



Additional Details for Technical Justification

DU1548 - Ballyroan_Ballyboden,
Ballyroan Community & Youth Centre,
Marian Road,
Rathfarnham,
Dublin 14,
Co Dublin

4th October 2021



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1. Introduction

The following report outlines the areas targeted by the new proposed structure at Ballyroan for coverage enhancement. Details are also provided justifying the reason other nearby sites were discounted as candidates.

The proposed structure will allow Three to bring a significant improvement to their network coverage and capacity in the area and as such it will provide better indoor and outdoor voice and broadband services to Ballyroan area and its surrounding residential and local business.

2. Site Details

Site	Latitude	Longitude	Height (Antenna top)
DU1548 Ballyboden	53.290211	-6.2990130	20m

3. Discounting Existing Sites

This section outlines what was considered when selecting Ballyroan as a candidate for a new 20m structure. A large consideration is to future proof the site against further local clutter clipping and the technology evolution. Due to site spacing, terrain, structural and other limitations, there are many areas in the country where network operators have weak or non-existent voice and broadband data services. These are known as coverage or service blackspots. The operator's network planning teams identify and prioritise blackspots based on a significant cluster of residential and commercial customers along with any key roads or rail infrastructure. In the case of the area around Ballyroan the coverage is weak despite the nearest site is 100 meters away. This site as well as the surrounding sites will not provide adequate services into the target area due to the antenna height and due to the urban and suburban clutter.

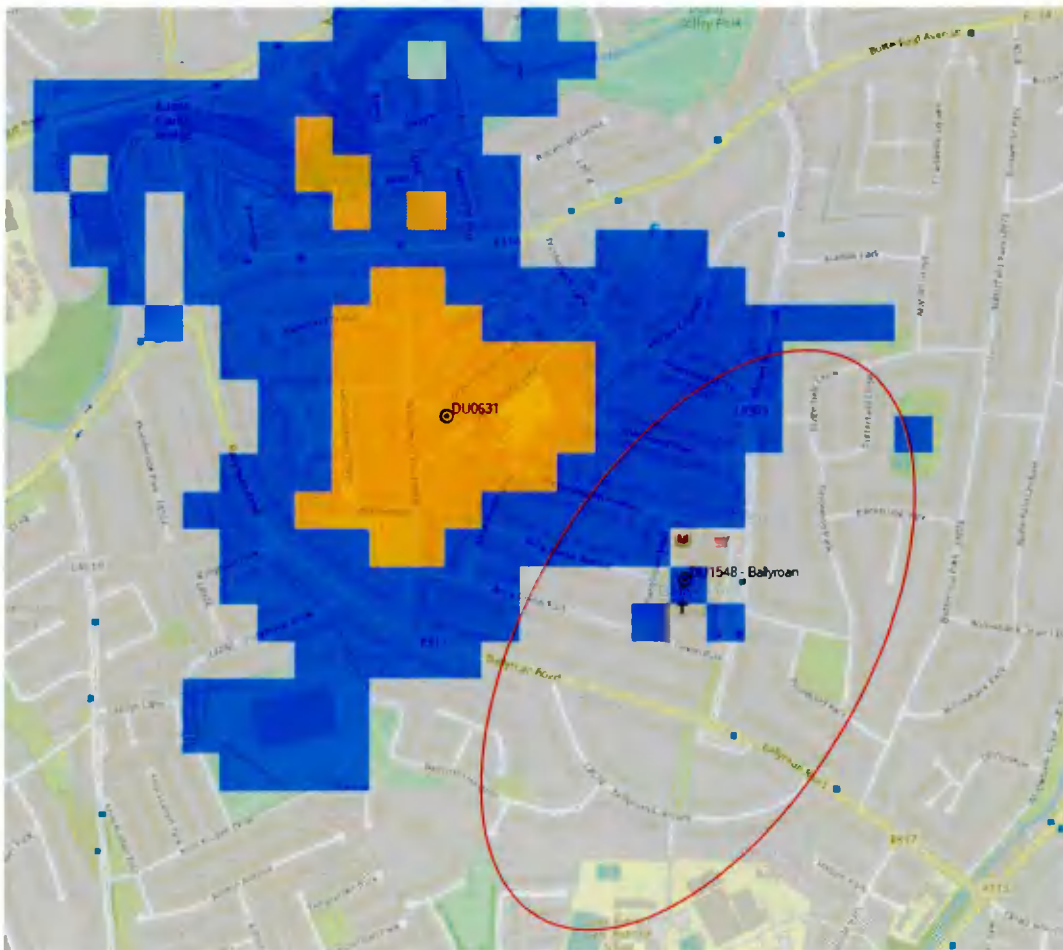
A full list of surrounding sites within 1km radius of the proposed site is detailed below:

Closest Existing Sites	MNO Refs	Distance (m)	Suggested Discount Reason
Orchardstown Park	Three: DU0631 VF: DN128	385m	9 meters rooftop. This site is designed to cover Butterfield area, Ballyroan Rd (R817), a section of Butterfield Ave (R114) and due to clutter in the urban/ suburban environment, this site will not serve into the target areas.
Rosemount SC	Eir: DN_3310	100m	7 meters rooftop. This site is too low to cover the target areas as it's footprint is limited and obstructed by surrounding clutter such as the adjacent Church and the Ballyroan Community & Youth Centre buildings.
Templeogue Tennis Club	DU0430	915m	14 meters pole. Site designed to serve Templeogue Village, Templeogue Rd (R137) and because of the distance the clutter in the urban/ suburban environment, this site will not serve into the target areas.
The Morgue Pub	VF: DN310 Eir: DN_3557	895m	9 meters rooftop. This site is designed to cover Templeogue Village, Templeogue Rd (R137) and it's quite low and due to clutter in the urban/ suburban environment, this site will not serve into the target areas. Both existing chimneys have shrouded solutions and no space available for additional operator

3.1 Orchardstown Park

Two mobile operators are located at this site, Three: DU0631 and Vodafone: DN128.

Nine meter high rooftop site: this site was designed to cover Butterfield area, Ballyroan Rd (R817), a section of Butterfield Ave (R114) and it's quite limited by the clutter in the urban/ suburban environment; surrounding buildings, houses and the church are limiting the site to provide adequate in-building coverage (see map of the prediction below) to the target area of Ballyroan.



3.2 Rosemount SC

One mobile operator is located at this site, Eir: DN_3310.

Seven meters rooftop: this site is too low and will need extra height to cover the target areas as the Church (14m) and Ballyroan Community & Youth Centre buildings are blocking coverage. The proposed site at the Ballyroan Community & Youth Centre will be 20m which will clear the buildings in the area, in particular the main section of the church.





3.3 Templeogue Tennis Club

One mobile operator is located at this site, Three: DU0430.

14 meters pole. Site designed to serve Templeogue Village and Templeogue Rd (R137). Because of the distance, of the clutter in the urban/ suburban environment, and the terrain elevation this site will not serve into the target areas.



3.4 The Morgue Pub

Two mobile operators are located at this site, Vodafone: DN310 and Eir: DN_3557.

Nine meters rooftop site. This site is designed to cover Templeogue Village and Templeogue Rd (R137). This site due to the limited height, distance from the target area and to the clutter in the urban/ suburban environment doesn't have the capability to serve into the Ballyroan area. Also two operators have equipment on the existing chimneys of the building and there is limited space for a third operator.



A full list of surrounding sites between 1Km and 2Km radius of the above mentioned site is detailed below:

Closest Existing Sites	MNO Refs	Distance (m)	Suggested Discount Reason
Ballyboden Eircom exchange 14m - 20m tower Plan Ref No. SD20A/0042	DN_1315	1120m	20-meter tower. The proposed site is too far from the target area even with the available slots is too low and due to clutter in the urban/suburban environment, this site will not serve into the target areas.
The Sarah Curran	DU0108	1345m	10 meters rooftop. This site is meant to cover Rathfarnham area, a section of Grange Rd (R115) and due to its distance and the antenna height this site will not serve into the target areas.
Pearse Museum	DU0344	1120m	28 meters pole. Site designed to cover Willbrook area, Ballyboden area, a section of Grange Rd (822), and due to its distance and to clutter in the urban/suburban environment, this site will not serve into the target areas.
Ballyboden	DU1312	1380m	17 meters tower. The purpose of this site is to cover Ballyboden area, Edmondstown area, Prospect Manor area, and due to its distance this site will not serve into the target areas.

Stocking Lane Cignal	DU1132	1880m	14 meter pole. Site designed to cover the M50 and it's too low and doesn't have line of sight with the target areas.
Knocklyon Shopping Centre	DU0181	1480m	8 meters rooftop. Low site on top of the shopping centre which is meant to provide coverage to Knocklyon area, a section of the M50 and it's too far and due to clutter in the urban/suburban environment, this site will not serve into the target areas.
Willington, Templeogue	DU0574	1785m	8 meters rooftop. This site is meant to cover Templeogue area and due to the height, distance and clutter type environment (urban/suburban), this site will not serve into the target areas.
St Marys College RFC	DU1182	1635m	17 meters pole. Site designed to infill Templeogue area as well as Cypress Down area; due to the distance and the clutter type (urban/suburban) environment, this site will not serve into the target areas.

