SUPPLEMENTARY INFORMATION

1. Site Details

Site Name:	Hampstead Station	Site Address:	Rooftop of Hampstead Station, Hampstead High Street, Hampstead, Greater London NW3 1QG
National Grid Reference:	E: 526392 N: 185777		
Site Ref Number:	CS_14839424	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: An upgrade of existing site.		
Were industry site databases checked for suitable sites by the operator:		No
If no explain why: An upgrade of existing site.		

Site Specific Pre-application consultation with local planning authority

Was there pre-application contact:	No
Date of pre-application contact:	N/A
Name of contact:	N/A
Summary of outcome/Main issues raised: A pre-application consultation letter, a consultation plan and a set of proposed plans were sent to the Chief Planning Officer to Camden Council via email, dated 12/03/2024. No comments were received.	

Annual area wide information to planning authority

[1] Macro or Micro

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Theale, Berkshire, RG7 4SA

Has annual area wide information been provided?	No
If no explain why:	
Summary issues raised: Cornerstone commercial relationship with Vodafone Limited has changed, effectively increasing their independence to work with other companies in the deployment of mobile infrastructure. It means Cornerstone no longer have visibility of Vodafone Limited full update plan. However, Cornerstone is fully committed to working closely with Local Planning Authorities and following best practice guidance. Cornerstone aim to engage and work with the planning department at the earliest opportunity from when they are instructed to deliver new infrastructure within your Local Authority area and often conduct strategic pre-rollout engagement meeting to discuss their wider rollout. If your Local Authority would like a meeting to discuss wider Cornerstone rollout plans, then please advise. Cornerstone recognise the importance of developing long term partnership and will always work with you to deliver improved mobile connectivity.	

Community Consultation

Rating of Site under Traffic Light Model:	Red	~~Amber~~	~~Green~~
Outline of consultation carried out: A pre-application consultation letters and sets of proposed plans were sent to the local councillors for Hampstead Town (Councillors Linda Chung and Stephen Stark) via email, dated 12/03/2024. A pre-application consultation letter and a set of proposed plans were sent to the local MP for Hampstead and Kilburn (MP Tulip Siddiq) via email, dated 12/03/2024.			
Summary of outcome/main issues raised (include copies of relevant correspondence): No comments were received.			

School/College

Location of site in relation to school/college (include name of school/college): Hampstead Parochial Church of England Primary School, 2A Holly Bush Vale, London NW3 6TX. New End Primary School, Streatley Place, London NW3 1HU.
Outline of consultation carried out with school/college (include evidence of consultation): A pre-application consultation letters and sets of proposed plans were sent to the Headteacher and the Chair of Governors for Hampstead Parochial Church of England Primary School via email, dated 12/03/2024.

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A pre-application consultation letters and sets of proposed plans were sent to the Headteacher and the Chair of Governors for New End Primary School via email, dated 12/03/2024.
Summary of outcome/main issues raised (include copies of main correspondence): No responses were received.

Civil Aviation Authority/Secretary of State for Defence or the operator of the civil safeguarding area or defence safeguarding area notification (only required for an application for prior approval)

Will the proposed development be on a civil safeguarding area or a defence safeguarding area?		No
Has the Civil Aviation Authority/Secretary of State for Defence/operator of the civil safeguarding area or defence safeguarding area been notified?		No
Details of response: N/A		

Developer's Notice

Copy of Developer's Notice enclosed?		No
Date served:	Planning permission application. Article 14 notice served on the landowner via email, on 03/12/2024.	

3. Proposed Development

The proposed site:
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 As part of Cornerstone and Vodafone's network improvement programme, Vodafone are in the process of upgrading a number of their existing sites in order to provide improved 2G, and 4G coverage and capacity, and new 5G service provision. This is fully in line with the Government's aim to ensure that everyone is connected to the superhighway. As part of Vodafone's continued network improvement program, there is a specific requirement to upgrade the existing installation on the rooftop of Hampstead Station, to

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provide improved 2G, 4G coverage and capacity and new 5G technology, ensuring that this area of Hampstead has access to the latest technologies.

Figure 1. Existing Site (Source: Google Maps)

The site is located on the rooftop of Hampstead Station, situated at the junction of Heath Street and Hampstead High Street. Notably, the site falls within the Hampstead Conservation Area, where the existing installation has been deemed acceptable. The immediate surroundings consist of a mix of commercial and residential properties along the main roads, reflecting the bustling nature of the area. The proposed upgrade of the telecommunication infrastructure aims to address the evolving needs of the community by providing enhanced connectivity and improved telecommunications services. Within close proximity to the site are two Grade II Listed Buildings: 45 & 46 Hampstead High Street located approximately 32m southeast, and the Nationwide Anglia Building Society situated about 22m northwest. These heritage assets contribute to the historical character of the area. Additionally, there are more heritage assets within a wider area; however, due to the area's topography and streets layout, the view of the site from them is limited. The proposed upgrade of the telecommunication infrastructure is sensitively designed to minimize any potential impact on these buildings.

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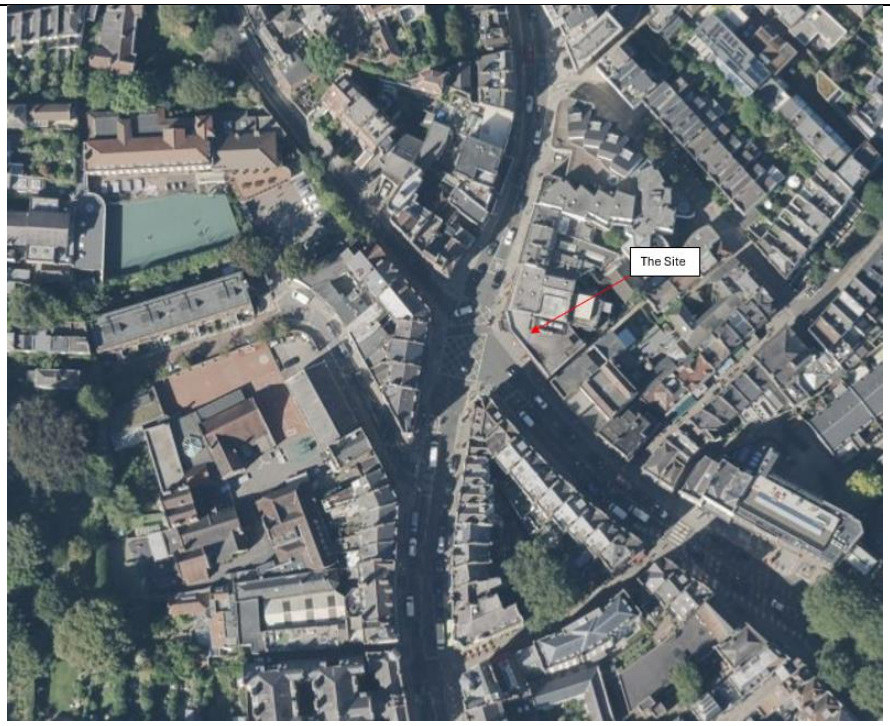

Map 1. The site location.

Taking the above into account, it is considered that, in accordance with the NPPF, the proposal will result in less than substantial harm to the significance of the listed building or the conservation Area as a whole. In line with paragraph 208, any harm should be weighed against the public benefits of the proposal.

As part of this application, a comprehensive Heritage Statement is being submitted to address the impact of the proposal in greater detail. The statement will evaluate the proposed upgrade's compatibility with surrounding heritage assets and assess any potential visual or structural impacts.

There are numerous other vertical linear structures in the immediate area which include lighting columns, road signage, traffic lights, commercial signage and bollards. All of those elements will help to assimilate the proposed upgrade within the surrounding area.

3G (and eventually 2G) is being switched off by the operators in order to repurpose these radio frequencies for faster more energy-efficient 4G and 5G services. 3G is primarily used for mobile data services. It is being switched off first because it has already largely been superseded by 4G, hence the importance of providing the latest 4G and new 5G service provision in areas where there is no such coverage, 3G has already been switched off by Vodafone and EE in early 2024, and VMO2 is planning to do the same. Whilst no firm timescales have been announced as to when this will happen, it is expected to occur by 2025. As a result, it is imperative that the operator builds resilience into the network.

5G service provision is not just about coverage, it is about capacity through the many layers of technology the operator provides to their customers to deliver a better-quality experience,

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grater data speed upload and download, as opposed to waiting for a file to download or a map to get from A to B (on the network) due to congestion.

To keep up with growing demand the operators need to upgrade existing base stations or build new base stations to improve the capacity. Capacity is the maximum data or calls that can be processed by a base station.

Given the location at the rooftop of Hamstead Underground Station, adjacent to the junction of Hampstead High Street and Heath Street, this area attracts relatively high number of shoppers, and daily commuters, as well as high number of residents and businesses in the area. The upgrade of this established radio base station will enable the surrounding area to benefit from improved 2G and 4G services, as well as the latest 5G coverage.

Without the upgrade of this site, the operator's customers will not be able to use their handheld devices as intended. The lack of coverage and sufficient capacity would result in buffering and dropped calls, leaving customers with unreliable service in this area and creating a gap in coverage.

Planning History

The proposal included within this application is for an upgrade of previously approved scheme in December 2016 under LPA ref: 2016/5584/P.

Enclose map showing the cell centre and adjoining cells if appropriate:
The replacement antennas and ancillary development will ensure that the latest 2G, and 4G technology will be able to be provided from this existing established radio base station, with minimal amendments to the visual amenity of the area. This includes the superfast the most advanced 4G spectrum available to the operators adding additional capacity into the operators' networks for data provision to meet the growing demand on the network as more people access data from their hand-held devices in order to go about their daily lives. The upgraded site will also provide 5G technology to the area. This will ensure high quality customer experience is maintained as demands on the network increase and technologies change.

Type of Structure *(e.g. tower, mast, etc):* Rooftop antennas.	
Description: The proposal relates to removal of 2 no. antennas and replacement with 2 no. new antennas mounted to existing freestanding frames, installation of 1 no. new antenna mounted to proposed freestanding frame, 1 no. transmission dish and ancillary development thereto including installation of ERS units.	
Overall Height:	14.45m
Height of existing building *(where applicable):*	12.08 Metres
Equipment Housing: As existing	
Length:	As existing

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Width:	As existing
Height:	As existing
Materials *(as applicable)*:	
Tower/mast etc – type of material and external colour:	As existing
Equipment housing – type of material and external colour:	As existing

Reasons for choice of design, making reference to pre-application responses:

The existing radio base station has been in situ in this location for a number of years, the existing scheme was approved in December 2016 under LPA ref: 2016/5584/P and has become an established feature in the streetscene in this area of Hampstead. Technology advances (including 5G service provision) and additional demands on the operator's mobile network system in the area have meant that replacement upgraded 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 for the latest 4G service provision, and future 5G provision and the design of the antennas required for them means that the overall height of the apparatus on the rooftop needs to increase in order to be technically feasible and deliver adequate levels of coverage to the target area.

Vodafone requires new 5G technology to be installed into its network in this cell area. This site is currently being utilized by Vodafone and VMO2, to provide 2G, and 4G service provision. This Vodafone also needs to be able to provide 5G technology in this area. Due to the large data that is carried by this new technology the existing antennas cannot be utilized for 5G as well as 2G, and 4G services. The 2 no. existing antennas need to be replaced with 2 no. new antennas, and 1 no. new antenna need to be installed to ensure that the latest technologies can be provided to the surrounding area. The upgrade to the existing scheme is essential in order that customer's handheld devices continue to operate for the purposes in which they have become accustomed, accessible wherever they are whether hat is indoors or outside.

The new antennas will be slightly bigger and of a similar, shape, colour and made from the same materials as the existing antennas already in situ and thus will have a similar appearance, minimising their presence in the street scene.

The operator has carefully considered the siting and design of the upgraded equipment. It is proposed to upgrade an existing telecommunications site, which utilises an existing building. This is in full accordance with NPPF and Code of Practice guidance in that a sequential approach should be taken and existing sites should be upgraded first wherever possible, before seeking to install new sites.

The 2 no. antennas require a top height of 14.45m and 1 no. antenna requires a top height of 14.35m. However, the proposed antennas will have a similar appearance, will be made

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of the same materials and will be of the same colouring as the existing antennas already in situ in this location, thus minimising their appearance in the street scene.

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 (enhanced 2G, 4G and new 5G), the proposed top heights of the replacement antennas are essential to enable the antennas to clear the rooftop without clipping and reach the target coverage area. The antennas will exceed the tallest part of the building by 2.37 metres. If the antennas were to be any lower in height, then they would not be able to provide the necessary high-quality communications coverage which is required for everyday access to high-speed data in this area of Hampstead, which users of their handheld devices have come to expect in this 21st Century technological age.

The new antennas need to handle significantly more data and capacity than the existing antennas and as such need to be slightly bigger and cannot be GRP shrouded given the penetration of 4G signal and therefore are required to be exposed in order to accommodate all the technologies and new 5G provision in the one installation, without the need for an additional installation elsewhere within this area of Hampstead.

The scheme also proposes the installation of 1 no. transmission dishes at 300mm diameter. Transmission dishes need a clear line of sight to other dishes in the network to allow them to work effectively. Therefore, they must be located at centre-line heights of 13.50 metres AGL to achieve a clear line of sight to other dishes in the network.

It is also proposed to install ERS units for the operator. This aspect of the proposal falls within the remit of 'ancillary development' and do not require permission in their own right. They are small for telecommunications apparatus, approximately the size of a shoe box. They are designed to act like a booster to make the antennas more efficient.

The existing cabinets located on the rooftop will remain in place, however, they are being proposed to be refreshed. Considering that they will not result in any additional visual impact.

It is therefore considered that the proposal before strike a good balance between environmental impact and operational consideration. The proposed height and design represent 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 the upgrade of the existing telecommunications site on the rooftop at Hampstead Station, to enable the enhancement of 2G, and 4G service provision coverage to the surrounding area of Hampstead, as well as new 5G provision service, would not appear out of place within its surroundings and would provide enhanced high-quality, reliable and secure coverage and capacity, delivering the capability for a multi hi-tech service and utilising an existing building.

Health and Safety - including ICNIRP compliance

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International Commission on Non-Ionizing Radiation Protection Declaration attached (see below)

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, Vodafone 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 Vodafone'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 legislations and as such will not cause significant and irremediable interference with other electrical equipment, air traffic services and instrumentation operated in the national interest.

4. Technical Justification

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 radio base station at this location to enable enhanced 2G, and 4G coverage and capacity and new 5G coverage for Vodafone,

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to the area of Hampstead. This ensures customers are able to continue to use their handheld devices for the purposes in which they have become accustomed, whilst on the move, as demands on the system for greater capacity augment as more customers access the data on the operator's network.

Mobile connectivity and service is required where customers live, work and play. 5G coverage and superfast mobile broadband data capacity demand will continue to increase exponentially with the introduction of IoT (Internet of Things), machine to machine connectivity, automated transport/industry and other 'smart' applications. To this end, the existing infrastructure within the built environment has had to be reviewed and adapted as appropriate.

Base stations use radio signals to connect mobile devices and phones to the network, enabling people to send and receive calls, texts, emails, pictures and downloads. Without base stations, mobiles and devices will not work. Base stations are made up of three main elements. The cabin which contains the equipment used to generate the radio signal. A supporting structure such as a mast which holds the antennas in the air and the antennas themselves.

Base stations are connected to each other and telephone exchanges by cables or wireless technology, such as microwave dishes, to create a network. The area each base station covers is called a cell. Each cell overlaps with its neighbouring cells to create a continuous network. The size and shape of each cell is determined by the features of the surrounding area, such as buildings, trees and hills, which can block signals. When people travel between cells, the signal is transferred between base stations without a break in service. However, each base station can cover a certain area only and can only handle a limited number of calls at once. As mobile phones and devices become more popular more base stations are needed to ensure continuous coverage.

Individual base stations can only handle a certain number of calls or data download. If the number of calls or data requests exceeds the base stations capability, then local network users will experience a reduction in data download speeds and reduced call quality. We call areas without good coverage 'blackspots' and all mobile phone networks suffer from them. You can experience them wherever you are, even in cities with lots of base stations.

To keep up with growing demand the operators need to upgrade existing base stations or build new base stations to improve the capacity. capacity is the maximum data or calls that can be processed by a base station.

Capacity refers to the maximum amount of data a network can handle and the number of devices it can support simultaneously. When too many devices try to connect to the network, it can become overloaded, leading to issues like slow internet speeds and dropped calls. This is similar to a highway getting congested when there are too many cars. Even if there is coverage in the area, the network will not operate properly if there are issues with capacity. This means that while your device may show a strong signal, the network can still struggle to deliver fast and reliable service if it is unable to manage the high demand.

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The proposed upgrade of radio base station will offer an enhanced coverage and capacity to the surrounding area. Additionally, it will introduce new 5G technology to this area of Hampstead.

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 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, and 4G coverage and new 5G service provision.

Site Type	Site name and address	National Grid Reference	Reason for not choosing site
D1 – Rooftop	Rooftop of a building at the junction of Heath Street and Hampstead High Street, Hampstead, Heath Street, Vale of Health, Belsize Park,	E: 526376 N: 185748	Due to the construction of the building, there is no design available to support the operator's apparatus and provide the necessary coverage to the target coverage area. This site has therefore been discounted for this reason.

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	London Borough of Camden, London, Greater London NW3 6UP		
D2 – Rooftop	Rooftop of the property adjacent to Holly Bush Vale, Vale of Health, Belsize Park, London Borough of Camden, London, Greater London NW3 6UA	E: 526335 N: 185750	Due to the construction of the building, there is no design available to support the operator's apparatus and provide the necessary coverage to the target coverage area. This site has therefore been discounted for this reason.
D3 – Rooftop	Rooftop of Hampstead Parochial Church of England Primary School, Holly Bush Vale, Vale of Health, Belsize Park, London Borough of Camden, London, Greater London NW3 6TX	E: 526323 N: 185717	Due to the construction of the building, there is no design available to support the operator's apparatus and provide the necessary coverage to the target coverage area. This site has therefore been discounted for this reason.
D4 – Rooftop	Rooftop of UCS Junior Branch, Holly Berry Lane, Vale of Health, West Hampstead, London Borough of Camden, London, Greater London, NW3 6QT	E: 526296 N: 185814	Due to the construction of the building, there is no design available to support the operator's apparatus and provide the necessary coverage to the target coverage area. This site has therefore been discounted for this reason.
D5 – Rooftop	Rooftop of Benham and Reeves, Heath Street, Vale of Health, Belsize Park, London Borough of Camden, London, Greater London, NW3 1DL	E: 526365 N: 185788	Due to the construction of the building, there is no design available to support the operator's apparatus and provide the necessary coverage to the target coverage area. This site has therefore been discounted for this reason.

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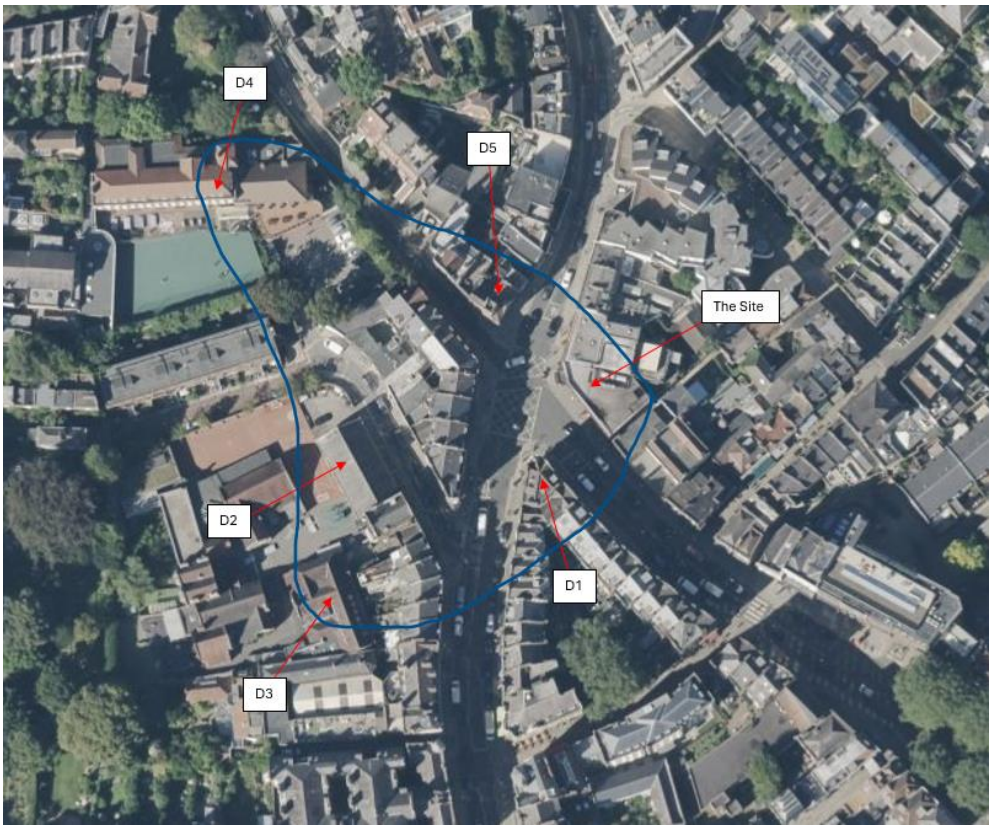

Map 2. Discounted alternative options and the search area

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

As referred to above, the applicant has taken a sequential approach and is seeking to upgrade the existing established telecommunications site. Due to the technical requirements, to provide enhanced 2G, and 4G coverage and new 5G coverage to the area for Vodafone, upgraded antennas are required. The upgraded antennas need to sit at a slightly higher height than the existing in order to avoid clipping on the rooftop and provide sufficient coverage to the target coverage area.

These 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, in line with the operator's legal license obligations, and the Government's aspirations that everyone has access to the latest information superhighway network 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.

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Land use planning designations: Hampstead Conservation Area.
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 (December 2023)** 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 NPPF was updated in July 2021, in order to strengthen 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 NPPF has been recently revised again in September 2023 with an update on policy on planning for onshore wind development in England and does not affect any parts relating to telecommunications. The NPPF has been recently revised in December 2023, however, the parts relating to telecommunications did not change. 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 118 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 118. 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 supports the expansion of telecommunications '*Planning policies and decisions should support the expansion of electronic communications networks*'… *(para* 118*)*.

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Paragraph 119 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 122 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 85 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[44]'…*

Footnote 44 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

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1530 Arlington Business Park,
Theale, Berkshire, RG7 4SA

data; clean growth; future mobility and catering for an ageing society. HM Government (2017) Industrial Strategy: Building a Britain fit for the future'.

The revised NPPF provides guidance on proposals affecting heritage assets. Paragraph 200 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 201 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 205 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 208 retains advice in the previous 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.

Code of Practice for Wireless Network Development in England

The Code of Practice provides guidance to Code Operators (referred to as 'operators' throughout the Code of Practice), including the Mobile Network Operators and wireless infrastructure providers, their agents and contractors, local planning authorities, and all other relevant stakeholders in England on how to carry out their roles and responsibilities when installing wireless network infrastructure. It is also a useful tool for other interested stakeholders such as community groups, amenity bodies and individuals with an interest in mobile connectivity.

The aim of the Code of Practice is to support the government's objective of delivering high quality wireless infrastructure whilst balancing these needs with environmental considerations. It also has an important role in making sure that appropriate engagement takes place with local communities and other interested parties.

The Code of Practice covers all forms of wireless infrastructure development, including mobile masts and cabinets. It is recommended that other wireless communications operators follow the principles of this Code of Practice, where appropriate.

Unlike previous iterations this Code of Practice has been led by the Department for Digital, Culture, Media and Sport (DCMS) and developed in collaboration with representatives of the

mobile network industry, other government departments and public bodies, local planning authorities, and protected landscapes. This document replaces the previous Code of Best Practice on Mobile Network Development, which was published in 2016 and is now published by DCMS.

The CoP sets out the legal and policy framework for the delivery of wireless infrastructure development.

Paragraph 8 of the revised Code acknowledges that connectivity is vital to enable people to stay connected and that fast, reliable digital connectivity can deliver economic, social and well-being benefits for the whole of the UK. The Code continues to acknowledge that as the demand for mobile data in the United Kingdom is increasing rapidly, and that it is important that everyone has access to dependable and consistent mobile coverage where they live, work and travel.

The Government recognises the role of Planning in delivering the digital infrastructure that we need, in a sustainable and well-designed way, especially as households and businesses become increasingly reliant on mobile connectivity.

Paragraph 13 of the Code continues to echo the NPPF guidance in strongly supporting high quality communications infrastructure, which is seen as essential for sustainable economic growth. More specifically that planning policies and decisions should support the expansion of electronic communications networks, including next generation mobile technologies (such as 5G) in order to support economic growth across the country.

The CoP sets outs 'How wireless networks function.

Para. 16 states "*Cellular wireless networks use base stations to provide an area of radio coverage. Wireless technology uses the radio spectrum to broadcast radio waves between base stations and devices. Different radio frequencies have different characteristics which, along with the density of cell site locations, affect the extent of coverage and how much data can be carried over the network. Depending on the radio frequencies used, base stations can deliver coverage over a wide area or provide extra network capacity in areas where there is a high demand for network bandwidth*".

Para. 17 sets out that "*Wireless technology continues to evolve rapidly, and mobile devices are now capable of much more. Second generation (2G) technology gave us voice calls and text messages, 3G led to the launch of smartphones, and 4G, which enabled faster browsing, allowed us to do things like watching videos on the move. 5G, the latest generation of wireless technology, is much faster than previous generations of wireless technology and can offer greater capacity and lower latency, allowing thousands of devices in a small area to be connected at the same time. 5G networks, and future mobile generations, will be vital for a range of Internet of Things uses (IoT) and Smart City applications*".

The CoP establishes 'Principles and commitments' by which operators should develop their networks and that Local Planning Authorities should demonstrate their support by.

Para. 18 states *"Operators should develop their networks and install wireless infrastructure according to the following principles and commitments:*

- ***Site sharing and use of existing infrastructure**: make use of existing structures, sites and masts wherever possible to reduce the need for new development. The NPPF states that, when installing mobile infrastructure, the number of masts and 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.*
- ***Consultation with local planning authorities, local communities and other stakeholders**: participate in dialogue with local planning authorities, along with other relevant stakeholders such as the highways authorities, Area of Outstanding Natural Beauty bodies, Historic England, and Natural England, including pre-application discussions, where appropriate. Maintain clear procedures, and high quality communication and consultation with local communities and other interested parties. Operators should agree community engagement with local planning authorities and share information as appropriate (see Pre-application consultation with local communities below).*
- ***Standardised and high-quality approach to planning applications, and the notification procedure**: provide standardised supporting documentation for planning applications (where appropriate) within the context of national and local requirements. Ensure planning submissions are of high-quality and provide the necessary evidence to support the application (as per the NPPF).*
- ***Prompt responses to enquiries**: respond to complaints and enquiries within a timely manner (see Review and Enquiries section below).*
- ***Siting and Design**: wireless infrastructure should be deployed in accordance with the guidance set out within this Code of Practice. Where appropriate, equipment should comply with the principles set out in the NPPF and consider any local planning policies, including any local and national design codes. When located in protected landscapes and other designated land, the sensitive nature of these areas must be considered.*
- ***Removal of redundant equipment and site restoration:** ensure that when infrastructure is upgraded, any equipment that is made redundant by the upgrade, such as brackets, is removed to benefit the local environment. Where a whole site is no longer in use, the site should be restored to its original state.*
- ***Compliance with guidance laid out in the International Commission on Non-Ionizing Radiation Protection (ICNIRP) public exposure levels guidance**: as required by spectrum licences, comply with international guidelines for limiting exposure to electromagnetic fields (EMF) - including, as set out in the NPPF, providing a statement that self-certifies that ICNIRP guidelines will be met with all applications (see Annex C).*

Paragraph 19 states that Local Planning Authorities should demonstrate their support by:

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Cornerstone Telecommunications, Infrastructure Limited,
Hive 2, 1530 Arlington Business Park, Theale, Berkshire, RG7 4SA.
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VAT No. GB142 8555 06

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1530 Arlington Business Park,
Theale, Berkshire, RG7 4SA

- ***"Incentivising connectivity**: support the expansion of telecommunications networks and take a 'joined-up' approach to the wireless infrastructure planning process, including ensuring that Local Plans effectively support the deployment of digital infrastructure.*
- ***Facilitating sites**: engage with operators when new sites have been proposed and discuss site requirements.*
- ***Engagement with operators**: respond positively to requests for engagement and make decisions in line with national policy and Local Plans. For planning applications, find solutions to issues and ensure timely decisions are made.*
- ***Information and communication**: ensure that members of the public can access information about any development proposals within their local area. Send communications promptly to an appropriate operator contact (or their representatives)".*

The added emphasis on support from Local Planning Authorities in the deployment in digital infrastructure is even more evident in the revised CoP. The CoP recognises the importance of collaboration and partnership to help drive network coverage across the country. It goes on to state that *'In all instances, it is important for all parties involved in the process to take a positive approach to consultation and engagement'*.

Siting and Design Principles

The government's objective is to deliver high quality, reliable wireless infrastructure whilst ensuring the impact of new network development is kept to a minimum. The siting and design of wireless network infrastructure is central to achieving this. The CoP acknowledges that *'good siting and design principles should apply to all wireless network development and take into account any site-specific considerations and context. Both can create better places in which to live and work and help make development acceptable to communities'*.

The Code provides guidance on siting and appearance principles. It sets out several design principles in respect of telecommunications development and acknowledges that the options for design used by an operator will be affected by site conditions including requirements to link the site to the network, landscape features and coverage and capacity requirements. The guidance includes at Para. 22 *'the choice over the site selection and design of equipment is primarily dependent upon the coverage and capacity requirements and technical constraints of a specific location, although operators should make efforts to reduce visual impacts where possible'*.

Para. 23 confirms that there should be a ***'presumption in favour of facilitating sustainable network development'*** and, as such, operators and local planning authorities, as well as all other bodies involved in the deployment process, should work together to ensure connectivity needs are met and find viable solutions to deployment issues (emphasis added).

Paragraphs 24 - 27 sets out general siting and site selection principles which Operators should consider. The CoP acknowledges at Para. 24 that *'Operators use a range of sophisticated, computer-based planning tools to predict levels of signal strength and coverage from sites*

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Cornerstone, Hive 2,
1530 Arlington Business Park,
Theale, Berkshire, RG7 4SA

for 2G, 3G, 4G and now 5G. Once an operator has identified a requirement for a new cell site, a suitable site needs to be found. Elements that make a site favourable include: having existing or ready access to a power supply, access to fibre optic cables, vehicular access, and, other buildings and development which may provide a level of existing screening. Operators will typically look to upgrade existing infrastructure prior to considering a new deployment, in particular for initial 5G deployment'.

Para 25 notes that *'When selecting sites for mobile infrastructure, operators should examine local plans and designations for the area, as well as carrying out an in-person site search to identify potential options which meet their requirements. Operators should follow these general siting and site selection principles:*

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

Para. 26 highlights that the installation of all wireless infrastructure requires a balanced approach between the technical needs and constraints of the proposed site and the potential impact of the development. The three key technical and operational considerations for installation sites are:

- **Coverage**: wireless infrastructure needs to provide an appropriate level of coverage over the intended geographical area. This involves ensuring that antennas are elevated sufficiently (often via masts) to provide clear lines of sight for signals.
- **Capacity:** where existing network infrastructure can no longer meet the demand for network capacity in a particular area, additional sites may be required within that coverage area to meet the demand. This is more likely to be required in densely populated areas or areas of high footfall.
- **Backhaul**: the radio access network requires a connection to the core network. Backhaul is sometimes provided by a microwave link, which requires a clear line of sight between the two ends of the link.

Para 27 requires that Local Planning Authorities consider these issues and consider the need for a site within a limited search area alongside the public benefit of improved connectivity. Para. 27 further considers that in general, it should not, therefore, be appropriate for planning authorities to seek wider evidence of alternative sites (beyond that required by the NPPF), unless they consider the proposed development is unacceptable having regard to the relevant material planning considerations.

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In respect of 'Design', the CoP at Para 28 acknowledges that the siting of wireless infrastructure will influence which design options are most appropriate for reducing the visual impact including.

- **Protecting visual amenity**
- **Mitigating visual impacts**

Para. 29 acknowledges that these factors along with location and the coverage and capacity requirements can influence the type of infrastructure structure that is deployed and requires that '*planning authorities should be aware of these constraints when considering proposals. In particular:*

- *In urban areas, where there is a high level of demand for mobile data, mobile base stations are likely to need to be deployed more densely. In these settings you can expect to see more use of streetwork monopoles and rooftop installations and, in future, we are likely to see a larger number of smaller units (so-called "small cells") deployed on buildings and on street furniture.*
- *In rural areas, base stations often need to cover wider geographic areas. Operators may need to use tall masts or lattice towers to provide the required coverage. The location of masts can sometimes be dictated by access to transmission links back to the operator's main network and proximity to a power supply. Coverage in some areas can be limited because of the geography, topography and terrain'.*

The CoP establishes radio equipment housing (cabinets) principles. The CoP at Para. 30 states that "*cabinets protect radio transmitters and receivers, provide the power source for mobile equipment, and are connected to antennas via cables. Equipment cabinets are likely to be needed at most sites. The cabinets must be of sufficient size to facilitate hosting various operating equipment whilst also allowing air circulation to reduce the potential for overheating*". The CoP establishes the planning and visual considerations for siting radio housing. These include:

- Colouring
- Siting on highways and footways:
- Highway safety:
- Listed buildings/ scheduled monuments and Conservation Areas:
- Access
- Trees

Natural Environment and Heritage Asset Guidance

The Code reiterates the principles of the NPPF in relation to heritage assets, in that planning authorities should assess the significance of heritage assets affected by proposed development and take this into account to ensure that any conflict between the conservation of the heritage asset and its setting and any aspect of the proposals is avoided or minimised.

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1530 Arlington Business Park,
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The revised 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. 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.

The Code reiterates that the digital 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. Great emphasis is placed on the need to work collaboratively between stakeholders to ensure key digital network deployment and therefore supporting economic growth.

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".

Camden Local Plan (Adopted July 2017)

The Camden Local Plan sets out the Council's planning policies and replaces the Core Strategy and Development Policies planning documents (adopted in 2010). It ensures that Camden continues to have robust, effective and up-to-date planning policies that respond to changing circumstances and the borough's unique characteristics and contribute to delivering the Camden Plan and other local priorities. The Local Plan will cover the period from 2016-2031.

Camden's planning strategy has been prepared in the context of the social, economic and environmental changes it faces as a borough. Some of the key challenges and issues we need to address in its planning policies are outlines below:

- Adapting to Camden's growing population and to social change.
- The supply and cost of housing in the borough.
- Maintaining a successful economy and improving opportunities.
- Inequalities.
- Health and wellbeing.
- Improving transport.
- Quality of the environment.

- Crime and safety.

The Vision set within the Camden Local Plan states:

"We want to make Camden a better borough – a place where everyone has a chance to succeed and where nobody gets left behind. A place that works for everyone."

Policy E1 – Economic Development

The Council will secure a successful and inclusive economy in Camden by creating the conditions for economic growth and harnessing the benefits for local residents and businesses.

Paragraph 5.10 refers to digital infrastructure:

"The Council recognises the importance of digital infrastructure in enterprise development and expects electronic communication networks, including telecommunications and high speed broadband, to be provided in business premises."

Policy D1 – Design

The Council will seek to secure high quality design in development. The Council will require that development:

- Respects local context and character.
- Preserves or enhances the historic environment and heritage assets in accordance with Policy D2 Heritage.
- Compromise details and materials that are of high quality and complement the local character.
- Preserves strategic and local views.
- Carefully integrates building services equipment.

The Council will resist development of poor design that fails to take the opportunities available for improving the character and quality of an area and the way it functions.

Policy D2 – Heritage

The Council will preserve and, where appropriate, enhance Camden's rich and diverse heritage assets and their settings, including conservation areas, listed buildings, archaeological remains, scheduled ancient monuments and historic parks and gardens and locally listed heritage assets.

Designated heritage assets

Designated heritage assets include conservation areas and listed buildings. The Council will not permit the loss of or substantial harm to a designated heritage asset, including

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VAT No. GB142 8555 06

Cornerstone, Hive 2,
1530 Arlington Business Park,
Theale, Berkshire, RG7 4SA

conservation areas and Listed Buildings, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:

- The nature of the heritage asset prevents any reasonable uses of the site.
- No viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation.
- Conservation by grant-funding or some form of charitable or public ownership is demonstrably not possible.
- The harm or loss is outweighed by the benefit of bringing the site back into use.

The Council will not permit development that results in harm that is less than substantial to the significance of a designated heritage asset unless the public benefits of the proposal convincingly outweigh that harm.

Conservation areas

Conservation areas are designated heritage assets and this section should be read in conjunction with the section above headed 'designated heritage assets'. In order to maintain the character of Camden's conservation areas, the Council will take account of conservation area statements, appraisals and management strategies when assessing applications within conservation areas.

The Council will:

- Require that development within conservation areas preserves or, where possible, enhances the character or appearance of the area.
- Resist the total or substantial demolition of an unlisted building that makes a positive contribution to the character or appearance of a conservation area.
- Resist development outside of a conservation area that causes harm to the character or appearance of that conservation area.
- Preserve trees and garden spaces which contribute to the character and appearance of a conservation area, or which provide a setting for Camden's architectural heritage.

There are no policies directly addressing telecommunication matters within the Local Plan.

Camden Planning Guidance – Digital Infrastructure (Adopted March 2018)

This guidance supports the Camden Local Plan policies E1 Economic development and DM1 Delivery and monitoring. One of the Council's priorities for delivering growth and harnessing its benefits for the borough is securing infrastructure and services to meet the needs of Camden's growing numbers of residents, workers and visitors. The Council aims to enable improved internet access through the acceleration of high-speed connectivity, including public wireless systems. Policy E1 specifically expects the applicants to provide electronic

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VAT No. GB142 8555 06

Cornerstone, Hive 2,
1530 Arlington Business Park,
Theale, Berkshire, RG7 4SA

communication networks, including telecommunications and high-speed broadband in business premises. This guidance sets out further information on the Council's approach.

Key messages set within the document:

- The Council will support the expansion of electronic communications networks, including telecommunications and high-speed broadband.
- Building Regulations require physical infrastructure to support high-speed broadband in all new building developments and major renovation projects.
- The Camden Local Plan specifically requires high speed digital infrastructure in all employment developments.
- The Council will require applications for telecommunications development to be supported by the necessary evidence to justify the proposed development.

Paragraphs 11 – 15 refers to telecommunication equipment, the most relevant parts are below.

Para 11 – *"Proposals for the installation of telecommunications equipment such as masts, cabinet boxes and satellite dishes, erecting antennae or other such structures will be determined in accordance with the National Planning Policy Framework (NPPF)."*

Para 12 – *"In line with the NPPF, the Council will support the expansion of electronic communications networks, including telecommunications and high-speed broadband."*

Para 13 – *"In particular, the Council will aim to keep the numbers of radio and telecommunications masts and the sites for such installations to a minimum consistent with the efficient operation of the network. Existing masts, buildings and other structures should be used unless the need for a new site has been demonstrated to the satisfaction of the Council. Where new sites are required, equipment should be sympathetically designed and appropriately camouflaged where possible."*

The London Plan 2021

The London Plan 2021 is the new Spatial Development Strategy for Greater London and was adopted in March 2021 and is now part of the statutory development plan. It sets out a framework for how London will develop over the next 20-25 years and the Mayor's vision for Good Growth.

The Foreword of the Plan states:

'And it's about making London a city with clean air for our children to breathe, and a pioneering smart city with world-class digital connectivity supporting more digital devices to improve the lives of Londoners and enable businesses to thrive.'

Chapter 1 of the London Plan deals with 'Planning London's Future - Good Growth'. Para.1.0.1 relates to 'Good Growth' that is "*socially and economically inclusive and environmentally*

sustainable and underpins the whole of the London Plan and each policy. It is the way in which sustainable development in London is to be achieved".

Para 1.0.10 is within the Planning for Good Growth section of Chapter 1 and states:

'Planning for a 'smarter' city, with world-class digital connectivity will enable secure data to be better used to improve the lives of Londoners.'

Para 1.1.4 under 'Building Strong & Inclusive Communities' includes: '*… social, physical and environmental infrastructure that meets London's diverse needs is essential if London is to maintain and develop strong and inclusive communities.'* The corresponding policy in GG1 Building strong & inclusive communities states:

> *'Good growth is inclusive growth. To build on the city's tradition of openness, diversity and equality, and help deliver strong and inclusive communities, those involved in planning and development must:'*
>
> *'… (C) provide access to good quality community spaces, services, amenities and infrastructure that accommodate, encourage and strengthen communities, increasing active participation and social integration, and addressing social isolation.*
>
> *(D) seek to ensure that London continues to generate a wide range of economic and other opportunities, and that everyone is able to benefit from these to ensure that London is a fairer, more inclusive and more equal city…*
>
> *… (I) support and promote the creation of an inclusive London where all Londoners, regardless of their age, disability, gender, gender identity, marital status, religion, race, sexual orientation, social class, or whether they are pregnant or have children, can share in its prosperity, culture and community, minimising the barriers, challenges and inequalities they face.'*

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.

Para. 1.3.1 states *'The mental and physical health of Londoners is, to a large extent, determined by the environment in which they live. Transport, housing, education, income, working conditions, unemployment, air quality, green space, climate change and social and community networks can have a greater influence on health than healthcare provision or genetics. Many of these determinants of health can be shaped by the planning system, and local authorities are accordingly responsible for planning and public health'*. During the Covid-19 pandemic there was a much greater reliance on mobile digital connectivity to stay connected with family and friends and enabled working from home and home-schooling with many people continuing to work from home. Without the infrastructure which enables reliable connectivity, we could not stay connected.

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VAT No. GB142 8555 06

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1530 Arlington Business Park,
Theale, Berkshire, RG7 4SA

Policy GG5 relates to 'Growing a good economy. The supporting text states:

> *'…..London is the engine of the UK economy, accounting for more than a fifth of the country's economic output. Its labour market, housing market and transport links are interconnected with the Wider South East city region, which shapes the development of the whole of the UK. Together, London and the Wider South East contribute a full half of the country's output. London has unique strengths in specialist fields like finance, business services, technology, creative industries and law, as well as attracting tourists from around the world, providing a gateway to the rest of the UK. The wealth this generates is essential to keeping the whole country functioning, but the benefits of economic success are not shared evenly within London itself.'*
>
> *'… Projected growth towards 6.9 million jobs by 2041 provides an opportunity to strengthen London's economy for the future, and doing so will depend on increasing diversification. The Central Activities Zone and Northern Isle of Dogs will remain vital to London's economic success, but growth in town centres across London will be equally important, alongside supporting local regeneration, investment in Opportunity Areas and enabling access to a wide range of jobs. Reasonably priced, good quality employment space will be needed across London to make this happen'.*

Para 1.5.4 states 'The right infrastructure is also required to help businesses succeed across London. The digital economy, underpinned by world-class digital connectivity, data and digital services is of ever-increasing importance, improving processes, opening up new markets and allowing more flexible working.'

GG5 'Growing a good economy' states:

To conserve and enhance London's global economic competitiveness and ensure that economic success is shared amongst all Londoners, those involved in planning and development must:

> *'… (D) ensure that sufficient high-quality and affordable housing, as well as physical and social infrastructure is provided to support London's growth.*
>
> *(E) ensure that London continues to provide leadership in innovation, research, policy and ideas, supporting its role as an international incubator and centre for learning…*
>
> *… (H) recognise and promote the benefits of a transition to a low carbon circular economy to strengthen London's economic success.'*

The New London Plan creates the strongest policies ever for Digital Connectivity.

Policy SI 6 states:

A - To ensure London's global competitiveness now and in the future, development proposals should:

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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 2,
1530 Arlington Business Park,
Theale, Berkshire, RG7 4SA

1) ensure that sufficient ducting space for full fibre connectivity infrastructure is provided to all end users within new developments, unless an affordable alternative 1GB/s-capable connection is made available to all end users.

2) meet expected demand for mobile connectivity generated by the development.

3) take appropriate measures to avoid reducing mobile connectivity in surrounding areas; where that is not possible, any potential reduction would require mitigation.

4) support the effective use of rooftops and the public realm (such as street furniture and bins) to accommodate well-designed and suitably located mobile digital infrastructure.

Para 9.6.1 states that '***the provision of digital infrastructure is as important for the proper functioning of development as energy, water and waste management services and should be treated with the same importance***. *London should be a world-leading tech hub with world-class digital connectivity that can anticipate growing capacity needs and serve hard to reach areas. Fast, reliable digital connectivity is essential in today's economy and especially for digital technology and creative companies. It supports every aspect of how people work and take part in modern society, helps smart innovation and facilitates regeneration' (*emphasis added*)*.

Policy HC1 relates to Heritage Conservation and Growth and states:

C – Development proposals affecting heritage assets, and their settings, should conserve their significance, by being sympathetic to the assets' significance and appreciation within their surroundings. The cumulative impacts of incremental change from development on heritage assets and their settings should also be actively managed. Development proposals should avoid harm and identify enhancement opportunities by integrating heritage considerations early on in the design process.

Online Nation 2022 Report (June 2022)

Online Nation is an annual research report, published for the first time in 2019. Using research produced by Ofcom and others, it looks at what people in the UK are doing online, how they are served by online content providers and platforms, and their attitudes to and experiences of using the internet.

The latest Online Nation 2022 report (published June 2022) found that for most people in the UK, being online is a major part of daily life. Being online allows people to connect with others, sometimes in ways they may not be able to do offline. Data shows how we benefit from a range of online services, from messaging and calling platforms to gaming platforms, online news outlets and online shopping.

The Meta-Owned social media apps (Facebook, Instagram, Whatsapp and Facebook Messenger) made up the top four smartphone apps most visited daily by UK adults in September 2021. The top-reaching smartphone app was Whatsapp (88% of UK online smartphone using adults) closely followed by the Facebook app (87%).

94% of UK adult internet users aged 16+ said they used an online communications service for making voice/video calls or sending messages in 2021, and 80% of children aged 3-15 did the same.

The 2022 report found that the UK adult internet users spent almost 4 hours online a day in September 2021, with 3 of those hours being spent on smartphones. One in five people only use a smartphone to go online compared to one in ten last year. News and government public services are among the most-visited websites and apps in the UK.

The majority (67%) of UK internet users aged 13+ feel that the benefits of being online outweigh the risks. 43% agree that being online has an overall positive impact on their mental health.

The report found that 60% of children aged 8-15 say that using social media and messaging platforms makes them feel closer to their friends. More than three-quarters of children aged 12-15 said that being online can help with their school/homework, whilst half said it can be used to learn a new skill.

The Online Nation 2022 report acknowledged that the global pandemic since March 2020 has resulted in significant changes in online behaviour. Online shopping habits developed during the lockdown periods have remained. The largest online platforms' revenues and profits increased significantly during the lockdown periods and this growth continued in 2021. The growth is being driven by UK consumers' increased spend on e-commerce and entertainment subscription services, while advertising revenues are also increasing with the continuing brand migration to online.

Figure 1.2 of the Online Nation 2022 report indicates that the percentage of UK online adults accessing the internet, by device, in 2021 was the highest by smartphone at 88%. In September 2021 73% of the time spent online by UK adults per day was on a smartphone.

Figure 1.2: Percentage of UK online adults accessing the internet, by device: 2021

Percentage of adult internet users	Smartphone	Tablet	Laptop	Smartphone only
2021	88%	43%	53%	21%

Source: Ofcom Adults' Media Literacy Tracker 2021: Core survey and CATI omnibus survey. IN1. Which of these devices do you use to go online? (MULTI CODE) Base: All adults 16+ that go online (at home or elsewhere) (excluding those who did not give a response at the postal survey) (3577)

Reproduced from Online Nation 2022 Report

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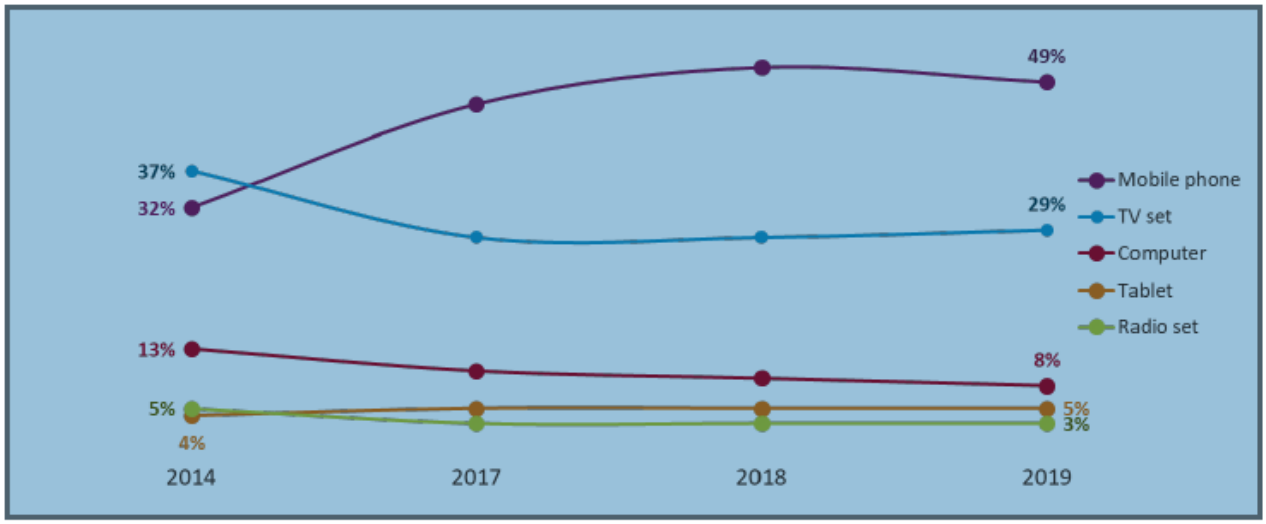
Cornerstone Telecommunications, Infrastructure Limited,
Hive 2, 1530 Arlington Business Park, Theale, Berkshire, RG7 4SA.
Registered in England & Wales No. 08087551.
VAT No. GB142 8555 06

Cornerstone, Hive 2,
1530 Arlington Business Park,
Theale, Berkshire, RG7 4SA

The table below indicates the most-missed device among adults were it be taken away from them, using data collected 2014-2019. As can be seen, nearly half of all adults say that their mobile device is the device they would miss the most were it taken away from them.



Source: Ofcom Adults' Media Literacy Tracker 2014-2019

Online Nation 2023 Report (December 2023)

Online Nation is an annual report on progress in the availability of broadband and mobile services in the UK, including the roll out of mobile 5G networks. The 2023 report was published in December 2023. These reports support Ofcom's objective of making communications work for everyone, including to promote reliable, widely available, and high-quality networks. The latest report found that the availability of 5G services is growing rapidly. The level of 5G coverage provided outside of premises by at least one mobile network operator (MNO) rose from 67-78% in 2022 to 85-93% in 2023. As of September 2023, there were more than 18,500 5G deployments in place across sites in the UK up from around 12,000 5G deployments reported in 2022.

The 2023 Connection Nations Report also found there has been fast paced growth in 5G capable devices and traffic with 5G traffic showing a growth of around 140% from 2022 to 2023. This data traffic was generated from devices, of which at least 43% are 5G capable handsets (up from around 20% in 2022). Traffic on 5G capable handsets represents around 17% of total mobile traffic, up from around 9% in 2022.

The Report notes that the MNOs have started to switch off their 3G networks. The number of customers using devices reliant on 2G and 3G connectivity has fallen sharply, from approximately 5.5 million reported last year to 2.4 million this year, of which just over half a million are residential customers with a 3G device. Less than 3% of all data traffic is now carried on 3G networks, with 3G data traffic having decreased by an average of 44% year on year.

The latest Online Nation 2023 report (published December 2023) found that for most people in the UK, being online is a major part of daily life. Being online allows people to connect with others, sometimes in ways they may not be able to do offline. Data shows how we benefit from a range of online services, from messaging and calling platforms to gaming platforms, online news outlets and online shopping.

In total, 47.9 million UK adults accessed the internet on smartphones, tablets and computers in May 2023, spending an average of 3 hours 41 minutes a day online, eight minutes more than in May 2022. Young adults continue to spend the most time online, with 18-24-year-olds spending a daily average of 4 hours 36 minutes, and the 65+ group spending the least time (2 hours 46 minutes).

YouTube is the highest-reaching social media service among UK online adults using smartphones, tablets or computers, taking the top spot in May 2023 from Facebook (including Messenger), with more than nine in ten (91.0%) visiting it that month. In May 2022, Facebook was the highest reaching social media service, reaching 93.8% of UK online adults but in May 2023 it had 1.4 million fewer adult visitors, maintaining a high overall UK online adult reach (90.7%) but now on par with YouTube. TikTok, in fifth place, overtook LinkedIn, now ranked sixth, reaching 44.3% of UK online adults in May 2023, up by 9 percentage points since May 2022 (34.7%). UK online 18-24-year-olds are avid users of social media, and over half of them are visiting six social media platforms: 96% visited YouTube in May 2023, 87% visited either Facebook or Facebook Messenger, 86% visited Instagram, 72% visited TikTok, 71% visited Snapchat and 61% visited X (formerly Twitter).

Levelling Up the United Kingdom (February 2022)

Digital Connectivity is a focus area, and the mission is 'By 2030, the UK will have nationwide gigabit-capable broadband and 4G coverage, with 5G coverage for the majority of the population'. This mission is focused on improving digital connectivity.

Digital connectivity: The case for action

The COVID-19 pandemic demonstrated the importance of digital infrastructure right across society, from ensuring business continuity to reducing isolation. Improved digital connectivity has the potential to drive growth and productivity across the UK and widen job opportunities through remote working. However, there are significant spatial disparities in the quality of broadband and mobile networks, with rural areas likely to experience worse digital connectivity than urban areas. Infrastructure is only part of the picture: economic benefits will only materialise if businesses and workers have the skills to take advantage of improved infrastructure.

More broadly, high quality digital infrastructure can deepen local labour markets through remote working, making it more attractive for both workers and companies to locate regionally. It also allows for the development of high-value sectoral clusters, which can drive growth and jobs in new areas. Existing specialisms in the UK regions have the potential to generate strong tech clusters, such as fntech in Scotland and Wales, e-Commerce in the

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VAT No. GB142 8555 06

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1530 Arlington Business Park,
Theale, Berkshire, RG7 4SA

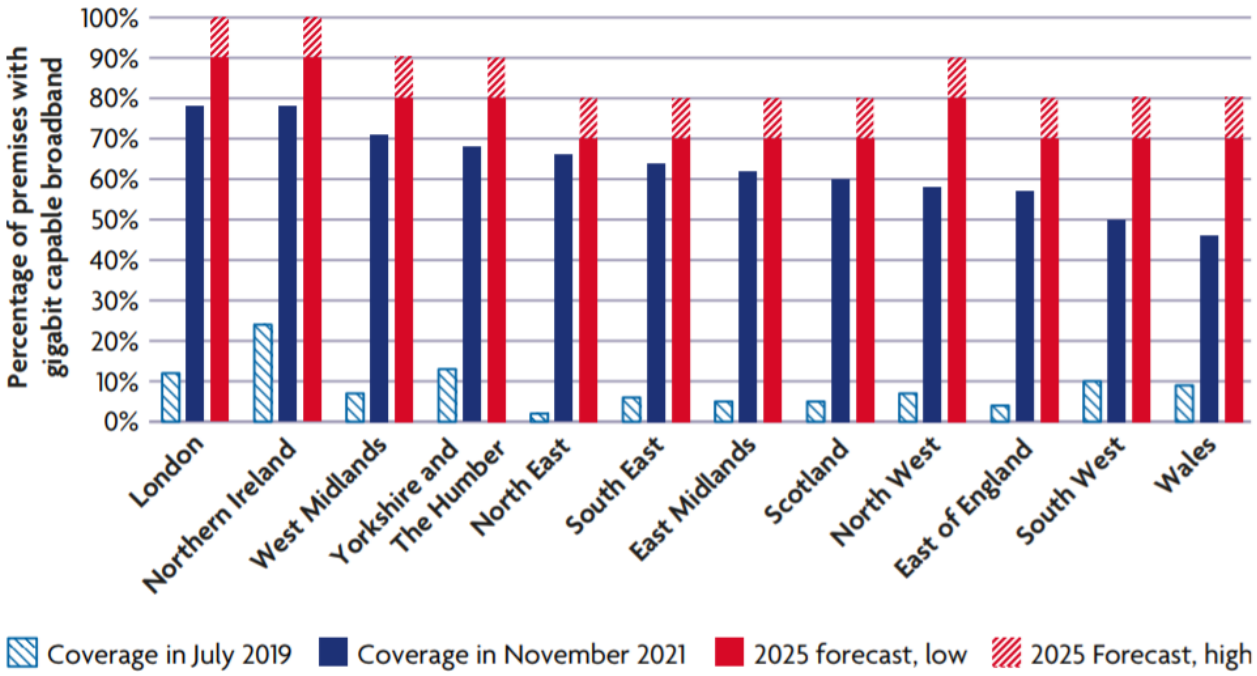
North West and Northern Ireland, and Agri-Tech in Yorkshire and the Humber. The sector also provides opportunities for raising living standards – median earnings for the sector are 50% higher than the UK average.

The policy programme

In 2020, the UK Government published the National Infrastructure Strategy, committing to providing £5bn in public funding to roll out gigabit broadband to at least 85% of the country by 2025, and subsequently to as close to 100% as possible, working with the private sector.

Public investment will target premises that are hardest to reach and which would otherwise not be provided for by the private sector, ensuring no areas are left behind. Gigabit coverage has increased from 10% to over 60% in less than two years. Since 2019, coverage has improved across the UK, and the UK Government anticipates the following additional improvements to be delivered as a minimum by 2025, as set out below.

Figure 3.1 Gigabit coverage improvements, UK countries and regions, 2019, 2021 and 2025 (forecast)



Source: Levelling Up the United Kingdom.

In 2023, the UK Government published the Wireless Infrastructure Strategy. This aims to chieve the objectives that have been set out by the Government. This reviews how far the private sector will go to deliver wireless infrastructure across the country and determine whether there are any market failures in places that need to be addressed, and how the UK Government could tackle these.

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Theale, Berkshire, RG7 4SA

We must ensure that people have sufficient digital skills to reap the benefits and prosperity arising from the digital economy. In 2020, the UK Government introduced a new digital skills entitlement, giving adults with low or no digital skills in England free access to new digital skills qualifications based on employer-supported national standards. The UK Government continues to work with local leaders to develop Local Digital Skills Partnerships. These collaborative partnerships are now operating in seven regions across England, with an eighth formally launching in Hull and East Yorkshire in early March. The UK Government will work with devolved administrations to consider how best to share the insights and evaluation of the programme to help build digital skills capability across the UK.

UK Wireless Infrastructure Strategy (April 2023)

The UK Wireless Infrastructure Strategy, published in April 2023 aims to achieve the objectives that have been set out by the UK Government. The next decade will see seismic changes both in terms of what wireless connectivity can deliver and how we can use it. The economic and social benefits from these changes promise to be vast, from supercharging growth to accelerating our transition to net zero. But these benefits can only be achieved with concerted action from government, industry, and others. This strategy sets out the Government plan to do that.

In the last 5 years, UK government policies have driven impressive progress in the deployment of world class fixed and wireless networks across the whole of the UK, removing regulatory and practical barriers to deliver stronger growth, more jobs, and better public services in every corner of the country.

- through our £1 billion deal with the mobile network operators, we are supporting rural communities by ensuring that 95% of the UK landmass have 4G coverage by 2025. This currently stands at 92%
- we have made substantial progress with 5G, too. Last year, we met our ambition for the majority of the population to have access to a 5G signal by 2027 5 years early through the deployment of basic, non-standalone 5G using existing 4G networks to deliver increased network capacity.

By building world-class, secure digital infrastructure networks, the Government can meet its vision they set out in their Digital Strategy for a competitive and innovative digital economy. This will play an important role in:

- **underpinning other new technologies** - the next decade will see the development and maturation of transformative technologies from AI and self-driving vehicles to digital twins, which will drive demand for advanced wireless connectivity.
- **transforming public services** - there are also significant benefits for improving our public services, supporting smart cities which are cleaner and less congested and delivering connectivity to our schools and hospitals that will provide better, more interactive lessons and personalised healthcare.

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By transforming our economy, widespread adoption of 5G can bring a cumulative productivity benefit of £159 billion by 2035, driving growth and inward investment, and improving lives for communities in every corner of the country.

However, there are challenges we need to address to ensure the UK can realise these benefits, as the economics of investing in wireless networks are changing:

- There is still need to overcome uncertain demand for 5G-enabled services and continuing practical barriers to network deployment need to be overcome.
- Many of the economic benefits we have identified require significantly higher quality connectivity than is likely to be deployed in national public networks.
- 5G roll-out in the near term is likely to focus on urban areas, where the commercial returns are more certain.
- Research we commissioned shows significant variation in the quality of mobile coverage in different parts of the country over the next decade - economically important areas like Freeports and industrial parks could be underserved.

Market dynamics are also changing:

- **Demand is uncertain** as connectivity moves beyond smartphones to enable an array of new, innovative use cases, businesses and the public sector will need to navigate an increasingly complex ecosystem to get the connectivity they require. As many businesses and local authorities do not yet clearly understand the benefits 5G offers or how they can effectively deploy 5G-enabled services to realise these benefits, there is no clear articulation of the demand for higher quality services. In turn, this makes it more challenging for providers to make the business case for investment.

Through this strategy, the UK government set out a new policy framework with 6 key steps to do just that and ensuring that the UK maximises the potential of advanced wireless networks over the next decade, securing our international competitiveness for the future and driving economic growth across the UK.

1. Ensuring good connectivity for all

As networks are upgraded with 5G technologies over the next decade, 4G will continue to play an important, albeit diminishing, role in providing mobile connectivity across the UK.

Coverage reporting also needs to improve so that it more accurately reflects consumers' actual experience, equipping them with the information they need to choose the right contract. In turn, we expect this to drive further commercial investment to address previously unidentified gaps - ensuring that people and businesses get the connectivity they need, whether to start and grow a business or to have a remote healthcare appointment.

2. Setting a bold 2030 ambition

Given the substantial potential that 5G offers for businesses and public service delivery, we are setting out a bold vision for the next generation of our national networks to galvanise investment across our economy. We want to move beyond the basic 5G that is being deployed now over 4G networks to build higher quality, standalone 5G networks that do not rely on older infrastructure. We also want to extend 5G coverage well beyond cities and towns to all populated areas of the UK, including rural villages and communities.

We are therefore setting a new headline ambition for the UK to have nationwide coverage of standalone 5G to all populated areas by 2030 (emphasis added).

3. Strengthening the investment climate

While the government already has a range of policies in place to drive forward the deployment of digital infrastructure, our 2030 ambition requires significant commercial investment.

This includes:

- Continuing to remove practical barriers to the deployment of 5G infrastructure.

4. Realising the full benefits of 5G

We want people, business and public services across the UK to realise the full benefits of 5G and advanced wireless connectivity. However, without concerted action, this will be slow to materialise and limited to larger businesses, in fewer sectors, and in certain geographies.

Supporting places to attract investment: we set out how we will drive greater opportunities for industry and public service providers to be empowered customers for future connectivity solutions – supporting places to attract investment and encouraging adoption of 5G services.

We will do this by:

- Driving local leadership and coordination and encouraging local authorities across the UK to employ digital champions to provide strategic leadership for local authorities' own digital infrastructure strategies.

There are 5 chapters which outline the aims and ambitions, along with the steps the government are going to take in order to achieve their set targets and provide improved 5G connectivity for all.

Chapter 1 - Approach and scope

This strategy sets out a policy framework to help deliver the government's priority of growing the economy and to ensure the UK benefits from advances in wireless connectivity for the next decade.

Chapter 2 – Ensuring good connectivity across rural and urban areas.

The government's priority to build a better, more secure, more prosperous future for the UK includes a clear commitment to grow the economy and create better-paid jobs and opportunity right across the country. To do this, it is vital that people who live and work in all parts of the UK, including in rural areas, have access to good quality mobile and broadband coverage.

Chapter 3: Our 2030 ambition

World-class digital infrastructure underpins the digital economy – it was worth £143 billion in 2021, accounting for 5% of the national workforce. This infrastructure provides the backbone of the UK economy and society with ever more jobs, public services and societal interactions built upon its foundations. As growth in the digital sector is nearly six times faster than across the economy as a whole, its importance will only continue to increase as we deliver the Prime Minister's priority of growing the economy.

4G technology revolutionised the way people use their mobile phones. What today is considered normal, a decade ago was ground-breaking. We have seen the growth of streaming services, like Netflix and Spotify, and gained constant access to high quality, user-produced content for free on platforms like YouTube, transformed the way we shop online, travel around cities through access to apps like Uber and Bolt and use public services, such as booking NHS appointments through apps.

The evolution of 5G

While 4G will continue to play an important role in providing widespread geographic connectivity to consumers through public cellular networks across the UK's landmass, 5G can offer significantly better performance and support a far greater range of use cases. 5G enables data transfer speeds of more than 10 times faster than 4G, has the potential to offer lower latency and greater reliability and the ability to connect more devices. The implications of these improvements reach far beyond the potential to develop the capabilities of smartphones, enabling an array of innovative use cases and providing for transformative economic, and social benefits that were perhaps unimaginable a decade ago.

The government's ambition for the majority of the population to have access to a 5G signal by 2027 has been met early through the deployment of basic, or non-stand alone, 5G which is built on a 4G core network. While this has helped MNOs increase the capacity of their networks in more densely populated areas, it does not reflect the full functionality 5G can deliver.

Without clear action, the market for advanced 5G services will remain nascent as many business and public services do not yet fully understand the benefits or how to navigate the supplier ecosystem for 5G enabled digital products, applications and services.

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Cornerstone, Hive 2,
1530 Arlington Business Park,
Theale, Berkshire, RG7 4SA

We want high quality coverage to extend well beyond cities and larger towns to all populated areas of the UK, including villages and rural communities. ***We are therefore setting a stretching new ambition of nationwide coverage of standalone 5G to all populated areas of the UK by 2030*** *(emphasis added)*.

Chapter 4: Strengthening the investment environment.

Our 2030 ambition requires commercial investment, and this chapter focuses on creating the environment to support it.

The deployment of standalone 5G and ultimately advanced will require operators to deploy additional infrastructure, including:

- 5G core networks in addition to the 5G equipment in the radio access network
- upgrades to the existing grid of approximately 18,000 macro cell sites per MNO
- additional cell sites to provide 'infill' to cover gaps in coverage

Addressing barriers to deployment

Since the publication of the Future Telecoms Infrastructure Review, the government have taken significant strides to make it quicker and easier for operators to roll out new digital infrastructure including making reforms to the planning system to support the deployment of 5G and extend mobile coverage in England.

Chapter 5 – Realising the full benefits of 5G and advanced wireless connectivity.

5G and other forms of advanced wireless connectivity pave the way for new services and applications that can have a transformative effect on our public services, businesses and our local economies, delivering this government's priority of growing the economy and creating better paid jobs. Wireless connectivity can support mobile healthcare workers and connected vehicles, improve traffic flow through our cities and enable our factories to be more productive, supporting the fourth industrial revolution. Our evidence is clear that the most significant economic benefits from 5G will come from widespread adoption of advanced 5G by industrial sectors, including manufacturing and logistics, and by public services.

The government is determined that the UK should take full advantage of these opportunities, but this will only be possible if places across the country can attract commercial investment in 5G and other forms of advanced wireless connectivity and for that to be adopted at scale by businesses and public services.

Connected places.

Improving digital connectivity is one of the government's Levelling Up Missions. We want places and communities across the UK to share in the benefits of good connectivity, enriching lives and driving local growth.

We want to support connected places with their digital connectivity ambitions. **We will do this by helping regions and local authorities to build the case for adopting new technology, attracting investment and removing practical barriers to the deployment of advanced wireless networks** (*emphasis added*). Local and regional authorities play a pivotal role in facilitating the rollout of wireless connectivity and their role will become more critical than ever as investment in 5G continues, due to its technological complexity and the vast number of new applications and services it can support.

Local leadership and coordination

Local leadership can help to identify and break down barriers to deployment at a local level by bringing together stakeholders across the public sector and building strong relationships with industry. The installation of telecoms infrastructure involves a number of different local government departments (such as ***planning***, estates, ***highways***) and their activities can be siloed and uncoordinated.

It is essential that, at a leadership level, local and regional authorities recognise the importance of wireless connectivity and identify decision-makers within the organisation who are empowered to facilitate private sector investment.

Chapter 6: Driving adoption in key economic sectors.

Adoption of 5G-enabled use cases in sectors such as healthcare, transport & logistics, manufacturing and agriculture will drive economic growth and productivity across the UK, delivering our priority of economic growth.

Key features of 5G for industry Dedicated 5G networks can enable:

- data analytics: Utilising operational and environmental sensor data to make real time decisions about equipment and operational performance.
- video surveillance and geolocation: Providing the location of workers and assets for security and safety purposes.
- tracking moving assets: Working with self-driving vehicle technology and software guidance systems to provide situational awareness of mobile assets.
- automation: Enabling independently operating robots to perform operational tasks.

Connected Nations 2024

The Connected Nations 2024 was published in April 2024. This is an interim update to the last annual Connected Nations report, which was based on data collected in September 2023. This Connected Nations 2024 is based on fixed broadband availability and mobile coverage in the UK as of January 2024. Ofcom is a measure mobile coverage in a way that reflects the likely experience of people using their mobile phones. The report acknowledges that there has not been a significant increase in coverage since the September 2023, but the industry continues to develop its coverage footprint.

"Mobile coverage remains stable for 4G, with around 93% of the UK landmass predicted to have good outdoor 4G coverage from at least one operator. This area includes nearly all the premises in the UK."

"5G coverage has also remained steady over the previous 4 months with around 92% of premises being able to get a 5G signal outdoors, from at least one mobile network operator (figures reported with a high degree of confidence)"

The charts below present the availability of 5G coverage at high confidence and very high confidence levels within the Camden area.

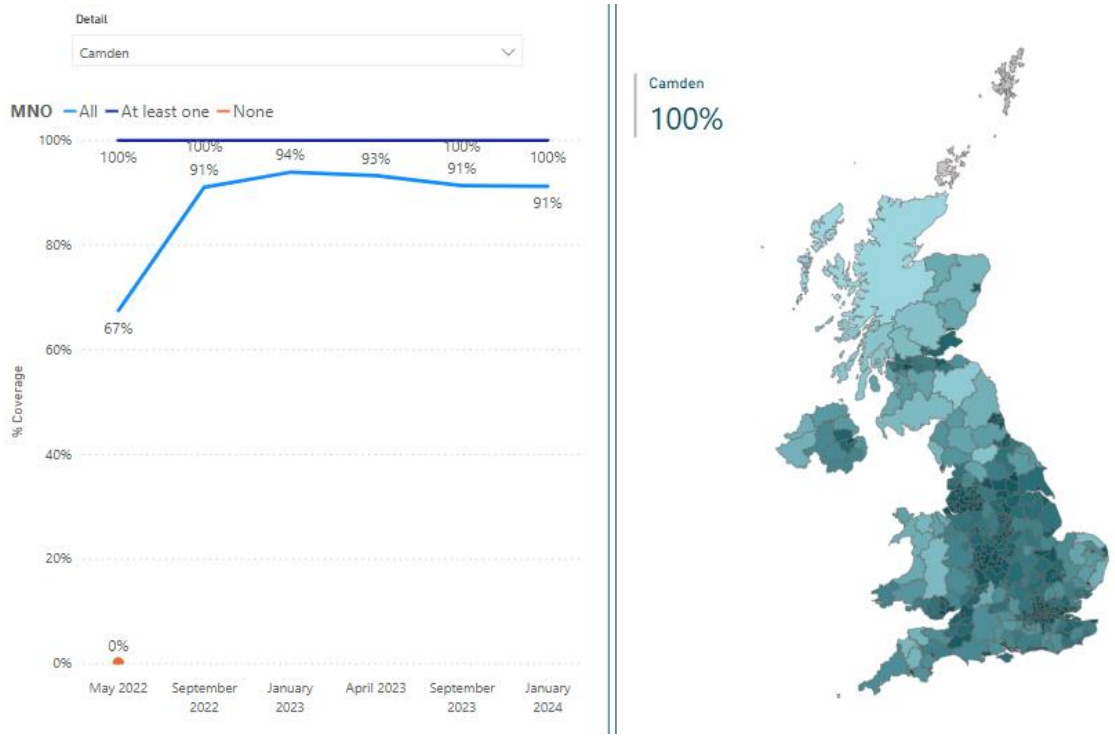

Figure 1. 5G at high confidence within Camden area.

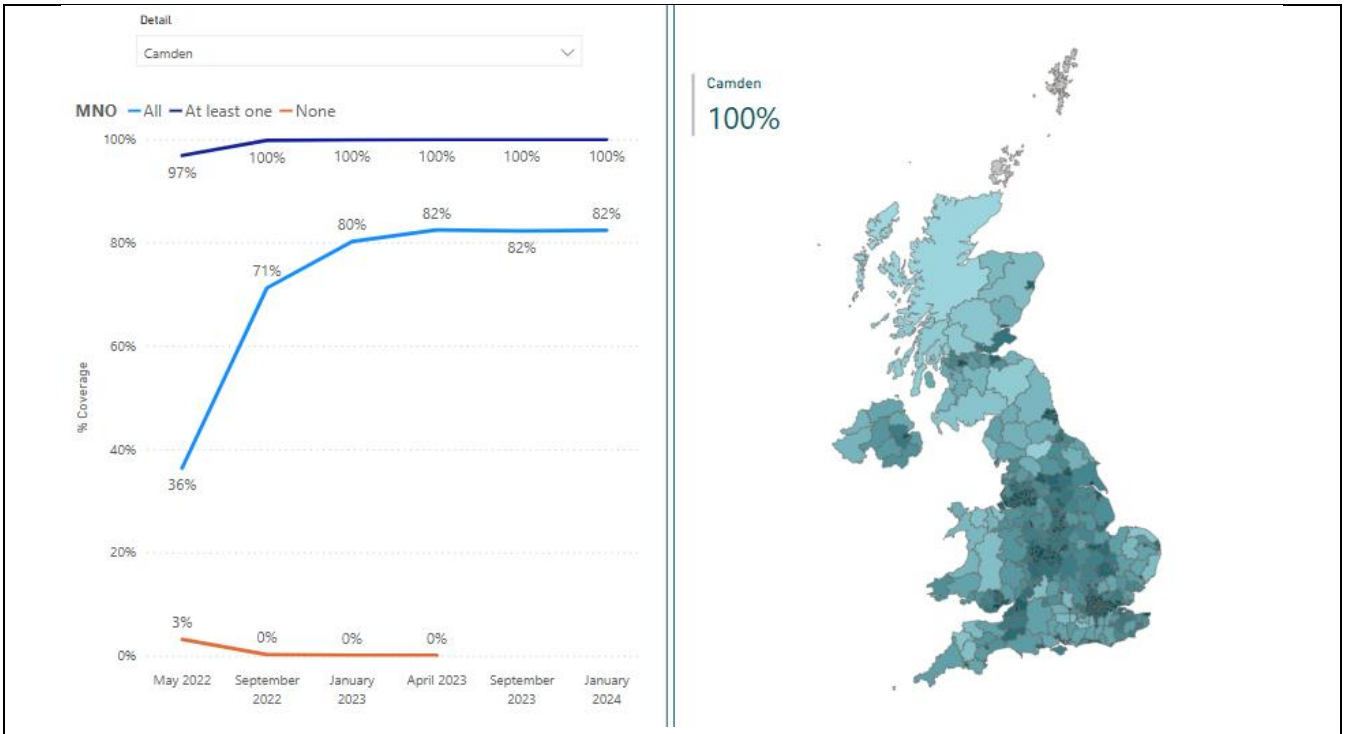

Figure 1. 5G at very high confidence within Camden area.

Planning Assessment

The main issues arising from this planning permission are whether the replacement of 2 no. antennas, installation of 1 no. new antenna and 1 no. transmission dish on the rooftop of Hampstead Station, due to their scale and siting, would be a visually obtrusive feature which would be detrimental to the character and appearance of the area, and 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 in the NPPF, which fully supports the roll out of improved connectivity and the next generation connectivity to accelerate business opportunities and growth to ensure the economy is resilient and competitive, and also the relevant objectives and policies within the Camden Local Plan, the Camden Planning Guidance – Digital Infrastructure, and the London Plan.

The principle of siting telecommunications equipment on the rooftop of Hampstead Station was accepted by the Council in 2016 under LPA ref: 2016/5584/P. The installation has been in situ for many years and is an established feature of the street scene in this area.

The proposed upgrade fully complies with the NPPF, the Camden Local Plan, the Camden Planning Guidance – Digital Infrastructure, and the London Plan as it will improve coverage and capacity and new 5G provision services to this area of Hampstead. Access to a high quality, reliable superfast mobile network is not just 'a nice to have' but an essential part of everyday life. Indeed many, including the former Minister for Digital Infrastructure Matt Warman, consider it to be the fourth utility service as important as gas, water and electricity,

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a lifeline for many especially during the COVID-19 pandemic where people were able to see their loved ones, speak to friends and family and arrange virtual meetings allowing some form of normality in a very abnormal situation.

Siting

The proposal is for the upgrade of the existing telecommunications site located at the rooftop of Hampstead Station. The principle of telecommunications development in this location has already been accepted by the Local Planning Authority. The upgrade of an existing site is wholly in line with national planning policy guidance on taking a sequential approach and seeking to upgrade existing sites first. The existing radio base station has been in situ in this location for a number of years and has become an established feature in the street scene, due to that it is considered that the proposed changes to the design, will not result in substantial visual loss and will not result in any substantial harm on the conservation area in line with Policy D1 of the Camden 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. Where new sites are required, equipment should be sympathetically designed and camouflaged where appropriate. The proposal fully complies with this Government guidance. The existing site will be upgraded, allowing Vodafone to provide enhanced capacity and coverage, as well as new 5G technology. This is in line with the guidance in the NPPF and Code of Practice, as well as the aims to improve connectivity as outlined in the Camden Local Plan, the Camden Planning Guidance – Digital Infrastructure, and the London Plan.

The proposed upgrade to the existing radio base station will enhance Vodafone's customer experience by providing improved 2G, and 4G coverage and capacity to the surrounding area of Hampstead, and new 5G provision. It will enable the operators' customers to continue to utilise their handheld devices for the purposes in which they have become accustomed, as well as being able to access the latest technology wherever they are whether that be indoors or outside. The design promotes site sharing and minimises the need for a new installation in the area. It offers the best environmental solution, limiting the number of new sites required, limiting the visual intrusion in the area. This is in full accordance with NPPF and the Code of Practice, as well as The Camden Local Plan and the London Plan.

Appearance

The replacement antennas and 1 no. additional antenna will be made from the same type of materials, same colour and a similar size to the existing antennas although they will need to be slightly bigger and wider in order to support all the latest technologies on the one rooftop. This minimises visual amenity in line with the Policy D1 of the Camden Local Plan, the Camden Planning Guidance – Digital Infrastructure, and the London Plan.

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NPPF states at paragraph 119 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. It accepts that new sites might be required for 5G networks (para 119). This is the case in this instance, in order to provide improved coverage and capacity in this area, and new 5G provision, the operator is unable to utilise the existing antennas and must therefore replace them with upgraded antennas to provide the latest and new technologies to the surrounding area.

The proposed design is one of the most sensitive designs available to the operator, which will upgrade an existing site which utilises an existing building. This is in line with the requirements of NPPF which supports equipment which is sympathetically designed and camouflaged where appropriate [paragraph 119], The Code of Practice as well as the aspirations of the Camden Local Plan, the Camden Planning Guidance – Digital Infrastructure, and the London Plan.

Lack of Coverage – Material Consideration

In accordance with the NPPF, the proposed upgrade to the existing installation is significant to enable continuous coverage of the telecommunication network, ensuring that this area of Hamstead and London continues to get the mobile coverage it needs for Vodafone customers. It will also maintain and improve coverage for the Mobile Virtual Network Operator's (MVNOs) which use the Vodafone network which includes VOXI, Asda Mobile, Lebra Mobile and Talkmobile. So, the proposal will not only provide a service for the operator but those who buy network space off them, which is at least 4 with Vodafone. 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.

Vodafone have switched off its 3G network as of the end of February 2024. This transition allows for the repurposing of related radio frequencies to bolster the faster 4G and 5G services.

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. By providing the latest 4G technology and new 5G service provision the proposals will also help meet the Camden Local Plan, the Camden Planning Guidance – Digital Infrastructure, and the London Plan aspirations. It will help in fulfilling the ambition of London Plan in being a pioneering smart city with world-class digital connectivity.

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).

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 and being a world leader in 5G.

The upgraded base station 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 Camden Local Plan, and the London Plan. 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.

In line with the Camden Local Plan, the Camden Planning Guidance – Digital Infrastructure, and the London Plan which fully supports the development of 5G, 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 Greater London to embrace emerging technologies and societal changes. 5G infrastructure is fundamental to enable digital technologies to function. The proposals will ensure that any Vodafone 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.

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 streetlights, water meters and bus stops.

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 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.

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 118 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.

The proposed upgrade of the existing site will fill the current gap in the latest high quality 4G and 5G service provision and enable Vodafone, and MVNOs who buy network space off them, 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 Central and Regional Government's aspirations that everyone has access to the superfast communications network, contained within 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, and 4G technologies and new 5G technology will support the Central and Local Government objectives to improve connectivity infrastructure to speed up economic and business growth.

The proposed upgrade of the existing installation in this location would fully meet the latest operators' coverage and capacity requirements for 2G, 4G and 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.

As part of the operators 5G 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.

The Code of 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.

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 Camden Local Plan, and the London Plan. 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 Camden Local Plan, and the London 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 support development that improves the economic, social and environmental conditions in the area. Enhancing the 2G, and 4G coverage and capacity in this area and being 5G ready will fully meet this national and local policy objective. Continuing to transform the digital connectivity of the area to drive economic growth and innovation, working to meet national targets of full roll-out of 5G technology and that all populated areas are connected to the 5G network by 2030, will ensure economic growth and social well-being.

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. This is in full accordance with the aims of the Camden Local Plan, the Camden Planning Guidance – Digital Infrastructure, and the London Plan, all of which aspire to improve connectivity and access to enhanced 4G and 5G services across the region.

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 will help this area of Hampstead comply with the aims and objectives of the Camden Local Plan, the Camden Planning Guidance – Digital Infrastructure, and the London Plan strategies and plans.

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.

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 enhanced 2G and 4G coverage and capacity and new 5G service provision in this area will fully meet paragraph 38 of the NPPF, to develop the best-in-class digital infrastructure to underpin the efficient functioning and growth of the regional economy and identify opportunities to improve and accelerate the roll out of fibre, 4G and 5G technologies to accelerate business opportunities and growth to gain regional competitive advantage.

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 UKs 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. 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 property 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 proposed upgrade will fully support these national 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.

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). 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 marketplace. 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, and 4G coverage and capacity in Hampstead, as well as providing 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 site in this area to provide enhanced 2G, 4G and new 5G service for Vodafone is significant.

On the 23 September 2020, the former 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[2]:

> *…'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, digitised almost every part of our everyday lives and making the infrastructure that*

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

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 2,
1530 Arlington Business Park,
Theale, Berkshire, RG7 4SA

connects us more important than ever. That's why it is at the top of the government's agenda…"

In a more recent letter published by the former Digital Infrastructure Minister Matt Warman MP on the 24 May 2021 he spoke further about the Government's Commitment to extending mobile coverage:

'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…

…The National Planning Policy Framework ("the Framework") for England states that planning policies and decisions should support the expansion of electronic communications networks, including next generation mobile technology, such as 5G…

…In relation to electronic communications development, it also states that local planning authorities must determine applications on planning grounds only and they should not seek to prevent competition between different operators or question the need for an electronic communications system. As set out in planning practice guidance, it is in the public interest for local planning authorities to have effective delegation arrangements in place to ensure that decisions on planning applications that raise no significant planning issues are made quickly and that resources are appropriately concentrated on the applications of greatest significance to the local area'.

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.

[3] https://www.cps.org.uk/research/upwardly-mobile

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Registered in England & Wales No. 08087551.
VAT No. GB142 8555 06

Cornerstone, Hive 2,
1530 Arlington Business Park,
Theale, Berkshire, RG7 4SA

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 those 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.

In the recent Levelling Up and Regeneration Bill[4], which set out "12 bold, national missions" which will be given legal status, Mission 4 is:

"By 2030, the UK will have nationwide gigabit-capable broadband and 4G coverage, with 5G coverage for most of the population".

It highlights the important benefits that high quality, reliable connectivity can provide, particularly in rural areas. It states:

"The COVID-19 pandemic demonstrated the importance of digital infrastructure right across society, from ensuring business continuity to reducing isolation. Improved digital connectivity has the potential to drive growth and productivity across the UK and widen job opportunities through remote working. However, there are significant spatial disparities in the quality of broadband and mobile networks, with rural areas likely to experience worse digital connectivity than urban areas."

The proposed upgrade of the existing installation in this location will allow the operator to provide high quality 2G, 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, the Camden Local Plan, the Camden Planning Guidance – Digital Infrastructure, and the London Plan.

The proposed upgrade 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.

Summary

The principle of the telecommunications development on the rooftop of Hampstead Station has already been considered acceptable by the Council in December 2016 under LPA ref: 2016/5584/P. Telecommunications equipment has been in place on the rooftop for a number of years and become an established part of the streetscene. The rooftop currently hosts equipment of Vodafone and VMO2, and it is the obvious sequential choice for an upgrade in this area of Hampstead. The proposed additions to the existing site are essential and will enhance the customer experience for Vodafone to ensure that operators' customers are able to continue to utilise their handheld devices for the purposes in which they were purchased.

[4] https://www.gov.uk/government/publications/levelling-up-the-united-kingdom

On balance, the replacement and additional equipment proposed on the rooftop will not have a detrimental impact on the visual amenity of the surrounding streetscene. The additional antennas and ancillary development will provide enhanced 2G, and 4G coverage and capacity and a new 5G provision for Vodafone to the surrounding area, thus providing a high-quality service to its customers and access to the latest technologies whenever and wherever they are. Any limited harm will be outweighed by the benefits associated with providing and maintaining the latest high-quality communications in line with NPPF and the Governments strong commitment to be a world leader in 5G.

Site selection was progressed in accordance with the applicant's licence obligations, advice in the NPPF and the Code of Practice and represents the least environmentally intrusive, technically suitable, available option. In this case it was possible to upgrade an existing site, utilising an existing building, which fully complies with the sequential approach.

The social and economic benefits of providing reliable and high quality mobile broadband connections including future 5G provision, support growth in productivity, efficiency and labour force participation across the whole economy. This is fully supported by the NPPF, the Central Government, the Camden Local Plan, the Camden Planning Guidance – Digital Infrastructure, and the London 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

Name: (Agent)	Michal Laskowski	Telephone:	0161 785 4500
Company:	Clarke Telecom Limited		07918273160
Company Address:	Clarke Telecom Limited, Unit E, Madison Place, Northampton Road, Manchester, M40 5AG	Email Address:	Michal.Laskowski@clarke-telecom.com
Signed:		Date:	03/12/2024
Position:	Town Planner	(on behalf of Cornerstone)	

Registered Address:
Cornerstone Telecommunications, Infrastructure Limited,
Hive 2, 1530 Arlington Business Park, Theale, Berkshire, RG7 4SA.
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