SUPPLEMENTARY INFORMATION

1. Site Details

Site Name:	SW ON BRODIE AVENUE	Site Address:	BRODIE AVENUE, MOSSLEY HILL, LIVERPOOL, L19 7NB
National Grid Reference:	339584E, 386157N		
Site Ref Number:	CTIL303268_TEF88938	Site Type:[1]	MACRO

2. Pre Application Check List

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

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

Site Specific Pre-application consultation with local planning authority

Was there pre-application contact:	Yes
Date of pre-application contact:	23rd March 2020
Name of contact:	The Chief Planning Officer
Summary of outcome/Main issues raised: A description of the proposal, drawings, a consultation plan and the consultation fee were sent to the LPA on 23rd March 2020. No response has been received to date.	

Community Consultation

Rating of Site under Traffic Light Model:	**Red**	Amber	Green

[1] Macro or Micro

Outline of consultation carried out: A description of the proposal and drawings were sent to the Ward Cllr Sam Gorst, Cllr Tricia Obrien, Cllr Lynnie Hinnigan and Maria Eagle MP on 23rd March 2020.
Summary of outcome/main issues raised (include copies of relevant correspondence): No responses have been received to date.

School/College

Location of site in relation to school/college (include name of school/college): Booker Avenue Infant School and Booker Avenue Junior School within 300m.
Outline of consultation carried out with school/college (include evidence of consultation): A description of the proposal and drawings were sent to Lynne Brown – Headteacher and Michelle Dutton - Chair of Governors on 23rd March 2020. A description of the proposal and drawings were sent to Mr R Thompson – Headteacher and Mr J Edwards - Chair of Governors on 23rd March 2020.
Summary of outcome/main issues raised (include copies of main correspondence): No responses have been received to date.

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

Will the structure be within 3km of an aerodrome or airfield?	Yes	**No**
Has the Civil Aviation Authority/Secretary of State for Defence/Aerodrome Operator been notified?	Yes	**No**
Details of response: N/A		

Developer's Notice

Copy of Developer's Notice enclosed?		**Yes**	No
Date served:	21st April 2020		

3. Proposed Development

The proposed site:
As part of this continued network improvement program, there is a specific technical requirement to provide new 5G coverage in this area of Liverpool. An existing streetworks style base station has been identified in the area, however it cannot accommodate both operators latest requirements. In order to fit into the operator's single grid network, an additional new streetworks style base station is required for this upgrade to Telefonica's service in close proximity of the existing streetworks style base station that will be retained and in due course upgraded for improved Vodafone service. 5G rollout has begun and so Vodafone and Telefónica are in the process of upgrading their existing radio base stations in their single grid network wherever possible. The proposal includes the installation of a 20m high streetworks column supporting 6no.antennas, 2no. 0.3m dishes and ancillary equipment. The installation of 2no. equipment cabinets and development ancillary thereto. The proposed location has been chosen in the absence of a viable alternative, and has been selected as a means of balancing the technical needs of the operator against those of the local community and local planning authority and is considered to be the only option suitable to locate such an installation at this time, whilst balancing all of the above needs.

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

Type of Structure *(e.g. tower, mast, etc):*	
Description: The installation of a 20m high streetworks column supporting 6no.antennas, 2no. 0.3m dishes and ancillary equipment. The installation of 2no. equipment cabinets and development ancillary thereto.	
Overall Height:	20 Metres
Height of existing building *(where applicable):*	N/A Metres
Equipment Housing: Yorkshire Cabinet	
Length:	2.950 Metres
Width:	0.660 Metres
Height:	1.750 Metres
Materials (as applicable):	
Tower/mast etc – type of material and external colour:	Monopole - metal – finished grey
Equipment housing – type of material and external colour:	Cabinet - metal – finished green

Reasons for choice of design, making reference to pre-application responses:
The design and type of equipment to be deployed in this case has been chosen specifically to minimise the impact of this proposed installation replacement upon the local streetscene. In all aspects of the design now put forward the smallest practical components have been utilised to ensure that the visual impact of the development is kept to a minimum. The proposed development has two main elements, the monopole which will support the antennas & the microwave dishes, and the ancillary equipment. Care and attention has been given when designing a scheme to consider its height and scale. The range of masts available for use in the streetscene are limited and a standard monopole design was considered the most suitable. The alternative to a slimline monopole would be a mast with a headframe which would be more visually intrusive than what is here proposed. It was felt therefore that the implementation of a slimmer structure, would be the most suitable option for this location and, unpainted, the galvanised finish will weather and blend into the background. The proposal strikes an appropriate balance between operational and environmental considerations. The installation of this single base station shall provide improved coverage bringing the 5G into the area.

Technical Information

International Commission on Non-Ionizing Radiation Protection Declaration attached (see below) International Commission on Non-Ionizing Radiation Protection public compliance is determined by mathematical calculation and implemented by careful location of antennas, access restrictions and/or barriers and signage as necessary. Members of the public cannot unknowingly enter areas close to the antennas where exposure may exceed the relevant guidelines. When determining compliance the emissions from all mobile phone network operators on or near to the site are taken into account. In order to minimise interference within its own network and with other radio networks, Telefónica operates its network in such a way the radio frequency power outputs are kept to the lowest levels commensurate with effective service provision As part of Telefónica's network, the radio base station that is the subject of this application will be configured to operate in this way. All operators of radio transmitters are under a legal obligation to operate those transmitters in accordance with the conditions of their licence. Operation of the transmitter in accordance with the conditions of the licence fulfils the legal obligations in respect of interference to other radio systems, other electrical equipment, instrumentation or air traffic systems. The conditions of the licence are mandated by Ofcom, an agency of national government, who are responsible for the regulation of the civilian radio spectrum. The remit of Ofcom also	**Yes**	No

includes investigation and remedy of any reported significant interference. The telecommunications infrastructure the subject of this application accords with all relevant legislation and as such will not cause significant and irremediable interference with other electrical equipment, air traffic services or instrumentation operated in the national interest.		

4. Technical Justification

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

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

Whilst it is the case that Cornerstone remains a jointly owned company, established by the two mobile network operators, Vodafone Limited and Telefonica (UK) Limited (O2), to establish and operate a shared single grid network to provide 2G 3G and 4G coverage, this can no longer be the case with all sites for the provision of 5G service.

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

In those instances where greenfield structures and rooftop installations are currently in place, in the vast majority of cases, these will remain shared base stations. These shared base stations allow for separate antennas on supporting structures that are capable of accommodating the weight, wind loading and technological requirements associated with providing four technologies (2G, 3G, 4G and 5G) for two separate operators from a single shared location, albeit sometimes via redevelopment of the existing base station.

However, to address some site specific coverage and data capacity demand, the 5G equipment upon many street furniture base station structures cannot be shared by both operators. This is due to variations in the make-up of the independent Vodafone and Telefonica (O2) networks.

It is critical to understand that the UK's four Mobile Network Operators (MNOs), including Vodafone and Telefonica (O2), all utilise different technology spectrums to provide their mobile service. The spectrums the Operators utilise are allocated by Ofcom, as industry regulators on behalf of UK Government, through licence agreements with each of the

individual MNOs. As such, each MNO must utilise the spectrum licenced to them. Each part of the RF spectrum has variations in terms of RF propagation. Therefore, the four individual MNO networks, and their sharing arrangements, cannot be compared directly and there will be variations in how all four networks are deployed and developed. For this reason, all MNOs, including Vodafone and Telefonica (O2), whom continue to be competitors but share base stations where possible, have a completely different network configuration they need to fit within and build 5G service around. Therefore, the network has to be built differently, with different antennas and equipment, to take account of those spectrum and licence variations and this will to lead to necessary infrastructure variations cell to cell, depending on site specific demand, local constraints and requirement. As such, the various networks will have variations in how their infrastructure is deployed and developed.

As noted, most infrastructure should be capable of sharing, however, the slim line street furniture base stations that have been inserted into the local street scene are not capable of accommodating all of the differing equipment that is required to meet the site specific demand of both operators and customers for this area from a single street furniture pole, being mindful of the spectrum variations. To this end, many existing shared street-work installations are being removed from the 'single grid', meaning the existing pole will become operator unilateral for 5G provision. This creates the necessity for an additional new street furniture base station in the cell to accommodate the technological requirements of the other unilateral operator – either Vodafone or Telefonica (O2).

Given the maturity of the two independent networks, and the single grid consolidation over the last few years, any new street furniture base station needs to be located in close proximity to the existing site – thereby retaining customer coverage and experience within a previously shared 'cell'. The new pole will accommodate all the technologies for the single operator and the 'cell' will benefit from improved service provision from both operators, including the introduction of 5G service to the area. To continue to share an existing structure at this location would require significant redevelopment of the existing structure to a much more structurally robust mast capable of hosting all the differing antennas and equipment from both operators to address their spectrum variations. This would move away from the relatively uniform and slimline street furniture poles proposed and therefore it is felt that a secondary, more slimline, street-pole is a more appropriate and sensitive solution to 5G service provision whilst minimising impact for a street furniture setting."

5. Site Selection Process

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

Site Type	Site name and address	National Grid Reference	Reason for not choosing site
Existing structure	Existing VF streetworks pole VF 45119 – BRODIE AVENUE, LIVERPOOL, L19 7NB	339621E, 386103N	Though currently a shared structure providing 2G/3G/4G coverage for both Operators, there is no comparable street works solution that can accommodate 5G antennas for both Vodafone and Telefonica. It would require significant redevelopment and a completely new mast of substantial width and height, as well as taking up the majority of land at its base. Therefore, it is considered that redevelopment would be inappropriate within the street-scene, compromise pedestrian movements and impact on highway safety. In order to avoid network interference there needs to be vertical and horizontal separation between antennas of each operator. In this instance 30 metres of horizontal separation is required between the existing mast that will continue to be operated by Vodafone and the proposed Telefonica mast. Therefore, co-location within this 30 metre radius is not technically viable and so is discounted.
Greenfield	Heron Eccles Sports Grounds, Abbotshey Avenue, Liverpool, L25 7TA	339729E, 386770N	Sportsground located outside the northern edge of the search area. Too far away from the existing site where coverage level requirements needs to be met.
Greenfield	SW on north side of Jct of Brodie Av. & Booker Av, Brodie	339557E, 386213N	The pavement is too narrow, not enough space to accommodate

	Avenue, Liverpool, L18 4QZ		the cabinets and monopole, therefore has been discounted.

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

N/A

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

N/A

Land use planning designations:

No land use planning designations of note in this case.

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

Background

As part of this continued network improvement program, there is a specific technical requirement to provide new 5G coverage in this area of Liverpool. An existing streetworks style base station has been identified in the area, however it cannot accommodate both operators latest requirements. In order to fit into the operator's single grid network, an additional new streetworks style base station is required for this upgrade to Telefonica's service in close proximity of the existing streetworks style base station that will be retained and in due course upgraded for improved Vodafone service. 5G rollout has begun and so Vodafone and Telefónica are in the process of upgrading their existing radio base stations in their single grid network wherever possible.

The proposal includes the installation of a 20m height streetworks column supporting 6no.antennas, 2no. 0.3mm microwave dishes and the installation of 2no. equipment cabinets.

Visual Impact and Appearance

Visual impact has been minimised as far as practicable. Provision of the new 5G coverage to the area for Telefonica is proposed and can be achieved with only a minimal impact on the surrounding area. As previously noted in this statement, an existing streetworks style base station has been identified in the area, however it cannot accommodate both operators latest requirements.

The location of the equipment ensures only limited harm to the area. Whilst it would be visible it is considered this impact would be not be excessive. The minimal scale of the development and existing telecoms installation and street furniture, would ensure impact is kept to an acceptable level. The pole has a slim and unfussy design and, although taller than existing lighting columns, would assimilate successfully into its surroundings, providing the required coverage for the new 5G rollout. The colour of the pole is proposed to be grey and the cabinets are proposed to be green.

When viewed with the wider context of the surrounding environment features and the trees that line of Brodie Avenue, the proposed design is the most suitable choice for this site, integrating well into the surroundings. The proposal as contained within this application shall have a limited impact on the immediate or wider locality and will not appear overly incongruous within its setting. As such, a balance shall be achieved between the technical requirements necessitating these works and the inevitable impact of any development works upon the local environment.

It is considered that the proposal utilises the most suitable design available to meet coverage demands and to provide suitable coverage. It is important to keep the impact of telecommunications development in the area to a minimum and it is considered this proposal achieves this. The benefits of the proposal also have to be considered. The provision of new superfast 5G connectivity, would be provided for Telefonica users. It is considered the significant public benefits of the proposal outweigh the minimal impact on the surrounding area.

As shown in the photo below, there is ample room for another mast which, when viewed in the context of the natural foliage and the existing masts, will not be an anomalous structure:

Local Planning Policy Considerations

Liverpool Local Plan 2013 – 2033

STP5 Infrastructure Provision – "4. Applications for the provision of new infrastructure will be supported where they are required to help deliver national priorities and locally identified requirements and where their contribution to agreed objectives outweigh the potential for adverse impacts."

The proposal within this application have been sited, designed and applied in line with Local Policy, National Policy and CoBP as detailed below.

Code of Best Practice on Mobile Network Development (CoBP) 2016

The CoBP recommends a sequential approach to siting telecommunications apparatus;

- **Mast or site sharing** – Not possible in this instance as the existing structure is not capable to accommodate the required equipment.
- **Installation on existing buildings and structures** – Not possible in this instance as no suitable structures available in the search area.
- **Camouflaging or disguising equipment** – The proposed mast has been designed to minimise its impact on the street scene. The cabinets will be painted green.
- **Using small scale equipment** – As set out above, the installation has been designed as low as possible in order to maximise the natural screening in the area but tall enough to provide coverage to the target area.
- **Erecting new ground based masts** – The alternative site that has been considered and discounted as previously stated within this application, led to a request for a new mast to be proposed at this location.

Having regard to the assessment above, it can be seen that the scheme as proposed within this application has been sited and designed in line with all national and international guidelines as well as the telecommunication industries Code of Best Practice.

There is a clear and demonstrable need for the proposal to provide improved electronic communications services. Due consideration has been given to all practicable solutions for providing the required telecommunications service and this proposal has been designed in such a way as to minimise its visual impact upon both local area and the residential surrounding area, with any negative impact outweighed by the benefits of these new electronic communications services.

PLANNING POLICY

National Planning Policy Guidance
National Planning Policy Framework (2019) (NPPF)
The new National Planning Policy Framework came into force in July 2018 replacing the guidance published in March 2012. The guidance has subsequently been

updated in February 2019. The NPPF sets out the Government's planning policies for England and how these should be applied.

Paragraph 7 of the NPPF states "The purpose of the planning system is to contribute to the achievement of sustainable development", and in paragraph 10 that "at the heart of the Framework is a presumption in favour of sustainable development". In order to achieve the sustainable development objective, the NPPF has identified 3 overarching objectives (paragraph 8):

a) **an economic objective** – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;

b) **a social objective** – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and

c) **an environmental objective** – to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy."

For **decision-taking** (paragraph 11) this means:

"c) approving development proposals that accord with an up-to-date development plan without delay; or

d) where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:
i. the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or
ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole."

Further to this, paragraph 38 states that "Local planning authorities should approach decisions on proposed development in a positive and creative way. They should use the full range of planning tools available, including 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."

The proposal will enable the provision of new and continued reliable mobile communications services to the surrounding area, bringing about substantial public benefit both socially as well as the allowing for certain businesses to expand, adapt and thrive as well as access new markets. Reliable wireless technology also allows for

home working, and the creation of the 'virtual office', thus reducing the need to travel and contributing to the sustainability agenda.

Government advice in recent years has been to promote and encourage communications services. Within his presentation to Parliament in July 2015 of the Government report "Fixing the Foundations: Creating a more prosperous nation" the Chancellor of the Exchequer reiterated the importance of a high-speed digital communication infrastructure. "7.1 Reliable and high quality fixed and mobile broadband connections support growth in productivity, efficiency and labour force participation across the whole economy. They enable new and more efficient business processes, access to new markets and support flexible working and working from home.

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

The NPPF (2019) 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 112 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".

While supported, the number of base stations are encouraged to be kept to a minimum in which the efficient operation of the network can be provided. Paragraph 113 states that "The number of radio and electronic communications masts, and the sites for such installations, should be kept to a minimum consistent with the needs of consumers, the efficient operation of the network and providing reasonable capacity for future expansion. Use of existing masts, buildings and other structures for new electronic communications capability (including wireless) should be encouraged".

As detailed, the proposals as contained within this development proposal have been sited, designed and applied for in line with the recommendations of this document and as such the development as contained within this application fully complies with these guidelines and the requirements of CoBP and the National Policy.

It should be noted that paragraph 116 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".

The proposal outlined within this document and the supporting enclosures, is in complete accordance with the guidance as set out in the National Planning Policy Framework.

This development is of a simple form and character. The design and siting of this proposed development has been chosen so as to keep to a minimum the impact upon the surrounding area.

Summary

National planning policy is to facilitate the growth of new and existing telecommunications systems, and operators have obligations to meet customer demands for improved quality of service. This development proposes replacement coverage to the surrounding area for Telefónica.

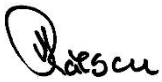
The proposal represents an appropriate siting and design solution for this area, balancing environmental and planning considerations.

A simple design solution is proposed to mitigate visual impact and prevent harm to the local environment. The minimal impact of the development would be outweighed by the significant public benefits of the new super-fast coverage to the area.

The proposed development is compliant with the relevant policies from the NPPF and CoBP, as outlined within this supporting statement.

The proposal is fully compliant with ICNIRP guidelines and declaration of compliance has been provided.

Confirmation that submitted drawings have been checked for accuracy

Name: (Agent)	Matthew Silverwood	Telephone:	07867 977748
Operator:	Telefónica UK Ltd		
Address:	Suite H, KBF House, 55 Victoria Road, Burgess Hill, West Sussex, RH15 9LH	Email Address:	matt.silverwood@sinclairdalby.co.uk
Signed:		Date:	23rd April 2020
Position:	Associate Director	Company: (on behalf of Cornerstone and above operator)	Sinclair Dalby Limited