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TELECOMMUNICATIONS IMPACT ASSESSMENT

RESIDENTIAL DEVELOPMENT
CLONBURRIS K1
CLONDALKIN
CO. DUBLIN

Architect	Davey Smith Architects
Services Engineers	BBSC Consulting Engineers
Planning Consultant	**Armstrong Fenton Associates**

On Behalf of Kelland Homes Ltd.

Revision	Date of Issue	Reason For Issue	By	Chk'd
P.00.02	01 Jun 2022	PLANNING	BON	BON

CLONBURRIS PLANNING APPLICATION DEVELOPMENT DESCRIPTION MAY 2022

Kelland Homes Ltd seeks permission for development on a site area of 6.3Ha, on lands within the townland of Cappagh, Dublin 22. The proposed development is located west of the Ninth Lock Road, south of the Dublin-Cork railway line, north of Cappaghmore housing estate and Whitton Avenue, and east of an existing carpark / park & ride facility at the Clondalkin Fonthill train station and the R113 (Fonthill Road). The proposed development is located within the Clonburris Strategic Development Zone (SDZ), within part of the development areas of Clonburris Urban Centre (i.e. CUC-S4) and Clonburris South East (i.e. CSE-S1 & CSE-S2), as identified in the Clonburris SDZ Planning Scheme 2019.

The proposed development consists of the construction of 294 no. dwellings, crèche and retail / commercial unit, comprised of:

- 118 no. 2, 3 & 4 bed, 2 storey semi-detached and terraced houses;
- 104 no. 2 & 3 bed duplex units accommodated in 10 no. 3 storey buildings;
- 72 no. 1 & 2 bedroom apartments in 2 no. 4 & 6 storey buildings;
- 2 storey creche (c.500m²);
- 1 no. retail /commercial unit (c.150m²).

Access to the development will by via the permitted road network (under Ref. SDZ20A/0021) which provides access from the Ninth Lock Road to the east and the R113 (Fonthill Road) to the west. The proposed development will connect into the permitted infrastructural works as approved under the Clonburris Strategic Development Zone Planning Scheme (2019) and permitted under Ref. SDZ20A/0021, with the proposed development connecting into the permitted surface water drainage attenuation systems i.e. 1 no. pond, 3 no. modular underground storage systems and 1 no. detention basin combined with modular underground storage systems. The proposed wastewater infrastructure will connect into a permitted foul pumping station and pipe network within proposed road corridors to facilitate drainage connections to future wastewater drainage infrastructure within the adjoining SDZ lands (including future Irish Water pumping station granted under SDZ21A/0006).

The proposed development also provides for all associated site development works above and below ground, public & communal open spaces, hard & soft landscaping and boundary treatments, surface car parking, bicycle parking, bin & bicycle storage, public lighting, plant (M&E), utility services & 4 no. ESB sub-stations.

This application is being made in accordance with the Clonburris Strategic Development Zone Planning Scheme 2019 and relates to a proposed development within the Clonburris Strategic Development Planning Scheme Area, as defined by Statutory Instrument No. 604 of 2015.2

Contents

1 PURPOSE OF REPORT

Kelland Homes Ltd appointed BBSC, March 2022 to study the impact on telecommunications to the development as set out under SI 600/2001.

The development will be over multiple phases.

It shall comprise Apartments, landlord areas, civic amenity, creche as outlined in the Proposed Development planning description above.

2 TELECOMS

Telecoms shall be routed in under ground ducts from the existing street Underground and or over ground services as required to each Unit (being a Dwelling, Apartment, Landlord requirement, Commercial unit) as required.

It is expected to provide Fibre/ CAT 6 or CAT 7 to each dwelling from several on street cabinets to each dwelling or unit.

No shared lines to be provided.

Other phone or data lines for Fire alarms, lifts etc. shall be provided from the building specific rack to service the landlords obligations in regards to same for health, safety and other legal requirements.

The design is vendor neutral and is based the provision of services from the proposed Clonburris Ring Road entering the development at one or more location as is typical for developments of this scale and function.

3 PRINCIPLE STANDARDS

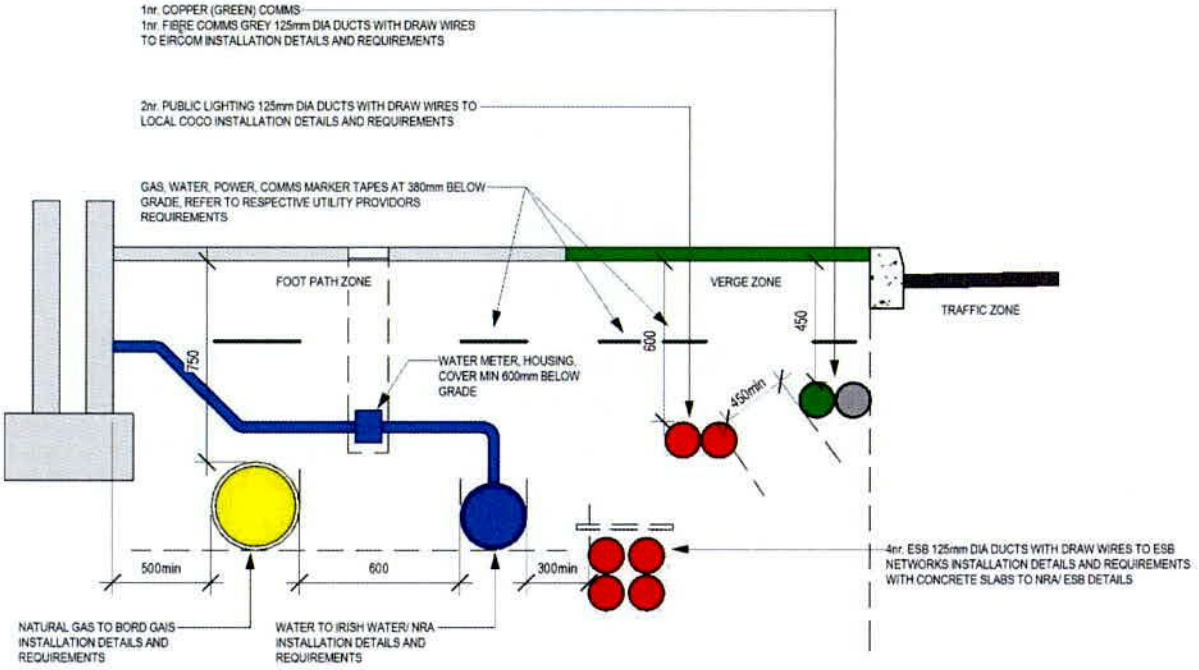
Building Regulations

- Technical Guidance Documents as A through M as published and set out in Law, Department of the Environment, relevant edition relates to date of publication and date of building.
- S.I. No. 600/2001 - Planning and Development Regulations, 2001

General Electrical Standards

- IS10101 National Rules for Electrical Installation
- ESB Publication, Housing Schemes: Guidebook for ESB Networks Standards for Electrical Services
- EIR Network Standards
- Siro Network Standards
- Virgin Network Standards

4 SITE SERVICES CO-ORDINATION DRAWINGS (TYPICAL)



NOTES
1. BUILDER, MECHANICAL, ELECTRICAL CONTRACTORS TO CONFIRM ALL SPACING WITH UTILITY PROVIDORS PRIOR TO INSTALLATION
2. SUBMIT ALL DETAILS TO DESIGN TEAM FOR APPROVALS
3. REFER TO NRA DOCUMENTS, ESB, IRISH WATER, TELCOMS PROVIDORS SPECIFICATIONS, DRAWINGS, VENDORS DETAILS PRIOR TO INSTALLATION WORKS
4. ALL DUCTS BELOW GROUND TO CONFORM TO IS 370:2007
5. ALL CONTRACTORS, PRIOR TO DIGGING CONTACT ALL PROVIDORS
6. ALL CONTRACTORS TO COMPLETE THE REQUIREMENTS OF Code of Practice For Avoiding Danger From Underground Services, Health and Safety Authority (by virtue of Section 60 of the Safety, Health and Welfare at Work Act 2005) SITE SAFETY STATMENTS, METHODS OF WORKS ETC. TO ENSURE NO LEAKS OR BREAKS OF SERVICES

Sample of Service Co-ordination in ground

5 MOBILE PHONE TRANSMITTERS COVERAGE

Currently there are at least 20nr. Mobile Phone Transmitters within 1km of development for a population of approximately 7,127 persons as of 2016 Census, this is a coverage of 1 Transmitter per 356 persons.

These are typically located in or on Commercial buildings or standalone Masts and require planning permission to mount.

The estimated population of approx. 2.5 to 4.5persons per household, 288 houses will result in approximate range of 720 to 1,296 persons, this will require at a minimum of 3 and up to 4 nr additional mobile phone transmitters to provide 4G or better service based on the mobile phone coverage density for the expected population, to be located in or at Block A or Block B as it is central or at highest points in the proposed development.

These are subject to network load analysis once the development is built by the Mobile phone network providers.

Any future sites will be subject to standalone planning permissions.

6 ASSESSMENT

Assessment is based on Class 31, S.I. No. 600/2001 - Planning and Development Regulations, 2001, The following table reviews and assesses the development accordingly.

The following mobile phone and data coverage is noted as, see appendix 2 for details

- 2G, Comreg has noted as Fair
- 3G, Comreg has noted as Ver Good
- 4G, Comreg has noted as Very Good to Good
- 5G, Roll out of the technology is continuing Comreg has not published coverage grades.

Table 1 Assessment of Telecommunications

HEADING	REQUIREMENT	ASSESSMENT
The carrying out by a statutory undertaker authorised to provide a telecommunications service of development consisting of the provision of—		
(a) underground telecommunications structures or other underground telecommunications works (including the laying of mains and cables and the installation underground of any apparatus or equipment),		Development to provided by in ground ducts to the existing street infrastructure. The Site is Green Field and is to be feed from the proposed Clonburris Ring Road Existing Overhead and in ground Ducted services exist in close proximity to the proposed development but do not enter or affect the proposed development
(b) overhead telecommunications,	1. Poles carrying overhead lines shall not exceed 10 metres in height.	No Pole is to be provided within the scope of the developments site boundary. Existing Overhead and in ground Ducted services exist in close proximity to the proposed development but do not enter or affect the proposed development
	2. Poles carrying other equipment shall not exceed 10 metres in height and 0.6 metres in diameter measured at the widest point, where "other equipment" means one transmitting or receiving dish (the diameter of which shall not exceed 0.3 metres), or one panel antenna (the dimensions of which shall not exceed 0.5 metres in length x 0.3 metres in width x 0.2 metres in depth) used for the provision of a specific telecommunications service and the provision of which would otherwise require an additional pole route carrying overhead wires.	No Pole is to be provided within the scope of the developments site boundary. Existing Overhead and in ground Ducted services exist in close proximity to the proposed development but do not enter or affect the proposed development
	3. Where a pole or poles carry radio transmitting or receiving apparatus, the field strength of the non-ionising radiation emissions from that installation shall not exceed the limits specified by the Director of Telecommunications Regulation.	No Pole is to be provided within the scope of the developments site boundary. Existing Overhead and in ground Ducted services exist in close proximity to the proposed development but do not enter or affect the proposed development

HEADING	REQUIREMENT	ASSESSMENT
(c) telephone kiosks or other telephone facilities in a public place not being on, over or along a public road,	No such kiosk or facility shall be situated within 10 metres of the curtilage of any house, save with the consent in writing of the owner or occupier thereof.	No Kiosk or Facility is to be provided within the scope of the developments site boundary.
(d) equipment for transmitting or receiving signals from satellites in space,	1. No such equipment shall exceed 10 metres in height	No such commercial (non domestic) equipment is to be provided within the scope of the developments site boundary.
	2. The diameter of any antenna shall not exceed 2 metres	No such commercial (non domestic) equipment is to be provided within the scope of the developments site boundary
	3. No such equipment shall be situated within 10 metres of the curtilage of any house save with the consent in writing of the owner or occupier thereof, or within 10 metres of the window of a workroom of any other structure	No such commercial (non domestic) equipment is to be provided within the scope of the developments site boundary
(e) permanent telecommunications exchange and radio station containers,	1. The equipment housed in the container shall be used exclusively for the purposes of concentrating and re-routing calls and the container shall not have attached to it or within it, whether visible or not, any antennae for the direct transmission or reception of mobile telephony or other telecommunications signals in such a way that the container would act as an antennae support structure.	No such equipment is proposed within the scope of the developments site boundary unless requested by Utility Provider based on estimated needs of the community they service, i.e. **support local Mobile Telecommunications**
	2. No such container shall exceed 10 metres in length, 3 metres in width or 3 metres in height.	No such equipment is to be provided within the scope of the developments site boundary
	3. No such container shall be situated within 10 metres of the curtilage of a house save with the consent in writing of the owner or occupier thereof, or within 10 metres of the window of a workroom of any other structure.	No such equipment is to be provided within the scope of the developments site boundary

HEADING	REQUIREMENT	ASSESSMENT
	4. The field strength of the non-ionising radiation emissions from the radio station container shall not exceed the limits specified by the Director of Telecommunications Regulation.	No such equipment is to be provided within the scope of the developments site boundary
(f) cabinets forming part of a telecommunications system,	The volume above the ground-level of any such cabinet shall not exceed 2 cubic metres measured externally	Such equipment is to be provided within the scope of the developments site boundary. These are typically used as distribution and centres of wiring terminations, are street side, are approx. 1200x500x1400high. These have become sources of Art installations as directed by Local County Councils Arts Programmes. These are to be located in agreement of the Utility providers
(g) transportable radio installation,	1. The height of the structure for such an installation shall not exceed 15 metres in height and 2 metres in width at its widest point.	No such equipment is to be provided within the scope of the developments site boundary
	2. The installation may only be used—	
	(a) to provide anticipated additional coverage at a sporting, social or other event, provided that the structure is not in place for more than 2 weeks before the event or for a period exceeding 8 weeks which shall include assembly and dismantling,	No such equipment is to be provided within the scope of the developments site boundary
	(b) for demonstration or simulation purposes, whether to demonstrate the visual effects of such structure in a particular location or to measure the output, and such structure shall be in place for a period of not more than 12 weeks, or	No such equipment is to be provided within the scope of the developments site boundary
	(c) as a temporary replacement for a structure, which has been accidentally or otherwise incapacitated, and such structure shall be in place for a period of not more than 12 weeks.	No such equipment is to be provided within the scope of the developments site boundary

HEADING	REQUIREMENT	ASSESSMENT
	3. The planning authority in whose functional area the installation is placed shall be notified by the statutory undertaker in writing of the provision and purpose of such installation before it is made operational	No such equipment is to be provided within the scope of the developments site boundary
(h) the attachment of additional antennae to an existing antenna support structure,	1. The total number of such antennae shall not exceed 12, of which not more than 8 shall be dish type (whether shielded or not).	Such antennae are to be provided within the scope of the developments site boundary, these are subject to finalised design of Utility Network Requirements, typically on commercial buildings to support local Mobile Telecommunications based on the needs of the local community, are subject to future planning permissions by the Utility Network providers
	2. (a) The dimensions of any such antenna provided shall not exceed the greatest length, width or depth of any antenna for mobile telephony of corresponding type already attached to the structure.	No such antennae is to be provided within the scope of the developments site boundary
	(b) In any other case, the dimensions of any such antenna provided shall not exceed—	No such antennae is to be provided within the scope of the developments site boundary
	(i) in the case of any panel type antenna, 1.5 metres in length × 0.4 metres in width × 0.15 metres in depth,	Such antennae is to be provided within the scope of the developments site boundary subject to finalised design of Utility Network Requirements, typically on commercial and or apartment buildings to support local Mobile Telecommunications Subject to final load analysis, please note, proposed locations for the mounting of Mobile phone stations are • Roof of Block A (40nr Apartments), not exceeding 3 number.
	(ii) in the case of any co-linear type antenna, 5 metres in length × 0.1 metres in diameter, and	No such antennae is to be provided within the scope of the developments site boundary
	(iii) in the case of any dish type antenna (whether shielded or not), 1.8 metres in diameter.	Such antennae is to be provided within the scope of the developments site boundary subject to finalised design of Utility Network Requirements, typically on commercial/ apartment buildings to support local Mobile Telecommunications

HEADING	REQUIREMENT	ASSESSMENT
	3. The attachment of such antennae shall not result in the field strength of the non-ionising radiation emissions from the site exceeding limits specified by the Director of Telecommunications Regulation.	No such antennae is to be provided within the scope of the developments site boundary
	4. The attachment of such antennae may be carried out by way of a platform only where the antenna support structure already incorporates a platform.	No such antennae is to be provided within the scope of the developments site boundary
	5. The height of the existing structure (including any antenna thereon) shall not be exceeded.	No such antennae is to be provided within the scope of the developments site boundary Refer to (b)(i) above
(i) antennae for high capacity transmission links by way of attachment to existing high capacity antennae support structures,	1. The addition shall be of the dish type antennae used for the sole purpose of point to point communication.	Such antennae is to be provided within the scope of the developments site boundary subject to finalised design of Utility Network Requirements, typically on commercial buildings to support local Mobile Telecommunications based on the needs of the local community, are subject to future planning permissions by the Utility Network providers
	2. The additional antennae shall not exceed the number provided for in the existing design capacity of the support structure.	No such antennae is to be provided within the scope of the developments site boundary.
	3. No new member shall be added to the structure save by way of brackets or other fixing systems used for the attachment of the additional antennae	No such antennae is to be provided within the scope of the developments site boundary.
	4. The maximum diameter of any added antenna shall not exceed the width of the support structure at the point at which the additional antenna is attached	No such antennae is to be provided within the scope of the developments site boundary.
	5. The planning authority in whose functional area the support structure exists shall be notified by the statutory undertaker in writing of the attachment of any such additional antennae at least 4 weeks before the antenna or antennae are attached.	No such antennae is to be provided within the scope of the developments site boundary.

HEADING	REQUIREMENT	ASSESSMENT
	6. The attachment of such antenna shall not result in the field strength of the non-ionising radiation emissions from the radio installations on the site exceeding the limits specified by the Director of Telecommunications Regulation.	No such antennae is to be provided within the scope of the developments site boundary.
(j) an antenna support structure in place of an existing antenna support structure,	1. The replaced structure shall be removed no later than 4 weeks following its decommissioning.	There are no existing structures to be replaced, not applicable.
	2. Where, for reasons of the integrity of the network or other operational reasons, the structure to be replaced remains in use during the construction of the replacement structure, the replacement structure shall be located as near as possible to the existing structure having regard to construction activity and safety requirements and, in any case, no replacement structure shall be located more than 20 metres from the replaced structure (measured from the base).	There are no existing structures to be replaced, not applicable.
	3. (a) The height of the replacement structure shall not exceed the height of the replaced structure.	There are no existing structures to be replaced, not applicable.
	(b)(i) Subject to sub-paragraph (ii), the width of the replacement structure shall not exceed the width of the replaced structure.	There are no existing structures to be replaced, not applicable.
	(ii) Where the replaced structure was 2 metres or less in width, the width of the replacement structure may not be more than twice the width of the replaced structure, all measurements to be taken at the widest point.	There are no existing structures to be replaced, not applicable.
	(c) Where the replaced structure did not incorporate an antenna platform, the replacement shall not incorporate such a platform.	There are no existing structures to be replaced, not applicable.

HEADING	REQUIREMENT	ASSESSMENT
	4.(a) Subject to sub-paragraph (b), the antennae to be attached to the replacement structure shall not exceed the number of antennae on the replaced structure.	There are no existing structures to be replaced, not applicable.
	(b) An additional 12 antennae for mobile telephony may be attached to the replacement structure, of which not more than 8 of the additional 12 shall be of the dish type (whether shielded or not).	There are no existing structures to be replaced, not applicable.
	5. (a) The dimensions of any additional antenna for mobile telephony shall not exceed the greatest length, width or depth of any antenna for mobile telephony of corresponding type on the replaced structure.	There are no existing structures to be replaced, not applicable.
	(b) In any other case, the dimensions of any antenna provided shall not exceed:	There are no existing structures to be replaced, not applicable.
	(i) in the case of any panel type antenna, 1.5 metres in length × 0.4 metres in width × 0.15 metres in depth,	There are no existing structures to be replaced, not applicable.
	(ii) in the case of any co-linear type antenna, 5 metres in length × 0.1 metres in diameter, and	There are no existing structures to be replaced, not applicable.
	(iii) in the case of any dish type antenna (whether shielded or not), 1.8 metres in diameter.	There are no existing structures to be replaced, not applicable.
	6. The replacement of an antenna support structure together with any replaced or additional antenna shall not result in the field strength of the non-ionising radiation emissions from the radio installations on the site exceeding the limits specified by the Director of Telecommunications Regulation.	There are no existing structures to be replaced, not applicable.

HEADING	REQUIREMENT	ASSESSMENT
(k) antennae attached to the following existing structures-	(i) public or commercial buildings (other than education facilities, childcare facilities or hospitals) by way of attachment to roofs, facades, chimneys, chimney pots or vent pipes;	New Build, as such not applicable.
	(ii) telegraph poles, lamp posts, flag poles, CCTV poles;	New Build, as such not applicable
	(iii) electricity pylons.	New Build, as such not applicable
	1. The antenna shall be attached directly to the structure (other than a structure with a flat roof) and not by way of a supporting fixture.	New Build, as such not applicable.
	2. In the case of a structure with a flat roof, a supporting fixture may be used provided that-	New Build, as such not applicable
	(a) the fixture does not exceed the height of any existing parapet or railing on the roof by more than 2 metres, and	New Build, as such not applicable.
	(b) access to the roof is not available to any person other than a person authorised by the statutory undertaker.	New Build, as such not applicable.
	3. Where an antenna is attached to the façade of a building or the exterior of a chimney or vent, the colour of the antenna shall match and blend with the colour of such façade, chimney or vent pipe.	New Build, as such not applicable.
	4. Where the antenna is hidden inside a chimney pot the existing chimney pot may be replaced by a chimney pot in a suitable material which shall be the same colour, size and shape as the replaced pot, and the antenna shall not protrude beyond the top of the chimney pot.	New Build, as such not applicable.

HEADING	REQUIREMENT	ASSESSMENT
	5. The planning authority in whose functional area the structure on which the antennae will be attached is situated shall be notified by the statutory undertaker in writing of the proposed location of any such structure at least 4 weeks before such attachment	New Build, as such not applicable.
	6. The field strength of any such antenna shall not result in the field strength of the non-ionising radiation emission from the radio installations on the site exceeding the limits specified by the Director of Telecommunications Regulation.	New Build, as such not applicable.

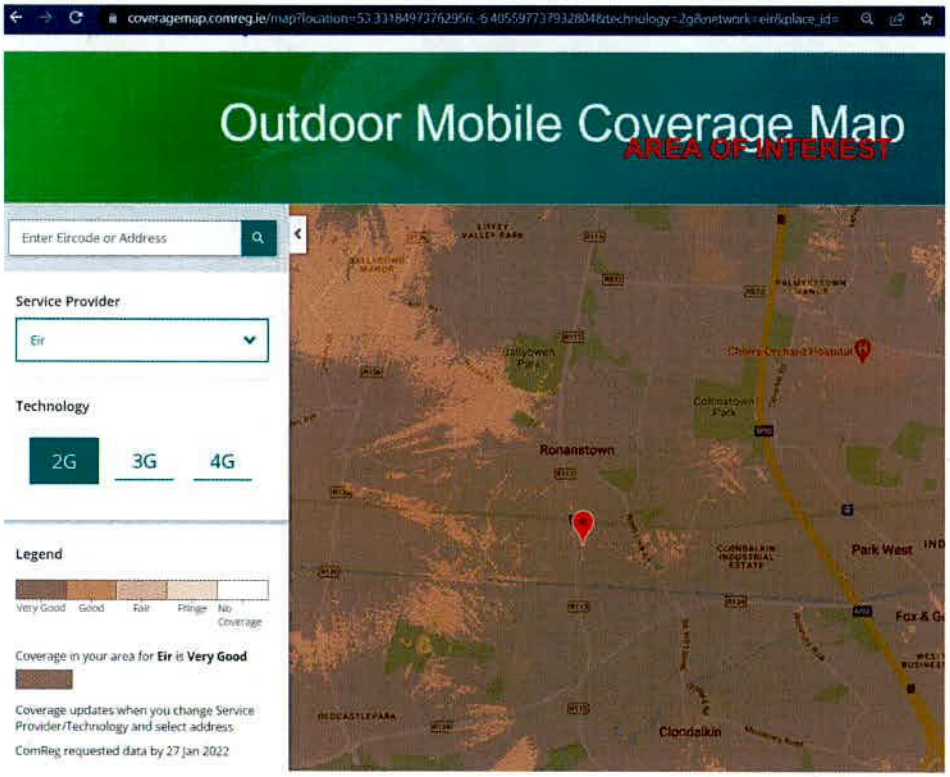
APPENDIX 1

Cell Tower Locations and Mobile Coverage

Please note

- Cell Tower Data Obtained from https://siteviewer.comreg.ie/#explore 11th May 2022
- 2G, 3G, 4G coverage for all providers Data Obtained from https://coveragemap.comreg.ie/map 11th May 2022

Example of Coverage map



Note that Comreg has deemed that the coverage in Proposed Development area is Good to Very Good by Comreg standards.

The proposed Development will, in the main, fall into this same category.

There are over 20nr Cell Tower Masts or Locations listed on Comregs site covering the Proposed Development area and the local area.

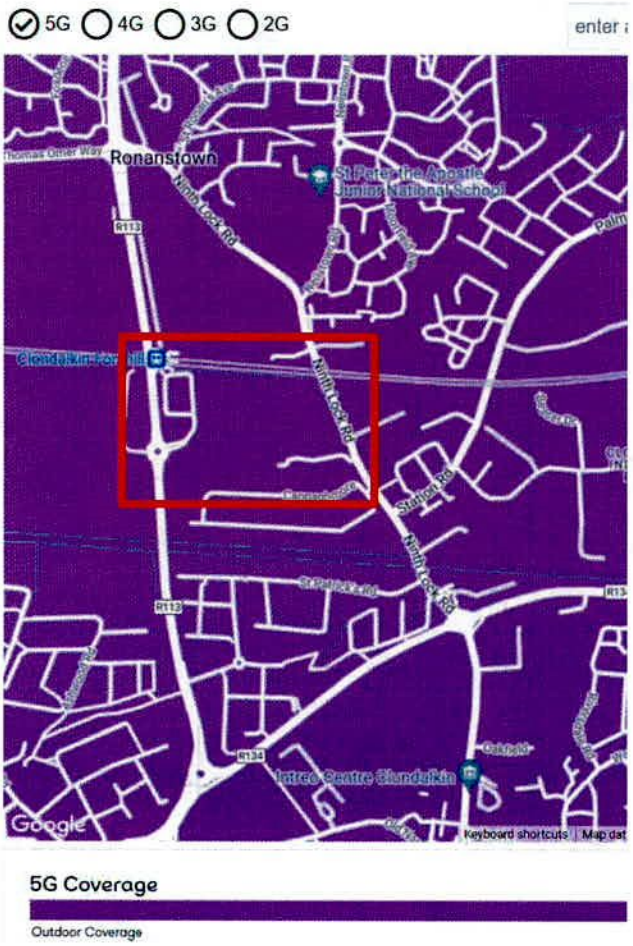
Based on the coverage as measured by ComReg, additional Cell Antennas will be required, these to be mounted on commercial and or apartments property only subject to further planning by the utility providers. Reason, the exact requirements may be meet by the existing infrastructure available within the local area, however the additional load will not be determinable until the users are connected and values measured, thus determining the additional number, if any, of Cell towers.

The 2G coverage is rated as Good to Very Good by ComReg.

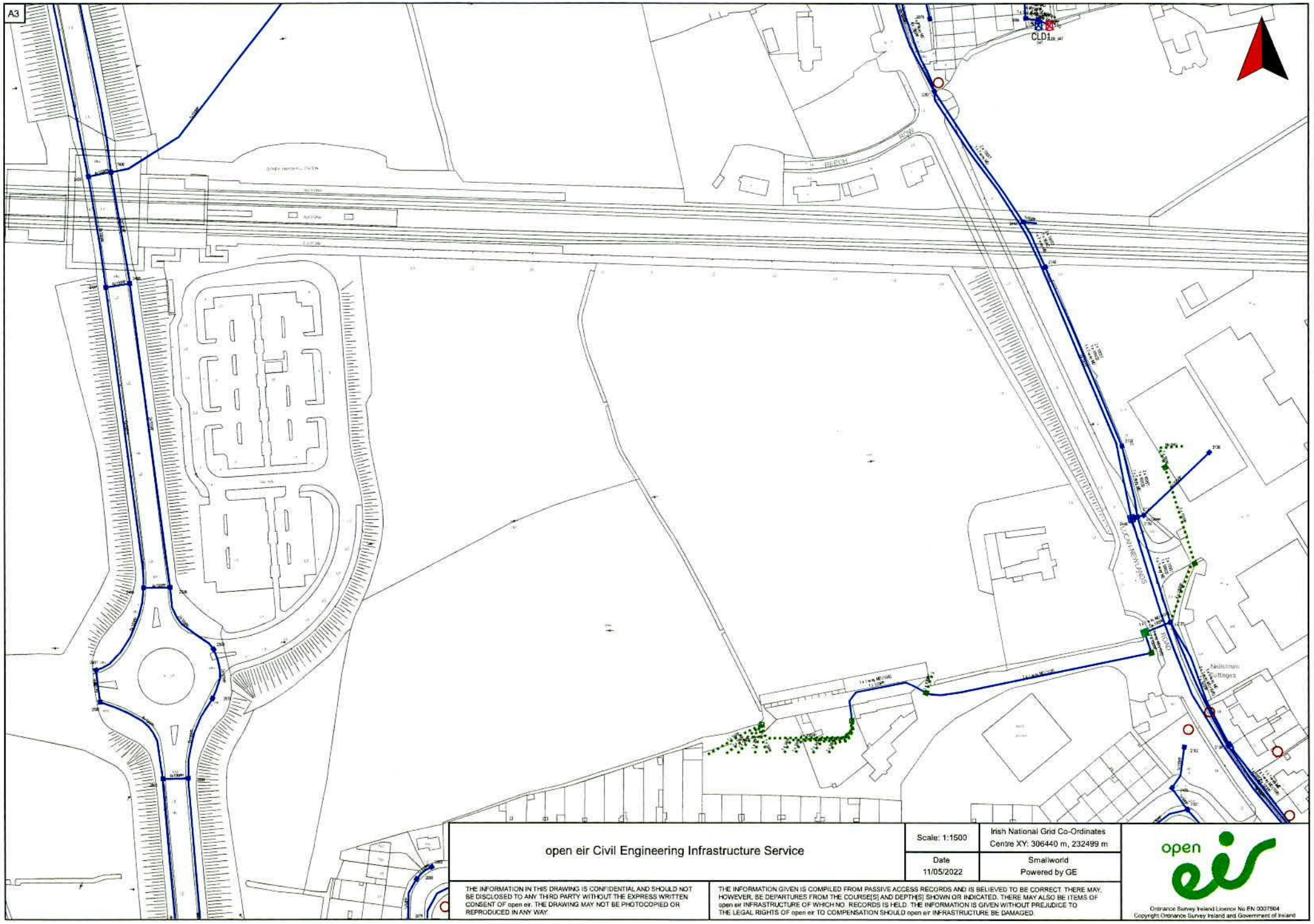
The 3G coverage is rated as Good to Very Good by ComReg.

The 4G coverage is rated as Good by ComReg.

Eir network coverage map, for 5G indicates coverage only

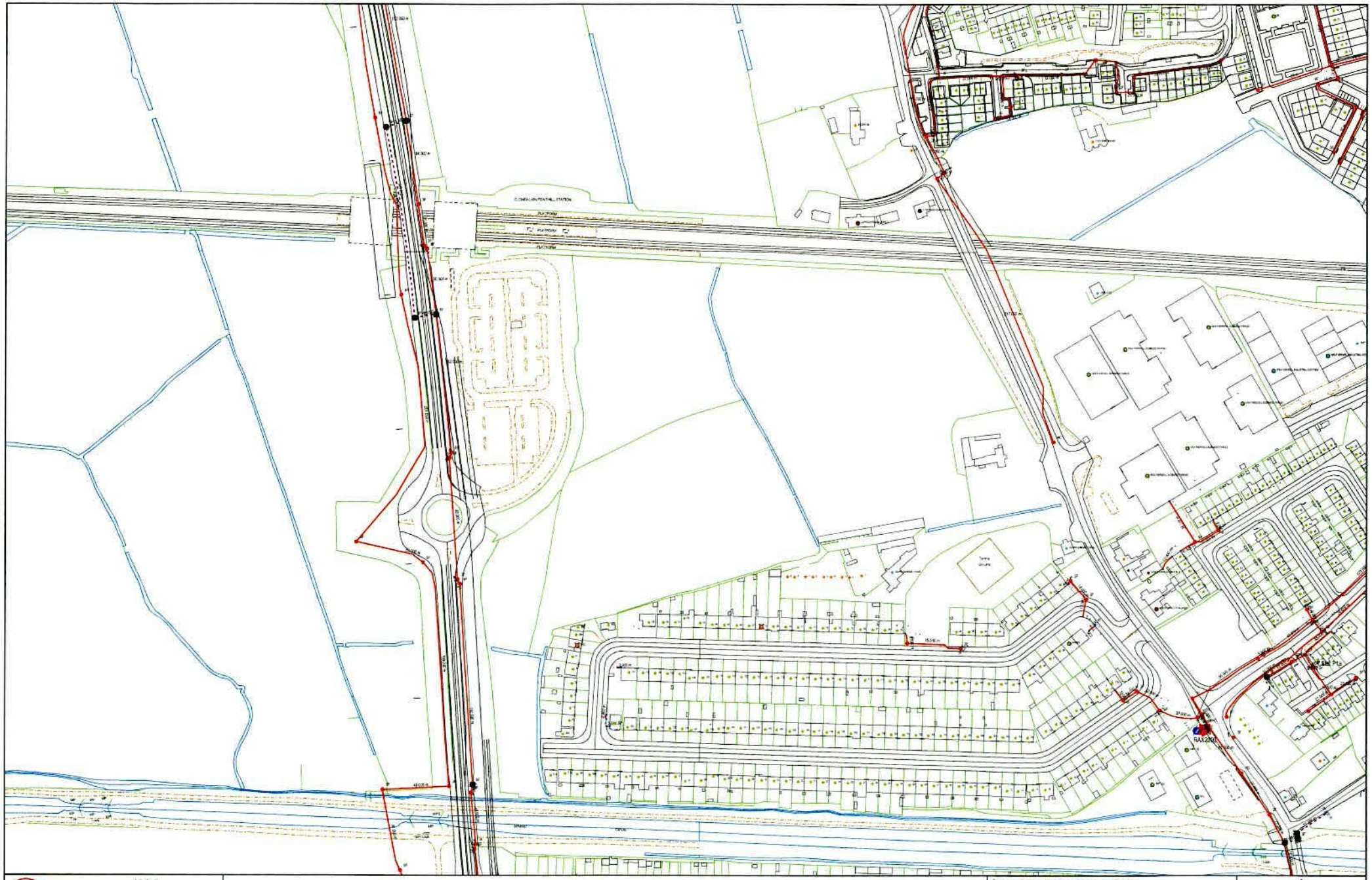


AREA OF INTEREST



open eir Civil Engineering Infrastructure Service

Scale: 1:1500	Irish National Grid Co-Ordinates Centre XY: 306440 m, 232499 m
Date 11/05/2022	Smallworld Powered by GE



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DESIGNED BY:

Produced on: 13/05/2022

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