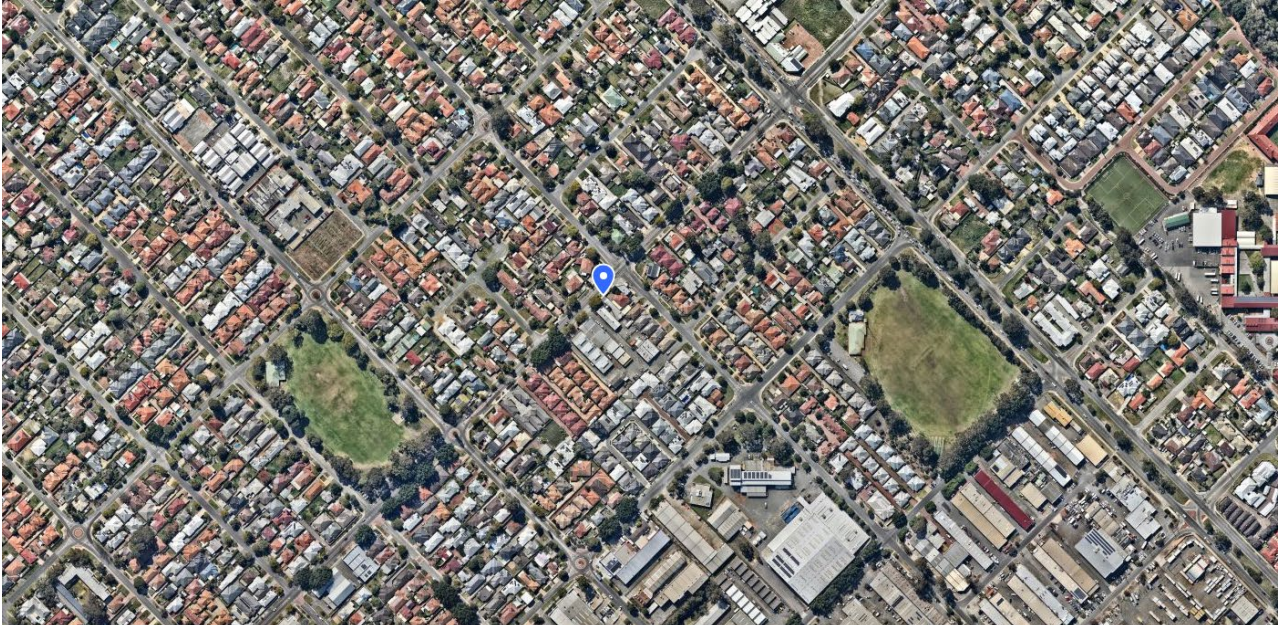
The proposal involves the replacement of an existing lattice tower with a new steel monopole for the purposes of hosting telecommunications equipment at 134 Oats Street, Carlisle WA 6101.

The facility currently hosts both Optus and Vodafone equipment, which will be upgraded and transferred to the new monopole structure, providing telecommunications services to residential and commercial customers located in Carlisle and the surrounding areas. The facility location is setback approximately 5m and 28m, from Oats Street and Harris Street, respectively.

The site is located on a lot retaining a Commercial Zone under the *Town of Victoria Park Local Planning Scheme No.1* (LPS1). The subject lot is also home to the Carlisle Collective, a collection of small shops, studio space, markets and a café. It serves as an important community space, inviting locals and visitors to the area. The lot has been mostly cleared of native vegetation; however numerous large street trees are in close proximity to the site.

The immediate locality consists of other small shops and commercial premises which sit amongst a broader low-density residential area. The closest residence to the facility is located immediately adjacent, approximately 7m to the east.

**Figures 2 – 6** show the existing site.



**Figure 2: Site context.** The existing facility to be upgraded is located within a small commercial area, situated amongst a broader residential district. Other land uses within the area include recreational parks and industrial development (Nearmap)



**Figure 3: Site context.** A scattering of trees surround the locality, with the site located in the northern corner of the subject property (Nearmap).



**Figure 4: Oblique view of existing facility facing north (Nearmap, October 2022).**



**Figure 5: Ground view of subject property frontage facing south-east, including existing facility (left) and Carlisle Collective (right) (Google Streetview).**



*Figure 6: Ground view of existing facility facing south-east*

## 5. Proposed Works

### 5.1 Equipment to be Installed

The proposal involves:

- Removal of one (1) 30m Indara lattice tower and associated telecommunications equipment
- Installation of one (1) 29.4m Indara steel monopole
- Installation and reconfiguration of telecommunications equipment previously on lattice tower onto the new steel monopole, including cabling, feeders, mounts, hybrids and other associated equipment.
- Upgrades to the fencing, concrete footing and foundations, including an additional 1m high concrete slab and an access ladder.

Additionally, the proposal involves the installation of new Optus and Vodafone telecommunications equipment, including:

- One (1) new triangular headframe
- Six (6) new panel antennas, approximately 2.7m in length, on new mounts
- Six (6) new panel antennas, approximately 0.8m in length, on new mounts
- Twenty-four (24) new and existing remote radio units (RRUs)
- Other ancillary equipment necessary for the safe and effective functioning of the facility.

The new monopole will be located adjacent the current position of the lattice tower within the reconfigured fenced compound. Commissioning of a mural artwork is proposed for the concrete façade resulting from the new foundation. The new structure will utilise the existing equipment shelter, reconfigured to support the associated equipment. The lattice tower will be removed following the installation of the monopole to mitigate mobile coverage downtime. The monopole and mounted equipment will be finished in non-reflective pale grey.

Refer **Appendix 2** for proposal plans.

### 5.2 Site Access and Parking

Existing access to the site is from the existing driveway on Oats Street, with the fenced compound accessible on foot via two stairs (see **Figure 7**). Upgrades to the concrete foundations are proposed, including an additional 1m of concrete footing required. As such, a ladder is being installed to provide access to the new compound platform.

No permanent parking spots are allocated to the facility; however, it is noted that while operational, the facility would only be accessed 2-4 times annually for routine maintenance. Dedicated parking is not considered required, and on-street parking in the nearby vicinity is adequate.



*Figure 7: Ground view of existing access arrangements. Upgrades to the foundation are proposed.*

### **5.3 Noise**

The facility will not be a significant generator of noise. The only part of the facility that generates noise is the air conditioning units attached to the equipment shelter.

Cooling equipment will only operate when required and will not operate continuously. Cooling equipment will operate at levels generally comparable to those of a domestic air conditioner. The project is not expected to represent a noise nuisance.

## 5.4 Power and Utilities

The provision of power to the site is existing and will not change. No works associated with stormwater drainage, or connections to reticulated water and sewerage, are proposed or required.

## 5.5 Emissions

Operation of the facility will not result in emission of dust, heat, smoke, gaseous plumes or particulates.

To provide mobile coverage, the facility will produce electromagnetic EME emissions. Because carrier equipment is yet to be confirmed (including specific antenna types and equipment configuration), Indara cannot provide an ARPANSA EME Report. Instead, Indara attach the latest ARPANSA EME report for the existing facility – refer **Appendix 3**.

EME levels at the existing site represent a maximum of 1.52% of the Australian safety standard. The EME report also predicts the levels for proposed additional equipment to the site if it were to remain a lattice tower as 4.05% of the Australian safety standard. These levels include the existing and proposed equipment of two mobile carriers. Retention of the lattice tower is not proposed, however. Final EME levels at the proposed site will depend on the specification and layout of antennas and equipment on the new monopole structure; however, it is anticipated that the new facility will have EME levels broadly similar to those predicted within the existing EME Report.

Indara confirm that it is a requirement that all mobile carriers abide by the Australian Radiation Protection Standard; additionally, all carriers in Australia have further committed to operating their facilities at the minimum power levels required to service an area. As a result, we confirm that this facility will always operate within the safe levels prescribed by the federal government.

## 5.6 Environmental Considerations

The proposed upgrade is on land that is currently developed, with scatterings of mature street trees in the nearby vicinity. The new monopole location will be positioned within the existing fenced compound area, and no permanent vegetation disturbance is required. No earthworks are required, with foundation works, including additional concrete footing, to take place above ground level.



Given there is an existing native tree adjacent to the proposed monopole, some minor branch trimming of tree might be required to allow crane access to install the proposed monopole and remove the existing lattice tower. Landscaping is not currently proposed.

There are no bushfire or flooding risks associated with the proposed upgrade.

## **5.7 Heritage**

A review of national, state and local heritage lists was considered in selecting the site. The site is not identified as being located on any list or register relating to heritage conservation, and there will be no anticipated impact on any important fabric (heritage or otherwise) resulting from the proposal.

## **5.8 Aviation**

The site is situated approximately 4km from Perth Airport and is within the Conical Surface area of the Perth Airport Obstacle Limitation Surface (OLS). Perth Airport sits at a ground elevation of approximately 21m AHD. The existing telecommunications facility sits at an elevation of 16m AHD.

The proposed facility will have a maximum height of 29.4m above ground level. Additionally, during construction the highest point of the crane will not exceed 40m above ground level, which will occur temporarily during the monopole installation. The maximum height during construction will therefore be 56m AHD.

The Prescribed Airspace OLS for Perth Airport specifies 61m AHD for the Inner Horizontal Surface, with the conical surface increasing by 5% towards the Outer Horizontal Surface area which specifies 166m AHD. These OLS elevations are greater than the proposed facility and crane heights, and therefore, the facility is not considered an aviation hazard.

No specific aviation safety measures, such as lighting or obstacle paintwork, are proposed. Indara will refer the proposal to Airservices if requested.

## 6. Legislative Context

### 6.1 Commonwealth Legislation

#### 6.1.1 Telecommunications Act 1997 and Telecommunications (Low-Impact Facilities) Determination 2018

The *Telecommunications Act 1997* allows mobile carriers to perform certain maintenance and installation works without needing development consent. The *Telecommunications (Low-Impact Facilities) Determination 2018* also allows for certain kinds of ‘Low Impact’ equipment to be installed without development consent.

New towers do not fall within these federal planning exemptions. Accordingly, this proposal will require Council approval.

#### 6.1.2 Telecommunications Code of Practice 2018

The *Telecommunications Code of Practice 2018* emphasizes “best practice” for the installation of facilities, compliance with industry standards and minimisation of adverse impacts on the environment.

This proposal has been designed with consideration for the Code of Practice. All steps will be taken to do as little damage as practicable; the facility will be constructed and operated in accordance with industry standards and good engineering practice; and the design of the facility will be in accordance with industry best practice.

#### 6.1.3 C564:2020 Mobile Phone Base Station Deployment Code

The Communications Alliance Limited *C564:2020 Mobile Phone Base Station Deployment Code* (the Deployment Code) is an industry code of practice registered by the Australian Communications and Media Authority.

The Code applies to all licenced telecommunications carriers, and sets guidelines for site selection, community consultation, design, installation and operation of telecommunications facilities.

Sections 4.1 and 4.2 of the Code are relevant to this proposal, and require a precautionary approach to site selection, infrastructure design and site operation. The proposed facility has been sited and

designed in accordance with Sections 4.1 and 4.2. Checklists demonstrating compliance can be provided on request.

The Code also requires an ARPANSA EME report be prepared for all new mobile base stations, to demonstrate compliance with relevant safety standards. The report is enclosed in **Appendix 3**.

## **6.2 State Legislation**

### **6.2.1 Planning and Development Act 2005**

The *Planning and Development Act 2005* establishes the planning and development system framework in Western Australia.

The project is considered to be 'Development' as defined by Section 4 of the Act:

- (a) Any demolition, erection, construction, alteration of or addition to any building or structure on the land;
- (b) The carrying out on the land of any excavation or other works;
- (c) In the case of a place to which a protection order made under the Heritage Act 2018 Part 4 Division 1 applies, any act or thing that –
  - (i) Is likely to change the character of that place or the external appearance of any building; or
  - (ii) Would constitute an irreversible alteration of the fabric of any building.

### **6.2.2 Metropolitan Region Scheme**

The project is subject to the provisions of the Metropolitan Region Scheme (MRS). The site retains an Urban (Zone) classification under the MRS. As such, the consent authority is the local Council, the Town of Victoria Park.

### **6.2.3 State Planning Policy 5.4: Road and Rail Noise**

The subject property is located within a strategic freight or major traffic route buffer area (300m). As such, SPP5.4 applies to this land. However, the proposal is for a telecommunications facility, which is not a 'noise-sensitive land use'.

Specifically, s4.3 of the policy gives exemptions to this policy for:

*b) planning proposals that do not result in intensification of land-use for example no proposed increase in the number of approved dwellings from that existing;*

As such, the policy measures under the SPP5.4 Road and Rail Noise are not applicable.

## 6.2.4 State Planning Policy 5.2: Telecommunications Infrastructure

The project has been assessed against the SPP5.2 Telecommunications Infrastructure, and is considered to be consistent with this policy.

4 Policy Objectives	
Objective	Comments
a) facilitate the provision of telecommunications infrastructure in an efficient and environmentally responsible manner to meet community needs;	The proposal achieves this objective. The facility is being upgraded to support enhancements of this facility now and into the future as local demand for telecommunications infrastructure grows. Upgrading this facility will eliminate the need for additional base stations in the immediate vicinity, reducing the environmental impacts associated with telecommunications facilities.
b) manage the environmental, cultural heritage, visual and social impacts of telecommunications infrastructure;	The proposal achieves this objective. <ul style="list-style-type: none"> <li>• Environmental impact has been minimised by upgrading an existing facility as opposed to deploying a new structure elsewhere. No additional ground disturbance will occur as a result.</li> <li>• Cultural and heritage impacts are considered minimal. The facility is not in an area of heritage significance.</li> <li>• The facility will have social benefits for the local area through improved mobile services, without compromising local amenity.</li> <li>• Regarding visual impacts, telecommunications facilities, by their nature, must be tall enough to protrude above the surrounding environment to function. Indara acknowledge the facility will be visible from a number of perspectives within the area – however, the height of the facility will be less than the existing tower, and monopoles are far less visually obtrusive than lattice towers, as mentioned earlier. As such, visual impact is considered to be minimal in context.</li> </ul>
c) ensure that telecommunications infrastructure is included in relevant planning processes as essential infrastructure for business, personal and emergency reasons; and	Not applicable to Indara. This objective is applicable to Council planning processes.

d) promote a consistent approach in the preparation, assessment and determination of planning decisions for telecommunications infrastructure.	Not applicable to Indara. This objective is applicable to Council planning processes.
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5 Policy Measures	
<b>5.1 Visual Impacts</b> For telecommunications infrastructure to be effective, structures are generally located prominently, at high points in the landscape or on top of buildings, where they are more likely to be visible to the public. The planning authority may exercise discretion in addressing the visual impacts of telecommunications infrastructure. Visual impacts of an infrastructure development proposal should be assessed by applying the following set of policy measures to guide the location, siting and design of the structure.	
<b>5.1.1 The benefit of improved telecommunications services should be balanced with the visual impact on the surrounding area.</b>	
Measure	Comments
i) Assessment of the visual impact of development proposals for telecommunications infrastructure should be made on a case by case basis;	Complies. Visual impact has been addressed in <b>section 7</b> of this report. It is considered the replacement of the facility will result in a net positive outcome for visual amenity.
ii) Telecommunications infrastructure should be sited and designed to minimise visual impact and whenever possible:	Complies. Proposal is to replace an existing facility and a monopole structure will be less visually obtrusive than the existing lattice tower.
a) be located where it will not be prominently visible from significant viewing locations such as scenic routes, lookouts and recreation sites;	Complies. While the facility is existing, it, along with the proposed replacement, are not visible from significant viewing locations. The immediate area is predominantly residential and commercial.
b) be located to avoid detracting from a significant view of a heritage item or place, a landmark, a streetscape, vista or a panorama, whether viewed from public or private land;	Complies. The facility is being located in the same position as an existing telecommunications structure and will not affect views and vistas within the local area.
c) not be located on sites where environmental, cultural heritage, social and visual landscape values may be compromised and	Complies. Site is located in an area with no known environmental, heritage, social or landscape importance.
d) display design features, including scale, materials, external colours and finishes that are sympathetic to the surrounding landscape;	Complies. The proposed monopole will be finished in a shade of unpainted neutral grey. This colour scheme is considered to best blend into its environment in all weathers. Indara will, however, consider finishing the facility in an alternate colour, such as pale green, at Council's request.

<p>iii) In addition to the existing exemptions under the Telecommunication Act, local governments should consider exempting telecommunications infrastructure from the requirement for development approval where:</p> <p>a) The infrastructure has a maximum height of 30 metres from finished ground level;</p> <p>b) The proposal complies with the policy measures outlined in this policy; and</p> <p>c) The proponent has undertaken notification of the proposal in a similar manner to 'low impact facilities' as defined and set out in the Mobile Phone Base Station Deployment Industry Code (C564:2011);</p>	<p>Not applicable. An exemption request was made to council for the proposal; however it is noted Council advised the proposal will require development consent.</p>
<p>iv) Telecommunications infrastructure should be located where it will facilitate continuous network coverage and/or improved telecommunications services to the community; and</p>	<p>Complies. The proposal is to upgrade an existing mobile base station structure, allowing it to continue to provide ongoing network coverage and improved telecommunications services to the community.</p>
<p>v) Telecommunications infrastructure should be co-located and whenever possible:</p>	<p>Complies. Proposed structure will include both Optus and Vodafone equipment.</p>
<p>a) Cables and lines should be located within an existing underground conduit or duct; and</p>	<p>Complies. Cabling will feed into existing power arrangement for the existing facility.</p>
<p>b) Overhead lines and towers should be co-located with existing infrastructure and/or within existing infrastructure corridors and/or mounted on existing or proposed buildings</p>	<p>Complies as far as practicable. The proposal does not include installation of overhead cabling. The proposal is replacing an existing facility to improve infrastructure quality.</p>

### 6.3.1 Information to be submitted when lodging a development application

Item	Comment
<p>a) a report demonstrating compliance with the Mobile Phone Base Station Deployment Industry Code (C564:2011), excluding Sections 6 and 7 (which only apply to developments that do not require development approval);</p>	<p>Complies. The current code is the C564:2020 Mobile Phone Base Station Deployment Code. Sections 4.1 and 4.2 of the Code, relating to site selection and design, are applicable to the proposal. An assessment of these items is included in <b>Appendix 5</b>.</p>
<p>b) a statement and/or a map indicating the extent to which the proposed facility addresses the network capacity for future demand and/or current gaps in service;</p>	<p>Not applicable. Proposal is to replace an existing structure with upgraded equipment – no additional service gap being filled.</p>
<p>c) a statement about the extent to which the proposed facility complies with any relevant local planning scheme or planning policy adopted under a scheme and (if applicable) justification for any variation from the relevant scheme or policy provisions;</p>	<p>Complies. <b>Section 6.3</b> below addresses local legislation compliance.</p>

d) plans and coloured graphic illustrations, including photo simulations, showing the type of facility and its relationship with adjacent development, including the proposal's elevations showing the extent, height and appearance, proposed materials and colour, any screening or fencing, and any external lighting;	Complies. Proposal plans have been provided in <b>Appendix 2</b> .
e) details of any significant environmental constraints, including those associated with the species, condition and significance of any vegetation to be removed;	Complies. No environmental constraints apply. See <b>section 5.6</b> .
f) map and a statement about where the proposed facility is to be located. If the facility is proposed within an infrastructure easement or corridor, consultation with other users is to be demonstrated; and	Complies. Facility location maps provided in <b>section 4</b> .
g) a statement explaining how the proposed facility addresses the policy measures for the location, siting and design of telecommunications infrastructure set out in Section 5.1.1 of this Policy.	Complies. See above table.

## 6.3 Local Legislation

### 6.3.1 Town of Victoria Park Local Planning Scheme No. 1

The site is on land subject to the Town of Victoria Park LPS1. The subject property is zoned under the LPS as a Commercial Zone (see **Figure 8**).

Under the Zoning Table in Clause 15 of the LPS, Telecommunications Infrastructure in a Commercial Zone is categorised as a Discretionary Use and requires Development Approval from Council.

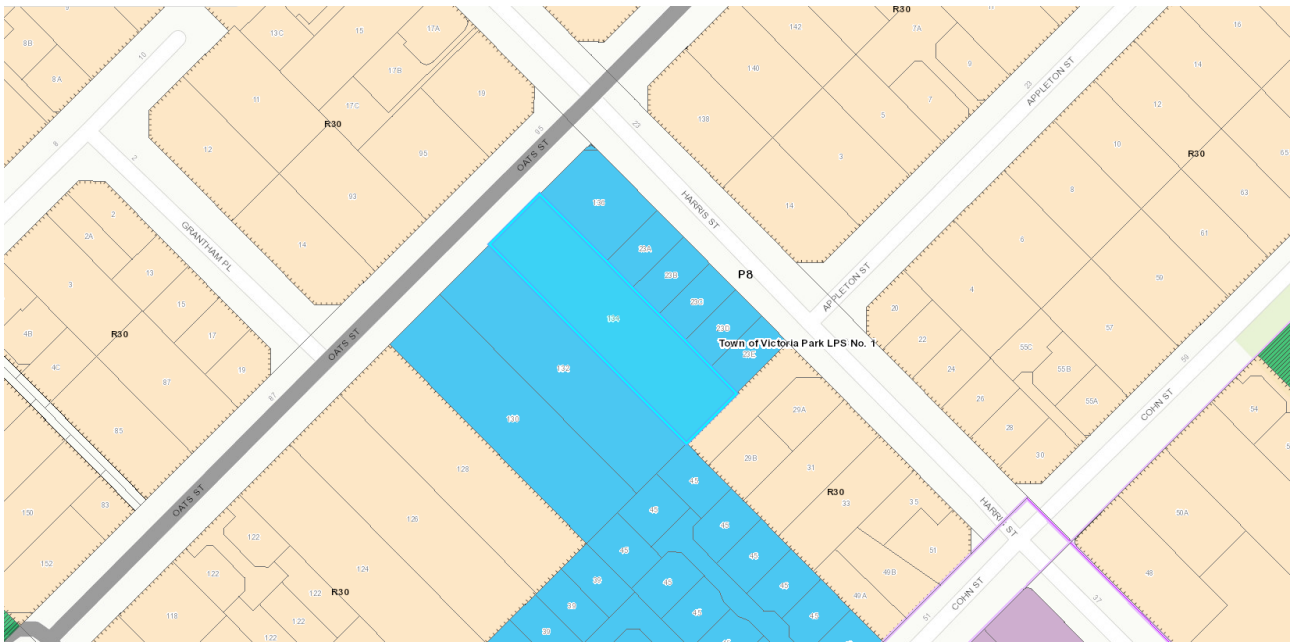


Figure 8: Zoning map. Subject lot is zoned commercial.

### 6.3.2 Town of Victoria Park Local Planning Policy 3 – Non-Residential Uses in or Adjacent to Residential Areas

The project has been assessed against the Town of Victoria Park Local Planning Policy 3 – Non-Residential Uses in or Adjacent to Residential Areas and is considered to be consistent with this policy.

A. Policy Objectives	
Objective	Comments
a) to ensure non-residential uses are compatible with the residential character, scale and amenity of surrounding residential properties;	Complies. Facility is existing, and proposal involves replacement and upgrade of an existing facility, which will not change the way the site is currently used. Visual impacts are considered minimal.
b) to provide for non-residential uses which serve the needs of the community;	Complies. Telecommunications infrastructure is critical infrastructure, supporting community connectivity in addition to providing coverage for visitors and emergency services in the area.
c) to encourage the re-use of existing purpose built non-residential buildings for a mix of appropriate local convenience/service and commercial uses where it results in an	Not applicable. The purpose of this proposal is to replace the existing structure for a more visually appealing structure with improved capacity. Re-using the existing structure is not considered an ideal outcome. <b>Section 3.1</b> provides further justification.



economically viable use of the building and provides a service to the community;	
d) to minimise the impacts of non-residential development through appropriate and sufficient management of car parking and traffic generation, noise, visual amenity and any other form of emissions or activities that may be incompatible with surrounding residential uses;	Complies. Following construction, the proposal will not result in any traffic generation, parking limitations, noise, or other unacceptable impacts. The facility is existing and will be upgraded. No additional parking is required as the facility will be unmanned. The only emissions associated with the facility will be electromagnetic energy emissions, which is regulated by the Federal Government and other industry bodies. This is further detailed in <b>Section 8</b> .
e) to ensure that the appearance and design of non-residential development is compatible with surrounding residential properties and the streetscape in terms of building size and scale, the provision of adequate landscaping treatments, the retention of existing mature trees and the suitable design and location of advertising signage;	Complies. The proposed facility will be lower in height than the existing facility. This represents a reduction in scale and overall visual impact to surrounding residential dwellings. No mature trees will be removed. Additionally, the concrete foundation will provide opportunity for street artwork or murals to be commissioned to enhance local character.
f) to maintain and enhance the amenity of residential environments through ensuring appropriate landscaping treatments, location of car parking and vehicular access legs, and the protection of visual privacy when considering applications for non-residential development;	Complies. The proposal to upgrade the existing facility will have minor impacts on the amenity of residential environments, given the facility has existed in this location for over 20 years. Additionally, while a height extension to the foundation is proposed, the compound will only be accessed 2-4 times annually for routine maintenance, and as such visual privacy is not considered to be a concern. There is not adequate space for landscaping to be provided.
g) to avoid the concentration of non-residential uses where it would create a de-facto commercial area, isolate residential properties or contribute to the unplanned expansion of commercial or mixed use zones into surrounding residential zoned land.	Complies. Proposal is for an identical use to the existing use of the land, and as such does not change the nature of land use in the area.

<b>B. Policy Requirements</b>	
<b>1. Preferred Location</b>	
<b>Measure</b>	<b>Comments</b>
a) Non-residential uses are generally encouraged to locate on sites which have access to main streets or major roads and are discouraged from locating within a local access street or laneway. Other locations may be considered where it can be demonstrated that residential amenity can be protected;	Complies. Access to main street is direct (5m).

b) Should be located such that residential properties are not isolated between non-residential uses;	Complies. Only 1 adjacent property is a residential use.
<b>2. Traffic Generation</b>	
a) Non-residential development should only be permitted where it does not negatively impact the function or safety of the adjacent roads or cause undue conflict through the generation of traffic or demand for parking	Complies. Proposed facility will be unmanned and will not generate additional traffic or parking demand.
b) In assessing an application for non-residential development, in addition to considering matters such as traffic volumes, road capacity and road safety from a technical engineering perspective, Council will have also regard to these matters from a residential amenity perspective.	Complies. As above.
c) A Transport Impact Statement (TIS) or Transport Impact Assessment (TIA) prepared by a suitably qualified independent traffic consultant may be required to be submitted as part of a development application, which assesses the likely traffic impacts associated with the proposed development.	Not applicable. As above.
d) The appropriate level of traffic assessment required to be undertaken for the proposed development will be determined by Council having regard to the requirements of the Western Australian Planning Commission's (WAPC) (2016) Transport Impact Assessment Guidelines.	
<b>3. Control of Noise, Pollution or Other Impacts Associated with the Use</b>	
Non-residential development shall only be permitted where the nature of the non-residential use will not cause undue conflict or adversely affect the amenity of the neighbourhood through the emission of light, noise, fumes, odours, dust, vibration, electrical interference, waste water, or any other form of pollution which may be undesirable in residential areas. Development applications for a non-residential use should be accompanied by a statement and/or specialist reports outlining if and how any impacts arising from the activities proposed to be conducted on the site will be prevented or appropriately managed to ensure that the amenity of surrounding residential properties is maintained (e.g. Acoustic Report).	Complies. No additional emissions other than that which are currently being emitted will result from the proposal. Current emissions are limited to electromagnetic emissions (EME), which is detailed further in <b>Section 8</b> . These will be within the safe margins regulated by ACMA. A report on EME is included in <b>Appendix 3</b> .
<b>4. Plot Ratio</b>	
Non-residential development on Residential zoned land is required to comply with the plot ratio development standards for Multiple Dwellings of the relevant R-Code on which the development is located. For the purposes of this Policy, in areas with a density coding of less than R40, a plot ratio of 0.5:1 applies.	Not applicable.
<b>5. Building Setbacks</b>	
a) Front setback requirements: (i) For non-residential development on Residential zoned land – to comply with the requirements applicable to	Complies. Policy measure (ii) is applicable. The relevant Precinct Plan does not include a setback

<p>residential development under the relevant Precinct Plan, RCodes and/or Council Policies.</p> <p>(ii) For non-residential development adjacent to Residential zoned land or land used for residential purposes – to comply with the requirements applicable under the relevant Precinct Plan and/or Council Policies</p>	<p>control, but rather requires new buildings to be setback “in a manner generally consistent with the building set back on adjoining land”. As such, the existing facility and proposed new facility are setback appropriately.</p>
<p>b) Side setback requirements for non-residential development on Residential zoned land or those portions of a non-residential development adjacent to Residential zoned land:</p> <p>(i) To be setback from side boundaries as per the requirements for residential development under the Residential Design Codes;</p> <p>(ii) A wall containing a window, door or other opening which is capable of affecting the privacy or amenity (e.g. through associated access/activity/noise) of nearby residences or future residences will be treated as a ‘major opening’ for calculating the required side setback under this clause; and</p> <p>(iii) A nil side setback may be permitted to an adjoining Residential zoned property where the length and height of the boundary wall complies with the requirements for residential development applicable to the adjoining residential property under Council’s Local Planning Policy No.26 – Boundary Walls.</p>	<p>Not applicable. Site does not share a side boundary with residential zoned land.</p>
<p><b>6. Visual Privacy</b></p>	
<p>Major openings (any window, door or other opening which may affect the privacy of nearby residences or future residences) should be located such that they do not directly face or are screened from surrounding residential properties. This is particularly important where they may serve as a means of frequent access, allow the escape of noise, or serve as sources of overlooking into adjoining residential properties by staff or visitors/customers to the site.</p> <p>Where located adjacent to existing residential properties, developments are to be designed to satisfy the following criteria:</p> <p>a) All major openings to operational rooms or amenities frequented by staff/customers of the development that have a finished floor level raised 0.5 metres or more above natural ground level which overlook any part of an adjoining residential property behind its street setback line, are to:</p> <p>(i) be setback, in direct line of sight, a minimum of 6.0 metres from the boundary of the adjoining residential property (as measured from a 45 degree cone of vision from the external face of the opening); or</p> <p>(ii) be provided with permanent vertical screening to a minimum height of 1.6 metres above the finished floor level.</p>	<p>Complies. Proposal does not include the construction of any windows, doors or other openings, nor operational rooms or amenities.</p> <p>The proposal does not involve any unenclosed outdoor spaces such as those listed in measure (b). Compound will only be accessed 2-4 times annually for routine maintenance and does not represent a visual privacy concern.</p>

<p>b) All unenclosed outdoor spaces (balconies, decks, verandahs and the like) where the finished floor level is raised 0.5 metres or more above natural ground level which overlook any part of an adjoining residential property behind its street setback line, are to:</p> <ul style="list-style-type: none"> <li>(i) be setback, in direct line of sight, a minimum of 7.5 metres from the boundary of the adjoining residential property (as measured from a 45 degree cone of vision from the external perimeter of the unenclosed outdoor space); or</li> <li>(ii) be provided with permanent vertical screening to a minimum height of 1.6 metres above the finished floor level of the unenclosed outdoor space.</li> </ul>	
<p><b>7. Building Design</b></p>	
<p>The design and siting of new non-residential buildings/facilities on Residential zoned land should have regard to the existing neighbourhood character and reflect a residential scale and appearance, particularly with regard to the following elements:</p> <ul style="list-style-type: none"> <li>a) Building and roof form;</li> <li>b) Building height and setback;</li> <li>c) Design detail, including façade articulation, verandahs, window and door style and placement; and</li> <li>d) Building materials, colours and finishes.</li> </ul>	<p>Not applicable. Proposal is not on residential zoned land. Notwithstanding this, the design of the facility will represent a sympathetic appearance, reducing the impact associated with the existing lattice tower to a monopole.</p>
<p><b>8. Location of Vehicular Access/Car Parking and Provision of Boundary Fencing</b></p>	
<p>a) Where car parking or vehicular access ways are already provided in the vicinity of adjacent residential properties or cannot be (re)located elsewhere, suitable barriers shall be provided to protect boundary fencing, which may be required to be upgraded to protect the amenity and/or privacy of adjoining residents</p>	<p>Not applicable. Following construction, the requirement for parking will be minor as the facility will be unmanned during its operation. Fencing for nearby residents is not anticipated to experience impacts as a result of the proposal.</p>
<p>b) New or upgraded boundary fencing should be a minimum of 1.8 metres high and be of masonry construction in a colour/finish that complements the development as well as being of compatible colours and materials to any neighbouring residential properties.</p>	<p>Alternate solution proposed. The proposed facility will be fenced in a minimum 1.8m tall chainwire fence surrounding the compound. This is similar to the existing fencing for the current facility, and is considered to be most appropriate for a telecommunications facility.</p>
<p>c) It is recommended that the applicant obtain agreement with neighbouring properties regarding the height, materials and finish of any new/upgraded boundary fencing.</p>	<p>The proposal has been granted consent to lodge by the landowner. Consultation with neighbouring properties will be undertaken during the DA Community Consultation period. It is noted the proposal represents a</p>

	reduction in height and visual impact from the existing structure present on the site.
d) The provision of new/upgraded boundary fencing may be applied as a condition of development approval where it is deemed necessary by the Council to reduce the potential impacts of the non-residential development on adjoining residential properties.	Noted.
<b>9. Location of Building Services and Bin Storage Areas</b>	
a) Delivery, loading and building services areas are to be located such that they are not visible from the street or adjoining residential properties	Not applicable.
b) Bin storage areas are to be appropriately screened and located so that they do not harm the amenity of surrounding residential properties by way of visual nuisance, noise, odours or other impacts	Not applicable.
<b>10. Antisocial Behaviour &amp; Crime Prevention</b>	
The development should demonstrate that it has been designed and will operate in a manner that does not encourage crime or antisocial behaviour to occur. Non-residential development should be designed in accordance with relevant Crime Prevention Through Environmental Design (CPTED) principles, having regard to the Policies adopted by Council as well as relevant State Planning Guidelines, to address matters including propensity for crime and antisocial behaviour to occur, personal safety, passive surveillance, vandalism/graffiti etc. Roller doors/shutters will not be acceptable in any instance.	Complies. The facility in its existing form has not experienced antisocial behaviour or crime associated with its design. This behaviour is not anticipated to occur as a result of the proposed upgrade. Additionally, the facility will provide essential mobile and data services to the surrounding area, which will aid the community and emergency service organisations in crime prevention.
<b>11. Landscaping</b>	
a) A high quality of landscaping should be provided to soften the appearance of the development, screen car parking areas and provide for a pleasing aspect that is compatible with the streetscape and amenity of surrounding residential properties	Alternate solution proposed. Given the minimal footprint the site takes up (~25m <sup>2</sup> ), landscaping is not feasible due to space constraints. However, large mature trees are located nearby to soften the appearance of the development. No car parking areas are proposed.
b) For non-residential development on Residential zoned land, a minimum of twenty five percent (25%) of the site area is to be landscaped, and a minimum of fifty per cent (50%) of the front setback area is to be soft landscaping.	Not applicable.
c) For non-residential development adjacent to Residential zoned land or land used for residential purposes, on-site landscaping is to	Complies. Landscaping is not stipulated in the Carlisle Precinct Plan. In addition, given space

be provided in accordance with any standards applicable under the Precinct Plan and/or Council Policies	constrains, landscaping is not feasible.
d) Car parking areas located within the front setback area are to be setback from the front property boundary behind a soft landscaping strip of at least 1.5 metres in width.	Not applicable.
e) The development to be designed to retain and conserve existing mature trees on the site as well as existing Council verge trees, wherever possible.	Complies. No trees are to be removed.
f) Where a vehicular access way or car parking area is located adjacent to any residential property and is unable to be (re)located elsewhere, it shall be setback behind a barrier to protect neighbouring boundary fencing that incorporates a planted perimeter strip of at least 1.0 metre in width between the car park/vehicular access way and any adjoining residential property.	Not applicable. Access way is not directly adjacent to residential property.
<b>12. Signage</b>	
Not applicable. Signage not proposed (except safety and hazard notices)	
<b>13. Hours of Operation</b>	
a) Hours of operation for all non-residential uses will be considered having regard to the nature and intensity of the use and the context of the site and surrounding areas.	Not applicable. Facility is unmanned.
b) Loading and unloading of vehicles should only occur between the hours of 7am to 7pm.	Not applicable.

## 7. Visual Impact

### 7.1 Visual Impact Assessment

Indara acknowledge the facility will be visible from several perspectives within the locality. However, these perspectives also experience views of the existing lattice tower. Telecommunications facilities, by their nature, must be tall enough to protrude above the surrounding environment to function. At this location, a 30m lattice tower is proposed to be replaced with a 29.4m monopole to continue to meet the targeted coverage objectives for Optus and Vodafone, while ensuring visual amenity is not impacted.

Monopoles are considered to be far less visually obtrusive than lattice towers. Monopoles are slimline and generally blend in with existing street infrastructure, unlike lattice towers which have hundreds of steel members, joints and rods, generating visual clutter. In addition, the local area has numerous mature vegetation that will afford natural screening opportunities from many surrounding viewpoints, as indicated in **Figure 9**.



*Figure 9: Indicative map of existing vegetation in relation to the existing and proposed facility location. The surrounding land is well vegetated with large mature trees providing natural screening (Nearmap 2023)*



Figure 10: View towards site location, from Corner of Harris Street and Astral Avenue, looking southeast (Google Streetview, 2022).



Figure 11: View towards site location, from Corner of Harris Street and Appleton Street, looking northwest (Google Streetview, 2022).



In addition to the natural screening provided by vegetation present within the immediate area, the facility will be finished in unpainted grey. Grey facilities also tend to blend well into the skyline in all weathers and are considered to be the most sympathetic finish with regards to blending a facility into various landscapes. However, Indara will consider an alternate colour scheme if requested by Council.

## 7.2 Technical Requirements

The visual impact of the proposed facility should also be considered in light of technical requirements; there are numerous technical requirements that need to be considered by mobile carriers with regards to site selection:

- Base stations must be close to the area they are servicing. Relocating the facility, even by a small distance, could impact the site's ability to service the area effectively, particularly when an area is subject to significant constraints.
- Individual base stations are cells within a wider network, meaning they must also work in conjunction with surrounding base stations in the area. If sites are too close to each other, they may cause interference, while sites that are too far from each other, may result in coverage interruptions.
- The coverage from a base station is impacted by terrain and environmental obstructions, like buildings and mountains. Even a small shift can result in impacts to coverage.

The proposed facility is in a favourable location to service the local area. Even if an alternate site were available, relocating the facility may result in a substantially worse service outcome.

## 7.3 Concrete Footing and Foundation

The proposed upgrade involves works to the existing foundation, including the addition of 1m of concrete footing to support the proposed monopole. This will result in a 1.7m foundation at ground level on Oats Street. Accordingly, it is proposed that the commissioning of a mural on this facade is an opportunity for a community benefit, providing a space for local artists to showcase their work and improve the streetscape qualities. This would reduce the visual impact associated with the structure foundations proposed, while also aligning with the cultural and artistic values of the adjacent Carlisle Collective on the subject property. **Figures 12 & 13** present indicative montages of a potential mural space at the base of the proposed facility.



Figure 12: Indicative height of proposed concrete foundation and photomontage with mural opportunity (Indara, 2023).



Figure 13: Indicative height of proposed concrete foundation and photomontage with mural opportunity (Indara, 2023).

## 8. Radiofrequency Emissions and Safety

It is the position of the Australian government, and peak health bodies like the World Health Organization (WHO), that mobile base stations are safe.

### **Statement from Australia's Chief Medical Officer**

*I'd like to reassure the community that 5G technology is safe. There is no evidence that telecommunication technologies, such as 5G, cause adverse health impacts. This position is supported by health authorities in Australia – such as the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) – and around the world, such as the World Health Organization.*

*Mobile phone networks and other wireless telecommunications emit low-powered radio waves also known as radiofrequency (RF) electromagnetic energy (EME). This is different to ionising radiation associated with nuclear energy or use in medicine. The radio waves to which the general public is exposed from telecommunications are not hazardous to human health.*

**<https://www.health.gov.au/news/safety-of-5g-technology>**

### **Australian Government Advice**

*What do we know about EME? Answer: extensive scientific research confirms that mobile technology has no long or short term health effects; and the Australian Government is focused on capturing the benefits of advanced telecommunications while ensuring strict protections and safety standards are met.*

*The EME standard set by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) defines the maximum exposure limit for all wireless equipment and is strictly enforced by the Australian Communications and Media Authority (ACMA). Measurements undertaken by carriers and ACMA show that mobile telecommunication sites emit a tiny fraction of maximum EME exposure limits. The exposure limits are themselves very conservative. As such, sites which operate at 100% of the limit are still considered safe.*

*This standard is informed by decades of quality studies undertaken by expert Australian and international scientists which show the low levels of EME produced by telecommunications equipment have no adverse effects. This includes previous generations of mobile technology, like 3G and 4G, and the higher, more efficient, radio waves used for 5G.*

**<https://www.infrastructure.gov.au/media-centre/5g-and-electromagnetic-energy>**

*EME is one of the most heavily studied types of energy in the world. Decades of research shows there is no verifiable evidence that EME from telecommunications facilities pose a negative health risk, especially when emission levels are below the maximum exposure limits set out in the Standard for Limiting Exposure to Radiofrequency Fields – 100 kHz to 300 GHz (the Standard).*

**<https://www.infrastructure.gov.au/media-technology-communications/spectrum/5g-eme>**

All mobile base stations in Australia must comply with a strict safety standard called the *Standard for Limiting Exposure to Radiofrequency Fields – 100 KHz to 300 GHz (RPS S-1)*. The standard has been prepared by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), based on the recommendations of ICNIRP (International Commission for Non-Ionising Radiation Protection).

The Australian Communications and Media Authority (ACMA) regulates compliance with the standard. The safety standard applies to all mobile frequencies currently used in Australia, including 3G, 4G and 5G.

The Standard operates by placing a limit on the strength of the signal (or RF EME) that mobile carriers can transmit to and from any network base station. The environmental standard restricts the signal strength to a level low enough to protect all people at all times. It has a significant safety margin, or precautionary approach, built into it.

An ARPANSA EME report is not yet available for the proposed new monopole structure and equipment. This is further detailed in **Section 5.5**. However, an ARPANSA EME Report for the existing lattice tower structure has been provided in **Appendix 3**. This report demonstrates the maximum signal strength that a proposed telecommunications facility is capable of producing, assuming it is operating at maximum capacity. While this report is not accurate for the new proposed structure, it is indicative of the EME levels predicted for this site with the additional equipment installed.

Note that mobile base stations are designed to operate at minimum, not maximum, power levels at all times. The facility will only operate at a level necessary to accommodate the number of customers using the facility at any one time. Actual EME levels emitted by the facility will generally be much lower than those shown in the ARPANSA EME Report.

## 9. Conclusion

Indara is seeking development consent to upgrade an existing telecommunications facility at 134 Oats Street, Carlisle WA 6101. The proposed upgrade will contribute to improving mobile services in the Carlisle area.

The upgrade is proposed to improve structural capacity of the site, and will in turn, improve the visual amenity associated with the facility. It has been designed to minimise impact on surrounding land uses as far as practicable, generally accords with planning requirements for the site, and has as small as possible a visual impact.

Given the significant public benefit afforded by the proposal, it is requested that consent be granted to undertake the upgrade.