APPENDIX 4: COVERAGE PLOTS

18612

Cornerstone : Supporting Technical Information for O_2 & Vodafone : -

Forest Hills Replacement

O_2 Site - 49084

Vodafone Site - 81892

Date Prepared: 16 August 2011

CS_18612 O2_49084 VF_81892 - VF 3G site requirement. O2 3G requirement

CORN/09/014 v1.3

KEY TO COVERAGE PLOTS

The enclosed radio propagation plots are based on Ordnance Survey geographical information.

The level of coverage provided by a particular site is dependant on a number of variables. The main factors which determine the extent of coverage are: the frequency of the signal emitted, the height of the antenna above ground level, the characteristics of the surrounding topography and the type and occurrence of ground clutter such as buildings and trees which can cause 'shadows' or reflections and can absorb the signal.

The Radio Planners have produced accurate visual representations of the level of coverage available in this particular area by using advanced computer modelling software based on a Geographical Information System. The programme takes the numerous variables as above into account and can then calculate and plot the strength of the signal.

Existing and proposed sites are indicated by a blue or red circle and dot with the site number. **Blue** represents **O_2** and **red** represents **Vodafone**. The orientation of the antennas is shown by the arrows.



Site arrows show orientation of antennas



Note on large rooftop sites the antenna can be distributed in different locations from the site location. This is represented by a line extending outwards from the site to the antenna.

Key for GSM (2G) Plots

Orange	Sufficient signal strength to provide adequate service for indoor use of a hand portable mobile in urban areas.	Indoor Urban
Blue	Sufficient signal strength to provide adequate service for indoor use of a hand portable mobile in suburban areas	Indoor Suburban
Green	Sufficient signal strength to provide adequate service for use of a hand portable mobile in a car	In Car
Yellow	Sufficient signal strength to provide adequate service for outdoor use of a hand portable mobile.	Outdoor
No Colour	Insufficient signal strength to provide reliable service.	No Coverage

Key for UMTS (3G) Plots

Pink	Sufficient signal strength to provide adequate service for indoor use of a hand portable mobile in urban areas.	Indoor Dense Urban
Orange	Sufficient signal strength to provide adequate service for indoor use of a hand portable mobile in suburban areas	Indoor Urban
Blue	Sufficient signal strength to provide adequate service for indoor use of a hand portable mobile in suburban areas	Indoor Suburban
Green	Sufficient signal strength to provide adequate service for use of a hand portable mobile in a car	In Car
Yellow	Sufficient signal strength to provide adequate service for outdoor use of a hand portable mobile.	Outdoor
No Colour	Insufficient signal strength to provide reliable service.	No Coverage

Vodafone - Map to search Area

CS_18815_O2_4804_TV_8182 - TV_3G site treatment. O2 3G treatment

O2 - Existing UMTS (3G) Coverage

O2 - proposed UMTS (3G) coverage

This coverage plan must be read in conjunction with notification.

Each colour block represents 20 metres square.

Vodafone - Existing UMTS (3G) Coverage

CS_1801 O2_480A TV_8818 - TV 3G site redevelopment. O2 3G radiation pattern

Bungay
Bungay
Bungay

Vodafone - proposed UMTS (3G) coverage

All rights reserved. Licence number 100018818
Digital Mapping Solutions from Dotted Eyes © Crown Copyright 2008.

This coverage plan must be read in conjunction with accompanying site and key plot information.

Each radio plot represents 20 users sharing 3G transmitter site 3G 02 - TV_18818_02_12812_02_18818_TV - 3G transmitter