Jason Redmond & Associates Consulting Engineers



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The Planning Officer

Dunlaoghaire - Rathdown County Council

County Hall,

Marine Road,

Dún Laoghaire,

Co.Dublin,

Date:

29th October 2019

Re:

Section 254 Application- Proposed Telecommunications Street works Solution

Applicant:

Cignal Infrastructure Ltd., Suite 309, Q House,

76 Furze Road, Sandyford Industrial Estate, Dublin 18

Location:

R825, Lower Kilmacud Rd. Dublin 14

Dear Sir/Madam,

On behalf of our client, Cignal Infrastructure Ltd please find attached application under Section 254 (1) (g) subsection 5 (A) of the Planning and Development Act 2000, which provides for the installation of communications infrastructure under licence from the Authority. We have included plans and other information concerning the requirement, position, design and capacity of the structure as outlined in Section 254 (3). We are happy to provide additional information on request.

Background

Cignal are a registered Infrastructure Provider for the Communications Industry with over 550 sites around Ireland supporting mobile and broadband communications. Cignal provide Tower, Mast, Roof Top and Streetworks Solutions for the expanding requirements of the Licenced Operators including EIR, Vodafone and Three.

Cignal is authorised by ComReg to provide Electronic Communications Networks and Services, which allows them to apply for a licence under section 254(1) of the Planning and Development Act, 2000 for the establishment of over ground electronic communications infrastructure and any associated physical infrastructure. Please see attached a Certificate of Authorisation for your information.

The Requirement

Working closely with mobile network Licenced Operators, Cignal have identified the subject site as a known blackspot for mobile and wireless broadband. A specific solution to address

the deficit in coverage has been identified and approved by the mobile network Licenced Operators.

The Proposal

With reference to the attached plans you will note that it is proposed to provide a 15m high Smart Streetpole Solution in the specified location. See below a photograph of an identical Smart Streetpole and cabinet installed in Bagenalstown on October 2019. This was installed under a Section 254 Licence granted by Carlow County Council

The street pole has an approx. diameter of 324mm and will be galvanised and painted in finish up to 11.3m in height. Above the 11.3m height a mobile and mobile broadband antenna will be mounted to a finishing height of 15m.

The antenna will be shrouded by a 406mm sheath to match the pole.

The pole would be accompanied by an Operator Cabinet specifically located in a position agreeable to the local authority engineers. (Refer to detailed drawings attached)



Fig 1. Existing 15m Smart Streetpole Solution as erected in Bagenalstown, Co Carlow

The antenna and structure are designed to blend in with the streetscape, are Irish made and will provide instant mobile and mobile broadband coverage.

Please see attached separate site location justification and planning assessment prepared by CMC Planning Consultants.



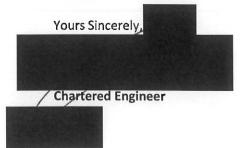
Fig 2. Aerial View Site Location

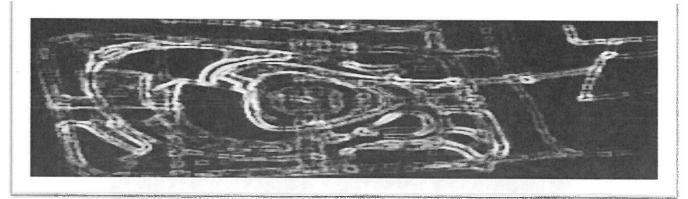
Please find attached the following documents in respect of the Section 254 Application.

0	DN_1695	-100	Site Location Map	1:10,560 OS Data
0	DN_1695	-101	Site location Map	1:2500 Aerial Photo
0	DN_1695	-102	Site Location Plan	1:1000 OS Data
0	DN_1695	-103	Site Layout Plan	1:250
0	DN_1695	-103A	Elevation	1:100
0	DN_1695	-104	Schematic Elevation	NTS
0	DN_1695	-105	Standard Elevations and Details	AS
0	DN_1695	-110	Comreg Map	1:100,000

- $\circ \quad \text{CMC Planning Consultants Site Specific Planning Assessment} \\$
- o CMC Planning Consultants General Planning Report

We trust you find the attached in order. Please don't hesitate to contact the undersigned should you require any further information. We would be obliged if you would acknowledge receipt of the application and payment and we look forward to hearing from you in due course.





CMC PLANNING CONSULTANTS

SITE ASSESSMENT

Proposed Installation of Overground Electronic Communications Infrastructure under S.254 Licence at Kilmacud Road Lower Dún Laoghaire Co. Dublin

Overview

Cignal Infrastructure Ltd is proposing the development of overground electronic communications infrastructure under Section 254 (ee) of the Planning & Development Act 2000 (as amended) revised by S.I. No. 391 of 2016 European Union (Reduction of Cost of Deploying High-Speed Public Communications Networks) Regulations 2016. The associated infrastructure, commonly referred to as a "street solution" is required to deliver high speed digital services within the jurisdiction, on behalf of eir Mobile.

Details of the proposed development are contained in the plans and particulars attached to this submission as prepared by Jason Redmond and Associates Constituting Engineers on behalf of Cignal Infrastructure Drawing Ref DN_3321. This assessment is intended as a site specific addendum to the attached general due diligence report "Proposed installation of Cignal Smart Street pole solutions at various locations in Dún Laoghaire Rathdown".

The site at Kilmacud Road Lower has been assessed against the following source material:

- Dún Laoghaire and Rathdown County Development Plan 2016-2022
- Telecommunications Antennae and Support Structures Guidelines for Planning Authorities
 1996 and Circular Letter PL07/12 & Guidelines issued by the Department of Environment
 Community and Local Government
- Section 254 (5) of the Planning and Development Act
- MyPlan.ie Dept. of Housing, Planning, Community & Local Government
- · Historic Environment Viewer Dept. of Arts, Heritage, Regional, Rural and Gaeltacht Affairs
- Natura 2000 Network Viewer European Environment Agency
- ComReg Site Viewer and Code of Practice on Sharing of Radio Sites 03/28R

Assessment Limitations

In Chapter 8 of the CDP, Principles of Development- Telecommunications Antennae and Structures, the Council lays out its general submission requirements for telecommunications infrastructural development. The proposed street solution on Kilmacud Road lower will be assessed against the requirements laid out in Section 8.2.9.9 summarised below. In the consideration of proposals for telecommunications antennae and support structures, applicants will be required to demonstrate the following:

- Compliance with the Planning Guidelines for Telecommunications Antennae and Support Structures (1996) and Circular Letter PL 07/12
- 2. Location of all existing telecommunications structures within a 1km
- 3. Impact on amenity visual impact
- 4. Signal strength analysis
- 5. ICNIRP Compliance
- 6. Impact on existing Rights of Way

NOTE: The Development Plan requirement to provide signal strength analysis is in direct conflict with the Guidelines more specifically Paragraph 2.6 of Circular Letter PL 07/12, which states

2.6 Health and Safety Aspects

The 1996 Guidelines advise that planning authorities should not include monitoring arrangements as part of planning permission conditions nor determine planning applications on health grounds. This Circular Letter reiterates that advice to local planning authorities. Planning authorities should be primarily concerned with the appropriate location and design of telecommunications structures and do not have competence for health and safety matters in respect of telecommunications infrastructure. These are regulated by other codes and such matters should not be additionally regulated by the planning process

According to ComReg:

"The Department of the Environment, Heritage and Local Government is responsible for the health effects of non-ionising radiation including electromagnetic fields. ComReg's role in relation to Non-Ionising Radiation is solely to ensure that licensed operators comply with their licence condition and do not exceed the emissions levels established by the International Commission on Non-Ionizing Radiation Protection (ICNIRP)"

We suggest that ComReg is the sole expert in relation to monitoring of the Telecommunications Industry and under the Guidelines, any assessment in relation to Health and Safety should be carried out by its experts alone. Signal strength analysis is therefore omitted from this assessment.

Kilmacud Road Lower N53°17'20.86" W6°12'41.46"

1.0 Background Information

The information below was extracted from the survey report provided by Jason Redmond and Associates Constituting Engineers, noted in the course of the initial search ring surveys which resulted in the proposed location being advanced as the primary candidate.

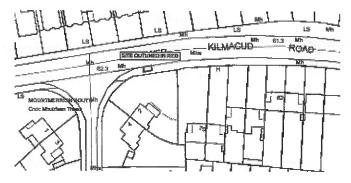


Image 1 Extract from Site Location Map Drwg No DN 1695-102

1.1 Requirement

This proposed development is required to the site is required to meet the coverage requirements of eir customers in an identified blackspot area particularly along the street and the residential housing in the area. The location was chosen to provide coverage and enhanced services to residential housing on Kilmacud Road, which has poor indoor coverage on eir Mobile's network. The site will enhance coverage to the general area and provide continuous coverage and capacity on the network to those passing through the cell

1.2: Site Justification

- 1. It is within the Search Ring coverage footprint.
- 2. There is adequate space to locate a street works solution and cabinet.
- 3. The proposed street works will blend in to a degree with the existing on-street lighting poles across the road.
- 4. There is fibre located at this location to ensure connectivity into the network.
- 6. The location will not interfere with existing services

1.3 Other Locations reviewed:

- The first option identified was the flat roof to the rear or O Dwyers Pub, at Slieve Rua junction, further south on Lr. Kilmacud Road. However, the roof structure failed our structural tests and this candidate had to be discarded.
- 2. To the northern end or the Search Ring we identified the premises of DID Electrical as a candidate. However, this property was not made available to us.
- 3. A third candidate on the wide pathway outside the medical centre on the main road was identified but considered unsuitable.

2.0 Development Plan Considerations

2.1 Zoning:

The Local Authority mapping shows the proposed location is adjacent to a large area zoned to improve residential amenity. According to Table 8.3.2 Zoning Objective 'A': Public Services, such as the proposed electronic communications infrastructure, are "Permitted in Principle"

Table 8.3.2



ZONING OBJECTIVE 'A'

'To protect and/or improve residential amenity'.

Permitted in Principle: Public Services

Image 2: Extracted from Dún Laoghaire and Rathdown County Development Plan 2016-2022

2.2 Impact on Designated Areas and Protected Structures

The location was assessed to ensure there was no impact uncovered on designated areas or protected structures, from the proposed installation. The location is circa 2.5km from Special Protection Areas South Dublin Bay and River Tolka Estuary SPA, Site Code: 004024 and Proposed Natural Heritage Area Special Area of Conservation South Dublin Bay, Site Code: 000210 and circa 800m from National Monuments Service Record Number: DU023-007----Classification: Ecclesiastical site

No impact anticipated due to distances involved – see map extract below;

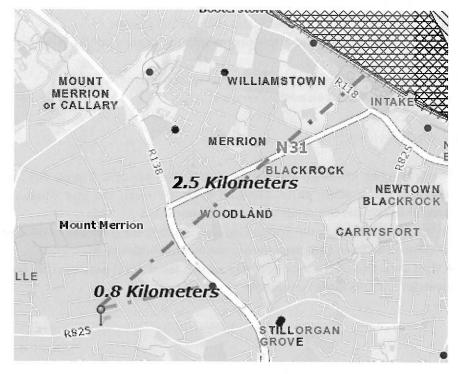


Image 3 Extracted from www.myplan.ie

The location is not within the boundary of any protected structure however there are two in the surrounding area. RPS Number: 1383 Kilmacud House Carmelite Monastery RPS Number: 1401 Carmelite Monastery (formerly Kilmacud Manor). The proposed pole development is not considered impactful on the protected structures, due to distances and existing screening.

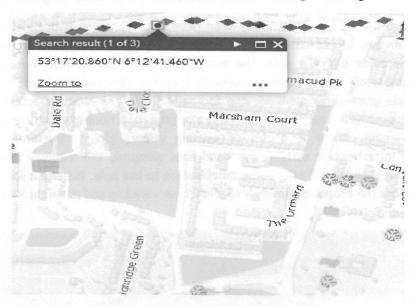


Image 4: Extracted from DLR Development Plan map viewer

3.0 Location of all existing telecommunications structures within 1km

Delmec has provided mapping overlaid with information extracted from ComReg's siteviewer-Drawing No. DN 1695-100. There are no telecommunications installations at all within 500m of the location and relatively few within 1km. Of the existing base station sites listed on siteviewer, the majority of are "rooftop" type solutions and many are currently providing accommodation to the occupant of the proposed infrastructure, eir Mobile- described as "Meteor" on ComReg's site.

The lack of suitable alternative infrastructure is evident on the map provided, with a co-located rooftop solution in Stillorgan being the closest installation — see image 5 below. This rooftop installation (ComReg Site Ref:1312) already provides mobile and limited data services locally on eir Mobile's network and is not suitable for expansion or enhancement. Indeed the other base station sites within 1Km are also localised solutions and limited in their suitability to provide next generation services. It is considered that there are no proximate alternative structures to the proposed development, capable of resolving the blackspot issue on the operator's network.



Image 5 Existing eir Mobile rooftop site (co-located) in Stillorgan ComReg Site ID: 1312

4.0 Visual Impact

The proposed location is illustrated on the set of drawings attached to the licence application — Drawing No. DN 1695. The location is assessed below using the matrix extracted from the Environmental Protection Agency Guidelines, as described in the main planning report.

The site is located on the Lower Kilmacud Road close to the junction with Dale Drive. The road connects the Drummartin Road with the Stillorgan Road carrying traffic in both directions. There is no bus or cycle lane evident on the road. The overall land use is predominantly residential, with a considerable number of housing estates accessible from the Kilmacud Road. The proposed site is located on a wide grass verge alongside the footpath. There are vehicular access points to the residential developments intersecting the pathway along the road, none of which are impacted by the planned development. There is a run of existing utility lighting structures and analogue communications infrastructure carrying overhead lines alongside the roadway interspersed with several mature trees, which will offer some amelioration to the pole. The site is located at a slight bend in the road but the proposal is unlikely to affect clear views up and down the Kilmacud Road for traffic from/to Dale Drive.



Image 6 Extracted from Google Earth

The photomontage image provided by Jason Redmond and Associates illustrates the anticipated visual impact of the installation, viewed from the opposite side of the road. It is thought that the pole will be visible, but capable of blending into the surrounding streetscape in the context of the existing infrastructure. We note that the pole is coloured light grey in the montage but it is considered that the steel pole will read closer to the colour of the in situ lighting structure, which will assist with its ability to merge with its surroundings at eye level. The existing utility development will offer context to the installation from ground views.



Image 8 Extracted from Licence Application

It is considered that the pole will merge well with existing infrastructure and is consistent with the type of utility development, commonly found at the junction of a busy roadway. It is also considered that there is adequate space surrounding the pole to ensure that it does not hinder the safe perambulation of pedestrians or other road users.

The height of the pole will be contextualised by the existing large lampposts and so should not present as overtly dominant. It is considered that many views of the shrouded installation would be passing and not impactful on the general amenity of the area. No direct view of the pole will be possible from the adjacent housing but potentially some views of the lower sections of the infrastructure from the residential development immediately opposite, but they are not considered detrimental due to the low height of the single story development.



Image 9 adjacent single storey residential development

The solution was designed to incorporate the minimum infrastructure necessary to install the equipment, which is consistent with best practice visual amelioration standards. Where visible the shrouded design should provide a Trompe l'oeil, appearing similar to a lighting structure and part of the visually accepted forms located beside a road. It is considered that views of the installation would be inconsequential to the general amenity of the area.

Set against the Environmental Protection Agency Guidelines criteria, it's considered that the impact from the majority of vantage points will be slight to moderate, in that the pole causes noticeable changes in the environment without affecting the areas sensitivities. The type of impact would be described as neutral in terms of its effect on the environment.

Generally, no impactful views are anticipated on any designed areas, monuments or amenity routes. The site was also reviewed the proximate residential areas to quantify any potential impacts. None of the views anticipated were found to be overtly impactful or terminating. Therefore, the impact is considered Imperceptible: "An impact capable of measurement, but without noticeable consequences. No discernible deterioration or improvement in the existing view".

Overall, it is considered that there is no overtly detrimental impact anticipated from most close up or distance views of the proposed development. Where available; views are anticipated to be moderate within acceptable parameters and in line with the general visual expectation at a busy junction.

5.0 ICNIRP Compliance

The subject site will be built in accordance to current Health and Safety legislation and Guidelines. The transmitter output powers, antenna types fall arrest and mounting configuration are consistent with modern technologies. The cumulative power output of the proposed installation falls well within the IRPA Guidelines by a massive safety factor.

Please find attached a general declaration provided by Head of Environment Health and Safety with eir Group, stating that the proposed equipment and installation is designed to be in full compliance with the limits set by the Guidelines of the International Commission on Non-Ionising Radiation Protection -ICNIRP Guidelines.

6.0 Rights of Way

Following review of DLR Co Council mapping viewer – there is no impact anticipated on any Mountain Access Route, Public Right-of-Way, Wicklow Way, or Proposed Walkway-Cycleway, detailed in the County Development Plan for the Kilmacud Road. We note the proximity of the Proposed Quality Bus Priority Route, which will not be impacted by the proposal.

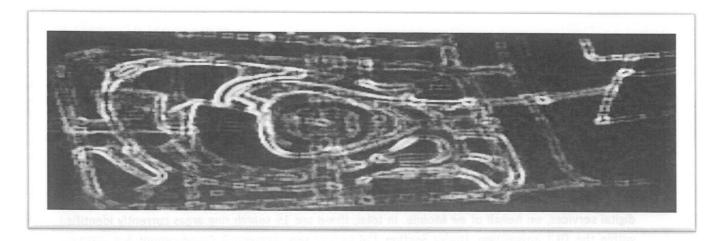
Conclusion

Following assessment under the Principles of Telecommunications Development set out in the County Development Plan, it is considered that the installation meets with the requirements of the Authority in terms of its use, design and site location. Public Service utilities such as communications infrastructure is permitted in principle under the current county development plan and the area is capable of accommodating the infrastructure, without detrimental impact.

The proposal meets with State, EU and CDP policies for the provision of Next Generation Technologies across the Country. The development is required by eir Mobile, licenced to deliver mobile and data services to customers in a current black spot area. There is no alternative infrastructure within the search area, which is determined by network requirements. The proposed structure has been sensitively designed for deployment at a roadside location in an urban setting, in compliance with the 1996 Guidelines and the Green Book. The development will not impact on any rights of way, scenic route or cycle lane, nor will it impair passing road users or pedestrians, as required under S.254. Finally, it is understood that the pole will be installed and maintained in compliance with current Health and Safety legislation and Guidelines.

Overall, the assessment has shown that the proposal should be regard as being suitable for its location and within the proper planning and sustainable development of the area.





CMC PLANNING CONSULTANTS

Report on the proposed installation of Cignal Smart Street pole solutions at various locations in Dun Laoghaire Rathdown

September 2019

FUMBALLY EXCHANGE ARGUS HOUSE BLACKPITS DUBLIN 8

Overview

Cignal Infrastructure Ltd is applying for licence to install overground communications infrastructure within the jurisdiction of Dún Laogharie – Rathdown Co. Council (DLR), in order to deliver high speed digital services, on behalf of eir Mobile. In total, there are 15 search ring areas currently identified within the DLR jurisdiction. Under Section 254 (ee) of the Planning & Development Act 2000 (as amended) a Local Authority can issue a licence for overground electronic communications infrastructure and any associated physical infrastructure, subject to planning and development considerations.

This report comprises a review of the planned development under the general planning considerations laid out in Section 254 of the Planning and Development Act 2000. A separate site specific planning assessment will also be prepared, following a desk top review of each location, as requested by DLR at the preplanning stage. Resource materials including relevant drawings and documents, have been provided by Jason Redmond and Associates Consulting Engineers on behalf of Cignal.

It is proposed to install a bespoke support pole with an overall height of 15m carrying three number Tri-sector antennas and one dish, shrouded behind radio friendly material with internal cabling linking the equipment to a small cabinet alongside on behalf of eir Mobile. The installations are required to bring coverage to known blackspot areas, on the operator's network. The infrastructure is generally proposed at roadside locations, within urban streetscapes and in proximity to residential, commercial, educational and social amenity areas.

1.0 Licence Application Requirements

Under S.254 of the Planning and Development Act, an application for a licence has to undergo a series of assessments by the relevant planning and roads authorities. The considerations include the relevant provisions of the development plan and more generally the proper planning and sustainable development of the area as laid out in subsection 5, extracted below.

S.254 (5) In considering an application for a licence under this section a planning authority, or the Board on appeal, shall have regard to—

- (a) the proper planning and sustainable development of the area
- (b) any relevant provisions of the development plan, or a local area plan,
- (c) the number and location of existing appliances, apparatuses or structures on, under, over or along the public road, and
- (d) the convenience and safety of road users including pedestrians.

The locations chosen were assessed against the considerations listed, in order to ensure compliance with the requirements of Section 254 and the proper planning and sustainable development of the respective areas.

2.0 Planning Considerations

Under S.254 of the Planning & Development Act 2000 any proposed development has to be considered compatible with the proper planning and sustainable development of an area, compliant with the Guidelines for telecommunications development, considered against the volume of similar structures and the safety of road users. These considerations are examined below, incorporating the requirements of S.254 (5).

2.1 The Proper Planning and Sustainable Development of the Area

We suggest the provision of telecoms infrastructure should be considered under S.254 as part of the general mix of utility development in urban streetscapes. Please refer to the site specific assessment attached, wherein each location is reviewed to ensure that there are no conditions present that would prevent the installation of the proposed pole.

2.2 Relevant Provisions of the County Development Plan

In line with the licence requirements, the proposed locations were assessed against the content of the Dun Laoghaire Rathdown County Development Plan 2016-2022. The Telecommunications provisions in the DLR County Development Plan include policies to support and facilitate the provision of appropriate infrastructure and next generation services, balanced against environmental considerations. The County Development Plan (CDP) reflects the importance of the provision of a modern telecommunications infrastructure, to support the local economy, develop the knowledge economy and attract new industry.

3.1.2.2 Policy E2: Knowledge Economy It is Council policy to promote the development of knowledge-based enterprise in the County. The Council will liaise with Enterprise Ireland, the IDA, Forfás, the County's Third Level Institutions and other relevant organisations to identify opportunities in Dún Laoghaire-Rathdown for the promotion of research and development/innovation and, in particular, to promote the location of new industry in the County that is generated from innovation processes.

It is Council policy to promote the rollout of high speed broadband, in particular next generation networks, to support knowledge-based enterprises.

5.1.5.3 Policy EI28: Telecommunications Infrastructure It is Council policy to promote and facilitate the provision of an appropriate telecommunications infrastructure, including broadband connectivity and other technologies, within the County. The widespread availability of a high quality telecommunications network throughout Dun Laoghaire-Rathdown will be critical to the development of a knowledge economy, will help attract inward investment in hi-tech knowledge based industries and will engender the image of the County as the premier entrepreneurial County in the State.

The advantages of a high quality telecommunications network must, however be, balanced against the need to safeguard the rural and urban environment, particularly in sensitive areas where the impacts on residential amenity and visual amenity of areas needs to be adequately assessed.

8.2.9.9 Telecommunications Antennae and Structures In the consideration of proposals for telecommunications antennae and support structures, applicants will be required to demonstrate Compliance with the Planning Guidelines for Telecommunications Antennae and Support Structures' (1996) and Circular Letter PL 07/12 issued by the Department of the Environment and Local Government (as may be amended from time to time), and to other publications and material as may be relevant in the circumstances.

The proposed infrastructure is compliant with the general policies of the Authority in relation to the roll out of smart technology infrastructure, while not overtly impacting on the respective host environments. The proposed development sites were specifically chosen on survey with the CDP requirements in mind and a desk study was undertaken to assess visual or amenity impacts, prior to the proposal being advanced.

2.2.1 Guidelines for Telecommunications Antennae and Support Structures (1996)

The general principle of the proposed development is compliant with the aims of the Planning Guidelines for Telecommunications Antennae and Support Structures (1996) in terms of design and visual impact as outlined below.

Siting

The Guidelines outlines the importance of suitable site specific infrastructure when proposing suitable locations.

4.2 Design and Siting

The design of the antennae support structure and to a great extent of the antennae and other "dishes" will be dictated by radio and engineering parameters. There may be only limited scope in requesting changes in design. However, the applicant should be asked to explore the possibilities of using other available designs where these might be an improvement. Similarly, location will be substantially influenced by radio engineering factors

The Guidelines acknowledge that radio engineers are restricted by network parameters when choosing a site location. This would appear to be more relevant today, where most networks are operating on a mixture of primary mast and secondary roof installations, which are used to provide infill coverage to specific towns or roads. Typical infill sites have a low coverage radius and blackspots emerged where coverage dropped off in outlying residential areas, where demand is greatest. These blackspots can occur within 500m of an installation- depending on the landscape or topography. Modern construction methods also impact on the indoor signal strength available.

The locations within DLR were chosen using a tailored search ring provided by the operator's radio engineers specifically to eliminate blackspots on the network, in response to increasing demands for high data speeds from home workers and local enterprises.

The Report of the Mobile Phone and Broadband Taskforce 2016 examined use of Local Authority land to facilitate the delivery of telecommunications services, it surmised that

"The Taskforce is of the opinion that requests for access to State-owned assets that are appropriate and reasonable should be facilitated in order to address telecommunications service deficits".

It is therefore considered that siting suitable telecommunications infrastructure alongside roadways is acceptable and development should be permitted in principle, subject to the proper planning and sustainable development of the subject location.

Visual Impact

While it is acknowledged that there will be some degree of visual impact from the installation of utility infrastructure, it is considered that views of the infrastructure are acceptable if they are not dominant or distracting. Any proposal should be viewed within the context of its immediate surroundings. The Guidelines' recommendations as to the criteria used to assess the impact of the development are detailed below.

4.3 Visual Impact:

The visual impact is among the more important considerations which have to be taken into account in arriving at a decision on a particular application. In most cases the applicant will only have limited flexibility as regards location, given the constraints arising from radio planning parameters, etc., already referred to. Visual impact will, by definition, vary with the general context of the proposed development. Consequently the approach of the authority will vary depending on whether the proposed development is in...a suburban area a larger town or city. Some masts will remain quite noticeable in spite of the best precautions...There will be local factors which have to be taken into account in determining the extent to which an object is noticeable or intrusive — intermediate objects (buildings or trees), topography, the scale of the object in the wider landscape, the multiplicity of other objects in the wider panorama, the position of the object with respect to the skyline, weather and lighting conditions, etc.

Only as a last resort and if the alternatives suggested in the previous paragraph are either unavailable or unsuitable should free-standing masts be located in a residential area or beside schools. If such a location should become necessary, sites already developed for utilities should be considered and masts and antennae should be designed and adapted for the specific location. The support structure should be kept to the minimum height consistent with effective operation and should be monopole (or poles) rather than a latticed tripod or square structure.

The applicant is proposing a low profile solution, designed to deliver localised services to acknowledged blackspot areas. It is considered that the installation of a localised solution site in a blackspot area is a matter of "last resort" as, by definition, the existing infrastructure has failed to provide sufficient coverage for localised services. The sensitive deliver of next generation services to these blackspot areas has directly influenced the design of the infrastructure, as required in the Guidelines. The bespoke slimline pole solution, which replicates taller lamp standards and CCTV poles, has been designed to enable the provision of next generation antennas, within the narrowest profile possible. To achieve this slender profile, a slimline antenna has been developed specifically for the urban environment. The antenna used are 3.7m long designed to fit within a 406mm diameter shroud.

The proposed locations are all sited on Local Authority land in proximity to the roads network. These urban highways currently house a variety of utility infrastructure such as lampposts, traffic lights and cabinets, which offer context to the pole in the wider streetscape. Once in situ, the pole should not appear inconsistent in its environment, in terms of its design and impact on an urban landscape. In most cases there are existing trees and/or infrastructures to ameliorate views of the installations and offer a visual balance to its height. The poles are steel grey, which will replicate existing lampposts and blend into the Irish skyline and the cabinets are proposed in green.

In general, the height of telecommunications infrastructure is determined by a variety of factors, most particularly network requirements. According to the source material provided eir Mobile has determined that an overall height of 15m is required in order to provide the required coverage and to clear local obstacles that could cause network interference.

The "Green Book", Guidance on Potential Location of Overground Telecommunications Infrastructure on Public Roads offers advice to operators and planners on accommodating telecoms infrastructure alongside roadways. The Green Book acknowledges that the type of infrastructure required will vary, depending on a number of factors, such as location, existing road type and network coverage targets.

In Section 5.4 Consideration of Suitability of Locations, it refers to the use of standalone poles as the preferred option in urban settings where there is a wide verge or similar- see Table A below, extracted from the Green book.

Consideration of Opportunities to Facilitate Telecommunications Infrastructure on the Roads Network Urban Roads							
General	Opportunities	Comment					
are generally few opportunities to cater for large, stand-alone masts. There may be opportuni- ties in the vicinity of some round- abouts.	Opportunities are generally limited to locations where a wide verge or footpath allows the accommodation of small cabinets/antennae and/or the erection of stand-alone poles to accommodate telecommunications infrastructure.	Stand-alone poles are the pre- ferred option in urban areas, as there are ongoing operational and maintenance issues relat- ing to accommodating elec- tronic equipment on lighting columns.					

Figure 1: Table A Guidance on potential location of overground telecommunications in frastructure on public roads

We also note Appendix A of the Green Book, which offers examples of existing in situ pole like Infrastructure, particularly examples three and four, both of which are structures of 15m and over.

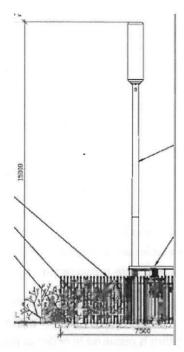


Fig. 2 Extracted from the Green Book Appendix A: Example 3 Smaller Single Operator Site

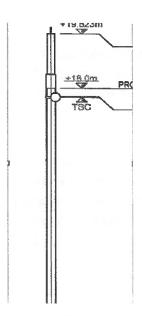


Fig. 3 Extracted from the Green Book Appendix A: Example 4 Minimum size mast installation

In general, the bespoke slimline solution proposed is relatively unobtrusive and compares favourably to use of largescale masts and rooftop installations, which tend to be more visually dominant. The use of long narrow antennas provides for a consistent width, which is more aesthetically favourable in an urban setting than the "lollypop" style pole seen in example 3 above.

The design of telecommunications infrastructure has changed considerably since the Guidelines were written in 1996. However, the principles outlined in the Guidelines in terms of assessment can still offer assistance in determining whether a proposed solution is suitable to the proper planning and sustainable development of the location. Image 1 below which is extracted from the Appendix 1D of the 1996 Guidelines, illustrates what was considered acceptable in terms of design and impact in a residential area in 1996. Image 2, which shows the proposed Cignal infrastructure, attests to the progress in design terms of localised communications infrastructure.

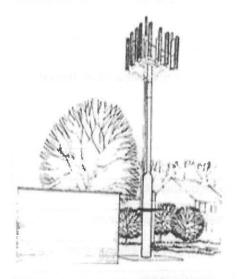


Image 1 Appendix 1D 1996 Guidelines



Image 2. Photomontage of proposed installation

The legislation is silent in defining the design or dimensions of any of the numerous structures and apparatus permissible under S. 254, for whatever use. It is for the planner to determine the suitability of the infrastructure in the context of the County Development Plan, the Guidelines and the Green Book. It is considered that the type of bespoke solution proposed is generally compliant with the guidance contained in these documents.

Visual Assessment Criteria

Each proposed installation was assessed to determine its potential visual impact on the immediate location. The criteria detailed in the Environmental Protection Agency Guidelines were used to assess the impact levels of the proposed development on the landscape, see Table 1 and 2 below. The criteria measure the degree of sensitivity and potential impact of the proposed development, taking the cityscape and existing natural/environmental screening into account.

IMPACT LEVEL CRITERIA

Imperceptible: An impact capable of measurement, but without noticeable consequences. No discernible deterioration or improvement in the existing view.

Slight: An impact which causes noticeable changes in the environment without affecting its sensitivities. The impact has been minimised by its scale or intervening topography and vegetation.

Moderate: An impact that alters the character of the environment as a result of changes to an appreciable segment of the view or intrusion in the foreground.

Significant: An impact by which its character, magnitude, duration or intensity alters a sensitive aspect of the environment. Where a view is obstructed or so dominated by a proposed scheme that it becomes the focus of attention.

Profound: An impact on a view that removes all sensitive characteristics or completely obstructs or alters the view

Table 1 Environmental Protection Agency Guidelines

These ratings are further assessed by the Type of Impact, which may be viewed as Neutral, Positive or Negative and as outlined below.

TYPE OF IMPACT

Neutral represents a change that does not affect the quality of the environment.

Positive represents a change that improves the quality of the environment.

Negative represents a change that diminishes the quality of the environment.

Table 2 Environmental Protection Agency Guidelines

Impact level also takes into consideration the duration of the impact, the construction stage works quite often have a negative visual impact to varying degrees, but the impacts are considered temporary and lessen as the site becomes integrated into its environment and an accepted part of the streetscape.

Based on the above mentioned criteria, desk top assessments indicate that while the proposed developments are located in areas, which would usually result in a high degree of visibility for a standard monopole, the bespoke solution proposed is capable of merging with the existing public service infrastructure, which should lessen its visual dominance from the majority of vantage points. The greatest impact is anticipated in close proximity to the site, where the pole will be contextualised by the existing roads and utility development. Where visible, the shrouded design will act to screen the antennas entirely and diminish any impact.

Overall it is considered that, while the poles will be visible in their respective locations, there is no overtly detrimental impact anticipated and any views of the shrouded infrastructure will be low impact and within acceptable parameters, in the context of a roadside location.

2.3 The number of existing structures and appliances along the public road

The Authority has to consider the cumulative effect of installing additional street furniture alongside the public road, which is particularly relevant in the context of urban streetscapes. Survey notes provided by Jason Redmond and Associates suggest that the presence of existing infrastructure and services played a part in determining the most suitable location for the poles, within the parameters of the Operator's network requirements. The space available to pedestrians and other users was also considered in siting the poles.

While agreeing that a predominance of obelisk structures could have a cluttering effect, it's considered that the existing lampposts are beneficial to contextualise the proposed pole and ameliorate visual impact.

2.4 The convenience and safety of road users including pedestrians.

According to the Green Book, standalone poles are the preferred option in urban areas on wide verges or footpaths. It is considered that all efforts were made to ensure that the proposed locations would not impact on the convenience and safety of road users and pedestrians. The infrastructure was deliberately sited on land that had sufficient space to house the structure, without compromising existing utility services. These locations will be further assessed by the respective Local Authority Roads Engineer, as part of the licence process, to ensure that the additional infrastructure does not present a hazard.

3.0 Summary

This report sought to assess the principle of installing street solutions in the jurisdiction of Dun Laoghaire-Rathdown, against current legislation and guidelines. It has determined that the provision of telecommunications infrastructure adjacent to the roads network is permitted under current legislation and encouraged by guidelines issued by the State.

Under Section 254 (ee) of the Planning & Development Act 2000 (as amended) a Local Authority can issue a licence for *overground electronic communications infrastructure* and any *associated physical infrastructure*, subject to planning and development considerations.

The proposed infrastructure on Local Authority land accords with the National Broadband Plan and the Digital Agenda for Europe, which advocates for this type of installation to support Next Generation rollout. Furthermore, use of Local Authority land for utility infrastructure was thoroughly explored by the Roadworks and Licensing Working Group, established to address issues involved in the granting of Road Opening Licences to telecoms operators by both the Transport Infrastructure Ireland (TII) and Local Authorities. The resulting publication, the Green Book, lays out the considerations required when assessing roadside development and recommends the use of slimline poles in urban areas.

Each proposed development was assessed against the County Development Plan, the Green Book and the Guidelines to ensure compliance. The visual and environmental impact of the infrastructure required to deliver enhanced services was a consideration in the design stages. The adopted design is considered to be innovative and appropriate in delivering required services directly to the demand centres.

A review of the development's potential impact shows that the proposed poles will have a similar effect on the amenity of the area as existing public service infrastructure, such as lampposts or CCTV poles. Indeed it is considered that these structures are not only less visually impactful than a monopole/mast solution but considerably less visually impactful than exposed rooftop installations, many of which are exempted development under Class 31 of the P&D Regulations.

It is considered that the design proposed, which allows for an expansion in broadband services to the County with minimal environmental impact, conforms to the principles of proper planning and sustainable development, and as such should be favourably viewed by Dun Laoghaire Rathdown Co. Council.





2022 Bianconi Avenue Citywest Business Campus Dublin 24 D24 HX03 T +353 1 671 4444 eir.ie

Radio Emissions Statement

As an operator of a Mobile Telecommunications Network *Eir Ltd* is aware of its requirements in relation to management of electromagnetic field radiation and are committed to management of risk to our employees, members of the public and any other groups who may be affected by our networks. All of the radio equipment on our network and our radio base stations are "Safe by Design" and are designed to meet international health and safety standards and best practice, including the relevant guidance from International Commission on Non-Ionizing Radiation Protection (ICNIRP) and from the Communications Regulator in Ireland.

Eir Ltd own and operate mobile telecommunications sites across Ireland. These sites are built and managed to operate within the limits for exposure to Electromagnetic Fields which are set by the Communications Regulator and are based on guidance from the International Council for Non-Ionising Radiation Protection (ICNIRP) and meet the requirements of directives from the European Commission. The issue of radiation from Mobile Phones has been a concern for many people since the introduction of this technology significant numbers of studies have been performed and have been reviewed by international experts. The World Health Organisation in their fact sheet on Electromagnetic fields and public health: mobile phones have stated that "A large number of studies have been undertaken on both acute and long-term effects from HF (High Frequency EMF Radiation) exposure typical of base stations. Research at these levels of exposure has provided no conclusive evidence of any related adverse health effects". (Ref; http://www.who.int/mediacentre/factsheets/fs193/en/). In their on line Q&A on Mobile Phones and Cancer the WHO also states "Studies to date provide no indication that environmental exposure to RF fields, such as from base stations. increases risk of cancer other or any disease." (http://www.who.int/features/ga/30/en/)

The International Council on Non Ionising Radiation Protection, who are the lead independent agency on non-ionising radiation safety have stated "A large number of studies have been undertaken on both acute and long-term effects from HF (High Frequency Non Ionising Radiation) exposure typical of base stations. Research at these levels of exposure has provided no conclusive evidence of any related adverse health effects." (http://www.icnirp.org/en/applications/base-stations/index.html) in late 2015 The European Commission's Scientific Committee on Emerging and Newly Identified Health Risks published a "Final Opinion on the Potential health effects of exposure to electromagnetic fields (EMF)" The expert opinion is based on the latest scientific studies and expert review. In its summary the Scientific Committee state that "The results of current scientific research show

that there are no evident adverse health effects if exposure remains below the levels recommended by the EU legislation.

Our antennae are well below this level) Overall, the epidemiological studies on radiofrequency EMF exposure do not show an increased risk of brain tumours. Furthermore, they do not indicate an increased risk for other cancers of the head and neck region."

The maximum exposure levels that are set by ICNIRP for Public exposure to radiation in the mobile phone frequency range is 28 V/m. All of our sites are designed and maintained to operate well within these guideline limits. Independent compliance inspections that are carried out for our company and are published by the Communications Regulator on their website (www.siteviewer.ie) show that the levels of EMF radiation from mobile telecoms masts in Ireland ranges between 0.5-3V/m, well within the safe exposure limits advised by international experts.

We continue to monitor the advice and guidance given by Government, international experts and equipment manufacturers to ensure that the sites that we operate continue to operate well within the limits set for exposure of members of the public and for our employees and contractors who will work at your location.

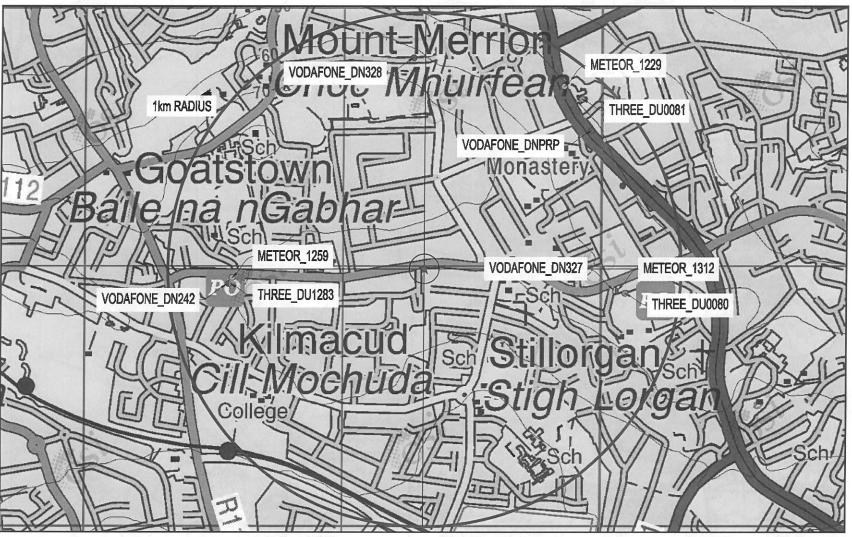
Internal Documentation References:

Meteor Mobile Communications Design and Build Specification and Guidelines Standard Safe Operating practices - Mobile Network

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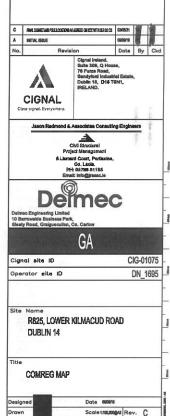
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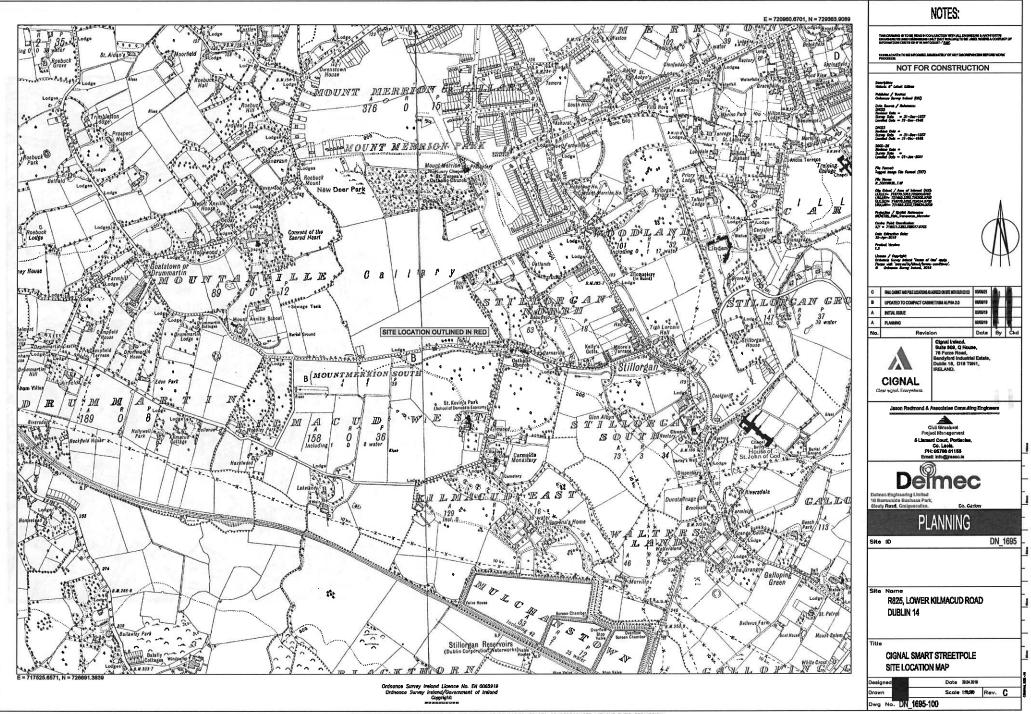


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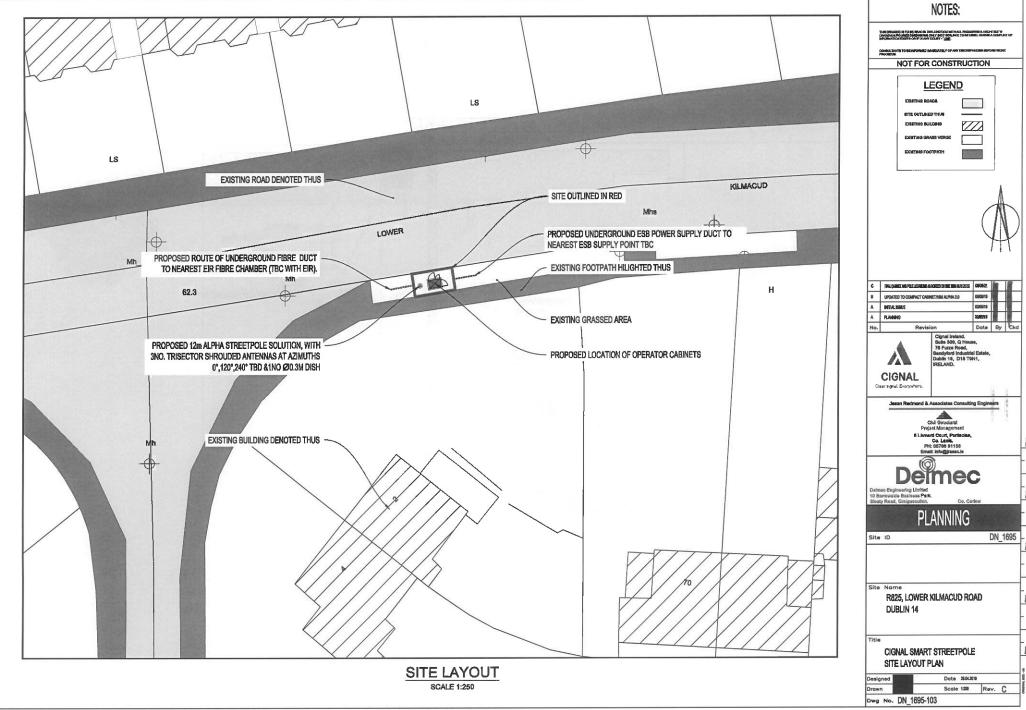


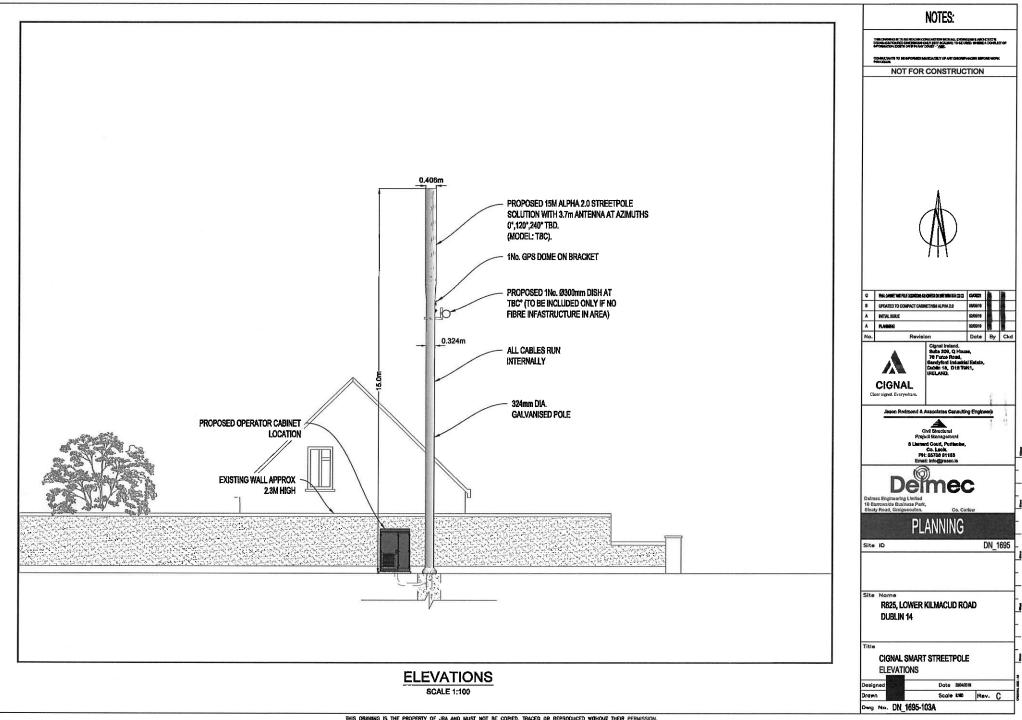
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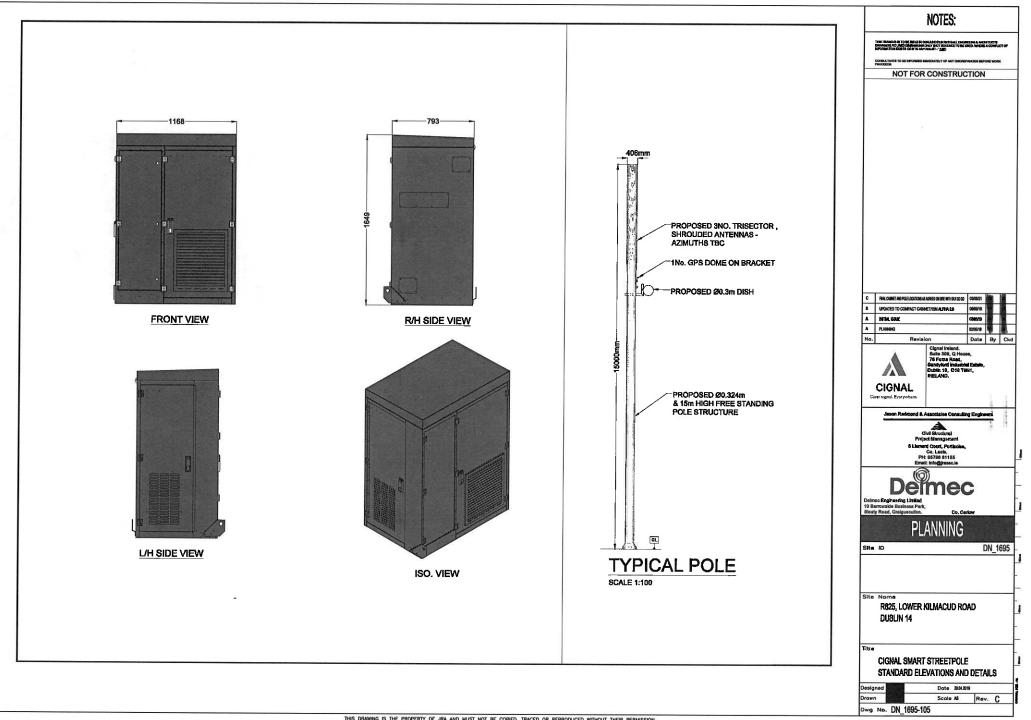














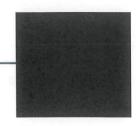
Board Order ABP-312737-22

Planning and Development Acts 2000	to 2022	
Planning Authority: Dún Laoghaire-R	athdown County Counci	I
Planning Register Reference Number	•	
Appeal by	care of	of
	against the decision	on made on the 9th
day of July, 2021 by Dún Laoghaire-Ra	thdown County Council to	grant, subject to
conditions, a licence to Cignal Infrastruc	cture Limited care of Jasor	Redmond and
Associates Consulting Engineers of 5 L	ismard Court, Portlaoise,	County Laois.

Licence Application: Place and maintain one number telecommunications cabinet measuring externally 1.54 metres cubed (1.17 metres long by 0.798 metres wide by 1.652 metres high), and a pole area 0.824 square metres (height 15 metres) at the R825, Lower Kilmacud Road. Dublin.

Decision

In exercise of the powers conferred on it under section 254 of the Planning and Development Act, 2000, as amended, An Bord Pleanála, directs the planning authority to GRANT a licence, based on the reasons and considerations under and subject to the conditions set out below.



REASONS AND CONSIDERATIONS

Having regard to the nature, scale and design of the development, which is a 15 metre high freestanding monopole carrying telecommunications equipment with ancillary ground-mounted infrastructure, the provisions of section 254 of the Planning and Development Act, 2000, as amended, the Dún Laoghaire-Rathdown County Development Plan 2022-2028, and the 'Telecommunications Antennae and Support Structures - Guidelines for Planning Authorities' issued by the Department of the Environment and Local Government in July, 1996 as updated by Circular Letters PL 07/12 issued by the Department of the Environment, Community, and Local Government in 2012 and PL 11/2020 issued by the Department of Housing, Local Government and Heritage in 2020, it is considered that the proposed development, subject to compliance with the conditions set out below, would not seriously injure the visual or residential amenities of the area or the amenities of property in the vicinity of the site, and would be acceptable in terms of the convenience and safety of road users including pedestrians. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

Conditions

1. The development shall be carried out and completed in accordance with the plans and particulars lodged with the application except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with the planning authority, the developer shall agree such details in writing with the planning authority within three months of the date of this Order and the development shall be carried out and completed in accordance with the agreed particulars.

Reason: In the interest of clarity.



2. This licence shall be valid for a period of five years from the date of this Order. The telecommunications structure and related ancillary structures shall then be removed and the lands shall be reinstated on removal of the telecommunications structure and ancillary structures unless, prior to the end of the period, continuance shall have been granted for their retention for a further period. Details relating the removal and reinstatement shall be submitted to, and agreed with, the planning authority at least one month before the date of expiry of this licence.

Reason: To enable the impact of the development to be re-assessed, having regard to changes in technology and design during the specified period.

 No advertisement or advertisement structure shall be erected or displayed on the structure or within the curtilage of the site without a prior grant of planning permission.

Reason: In the interest of the visual amenities of the area.

4. The structure shall not interfere with existing services and drainage systems and shall not obstruct pedestrian access.

Reason: In the interests of orderly development and pedestrian safety.



 Details of the proposed colour scheme for the telecommunications structure and ancillary structures shall be submitted to, and agreed in writing with, the planning authority prior to the commencement of development.

Reason: In the interest of visual amenity.



Member of An Bord Pleanála duly authorised to authenticate the seal of the Board.

Dated this 74 day of Huj of 2023.





Licence Number: CRM 166629

DÚN LAOGHAIRE-RATHDOWN COUNTY COUNCIL Comhairle Contae Dhún Laoghaire-Ráth an Dúin

PLANNING AND DEVELOPMENT ACT, 2000 (SECTION 254) PLANNING AND DEVELOPMENT REGULATIONS 2001

LICENCE TO PLACE A TELECOMMUNICATION
CABINET AND POLE ON THE PUBLIC FOOTPATH/ROADWAY

Dún Laoghaire-Rathdown County Council ("the Council") in conjunction with An Bord Pleanála (ABP-313694-22) grants to

Cignal Infrastructure Ltd ("the Licensee")

a Licence to place and maintain 1 Telecommunications Cabinet measuring externally 1.54m^3 ($1.17\text{mL} \times 0.798\text{mW} \times 1.652\text{mH}$), and a pole area 0.824m^2 (height 15m)

R825, Lower Kilmacud Rd. Dublin 14. subject to the special Licence Conditions hereunder in the attached Schedule

a Company

Senior Engineer

The granting of this licence does not exempt the licensee from the provisions of any other legislation





SCHEDULE OF CONDITIONS

 The development shall be carried out and completed in accordance with the plans and particulars lodged with the application except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be agreed with Planning Authority, the developer shall agree such details in writing with the planning authority within three months of the date of this Order and the development shall be carried out and completed in accordance with the agreed particulars.

Reason: In the interest of Clarity

2. This licence shall be valid for a period of five years from the date of this Order. The telecommunications structure and related ancillary structures shall then be removed and the lands shall be reinstated on the removal of the telecommunications structure and ancillary structures unless, prior to the end of the period, continence shall be granted for their retention for a further period, continuance shall have been granted for their retention for a further period. Details relating the removal and reinstatement shall be submitted to, and agreed with, the planning authority at least one month before the date of the expiry of this licence.

Reason: To enable the impact of the development to be re-assessed, having regard to the changes in technology and design during the specified period.

3. No advertisement or advertisement structure shall be erected for displayed on the structure or within the curtilage of the site without a prior grant of planning permission.

Reason: In the interest of the visual amenities of the area.

 The structure shall not interfere with the existing services and the drainage systems and shall not obstruct pedestrian access.

Reason: In the interests of orderly development and pedestrian safety.

5. Details of the proposed colour scheme for the telecommunications structure and ancillary structures shall be submitted to, and agreed in writing with, the planning authority prior to the commencement of development.

Reason: In the interest of visual amenity.

