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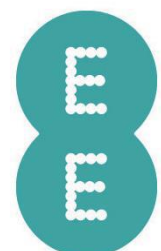


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Rev	Originator	Approved	Date
0	Name	Name	Day/Month/Year
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Introduction

This Planning Supporting Statement has been prepared by the Telent on behalf of EE Limited. The statement is provided in conjunction with the Supplementary Information Template, drawings and supporting material that was submitted with this planning application in support of the application to install a 20 metre Hutchinson Phase 8 pole with associated equipment to be located on highway adopted verge/amenity land at the above address.

In accordance with the Code of Best Practice on Mobile Network Development and published Government guidance, this proposal was drawn up having regard to the need for good design. This statement sets out the most relevant considerations in respect of the proposed development. This provides context for the proposal, reasoning, technical justification and planning constraints, policy guidance and alternatives.

In particular:

- Considerations of design and layout are informed by the context, having regard not just to any immediate neighbouring buildings but the townscape and landscape of the wider locality. The local pattern of streets and spaces, building traditions, materials and ecology all help to determine the character and identity of the development.
- The scale, massing and height of proposed development have been considered in relation to that of adjoining buildings; the topography, the general pattern of heights in the area; and views, vistas, and landmarks.

The following general design principles have been taken into account in respect of this proposed telecommunications development:

- A proper assessment of the character of the area concerned.
- That the design shows an appreciation of context;

1.0 Proposed Development

1.1 The Site

The proposed 20 metre Hutchinson Phase 8 pole will be located at the above address. The purpose of this site is to provide EE Ltd customers improved 3G, 4G and 5G to this area of Fazakerley as well as introducing the same coverage to the surrounding businesses, and residents who currently see limited coverage, particularly when indoors. The current coverage in the area according to the online checker does not take into consideration the topography, or capacity issues which is the main issue as numerous residents have complained about a distinct lack of coverage/capacity within the area and there are extensive dropped calls in the area.

Additionally, it should be noted that for a mobile data network to function efficiently, customers do not only require infrastructure be in place that covers the required area for their mobile data to function, but they also require a sufficient number of antennas throughout the area that can withstand the demand of customers looking to utilise the network. In 2013, *The International Journal of Digital Economy, Data Sciences and New Media* published an article within their *Telecommunications Policy* journal (Volume 38, Issues 8–9) which discussed the challenges presented by technology and economics in expanding mobile wireless capacity. Within this article, the author, R. Clarke, provided an insightful breakdown of the capacity demands that mobile network operators are challenged with as a result of an increasing demand on networks:

“While in many parts of the world, significant portions of expansion in mobile wireless network capacity will continue to be due to expansions in the geographic coverage of wireless data networks, in developed countries (such as the UK), advanced mobile broadband networks already cover 98.5% of potential subscribers. Thus, the network expansions necessary to accommodate demand growth in developed countries will focus most greatly on deepening network capacities. Technically and economically, this presents a different set of challenges from simply expanding coverage scope – a topic that has been addressed extensively in universal service research.”

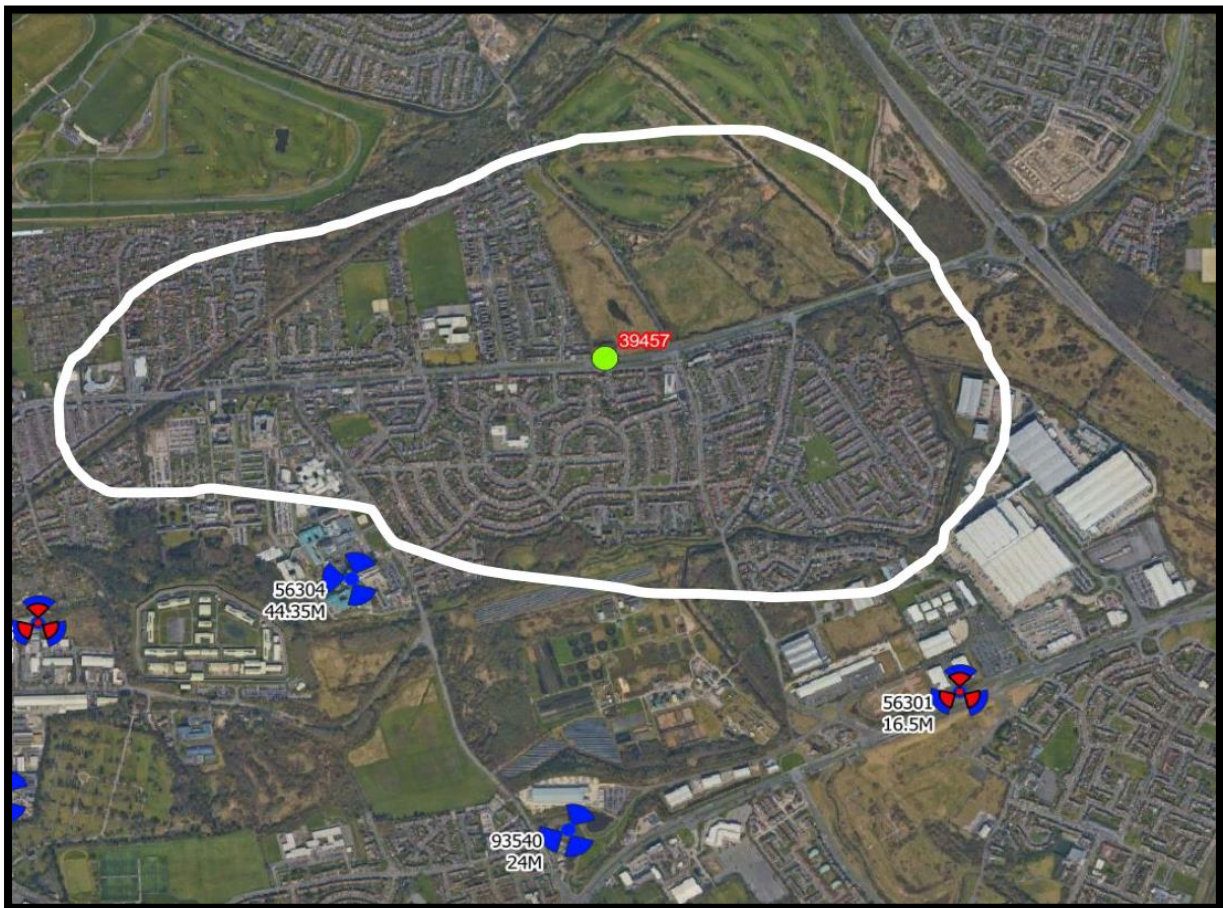
The author goes on to provide a brief outline of how mobile networks operate:

“The carrying capacity of a mobile wireless system is the total amount of data or voice traffic that the system is able to transfer to and from customers. Wireless data are carried by modulating or distorting radio waves. The quantity of waves (or amount of spectrum) a wireless system is allowed to modulate each second is called its bandwidth and is measured in hertz (Hz). Everything else equal, a signal with a higher bandwidth (i.e., more Hz) can carry more data per second than a signal of lower bandwidth (i.e., less Hz). The total amount of data that a network may transfer over a given period of time relates closely to the rate at which it transfers data bytes. All things equal, a faster network will transfer more bytes than a slower network. Rates of data transfer are measured in terms of bits per second (bps).”

Following on from this explanation, Clarke identifies the most effective way to resolve capacity issues:

“Perhaps the most well-known way for cellular networks to increase the amount of data they carry is by dividing or splitting cells to reduce cell size, and thus increase the number of cells serving a given area. This is done by deploying more radio towers/antennas and shrinking the reach of each tower by reducing the radiated power of its radio transmissions. This allows radio spectrum to be reused for multiple simultaneous transmissions within the geographic area. Thus, by subdividing cells, the amount of traffic that a Hz of spectrum can carry within an overall geographic area (measured by bps/km²) is increased.”

Since their inception, mobile networks have evolved from First Generation (1G) to Fifth Generation (5G) technologies that make increasingly efficient use of available radio spectrum. With this in mind, the below diagram demonstrates the existing spatial mapping of EE antenna within the general locale, highlighting the distinct lack of infrastructure around Fazakerley, as you will see there are a number of sites to the south which provides good coverage to that area but there is a distinct lack within the area & specifically in the middle that is capable of handling the network capacity requirement in the area.



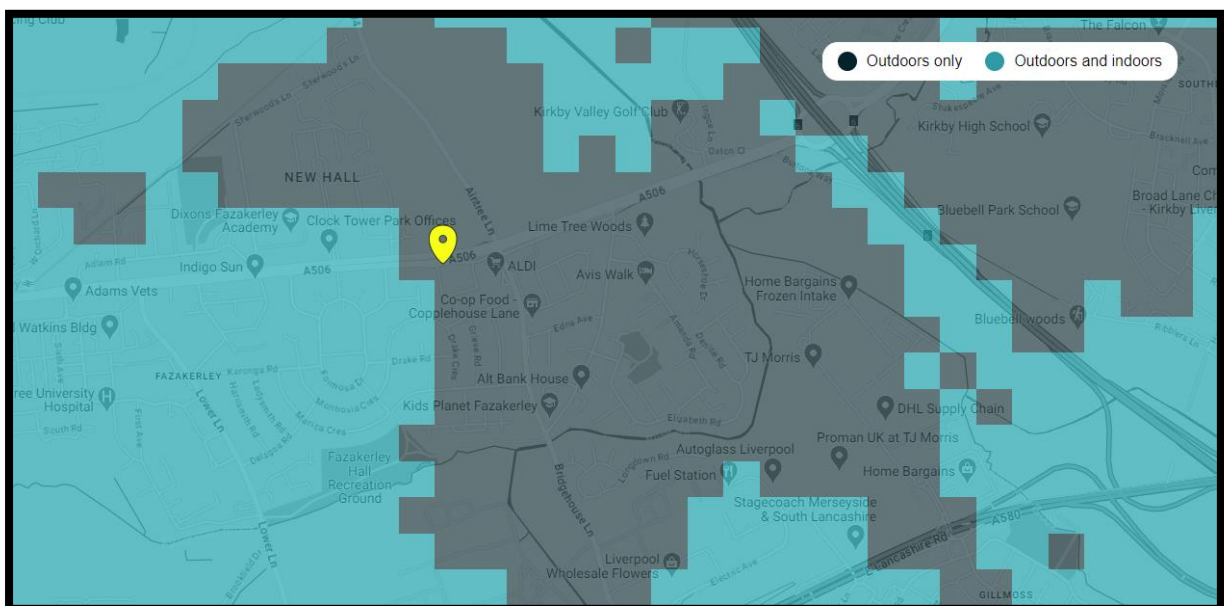
As a result of a large number of customer complaints surrounding poor mobile phone coverage and signal (as a result of insufficient network capacity) within the general locale of the proposed application site, there is a requirement for a new mast to be sited within the area so as to ensure that customers and residents can be best serviced and well connected. EE have supplied an internal coverage map which highlights the poor capacity & coverage in this area,

this clearly directly correlates with the lack of infrastructure as show in the first map, as per the below image:



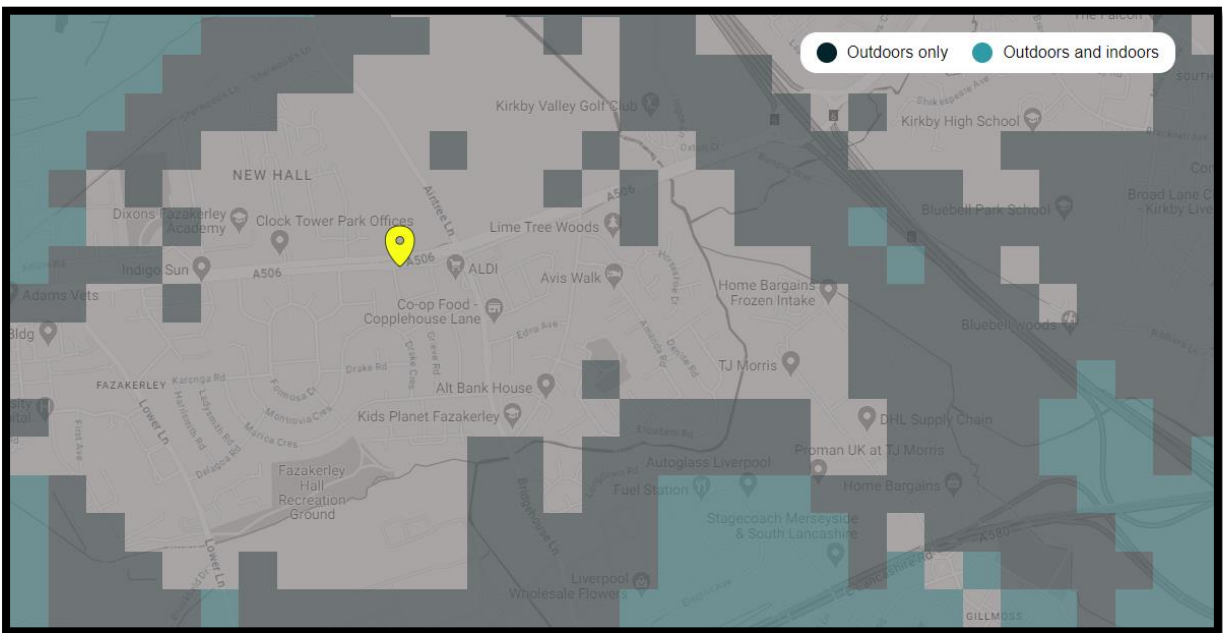
In addition, whilst the aforementioned online coverage checker does not include capacity nor topography it still shows that there are issues with coverage in the area by the following images:

2G



Map of the Fazakerley area showing bus routes and stops. A yellow pin marks the location of Fazakerley Hall. The map includes labels for various locations like NEW HALL, Clock Tower Park Offices, ALDI, and Fazakerley Hall. A legend indicates 'Outdoors only' (black dot) and 'Outdoors and indoors' (blue dot).

Where it shows that there is no 5G coverage at all in this area.



It is acknowledged that residential properties will have a view of the proposal in this location, but this cannot be avoided in this location given that the entire area is residential which in itself is the issue given the extensive capacity issues. This location is away from statutory land designations. The proposal itself has been situated in front of a road junction to avoid any residential properties looking directly out onto the proposal but any that are to the south will

see the proposal in line with tall street furniture such as lampposts, Shell Garage & The Longmoor Taverns which should provide a good deal of context in the area. Furthermore, it should be noted that due west there are other telecommunications structures that resemble this structure that are also situated on the central grass verge that have been approved and are in fact directly in front of residential properties unlike this proposal. It is therefore hopeful that the above context and mitigations reduce any visual prominence as far as is practicable along with considerable context with the existing telecommunications poles in the area.

For the site to be fit for purpose, the antennas must have a clear line of sight, so the site has been designed with the headframe peaking over any buildings and surrounding trees so as to provide the necessary coverage that local residents are demanding and require but in this instance it is not taller than some of the vegetation in the area due to the bearings of the antennas being carefully located to avoid these mature trees.

After further investigation, the height of the mast has been decided by EE's Radio engineer as the lowest capable of providing the minimum required coverage and thus any further reduction in height would render the apparatus redundant.



1.2 Application History

There are several applications both within Knowsley area and Liverpool City area, they are:

- 06PT/0498 – 15m high monopole on Longmoor Lane – Refused
- 08PT/0461 – 12.5m high monopole on Longmoor Lane – Refused
- 13PT/0642 – 12.5m high monopole on Longmoor Lane - Approved
- 13PT/1529 – 15m high monopole on Longmoor Lane – Approved
- 20PT/1020 – 17.5m high monopole on Longmoor Lane – Refused

- 20/00164/TEL – 20m high monopole on Valley Road – Approved
- 21/00236/TEL – 20m high monopole on Coppleshouse Lane & Edna Ave Field Lane - Refused

1.3 Technical Justification

The requirement for a mobile phone base station in the area is predominantly to address a gap in EE coverage and network capacity to this area of Fazakerley, whereby the existing indoor coverage is very poor. Enhanced coverage and network capacity will be provided to EE's network in this area including residents, visitors, and businesses. EE's Radio Engineer has confirmed that there are no similar structures to locate to or optimise in order to provide the required coverage within this area and as such a new cell is required to fill the coverage gap and improve upon the available network capacity. Additionally, this site will also form part of the new 4G Emergency Services Network ("ESN") that will replace the existing Airwave TETRA radio service used by the emergency services (including the Police, Fire & Rescue and Ambulance services) to communicate.

1.4 Alternative Site Assessment

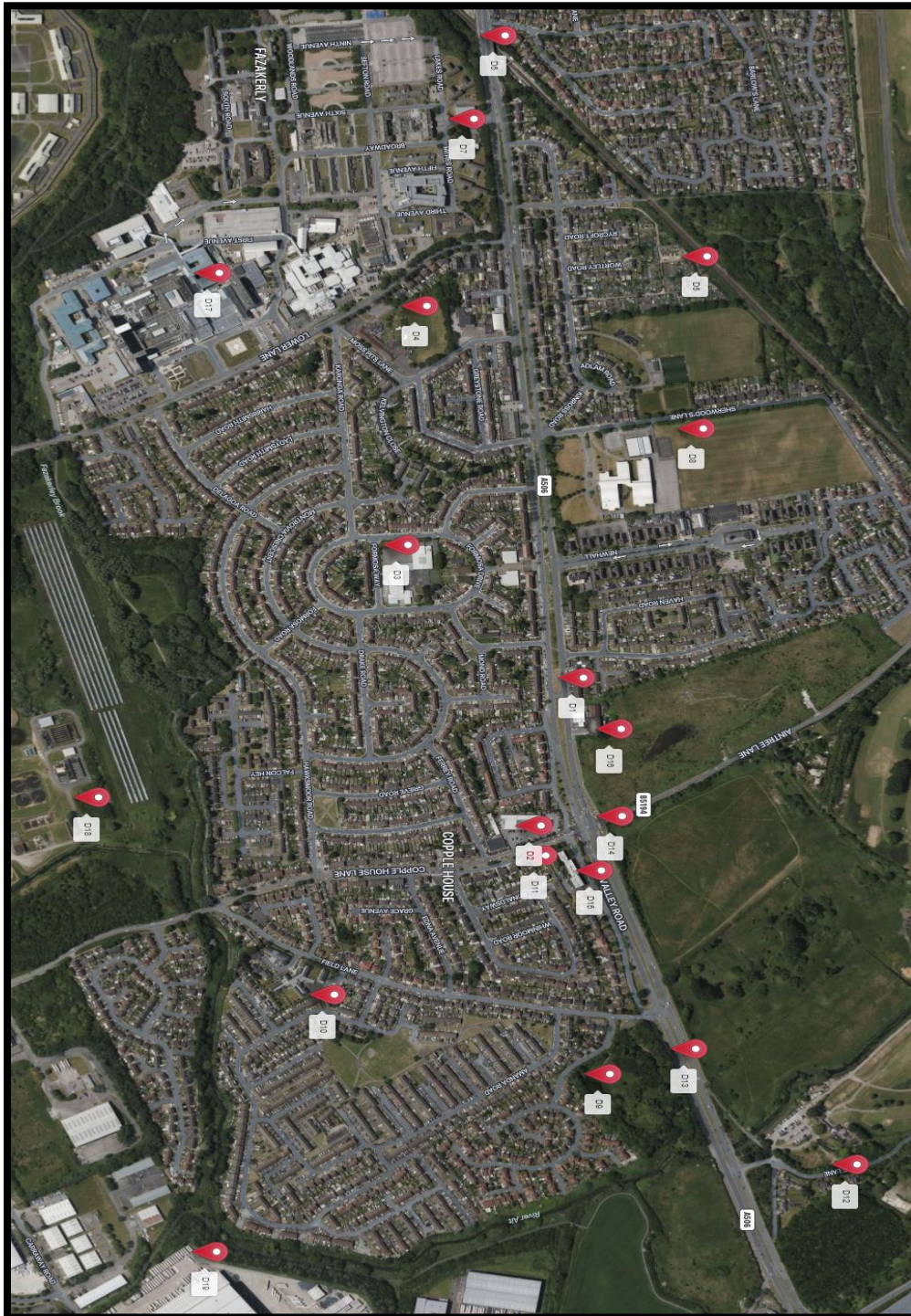
Given the extent of the search area in this instance, along with the identified constraints, fourteen options were considered within the Search Area, with twenty discounted and cited below on the map:

Discounted Options	
D1 Name	Longmoor Lane SW 1
NGR	339023, 397391
Comments	Relative proximity to the proposed location but is directly opposite residential properties with both sides having direct views.
D2 Name	ALDI
NGR	339289, 397323
Comments	Building is not suitable for telecoms; low in height compared to surrounding buildings, there doesn't appear to be access to the rooftop and there are solar panels currently occupying the space.
D3 Name	Fazakerley Primary School
NGR	338778, 397130
Comments	Discounted due to GF site being on school grounds which is seen as unfavourable when compared to alternative options.
D4 Name	Holy Name Catholic Primary School

NGR	338346, 397164
Comments	Discounted due to GF site being on school grounds which is seen as unfavourable when compared to alternative options. In addition, this location whilst in the search area is considered to be too far east to provide the required coverage to all the area.
D5 Name	Wortley Road
NGR	338262, 397587
Comments	Likely to be very impactful on limited space in a busy allotment and will cause issue during build and in particular when trenching power and fibre. This along with the site being too far north-west to provide all the required coverage.
D6 Name	Longmoor Lane SW 2
NGR	337857, 397288
Comments	Internal Radio Planner for EE informed us that this location is too far west to provide all the required coverage.
D7 Name	Aintree University Hospital SW
NGR	338007, 397240
Comments	Internal Radio Planner for EE informed us that this location is too far west to provide all the required coverage.
D8 Name	Fazakerley High School
NGR	338574, 397578
Comments	Discounted due to GF site being on school grounds which is seen as unfavourable when compared to alternative options.
D9 Name	Greenbank Drive
NGR	339741, 397422
Comments	Believed that any site here would not be favourable due to impact on a Green Space when compared to the already very developed areas surrounding this location. In addition, seems limited vehicle access.
D10 Name	Elizabeth Road
NGR	339592, 397009
Comments	Entirely residential, therefore not considered a good planning option.
D11 Name	Copplehouse Lane
NGR	339343, 397330

Comments	Location is considered to be too close to residential properties with limited context. Therefore, discounted.
D12 Name	Kirby Golf Club GF
NGR	339909, 397792
Comments	This location was discussed with the Radio Planner, but they believed it to be too far east to provide all the required coverage.
D13 Name	Valley Road
NGR	339697, 397552
Comments	This location was reviewed as it was believed to be a good option for a SW style site but again the Radio Planner believed it to be too far east to provide all the required coverage and thus may require another mast to provide all the required coverage/capacity.
D14 Name	Valley Road 2
NGR	339274, 397447
Comments	This location was proposed but the Radio Planner informed us that even at the same heights this location does not cover the same areas as the proposed location. Therefore, it has been proposed to go with this location.
D15 Name	Buildings South of Moor Lane
NGR	339372, 397413
Comments	This location was reviewed but it doesn't have the required height to provide the coverage. Therefore, cannot be progressed.
D16 Name	Longmoor Taverns RT
NGR	339115, 397447
Comments	This location was reviewed but it doesn't have the required height to provide the coverage. Therefore, cannot be progressed.
D17 Name	Aintree Hospital
NGR	338281, 396852
Comments	Location is too far to the south-west to provide the required coverage. Therefore, discounted.
D18 Name	Fazakerley STW
NGR	339230, 396658
Comments	This location is too far south to provide the required coverage. Therefore, discounted.

D19 Name	Hermes Road Industrial
NGR	340055, 396825
Comments	Location is too far to the south-east to provide the required coverage. Therefore, discounted.



Grid Reference Finder Link: [HERE](#)

1.6 Additional Justification

Emergency Services Network Requirement (ESN):

In 2015 EE Ltd. won the contract from the UK Government to deliver a mobile network specifically for all blue-light emergency services across the country to provide a seamless 4G mobile service. The communications system will be critical in improving response times and improving communications between all of the blue-light services and providing critical infrastructure across the length and width of the United Kingdom. EE have committed to adding over 500 new 4G sites to accommodate this commitment in that will eventually replace the existing Airwave TETRA radio system.

This EE proposal will form part of the new 4G emergency services network and should be considered critical infrastructure within the UK to support the local community in perpetuity.

Shared Access – The Benefits of Mobile Technology

Mobile phones and other similar communication devices are ubiquitous both for business and personal use. Mobile connectivity is now about fast, secure access to the internet anywhere. People and businesses are increasingly choosing to access the internet using a mobile device, and the numbers doing so are growing, as ownership of internet-enabled devices rises. Smartphones are integral to people's lives as mobile devices supporting a growing range of functions from communication to navigation, to use as principal sources of news media, cameras, diaries and numerous other functions. Overall, 94% of adults personally own/use a mobile phone with 52.4 million 4G mobile subscriptions. The proportion of adults in the UK with a smartphone has now reached 76% (as of 2017), with 18% of adults living in a mobile phone only home. Increasing coverage and take-up of higher



Economic Benefits

Modern communications in all of their different and emerging forms, including mobile communications, help maintain and stable levels of economic growth and employment. Hence, the UK Government's continued commitment to the growth and development of modern electronic communications. These benefits include:

- Improve the ability of local businesses to operate and compete effectively through access to modern communications thereby helping to maintain and increase local employment opportunities.
- The contribution to the national economy is also significant where all businesses, from large to small, benefit from modern communications that helps them maintain and attract new business and service contracts in a responsive and competitive manner.
- Improve coverage over transport and infrastructure networks which improves the ability to work on the move and improve economic efficiency



Environmental Benefits

Modern communications, including mobile communications, provide effective protection of the environment by helping reduce the need to travel by enabling modern working practices such as greater home working. Such practices alleviate the pressure for new commercial development such as offices, through more efficient and flexible use of existing accommodation. For the same reasons, modern communications, including mobile communications, help ensure the prudent use of natural resources.



Social Benefits

Modern communications, including mobile communications, aid social progress, which recognises the needs of everyone. These improvements manifest themselves in a number of ways as illustrated by the following examples:

- People are now more likely to access the internet using a mobile connection than they are to have just a landline or to access the web through a fixed connection.
- Connecting to the Internet via a mobile device allows people to access a wide range of central and local government services; to do research for a school projects or apply to university; to manage their bank account and pay bills; to apply for a job; or to buy groceries.
- Most local authorities' services are now available online, and many councils have recognised the growth of smartphone use and introduced mobile phone applications to provide instant access to services, or to allow residents to report litter, dumped rubbish, pot holes and road repairs, or anti-social behaviour.
- Mobile devices enable flexible forms of working that provide opportunities to working parents or carers and help them achieve a better work life balance with both family and community benefits. By providing means of communication that improve convenience and enhance personal safety and security. This is especially important to vulnerable groups who may otherwise feel unable to participate in certain activities.

speed 4G services is driving data use. The average volume of data consumed per subscriber per month is now 1.9GB.

2.0 Planning Policy

This section sets out the most relevant national and local planning policy concerning the proposed development.

2.1 National Planning Guidance

National Planning Policy Framework (NPPF 2023)

Planning policy is provided at the national level by the National Planning Policy Framework (NPPF). It is a material consideration in planning decisions. The NPPF is pro – development with a ‘presumption in favour of sustainable development’ seen as a golden thread, running through both plan making and decision taking’. The thrust of this guidance is positive and a reminder to LPAs that we need to build the requisite infrastructure to enable economic growth. In this regard the Framework can be summarised as follows:

- Government policy is to support high quality communications infrastructure and systems, as essential for sustainable economic growth;
- Government policy is to keep the inevitable environmental impact associated with electronic communications development to the minimum;
- The keyway to minimise environmental impact is to avoid the unnecessary proliferation of new radio masts and sites;
- Great weight should be given to conserving landscape and scenic beauty in certain specified designated landscapes, e.g., National Parks, Areas of Outstanding Natural Beauty, Conservation Areas, etc.;
- The emphasis on minimising environmental impact is greater per the sensitivity of the site. The emphasis on exploring and utilising site sharing opportunities is consequently higher in these circumstances;
- Best practice encourages a consultative approach and one that seeks to minimise potential visual impact and
- The starting point for planning new networks or the expansion of existing networks is, therefore, to use existing electronic communications sites owned by other operators or radio site management companies.

The NPPF as a whole is aimed at encouraging a more positive approach to town planning. While the NPPF builds environmental protection into the definition of sustainable development, there is also a very clear emphasis that local planning authorities should be looking for ways to help development come forward and not reject applications simply on environmental grounds. This is emphasised in paragraph 10 of the NPPF, which states that in order that sustainable development is pursued in a positive way, at the heart of the Framework is a presumption in favour of sustainable development. The NPPF recognises that this is especially relevant where a development might have other significantly important benefits such as being essential to meet, for example, sustainable economic growth or a national need which can include upgrading to or the provision of new infrastructure.

It is important to reflect on some key points within The Framework which are relevant to the very important development at this site and the general planning principles that should apply when determining the merits of the application:

- a. Paragraph 7 advises that the purpose of the planning system is to contribute to the achievement of sustainable development. It then states that: “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.” [our emphasis];
- b. Paragraph 11 advises that authorities should:
 - “positively seek opportunities to meet the development needs of their area” [as part of plan making];
 - meet objectively assessed needs unless the adverse effects would “significantly and demonstrably outweigh the benefits”;

As such, development proposals that accord with the provisions of the Development Plan should be approved without delay. In respect of this guidance, the following sections of this statement demonstrate that the proposed development accords fully with all relevant Development Plan and NPPF policies and, therefore, permission should be granted for the development.

The importance of the proposed development in providing the upgrading and expansion of the existing communications network is clearly an important material planning consideration as it directly supports sustainability and is also precisely the type of new digital infrastructure that the NPPF is seeking to support. The development proposed is comparatively small scale and has been designed in a way that is predominately consistent with the existing infrastructure setup and so should be acceptable in every respect.

However, for completeness we still highlight some of the key points within the NPPF as they help demonstrate why the application should be permitted:

Paragraph 7 advises that the purpose of the planning system is to contribute to the achievement of sustainable development. It then states that: *“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.”* [our emphasis];

Paragraph 20 advises that strategic policies should *“make sufficient provision for.....telecommunications” and that it should “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 38, on “decision-making” states that authorities should *“work proactively with applicants to secure developments that will improve the economic, social and environmental conditions of the area. Decision-makers at every level should seek to approve applications for sustainable development where possible”*.

The NPPF builds on the aspiration to build a strong, competitive economy. Paragraph 81 states: 'Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking in to account both local business needs and wider opportunities for development. The approach taken, should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future. This is particularly important where Britain can be a global leader in driving innovation⁴⁰...

Footnote 42 of the NPPF states: 'The Government's Industrial Strategy, *HM Government (2017) Industrial Strategy: Building a Britain fit for the future*', sets out a vision to drive productivity improvements across the UK, identifies a number of Grand Challenges facing all nations, and sets out a delivery programme to make the UK a leader in four of these: artificial intelligence and big data; clean growth; future mobility and catering for an ageing society.

The NPPF (2023) directly addresses the need for enhanced wireless communication services, first mentioned in paragraph 20, which states that an LPA's strategic policies must make sufficient provision for:

"(b) infrastructure for transport, telecommunications (our emphasis), security, waste management, water supply, wastewater, flood risk and coastal change management, and the provision of minerals and energy (including heat)"

Leading on from this, paragraph 114 states that *"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....."*. This wording echoes guidance set out in previous versions of the NPPF. However, unlike the previous version it also includes the importance of reliable communications infrastructure for both economic growth and social well-being.

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

Paragraph 118 retains the guidance set out in previous versions of the NPPF version and states that *"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"*.

As can be seen from the above, the NPPF clearly acknowledges the benefits of modern electronic communications and seeks to encourage such development as being essential due to their role in supporting a modern economy, contributing to sustainable objectives, and enhancing local community access to a range of goods and services. Local planning authorities are advised to respond positively to proposals for electronic communications development and this must include an understanding of the associated special problems and technical needs of developing and upgrading communications networks.

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

Where Impacts on heritage assets are predicted section 16 of the NPPF provides clear guidance on how any such predicted impacts should be addressed. Whilst the conservation of the asset must be given great weight in terms of the impact of development on its significance, where such impacts result in less than substantial harm to its significance the harm should be weighed against the public benefits of the proposal.

Code of Best Practice on Mobile Network Development in England (March 2022)

The Code of Best Practice has been fully revised in March 2022 and is now even more supportive of mobile network provision in line with Government aspirations that everyone should have access to the information superhighway no matter where they are located whether that be in rural or urban areas. This Code provides guidance to mobile network operators, their agents and contractors and equally to all local planning authorities in England. It supersedes the Code of Best Practice on Mobile Phone Network Development (2016).

The principal aim of this Code 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 development of such infrastructure must be achieved in a timely and efficient manner, and in a way, which balances connectivity imperatives and the economic, community and social benefits that this brings with the environmental considerations that can be associated with such development. The Code also has an important role in making sure that appropriate engagement takes place with local communities and other interested parties. The Code also highlights 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 Code highlights that local planning authorities should 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).

The Code highlights the Government's Communications Policy and Planning Policy. It acknowledges that digital connectivity is vital to enable people to stay connected and businesses to grow. Fast, reliable digital connectivity can deliver economic, social and well-being benefits for the whole of the UK. The Code indicates that recent changes in planning policy [and regulation] are intended to align with Government communications policy, where the ultimate goal is to achieve mobile coverage wherever it is needed. Furthermore, Section 2 of this Code also reiterates NPPF guidance in strongly supporting high quality communications infrastructure, which is seen as essential for sustainable economic growth.

The Code acknowledges that there are special operational and technical considerations associated with mobile network development, which have changed over time due to changes in technology and associated changes in demand. The Code acknowledges that all wireless network installations are principally guided by the technical need for the site and the technical constraints placed upon transmitting a signal. It then goes on to state that "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'".

It then goes on to state that "With the introduction of 5G, more equipment will be required to provide coverage and capacity. 5G, as well as 4G, are data-driven technologies, and high volumes of data will be transmitted between base stations and wireless devices. 5G will require a denser network of base stations than previous generations, including more fixed line fibre optic cable for reliable and high capacity backhaul. The siting of 5G installations will be more constrained and guided by these special technical and operational considerations.

Due to the scale and technological constraints of 5G equipment, in some cases previous camouflage design solutions, such as tree mast designs and concealing antennas in flagpoles, may not be practicable or suitable. In these cases, simple designs with particular attention to colouration and finishes may help reduce visual impacts on a site-specific basis".

In acknowledging the considerations of new technology such as 5G, the revised Code continues to advise that this does not mean that there will not be a need for any new base stations. Indeed, for example, more base stations will be needed in areas where there has previously been only limited or no coverage and where coverage and capacity need to be enhanced in line with Government commitments and customer demand. Similarly, some new sites will be required to replace existing sites that are lost, for example, through redevelopment of an existing building. Some masts may need to be redeveloped or replaced to enable an upgrade in services to take place.

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

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

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

The Code highlights that planning authorities, and those who represent rural areas, should recognise the importance of access to reliable mobile broadband and services for those who live and work in rural communities, including coverage for the emergency services network. The benefits of high-quality wireless connectivity to the rural economy are far reaching - better wireless infrastructure will give rural communities greater choice and access to services, allow businesses to grow, and have positive impacts on healthcare, education, tourism, and remote working.

2.2. Local Planning Policies

In terms of Local Plan Policies, by virtue of Section 70 of the Town & Country Planning Act 1990 [further enshrined in section 38(6) of the Planning and Compulsory Purchase Act 2004], development should be in accordance with development plan policies, unless material considerations indicate otherwise.

Prior Approval has been sought in this instance as the development falls within permitted development rights under Class A, Part 16 of the Town and Country Planning (General Permitted Development) (England) Order 2015.

The relevant planning policy framework taken into consideration is found principally within:

- The Local Plan, which in this instance comprises;
 - Knowsley Local Plan Adopted Core Strategy – January 2016
- National Planning Policy Framework (NPPF 2023)
- The Code of Best Practice on Mobile Network Development in England (2022)

The aforementioned Local Plan sets out the key direction and planning framework for the district area. There are several policies which are applicable in this instance and one relating to telecommunications development. They are as follows:

ENV 8 – Telecommunications Development

Proposals for new telecommunications masts and associated antennae and buildings will not be permitted unless the applicant has demonstrated that the following criteria would be satisfied: a) Where the proposal is for a free standing mast, the need for the development could not, for technical reasons, be met in a more environmentally acceptable manner by: • Sharing an existing mast or site, • Erecting antennae on an existing building or other structure; b) The development would not, by reason of its scale, siting or design, have an unacceptable impact on the character or appearance of the surrounding area, or the amenity of nearby residents

It is believed that the proposal is in accordance with this policy. There are no telecommunications apparatus in the area that can be shared in this instance nor any buildings with sufficient height to provide all the coverage. It is acknowledged that there are residential properties in the relative proximity, but this cannot be avoided in this area due to the area

being very heavily residential which is why the problems persist & it should be noted that it will get worse should the large scale development of residential properties to the north proceed.

However, mitigations have been made by placing the site directly opposite a junction in a road and that any residential views will therefore not be dead on & will be seen against the backdrop of street furniture on a busy A-road and against a backdrop of a Shell Garage and relatively tall Longmoor Tavern building which provides good context.

CS2 – Development Principles

1) New development in Knowsley and the preparation of subsequent stages of the Local Plan will be expected to support the following development principles:

Principle 1: Promote sustainable economic development, tackle the causes of deprivation and disadvantage and narrow the gap between the richest and poorest neighbourhoods by: a) Meeting needs for new housing, employment, retail and other service provision; b) Improving business productivity and employment levels in Knowsley; c) Reducing economic, environmental, education, health and other social inequalities between Knowsley and other parts of the UK; and d) Providing opportunities for positive lifestyle choices and health improvement for people of all ages.

Principle 2: Reduce carbon emissions and adapt to the effects of climate change by: a) Contributing to reductions in carbon dioxide emissions from all sources, in line with national targets; b) Ensuring an ability to adapt to future changes to national targets for carbon dioxide and other greenhouse gas emissions, including recognising the role of new technology; c) Identifying and applying measures offering effective mitigation and adaptation to likely environmental, social and economic impacts of climate change; and d) Meeting appropriate minimum standards for sustainability.

Principle 3: Reduce the need to travel and increase accessibility by: a) Selecting locations that reduce the need to travel, especially by car, and enable people as far as possible to meet their needs locally; b) Assisting the Council in achieving a shift towards more sustainable modes of transport for people, goods and freight; c) Encouraging safe and sustainable access for all, particularly by promoting the use of public transport, walking and cycling between homes and employment; and d) Supporting the provision and retention of shared space, community facilities and other local services (such as local shops, health facilities, education provision, meeting places, sports venues, cultural buildings, public houses and places of worship).

Principle 4: Recognise environmental limits, protect and enhance environmental assets, enhance local character and promote quality of place by: a) Understanding and respecting the character and distinctiveness of places and landscapes; b) Protecting and enhancing the historic environment; c) Promoting good quality design and ensuring that development respects its setting taking into account relevant design requirements, and best practice; d) Maximising opportunities for the regeneration of previously developed land, including derelict or unsightly areas to improve the image of Knowsley and use land resources efficiently; e) Mitigating potential negative impacts of traffic growth and road traffic on highway safety, air quality, noise and health; f) Supporting policies relating to Green Infrastructure and the greening of towns and cities; g) Maintaining or enhancing the tranquillity of open countryside and rural areas; h) Maintaining or enhancing the quantity and quality of biodiversity and habitats, including potential impacts on nationally and internationally important sites for biodiversity; i) Addressing any issues of unstable land, resulting from Knowsley's legacy of minerals extraction; and j) Minimising negative impact upon flood risk, air quality, water quality, land quality, soil quality, and noise or vibration levels and ensuring any negative impacts are

appropriately mitigated. Development that will have an unacceptable impact upon any of the above will only be permitted where the benefits of the proposal clearly outweigh the harm.

Principle 5: Make the most efficient use of available resources and infrastructure by prioritising locations consistent with the spatial strategy, which: a) Do not require major investment in new infrastructure, including transport, water supply and sewerage, or where this is unavoidable, incorporate appropriate development phasing and delivery assistance; b) Ensure environmental protection is enhanced through the phasing of new development and delivery of supporting infrastructure, including working with neighbouring authorities and key partner agencies where appropriate; c) Support prudent and efficient management of natural and man-made resources; and d) Promote sustainable construction and efficiency in resource use (including reuse and recycling of materials).

Much of the above policy is not applicable in this instance but it is believed that any proposal is going to be in accordance given that the proposal will promote economic growth by providing much needed connectivity for residents and businesses alike and the site is not situated within any land designations or similar that could impact the environment or character.

CS7 – Transport Networks

Overall Transport Strategy 1) Planning powers and other interventions will be used to support a sustainable and integrated transport system that will: a) Support the economy by facilitating efficient movement of people and goods within the borough and linking to Liverpool City Centre, the Port of Liverpool, Liverpool John Lennon Airport and other destinations in the surrounding area; b) Help meet the development needs of the borough through to 2028; c) Ensure people can get to where they need to by a choice of walking, cycling and public transport; d) Enhance road safety; e) Seek to reduce carbon emissions; and f) Improve the health and wellbeing of local people. Location, Design and Management of New Development

2) New development will be required to be: a) Located and designed to prioritise accessibility and sustainable modes of travel through a choice of walking, cycling, public transport, and incorporate access for private vehicles. Where deficiencies are identified, developer contributions will be required to improve the accessibility of the location; b) Located and designed to ensure that larger scale proposals (attracting a lot of visitors, customers and/or employees) are located in the most accessible locations; c) Where subject to a planning application, accompanied (except in the case of smaller scale proposals) by Transport Assessments and/or Travel Plans; d) In compliance with adopted cycle, car, disabled and service vehicle parking standards for different types and scales of new development; e) Inclusive of measures that will mitigate carbon emissions and improve air quality where appropriate; and f) Consistent with safeguarding arrangements that secure the operational integrity and safety of Liverpool John Lennon Airport Strategic Transport Schemes and Programmes

3) The Council will work with national, regional and sub-regional partners to deliver schemes which support Local Transport Plan priorities including: a) Further transport infrastructure that is necessary to support the future expansion of Liverpool John Lennon Airport consistent with its Surface Access Strategy and national aviation policy; b) Improvements to the rail network including: electrification of existing lines; enhancements to stations and passenger interchange facilities; provision of Park and Ride facilities; and expansion and/or improvement of the Knowsley Rail Freight Terminal; c) Enhanced provision for buses, including improved bus stations, bus stops and laybys, and the enhancement of the principal bus routes through Quality Bus Partnerships and Quality Bus Contracts; d) Maintenance of transport hubs such as bus termini and train stations to give improved safety; e) Enhanced provision of walking and cycling routes as part of the Green Infrastructure network (see Policy CS8: Green Infrastructure); and f) The roll out of infrastructure for low carbon emission vehicles.

4) Developer contributions towards strategic transport schemes and programmes will be sought in accordance with Policy CS27: Planning and Paying for New Infrastructure, the Developer Contributions Supplementary Planning Document and/or a Community Infrastructure Levy Charging Schedule.

5) Further guidance on transport issues and local parking standards are provided in the Ensuring a Choice of Travel Supplementary Planning Document or revisions to this

The proposal is believed to be in accordance with the above policy. Whilst it is acknowledged that the proposal does not provide any additional transport benefits, its purpose is not that to provide. Instead, it is located on a wide grass verge that is not used by vehicles, pedestrians or otherwise and thus cannot detract from their usage as such. The verge is wide enough that individuals attending the site have more than adequate room to safely work on the cabinets.

CS19 – Design Quality & Accessibility in New Development

1) To enhance the local distinctiveness, identity and accessibility of places, new development within Knowsley will be expected to: a) Respond to and integrate positive characteristics of immediate surroundings, including local materials, scale, mass, form, layout, alignment and density of the existing built environment; b) Complement and enhance (where possible), existing landscape, topography, Green Infrastructure; and features of local importance and historic interest; c) Consider provision of landmark buildings and additional detailing at and adjacent to main gateways, movement corridors, town centres and strategic regeneration opportunities; d) Create spaces and places as a focal point, accommodating social interaction and active lifestyles, including provision and integration of high quality public realm and open spaces, public art (as appropriate); and landscaping which promotes biodiversity and integrates existing local habitats; e) Provide safe, secure and convenient routes for movement (including signage), with priority for walking, cycling and public transport, to meet the access needs of all users, particularly pedestrians, cyclists, less mobile people and the elderly; f) Integrate effectively with existing development and link to existing shopping and service provision; and g) Demonstrate community engagement during the design phase of major development proposals.

2) To maintain a good standard of amenity for all existing and future occupants of land and buildings, development proposals will be required to: a) Avoid unacceptable impacts on existing residents, business occupiers, and future occupiers; b) Minimise crime, fear of crime and anti-social behaviour, including good levels of natural surveillance and security; and c) Accommodate future maintenance and long-term management requirements.

3) To address the challenges of climate change and future changes in social, economic and environmental priorities, new development should integrate: a) Sustainable design principles, with regard to Policy CS17: Housing Sizes and Design Standards and Policy CS22: Sustainable and Low Carbon Development as appropriate; b) Biodiversity (in accordance with Policy CS8); c) Flood risk mitigation (in accordance with Policy CS24); d) Waste recycling; and e) Energy and resource efficiency.

4) Further guidance on these issues will be provided in the Local Plan: Site Allocations and Development Policies document and Supplementary Planning Documents as appropriate.

The proposal is limited in available design as it is designed with its intended purpose in mind, and it in itself is considered sustainable development. As previously discussed in the telecommunications policy, in that It is acknowledged that there are residential properties in the relative proximity, but this cannot be avoided in this area due to the area being very heavily residential which is why the problems persist & it should be noted that it will get worse should the large-scale development of residential properties to the north proceed.

However, mitigations have been made by placing the site directly opposite a junction in a road and that any residential views will therefore not be dead on & will be seen against the backdrop of street furniture on a busy A-road and against a backdrop of a Shell Garage and relatively tall Longmoor Tavern building which provides good context.

Planning Assessment

The site will predominantly provide improved coverage to local residents and businesses but will also form part of EE's 4G emergency services network and should be considered critical infrastructure within the UK to support the local community in perpetuity.

3G and 4G signals by their very nature (as they carry high data rates) do not penetrate over long distances, (5G even less so), just a few hundred meters, depending on the topography of the land, building clutter and vegetation including trees in the area which can reduce their effectiveness. Therefore, 3G and 4G as well as 5G radio base stations need to be close to their required coverage area, which in turn limits the extent of any search area.

In terms of siting, the requirement for this site has been compounded as a result of a large number of customer complaints surrounding poor mobile phone coverage and signal (as a result of insufficient network capacity) within the general locale of the proposed application site as seen in this document. This proposed location is considered to be almost the centre of said search area and so will provide the best all round coverage to the area whereas alternative locations may well mean that areas are still devoid of this additional capacity/coverage mean potential need for additional EE Ltd masts in the future, whereas this mitigates this. One ground-based development is considerably better than multiple to provide the same area with coverage.

As such, there is a requirement for a new mast to be sited within this area so as to ensure that customers and residents can be best serviced and well connected. Given that the search area covers the surrounding residential properties and local businesses, it is considered that this proposal would provide coverage to many customers not to mention the potential thousands of additional individuals should the largescale development to the north be progressed.

The application site was chosen due to a limitation of available locations and due to it's location setting insofar that it is situated away from the mainstay of residential properties, on a busy A-road with plenty of contextual infrastructure on the a-road itself which should lead to assimilation, it has been sited opposite a junction as so that residential properties are not facing directly on to the proposal but to the north and as a backdrop are a Shell Garage & Longmoor Taverns which provide a contextual setting for the proposal. In addition to this further to the west there are two telecommunications proposal on this very verge which have been accepted & are in fact situated in front of residential properties as opposed to the proposal & further to the east there is another approved structure; as such it is believed that the setting of telecommunications on this road and setting are seen to be acceptable & as such the proposal should equally been seen as acceptable. This should hold considerable weight when in consideration that the precedence has been set in the area in line with policies ENV8, CS2, CS7 and CS19 of the Knowsley Core Strategy.

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

Telecommunications apparatus by their very nature must be taller than surrounding built and natural form to ensure its efficient operation. The Code of Practice explains that 'radio signals operate like light and must "see" over the target coverage area...' To suggest that it is inappropriate development because it is taller than adjacent lighting columns or road signage is no more relevant than suggesting that street lighting columns are inappropriate because they are taller than road signage or traffic lights.

They are all essential pieces of infrastructure within a street scene that carry out differing functions and therefore cannot be considered on the same merits. Should a street lighting column be capable of the provision of high quality 3G/4G/5G telecommunication services then this would be a reasonable consideration, but this is clearly not the case. As such, the proposal should not be considered negatively due to it being taller per se than other vertical structures. Reasonable consideration of the proposal in the context of nearby street furniture can only conclude that the presence of other vertical structures in the immediate area only seeks to provide a setting wherein a base station may appear more congruous from which to provide an important service to a wider area.

For the site to be fit for purpose, the antennas must have a clear line of sight, so the site has been designed with the headframe peaking over any buildings and surrounding trees so as to provide the necessary coverage that local residents are demanding and require. It is considered that the proposal would be the least visually intrusive addition to the wider public area, whilst achieving the technical requirements of deploying telecommunications equipment in this area in line with policies ENV8, CS2, CS7 and CS19 of the Knowsley Core Strategy.

Therefore, it is our belief that the wider public benefit in this instance vastly outstrips any perceived visual intrusion and it is our belief that as such locals and associated stakeholders within the council should support this application because of the distinct lack of impact on the wider area whilst according to the policies mentioned within this document that present greater and wider opportunities for locals in this area.

The proposed equipment cabinets and meter cabinet do not require planning permission, as they can be installed under the operators permitted development rights. In order to remain fully transparent, they have been included on the plans and in the description. The operator's equipment cabinets are similar to those of other statutory undertakers which are commonplace in urban areas including BT Openreach. Their limited height and scale will ensure that these cabinets will not be detrimental to the visual amenity of the area and will be finished in Fir Green (RAL6009). The proposed pole will be coloured Light Grey (RAL7035) to match the current street equipment & that of the other telecommunications apparatus.

The proposed location is not within in any designated land areas, flood risk zones, and is not located near any listed buildings.

In line with the requirements of NPPF & local policies, there are no existing telecommunications installations for the operator to share that are viable, that would provide the necessary coverage to the target coverage area. Similarly, there are no buildings which are suitable and available that the operator could utilise to operate and host their equipment. As such the proposal equally provides the opportunity for other telecommunications operators to host on this structure.

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

As previously mentioned, EE Ltd requires a site for a new installation in this location to provide coverage and improved network capacity to the immediate locale. Without this installation, there would be an adverse impact on those that rely on this vital service and coverage from an economic, social and environmental perspective. Not least the Emergency Services who will also be reliant on the coverage the proposed installation will provide in the future via EE's 4G Emergency Services Network (ESN). This demonstrates the public benefit of the proposal.

We would again reiterate that we believe that we have demonstrated that the telecommunications development, having regards to the technical and operational constraints, has been designed to minimise environmental and visual impacts through careful siting and design choices. The proposal complies with both national and local planning guidance and as such it is considered to provide the best location from both a technical and town planning point of view.

In addition to the above, a mast of a height of 20m would in fact benefit from the National granting of planning permission subject to conditions, which in this instance is the requirement to submit an application to the council in order to determine whether the prior approval of the council would be required on matters of siting and design alone.

Any information required regarding location, height of antennas, frequency etc. can be found in the supporting documents, which are submitted as part of this prior approval application. As noted below, an ICNIRP certificate has also been enclosed. We are of the opinion that this proposal is compliant with all relevant planning policy, as noted above, and could therefore be supported by your department.

3.0 Access

Under section 42 of the 2004 Act, access requirements both to and around the site should be considered. It must be considered that this site is for telecommunications purposes only.

3.1 Construction and Maintenance

Access to the proposed site location is via the highway adopted land and the public highway. Maintenance visits are required approximately every six months by an operative with a light vehicle. During the construction process all build and maintenance regulations will be complied with. Proof of compliance can be confirmed closer to the time of construction if necessary. It should be noted that all utility providers, which includes EE Ltd, adhere to the National Joint Utilities Group (NJUG) guidelines for installation equipment near to trees.

3.2 Public Access

Radio base stations are not designed to be accessible by the public. Therefore, no specific public access provisions are required to be incorporated into the design of the proposal.

4.0 Regulatory Statement

EE is authorised to operate a public electronic communications network and supply public electronic communications services under the provisions of the Telecommunications Act 1984, the Communications Act 2003 and the Electronic Communications Code (Conditions and Restrictions) Regulations 2003 and aims to meet all reasonable customer demand for that service.

OFCOM statistics show that in 2013 mobile phones are owned / used by 92% of UK adults. This demonstrates the vital role mobile communications play in the social and economic wealth of the country and this number has continued to rise over the last 10 years. Whilst the vast majority of the UK now benefits from mobile coverage there are still spots without coverage. EE under their communications code licence to run a public communications network are duty bound to provide equal coverage to all areas of the UK. This is why the need for communications systems should not be tested by Local Planning Authorities, as it is for the communications code operators to determine locations where coverage is required and demonstrate in evidence.

The development proposed is to provide improved mobile phone coverage to the users in Fazakerley. Emergency services will also utilise this particular mast and so it is imperative that a wider 'blanket' of coverage is provided to areas to ensure that emergency services can continue to provide vital support.

5.0 Health and Safety

Telecommunications planning guidance states that it is not for the local planning authority to seek to replicate through the planning system controls under the health and safety regime as it is a matter for the Health and Safety Executive. The Government guidelines state that provided a proposed base station meets the ICNIRP guidelines for public exposure, then it should not be necessary for the local planning authority to consider the impacts of health concerns.

A certificate confirming compliance with the relevant ICNIRP guidelines on public exposure has been supplied with this application.

The ICNIRP guidelines seek to protect against the well-known thermal effects of radio emissions and include a significant precautionary factor. These guidelines apply to all forms of electronic communications and mobile technology is one of the lowest powered of these.

6.0 Conclusions

The requirement for a new mobile phone base station in this area is to provide improved mobile phone coverage for local residents, visitors and businesses. This site will also form part of the new Emergency Services Network that will replace the existing radio service used by the emergency services.

The telecommunications installation proposed as set out in this application has been designed and sited having regard to technical, engineering and land use planning considerations in order to minimise its impact on the local environment. The mast height is the minimum required in order to ensure operational efficiency - a structure with such a height is needed in this locality because of the local topography and existing tree cover.

The proposed location has been chosen as it is ideally situated to provide adequate coverage to the wider search area as it is centrally located thus reducing the need for additional masts in a residential setting which minimises any perceived negative visual impact on the surrounding public setting as much as possible by setting the equipment around contextual setting including infrastructure, commercial properties and context provided by other telecommunications structures which would serve to minimise any visual impact of the proposal and ensure it would not be viewed as being visually incongruous within the general setting as well as the contextual setting of the existing telecommunications poles which has set a precedence.

Any visual impact would therefore be localised to the site itself. Additionally, paragraphs 3.2 – 3.3 of the Code of Best Practice explain that there is now far greater emphasis that visual impact should not override significant radio planning requirements to achieve mobile coverage to a particular area, particularly with the need to support the massively growing and intensifying demand for mobile communications across the UK.

In relation to planning policy, in accordance with the guidance set out in the NPPF and Local Policy, a thorough search of the area has been undertaken and revealed that there are no existing masts or other structures suitable. Therefore, the development of a new ground-based mast site is justified. In addition, national policy clearly supports sustainable development and states that any development which seeks to improve telecommunications infrastructure should be supported in principle. The proposal is also consistent with general and generic policies of the Local Plan in this instance.

In conclusion, the application is for sustainable development, acceptable as a matter of principle in that it benefits from the national granting of planning permission as permitted development, subject to the condition that this application to the council is submitted in order to determine whether their prior approval is required on matter relating to its siting and appearance.