Design Access and Supporting Statement / Technical Justification

in respect GPDO application

On behalf of Everything Everywhere Ltd

Re: Royston.

Our ref: SYK0412

Date: 31st October 2012.

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The Site

The application site is located on the Adopted Highway outside Royston Fire Station.

The application site comprises the land required for the proposed telecommunications installation including the equipment housing.

The site is not within an area of special planning consideration such as Conservation Area.

The Proposal

Consideration has had regard to technical, engineering, environmental and land use planning considerations within the design of the proposed telecommunications installation.

The principal components of the proposed development are outlined on the Prior Notification application form and Supplementary Information Template, and the general layout illustrated on the attached site layout plan and elevations (Drawing Numbers SYK0412 101A, 102A, 103A & 104A).

The proposed development consists of a new 11.80 metre column with three antennas. The application site also includes ground based equipment cabinets.

Until recently my client has provided coverage to the area from an installation based upon the Training Tower at the nearby Fire Station. Unfortunately, the equipment which is currently in place must be removed. The Local Authority has decided to close and sell the land upon which the Fire Station is based. A formal Notice to Quit has been received by my client and a new site must be found.

Regulatory Statements

Everything Everywhere Ltd operates a public electronic communications network as authorised under the provisions of the Communications Act 2003 and is a person to whom the Electronic Communications Code applies under section 106 of the Communications Act 2003. In April 2000, Orange was granted one of five licenses to provide 3G services.

EE Ltd are currently expanding and upgrading their network in order to provide Third Generation (3G) services. 3G is a development from the older GSM systems. EE Ltd will be delivering a range of advanced multimedia and life services which include: high speed internet access; e-commerce services such as interactive home shopping, online booking and location-based information and entertainment services. In addition, mobile videoconferencing, and the ability to download movie clips, the latest soundtracks and sports highlights, direct to the consumer, whilst on the move. At present, much of the existing equipment is unable to support this new 3G system. Problems which may be encountered may include holes in cover, capacity hot-spots, and poor in-building cover. This calls for new sites such as the one proposed in this application to obtain the coverage and capacity required. Please note the information contained within the enclosed 3G network Information document.

Orange launched its network in 1994 and now has more than 11 million customers. Initially the Orange customer base consisted of business users, but with the unprecedented increase in personal mobile phone ownership the network has become congested. Orange is now part of Everything Everywhere Ltd.

Pre-application Consultation

Local Planning Authority

Prior to the submission of this application written consultation took place with Barnsley Council Planning Department. The first letter was sent to the Planning Department 12th July 2012. This letter out line two options which had been identified during a search of the area. A follow up letter was sent on the 30th August highlighting the favoured solution for the area. The LPA Case Officer, Mr Steven Kirkham made contact and advised that he would prefer to see the installation closer to the original site location.

A site visit was held with the Case Officer, Mr Steven Kirkham on the 6th September 2012. During the site visit, we visited the existing site at the Fire Station on searched the area for suitable replacement sites. Mr Kirkham identified two potential sites which he felt were more suitable than our previous options.

The first site was within the grounds of Alexandra Working Men's Club. Unfortunately, the Working Men's Club are not permitted to site telecommunications installations on their property. A letter from the Club Secretary confirming this is included with the application. The second site identified was investigated and found to be acceptable. This application discussed the site.

In line with the Ten Commitments of the Federation of Electronic Industries (FEI) the site was rated according to the Traffic Light Model. The rating for the site was Amber. It was determined that consultation would be carried out with the Planning Department, local representatives such as Ward Councillors and the MP and also local residents in the area.

Planning Policy

General Policies

On 27 March 2012 the Government issued the National Planning Policy Framework (NPPF). The NPPF contains the Government's strategies for economic, environmental and social planning policies in England. The NPPF provides a set of national planning objectives which are designed to support growth, protect the environment and ensure decisions are made at a local level. The NPPF states that the primary objection of development management is "to foster the delivery of sustainable development, not to hinder or prevent development". Local authorities are directed to approach planning decisions positively and to attach significant weight to the benefits of economic growth. The NPPF replaces all existing Planning Policy Statements (PPSs) and Planning Policy Guidance Notes (PPGs), including PPG8 on Telecommunications.

Paragraphs 42 to 46 deal with communications infrastructure. Paragraph 42 states:

"Advanced, high quality communications infrastructure is essential for sustainable economic growth. The development of high speed broadband technology and other communications networks also plays a vital role in enhancing the provision of local community facilities and services",

whilst paragraph 46 advises:
"Local planning authorities must determine applications on planning grounds. They should not seek to prevent competition between different operators, question the need for the telecommunications system, or determine health safeguards if the proposal meets International Commission guidelines for public exposure".

With regard to new telecommunications development, the NPPF advises that LPAs *"should aim to keep the numbers of radio and telecommunications masts and the sites for such installations to a minimum consistent with the efficient operation of the network. Existing*

masts, buildings and other structures should be used, unless the need for a new site has been justified. Where new sites are required, equipment should be sympathetically designed and camouflaged where appropriate" (para. 43).

Paragraph 44 states:
"Local planning authorities should not impose a ban on new telecommunications development in certain areas, impose blanket Article 4 directions over a wide area or a wide range of telecommunications development or insist on minimum distances between new telecommunications development and existing development".

With regard to health issues, paragraph 46 states that LPAs *"should not seek to .....determine health safeguards if the proposal meets International Commission guidelines for public exposure".*

For their part, Operators are required to provide evidence that:
"for an addition to an existing mast or base station, a statement that self-certifies that the cumulative exposure, when operational, will not exceed International Commission on non-ionising radiation protection guidelines" (para. 45)

Local Plan Policy
Telecommunications Policy ST5 (Barnsley Metropolitan Borough Council Unitary Development Plan) expired on the 28th September 2007 due to repeating the national PPG8 guidelines which have now been superseded by the NPPF. NPPF is discussed above.

Technical Justification.

This justification is shown in the form of predicted coverage plots, a copy of which can be found within the application pack.

Consideration of Alternatives

OTHER SITES CONSIDERED AND REJECTED	
ADDRESS AND GRID REFERENCE	COMMENTS/REASONS
Alexandra Working Men's Club, 59 High St, S71 4RF. E - 435 902 N – 411 443	The Working Men's Club is owned by a Brewery. The Brewery have declined to give consent to allow a telecommunications site on their land. This is the standard policy of the brewery. A confirmation letter is contained with the application.
The Adopted Highway, High Street / West End Crescent, Royston, Barnsley, S71 4RS. E – 435 429 N – 411 468.	The Case Officer of the Planning Authority has commented that the site would be imposing on an area of green space. He would prefer it if we avoided this location.
Adopted Highway, High Street, Royston, Barnsley, S71 4NY. E – 435 848 N – 411 438	The Case Officer of the Planning Authority has identified what he considers to be a better site so, this site is now discounted.
Cross Inn, Summer Lane, Royston, Barnsley, S71 4SE. E – 435 597 N – 411 588.	Space is very limited for equipment and the Public House is very close to residential property. Therefore the site has been discounted.
Adopted Highway, by Maltkiln Farm, High Street, Royston, Barnsley, S71 4RW. E – 435 649 N – 411 507.	A telecommunications installation would be very exposed at this location. There is no screening and the site would overlook residential property. Therefore the site has been discounted.

ICNIRP

The Government guidelines state that provided a proposed base station meets the ICNIRP guidelines for public exposure then it should not be necessary for the local planning authority to consider the health effects and concerns about them.

I can confirm that the proposed base station will comply with ICNIRP guidelines and I have attached the Certificate of Compliance.

However, I am aware over perceived health and safety issues concerning radio frequency emissions and for this reason I have enclosed a separate Health and Safety statement.

Conclusion

The telecommunications installation proposed as set out in this application has been designed and sited, having regard to technical, engineering and land use planning considerations, in order to minimise its impact on the local environment. Accordingly, the proposed development is considered to conform to national and local planning policies.

To summarise the case in favour of the proposals the following points are of relevance:

- With specific regard to telecommunications development, the applicant considers that the proposal accords fully with NPPF, the Code of Best Practice and the Councils Telecoms Policy even though it is out of date.
- Site selection was progressed in accordance with the applicants licence obligations, advice in NPPF and the Code of Best Practice, guidance from the Planning Case Officer representing the Council and represents the least environmentally intrusive, technically suitable, available option;
- EE Ltd's site selection strategy is to keep the overall environmental impact to a minimum through the use of site shares wherever possible. Site sharing is progressed where it is technically and legally possible and the preferred environmental solution. With regards to this site, every attempt has been made to accommodate the EE Ltd equipment on existing facilities, however no suitable masts were identified within the required coverage area;
- Existing buildings and high structures have been investigated, although there were no appropriate buildings or structures within the vicinity that could be acquired by EE Ltd;
- It is of note that the height of the mast (at 12 metres to the top) has been kept to the absolute operational minimum to clear buildings and clutter and provide adequate 3G coverage to the target area;
- It is considered that the use of a 12 metre high, street works column rather than a lattice tower or monopole, eliminates the large number of bracing components associated with other more prominent and conventional telecommunications proposals;
- The significance of the proposal in the development of the Everything Everywhere network is a material consideration and this site is required in order to contribute towards the obligation to provide coverage to 80% of the population.

everything everywhere

SUPPLEMENTARY INFORMATION

1. Site details

Site Name	Royston	Site Address	Adopted Highway by Fire Station High Street / Oakwood Road Royston Barnsley South Yorkshire S71 4RJ.
NGR E – 435 817 N – 411 474.			
Site Ref Number	SYK0412.	Site Type[1]	Micro.

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	**no**
There is no up to date Mast Register.		
Was the industry site database checked for suitable sites by the operator?	**yes**	no

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

Date of last annual rollout information/ submission	23/10/2012
Name of contact	
Summary of outcome/Main issues raised This was annual consultation to discuss the site Roll Out plans of Orange / Everything Everywhere over the coming year.	

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

Date of written offer of pre-application consultation	12th July 2012.	
Was there pre-application contact	**yes**	no
Date of pre-application contact	5th September 2012.	
Name of contact	Steve Kirkham.	
Summary of outcome/Main issues raised. Correspondence was sent to the Planning Department to engage in consultation regarding our proposals. Steve Kirkham was very helpful and offered to meet on site to discuss the merits of potential sites. A site meeting was held and the application site was identified as Mr Kirkham's second choice site. Unfortunately the owner of Mr Kirkham's first choice site will not permit telecommunications site on his land.		

[1] Macro or micro
[2] England & Wales-Local Planning Authority. Scotland-Planning Authority. Northern Ireland- Department of Environment Planning Services

Ten Commitments Consultation

Rating of Site under Traffic Light Model	Green	**Amber**	Red
Outline Consultation carried out Consultation was carried out with local residents, the Ward Councillor and the local MP.			
Summary of outcome/Main issues raised One objection was received.			

School/College

Location of site in relation to school/college (include name of school/college) Although there is a school within 200m it was not felt necessary to carry out consultation. The proposed site is arguably the same distance from the school as the existing site and the proposed site is a micro installation and the existing site is a macro site which is more powerful than the proposed.
Outline of consultation carried out with school/college. (include evidence of consultation) None.
Summary of outcome/Main issues raised N/A.

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

Will the structure be within 3km of an aerodrome or airfield?	Yes	**No**
Has the Civil Aviation Authority/Secretary of State for Defence/Aerodrome Operator been notified	Yes	**No**
Details of response. N/A.		

3.0 Proposed Development

The proposed site
The proposed site shall be 12m tall and situated upon the Adopted Highway outside of the existing Fire Station. The site is required as the existing site which provides coverage to the area must be removed. This existing site is based upon the training tower at the Fire Station. The Local Authority have issued a Notice to Quit as they intend to sell the site of the Fire Station. The proposed site is located as close to the original site as possible. The site will be located upon the Adopted Highway and shall be placed close to a bus stop. The existing features such as the bus stop and large fence should help partially screen the installation. The site will be seen from a small amount of residential property but the site shall not be imposing. The chosen location is found at a busy spot with a bus stop and doctor's surgery over the road. The site should not be seen from a distance due to the topography of the area. It was apparent during the search that there was no way possible of locating the sit without it being seen from residential property.

Type of Structure (e.g. tower, mast, etc):	
Description:- A street works column no greater than 11.8m in height with 3No. Antennas and ground based equipment.	
Overall Height:- 11.8m.	
Height of existing building (where applicable)	N/A.
Tower/mast etc – type of material and external colour	All material to be of Light steel construction.
Equipment housing – type of material and external colour	All material to be of Light steel construction and coloured dark green.

Reasons for choice of design
The design was chosen as we felt that this design would be sympathetic to the area.

4.0 Technical information

ICNIRP Declaration attached 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.	**Yes**	no

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, Orange 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 EE Ltd network, the radio base station that is the subject of this application will be configured to operate in this way.	EE Ltd's licence limits the allowed radiated power to an effective isotropic radiating power (EiRP) of +62dBm (approximately 1600W per carrier. For the antenna configurations used in the EE network this equates to a maximum transmitter power of 30W per carrier. For a Macrocell site operating with several transmitters the typical total power would be approximately **80W**.
Height of antenna (m above ground level)	11.8m.

5.0 Technical Justification

Enclose predictive coverage plots.

Reason(s) why site required e.g. coverage, upgrade, capacity (map attached if required)
Churn A mobile phone transmitter is designed to cover a specific area and will link 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. The nearby site at the Fire Station is due to be removed soon. The site is being removed at the insistence of the owner, the Local Authority, no longer wanting the site agreement to continue as they wish to sell the site. As a result, a gap between cells will be created resulting in a loss of coverage. In order to prevent a loss of service to customers, and provide adequate coverage and capacity for the future, this new replacement site is required to be fully operational before the churn site is removed from service.

[3] The modulation method employed in GSM 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.

6.0 Site selection process – alternative sites considered and not chosen

Enclose map highlighting all alternatives that have been considered by the operator.

Site[4]	Site Name and address	NGR	Reason for not choosing[5]
GF	Alexandra Working Men's Club, 59 High St, S71 4RF.	E - 435 902 N – 411 443	SP: - The owner of the Working Men's Club, Samuel Smith's Brewery does not allow telecommunication equipment on their land.
GF	The Adopted Highway, High Street / West End Crescent, Royston, Barnsley, S71 4RS.	E – 435 429 N – 411 468	P:- Consultation was held with the Planning Case Officer and local residents. There was strong objection to the site.
GF	Adopted Highway, High Street, Royston, Barnsley, S71 4NY.	E – 435 848 N – 411 438	P:- Consultation was undertaken with the Planning Case Officer. It was highlighted that this was a site which he did not favour.
GF / RT	Cross Inn, Summer Lane, Royston, Barnsley, S71 4SE.	E – 435 597 N – 411 588	T:- This site was discounted at an early stage. There was no ideal design solution; coverage from the site would have been limited.
GF	Adopted Highway, by Maltkiln Farm, High Street, Royston, Barnsley, S71 4RW.	E – 435 649 N – 411 507	P:- Although the site offers plenty space upon the Adopted Highway it would be incredibly exposed to vehicles and pedestrians approaching from both directions.

If no alternative site options have been investigated, please explain why:-

N/A.

[4] ETS - Existing Telecomm site, ES - Existing Structure, RT - Roof Top, GF - Greenfield
[5] SP - Site Provider, RD - Redevelopment Not Possible, T - Technical Difficulties, P – Planning O – Other

Additional relevant information
Please see the following attached information: • Design and Access Statement, which includes a technical justification. • Set of drawings. • ICNIRP Compliance Certificate. • Health and Safety statement.

Contact Details

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Signed		**Date**	**31/10/2012.**
Position	**Agent**	**Company** **(on behalf of the above operator)**	**Galliford Try Communications.**