Harlequin Group

ADUR & WORTHING
PLANNING SERVICES
PLAN | AWDM/1829/16
DATE RECD | - 2 DEC 2016

SUPPLEMENTARY INFORMATION

1. Site details

Site Name	Land off Upper Shoreham Road SW	Site Address	Land off Upper Shoreham Road, West Sussex BN43 6BE
NGR	E 522305 N 105889		
Site Ref Number	92348	Site Type	Street works

2. Pre Application Check list

Site selection

Was the mast register of the authority[2] responsible for planning used to check for suitable sites by the operator or the authority?	Yes	
Was the industry site database checked for suitable sites by the operator?	Yes	

Annual roll out consultation with the authority[2] responsible for planning

Date of last annual rollout information/ submission	N/A	
Name of contact	N/A	
Summary of outcome/Main issues raised N/A		

Pre-application consultation with the authority[2] responsible for planning

Date of written offer of pre-application consultation	11/08/2016	
Was there pre-application contact	Yes	
Date of pre-application contact	11/0/2016	
Name of contact	Head of Planning/Rebecca Tier	
A pre-application consultation letter was emailed to the LPA on 11 August 2016 explaining the need for a replacement site in the proposed location off Upper Shoreham Road. A response was received also via email from Rebecca Tier on the 28 August stating that there would be no initial concerns with a similar monopole to the one that is situated across the road and the preferred colour for the pole would be for it to be a dark green. A further email was then sent to Rebecca on the 7 October with the drawings of the proposal asking for further comments prior to the submission of an application. As of application submission, a response had not been received.		

Ten Commitments Consultation

Rating of Site under Traffic Light Model	Amber
Outline Consultation carried out The site was rated amber. In consideration of this, pre-application consultation has been undertaken with the local Ward Councillors, the Headteacher and Chair of Governors at St Nicolas and St Mary Church of England Primary School, Eastern Avenue on the 23 November 2016. Given the urgency of deploying this replacement site, responses were requested by the 30 November 2016. As at application submission, no responses had been received.	

School/College

As stated above consultation was undertaken with Headteacher and Chair of Governors at St Nicolas and St Mary Church of England Primary School, Eastern Avenue. A response was not received from the school prior to the submission of the application.

Civil Aviation Authority/Secretary of State for Defence/Aerodrome Operator consultation

The proposed site is lower in height than the previous installation that was located on the roof of Southlands Hospital and will not have an impact on the local airport, as such, no consultation was undertaken.

3.0 Proposed Development

The proposed site
The proposal is to maintain permanent coverage to this area of Shoreham-by-Sea as the installation that was previously located at Southlands Hospital has now been removed so that redevelopment of the site could be progressed. It should be noted that the part of Southlands Hospital where the previous installation was located has now been demolished. The proposal would consist of the installation of a 17.5m high slim line telecommunications tower with 3no. antennas within a GRP shroud, 2no. 300mm dishes and 3no. ground based equipment cabinets and other ancillary equipment thereto. In acknowledgement of the site location, a slim line column design is being proposed with the antennas and dish located at the top of the structure and the pole and cabinets will also be coloured green.

A map extract is enclosed with this application showing the site location.

Type of Structure (e.g. tower, mast, etc.): 17.5m high slim line telecommunications column	
The proposal would consist of the installation of a 17.5m high slim line telecommunications tower with 3no. antennas within a GRP shroud, 2no. 300mm dishes and 3no. ground based equipment cabinets and other ancillary equipment thereto.	
Overall Height	17.5m
Materials (as applicable)	
Type of material and external colour	Galvanised steel –green in colour RAL6009
Equipment housing – type of material and external colour	Galvanised steel and aluminium coloured green (RAL6009)

Reasons for choice of design
The design has been chosen as it meets both the technical requirement to provide the necessary service in terms of height and the slim lime column design is considered to have the least visual impact at the height required. From the outset, when it became apparent that the location proposed is the optimum in terms of coverage, EE worked to find a design which would minimise visual impact on the surrounding area. As such and after discussions with the LPA, a 17.5m high mast is sufficient to provide the coverage required. It should be noted that by utilising a GRP shroud around the antennas, this negates the need for the structure to have large bracing components associated with other more prominent and conventional installations.

4.0 Technical information

ICNIRP Declaration attached - Yes ICNIRP public compliance is determined by mathematical calculation and implemented by careful location of antennas, access restrictions and/or barriers and signage as necessary. Members of the public cannot unknowingly enter areas close to the antennas where exposure may exceed the relevant guidelines. When determining compliance, the emissions from all mobile phone network operators on the site are taken into account.

Frequency: *All EE Ltd 3G sites operate both the GSM1800 system (transmitting in the frequency range of **1846.5MHz** to **1876.5MHz**) and the UMTS system (transmitting in the frequency range of **1904.9MHz** to **1909.9MHz** and **2159.7MHz** to **2169.7MHz**).*	
Modulation characteristics[3] *The modulation method employed in GSM1800 is **GMSK** (Gaussian Minimum Shift Keying) which is a form of **Phase Modulation**.* *The modulation method employed in UMTS is **QPSK** (Quad Phase Shift Keying) which is another form of **Phase Modulation.***	
Power output (expressed in EIRP in dBW per carrier): *In order to minimise interference within its own network and with other radio networks, EE Ltd operates its network in such a way that radio frequency power outputs are kept to the lowest levels commensurate with effective service provision.* *As part of the EE Ltd network, the radio base station that is the subject of this application will be configured to operate in this way.* *EEs' licence limits the allowed radiated power to an effective isotropic radiating power (EiRP) of +32dBW per carrier for both GSM1800 and UMTS* *For a **Microcell** the typical EiRP would be between approximately +16.5dBW per carrier and +26dBW per carrier for GSM1800. For UMTS a typical EiRP would be +20dBW per carrier.*	
Height of antenna (m above ground level)	17.5m

[3] The modulation method employed in GSM is GMSK (Gaussian Minimum Shift Keying) which is a form of Phase Modulation

5.0 Technical Justification

The proposal has been sited and designed to maintain the required level of coverage to this part of Shoreham-by-Sea which currently suffers from a lack of coverage as the previous installation that was located on the roof of Southlands Hospital had to be removed to allow for redevelopment works and has not yet been replaced. There are no available masts or building rooftops in this area that could be utilised in order to achieve the coverage into the required area. A full alternative site assessment was carried out before the site at Upper Shoreham Road was identified as the optimum location in both planning and technical terms.

GSM Coverage

A mobile phone transmitter is designed to cover a specific area and links its coverage to the next site in the network, creating a patchwork of overlapping coverage 'cells' across the county. So, if a person is on the move, the network will transfer their calls from one site to the next. However, in certain areas there will be gaps between these cells, resulting in a loss of coverage. This can be for a variety of reasons, the most common being topography or buildings which block the path of the signal. Our network rollout programme is designed to identify and address these gaps within our coverage and ensure that people can use their phones whenever and wherever they are.
The distances between transmitter sites will depend on many factors, including the geography of the area, the number of buildings, the number of people living in the area and the growing demand for mobile services. As a result, the distance between sites can range from less than 1 kilometre in large urban areas to 8 kilometres in rural areas.
There is currently inadequate provision of EE Ltd service in this area due to the removal of the previous installation as mentioned above.

As such, in order to again maintain this coverage to customers, including from mid-2017, the Emergency Services, this application is submitted in order to continue to maintain the level of coverage that was provided by the previous site.

3G/4G Rollout

Data traffic is increasing and is forecast to continue to grow, as technology is developed to facilitate this. Services such as direct access to the Internet from a handset, downloading files from the office to a mobile laptop computer and videophones are now offered and expected by subscribers. These data services are commonly known as third generation or 3G services and fourth generation or 4G services. All mobile telecoms operators have agreed with the govt to offer 90% geographic coverage by the end of 2017. This site forms part of that wider policy requirement.

These services are provided using a combination of UMTS and new generation GSM equipment. UMTS will provide very fast data rates, however for the network to work effectively we also need to provide an "umbrella" GSM network which is also capable of providing high speed data albeit at slower rates than UMTS. In addition, EE Ltd are soon to be responsible for the rollout of the new Emergency Services Network and the obligation is to provide the latest 4G services for data transfer, video footage and communications throughout the country. Such services can only be provided with an effective rollout of upgraded and new telecoms base stations and this site forms an integral aspect within the wider network provision.

The installation has been sited and designed to maintain and improve coverage to this part of Shoreham-by-Sea due to the removal of a previous site and will provide essential services to local residents, businesses and from mid-2017, the Emergency Services.

6.0 Site selection process – alternative sites considered and not chosen

Alternative sites were investigated when searching for a replacement location and a full list and map of these sites can be found in the Design, Access and Supporting Statement that accompanies the application.

Contact Details

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Signed	[redacted]	Date	30/11/2016