

**SUPPLEMENTARY INFORMATION**

1. Site Details

Site Name:	Essex House	Site Address:	Existing base station
National Grid Reference:	E: 509948 N: 428784		Essex House Manor Street Hull HU1 1XH
Site Ref Number:	CTIL_11758927_VF_19302_TF_070019	Site Type: <sup>1</sup>	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:  This is an existing base site.		
Were industry site databases checked for suitable sites by the operator:		NO
If no explain why:  This is an existing base site.		

**Site Specific Pre-application consultation with local planning authority**

Was there pre-application contact:	No
Date of pre-application contact:	NA
Name of contact:	NA
Summary of outcome/Main issues raised:  A copy of the proposed plans together with a covering letter were sent to the Chief Planning Officer on 12.03.2021.  No specific comments to received to date.	

**Community Consultation**

Rating of Site under Traffic Light Model:	<del>Red</del>	<del>Amber</del>	Green
Outline of consultation carried out:  Pre-application consultation was carried out with the local ward councillors for St Andrew's and Docklands Councillors and Emma Hardy MP. A copy of the proposed plans together with a covering letter were sent to these parties on 12.03.2021.			
Summary of outcome/main issues raised (include copies of relevant correspondence):  There have been no comments received to date from other stakeholders.			

<sup>1</sup> Macro or Micro

## School/College

Location of site in relation to school/college (include name of school/college):
<ul style="list-style-type: none"> <li>Hull College</li> <li>McArthur Dean Training</li> </ul>
Outline of consultation carried out with school/college (include evidence of consultation):
A copy of the proposed plans together with a covering letter were sent to these parties on 12.03.2021.
Summary of outcome/main issues raised (include copies of main correspondence):
No comments received 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?	Yes	No
Date served	N/A – Full Planning Application	

## Proposed Development

The proposed site:
<p><b>Background</b></p> <p>Telefónica UK Ltd has entered into an agreement with Vodafone Ltd pursuant to which the two companies jointly operate and manage a single network grid across the UK. These arrangements are overseen by Cornerstone Telecommunications Infrastructure Ltd (Cornerstone) which is a joint venture company owned by Vodafone Ltd and Telefónica UK Ltd ("the operators"). The agreement allows both organisations to pool their basic network infrastructure, while running two, independent, nationwide networks allowing consumer choice.</p> <p>As part of Vodafone and Telefonica's continued network improvement programme, there is a specific requirement for an upgrade to its existing rooftop installation atop Essex House within the Old Town Conservation Area. to provide improved 2G, 3G, 4G and new 5G coverage and capacity, ensuring that this area of the city continues to have access to the latest technologies. This is in line with its legal obligations, as well as the Government aspirations for the UK to be a world leader in 5G.</p> <p>In addition, the site has been designed to enable Telefonica to utilise this radio base station for new 5G service provision as well, whilst also maintaining and enhancing its 2G, 3G and 4G coverage that it is currently providing from this existing radio base station.</p>

The site is located on top of a multi-level commercial building. The roof will be utilised by both operators that is currently being used for telecommunications and which has become an established part of the streetscene.

The host property supports the existing Vodafone radio base station comprising 6 no. antennas on 12 Essex House and ancillary development thereto.



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

The amendments to the existing rooftop installation will enable enhanced 2G, 3G and 4G coverage and capacity to the surrounding area as well as new 5G services for Telefonica to ensure high quality customer experience is obtained as demands on the network increase and technologies change. In addition, due to the design, Vodafone will continue to maintain and enhance its existing 2G, 3G and 4G coverage whilst also being to provide 5G service provision to the immediate area around the application site.

Type of Structure: Pole mounts

Description:

The proposed upgrade of an existing base station comprising the proposed removal of 6 no antennas and the installation of 12 no antennas, 3 no 300mm dishes together, proposed cabinets together with ancillary development thereto.

Overall Height:	33.08m / 35.10m (proposed) 33.08m / 35.10m (existing)	
Height of existing building (where applicable):	32.75m Upper Roof Level	
Equipment Housing:	800mm	
Length:	660mm	
Width:	1770mm	
Height:	N/A	
Materials (as applicable):		
Tower/mast etc – type of material and external colour:	As existing	

Equipment housing – type of material and external colour:	As existing
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Reasons for choice of design and siting, making reference to pre-application responses:	
<p>Central Government attaches great importance to the design of the built environment and outlines this within Section 12 (Paragraph 124) National Planning Policy Framework (Revised). It states:</p> <p><i>'Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities'.</i></p> <p>In keeping with the National Planning Policy Framework (NPPF) guidelines of using: “high quality communications infrastructure”, the proposed design has been selected to minimise visual impact upon the surrounding environment.</p> <p>The operators have occupied this site for a number of years. It has become an established part of the streetscene in this area of Hull. To minimise the impact on the surrounding area, the proposed upgrade to the existing radio base station will resemble as closely as possible the existing apparatus already in situ.</p> <p>To this end, the new antennas will be located in broadly the same locations as the existing antennas with additional sectors on the north and east elevations and at the same top height.</p> <p>The proposed top heights of the new antennas are essential to enable the antennas to clear the rooftop (avoiding clipping) and reach the target coverage area. They will be the same top height as the existing (tallest) antennas. If the antennas were to be any lower in height then they would not be able to provide the necessary high-quality communications which is required for everyday access to high speed data in this area of the city, which users of their handheld devices have come to expect in this 21<sup>st</sup> Century technological age. The antennas would also clip the edges of the roof and as such preventing the antennas from operating effectively. Any lower heights would also cause ICNIRP issues, sterilising large parts of the rooftop.</p> <p>The new antennas need to handle significantly more data and capacity than the existing antennas and as such need to be slightly bigger, but shorter in order to accommodate all the technologies including 5G in the one installation, without the need for an additional installation elsewhere within this busy area of the city.</p> <p>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 multi technical requirements for the site. Taking all matters into account, it is considered that this upgraded installation, on an established radio base station site, to enable the enhancement of 2G, 3G and 4G service provision and provide new 5G technology to the surrounding area for both operators, would not appear out of place and would continue to provide high quality coverage and capacity, delivering the capability for a multi high tech service from a single installation.</p>	

Technical Information

<p>International Commission on Non-Ionizing Radiation Protection Declaration attached (see below)</p> <p>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.</p>	Yes	
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<p>When determining compliance the emissions from all mobile phone network operators on or near to the site are taken into account.</p> <p>In order to minimise interference within its own network and with other radio networks, Vodafone Limited and Telefonica UK Ltd operate their networks in such a way the radio frequency power outputs are kept to the lowest levels commensurate with effective service provision</p> <p>As part of Vodafone and Telefonica's network, the radio base station that is the subject of this application will be configured to operate in this way.</p> <p>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.</p> <p>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.</p>		
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### 3. Technical Justification

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

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

<p>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.</p> <p>There is a specific requirement to upgrade the existing radio base station at this location to enable Telefonica to enhance its 2G, 3G and 4G coverage and capacity to this busy and highly populated area of Manor Street and provide new 5G service provision. Furthermore, the installation will be designed so that Vodafone can continue to utilise the same installation and provide new 5G coverage to its network and improved 2G, 3G and 4G services. This negates the need for further radio base stations in the vicinity for either of these two operators.</p>
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### 4. Site Selection Process

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, the proposal is to upgrade the existing radio base station in this location to provide enhanced 2G, 3G and 4G coverage and new 5G service provision.

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:

From the outset, it should be appreciated that irrespective of the proposed installation's use as a telecommunications base station, any change in form in the streetscene will always be, to some degree, a noticeable alteration to those residents and regular passers-by found closest. However, it should be recognised that visibility or a development's siting and appearance, does not automatically result in an overwhelming adverse harm to the host building and character and appearance of the Old Town Conservation Area.

As referred to above, the applicant has taken a sequential approach and is seeking to retain the existing radio base station, removal of 6 no antennas and the installation of 12 no antennas, 3 no 300mm dishes, proposed cabinet together with ancillary development thereto. By placing the equipment in similar locations / height and using the same steelwork where possible the operators have minimised the impact of the equipment on the surrounding area.

These minor amendments to the existing radio base station will ensure that the latest superfast technologies will be able to be accessed by users in this area of the city, in line with the operators legal license obligations, and the Government's aspirations that everyone has access to the information super highway network, that the UK becomes a world leader in 5G and the customers' expectations that their handheld devices are able to operate wherever they are located whether that be indoors or outside.

It is considered that utilising an existing established radio base station installation is preferable to pursuing a second base station within the immediate vicinity, as it would reduce the visual impact therefore preserving the character and appearance of the surrounding area. Given the makeup of the area and the siting of existing telecoms infrastructure on the site, it was established that the upgrading of facilities through the use of existing infrastructure would be the most viable solution. Based on this sequential approach no other sites have been considered.

Land use planning designations:

Old Town Conservation Area.

Environmental Information

No specific environmental considerations identified to date.

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

### **National Planning Guidance**

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 (February 2019)**

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. 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 112 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 112. 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 113 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 116 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 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 80 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 innovation<sup>40</sup>...*

Footnote 40 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'*.

The NPPF provides guidance on proposals affecting heritage assets. Paragraph 189 states that 'in determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance.

Paragraph 190 goes on to state that local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset).

The NPPF goes on to provide guidance on considering the potential impacts of development on heritage assets. Paragraph 193 states that when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. This is irrespective of whether any potential harm amounts to substantial harm, total loss or less than substantial harm to its significance.

Paragraph 196 retains advice provided in the 2012 version of NPPF relating to the degree of harm. It states that 'where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use.

The proposed development accords with all these aspects of the NPPF in that it will provide Telefonica and Vodafone with continued and improved network provision within this area of Old Town bringing a range of associated economic and technical benefits.

Public benefits are defined within the NPPG and could be anything that delivers economic, social or environmental progress. Benefits do not always have to be visible or accessible to the public in order to be genuine public benefits.

### **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 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.

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 21<sup>st</sup> 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 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 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 Hull Local Plan 2016-2032.

### **Hull Local Plan 2016-2032 (November 2017)**

The Hull Local Plan was adopted in November 2017 and is part of the statutory development plan for Hull. It is used to guide new development in the city up to 2032. The Local Plan provides a vision and strategic priorities for the city.

The Vision for Hull as for UK City of Culture 2017 was:

*"A city coming out of the shadows and re-establishing its reputation as a gateway that welcomes the world as it embraces some of the biggest issues we face today".*

The spatial vision for Hull in 2032 is as follows:

*"A thriving port city leading the way as the cultural urban heart of the Humber Energy Estuary. A city with a rich heritage and exciting entrepreneurial, digital and renewable focused future. A safe, great city others want to visit and be part of".*

The Local Plan sets out 12 strategic priorities in order to help realise the vision. The most relevant to this telecommunications upgrade are set out below:

Strategic Priority 12 seeks to provide infrastructure that enables the predicted development and growth of Hull to happen. There are significant infrastructure requirements that will support the development and growth of the city. Residents and businesses also rely on a range of infrastructure to support them daily. This includes water, sewage, electricity, gas, telecommunications (including mobile coverage and superfast broadband), and potentially heat and cooling networks. It is vital for the success of the city that these types of infrastructure are able to expand and improve as required and that they are resilient to future climate change.

Strategic Priority 1 seeks to positively and proactively encourage sustainable economic growth supporting the ambition for Hull to be a leading UK energy city. In the last few decades Hull has suffered from high levels of unemployment and low levels of household disposable income. It is important that the Plan supports jobs within the main economic sectors identified as of strategic importance to the Humber area including energy, digital and medical sectors. The Plan can do this by ensuring there is sufficient land and infrastructure in the right places in order to allow new businesses to come to the city and existing businesses to expand and modernise to provide necessary jobs and services.

Strategic Priority 7 seeks to support more sustainable locations and patterns of living, particularly to reduce pollution and carbon emissions. It is important as the city becomes more prosperous that residents continue to pollute less than the national average. Reducing energy demand and using energy from renewable and low carbon sources are important.

Paragraph 9.43 relates to Utility Equipment and acknowledges that the NPPF explicitly supports the expansion of high quality communications infrastructure and the provision of necessary infrastructure. However, it also notes that it is important that the installation of new utility equipment, which can remain in place for many years, does not have a detrimental impact on the amenity of the surrounding area or the quality of the public realm.

Policy 24 also relates to utility equipment and states that the installation of utility equipment will be supported where it meets the following criteria:

- a) The equipment has been sited so as to minimise its impact on the visual safety and use of the surrounding area;
- b) The equipment has an appropriate, anti-graffiti, colour treatment for its surrounds or an appropriate bespoke design;
- c) Hard or soft landscaping is used to minimise the visual impact of the equipment, and
- d) Any groundworks use the same materials as the immediate surrounding area.

Although taller than the existing installation, the proposed upgrade would significantly improve services in the area and would only have a minimal additional impact. The benefits in terms of improved communications providing 5G for this area of the city would outweigh this additional height impact.

Policy 52 relates to infrastructure and delivery and seeks to ensure the delivery of infrastructure requirements and to ensure the strategic and sustainability objectives of the Plan are met, the Council will inter alia:

- Support 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 communication technologies.
- Facilitate the timely provision of additional facilities, services and infrastructure to meet identified needs, whether arising from new developments or existing community need, including those of the emergency services and utilities, in locations that are appropriate and accessible.

Policy 25 relates to sustainable travel and part of its aim is to reduce the need to travel. Improved communications can assist in home working thus meeting the general aims of the policy.

Policy 14 in a general design policy which is not designed to provide guidance to telecommunications development which is essential infrastructure which has technical constraints on its design and needed to be close to its demand for such services in order to be able to reach its target coverage area. This policy is designed for more traditional development proposals and doesn't take into account the more specific constraints on design to provide 5G technology.

The policy states that development should demonstrate how its design supports the delivery of a high quality environment in Hull, particularly with regard to inter alia:

- Character
- Use and surrounding uses
- Layout and connectivity

- Setting and relationship to key heritage assets
- Scale
- Massing
- Grain and density
- Providing inclusive access.

Policy 15 relates to local distinctiveness and states that development should promote local distinctiveness where appropriate, with particular reference to the setting, character and appearance of Listed Buildings, Conservation Areas and other heritage assets.

Policy 16 relates to heritage considerations and states that development that would cause harm to the significance of a designated heritage asset will only be approved where it has been convincingly demonstrated that the harm cannot be avoided and there would be public benefits sufficient to outweigh the harm or loss caused.

The proposed upgrade is not considered to cause harm to a designated heritage asset, in this case the Old Town Conservation Area.

Paragraph 1.10 of the Local Plan sets out the Presumption in Favour of Sustainable Development as advocated by the NPPF acknowledging:

- We should positively seek opportunities to meet the development needs of the area and
- Local Plans should meet objectively assessed needs, with sufficient flexibility to adapt to rapid change.

Paragraph 1.11 goes on to note two exceptions to the above where:

- Any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against policies in the NPPF taken as a whole; or
- Specific policies in the NPPF indicate development should be restricted.

### **The Humber Strategic Economic Plan 2014 – 2020**

The Humber Strategic Economic Plan (SEP) was submitted as part of the Growth Deal proposals. It is an integrated plan for growth. The Plan's ambition is to:

*'...maximise the potential offered by the Humber Estuary, leading the Humber to become a renowned and international centre for renewable energy and an area whose economy is resilient and competitive. We will continue to develop our strengths in key sectors, supporting our businesses to grow and helping our residents to access the opportunities they need to lead prosperous and rewarding lives'.*

The SEP acknowledges that the infrastructure of the Humber region is a strength but it also requires further investment to create the right conditions for growth. It supports the extension of good quality digital connectivity to all parts of the LEP area. 'Creating an infrastructure that supports growth' is one of the strategic enablers of the SEP.

The SEP notes that the Humber has a fast growing digital sector and is building a reputation for digital innovation and creativity.

The connectivity infrastructure is identified as being a significant opportunity based on future green energy and will need to be enhanced to underpin the anticipated and longed for economic and business growth and avoid the potential for bottlenecks to evolve as demand and activity increases and the thirst for data expands.

One of the objectives of the SEP is to ensure appropriate infrastructure is in place to underpin further growth and development in the creative and digital services sector.

The SEP seeks to make strategic improvements to infrastructure. It is acknowledged that The Humber depends upon an effective and efficient infrastructure to support investment. This includes digital infrastructure.

### **Planning Issues**

The main issues arising from this application to upgrade the existing radio base station at Essex House is whether their scale and siting would be a visually obtrusive feature which would be detrimental to the character and appearance of the host building, surrounding area and cause harm to the Old Town Conservation 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, the Hull Local Plan and the Humber SEP Plan which 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.

### **Siting**

The siting of the proposed radio base station has been carefully considered. To this end, an established rooftop telecommunications radio base station is to be utilised and upgraded to enable the latest 2G, 3G and 4G services to be provided as well as new 5G. This is in full accordance with national guidance contained within the NPPF, the Code of Best Practice and Policies 14 and 24 of the Hull Local Plan.

The host property supports the existing Vodafone radio base station comprising 6 no. antennas .

To this end, the new antennas will be located in broadly the same positions and at the same height as the existing antennas. This minimises the visual impact of the apparatus on the host building in line with Policies 14 and 24 of the Hull Local Plan.

It is not possible to site all the new antennas on the existing antenna poles as they are not capable of supporting the weight of this equipment. The top height of the new antennas will be the same as the tallest existing antennas, thus will not appear more prominent in the skyline than the existing especially as they are in a location where there is already established antenna equipment. This is in line with Policies 14 and 24 of the Hull Local Plan.

The proposed amendments to the existing radio base station will fully support the NPPF guidance and the Local Plan. Government guidance states that in order to limit visual intrusion, the number of radio and telecommunication masts and the sites 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. Use of existing masts, buildings and other structures for new electronic communications capability should be encouraged. The proposed amendments relate to making minor modifications to an existing radio base station, on an existing building, which is currently utilised by both Telefonica and Vodafone. It is therefore in full compliance with the NPPF.

The installation of 12 no antennas and ancillary development thereto fully complies with Policies 14 and 24 of the Hull Local Plan as well as NPPF. The minor amendments will have no unacceptable impact on the character and appearance of the area, on amenities of occupiers of nearby properties, will utilise an existing established radio base station on top of an existing building, the apparatus will continue to be utilised by two operators on existing infrastructure and the amendments are so minor they will barely be noticeable once in situ.

### **Appearance**

The new antennas will appear as similar as possible to the existing antennas already in situ on this established rooftop telecommunications site. The antennas will be made from the same materials, be the same colour and have a similar design and appearance as the existing antennas, at the same height. Given their height above ground level at over 30m above ground level and set back position from the highway this will ensure that they will not appear prominent in the wider streetscene.

The design and appearance of the new antennas will resemble as closely as possible the existing antennas already in situ on the rooftop of the host building. The colouring and materials used will match the existing antennas. However, due to the amount of data that these new antennas have to support, as well as the operational requirements of 5G technology it is an operational requirement that they are slightly bigger than the existing antennas already in situ. Given that the antennas will retain the same top height (as the tallest antennas) above ground level, and that the antennas will resemble as closely as possible the existing antennas already in situ, this small change in antenna size will be imperceptible to the naked eye from any public vantage points. The new antennas will be located in broadly the same position as the existing antennas utilising new antenna support poles. The new antennas and new antenna support poles will resemble as closely as possible the existing antennas already in situ, thus maintaining the character and appearance of both the host property and the surrounding area. The proposed upgrade to the existing radio base station therefore fully complies with the NPPF, the Code of Best Practice and the Local Plan.

For the avoidance of doubt, new antennas are required and need to be bigger (width and depth) than the existing antennas already in situ to enable the latest technologies to be provided in this area of Hull. The superfast data that has to be carried by the antennas requires larger antennas to be installed. The upgraded site will reduce the varying levels of coverage for 2 operators in the area and boost the signal for its customers, with minimal visual impact on the surrounding environment.

The proposed upgrade to the existing radio base station has been designed to be fully ICNIRP compliant in line with para 116 of the NPPF. A Declaration of Conformity with the International Commission on Non-Ionizing Radiation Protection (ICNIRP) Public Exposure Guidelines is enclosed with the application documents. It is therefore not necessary for the Council to set health safeguards different from the International Commission guidelines for public exposure.

### **Need for 5G**

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 proposed installation will help improve the area's economic prosperity, strengthen the urban 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, a key ambition of the NPPF.

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 112 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 upgraded installation in this location will fill the current gap in the latest high-quality service provision and enable Vodafone and Telefonica and MVNOs who buy network space off these two operators 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.

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 policy aspirations.

In line with guidance contained within the NPPF, Local Plan and SEP an upgraded radio base station in this location will enable fast, reliable, secure internet accessibility wherever the user is located. The minor amendments to the existing installation in this location would fully meet the latest operators' coverage and capacity requirements for 3G, 4G 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 operators to provide their desired level of coverage and therefore would not adequately maintain and provide new coverage and capacity.

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.

The Code of Best Practice acknowledges that there will be times when there is a need for a new radio base station, where sites have been lost, where areas have limited or no coverage and where coverage and capacity need to be enhanced. This application is one such example where there is a need to enhance 3G and 4G provision and provide new 5G services within this area.

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 Connected Nations December 2020<sup>2</sup> report is published as the UK continues to address the challenges of the coronavirus (Covid-19) pandemic; a time when people, families and businesses have come to rely on their phone and broadband connections as never before. We report on how the networks have performed during this period and how the availability of services has evolved.

The report sets out in its findings:

- **The UK's fixed and mobile networks have generally coped well with increased demands during the pandemic.** A shift to more people being at home drove increased demand on broadband networks during the day, although peak usage remained in the evening. Mobile networks also experienced increases in voice traffic.
- **The number of mobile base stations providing 5G services has risen ten-fold, to around 3,000 across the UK.** 87% of these are in England, 7% in Scotland and 3% in both Wales and Northern Ireland.
- **Mobile coverage is generally stable.** The four mobile network operators (MNOs) – EE, O2, Three and Vodafone - each estimate they provide outdoor coverage to 98%-99% of premises. Their networks' coverage of the UK landmass ranges from around 79% to around 85%. The Shared Rural Network programme agreed in March 2020 will extend coverage beyond this by 2025.
- **A small, but significant number of properties are still struggling to get connected.** We estimate that 43,000 premises cannot access either a decent fixed broadband service, or good 4G coverage, indoors.

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<sup>2</sup> <https://www.ofcom.org.uk/research-and-data/multi-sector-research/infrastructure-research/connected-nations-2020/main-report>



- **Mobile data consumption continues to rise, increasing by 42% compared with last year.** 83% of the total data traffic was consumed in England with about 10% in Scotland, 4% in Wales and 3% in Northern Ireland (largely in line with UK population distribution). Reflecting this growth, the traffic carried in England in June exceeded that carried across the whole UK in February.

The report acknowledges that being connected has never been more important in the UK. *“People have been relying on phone and broadband services more and more over recent years, and the Covid-19 pandemic during 2020 has brought this reliance into even sharper view. In March 2020, life changed suddenly for millions of people across the UK. Fast, reliable broadband and mobile connections were essential to allow them to work from home, keep up with schoolwork, access medical appointments and public services, stay in touch with friends and family, order shopping online, and keep themselves entertained”.*

The report acknowledges that *“during the first COVID 19 lockdown, UK MNOs coped successfully with the changes in data and voice traffic volumes and distribution as many people began working from home and schools were shut during the Covid-19 spring lockdown. New peaks were reached for most of the network metrics reported by MNOs just before or during the week lockdown measures were first introduced across the UK in March 2020. Although these peaks generally reduced with the gradual easing of lockdown, they have remained higher than they were before (in line with the historical trend for incremental growth in data consumption)”.*

The report further notes that the *“MNOs all experienced some form of congestion on their networks in this period, but successfully mitigated this, in part by increasing interconnect capabilities between themselves. Some operators applied further temporary upgrades to their voice and data capabilities in order to cope with increased demands during this period, for example deploying temporary base stations in and around hospitals (particularly at the Nightingale hospitals) to provide additional capacity”.*

*“Compared to periods before the spring lockdown, mobile voice traffic increased by 10-45% across the operators. One operator observed an increase in average call duration from about 2.5 minutes (pre-lockdown) to 4 minutes in the week lockdown measures were introduced. These call lengths and volumes spiked in March, before gradually stabilising. Within this general trend for growth, we can also observe drops in average call duration and data traffic around 8pm for the 10-week period from 26 March 2020, coinciding with the nation coming together to applaud the efforts of the NHS during the Covid-19 crisis. Increased amounts of voice traffic were also offloaded to Wi-Fi, although with significant variations between operators”.*

Consumers in the UK continue to decrease their use of landline calls in favour of using mobile calls and mobile data. Between 2012 and 2018, the total volume of outgoing landline calls in the UK more than halved, decreasing by 59 billion minutes, from 103 to 44 billion minutes. Over the same period the volume of outgoing mobile phone calls increased, but only by 29 billion minutes, from 132 to 161 billion minutes. This suggests that consumers are not simply substituting landline calls with mobile networks calls. There are indications that they are substituting at least some landline calls with online voice and video calls. On smartphones, online calling can offer a lower cost alternative to making calls using a voice tariff: 87% of UK adults who have ever used online voice or video calls did so using a smartphone.

The operator not only has a license requirement to provide a certain level of 2G/3G/4G coverage to the population the operators' are obliged to meet the growing consumer demand for 5G coverage, especially as more people are purchasing 5G enabled devices, in line with their license obligations and the operators competitive market driven “requirement” to provide a high quality service. Customers expect to be able to access their portable hand held devices wherever they are, whether that be indoors or outside. There is currently no 5G service provision that is provided by Vodafone and Telefonica in this cell area. The least impact on the surrounding environment in order to fill this gap is by upgrading the existing rooftop installation at 38 Derby Street.

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**

Para. 190 of the NPPF requires that Local Planning Authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise.

In considering the potential impacts of any development, Local Planning Authorities are required to quantify the level of harm to heritage assets in this case whether the proposals would be harmful to the Old Town Conservation Area.

Paragraph 196 of the Framework states that where a development would lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal.

When telecommunications proposals are considered, it is necessary to carry out the balancing exercise weighing the need for development and the magnitude of public benefits of the proposed base station against the perceived concerns about the development's visual impact and availability of alternative locations and the possibility to design the scheme differently without impacting the operational needs of the operators.

As has already been presented, there is a clear and demonstrable need for a upgraded radio base station in the area.

The NPPF strongly supports sustainable development, as does the aspirations of the Local Plan and LAP which supports sustainable urban neighbourhoods. 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 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.

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.

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 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 as well as local policy aspirations.

The social and economic benefits are a significant material consideration which should be weighed against the minor amendments of 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.

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.

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 GM aspirations align with the Government objectives of being a world leader in 5G. The proposed upgrade 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 24<sup>th</sup> 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 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 Hall Lane 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 provide an upgrade to the existing radio base station in this part of Hall Lane 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 2020<sup>3</sup>

*...'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.*

*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 by Matt 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'<sup>4</sup>. 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.

<sup>3</sup> [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](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)

<sup>4</sup> <https://www.cps.org.uk/research/upwardly-mobile>

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'*.

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 upgraded 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'*.

An upgraded installation in this location providing 5G will ensure that the expansion of the electronic communications network is facilitated and that high-quality communications infrastructure is provided to the immediate area.

#### **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.

## **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.

## **Summary**

The proposed amendments to the existing scheme are minor in nature, but will enhance the customer experience for Vodafone and Telefonica to ensure that both operators' customers are able to continue to utilise their handheld devices for the purposes in which they were purchased. Customers will also be able to utilise their 5G compatible handheld devices as demand for this latest technology increases.

The upgraded rooftop installation has been sympathetically designed and sited so as not to look incongruous in the streetscene and will resemble the existing rooftop infrastructure. As such, the upgraded scheme would integrate well with the existing rooftops and streetscene. The antennas as such would not result in a particularly dominant structure incongruous with its surroundings. It would not cause detrimental harm to the overall character and appearance of the host building or the street scene.

The upgraded antenna will not cause detrimental harm to the overall character and appearance of the host building or the Old Town Conservation Area. The impact of the proposal on the character and appearance of the Old Town Conservation Area would be very minor in nature and as such any harm is considered to be less than substantial and is outweighed by the magnitude of public benefits.

The proposed scheme will not represent a prominent and alien feature out of character with the locality, by reason of its design, scale and siting.

On balance, the minor amendments to the radio base station on the rooftop of the host building will not have a detrimental impact on the character and appearance of the host building and the surrounding area. However, the amendments will provide enhanced 2G, 3G and 4G coverage and capacity to the surrounding area and new 5G services. Thus, providing a high-quality service to its customers and access to the latest technologies whenever and wherever they are. Thus, any limited harm will be outweighed by the benefits associated with providing and maintaining the very latest high-quality communications in line with NPPF.

Site selection was progressed in accordance with the applicants' licence obligations, advice in the NNPF 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 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**

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