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Our ref: CTIL_30284001_TEF_88846_NA (Opt A)

Cllr Ali Ilyas
Members' Services Office
Manchester City Council PO Box 532
Town Hall Extension
Manchester
M60 2LA

Email: cllr.ali.ilyas@manchester.gov.uk **VIA EMAIL**

01ST April 2020

Dear Cllr Ilyas

**PROPOSED RADIO BASE STATION INSTALLATION AT CTIL_30284001_TEF_88846_NA (OPT A) SW ON PRINCESS ROAD (OPT A), SW ON PRINCESS ROAD, MANCHESTER, M14 7FS, N.G.R E: 383863 N: 393921**

Cornerstone Telecommunications Infrastructure Ltd (Cornerstone) is a joint venture company owned by Vodafone Limited and Telefónica UK Limited, commonly known as O2, who manage a single grid network across the UK for these companies. This agreement allows both organisations to pool their basic network infrastructure, while running two, independent, nationwide networks. It maximises opportunities to consolidate the number of base stations and where possible can significantly reduce the environmental impact of network development.

5G rollout has begun and both Vodafone and Telefónica are in the process of upgrading their existing radio base stations in their single grid network wherever possible. As part of this continued network improvement program, there is a specific technical requirement to provide new 5G coverage in this area of Manchester. An existing streetworks style base station has been identified in the area, however it can not accommodate for both operators latest requirements. In order to fit in to the operator's single grid network, an additional new streetworks style base station is required for Telefónica service in close proximity of the existing streetworks style base station that will be retained and in due course upgraded with improved Vodafone service.

Mobiles can only work with a network of base stations in place where people want to use their mobile phones or other wireless devices. Without base stations, the mobile phones and other devices we rely on simply won't work.

This proposed new site will enable 5G coverage to be provided to this area of Manchester. The Government recognises that widespread coverage of mobile connectivity is essential for people and businesses. That is why the Government is committed to extending mobile geographical coverage further across the UK, with continuous mobile connectivity provided to all major roads and to being a world leader in 5G. This will allow everyone in the country to benefit from the economic advantages of widespread mobile coverage.

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As well as improved mobile signal, 5G networks are also crucial to drive productivity and growth across the sectors that local areas are focusing on through their emerging Local Industrial Strategies. Enabling and planning for 5G implementation is central to achieving the Government's objective to deliver prosperity at the local level and enable all places to share in the proceeds of growth.

5G service provision will bring faster, more responsive and reliable connections than ever before. More than any previous generation of mobile networks, it has the potential to improve the way people live, work and travel, and to deliver significant benefits to the economy and industry through the ability to connect more devices to the Internet at the same time, the 'Internet of Things'. This will enable communities to manage traffic flow and control energy usage, monitor patient health remotely, and increase productivity for business and farmers, all through the real-time management of data.

The demand for mobile data in the UK is increasing rapidly, and as households and businesses become increasingly reliant on mobile connectivity, the infrastructure must be in place to ensure supply does not become a constraint on future demand.

Please find below the details of the proposed site.

**Our technical network requirement is as follows:**

**CTIL_30284001_TEF_88846_NA (OPT A) SW ON PRINCESS ROAD (OPT A)**

The site is needed to maintain and improve 2G, 3G, 4G coverage and capacity for Telefónica to ensure that its customers continue to experience access to the latest service provision currently available and have access to a new 5G network. This is because the operator needs to find a replacement for the site it is currently providing 2G, 3G and 4G services from Princess Road, which cannot be upgraded for Telefonica's technology requirements for technical reasons highlighted above and more fully explained in the discount section below. The new proposed installation will also meet the extra demands on the network in this area as new technologies improve increasing the demand for 4G and new 5G technologies.

A number of options have been assessed in respect of the site search process and we consider the best solution is as follows:

**SW ON PRINCESS ROAD, MANCHESTER, M14 7FS, N.G.R E: 383863 N: 393921**

The proposed works comprise Installation of a 20m slim-line column supporting 6 no. antennas, 2 no. transmission dishes, 2 no. equipment cabinets and ancillary development thereto including a GPS module, and 3 no. Remote Radio Units (RRUs).

The operator is limited in siting options as there is a requirement to provide equivalent replacement coverage and capacity for this area of Manchester. The replacement of an existing site means that the operator has to be located as close as possible to the existing installation in order to maintain the provision of equivalent coverage and capacity to the

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surrounding local area. This is the nearest suitable location that the operator is able to position their replacement apparatus.

The proposed height at 20m is essential in order to provide equivalent replacement coverage to the target coverage area. 5G new radio technologies operate in higher frequency bands than older technologies. Since it operates at higher frequencies where attenuation of the radio signal is naturally higher and the effects of clutter are greater it will normally require a higher structure to achieve the same coverage footprint.

In order to minimise the width of the proposed column, the antennas are split in to a dual stack formation where 3 antennas will be located at the top of the column and the other 3 antennas will be located underneath. Thus, if the column were to be any lower, the antennas would not be able to operate effectively nor reach the target coverage area.

The column is a simple, functional, vertical structure necessary to provide replacement and new service provision to Manchester and the surrounding area. There are other vertical structures in the streetscene which will help it assimilate in to the local environ. The column is proposed to be finished in a grey colour but can be coloured any other colour that the LPA consider appropriate.

The cabinets are designed to appear like other statutory undertakers equipment cabinets. They are small for telecommunications apparatus and are proposed to be coloured green to assimilate with other equipment cabinets commonly found in urban environments. The cabinets can be installed under the operators permitted development rights, but have been included on the plans and in the description in order to remain fully transparent.

The RRUs are designed to make the antennas more efficient and reduce the need for equipment cabinets at ground level, therefore minimising ground level clutter in this area. They are located underneath the lowest set of antennas, out of the natural eye line of the casual passer-by and therefore will not appear prominent in the streetscene.

We have considered alternative site options and discounted as follows:

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| Site[3] | Site Name and address | | NGR | Reason for not choosing[4] |
|---|---|---|---|---|
| ETS - existing Telecom site | Name | Existing site (NR_85069) | | RD - Redevelopment not possible |
| | Line 1 | Princess Road | Eastings | The operator has fully investigated upgrading this site to provide the latest technologies for 4G services as well as new 5G coverage / capacity in to the Telefonica network. However, the design of the existing pole is not able to support the new 5G antennas for both Vodafone and Telefonica. To continue to share an existing structure at this location would require significant redevelopment of the existing structure to a much more structurally robust mast capable of hosting all the equipment from both operators. This would move away from the relatively uniform and slimline street furniture poles proposed and therefore it is felt that a secondary, more slimline, street-pole is a more appropriate and sensitive solution to 5G service provision whilst minimising impact for a street furniture setting. This existing telecommunications site has been discounted for Telefonica's new technology requirements for this reason. A new replacement site for Telefonica is therefore needed to provide this operator with the latest 2G, 3G 4G and 5G technologies. The existing site will remain in place for Vodafone technologies. |
| | Line 2 | Whalley Range | 383897 | |
| | Town | Manchester | Northings | |
| | County | Greater Manchester | 393807 | |
| | Postcode | M20 1BH | | |
| ETS - existing Telecom site | Name | Existing site (3_M0523) | | RD - Redevelopment not possible |
| | Line 1 | Princess Road | Eastings | Existing SW Sites operated by 3 cannot be redeveloped by a second operator without substantial redevelopment into a more traditional/substantial structure which would require a large foundation base. This type of development cannot be undertaken on the public highway as there is insufficient space. In addition, EE are looking to upgrade all their SW sites in the near future for 5G. These reasons make this site unavailable for any sharing by the Operator. |
| | Line 2 | Wilbraham Road | 383896 | |
| | Town | Manchester | Northings | |
| | County | Greater Manchester | 393853 | |
| | Postcode | M20 1BH | | |
| ETS - existing Telecom site | Name | Existing EE SW site (Orange_GMN0290) | | RD - Redevelopment not possible |
| | Line 1 | Princess Road | Eastings | Existing SW Sites operated by EE cannot be redeveloped by a second operator without substantial redevelopment into a more traditiona/substantial structure which would require a large foundation base. This type of development cannot be undertaken on the public highway as there is insufficient space. In addition, EE are looking to upgrade all their SW sites in the near future for 5G. These reasons make this site unavailable for any sharing by the Operator. |
| | Line 2 | Whalley Range | 383866 | |
| | Town | Manchester | Northings | |
| | County | Greater Manchester | 393855 | |
| | Postcode | M16 8GW | | |
| GF - Greenfield | Name | Whalley Grange High School | | T - Technical Difficulties |
| | Line 1 | Wilbraham Road | Eastings | The Schoolplaying Field was considered as a location for the proposed mast, however as this sites at a lower level than Princess Road, a mast with a height of approx 25 metres would be required. The applicatn deemed that a structure this tall would not be acceptable and would have a greater visual impact on the area than the proposed site would have. |
| | Line 2 | | 383844 | |
| | Town | Manchester | Northings | |
| | County | Greater Manchester | 393859 | |
| | Postcode | M16 8GW | | |
| RT - Roof Top | Name | Tudor House | | T - Technical Difficulties |
| | Line 1 | 252 Mauldeth Road West | Eastings | The rooftop is too low in order to deliver the required level of coverage to the target coverage area. This site has therefore been discounted for this reason. |
| | Line 2 | Whalley Range | 383844 | |
| | Town | Manchester | Northings | |
| | County | Greater Manchester | 393786 | |
| | Postcode | M21 7TH | | |
| GF - Greenfield | Name | BP Petrol Station | | RD - Redevelopment not possible |
| | Line 1 | Princess Road | Eastings | A mast at this location is not viable due to a physical lack of space in order to deliver the required level of coverage to the target area. This site has therefere been discounted for this reason. |
| | Line 2 | Whalley Range | 383908 | |
| | Town | Manchester | Northings | |
| | County | Greater Manchester | 393947 | |
| | Postcode | M14 7FS | | |

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The Local Planning Authority mast register and our records of other potential sites have already been reviewed, the policies in the Development Plan have been taken into account and the planning history of the site has been examined.

All Telefónica installations are designed to be fully compliant with the public exposure guidelines established by the International Commission on Non-Ionizing Radiation Protection (ICNIRP). These guidelines have the support of UK Government, the European Union and they also have the formal backing of the World Health Organisation. A certificate of ICNIRP compliance will be included within the planning submission.

In order to give you time to send your comments or request further information, we commit to allow at least 14 days before an application is submitted to the Local Planning Authority. This 14 day period starts from the date at the top of this letter.

We would also be grateful if you could please advise of any local stakeholders or groups that might like to make comments. For your information pre-consultation letters and a set of plans have been sent to the other local ward councillors for Fallowfield Ward and the local MP Afzal Khan.

We look forward to receiving any comments you may have on the proposal.

Yours sincerely

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(For and on behalf of Cornerstone and Telefónica UK Limited)