

PLANNING, DESIGN AND ACCESS STATEMENT

Site Ref:	14147	Applicant:	Hutchison 3G UK Limited
NGRs:	E: 509009 / N:178429	Date:	13 February 2026
Site Name:	Hayes Drill Tower	Type:	Full Planning Permission
Site Address:	Shepiston Lane, Hayes Hilligdon London UB3 5AA		
Proposal:	<i>The removal of the 3no. existing antennas, the installation of a crowsnest headframe, the relocation of the existing 3no. antennas, the installation of 3 no. new antennas. 1 no. GPS node on the existing cabinet and associated development thereto.</i>		
Planning Agent:	Avison Young (UK) Limited		
LPA:	Hillingdon		

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Overview

Avison Young are planning consultants acting on behalf of Hutchison 3G UK Limited (H3G), to submit the application contained herein for proposed telecommunications development.

Enclosed you will find an application for Full Planning Permission prepared on behalf of Hutchison 3G UK Limited who is a licensed operator that provide Cellular Network based upon the Global System for Mobile (GSM) standard and Universal Mobile Telecommunications System (UMTS) within the United Kingdom.

The supporting documents submitted with this application are as follows:

- Application Form (as generated through Planning Portal)
- Application Fee
- Drawings **14147_002,100,150,200,250_A**
- Planning, Design and Access Statement
- ICNIRP Certificate
- Copy of Civil Aviation Authority Letter
- 5G and Future Technology
- Connected Growth Manual – Digital Infrastructure
- IET Guide to 5G

We trust you will find the enclosed information sufficient to register and validate the application. Should you require any further information please direct your queries to the below contact.

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1. Introduction

1.1. Background

Hutchison 3G UK Limited, also known as Three UK, is a telecommunications company operating in the United Kingdom. It provides mobile and broadband services, including mobile phone plans, mobile broadband, and home broadband.

Each licenced code operator in the UK has obligations to provide accessible and high quality coverage across the country in accordance with their Ofcom licence. As such, the application submitted herein relates to the operator's intention to improve existing mobile coverage through the strengthening of their infrastructure network.

1.2. Public Benefits

The proposed upgrade subject to this application is part of the operators' continuous efforts to improve existing mobile network infrastructure across the country. This aligns with the applicant's license obligation to ensure high quality mobile coverage is accessible to the general public, which benefits local residents, businesses and visitors in a variety of social and economic aspects. In today's society the utility provisions for digital communications are an integral part of everyday life as it facilitates a variety of tasks such as phone calls, access to the internet, map navigation, video/music streaming, gaming, online banking and ecommerce. Virtual meetings can also be held with doctors, banking advisors, colleagues and other entities, which have proved necessary as a result of the global pandemic. Consequently, the proposal for telecommunications development submitted herein will contribute to the development and growth of the local area as part of the national strategy. The UK Government recognises the vital role of telecommunications as part of critical national infrastructure and the importance of ensuring these networks are resilient to prevent significant national risks. This underpins the high value of public benefits that would be provided as a result of this application.

In order to achieve these aims it is necessary for existing infrastructure to be upgraded with the latest equipment and technologies to ensure the robustness of each base station. In some instances where there is a significant shortfall in the network the applicant will also explore opportunities for new sites to fulfil network requirements. This overall strategy allows for greater improvements to the service provided as it can:

1. Improve the size of coverage area targeted;
2. Increase signal strength which results in faster speeds; and
3. Maximises capacity to handle ever-increasing volumes of data traffic throughout the day.

Additionally, the proposal herein seeks to deploy the latest technologies which forms part of the national rollout and accords with the UK Government directive to ensure high quality coverage such as 5G is more accessible at a nationwide level. 5G is an essential delivery that will open new opportunities as it creates innovation that can increase the value of local areas. The way in which mobile phones are used has changed over time as a variety of everyday tasks can now be actioned from a single handset and this extends to other forms of technology which require stronger and faster digital connectivity. For example, a paramedic can remotely consult with doctors in real-time when out in the field.

It is evident that mobile phone usage has grown exponentially over recent years as more than 90% of the population now own a mobile phone. Customers expect to be able to use their mobile phones and tablets in all locations as these devices have become intrinsic to our personal and professional lives. UK operators are continuously trying to improve their network infrastructure in order to adapt to the changing environment and keep up with customer demands. The consequences of the global pandemic also led to an increase in home-based working which highlighted the inadequacies of coverage provisions in non-urbanised areas where improvements are much needed. As part of the applicant's ongoing network programme, there is a requirement for infrastructure improvements in this area, which experiences a large volume of data traffic. The proposed works will also help towards futureproofing the network to reduce the frequency of works required at the site. Further technical justification can be found later in this statement.

1.3. Sustainability

Following COP26 there is a greater emphasis on considering the effects of future developments on sustainability and climate change. This is a material consideration for local planning authorities, and it is therefore essential to highlight the positive effects of telecommunications development on such environmental matters. In relation to this, Mobile UK published a report entitled *Connectivity and Climate Change: How 5G will help lay the path to net zero*¹ released in October 2021. The report details a number of areas in which 5G technology will help to mitigate climate change as it supports key industries such as healthcare, manufacturing, agriculture, transport and energy to reduce their environmental footprints. 5G technology will allow energy production and energy use to be better monitored and planned; transport infrastructure will be smarter, meaning cleaner, shorter journeys; manufacturing production processes will be less wasteful; agricultural practices will minimise their negative environmental consequences; and healthcare services will be improved through the use of remote consultancy and other telemedicine innovations.

In a general sense, 5G will allow a greater efficiency in its own right when considering the consumption of energy and other resources. For example, one kilowatt-hour (kWh) of electricity is required to download 300 high-definition movies in 4G, but one kWh in 5G can download 5,000 ultra-high definition movies. The monitoring capabilities that digital communications can offer allow usage rates to be closely monitored, which in turn leads to more efficient planning to save energy and lower carbon emissions. A fast and strong digital connection is required to facilitate these means meaning the rollout of upgraded technology is necessary to continue the growth and development of areas locally and nationally.

Mobile operators are also making efforts to use renewable energy in their operations with a global ambition of reaching net zero emissions by 2050. Each individual code operator has set their own goals and business models for low carbon emissions to target innovative ways to reduce the dependency on fossil fuels. Such initiatives include adoption of zero carbon vehicles, increase the use of renewable energy, reduction of single-use plastic and other active engagement with suppliers and customers to reduce their overall footprint.

1.4. Site Selection

¹ <https://www.mobileuk.org/news/cop26-landmark-report-highlights-how-5g-will-help-lay-the-path-to-net-zero>

The applicant has adopted a sequential approach to site selection which is encouraged in the Code of Best Practice (2022) for mobile operators and National Planning Policy. Efforts have been made to utilise existing telecommunications sites wherever possible to prevent the unnecessary proliferation of base stations. In this instance an existing base station has been identified as requiring an upgrade meaning a new site was not needed to satisfy coverage objectives.

1.5. Relevant Planning History

19866/app/2022/2263 – removal of 1 no. existing stub mast and 3 no. existing antennas to be replaced with a new 7.5 metre stub tower and 6 no new antennas, installation of 1 no. new meter cabinet and internal upgrade of existing equipment room with associated ancillary development thereto – approved

19866/APP/2001/749 - Replacement of 3 antennas and equipment cabin (consultation under schedule 2, part 24 of the town and country planning (general permitted development) order 1995)(as amended) – approved

19866/C/98/2090 - Erection of 3 dual polar pole mounted antennas on drill tower with equipment cabin (Consultation under Schedule 2, Part 24 of The Town and Country Planning (General Permitted Development) Order 1995) -approved

19866/B/97/0112 - Installation of three 1.8m antennas mounted on a 4m high tower – approved.

1.6. Pre-Application Consultation

Pre-application consultation letters were issued on 30th January 2026 to the Local Planning Authority, local ward councillors and local MP. Additional letters were also issued to the Civil Aviation Authority due to Heathrow being in proximity to the site.

To date no responses have been received by the council or other consulted parties. Nats safeguarding confirmed that they had no objection to the proposal and thus an application has been submitted.

2. Design

2.1. The Proposal

The application site is located upon the drill tower at Hayes Fire Station on the eastern side of Shepiston Lane. The surrounding area comprises of mixed land use including residential properties, local shops and open green spaces. Directly to the south is a section of the M4 motorway, which signifies the high footfall that is experienced through this locality. This is further heightened by the proximity of Heathrow Airport approximately 1.7km south of the application site.

The development area accommodates an existing base station which is an established feature of this landscape that serves as an important cell within the wider mobile network due to the high density of users in this environment. The site is not on a listed building or within designated Article 2(3) land.

The description of development seeks to upgrade the existing site which comprises the *removal of the 3no. existing antennas, the installation of a crowsnest headframe, the relocation of the existing 3no. antennas, the installation of 3 no. new antennas. 1 no. GPS node on the existing cabinet and associated development thereto.*

As the proposed works involve the installation of apparatus more than 8 metres above the tower an application for Full Planning Permission is therefore submitted herein.

Site Photo	
	
Type of Structure (e.g. tower, mast, etc)	Stub mast
Overall Height	25.25 top of headrame.
Height of Existing Building (if applicable)	17.0 metres (tower grillage) 16.5 metres (parapet level) 16.3 metres (roof level)

Equipment Housing	WxDxH (in mm)
None proposed.	
Materials (as applicable)	
Tower/mast etc – type of material and external colour	Galvanised Steel – manufactured grey RAL 7035
Equipment housing – type of material and external colour	Galvanised Steel – manufactured grey RAL 7035
Frequency	GSM 1865.5-1846.5 MHz
Modulation Characteristics ²	GMSK & UMTS
Power Output (expressed in EIRP in dBW per carrier)	56 dBm
Height of Antenna (m above ground level)	23.15 metres to top of antenna

2.2. Design Considerations

The applicant has sought to cause as little impact on the visual amenity of the area as possible whilst also ensuring that sufficient coverage requirements are achieved. A further explanation of the application's technical justification is explained in a later section of this statement however, it should be acknowledged from the offset that the least amount of equipment and the smallest scale possible has been proposed to achieve the optimum coverage objectives. The resulting benefits will improve existing mobile coverage through stronger and faster connectivity and helps to prevent the need for additional sites in close proximity to futureproof the network for customer demands. Moreover, the proposed height of the antennas is the lowest possible height to ensure correct signal conveyance whereby a reduction in height may impact on the site's functionality as well as health and safety in relation to ICNIRP compliance. It should be emphasised that intervening elements such as buildings and trees can weaken signal strength meaning that a height increase is often necessary to counter these limitations. The operator's general practice will always endeavour to propose the least impactful design possible to sufficiently achieve the desired coverage levels and it should be recognised that any reduction in height or equipment would significantly compromise the site's effectiveness within the network. There are no alternative design solutions available with the required technologies meaning the proposed scheme is the least visually intrusive design for the site's upgrade.

Whilst it is not necessary to outline alternative locations as the proposal seeks to utilise an existing base station, which is in accordance with Government Guidance, it should be noted that if an upgrade cannot be progressed at this location, a new additional base station within proximity would be required to satisfy coverage objectives. This is a mature network which has grown and each site functions in conjunction with surrounding sites to provide blanket coverage. In circumstances when an upgrade cannot be achieved and a replacement site is required, this can lead to technical implications where coverage issues can occur. The existing base station was

² The modulation method employed in GSM is GMSK (Gaussian Minimum Shift Keying) which is a form of Phase Modulation.

The modulation method employed in UMTS is QPSK (Quad Phase Shift Keying) which is another form of Phase Modulation.

deemed acceptable in its inception meaning that no concerns were raised by the local planning authority in relation to its location within the immediate area and any associated sensitive assets. Though it is recognised that changes to a telecommunications site will to a degree be recognisable in any given environment, the visibility of equipment does not automatically lead to detrimental harm as each site must be assessed on its own merits and balanced against the public benefits to be provided in accordance with national planning policy. In this respect significant weight should be given to improving existing coverage and the deployment of the latest technologies in recognition of the government's commitment to this rollout, which will result in socioeconomic improvements for the local community. Digital connectivity is an essential utility provider in today's society and a high-quality service must be provided by the operators in accordance with license obligations. Within the local area, the application site is an established base station, which sets precedence for telecommunications development in principle at this location, and this is further evidenced by the presence of other licensed operators.

Siting and Appearance

To maintain the overall appearance of the existing site, the applicant has adopted a minimalistic approach to utilise existing apparatus as much as possible and in this instance a new headframe is required to sufficiently accommodate the replacement technologies. This design layout strikes a balance between the site's technical requirements and visual amenity aspects as the new antennas will be positioned in the same location atop the fire station drill tower but will be positioned on a new headframe. The new headframe is required to support the additional antennas. The council have previously permitted 6 antennas on the existing stub mast but the new headframe is now required to support the additional technologies. As the scheme seeks to add a headframe to the existing stub mast, the overall change in appearance is thought to be minimal given the existing context as the equipment will remain concentrated on one central mast. The applicant considers this change to be relatively minor to residents and visitors in the local community when taking into account the existing layout at present which is a recognised feature and telecoms base station of this landscape. The overall height of the apparatus will have a minor increase which is necessary to ensure correct signal propagation towards the target areas as well as ICNIRP compliance and allows the additional technologies to be supported. Further consideration has also been given to the proximity of co-located operators so as to prevent signal conflict. To reiterate, the replacement headframe is necessary to counter the technical constraints of the site whereby the proposed height and spatial separation of the antennas is the minimum requirement to sufficiently achieve the optimal signal output in addition to compliance with the relevant health and safety regulations. A reduction in scale or height in this instance would significantly compromise the functionality of the base station, which is of prime importance. Taken as a whole, the antennas and headframe will be read within the same air space across the skyline and compared to the existing site at present the cumulative effects of the proposed equipment is minimal when considering its established nature. Consequently, it is thought that visual amenity is not detrimentally impacted by this upgrade scheme but would in fact be maintained as a result of the minor development works.

Although the base station is more discernible at a localised level, the simplistic design of the upgrade scheme will mimic a similar visual appearance to the current situation. When read in conjunction with the surrounding built form, the apparatus presents a minor profile that is capable of assimilating into the roofscape. As a result, the applicant considers the proposal to be acceptable in regard to its siting and appearance.

Following on from this, it is recognised that the equipment can be read at height from wider vantage points however the setting of this application site upon a utilitarian structure within the backdrop of a fire station and the adjacent motorway is thought to be an appropriate setting that should be taken into consideration in the assessment of this application. Additional regard should also be given to the natural eye line of local residents and passers-by as the equipment is located on a rooftop in which visibility would necessitate a bystander to purposefully look upwards. The drill tower is also positioned to the rear of the fire station land meaning it is set back from the main vistas of the surrounding public highways. This context reduces the site's visual prominence within the public realm.

As mentioned previously the proposed works will offer a minor visual change to the existing base station which is not thought to be a dominating feature within the surrounding streetscape from a greater distance. In addition to this, there are several screening elements along the neighbouring road networks which will somewhat soften these views including buildings and street items such as trees and lighting columns that offer a similar vertical emphasis against the skyline. For passing traffic, these built features will occasionally reduce the site's visibility resulting in momentary and infrequent viewpoints only. These points are evidenced in the below images taken from the immediate locality where the existing equipment can be seen but is relatively small in profile due to the distance, the equipment's elevated height above ground level and the size comparison between the equipment, the host building and surrounding built form. When read in conjunction with the wider landscape perspective, the stub tower will present a relatively slim profile that is similar to the present site currently in situ.



These images illustrate the existing equipment's congruous nature across the skyline from these distant viewpoints meaning its overall prominence is less than substantial to passing pedestrians and motorists. The inconspicuous nature of the current base station is a transferable point that should be applied to the assessment of this application given the minor alterations proposed. Moreover, in relation to views along the adjacent M4 motorway, it is worth highlighting that such views are expected to be fleeting as vehicles would be in transit at high speeds. These arguments should therefore be materially considered in the determination of this submission.



Leading on from this, the proposal is not considered to adversely impact residential amenity despite the proximity of dwellings in the local area. The equipment is situated on the rooftop away from residential windows and other private spaces meaning there is no direct influence on the natural enjoyment of daylight, outlook or privacy for the local community. Additionally, it should also be reiterated that the application site accommodates an existing base station which sets precedence for telecommunications equipment at this location and is also befitting of the surrounding environment. The fire station drill tower is situated on the outskirts of the nearby residential area, which further emphasises its appropriateness in terms of siting. It is also inherently common for telecommunications equipment to be situated on existing structures and buildings, which is especially widespread in Greater London boroughs and big cities. As well as this, the applicant's decision to upgrade an existing site as opposed to identifying a new location is in accordance with planning guidance so as to prevent undue harm to visual amenity and proliferation. It is also important to emphasise the necessity of the proposed upgrade to ensure that old equipment is renewed in line with technological advancements.

This allows the base station to operate at its optimal functionality in order to handle current and future network demands. Furthermore, in relation to sensitive heritage assets there are no statutory listed buildings or conservation areas within direct proximity of the application site. Given that the nearest assets are some distance away from the site the applicant does not consider the proposal to have a detrimental impact on these designations as the proposed development would not be seen within the same context as these areas of historical importance. Subsequently there is little demonstrable evidence of potential adverse harm in this regard. In summary the proposed design is considered to be respectful of the surrounding elements and does not cause detrimental harm to the visual amenity of the immediate environment.

The siting and appearance of this proposal is therefore within the boundaries of acceptability as it will cause minimal interruption to the current landscape and is in line with national planning policy to utilise existing sites and buildings. When taking into account the existing precedence for telecommunications equipment, the proposed upgrade displays a level of consistency with the

current site which results in a similar extent of visual impact as the equipment presently in situ. Therefore, the applicant strongly believes the scheme demonstrates a sympathetic design that would not detract from the setting and character of the surrounding area and the proposed works are capable of being absorbed into the wider landscape.

Overall it is considered that the scheme does not demonstrate substantial harm to the local area, and in any event, it is argued that the public benefits of the proposal would outweigh any perceived harm. As the scheme seeks to introduce 5G technologies during a climate where economic recovery is paramount, the public benefits associated with this upgrade cannot be undervalued.

3. Planning Policy Considerations

Development Plan Policy Section 70 of the Town and Country Planning Act 1990 as amended requires planning applications and appeals to be determined having regard to the provisions of the Development Plan and other material considerations, and section 38 of the Planning and Compulsory Purchase Act 2004 requires applications and appeals to be determined in accordance with the Development Plan unless material considerations indicate otherwise.

3.1. Local Planning Policy

The following local planning policies are relative and have been considered in the submission of this application. It is argued that the proposal is in accordance with the below policies which promote high-quality connectivity and supports new telecommunications infrastructure when it can be demonstrated that the design and siting of the base station is respectful to its surroundings.

Hillingdon Local Plan: Part 2 Development Management Policies (Adopted January 2020) Policy DMHB11 Design of New Development (Part 2)

In accordance with the above policies the application is of a high quality design in which the least amount of equipment technically necessary has been utilised. The site is of an appropriate height, scale and bulk when balancing technical constraints with the visual and residential amenity of the surrounding area. Careful consideration of the scheme's potential impact has been taken into account in the design process of this proposal which is considered to be respectful to the present context and any nearby heritage assets.

Policy DMHB21 Telecommunications (Part 2)

In line with this policy the scheme is considered to be of acceptable siting and appearance when read within the wider landscape perspective. There is little demonstrable harm caused to existing visual and residential amenity which protects the character and setting of the surrounding area. The applicant has also adopted a sequential approach to site selection in exploring existing sites and structures prior to identifying new base station locations. The application site is not located in direct proximity of any notable heritage assets. An ICNIRP certificate of compliance has been included with this application.

Digital West London – Hillingdon

Hillingdon is part of the West London Alliance's (WLA) Fibre West programme which is using grant funding to connect public buildings in not spots. It also part of the WLA's Expanding Opportunities programme which is creating the right conditions to accelerate investment in wireless connectivity infrastructure.

One area which is highlighted to be lacking in connectivity is the north of the borough and Heathrow Village. This proposal will help to improve connectivity in this area.

3.2. National Planning Policy

The National Planning Policy Framework was revised in December 2024. In relation to this policy the following sections are relevant in determining this application:

Section 2 – Achieving Sustainable Development

Paragraph 7 – *“The purpose of the planning system is to contribute to the achievement of sustainable development, including the provision of homes, commercial development, and supporting infrastructure in a sustainable manner. At a very high level, the objective of sustainable development can be summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs. At a similarly high level, members of the United Nations – including the United Kingdom – have agreed to pursue the 17 Global Goals for Sustainable Development in the period to 2030. These address social progress, economic well-being and environmental protection.”*

The NPPF also encourages the achievement of sustainable development which can provide public benefits to building stronger and more competitive economic areas, as well as enhancing social communities through increased communication and connectivity. These benefits feed into the overarching economic and social objectives of the NPPF.

Section 4 – Decision-Making

Paragraph 39 – *“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 brownfield registers and 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.”*

Section 6 – Building a strong, competitive economy

Paragraph 85 – *“Significant weight should be placed on the need to support economic growth and productivity... This is particularly important where Britain can be a global leader in driving innovation, and in areas with high levels of productivity, which should be able to capitalise on their performance and potential.”*

Paragraph 86 – *“Planning policies should:*

- a) Set out a clear economic vision and strategy which positively and proactively encourages sustainable economic growth, having regard to Local Industrial Strategies and other local policies for economic development and regeneration;*
- c) Pay particular regard to facilitating development to meet the needs of a modern economy, including by identifying suitable locations for uses such as laboratories, gigafactories, data centres, digital infrastructure, freight and logistics;*
- d) Seek to address potential barriers to investment, such as inadequate infrastructure, services or housing, or a poor environment; and*
- e) Be flexible enough to accommodate needs not anticipated in the plan, allow for new and flexible working practices (such as live-work accommodation), and to enable a rapid response to changes in economic circumstances.”*

Paragraph 87 – *“Planning policies and decisions should recognise and address the specific locational requirements of different sectors. This includes making provision for:*

- a) Clusters or networks of knowledge and data-driven, creative or high technology industries; and for new, expanded or upgraded facilities and infrastructure that are needed to support the growth of these industries (including data centres and grid connections);*

- c) *The expansion or modernisation of other industries of local, regional or national importance to support economic growth and resilience.*"

Section 10 – Supporting high quality communications

Paragraph 119 – *“Advanced, high quality and reliable communications infrastructure is essential for economic growth and social well-being. Planning policies and decisions should support the expansion of electronic communications networks, including next generation mobile technology (such as 5G) and full fibre broadband connections. 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; and should prioritise full fibre connections to existing and new developments (as these connections will, in almost all cases, provide the optimum solution).”*

In relation to these paragraphs, the Government’s Industrial Strategy sets out a vision to drive productivity improvements across the UK, and sets out a delivery programme to make the UK a leader in *“artificial intelligence and big data”*. The improvement of telecommunications capacity and provision of 5G is imperative to allow for areas to be connected, and is essential for economic growth which is expected to be delivered and upgraded over time.

Paragraph 120 – *“The number of radio and electronic communications masts, and the sites for such installation, 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 (including wireless) should be encouraged. Where new sites are required (such as for new 5G networks, or for connected transport and smart city applications), equipment should be sympathetically designed and camouflaged where appropriate.”*

In relation to this paragraph, it is demonstrated that a sequential approach to site selection has been adopted to ensure that existing telecommunications installations have been explored in the first instance to prevent unnecessary proliferation of masts. In this instance an existing base station has been identified for an upgrade scheme which negates the need to explore new locations.

Paragraph 121 – *“Local planning authorities should not impose a ban on new electronic communications development in certain areas, impose blanket Article 4 directions over a wide area or a wide range of electronic communications development, or insist on minimum distances between new electronic communications development and existing development. They should ensure that:*

- a) *They have evidence to demonstrate that electronic communications infrastructure is not expected to cause significant and irremediable interference with other electrical equipment, air traffic services or instrumentation operated in the national interest; and*
- b) *They have considered the possibility of the construction of new buildings or other structure interfering with broadcast and electronic communications services.”*

Paragraph 122 – *“Applications for electronic communications development (including applications for prior approval under the General Permitted Development Order) should be supported by the necessary evidence to justify the proposed development. This should include:*

- a) *The outcome of consultations with organisations with an interest in the proposed development, in particular with the relevant body where a mast is to be installed near a school or college, or within a statutory safeguarding zone surrounding an aerodrome, technical site or military explosives storage area; and*
- b) *For an addition to an existing mast or base station, a statement that self-certifies that the cumulative exposure, when operational, will not exceed International Commission guidelines on non-ionising radiation protection; or*
- c) *For a new mast or base station, evidence that the applicant has explored the possibility of erecting antennas on an existing building, mast or other structure and a statement that self-certifies that, when operational, International Commission guidelines will be met.”*

The local planning authority was consulted with regards to the proposed upgrade scheme as well as the Civil Aviation Authority. An ICNIRP certificate is provided with this application to confirm that the proposal will not exceed International Commission guidelines. As the scheme is utilising an existing base station, it was not necessary to identify alternative site options.

Paragraph 123 - *“Local planning authorities must determine 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.”*

Section 12 – Achieving well-designed places

Paragraph 131 - *“The creation of high quality, beautiful and sustainable buildings and places is fundamental to what the planning and development process should achieve. Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities.”*

In relation to this paragraph, the application seeks to upgrade an existing telecommunications site located on Hayes Fire Station Drill Tower and the proposed equipment is the least amount possible to allow the site to transmit sufficiently; we therefore consider this design to be respectful to the character of the area. Although the site's change in appearance will to an extent be recognisable in any given context, efforts have been made to limit the visual impact on the surrounding amenity as far as practicable.

3.3. Planning Practice Guidance

Design: Process and Tools

In parallel with Section 12 of the NPPF, developments must be well-designed where it can assimilate into its local surroundings and support the broader characteristics of the local authority. The proposed application submitted herein demonstrates compliance with this guidance as the 10 design characteristics have been taken into account in the design considerations of this proposal whilst also balancing the technical requirements of the site to ensure the technical objectives can be achieved.

3.4. Code of Practice for Wireless Network Development in England 2022

The Code of Best Practice is a guidance document created by the Department for Digital, Culture, Media and Sport, which aims to support the government's objective of delivering high quality

wireless infrastructure whilst balancing the needs of environmental considerations. This document has been developed in collaboration with mobile network representatives, other government departments, public bodies, local planning authorities and protected landscapes. 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 guidance aligns the agreed principles between operators and local planning authorities in respect to the siting and design of network infrastructure to outline the roles and responsibilities of both parties throughout the application process. Within this document it is recognised that digital connectivity is vital to enable people to stay connected and businesses to grow, and there is particular emphasis on the 5G rollout and future mobile generations, which will be vital for a range of uses and future smart city applications. Much of the principles in this guidance reflect those already highlighted in the NPPF however, there are notable excerpts to highlight for the council's considerations in the determination of this application.

With reference to Paragraph 19, the local planning authority is *“encouraged to support the deployment of digital infrastructure by:*

- *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).”*

When considering the siting and design of any given proposal, Paragraph 22 states, *“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.”*

Moreover, Paragraph 29 states, *“There are factors that can affect the type of infrastructure that will be deployed... including location and the coverage and capacity requirements. 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 guidance also provides further explanations for technical and operational considerations as below:

Paragraph 64 – *“All wireless network installations are principally guided by the technical need for the site and the technical constraints placed upon transmitting a signal. The siting and design of such installations must therefore be balanced between visual impact and these needs and constraints. As set out in the siting and design section above, the three primary technical and operational considerations for installation sites are: ensuring that wireless infrastructure provides an appropriate level of coverage over the intended geographical area; ensuring that sites have sufficient capacity to meet user demand; and, requiring a connection to the wider network ‘backhaul’.”*

Paragraph 65 – *“Planning authorities should take account of these constraints, and those set out below, on network deployment and siting and design, when considering proposals.”*

3.5. The London Plan 2021

The Plan recognises the strategic importance of providing necessary infrastructure, including modern communications networks that London requires to secure its long-term economic growth. The proposed works will improve digital connectivity to the benefit of Londoners and businesses. The site will ensure a high level of connectivity is sufficient to meet the rising demands of reliable data and services of the public as well as safeguarding the reduction of coverage within the surrounding area. This application is therefore an integral element in securing the Mayor’s vision for the delivery of modern communications networks across London.

With particular reference to Policy SI 6 (Digital Connectivity Infrastructure), the applicant is committed to fulfilling network obligations to cater current and future demands to ensure high quality coverage is provided which continues to be faster and stronger. In line with this policy the applicant has also demonstrated efforts to utilise existing base stations, rooftops or other structures prior to identifying new locations to fulfil network objectives. Ongoing network upgrades are an essential aspect of London’s global competitiveness which is recognised in the latest Plan.

This is reiterated in the *London Plan Guidance – Digital Connectivity Infrastructure (October 2024)*, which offers help to planning officers when determining telecommunications applications and also provides guidance on the preparation of new Local Plans. Within this document there is an understanding that development proposals are necessary to meet the expected demand for digital connectivity, which subsequently requires an appropriate use of rooftops and the public realm to accommodate well-designed and suitably located infrastructure. This is demonstrable in this application as the applicant has adopted a sequential approach to site selection and has conducted suitable pre-application consultation in accordance with this guidance. The applicant has also carefully considered the potential effects of the proposed design on a variety of factors including, visual amenity, transport safety, heritage preservation and overall site functionality and futureproofing to ensure the best scheme is pursued.

The guidance also explains the importance of addressing capacity shortcomings which is noteworthy for the context of base station upgrades such as this site. *“As demand for digital infrastructure in a location increases (for example, when a new development is occupied) the capacity*

provided by a mast site can be used up. This effectively 'shrinks' the coverage area around the mast. In some cases, it can cause gaps in coverage between the serving mast and adjacent masts, requiring corrective action to plug the gap." A range of corrective actions can be implemented including the maximisation of existing base stations and the introduction of new monopole sites (commonly referred to as streetworks) that can add much needed capacity to the network.

With these technical parameters in mind the applicant has pursued an acceptable design that is suitable and respectful of the surrounding area in accordance with this guidance.

3.6. London Growth Plan

Improvements to telecommunications infrastructure is a necessary component that helps to support growth and this is all the more important for our capital city. The London Growth Plan sets out a 10 year strategy for growth across different sectors and within this plan there are notable excerpts which emphasise the essential need for high quality digital connectivity to facilitate different areas of growth.

Page 17 – *"Londoners benefit from better digital connectivity at home, for work and on the move. We can do this by encouraging investment in fibre and mobile infrastructure."*

Page 51 – **"Digital is everywhere** – *This growth plan does not describe digital or technology as a sector because it is now mainstream across the global city sectors. Internet, mobile, cloud and increasingly AI are everyday technologies in London. They are transforming legacy businesses and enabling new ones."*

Page 81 – *"London has some world-class infrastructure. But some of it is creaking and not ready for growth – particularly the power grid. We need transport, logistics, low-carbon energy, clean water, waste and digital connectivity infrastructure that is designed for the future and climate resilient."*

Page 83 – *"Improving internet access across the city will support productivity, better public services and safer local places. For example, SMEs are missing out on an estimated £28bn in annual revenue due to slow and unreliable workplace broadband. Installing full fibre broadband allows the city to expand CCTV coverage and install sensors to monitor traffic congestion and air quality. London will continue to expand full fibre, improve capacity in mobile networks to boost 5G coverage and make wifi access easier, by working in partnership with industry."*

Page 84 – **"Publish a London Infrastructure Framework.** *The 2025 London Infrastructure Framework will identify future needs and priorities in transport, energy, water and flood defences, digital connectivity and data centres."*

3.7. Other Notable Reports and Reviews

The following reports highlight the importance of deploying the latest technology including 5G. The recent pandemic has also shown an increased reliance on connected services due to the need for home-working and home-schooling, which is likely to continue in the post-pandemic era to an extent. It is therefore essential for mobile network operators to provide a reliable and resilient service to facilitate these needs, as evidenced in their significant contributions in the global response to the pandemic. Staying connected has become a defining feature of the modern economy and a significant trend of the 21st Century. Therefore, infrastructure improvements will

prove fundamental to fulfilling the potential of digital connectivity and will help drive the economy. For example, within the healthcare sector, hospitals and medical experts will have the ability to connect in real-time with their patients to diagnose and treat disease at the first point of contact to improve patient care. In terms of commercial benefits, manufacturers will look to leverage robotics, artificial intelligence (AI) and superfast connectivity to enable the remote management of production lines and to support the faster reconfiguration of factories.

Online Nation 2024 Report

This Ofcom report looks at the current online landscape of the UK and outlines statistical evidence that shows how internet use has grown over time. These figures are an indication of the current network demands being experienced and explains why existing mobile network infrastructure needs to be improved to provide high quality coverage that is also fast and strong to its customers. Such network improvements can subsequently allow more users the freedom to undertake a variety of online tasks that are part of our everyday lives such as working from home, online banking, video calling, virtual classrooms, seeking medical assistance, etc. A few key statistics are noted below:

- *In May 2024, UK adults spent an average of 4 hours 20 minutes a day online, across smartphones, tablets and computers.*
- *Search engines are still widely used; 90% of UK online adults visited at least one of the top ten highest-reaching search engines in May 2024.*
- *Over half of UK online adults visited NHS online in May 2024.*
- *Fifty-seven per cent of UK internet users aged 16+ said they had used a cloud storage service in the past week.*

Connected Nations UK Report 2025 (Published November 2025)

“Consumers and businesses rely on good connectivity – whether at home, at work or on the move. We want to ensure that UK consumers have access to high quality networks, to enable a wide range of digital services which drive economic growth. The Connected Nations report, prepared and published under the Communications Act 2003,¹ helps us monitor the availability of these networks and provides data to help stakeholders understand the networks which are available in their area.”

“To ensure that people and businesses can derive maximum benefit from an increasingly digital society, connectivity must also be secure and reliable.”

“Mobile data use continues to rise, increasing by 18% over the past year to a total of 1,257 petabytes (PB)² for the month of July 2025, a growth rate broadly consistent with the previous year.

5G traffic saw the largest growth, rising to 348 PB this year from 227 PB last year, an increase of 53%. 5G SA now accounts for nearly a third of total 5G traffic, reflecting a transition from earlier 5G non-standalone deployments. 4G remains the dominant mobile technology, accounting for 72% (902 PB) of total monthly data traffic.

The transition away from older mobile network technologies continues. We estimate that there are still around two million direct customer devices reliant on 2G/3G networks. Two MNOs have completed their 3G switch-off and all operators have committed to retiring their 2G networks by 2033 at the latest.”

“Progress in 5G geographic coverage also continues, albeit at a more modest pace. As of 2025, overall 5G coverage across the UK geography stands at 65% at the High Confidence level and 54% at the Very High Confidence level - up from 60% and 48%, respectively, in the previous year.” This statistic indicates that there is considerable room for improvement to ensure that high quality 5G coverage can be accessible throughout the country.

“Monthly mobile data traffic has continued to grow at a rate of approximately 18% year-on-year, broadly consistent with last year, with total monthly traffic rising from 1069 PB to 1257 PB. Notably, much of the overall growth can be attributed to increased 5G usage, with 5G traffic now accounting for approximately 28% of total reported monthly mobile data, up from 21% in the previous year.

5G traffic has shown the highest growth, increasing by approximately 53% to reach 348 PB in 2025. In contrast, 4G traffic grew by 9% over the same period, highlighting the shift towards 5G usage. Within this, 5G SA now accounts for approximately 31% of total 5G traffic. This growth has been driven by a device pool that now includes at least 66% 5G-capable handsets (with 63% of those 5G handsets now supporting 5G SA), a modest increase from at least 50% in 2024.” This data demonstrates the demand and reliance on 5G technology in today’s society which reflects the importance of ensuring telecommunications infrastructure is kept up to date with technological advances.

This application site is located within a vital area where network provisions must be enhanced to allow people to work at home, to allow schools to teach online and to enable better accessibility in all parts of the country, which will in turn relieve pressures for home-working and e-learning. As outlined in the report statistics, there is increased demand on 4G and 5G coverage which has seen consistent annual growth. Such demands will require network infrastructure improvements to adequately serve its customers as well as futureproofing the network for years to come.

Ofcom Mobile Matters Report (July 2025)

Using crowdsourced data, this Ofcom report analyses people’s experience of mobile networks across the UK to help identify areas of improvement. Ofcom recognises the essential services that mobile coverage enables and how society has become reliant and expectant for continuous high quality mobile coverage throughout the country.

The report has compared the data to results to previous years and it was discovered that across several performance metrics there was year-on-year decline, including data connection success rates. Whilst these performance metrics had no significant impact on the end user, it is still meaningful in illustrating the potential vulnerabilities of existing infrastructure and proves that there is a necessity to improve robustness and resilience.

The public benefits of the 5G rollout was also evident in the data results as download and upload speeds were far better compared to older generation technologies. In video streaming tests along 98.2% of 30-second video streams completed without interruption over 5G. This is compared with 96.6% over 4G and 88.3% over 3G.

Specifically in relation 5G Standalone networks, the data results also demonstrated the benefits of such services as it provided significantly higher download speeds when compared to 5G non-standalone areas (70% of 5G standalone download speeds measuring at 100Mbit/s or higher versus 46% for 5G non-standalone). When downloading file sizes of 2MB, 5MB and 10MB the download speeds via 5G standalone were also found to be 45% faster. These statistics underline

the high extent of public benefits that can be achieved through infrastructure improvements such as this application.

Following on from this, the statistical comparisons between urban and rural areas highlight a sharp disparity that sees rural areas requiring vast improvements in order to match the same coverage levels as urban areas. For instance, the proportion of connections via 5G networks in urban areas reaches 29.5% compared to the 18.8% of rural areas.

The report further highlights the capacity challenges of base stations as it states, *“Although ‘mobile network coverage’ refers to the geographic area where mobile services are available, being within a coverage area does not guarantee a successful connection. Issues such as weak signal strength, network congestion due to high traffic, and service outages can limit or prevent access.”* Consequently, the operators must build sufficient resilience into their network to help avoid these vulnerabilities that can affect the user experience.

UK Digital Strategy 2022

“Digital infrastructure plays a vital role in our daily lives and is the foundation of a thriving digital economy. Every part of the UK needs world-class, secure digital infrastructure that enables people to access the connectivity and services they need – where they live, work or travel. This is why enhancing digital connectivity is Mission Four of the Government’s Levelling Up White Paper. Our goal is to ensure that everyone, wherever they live or work in the UK, can access the connectivity and services they need for the ever-digitising world.”

“A competitive and innovative digital economy will ensure the UK continues to be considered one of the most innovative countries worldwide and a competitive environment where technology businesses of all sizes can thrive.”

UK Infrastructure: A 10 Year Strategy (June 2025)

This infrastructure strategy sets out a new approach by the UK Government in their long term investment for improved infrastructure across the country, which will have positive benefits in both economic and social capacities. This is in recognition of the important role that infrastructure plays in enabling growth and raising living standards.

“3.37 Digital infrastructure supports productivity growth through lowering costs for firms, underpinning technological change, widening access to labour markets across the country and enabling new and innovative services to be provided.

3.38 Digital infrastructure also increasingly underpins the provision of services critical for the functioning of society, business, and government – including the operation of other infrastructure sectors. In particular, demand for data centre services is projected to surge over the next decade including for AI development and deployment. The government is committed to facilitating the development and expansion of cutting-edge, secure, and sustainable digital infrastructure that meets the needs of both the private and public sectors.

3.43 The UK is currently undergoing a transformation of its digital infrastructure. 5G is being rolled out across the country and old copper broadband networks are being replaced with new gigabit capable connections.

3.46 The government is committed to removing barriers to the deployment of fixed infrastructure so that the commercial market can deliver as far and as fast as possible. This includes:

- Implementing the remaining provisions of the Product Security and Telecommunications Infrastructure Act 2022 as soon as possible.
- Bringing forward a more flexible permitting system for street works across England, if the ongoing trials are successful.
- Easing the process for gigabit deployment for leaseholders in multi-dwelling units, such as blocks of flats, and consulting on proposals as soon as possible.

3.49 Businesses and critical national infrastructure also use digital infrastructure connectivity to provide products and services. To enable businesses and infrastructure providers to know when they need to upgrade, the government will work with industry to set out a forward-looking connectivity timeline. This will allow better planning of upgrades as part of regular research and development and/or lifecycle replacement, improving economic efficiency, saving public and private money and reducing the risk to life and critical services from upgrades.

3.50 High quality mobile coverage is now a necessity. Yet in many places coverage remains patchy and unreliable. The government has therefore asked Ofcom to provide accurate, public reporting on mobile coverage and performance. Ofcom have committed to launching their improved online coverage checker in June 2025.

3.52 The government's ambition is for all populated areas to have standalone 5G by 2030, delivered through commercial investment. It will enable a range of new industrial applications across the economy, including in manufacturing, broadcasting, public services, transport and logistics. An Analysys Mason study found that 5G adoption in key sectors could realise up to £37 billion additional Gross Value Added in the period from 2022 to 2035."

The UK Government Resilience Action Plan (July 2025)

This action plan recognises the vital role that digital infrastructure plays as part of the UK's critical national infrastructure. The effects of Covid-19 highlighted the immense public benefits of digital connectivity and our reliance on digital infrastructure to communicate with each other on both a social and economic level. This reliance however, also showed the vulnerabilities of existing systems and technologies that can be more susceptible to significant national risks that affect our everyday lives such as public service disruption and cyber-attacks. It is therefore of paramount importance that utilitarian infrastructure networks such as telecommunications are reinforced and improved to become more resilient and robust.

"Empowering and supporting this network of organisations to operate at their best is fundamental to our approach, and this action plan focuses on where we can maximise their efforts, including through the use of science and technology."

"The resilience of the UK's CNI [Critical National Infrastructure] is of central importance to ensuring that the essential services the public rely on continue to operate. Given the fundamental and connected nature of these services, failure has the potential to cause cascading and catastrophic consequences. This could be, for example, power outages impacting other essential functions, like transport or water provision, or a failure in the telecoms or data infrastructure sectors impacting the energy sector - across all four nations."

“Telecoms is part of our CNI and underpins many, if not all, economic sectors.”

“The UK government has undertaken a strategic overhaul of its approach to resilient telecommunications, which are paramount to respond to a National Power Outage and other national security risks. This has included a recent investment in ensuring our resilient voice capability, situated across the UK to enable a means of information flow across the local and national level, is fit for purpose and is now exploring opportunities to augment our capabilities with the addition of resilient data provision.”

**Sir Chris Bryant MP Minister of State Department for Science, Innovation & Technology
Letter to Council Leaders (Dated 29th November 2024)**

This letter confirms the importance of fast and reliable connectivity and the Government's commitment to supporting the delivery of next-generation connectivity across the UK by supporting the implementation of the latest technologies and driving towards nationwide 5G coverage by 2030. In order to achieve these objectives there is a call for councils to prioritise and recognise the value of digital infrastructure improvements when engaging with telecommunications proposals.

A Councillor's Guide to Digital Connectivity – published by the Local Government Association, September 2019

“With better access to high speed and reliable broadband and mobile connections, local communities can access public services more conveniently and purchase goods online at a lower cost. People can work from home, cutting out their commute and improving their quality of life. Businesses can grow, become more productive, sell their products in a global market and access a raft of services not available to those offline. Tourists can find out more information about local attractions and share photographs of their experiences with friends and on social media. In contrast, areas stuck in the digital slow lane are less attractive places to live, work and visit, and risk being left behind as other areas reap the benefits of our digital revolution.

5G will enable exciting new services and applications including:

- *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 councils 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.”*

In summary, it is our opinion that the proposal meets all local and national policy requirements.

4. Technical Justification

In the assessment of this application, material weight should be given to the public benefits that will be provided to local residents and visitors in this area. The site will form part of an improved coverage network to allow for faster download speeds and better signal. In reference to 5G technologies specifically, more information can be found in the accompanying documents: 5G and Future Technology, Connected Growth Manual Digital Infrastructure and The Institution of Engineering and Technology's Guide for Local Planning Authorities Regarding 5G Masts and Small Cells.

The consequences of the global pandemic have also highlighted the inadequate nature of infrastructure in suburban and rural areas in particular as a result of increased home-working and e-learning for school. Existing base stations have struggled to handle increased data traffic demands which demonstrates the importance of improving digital connectivity in all parts of the country. In addition to improving signal strength, speed and capacity for current demands the proposed works will also aid in futureproofing the quality of the network through its greater robustness. As a licensed code operator, the applicant has a legal obligation to ensure a high-quality service is accessible to the public throughout the UK as it contributes positively towards the socioeconomic development at local and national levels. This is particularly apparent in densely populated areas that experience high levels of footfall on a daily basis.

The demand and focus on delivering the latest generation of mobile phone technology is the primary objective of licensed operators in the UK as part of the national rollout. In today's climate the existing network has allowed users to video stream at much faster data speeds allowing the integration of smart phones into wider uses than previous generations. The inevitable consequence of technological advancements means that customers expect tasks to become even quicker and simpler.

To quote the 5G and Future Technology document, *"It is estimated that 5G will directly contribute to an additional £7 Billion a year to the UK economy in just six years from roll-out. Although 5G will undoubtedly bring new opportunities and huge benefits to society, we cannot escape from the requirement that new structures, antennas and ancillary equipment will be needed. But to do so the network needs to be surveyed, designed and planning approval obtained. It has been acknowledged by Government that we must ensure that we have the infrastructure in place to deliver 5G across our major centres and transport networks."*

The deployment of 5G technology will improve the country's digital connectivity and appeal to visitors and businesses alike through the creation of smarter technology which will benefit the British economy.

"Examples of this new world that will emerge from ubiquitous 5G coverage involves such things as connected and autonomous vehicles, traffic management, smart manufacturing with heterogenous autonomous machines, direct machine to machine communication, advanced medical devices, automated agriculture, far greater security provision, more stable and reliable connectivity and advances in further application development with uses not yet identified. All of the above provides an insight into the future development of connectivity in our modern world and also provides a further insight into the expected minimum eight-fold increase in data usage by each mobile operator over the next 5-6 years."

The national government recognises the importance of the 5G rollout which is a stance taken by government minister Margot James, the NPPF and The National Infrastructure Commission.

"5G has the potential to dramatically transform the way we go about our daily lives, and we want the citizens of the UK to be amongst the first to experience all the opportunities and benefits this new technology will bring...." – Margot James, the government minister for digital).

"Advanced, high quality and reliable communications infrastructure is essential for economic growth and social well-being. Planning policies and decisions should support the expansion of electronic communications networks, including next generation mobile technology (such as 5G) and full fibre broadband connections." – NPPF (July 2018)

"Getting 5G deployment right will be critical in a future where connectivity is becoming integral to almost all parts of the economy, and the UK will put its future growth and competitiveness at risk if it falls behind." – 'Connected Future' National Infrastructure Commission 2016

Although Central Government understands that this may present concerns with the various design solutions proposed, it is important that all Local Planning Authorities understand the technical needs of 5G and better understands the wider advantages of such new technology. The government have also expressed support for new telecoms installations and the deployment of new technology. It is seen as essential for the country to develop and exploit the advantages of such new technology to the direct benefit of the public and the economy.

4.1. Coverage

The licence granted to EE and H3G demands that strict coverage qualities are met nationwide. It is essential that the benefits of mobile phones are available across the population. Mobile networks are constantly reviewed to ensure that there is adequate coverage and capacity to meet customer demands. In the current environment there is an expectation for signal coverage to be available at home, in the workplace, while shopping, enjoying leisure activities or in transit.

4.2. Quality

In order to ensure there is sufficient coverage within buildings such as homes, shops, offices etc. the radio signal has to be of adequate strength to penetrate walls. In urban and suburban areas a dense network of base stations is therefore required, which are sometimes less than 1 km apart. The improvement of existing signal and introduction of the latest generation of technology in this area will encourage economic advancement in accordance with national policy which seeks to develop and grow connected environments.

4.3. Capacity

The upgrade of telecommunications masts across the country is an inevitable consequence of the continued growth of mobile phone usage. More sites are required to address the increasing traffic demands of each mobile user for tasks such as video/music streaming. For instance, each cell or base station is limited to handling a finite number of calls meaning that areas of high usage will require additional cells to meet network demands and avoid congestion.

4.4. The Radio Implication of the Site

Radio signals are transmitted through the network by using fixed links at such frequencies that necessitate an uninterrupted line of sight. To achieve this, the antennas must reach a sufficient height above surrounding buildings and trees. In more rural locations the undulating topographies will also have detrimental implications on signal propagation which require mitigation. The proposed development must also be in a position to provide strong radio coverage to the target area that can also be received inside buildings. As a result, it is integral that antennas have an unobstructed view towards the wider target area as it optimises the quality of signal.

The radio planning tool identifies deficiencies in the network and predicts the location from which the optimum coverage will be provided. Within these areas existing base stations are selected for an upgrade. The proposed installation subject to this application stems from this process where it is imperative for mobile operators to provide high quality coverage to its customers. This is achieved through the improvement of existing network infrastructure and introduction of new base stations to fill in blank spots.

4.5. Health and Safety

The proposal for this site has been designed within International Commission on Non-Ionising Radiation Protection (ICNIRP) public exposure guidelines and therefore Health and Safety concerns should not be a planning consideration. An ICNIRP certificate is submitted with this application.

In addition to this, The Institution of Engineering and Technology's Guide for Local Planning Authorities regarding 5G Masts and Small Cells, provides a brief overview of 5G technology and the health issues that are often misunderstood. It concludes by saying, *"Small 5G base stations in our towns and cities will allow improved network coverage. They will reduce radio wave exposure to individual smartphone users and improve local 5G capacity for all manner of useful bandwidth-hungry applications. And a good 5G fibre base local broadband infrastructure will be important to local communities over the coming decades in view of the ever-increasing amounts of data being consumed by the general public."*

5. Conclusion

A requirement for improved network coverage has been identified in this area. This is an upgrade of an existing site which will provide essential services for residents and businesses within the immediate vicinity. It was therefore not required to explore alternative sites in line with National Planning Policy. In today's society there is a strong reliance on connected services which demonstrates a necessity for high-speed coverage in all areas of the UK. The effects of the global pandemic have also led to increased home-working where current network infrastructure is in much need of improvement.

The proposed works have been designed sensitively in consideration for the character and appearance of the surrounding area in which the least impactful scheme has been proposed to minimise the visual impact of the proposal whilst also ensuring the coverage objectives can still be achieved. A reduction in equipment or scale would therefore substantially impact the quality of signal provided and the overall functionality of the site.

The applicant has also demonstrated efforts to respect the existing visual amenity of the surrounding area in which the proposal is capable of preserving the local character and setting. Additional regard has also been given to the proximity of any historical and natural assets to ensure these are duly protected as far as practicable.

The site will be valuable in the Government's desire for high-speed connectivity and ensuring its accessibility throughout the UK wherever and whenever required. It is considered that the proposal complies with national and local policy. It is therefore considered that the public benefits provided by the proposed upgrade would outweigh the minimal visual change in the appearance of this site.

The applicant considers the proposal to be an acceptable development which should be viewed favourably by the local planning authority.