

SUPPLEMENTARY INFORMATION

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The latest consultation seeks views on proposed planning reforms to amend permitted that will allow the deployment of telecoms equipment to be quicker whilst ensuring that there are appropriate environmental protections and safeguards in place.

The consultation which is now closed can be viewed at:
<https://www.gov.uk/government/consultations/changes-to-permitted-development-rights-for-electronic-communications-infrastructure-technical-consultation/changes-to-permitted-development-rights-for-electronic-communications-infrastructure-technical-consultation>

Permitted development rights for electronic communications infrastructure are a critical element in the planning regime for streamlined and cost-effective deployment of telecommunications infrastructure. They benefit both mobile network operators and local planning authorities in the effective management of limited time and resources. Permitted development rights also facilitate investment in network infrastructure resulting in improved service to customers, and help in delivering significant socio-economic benefits to society both nationally and locally.

Part of the consultation relates to strengthening existing ground-based masts. The Government is considering several options including:

- *for existing ground-based masts less than a metre in width, alteration or replacement of the mast with **increases in width of up to two-thirds would be permitted without the need for prior approval**. Greater increases in width would be permitted subject to prior approval;*

As 5G is to deliver new technology, so too the infrastructure required is different than that necessary to provide the previous generations of connectivity. Wherever possible, existing installations will be utilised to accommodate the necessary infrastructure.

Matt Warman, former Minister for Digital Infrastructure wrote to all Local Authority Chief Executives in May 2021. The letter set out the Governments position in respect of 'digital connectivity' stating:

"Digital connectivity is – now, more than ever – vital to enable people to stay connected and businesses to grow. The demand for mobile data is increasing rapidly, and the COVID-19 pandemic has highlighted how important it is that we all have access to reliable, high quality mobile connectivity.

The Government is committed to extending mobile network coverage across the UK and providing uninterrupted mobile signal on all major roads, and our ambition is for the majority of the population to have access to a 5G signal by 2027. Last year we agreed a £1 billion Shared Rural Network deal with the UK's mobile network operators to extend 4G mobile geographical coverage to 95% of the UK by 2025.

The Government is also investing £200 million in a programme of 5G testbeds and trials to encourage investment in 5G so that communities and businesses can benefit from this new technology. The increased capacity, reliability and functionality offered by 5G is opening-up the potential for new, innovative services for individuals and increased productivity for industry".

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1. Site Details

Site Name:	Lower Higham Road	Site Address:	Existing Base Station Lower Higham Road Gravesend DA12 2NS
National Grid Reference:	E:566684 N:173083		
Site Ref Number:	CTIL:13663226	Site Type: ¹	Macro

2. Pre Application Check List

Site Selection (for New Sites only)

(Would not generally apply to upgrades/alterations to existing site including redevelopment or replacement of an existing site to facilitate an upgrade or sharing with another operator)

Was a local planning authority mast register available to check for suitable sites by the operator or the local planning authority?		No
If no explain why: Upgrade of existing base station.		
Were industry site databases checked for suitable sites by the operator:	Yes	
If no explain why: Upgrade of existing base station.		

Site Specific Pre-application consultation with local planning authority

Was there pre-application contact:	No
Date of pre-application contact:	
Name of contact:	
Summary of outcome/Main issues raised: Pre-application consultation letters and drawings of the proposals were sent to the Local Planning Authority on 01.10.2021. No site specific comments received to date from the LPA.	

Community Consultation

Rating of Site under Traffic Light Model:	Red	Amber	Green
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¹ Macro or Micro

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Outline of consultation carried out:

Pre-application consultation was carried out with the local ward councillors for the Chalk Ward and the local MP Adam Holloway. Pre-application consultation letters and drawings of the proposals were sent to these parties on 01.10.2021.

Summary of outcome/main issues raised (include copies of relevant correspondence):

No site specific comments at the time of making the application.

School/College

Location of site in relation to school/college (include name of school/college):

- North Kent College, Gravesend

Outline of consultation carried out with school/college (include evidence of consultation):

Pre-application consultation letters and drawings of the proposals were sent to these parties on 01.10.2021.

Summary of outcome/main issues raised (include copies of main correspondence):

No site specific comments at the time of making the application.

Civil Aviation Authority/Secretary of State for Defence/Aerodrome Operator consultation (only required for an application for prior approval)

Will the structure be within 3km of an aerodrome or airfield?		N/A
Has the Civil Aviation Authority/Secretary of State for Defence/Aerodrome Operator been notified?		N/A
Details of response:		
N/A - Full Planning Application		

Developer's Notice

Copy of Developer's Notice enclosed?		No
Date served:	N/A - Full Planning Application	

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3. Proposed Development

The proposed site:

Background

Cornerstone is the UK's leading mobile infrastructure services company. They acquire, manage, and own over 20,000 sites and are committed to enabling best in class mobile connectivity for over half of all the country's mobile customers. They oversee works on behalf of telecommunications providers and wherever possible aim to:

- promote shared infrastructure
- maximise opportunities to consolidate the number of base stations
- significantly reduce the environmental impact of network development

Cornerstone are in the process of identifying a suitable site in the Lower Higham area for a radio base station that will improve service provision for Telefonica.

As part of Telefonica's continued network improvement program, there is a specific requirement for an upgrade to the existing installation at this location to provide enhanced 4G coverage and capacity, and new 5G coverage ensuring that this area of Gravesend has access to the latest technologies.

The site is an established radio base station comprising a grey 17.50m slim line monopole supporting 6 no. shrouded antennas, 3 no equipment cabinets and ancillary development thereto. It is located within the grass verge.

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.

The COVID-19 pandemic, stresses the benefits of the infrastructure allowing people to stay connected when they cannot go to work, school or socialise. This physical infrastructure makes it possible for people to work from home, children to continue their education from home and for everybody to stay in touch. Governments across the world have urged their people to stay at home and only to leave for essential shopping or medical needs. Many people are self isolating or in quarantine. Employers were requested to allow home working and many schools moved their lessons online by providing virtual instruction or assignments. In these times of social distancing, connectivity, including mobile connectivity, has become more important than ever. When social contact is restricted, people turn to face-time calls using various applications on their mobile phones.

For the first time in history, all of mobile networks sent out a government message to their customers with details of the new shutdown measures. The message from 24 March 2020 reads: 'GOV.UK CORONAVIRUS ALERT. New rules in force now: you must stay at home. More info and exemptions at [gov.uk/coronavirus](https://www.gov.uk/coronavirus) Stay at home. Protect the NHS. Save lives'. Even the World Health Organisation launched a WhatsApp chatbox allowing people to get instant information about the coronavirus through the smartphone messaging application. None of this would be possible without the physical infrastructure associated with mobile phone industry such as masts, antennas, microwave dishes and cabinets.

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The importance of mobile connectivity during the pandemic was reinforced by DCMS in succinct advice to local authorities and operators published on 02/04/20: 'Government recognises the ongoing importance of the telecommunications industry at this critical time. Now, more than ever, the country is reliant on fixed line and mobile communications networks. Telecommunications has therefore been included as one of the critical sectors in new government regulations and legislation in response to dealing with the COVID-19 outbreak.' The advice sets out (albeit in relation to emergency access provision) that 'Fully operational telecommunications infrastructure is needed to support mass homeworking and critical connectivity to emergency services and hospitals. Network operators must be able to rectify network outages promptly and to mitigate any effects of network degradation over the duration of this emergency period.'

On 13/05/20, MHCLG advised that 'site visits and the use of digital technology and virtual meetings should become the norm in planning casework.' (MHCLG coronavirus update 13/05/2020). Lord Greenhalgh clarified: 'Local planning authorities and the Planning Inspectorate drive the planning process forward and should ensure that it continues to operate effectively to support economic recovery. Moving to digital events and processes will be critical. This means adapting to working virtually, including virtual hearings and events (such as using video-conferencing and/or telephone) and making documents available for inspection online. The Government expects everyone involved in the planning process to engage proactively.' (MHCLG Written Statement HLWS231, 13/05/20).

Given the increasing extent of mobile only online access in households across the UK, the importance of continued mobile connectivity is highlighted.

Improving digital infrastructure supports the Government's 'levelling up' agenda, by helping local areas to retain and attract businesses and talent as well as by reducing regional inequalities. The upgraded site will provide additional 4G coverage and capacity which is much needed for reliable connectivity as well as new 5G services and will ensure good quality critical infrastructure to support strong inclusive communities and contribute to economic opportunities and an inclusive London.

Further information is provided in Section 4 'Technical Justification' below and the additional information sheets, '5G Services' and 'Radio Propagation'.

Enclose map showing the cell centre and adjoining cells if appropriate:

The amendments to the existing, established ground-based installation will enable enhanced 2G, 3G and 4G coverage and capacity to the surrounding area as well as new 5G service provision for Telefónica to ensure high quality customer experience is obtained as demands on the network increase and technologies change.

Type of Structure: Streetworks column – Orion

Description:

The proposed works comprise the removal of existing 17.50m Elara telecoms street works pole to be replaced with a 20.0m Orion street works column supporting 6 no antennas, installation of 1no new equipment cabinet adjacent to the new pole internal upgrade of existing cabinets and ancillary development thereto.

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Overall Height: 20m	
Height of existing building (where applicable):	N/A
Equipment Housing: Yorkshire cabinet	
Length:	2.950 Metres
Width:	0.660 Metres
Height:	1.750 Metres
Materials (as applicable):	
Tower/mast etc – type of material and external colour:	Column – Grey
Equipment housing – type of material and external colour:	Cabinets – Green RAL 6009

Reasons for choice of design and siting, making reference to pre-application responses:
The existing radio base station has been in situ on Lower Higham Road for a number of years and has become an established part of the streetscene. Technology advances (including 5G service provision) and additional demands on the operator's mobile network system in the area have meant that additional antennas need to be installed to facilitate all the data that is required to be carried for mobile superfast broadband. This enables customers to continue to be able to use their handheld devices for the purposes in which they have become accustomed, and now rely on in the modern world we live in, a similar scenario to the reliance on gas and electricity. However, this new technology and the design of the antennas required for 5G means that the existing column is not able to support this new technology and therefore a new slightly bigger column is required. The operator has carefully considered the design of the new proposed column. The operator is proposing the most sensitive design currently available to provide the necessary coverage and capacity to the surrounding area. Due to all the technologies that will be available at this location, 2G, 3G, 4G and 5G, 6 antennas need to be installed at the top of the slim-line monopole. These are split into a dual stack formation where 3 antennas will be located at the top and the other 3 will be located underneath. The 3 upper antennas will replace the existing 2G, 3G and 4G service provision currently being provided at this existing site. The 3 lower antennas will provide new 5G technology for Telefónica to the surrounding area. This makes the 5G antennas 3.66m lower than the top of the pole. Thus, if the column were to be any lower, the antennas would not be able to clear the trees and urban clutter and as such would not be able to operate effectively. 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. To increase capacity and data speeds to the user, the antenna will normally need to be mounted higher than conventional antennae. These factors drive a requirement for an increase in antenna height in 5G. The new antennas are all unshrouded for technical reasons. However, they have been designed to be as tight as possible and virtually the same width as the main column, to minimise their visual appearance. The higher the radio frequency the more signal attenuation there is. The higher frequency 5G antennas are unable to operate effectively through the Glass Reinforced Plastic that the shroud is made up of and as such if these antennas were to be shielded then they would not be able to provide the necessary coverage to the target coverage area. An additional installation would be needed elsewhere within the cell area, leading to the proliferation of masts.

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This is the slimmest design possible which will enable all technologies to be supported from this site. If the column and shroud width were to be any slimmer then the technology would not fit in the one column and another radio base station would be required, which would lead to the proliferation of masts contrary to national Government guidance set out in the NPPF and The Code of Best Practice. Similarly if the column were to be a uniform width throughout then the overall width would have to increase which would appear more visually prominent in the streetscene, than the proposed design.

The proposed design is more visually sensitive and much easier to assimilate into a streetscene than lattice towers or unshrouded pole designs with bulky headframes. These non-stealth designs are preferred by operators as they are structurally capable of hosting more equipment and give greater scope for antenna orientation and are thus more efficient structures. However, such designs would appear alien in this location. Therefore the operator has compromised on obtaining maximum coverage in order to better assimilate in to the streetscene.

The design of the column resembles as closely as possible the other existing vertical structures within the immediate area including double arm lighting columns and road signage. These vertical structures will continue to help the proposed upgrade to this established radio base station assimilate with the surrounding area.

The design of the column maintains its simple, functional, vertical structure which will not appear incongruous within the streetscene. This is especially so given its careful siting near to a number of existing perpendicular items of street furniture columns. The column is proposed to be coloured grey to match the existing column. Although it can be coloured any other colour the LPA consider appropriate.

The upgraded cabinets and additional cabinet are designed to appear like the existing cabinets already in situ. The new equipment cabinets are small for telecommunications apparatus and proposed to be coloured green to blend in with the other equipment cabinets in the streetscene and other statutory operators equipment cabinets commonly found in urban areas. As this is an existing radio base station, the equipment cabinet 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.

It is therefore considered that the proposal before you strikes a good balance between environmental impact and operational considerations. The proposed height and design represents the best compromise between the visual impact of the proposal on the surrounding area and meeting the operator's technical requirements for the site. Taking all matters into account it is considered that this proposal, to provide the latest 2G, 3G and 4G service provision and new 5G coverage providing high quality dense coverage and capacity, would not appear out of place within the streetscene.

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Technical Information

International Commission on Non-Ionizing Radiation Protection Declaration attached (see below)	Yes	No
International Commission on Non-Ionizing Radiation Protection 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 or near to the site are taken into account. In order to minimise interference within its own network and with other radio networks, Telefonica UK Ltd operates its network in such a way the radio frequency power outputs are kept to the lowest levels commensurate with effective service provision As part of Telefonica UK Ltd's network, the radio base station that is the subject of this application will be configured to operate in this way. All operators of radio transmitters are under a legal obligation to operate those transmitters in accordance with the conditions of their licence. Operation of the transmitter in accordance with the conditions of the licence fulfils the legal obligations in respect of interference to other radio systems, other electrical equipment, instrumentation, or air traffic systems. The conditions of the licence are mandated by Ofcom, an agency of national government, who are responsible for the regulation of the civilian radio spectrum. The remit of Ofcom also includes investigation and remedy of any reported significant interference. The telecommunications infrastructure the subject of this application accords with all relevant legislation and as such will not cause significant and irremediable interference with other electrical equipment, air traffic services or instrumentation operated in the national interest.		

4. Technical Justification

**Enclose predictive coverage plots if appropriate, e.g. to show coverage improvement.
Proposals to improve capacity will not generally require coverage plots.**

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Reason(s) why site required e.g. coverage, upgrade, capacity

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 country. 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. The operators' network rollout programme is designed to identify and address these gaps within their coverage and ensure that people can use their phones whenever and wherever they are.

There is a specific requirement to upgrade the existing Cornerstone radio base station at this location to enable the operator Telefonica to enhance its 2G, 3G and 4G coverage and capacity to this area of Gravesend and provide new 5G service provision. This Cornerstone installation has been designed so that the site can be shared by multiple Code System Operators. This negates the need for further radio base stations in the vicinity.

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Cornerstone Industry Site Specific Supplementary Information (England) V.2 – 20/07/2021
Registered Address:
Cornerstone Telecommunications, Infrastructure Limited,
Hive 2, 1530 Arlington Business Park, Theale, Berkshire, RG7 4SA.
Registered in England & Wales No. 08087551.
VAT No. GB142 8555 06

 Cornerstone, Hive 230
Arlington Business Park,
Theale, Berkshire, RG7 4SA

5. Site Selection Process

Alternative sites considered and not chosen (not generally required for **upgrades/alterations to existing sites** including redevelopment of an existing site to facilitate an upgrade or sharing with another operator)

In accordance with the licence obligations and advice in the National Planning Policy Framework and the Code of Best Practice in England the applicant's network rollout team investigated the following siting and design options using this sequential approach to site selection:

- **Upgrading their own existing base stations;**
- Using existing telecommunications structures belonging to another communications operator. i.e. Mast and/ or site sharing, co-location;
- Installations on existing high buildings or structures including National Grid pylons;
- Using small scale equipment; and finally
- Erecting a new ground based mast site – (1st) Camouflaging or disguising equipment. (2nd) A conventional installation e.g. a lattice mast and compound.

The applicant's site selection strategy is to keep the overall environmental impact to a minimum. Utilising existing masts is always progressed where it is technically and legally possible and where it is the local planning authority's preferred environmental solution. New sites are only developed where there are no viable or accessible alternatives or it is the local planning authority's preferred approach. The feasibility of the acquisition, build and maintenance of the site also needs to be taken into account.

In accordance with the above sequential approach, and in line with the principles of pooling the two operators existing network infrastructure to create a single network grid, the proposal is to install a new radio base station in this location.

Site Type	Site name and address	National Grid Reference	Reason for not choosing site
N/A	N/A	N/A	N/A

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

N/A

Environmental Information (refer to Section 2 of Site Finder Report):

No specific environmental constraints.

Land use planning designations (if Heritage Statement is required then include here or make reference to attached Heritage Statement):

No specific land designations.

Additional relevant information (include planning policy and material considerations):

National Planning Guidance

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Planning policy is provided at the national level by the National Planning Policy Framework (NPPF). It is a material consideration in planning decisions.

It is not necessary to quote extensively from this document but the following points are highlighted.

National Planning Policy Framework (July 2021)

The Government's National Planning Policy Framework (NPPF) was published on 24 July 2018 and updates the 2012 version. In February 2019 the NPPF was revised again, with minor alterations to wording relating to housing supply and not any parts relating to telecommunications. In July 2021 the NPPF was revised again. Overall, it's been revised to strengthen other sections including requirements on improved design quality, a new requirement for Councils to produce local design codes or guides, an emphasis on using trees in new developments, revised policies on plan-making, removing statues and opting out of PD rights relating to residential conversions. The Government's latest thinking continues to strongly support communications infrastructure. The NPPF remains very supportive of high quality communications. Indeed, a whole chapter is dedicated to high quality communications, emphasising the importance that the Government attaches to digital connectivity. Paragraph 114 states that advanced, high quality and reliable communications infrastructure is essential for economic growth and social well-being. This wording echoes guidance set out in paragraph 42 of the 2012 version of NPPF. However, it also includes the importance of *reliable* communications infrastructure for both economic growth and social well-being.

The NPPF continues to support the expansion of electronic communications networks at paragraph 114. It notes that policies should set out how high quality digital infrastructure, providing access to services from a range of providers, is expected to be delivered and upgraded over time. The economic and social benefits of providing high quality and reliable communications infrastructure are well documented and can be found later in this Supporting Information Statement.

The NPPF makes reference to 5G:

'Planning policies and decisions should support the expansion of electronic communications networks, including next generation mobile technology (such as 5G) ...'

With the above in mind, the Government is already forward thinking the evolution of data networks and seeks planning decisions to take account of this. 5G technology provides increased speed of data and more capacity in the network, to ensure that handheld devices can continue to be used for the purposes in which they were purchased. This will bring even greater economic and social benefits to the area.

Paragraph 115 of the NPPF retains the requirement to minimise the number of installations consistent with the efficient operation of the network but also includes being consistent with the needs of consumers and providing reasonable capacity for future expansion.

Paragraph 118 of the NPPF retains the guidance set out in paragraph 46 of the 2012 NPPF version which relates to determining applications on planning grounds only. They should not seek to prevent competition between different operators, question the need for an electronic communications system, or set health safeguards different from the International Commission guidelines for public exposure.

At the heart of the NPPF is the retained presumption in favour of sustainable development (para 11). For decision-taking this means approving development proposals that accord with an up-to-date

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development plan without delay or where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless the application of policies within the revised Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed or any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the revised Framework taken as a whole.

The NPPF continues to provide guidance on decision-making. At paragraph 38 it states that:

'Local planning authorities should approach decisions on proposed development in a positive and creative way. They should use the full range of planning tools available, including...permission in principle, and work proactively with applicants to secure developments that will improve the economic, social and environmental conditions of the area. Decision-makers at every level should seek to approve applications for sustainable development where possible'.

The NPPF builds on the aspiration to build a strong, competitive economy. Paragraph 81 states:

'Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking in to account both local business needs and wider opportunities for development. The approach taken, should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future. This is particularly important where Britain can be a global leader in driving innovation⁴⁰'...

Footnote 42 of the NPPF states:

'The Government's Industrial Strategy sets out a vision to drive productivity improvements across the UK, identifies a number of Grand Challenges facing all nations, and sets out a delivery programme to make the UK a leader in four of these: artificial intelligence and big data; clean growth; future mobility and catering for an ageing society. HM Government (2017) Industrial Strategy: Building a Britain fit for the future'.

In order for the UK to benefit from the huge potential of 5G Local Planning Authorities will have to weigh the Public Benefits of such connectivity with the requirements to instruct and manage the built environment. Central Government understands that this may present concerns with the various design solutions proposed but it is important that all Local Planning Authorities understand the technical needs of 5G and better understands the wider advantages of such new technology. This is further emphasised within the National Infrastructure Commission's report in 2016, where National Digital Strategy will be directed through the Economy and Industrial Strategy Cabinet Committee in order to:

"Support and challenge local government in their plans to enable the delivery of digital infrastructure; both in terms of ensuring that these plans help the UK to meet its national objectives, and that local authorities develop consistent approaches to support the deployment of mobile infrastructure across the country". 'Connected Future', National Infrastructure Commission 2016.

Code of Best Practice on Mobile Network Development in England (24 November 2016)

The Code of Best Practice has been fully revised in November 2016 and is now even more supportive of mobile network provision in line with Government aspirations that everyone should have access to

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the information super highway no matter where they are located whether that be in rural or urban areas. This Code provides guidance to mobile network operators, their agents and contractors and equally to all local planning authorities in England. It supersedes the Code of Best Practice on Mobile Phone Network Development (2013).

The principal aim of this Code is to ensure that the Government's objective of supporting high quality communications infrastructure, which is vital to continued economic prosperity and social inclusion for all, is met. The development of such infrastructure must be achieved in a timely and efficient manner, and in a way which balances connectivity imperatives and the economic, community and social benefits that this brings with the environmental considerations that can be associated with such development.

Section 2 of the Code highlights the Government's Communications Policy and Planning Policy. It acknowledges that the continued expansion and development of mobile networks is a key element of the National Infrastructure Delivery Plan 2016 – 2021. This recognises that digital communications are now a crucial component of everyday life, with improvements in connectivity being key to a vibrant economy (para 2.1).

Paragraph 2.2 goes on to state that consumers, businesses and public bodies increasingly rely on mobile communications and expect to receive a signal wherever they are. The Code indicates that recent changes in planning policy [and regulation] are intended to align with Government communications policy, where the ultimate goal is to achieve mobile coverage wherever it is needed. Section 2 of this Code also reiterates NPPF guidance in strongly supporting high quality communications infrastructure, which is seen as essential for sustainable economic growth.

Section 3 of this Code acknowledges that there are special operational and technical considerations associated with mobile network development, which have changed over time due to changes in technology and associated changes in demand. The Code acknowledges that there remains a reliance on radio masts to provide the main umbrella of coverage. Paragraph 3.1 explains that radio signals operate like light and must "see" over the target coverage area, they cannot be hidden and so there will always be a degree of visual impact.

Paragraph 3.2 clearly indicates that in assessing the visual impact, greater emphasis than previously should now be placed on the radio planning requirements to achieve mobile coverage (as shown in the recent changes to permitted development rights, at the end of November 2016, and the reduced test in the most recent NPPF).

Paragraph 3.3 goes on to highlight that the [operator systems tend to be demand-led or to fulfil coverage obligations. With the ever increasing demand for data hungry applications available to a range of connected devices, such as smart phones and tablets, the requirement to upgrade and improve networks through changes to existing sites and the development of new sites is constant. As most parts of the country move on to a superfast highway, so the need to bring coverage to 'not spots' and improve coverage in 'partial not spots' intensifies.

Paragraph 3.4 of The Code provides advice to local Planning authorities who are concerned about proposals, stating that they should not 'look for problems' but should work proactively with the Mobile Network Operators to find solutions, in line with paragraph 187 of the NPPF.

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Paragraph 4.1 of the Code acknowledges that customer expectations have evolved with technology. The expectation is that they will always be connected and able to access services in exactly the same way as fixed broadband for personal, educational and business purposes.

Paragraph 4.2 acknowledges that data, i.e. using the internet, puts increased demand on capacity and therefore the need for additional base stations to keep abreast of customer demand. However, changes in working practices for the operators, in line with national guidance, streamlining networks, sharing base stations has reduced the overall amount of infrastructure required.

The Code goes on to acknowledge that operators maximise the use of their existing network infrastructure for the provision of 4G services and are similarly upgrading their 3G network infrastructure to improve capacity and coverage. However, the revised Code continues to advise that this does not mean that there will not be a need for any new base stations. Indeed, for example, more base stations will be needed in areas where there has previously been only limited or no coverage and where coverage and capacity needs to be enhanced in line with Government commitments and customer demand.

Similarly, some new sites will be required to replace existing sites that are lost, for example, through redevelopment of an existing building. Some masts may need to be redeveloped or replaced to enable an upgrade in services to take place.

Section 5 relates to mobile connectivity in the 21st Century, explaining that mobile phones and other devices are now everywhere. Mobile connectivity is not just making calls and texts but also mobile broadband. The majority of mobile phones in the UK are Internet-enabled smartphones and large numbers of people also now own tablet devices. People are increasingly choosing to access the internet using a mobile device even when they have fixed broadband connection available.

The Code acknowledges that by the second decade of the 21st Century, the greatest increase in traffic across mobile networks was in data i.e. internet use (para 5.3). Paragraph 5.4 states that in terms of the wider economic impact of mobile connectivity, research by Deloitte on the economic impact of mobile broadband across a range of countries, showed that a doubling of mobile data use leads to an increase of 0.5% in the Gross Domestic Product per capita, while another study put the benefit of 4G mobile broadband to the UK economy at £75 billion over a decade.

Section 5 of the Code goes on to highlight that connectivity promotes social inclusion. In recent years, more people rely on a mobile phone than they rely on a landline. Furthermore, people on lower incomes are even more likely to live in a mobile only household, or to access the Internet using a mobile connection (para 5.5).

The Code illustrates that mobile connectivity helps in the delivery of public services e.g. to access Central and Local Government via online services, acknowledging that lives are more likely to be saved when a 999 call is made from a mobile than from a landline, Telehealth is becoming increasingly important and text message reminders also improve compliance with medication and keeping NHS appointments.

Good mobile connectivity also promotes sustainability e.g. it reduces the need to travel and thus carbon emissions (para 5.7). The Code continues to support mobile telecommunications network as it

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is seen as a crucial piece of national infrastructure in economic, community and social terms (para 5.8).

Paragraph 5.9 states that there is a need to continually upgrade and improve mobile networks, which will not function without the necessary infrastructure on which they rely. This is driven by increasing consumer demand for data, improved connectivity and more capacity, together with Government aspirations for improving connectivity and coverage.

The Code provides guidance on siting and appearance principles at Appendix A. It sets out a number of design principles in respect of telecommunications development. However, the code acknowledges that the options for design used by an operator will be affected by site conditions including requirement to link the site to the network, landscape features and coverage and capacity requirements. The main options for the operator include:

Mast and/or site sharing (including redevelopment of a site to enable upgrade or sharing with another operator);

- Installation on existing buildings and structures;
- Erecting new ground based masts;
- Camouflaging or disguising equipment where appropriate;
- Using small scale equipment (although small cells themselves are generally used to address capacity issues as opposed to providing coverage).

The Code in Appendix A acknowledges that it has been a long standing Government policy objective to support the sharing of masts and sites. Operators also aim to site share wherever viable.

Concerning the erection of new ground based masts; The Code at Appendix A page 27 provides examples of where the environmental and visual impact of the mast can be greatly reduced.

- Placing the mast near similar structures. For example, industrial and commercial premises, road signs and lamp posts;
- Placing a mast within or adjacent to an existing group of trees. This option is more successfully implemented in or near wooded areas. It should also be noted that the top of the mast placed in trees will need to be above the tree-line in order for the equipment to work for the allowance of future tree growth;
- Using simple and unfussy designs. Masts which have complex designs are more likely to dominate and be in discord with the landscape and have adverse visual impacts, and
- Appropriate colouring. Masts seen against the sky are best left in their galvanised state or painted pale grey. Against a wooded backdrop, a matt green or brown colour scheme would be more applicable.

The Code continues to support sympathetic design and camouflaging including concealing antennas in familiar features such as flagpoles, street lamp posts, telegraph pole style designs and signs.

Local Policy

Section 38 (6) of the Planning and Compulsory Purchase Act 2004 states that "If regard is to be had to the development plan for the purpose of any determination to be made under the planning Acts the

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determination must be made in accordance with the plan unless material considerations indicate otherwise"

The statutory development plan as defined by the Planning and Compulsory Purchase Act 2004 comprises the:

The Local Plan for the Gravesham area comprises:

- Gravesham Local Plan Core Strategy and Policies Map (Adopted 2014)
- Gravesham Local Plan First Review - Saved Policies (November 1994)

Gravesham Local Plan Core Strategy and Policies Map (Adopted 2014)

The Gravesham Local Plan Core Strategy was adopted in September 2014. It comprises a spatial vision, strategic objectives, a spatial strategy, core policies and a monitoring and implementation framework with clear objectives for achieving delivery.

The Vision for Gravesham states that 'By 2028, Gravesham will have reinvented and regenerated itself from an area with predominantly heavy riverside industry to one that offers a more diverse range of employment and housing which respects its unique built, historic and natural environment. The regeneration will have made the most efficient use of land by concentrating mixed use development on previously developed and greenfield urban sites with access to a good range of services and facilities which will have minimised the need to travel. In accordance with national and local planning purposes, the openness of the Green Belt will have been maintained and it will have been protected from inappropriate development. Land unnecessary to be kept permanently open will have been removed to provide additional land for development in appropriate locations.

Paragraph 5.4.4 states 'The provision of infrastructure is recognised as an important part of new development in the National Planning Policy Framework (NPPF). It requires local planning authorities to work with other authorities and providers to assess the quality and capacity of infrastructure for transport, water supply, wastewater and its treatment, energy (including heat), telecommunications, utilities, waste, health, social care, education, flood risk and coastal change management, and its ability to meet forecast demands. It states that Local Plans should identify priority areas for infrastructure provision and should plan positively for the infrastructure required'.

The relevant policies for the proposal are:

- Core Strategy Policy CS01: Sustainable Development
- Core Strategy Policy CS02: Scale and Distribution of Development
- Core Strategy Policy CS07: Economy, Employment and Skills
- Core Strategy Policy CS10: Physical and Social Infrastructure
- Core Strategy Policy CS11: Transport
- Core Strategy Policy CS18: Climate Change
- Core Strategy Policy CS19: Development and Design Principles

Gravesham Local Plan First Review - Saved Policies (November 1994)

The relevant policies for the proposal are:

- Local Plan First Review T1: Impact of Development on the Highway

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Saved policy U2 relates to telecommunications but has been deleted and as such is no longer a material consideration. Applications are therefore determined accordance with NPPF and other material considerations.

Planning Issues

The main issues arising from this application to upgrade the existing radio base station within the grass verge on Lower Higham Road is whether the proposed replacement mast and new cabinets due to their scale and siting would be a visually obtrusive feature which would be detrimental to the character and appearance of the area. Whether any perceived harm would outweigh the significant social and economic benefits associated with the increased service provision attributed to the proposal and other valid material considerations as outlined within NPPF, Gravesend Local Plan fully supports the roll out of 5G and the next generation connectivity to accelerate business opportunities and growth to ensure the economy is resilient and competitive.

The existing site has become an established feature within the streetscene. There are a number of vertical structures for the proposed replacement column to assimilate with including lighting columns, traffic lights, and road signage. These perpendicular items of street furniture are similarly designed to the proposed column i.e. to be simple, functional, vertical structures. Consequently, the visual impact of the proposed amendments to the existing radio base station will be minimised within the streetscene as the proposed column will assimilate well with the existing vertical structures already in situ in the immediate locale. This is in full accordance with Policy CS02 of the Gravesend Local Plan.

The replacement column will be located in broadly the same position as the existing column already in situ, which has already become an established telecommunications site for the best part of the last decade.

As this is an existing radio base station, the new equipment cabinets do not require planning permission, as they can be installed under the operators permitted development rights. In order to remain fully transparent, they have been included on the plans and in the description. The operator's equipment cabinets are similar to the existing equipment cabinets already in situ at this existing telecommunications site. Their limited height and scale will ensure that these cabinets will not be detrimental to the visual amenity of the area and will be finished in green similar to the other equipment cabinets in the nearby area. However, they can be coloured any other colour that the LPA considers appropriate.

The design of the replacement monopole has been carefully considered and will resemble as closely as possible the existing column already in situ. To this end, it is a simple, functional slim-line monopole, with the main column being split in to two sections. The upper section is 406mm and the lower section is 457mm from ground level. This column width is essential in order to safely support the antennas at the top of the column. The column is proposed to be grey in accordance with the existing pole. This is in accordance with Policy CS02 of the Local Plan.

The proposed radio base fully complies with CS02 of the Gravesend Local Plan. In order to reduce the visual impact on the surrounding area the antennas have been positioned in a dual stack formation, with 3 antennas at the top of the mast at an antenna top height of 19.73m and the other 3 antennas are proposed to be located underneath at an antenna top height of 17.33m. The antennas are positioned as tight as possible and will only be marginally wider than the main column width, rather than being a bulky headframe, as such will not appear dissimilar to a shrouded design.

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It is essential that the 5G antennas are unshrouded. As the radio frequencies get higher, required for data carrying, the antennas are less able to propagate through immediate blockages including Glass Reinforced Plastic, which is what the shroud is made from. This affects the 5G antennas more so than any other technology. The result being they cannot operate effectively close to Glass Reinforced Plastic or any other blocking material. Therefore, there is a technical reason why the 5G antennas need to be unshrouded. The latest 4G technology are also affected more so than older technologies by propagation, and are therefore less efficient if they are shrouded. As such, the other antennas also need to be unshrouded to ensure that the latest technologies are provided to the surrounding area maximising their propagation. Connectivity is vital for the success of the city that these types of infrastructure are able to expand and improve as required especially as residents and businesses become more reliant on their mobile coverage to help them go about their daily lives.

If the column were to be any lower, the antennas would not be able to clear the urban clutter and as such would not be able to operate effectively. A lower height would lead to a poor user experience for a large part of the target coverage area. As such, this would fail the operators design brief and an additional installation would have to be found leading to the proliferation of masts contrary to national planning guidance contained in the NPPF.

The presence of the linear structures including the numerous lighting columns, road signage will ensure that the proposed column will not appear incongruous within the streetscene. Thus, there will be no detrimental loss of visual amenity to the area or environmental intrusion in line with CS02 of the Gravesend Local Plan.

The installation of this 20m slim-line column designed to be as similar as possible to the other linear structures found in the immediate area and existing telecommunications monopole will be no more at odds with the streetscene and character of the area than the other vertical structures within the immediate locale.

It is accepted that the height of the proposed installation is taller than other pieces of surrounding linear items of street furniture. This in itself is not a valid reason to conclude that it is not appropriate at a specific location. Indeed, Inspectors at appeal have noted that by their very nature to be effective masts are required to be taller than surrounding structures.

Telecommunications apparatus by their very nature must be taller than surrounding built and natural form to ensure its efficient operation. The Code of Best Practice explains this requirement fully in paragraph 3.1, 'radio signals operate like light and must "see" over the target coverage area...' To suggest that it is inappropriate development because it is taller than adjacent lighting columns or road signage is no more relevant than suggesting that street lighting columns are inappropriate because they are taller than road signage or traffic lights. They are all essential pieces of infrastructure within a streetscene that carry out differing functions and therefore cannot be considered on the same merits. Should a street lighting column be capable of the provision of high quality 2G/3G/4G and 5G telecommunication services for two separate operators then this would be a reasonable consideration, but this is clearly not the case. As such, the proposal should not be considered negatively due to it being taller per se than other vertical structures. Reasonable consideration of the proposal in the context of nearby street furniture can only conclude that the presence of other vertical structures in the immediate area only seeks to provide a setting wherein a base station may appear more congruous from which to provide an important service to a wider area.

It is also noted that under the operators permitted development rights existing columns can be replaced with new structures up to 20m in height. This demonstrates that the Government considers that 20m streetworks columns are acceptable without the need to obtain further permission from the

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Council for their installation. Further emphasising the point that the Government is not concerned with column heights up to 20m on highway locations per se.

NPPF states at paragraph 115 the number of radio and electronic communications masts, and the sites for such installations, should be kept to a minimum consistent with the needs of consumers, the efficient operation of the network and providing reasonable capacity for future expansion. Utilising the existing radio base station is fully in line with the NPPF. Whilst a new site is not required, a new column is. In order to provide a new 5G service in this locality, the operator is unable to utilise the existing structure as it is not physically capable of supporting all the legacy technologies comprising 2G, 3G and 4G as well as the new bigger 5G antennas. Therefore, a replacement column is required in order to maintain, upgrade and provide the latest and new technologies to the surrounding area. The operator has already explained above, it is unable to shroud the antennas, but the design is as slim as possible and will remain a simple, functional, vertical structure in the streetscene similar to the existing column in this location.

If the column and shroud were to be any slimmer, then the multi technologies would not be able to fit in the same installation and an additional radio base station would be required which would be contrary to national planning guidance. It would also not be structurally capable of supporting all the technologies including the latest 4G coverage and new 5G service provision. If the column were to be the same width throughout then it would have to be as wide as the antennas at the top of the column. This would appear more visually prominent in the streetscene than the current proposals.

The equipment cabinets are designed to appear like other statutory undertaker's equipment cabinets often found in urban areas. They are small for telecommunications equipment. The proposed equipment cabinets are the least amount of cabinets that can be installed in this location and enable the radio base station to operate. If the number of cabinets were to be reduced then there would not be sufficient room to house all the operators equipment. In any event, these cabinets are permitted development under the operators permitted development rights. They have only been included in the description and on the plans in order to remain fully transparent. In order to help blend in with their surroundings they are proposed to be coloured green although they can be coloured any other colour that the council considers to be appropriate.

The design of the radio base station is one of the most sensitive designs available to the operators, designed to resemble typical existing urban linear street furniture. This is in line with the requirements of NPPF which supports equipment which is sympathetically designed and camouflaged where appropriate [paragraph 113], The Code of Best Practice as well as the aspirations of Policy CS02 of the Local Plan.

The proposed new site accords with NPPF because the equipment will resemble other linear structures within the area, will expand the network, and ensure high quality communications infrastructure is maintained. Placing masts near similar structures such as lighting columns, utilising simple and unfussy designs is acknowledged in the Code of Best Practice on Mobile Network Development in England to be less likely to dominate and be in discord with the streetscene and as a result less likely to have a detrimental impact on the visual amenity of the surrounding area.

Lack of Coverage – Material Consideration

In accordance with the NPPF, CS02 of the Gravesend Local Plan which encourages the expansion and improvement of mobile telecommunications infrastructure and supports measures to protect, enhance or improve access to existing facilities, services and amenities that contribute to business needs, quality of life of residents, and visitor requirements including access to information and

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communication technologies, the proposed installation is significant to enable continuous coverage of the telecommunication network, ensuring that this area of Gravesend continues to get the mobile coverage it needs for Telefonica customers as well as new 5G coverage. It will also maintain and improve existing coverage and new 5G coverage for the Mobile Virtual Network Operator's (MVNOs) which use the Telefonica network which includes GiffGaff, Tesco Mobile, Sky Mobile, Talk Talk Mobile, and Lyca Mobile. So the proposal will not only provide a service for one operator but those who buy network space off them, which is at least 5 with Telefonica. This will provide a choice for those customers who consider the level of coverage in their area when selecting which operator they agree future contracts with.

The current proposals will facilitate the development of an advanced broadband telecommunications infrastructure in line with National Government guidance contained within the NPPF which supports infrastructure especially where growth takes place.

Trials have already begun across the UK to demonstrate the potential of 5G and how it can improve and drive productivity and efficiency. In June 2019, West Midlands 5G partnered with BT and University Hospitals Birmingham to trial the UK's first 5G Connected Ambulance. Real-Time communications between the paramedics and the hospital doctors enabled the effective diagnosis of the patient at an early stage of care. The trial showed how a paramedic performed a remote-controlled ultra-sound scan on a patient in an ambulance over a public 5G network. These trials show how digital connectivity and technology can reduce patient waiting times and save lives (Source: WM5G).

Policy CS02 of the Gravesend Local Plan the proposals will provide world-class connections and access to opportunity for all in this cell area, as well as providing world-class digital infrastructure which provides the platform for the Kent to embrace emerging technologies and societal changes. 5G infrastructure is fundamental to enable digital technologies to function. The proposals will ensure that any Telefonica customer in this cell area will be able to access resilient, seamless connectivity at a speed they need anywhere at any time. Without the more basic technology solutions such as 5G, smart-region solutions and value-added outcomes will struggle to be brought to fruition.

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.

Without this upgrade to the existing radio base station the operator's customers would experience increasing numbers of dropped calls and buffering unable to access the internet on their handheld devices. They would also not be able to access the 5G network, a demand which is increasing rapidly as customers update their handheld devices to ones that are 5G compatible. If the 5G network is not available then the customers' would not be able to utilise these handheld devices for the purposes in which they were purchased. This would be contrary to the aspirations of Central Government which aspires to everyone having access to the superfast highway network wherever they are.

The proposed new radio base station is in full conformity with the Local Plan. It acknowledges that the infrastructure of the Kent region is a strength but it also recognises that further investment is required to create the right conditions for growth. As such, the Local Plan fully supports the extension of good quality digital connectivity to all parts of the region. The upgrade to the existing radio base station providing 5G into the network in this busy area of the city is in full accordance with the aspirations of the Local Plan.

In accordance with the Local Plan, its Vision to have a digital focused future and Policy 27, the proposed installation will help improve the area's economic prosperity, strengthen the urban

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economy's by supporting local businesses to start, grow, adapt and diversify. It will support a better environment for today and tomorrow by reducing the need to travel and in turn minimise carbon emissions. The radio base station will support the delivery of healthcare provision and accessibility by enabling people greater access to online services, NHS appointment reminders, reminders to take medicines, make appointments etc. As well as assisting hospital outpatient appointments and emergency consultations carried out remotely via video link, connected ambulances, live streaming of CCTV footage etc.

By enhancing the 2G, 3G and 4G service provision to the surrounding area and providing new 5G coverage into the operator's network, this would fully support the Local Plan Vision.

The way 5G works, it is closely connected with the Smart City agenda and will enable centralized control of lots of different street infrastructure owned or managed by councils, such as street lights, water meters and bus stops. Gravesend as part of the Kent region is fully committed to being a smart city and having good quality digital connectivity. As such it needs the 21st century infrastructure to enable this objective to become a reality. An upgraded installation in this location enabling 5G service provision to the Lower Higham area will ensure that this aspiration is fully met.

The Councillor's Guide to Digital Connectivity notes that a survey conducted by the Confederation of British Industry found that 81% of firms said that they see more reliable mobile connectivity as essential. Studies have also shown that mobile broadband is associated with positive impacts nationally, such as higher GDP and increased employment.

Therefore the Government fully supports high quality communications infrastructure, even more so with the advent of 5G. The NPPF continues to strongly support telecommunications connectivity and states at paragraph 114 that local planning authorities should support the expansion of electronic communications networks. It acknowledges that advanced, high quality and reliable communications infrastructure is essential for economic growth and social well-being.

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.

An installation in this location will fill the current gap in the latest high quality service provision and enable Telefonica and MVNOs who buy network space off Telefonica to maintain access to their handheld devices wherever they are for the purposes in which they were purchased. This is fully in line with the Government's aspirations that everyone has access to the superfast communications network, the NPPF, and the Kent LEP.

Access to the internet in whatever medium now impacts every facet of our lives but only benefits those who can access and use it. The benefits of internet connectivity are key for both residents and businesses alike and an upgraded radio base station in this location providing the latest 2G, 3G, 4G and 5G technologies will support the Kent objective to improve connectivity infrastructure accelerate 4G and 5G technologies to speed up much longed for economic and business growth, increasing digital inclusion, so all people can access services, education and training, helping residents to access the opportunities they need to lead prosperous and rewarding lives and supporting the economy to be resilient and competitive.

In line with guidance contained within the NPPF and Policy 27 of the Local Plan an upgraded radio base station in this location will enable fast, reliable, secure internet accessibility wherever the user is located. This would fully meet the latest operators' coverage and capacity requirements for 3G, 4G

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and new 5G provision. This would be wholly in line with the Government's latest aspirations to strongly support advanced, high quality and reliable communications infrastructure, essential for economic growth and social well-being. Where the NPPF notes that decisions should support the expansion of electronic communications networks. An installation outside this search area, regardless of whether there are existing sites, would not allow the operator to provide their desired level of coverage and therefore would not adequately maintain and provide new coverage and capacity.

As part of the operators 4G licence obligations, many customers will benefit significantly from a vastly improved service provision in this locality. They will be able to gain access to the very latest technologies and connectivity, including 5G, to high speed data services. Digital technology has catalysed the interconnection of the global economy, with the internet enabling the free exchange of goods and services, providing consumers with greater choice and businesses with access to skills, resources and customers. An installation in this location will help the Kent region to meet its aim of having effective and efficient infrastructure to support investment which includes digital infrastructure.

The Code of Best Practice acknowledges that upgrading and improving mobile networks will not be possible without the necessary infrastructure on which we rely. With increasing consumer demand and the Government's aspirations for high quality communications infrastructure it is ever more important to improve connectivity and capacity.

In the Code of Best Practice it acknowledges *'the pressure on networks to upgrade and improve networks through changes to existing sites and the development of new sites is constant. With the increasing consumer demand and the Government's ambitious aspirations it is becoming more important to improve connectivity and capacity. This is due to the ever increasing demand for data hungry applications to be available to a range of connected devices, such as smartphones and tablet computers. However, The Code notes that upgrading and improving mobile networks will not be possible without the necessary infrastructure on which they rely'*. Therefore there is a significant need to locate the equipment in this area.

The Online Nation 2020 Report highlights the importance of continued access to the latest technology on mobile devices, with 35% of the internet users only accessing the internet on mobile devices (Smartphone or tablet).

The Report goes on to note that 60% of the consumer market consider smartphones are now the most important device for internet access. In September 2019, 81% of time spent online was on a mobile device (both tablet and Smartphone). Furthermore, nearly half of all adults consider that their mobile device is the device they would miss most if it were taken away.

It is therefore imperative that the operator continues to invest in ensuring that the latest technologies are available on its network, so that customers are able to continue to use their handheld devices wherever they are, for whatever reason, for the purposes in which they were purchased.

Economic and Social Benefits

The NPPF strongly supports sustainable development, as does the authority's Local Plan Policy CS1. Mobile communication plays a significant role in sustainable development, being able to access the internet via a mobile device allows people to access a wide range of central and local government services buy groceries, manage finances, apply for jobs/university, and carry out school projects, send emails, download applications, send and receive instant messages, participate in social media, streaming and downloading data to name just a few of the benefits of being able to use an internet enabled handheld device. It also allows people to work from home or on the move without needing

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to return to the office. Residents and businesses will enjoy better accessibility, assisting home-base working by improving the electronic means of communication and the roll-out of high-speed broadband helping to promote live-work development. This reduces travel time, carbon emissions and increases the speed in which information is processed/shared. The proposals therefore fully comply with NPPF and the Local Plan, to minimise the effects of climate change reducing the need to travel and therefore the carbon footprint.

In such instances, as described above, the NPPF supports development that improves the economic, social and environmental conditions in the area. Enhancing the 2G, 3G and 4G coverage and capacity in this area and providing new 5G services will fully meet this national policy objective.

Mobile connectivity is essential to the future success of the economy. The combined value of 4G and 5G mobile connectivity is estimated to add £18.5bn to the economy by 2026 (Councils and Connectivity Sept 2018). Mobile connectivity is essential to creating a better society. Digital inclusion can help people gain employment, become more financially secure and improve health and well-being. Mobile connectivity is essential to fulfilling the potential of new technologies. Innovations such as artificial intelligence and connected cars will change how we work, spend our leisure time and run our public services.

Providing the latest digital infrastructure to enable improvements in digital technology empowers and enables residents to have the highest quality of life, supports the creation of high quality jobs and achieves the maximum productivity levels. It also helps the economy to be resilient and competitive. It will help Kent be a world-leading digital city region and one which its businesses, public service providers and citizens are using digital technology by default and to the fullest to grow their businesses and improve productivity to access skills, training and employment opportunities to address global challenges that have a local impact such as ill health, social isolation, and pollution; to improve living standards and well-being, helping people to lead prosperous and rewarding lives; and to improve the quality and value for money of public services.

The enclosed Cornerstone Local Authority Engagement Brochure September 2020, emphasises further the benefits of high quality mobile connectivity including: promoting economic growth by attracting investment from business, which creates jobs and regional prosperity in line with national and local economic strategies; helps local businesses to offer a broader range of services, boosting the local economy; helps local Councils to offer online services such as school admissions and local information for residents supports local companies by facilitating working from home, offers social benefits such as being able to connect with vulnerable family and friends (a life line during COVID 19 lockdown) or contact the emergency services 24/7, and helps local councils to offer online services such as paying council tax bills which provides a more efficient service to name but a few benefits.

Practical Applications of 5G Connectivity as Example of Material Socio-Economic Benefit:-

Education

The relationship between 5G and education is evolving at a massive rate with educators exploring the relevance of Virtual Reality (VR) technologies for education and training. Crucially, VR can support remote learning, allowing students a presence in the classroom even when working elsewhere.

5G's ability to deliver real-time information (low latency), ultra-fast speeds (critical for high definition images and video), increased capacity and heightened security will also allow learning on the job, thanks to technologies such as Augmented Reality (AR) goggles, which can give engineers real-time instructions on how to fix a machine on a production line, for example.

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Health

Patients across the country are now becoming accustomed to relying on remote healthcare services such as NHS 111, virtual GP appointments, and ordering online deliveries of essential medical supplies.

5G will prove critical in providing the infrastructure required to deliver remote health services over the next decade. By design, 5G's ability to deliver real-time information (low latency), ultra-fast speeds (critical for high definition images and video), increased capacity and heightened security are going to be fundamental in scaling the patient benefits of remote healthcare and keeping medical records secure and private. For instance, trials have shown that connecting ambulance crews to expert resources using 5G allows paramedics to work with doctors and conduct specialist procedures in real time whilst on the road.

There is a demand for mobile connectivity in areas where geography, logistics or economics – or a combination of all 3, make it difficult. Mobile network capacity needs to grow to meet the demand of mobile users, who are consuming ever increasing amounts of data.

Paragraph 38 of the revised NPPF states that:

'Local planning authorities should approach decisions on proposed development in a positive and creative way. They should use the full range of planning tools available, including...permission in principle, and work proactively with applicants to secure developments that will improve the economic, social and environmental conditions of the area. Decision-makers at every level should seek to approve applications for sustainable development where possible'.

Providing improved 3G and 4G coverage and capacity and new 5G service provision in this area will fully meet paragraph 38 of the NPPF, the Local Plan.

The social and economic benefits are a significant material consideration which should be weighed against the visual impact associated with the upgrade to the existing radio base station in this location. HM Treasury outlined such benefits in its report *'Fixing the Foundations: Creating a More Prosperous Nation'* – July 2015. Paragraph 7.1 of the plan stated that reliable and high quality fixed and mobile broadband connections support growth in productivity, efficiency and labour force participation across the whole economy. They enable new and more efficient business processes, access to new markets and support flexible working and working from home.

Paragraph 7.2 goes on to highlight strong support for high quality communications infrastructure. It states

'by reducing red tape and barriers to investment, the Government will support the market to deliver the internationally competitive fixed and mobile digital communications infrastructure the UK's businesses need to thrive and grow, and which will enable the UK to remain at the forefront of the digital economy. The Government is working with business so that the market can play the lead role in delivering against the ambitions set out in the Digital Communications Infrastructure Strategy, published March, of near universal 4G and ultrafast broadband coverage.'

Indeed, MPs have noted in parliament that the UK's Superfast Broadband connectivity was 'relatively poor' and businesses were losing out from patchy coverage.

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The Government recognises that widespread coverage of mobile connectivity is essential for people and businesses. People expect to be connected where they live, work, visit and travel. 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. 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.

The Government is determined to ensure the UK receives the coverage and connectivity it needs. To this end, the Government wants to be a world leader in 5G, the next generation of wireless connectivity, and for communities to benefit from the investments in the new technology. The Local Plan aspirations align with the Government objectives of being a world leader in 5G. The proposed installation will fully support these national and local aspirations.

The case for 5G is compelling as it will bring faster, more responsive and reliable connections than ever before. More than any previous generation of mobile networks, 5G 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, creating the so-called "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 Local Government Association (LGA) has produced a Councillor's Guide to Digital Connectivity and sets out some of the benefits of 5G technology:

- Faster mobile broadband and a more consistent experience in congested areas with a very high number of devices.
- Industrial applications, enabling businesses to improve their productivity, for example through predictive maintenance and real-time analytics.
- Internet of Things (IoT) services, many of which will help council's and businesses deliver services more efficiently including:
 - Transport and logistics: connected parcels and fleet tracking.
 - Health and social care.
 - Environmental monitoring: sensors monitoring air quality and water pollution in real-time.
 - Smart agriculture and smart animal farming, smart retailing.
 - Connected and autonomous cars: allowing cars to communicate with each other, other road users and even the road infrastructure.

Further to the Government's commitment to improve connectivity, on 24th November 2016 the new permitted development rights for telecommunication operators came in to force, designed to lift the restrictions on mobile operators such is the significance and weight the Government place upon the benefits attached to modern connectivity.

A National Needs Assessment – A Vision for UK Infrastructure was also published in October 2016 ([https://www.ice.org.uk/getattachment/media-and-policy/policy/national-needs-assessment-a-vision-for-uk-infrastr/National-Needs-Assessment-PDF-\(1\).pdf.aspx](https://www.ice.org.uk/getattachment/media-and-policy/policy/national-needs-assessment-a-vision-for-uk-infrastr/National-Needs-Assessment-PDF-(1).pdf.aspx)). It sets out the infrastructure needs

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for the UK which includes the importance of digital technology. An extract of this assessment can be found below:

'A lack of digital connectivity has a detrimental effect on business operations, productivity and output and hence competitiveness in the global market place. Securing digital connectivity is thus critical to the UK's long term prosperity. A key challenge for the digital sector is a persistent digital divide between those who have access to the latest technologies and those who do not, with resulting social and economic exclusion, particularly as dependence on e-services and digital communications increases'

The Assessment goes on to note that 'Universal digital connectivity would serve as an equaliser of economic opportunity in that it enables participation in a modern digital economy'. Therefore this Needs Assessment further explains the consequences of a lack of coverage and the effects this has on social and economic prosperity. This clearly highlights the importance of maintaining and enhancing high quality 2G, 3G and 4G coverage and capacity in Gravesend as well as providing new 5G in this area, where the social and economic benefits will outweigh the environmental considerations.

The Government's continued strong support for connectivity is further evidenced by the DCMS who launched their UK wide Digital Connectivity Portal on 20 December 2018. The Digital connectivity portal provides guidance for local authorities and network providers on improving connectivity in local areas. The Government wants everyone in the UK to benefit from world-class connectivity no matter where they live, work or travel. The Future Telecommunications Infrastructure Review outlines a package of measures to create the right market and policy conditions to deliver world-class connectivity for citizens and businesses. As a result, the pressure to upgrade the existing radio base station in this area of the city to provide 2G, 3G, 4G and 5G is significant.

On the 23 September 2020, the Digital Infrastructure Minister Matt Warman MP spoke about the ongoing work by the Government and telecoms industry to boost the UK's world class digital connectivity in his keynote speech at Connected Britain 2020²

...'I'd like to take this opportunity to thank everyone in the industry for their tireless efforts at keeping us all connected through an unprecedented period of disruption.

...COVID has altered the way we live, work and most importantly, stay connected with our family and friends. The digital infrastructure that keeps us all connected was essential to our daily way of life under lockdown – and is now more important than ever as we head into recovery. Many of these changes – such as increased working from home – will stay with us for the foreseeable future.

People have referred to the internet as "the fourth utility" – and it's true. For countless people across the country, having fast and reliable broadband and a good mobile connection is as essential and vital to our daily lives as gas, water and electricity.

² https://www.gov.uk/government/speeches/matt-warman-keynote-speech-at-connected-britain-2020?utm_source=01ad07cc-6884-4d9b-a0ca-8c212f0a4289&utm_medium=email&utm_campaign=govuk-notifications&utm_content=immediate

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That's why I'm committed to working with you to ensure the entire nation has access to world-class, next generation gigabit connectivity that is secure and resilient enough to deal with all sorts of future challenges.

This Government is ambitious for the UK's digital infrastructure.

And because we know that more citizens are increasingly living their lives online, we will be one of the earliest adopters of 5G coverage, with the majority of the population able to access 5G by 2027.

...We know how important local authorities are to the delivery of digital infrastructure, which is why I have written to them, together with the Local Government Minister, to outline how they can work more effectively with the industry...

....Turning to 5G, while the commercial rollout of 5G continues at pace, we're pushing ahead with plans to make sure all sorts of industries benefit from this game-changing technology.

....since the start of the 5G Testbeds and trials programme, we've now funded 24 5G testbeds across the UK. Between them, those testbeds have trialled almost 70 different 5G technologies, products and applications. And more importantly than ever, we are investing in a range of sectors to foster, build and grow 5G cross wider industry...

...The world is in the middle of a digital revolution. COVID has accelerated this process, digitising almost every part of our everyday lives and making the infrastructure that connects us more important than ever. That's why it is at the top of the government's agenda...

This Keynote Speech my Mat Warman MP highlights the importance that Government places on 5G and advanced, reliable, high quality 5G technology. To prevent this technology from being brought into the area would be contrary to the Government's key aims.

On the 1 October 2020, as part of the Speed up Britain Campaign, The Centre of Policy Studies Report published 'Upwardly Mobile: How the UK can gain the full benefits of the 5G revolution'³. The report identifies what the 5G opportunities are and what the Government needs to do so we can all benefit from this vital new technology. It states that delays to the rollout of 5G could cost the country tens of billions of pounds in lost economic output. The former Government advisers Alex Jackman and Nick King argue that Government's 'levelling up' agenda and the UK's recovery from the COVID-19 pandemic is at risk without a faster 5G rollout – to the tune of £41 billion.

The report highlights that if delays continue at their current rate, by 2027, over 11 million households and businesses could be missing out on vital digital connectivity. Improving digital infrastructure supports the Government's 'levelling up' agenda, by helping local areas to retain and attract businesses and talent as well as by reducing regional inequalities.

The report states that 'the UK must have a functioning network to now support the recovery from the pandemic, empowering businesses and communities with wider coverage, and preparing the ground for the services that 5G can provide'.

³ <https://www.cps.org.uk/research/upwardly-mobile>

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Using analysis by the independent consultancy Policy Points, the report estimates that if 5G coverage reaches a quarter more of the population than the Government's current target of 51%, it will produce GDP gains of £41.7 billion by 2027. It highlights that the difference between the UK being a leader and a laggard in 5G adoption could be as much as £173 billion in incremental GDP over the coming decade, as estimated by the Future Communications Challenge Group.

The manufacturing, construction and agricultural sectors have been hit particularly hard by the pandemic, and these would benefit significantly from improved connectivity. However, onerous planning rules and loopholes in existing legislation are slowing down the infrastructure upgrades needed to make the most of this mobile revolution in these much-needed industries.

Digital networks and services have underpinned our resilience to the COVID-19 pandemic and they will drive our recovery. By expanding them, we deliver not only immediate benefits but also the essential foundation stone for future prosperity.

The report highlights that while 5G promises to create economic benefits through increased capacity, reliability and speed – vastly improving business productivity and removing barriers imposed by poor digital connectivity – the system is plagued by red tape.

The report acknowledges that the gains are not just at national level. A more extensive digital infrastructure helps local areas to attract and retain businesses and talent, thereby playing a vital role in reducing regional inequalities. Providing a supportive environment for digital infrastructure is one of the few things the Government can do that costs little, boosts growth and helps level up the UK....the key is speed. **The faster a network is built, the bigger the regional gains** (emphasis added). The telecommunications industry faces challenges on this front. The COVID-19 pandemic has increased demand on networks but delayed the availability of new spectrum to provide additional capacity.

The report notes that the reliability and reach of 4G is more important than ever. It is needed both to quench immediate demand, and also to facilitate future 5G rollout, as the underlying passive infrastructure will initially support both technologies. Every failure to provide better coverage not only presents an immediate opportunity loss for local business and consumers but also has a bigger downstream economic impact. It acknowledges that productivity gains to business, equality gains for regions and economic gains for the country are only as achievable as the networks they can access.

The report recommended that the Government should reform the strategic planning framework to compel local authorities to ensure that the needs of future mobile connectivity are adequately addressed in Local Plans and that new developments are assessed on how they might impact, or could support, local connectivity.

The proposed installation in this location will allow the operator to provide new and improved high quality 2G, 3G and 4G coverage and capacity and new 5G service provision supporting the Government's aim of 'focusing on ensuring that everyone is connected to the information superhighway'. This fully meets the aspirations of the NPPF, and the Kent LEP.

An upgrade to the existing radio base station in this location will ensure that the expansion of the electronic communications network is facilitated and that high quality communications infrastructure is provided to the immediate area. This is in full accordance with the operator's 4G license obligations and the Council's aims and aspirations to expand and improve telecommunications mobile coverage as required and to have the latest high quality 5G infrastructure, promoting and growing the digital sector and increasing digital inclusion.

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Summary

This is an upgrade to an existing established radio base station in this location.

It is not possible to utilise the existing 20m column and provide the latest 5G communication technologies. The design of the existing monopole column is not capable of supporting the new 5G technologies for Telefonica. Therefore a replacement column for Telefonica is needed to provide this operator with the latest 2G, 3G, 4G and 5G coverage.

The proposed site has been carefully sited within the grass verge. There are numerous other vertical structures in the vicinity of the proposed installation including lighting columns, road signage and equipment cabinets. The vertical structures help the proposed installation assimilate with the streetscene and not appear alien in the immediate area.

The proposed height at 20m is essential in order for the antennas to clear the surrounding urban clutter and trees and ensure the antennas are able to reach the target coverage area, to maintain and provide new high quality 2G, 3G, 4G and 5G service provision to this area in and around Lower Higham Road. This will fully meet the national Governments aim of '*ensuring that everyone is connected to the information superhighway*' and the national policies set out in the NPPF. If the height of the column were to be reduced then the antennas would not be able to operate effectively, leading to a degraded service for the operator's customers especially for the higher frequency technologies including the latest 4G technology and new 5G service provision which have lower antenna propagation.

Site selection was progressed in accordance with the applicants licence obligations, advice in the NPPF and the Code of Best Practice and represents the least environmentally intrusive, technically suitable, available option.

The social and economic benefits of providing reliable and high quality mobile broadband connections including 5G support growth in productivity, efficiency and labour force participation across the whole economy. This is fully supported by the NPPF and the Local Plan. These benefits are strong material considerations which outweigh any perceived loss of visual amenity to the surrounding area.

Confirmation that submitted drawings have been checked for accuracy

Contact Details

Name: (Agent) Dianne Perry

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mail Address:

In the first instance, all correspondence should be directed to the agent.

Signed:

Consultant
Planner

Date:

29.10.2021

Company:

WHP Telecoms Ltd

(on behalf of
Cornerstone and
above operator)

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