



Phase 5 – Development at Oldtown

Proposed Residential Development

5100

TELECOMMUNICATION SIGNAL INTERFERENCE REPORT

Oldtown,
Swords,
Co. Dublin

Gerard Gannon Properties

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1 Introduction

1.1 Document purpose

This report gives information on the assessment of interference to existing telecommunications signals as a result of the new proposed development. High rise buildings or tall structures could potentially interfere, disturb or block an existing telecommunication signal. Officially licenced telecommunications signals operating in the correct designated area or path should not be adversely affected by the new development or if assessed to be effecting an existing signal should try to accommodate the signal provider to allow redirection or similar process.

1.2 Instruction

DKPartnership (DKP) have been commissioned by Gannon Properties, to carry out the analysis and report for the proposed development at Oldtown, Swords, Co. Dublin.

1.3 Brief development description

'A proposed Strategic Housing Development consisting of the removal of the temporary site office/site compound structures on site and the construction of 377 no. residential units comprising of duplexes, apartments and houses, all with associated car parking; a childcare facility with associated car parking; landscaping including play equipment; boundary treatments; public lighting; and all associated engineering and site works necessary to facilitate the development including proposed vehicular accesses onto Miller's Avenue, and a proposed stormwater storage tank (with proposed vehicular/service access onto Balheary Road) and overflow outfall gravity sewer to the Broadmeadow River with associated manholes on lands locally known as the Celestica/Motorola site, junction of Glen Ellan Road and Balheary Road, and at/on Balheary Road.'



2 Findings and Summary

2.1 Finding existing tv/radio/telecommunication

It is not as easy to establish if there are existing licenced television/radio/telecommunication signals present in the area as the Department of Environment, Climate and Communications and/or ComReg do not provide such information in the interest of home security as it is quoted to us. The only reasonable method currently available is scanning the tallest adjoining buildings for existing aerials and identify buildings occupied by blue light services.

2.2 Typical frequency ranges

TV signal providers use radio wave (30MHz-3000MHz) signals which are generally transmitted using multi directional aerials and by nature are typically long range (100km-200km) with multiple Fresnel zones and as a result are unlikely to be effected. Blue light services (Gardy, Ambulance, Fire Services and Coast Guard) use micro wave (30MHz-300MHz) signals which are generally transmitted using multi directional aerials and by nature are typically shorter range (10km-20km) with multiple Fresnel zones and also less likely to be effected. Telecommunication providers micro wave links, radar systems, satellite telemetry (300MHz-30GHz) signals generally require line of sight and could therefore be affected by taller structures. These signals also have multiple Fresnel zones but rely on the first Fresnel zone to be at least 60% clear. Long range signals have a very large first Fresnel zone and are unlikely to be affected, short range (1km-2km) point-to-point signals have a small (50m-100m) first Fresnel zone and could be more than 60% effected by a structure resulting in interference, disturbing or loss of signal.

2.3 Our search range

To identify possible interference to point-to-point signals we use a 1.5km diameter or a 3km search range from the location of the proposed development in all directions identifying exiting taller buildings / structures which are most likely used for transmitting/receiving telecommunication signals. See page 6 for search range area.

2.4 Findings

The search for roof / tall structures in the 3km zone around the new proposed development has not revealed any particular telecommunication company mast location with any dish or aerials nor is there any gardai station or other blue light services in this area.

2.5 Assessment and conclusion

Based on the search findings we conclude that there appears to be no telecommunication signals directly crossing the new development site and that it is very unlikely that the new development will interfere, disturb or block any existing licenced telecommunication signal. Any telecommunication signals crossing the site from greater distances beyond the 3km range will not be adversely affected as the signals would be outside the first Fresnel zones.

2.6 Possible site benefit

Telecommunication companies often look to improve their networks by applying distribution aerials on taller structures to get a wider / further range. The fact that the apartment blocks rise to 4/5 storeys may indeed benefit a telecommunications company in so far it may provide them with a possible aerial location and thus provide a better service for the entire area.



Geographical overview

Site location (yellow centre) and 3 km search range (yellow circle)



Illustration 1 : Approximate site location outline and 3km search range (circle)