

Supporting Technical Information for

CTiL

VF 79111

Mullen Tower

This site is intended to improve coverage levels and data throughput speeds in the areas shown in orange, red, green and yellow in the attached coverage plots.

Date Prepared: 9th August 2017

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 black circle and dot with the site number. The orientation of the antennas is shown by coloured triangles.

Key for UMTS (3G) Plots

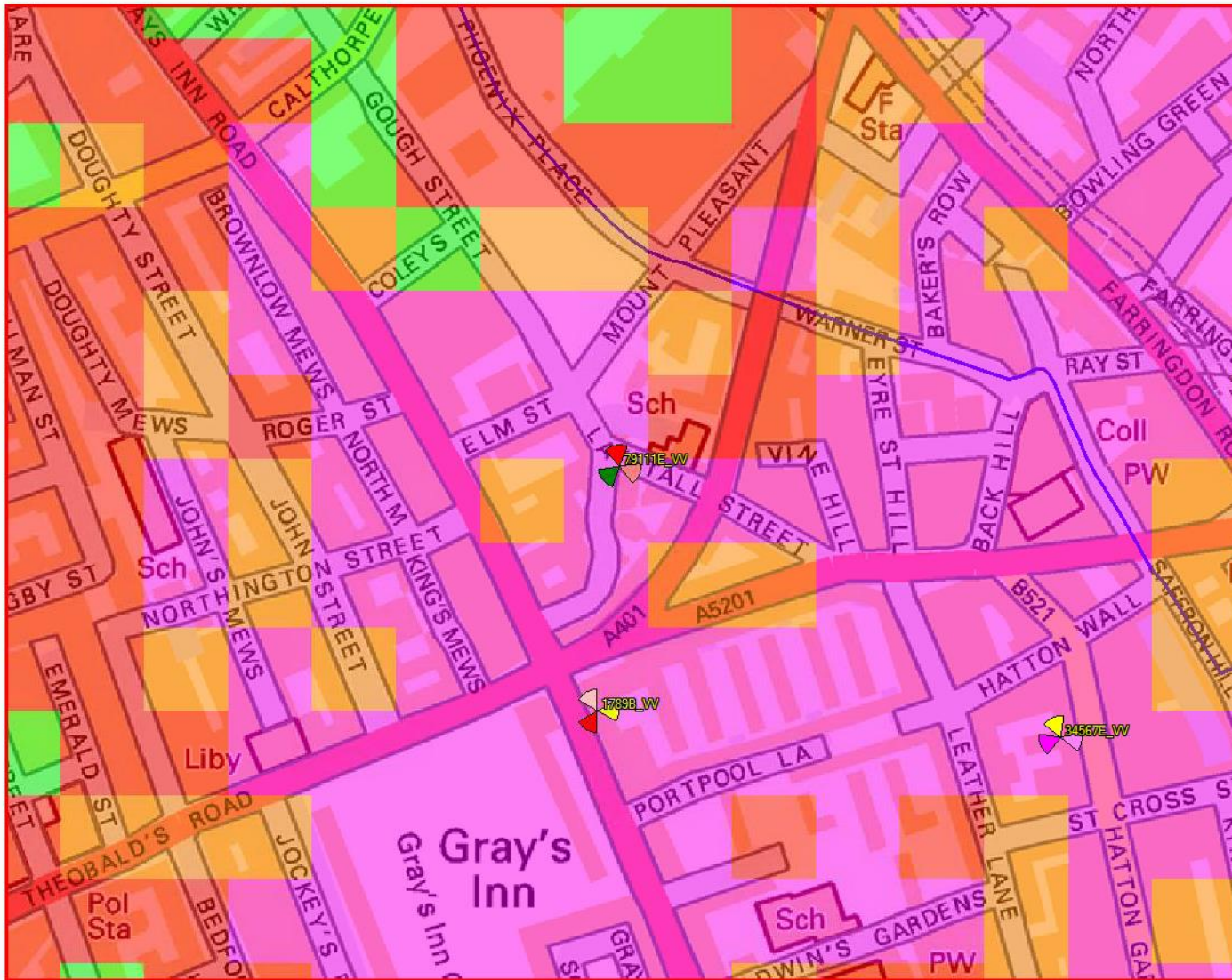
Pink	Sufficient signal strength to provide adequate service for indoor use of a hand portable mobile in urban areas.	Indoor Dense Urban
Orange	Sufficient signal strength to provide adequate service for indoor use of a hand portable mobile in suburban areas	Indoor Urban
Red	Sufficient signal strength 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

Coloured triangles 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.

CTiL - Existing UMTS Vodafone (3G) Coverage



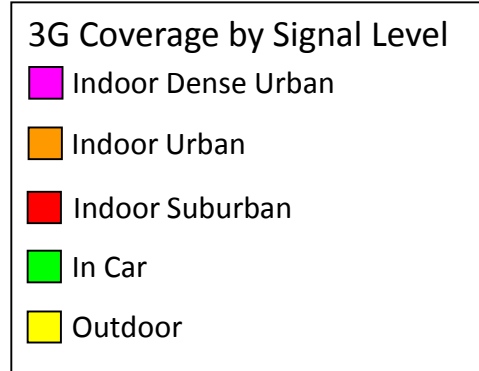
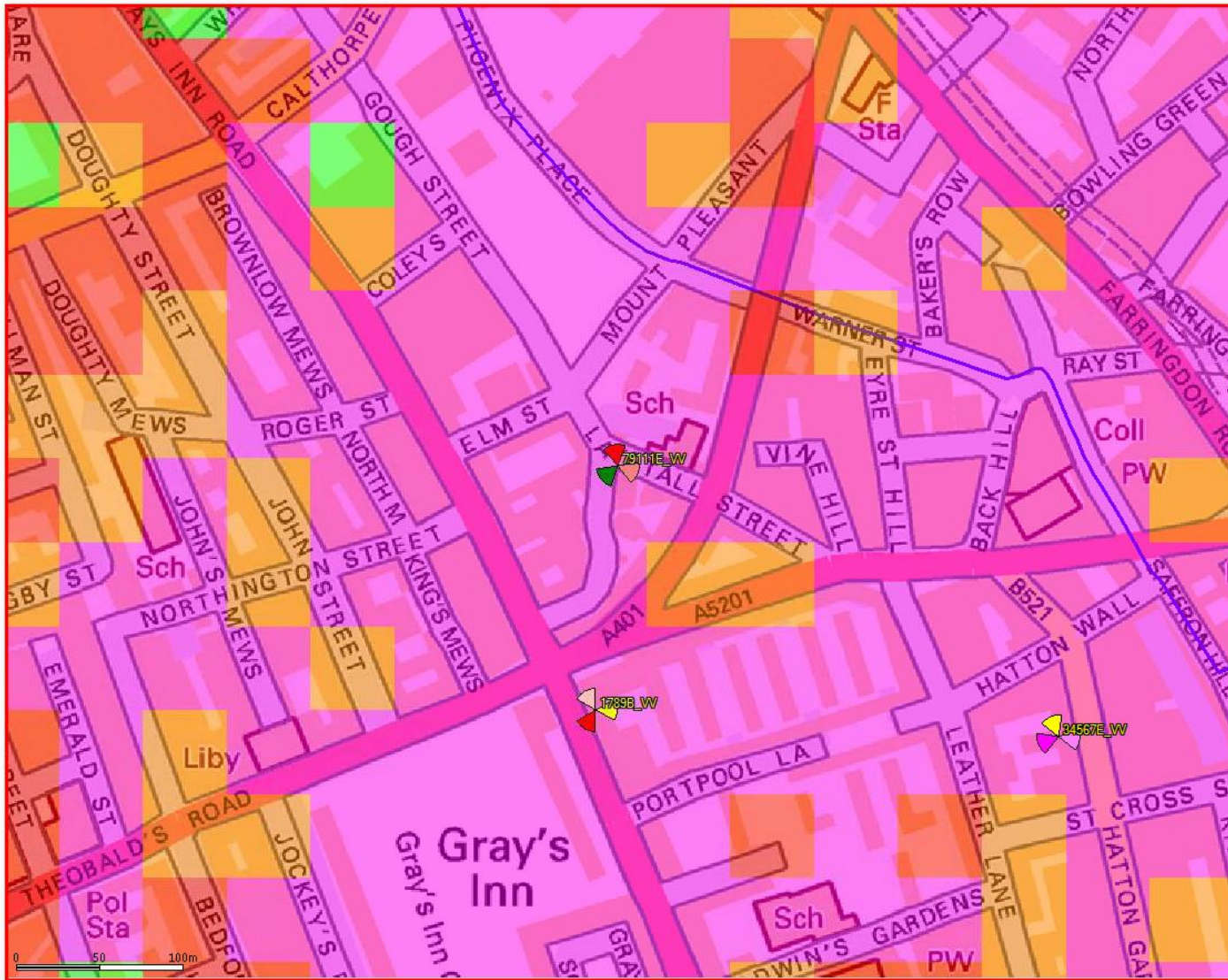
3G Coverage by Signal Level

- Indoor Dense Urban
- Indoor Urban
- Indoor Suburban
- In Car
- Outdoor

Digital Mapping Solutions from Dotted Eyes. © Crown Copyright 2006. All rights reserved. Licence number 100019918

This coverage plan must be read in conjunction with the key and site specific supplementary information. Each colour block represents 25 metres square.

CTiL – Future UMTS Vodafone (3G) Coverage with proposed height



Digital Mapping Solutions from Dotted Eyes. © Crown Copyright 2006. All rights reserved. Licence number 100019918

This coverage plan must be read in conjunction with the key and site specific supplementary information. Each colour block represents 25 metres square.