



**Lambert
Smith
Hampton**

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Mobile Infrastructure Policy Review

On behalf of Cambridgeshire County Council

Prepared by

Lambert Smith Hampton
Tower Wharf
Cheese Lane
Bristol
BS2 OJJ

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1 EXECUTIVE SUMMARY

LSH believe that there is a small but sustained level of interest in your land and building assets for new telecoms developments over the next 5 years and we would advise that the Council implement a new Policy that IS proactively open to developing network coverage across the County to support the businesses and residents.

It is important to stress that the opportunity to secure the additional revenue generated from new telecoms development is finite and if the Council are unable to act quickly the operators will seek alternative solutions to develop their network in the County.

2 INTRODUCTION

Cambridgeshire County Council have instructed LSH to carry out a review of the Council's property and land assets and advise on the expected level of interest in acquiring new telecommunications sites from the mobile network operators (MNO's).

The report will also provide a market commentary of the sector, advise on the associated risks of a new telecoms development in relation to the Council's overarching estate management and provide a summary on the Electronic Communications Code.

The final sections of the report will outline the expected revenue that could be generated from potential telecoms site acquisitions that takes into account both current and speculative demand to increase network capacity through new site acquisitions. We will also advise on our recommended approach to working with the operators in order to maximise both the network coverage in the County and revenue for Cambridgeshire County Council.

3 MARKET COMMENTARY

Consumers today expect ubiquitous, fast, reliable and high quality availability of technology and this is true perhaps none much more so than in the mobile telecommunications sector. As a result of increasing demand and high volume traffic significant pressure has been placed on operators to rapidly adapt and upgrade their telecommunication networks.

Subsequently, the UK has seen all four of its major operators launch 4G Services over the past 4 years starting with EE in 2012. Furthermore, recent estimates by Cisco reveal that mobile data traffic is expected to see an 11-fold rise between 2013 and 2018 with 70% of that being accounted for by video.

New site acquisition has virtually ground to a halt across the UK with all operators focussing on network consolidation and their strategic approach to 4G and the development of 5G that is expected to be broadcast within the next 5 years. These changes mean that there are now effectively two, rather than four, organisations planning and building the mobile networks in the UK. This has resulted in a far greater amount of sharing, and an increase in the types of sharing, that occur across the mobile phone networks. These sharing agreements mean that there will ultimately be fewer base station sites across the UK.

There are 4 main categories of Telecoms Operators in the UK:-

1. Mobile network operator such as CTIL or MBNL,
2. The emergency service network that is currently operated by Airwave
3. Wireless broadband operators such as UK Broadband or Optimity.
4. An infrastructure provider such as Arqiva or Wireless Infrastructure Group, who will then sublet space on their towers to the above 1-3.

The types of installation then fall into 3 separate categories:-

1. A Rooftop development
2. A standalone mast known as a Greenfield site
3. A Microcell or picocell that is typically installed on the side of a building and is designed to provide coverage to a small area, such as a high street or shopping centre.

Mast and aerial sites are either developed by an operator or broadcaster primarily for their own use. Site sharing facilities are sometimes offered as a secondary function or, they are developed by a 3rd party or infrastructure provider such as Arqiva who is primarily interested in attracting site sharers as their main business and in turn the income from this creates an investment which clearly has a market value.

The mobile network market is dominated by the 4 main high street operators – Vodafone, EE, Hutchison 3G and O2, who together with a few third party infrastructure providers are able to dictate the market to some degree and occupy a unique position within the UK property market, sharing many characteristics both with traditional utility networks as well as commercial property.

The level of telecoms rents has matured in recent years with operators seeking to strictly control the levels of rent paid within a geographic region as the number of sites increase to cope with the growing demand for coverage and capacity.

In Cambridgeshire, the tone of rents for Greenfield installations ranges between £4,000 to £6,000 p.a. depending on the exact location, equipment rights and lease terms. In contrast, rooftop rents range from between £7,500 p.a. to £13,000 p.a. although dependent on the same variables. Landlords that house a Microcell or Picocell can expect to receive a rent in the region of £2,500 pa.

Network Consolidation and Infrastructure Sharing

In their quest to cut costs and reduce network interference operators have embarked on ambitious infrastructure sharing arrangements that will lead to a substantial reduction in the 52,500 telecoms base stations across the UK.

Such integration has not been without its difficulties with increased potential management complications for multiple Code systems operators on a single site as well as increased compulsory powers under the Electronic Communications Code. However, there is some market evidence of premiums and favourable adjustments to lease terms being agreed with landlords to facilitate consolidation.

EE, Hutchison 3G & MBNL

Everything Everywhere (EE) is a 50-50 joint venture between T-Mobile (UK) and Orange U.K., set up in 2010. H3G and T-Mobile previously merged networks to form a new company known as MBNL in 2007.

EE announced in June 2012 long anticipated plans for extensive network consolidation – a number of existing Orange sites have been decommissioned and the remainder assigned into the name of Everything Everywhere and Hutchison 3G. Orange has merged with T-Mobile to create EE which has partnered with H3G to create Mobile Broadband Networks Limited (MBNL).

The impact of this consolidation cannot be underestimated – by completion, the MBNL network will consist of approximately 12,500 sites consolidating the former T-Mobile UK and Three networks, which previously numbered more than 18,000 2G and 3G sites in total. 30% fewer sites delivers 25% savings in the average site rental annually which equates to £1 billion in savings for each MBNL partner over 10 years.

Vodafone, Telefónica & CTIL

In October 2012 OFCOM approved plans for Vodafone and Telefónica to extend their existing Cornerstone partnership in a similar way to EE. The operators created a new 50/50 joint venture company called Cornerstone Telecommunications Infrastructure Limited (CTIL) that will consolidate their existing network infrastructure, and lay the foundation for further sharing on LTE.

By opting to proceed down the full consolidation route, Vodafone and Telefónica have recognised that they were competitively disadvantaged in the marketplace compared to their rivals. As three of those rivals shared the cost of running a UK-wide network, Vodafone and Telefónica were each running a

UK-wide network nearly independently. Over time, this extra cost burden would have hit their operating margins and prevented them from effectively competing with their rivals.

In the Vodafone/O2 Cornerstone Project, ground rents of combined sites are being split 50-50 and these companies are offering a percentage payaway to the landlord based on this arrangement rather than true site share values. Leases that have expired are no longer renewed but instead the operators seek to put new leases in place in the name of CTIL, with free sharing granted within the agreements to both Vodafone and Telefónica.

Emergency Services - Airwave & EE

Airwave is a mobile communications network used by Great Britain's emergency services. They are due to lose their £1.2Bn contract to provide services to Police, Fire and Ambulance from 2017. A new 4G enabled mobile network will replace the Tetra communications services currently provided by Airwave, whose services will be gradually phased out by 2020. This will result in the potential loss of up to 5,000 sites nationwide, but replaced by services and new site requirements from other operators. It is unclear how the award of this contract to the service provider (EE) will impact sites within Cambridgeshire.

Wireless Broadband – UK Broadband, Optimity, Metronet & 6G

It was announced in February 2017 that UK Broadband, the operator behind the Relish wireless broadband service in London is to be sold to Hutchison 3G for £250m. This acquisition will allow Hutchison 3G to expand their services into wireless broadband across the country.

The wireless broadband sector has grown in recent years with the emergence of organisations such as Optimity, Metronet and 6G and this is expected to grow significantly in the next 3-5 years where network expansions into the regions is now anticipated.

Future Developments

4G

The term 4G is generally used to refer to mobile broadband services delivered using the next generation of mobile broadband technologies, including Long Term Evolution (LTE) and WiMAX.

OFCOM authorised EE to start rollout of 4G in 2013. Other operators have been slower to catch up. The introduction of 4G has been forecast to require an additional 40,000 sites nationwide, split between upgrades and new sites. This started in 2015 and is expected to last up until 2018.

5G

5G is currently under development and is expected to be rollout from 2020 onwards. EE due to their ownership of BT and collaboration with Nokia, or possibly Vodafone, are likely to be the first operator to have a live 5G network.

The rollout of the 4G network has not been handled well and given that the UK was rated 54th in world for its 4G network the government are keen that this is not repeated when the new 5G network comes into existence.

Summary

The market for telecommunications sites has neared saturation and there is extensive rationalisation taking place as operators seek to share sites in order to reduce operational costs. As a result there has been limited rental growth in recent years. This pressure on rents is tending to become more regularly supported by third party decisions which indicate that regional variations in rent are starting to appear. Generally, rents in the south east of England and the Home Counties are higher than that elsewhere in the country, although below those in London.

4 ELECTRONIC COMMUNICATIONS CODE

OFCOM are responsible for granting code powers to network providers and it maintains a register of those to whom the code has been applied.

The code covers all “electronic communications equipment”, defined as: ‘Apparatus which consists of or includes the sending or receiving of communications or other signals transmitted by means of an electronic communications network’.

The code enables telecoms licence operators (both mobile phone operators and fixed line operators) to provide electronic communications networks by installing and maintaining telecoms apparatus in, over and under land. Not only does it grant rights for them to do so on public land but also to do so on private land. Paragraph 2 of the code provides that a freeholder or a tenant (under a lease for a term of a year or more) may voluntarily agree in writing the right for the telecoms operator or execute any works on its land. In the absence of being able to reach an agreement with the landowner, the telecoms operator can rely on its power under the code under paragraph 5 and seek a court order granting its rights.

In practice operators will negotiate an agreement, normally by way of a lease or licence, and are reluctant to go to court to force landowners to grant them rights under the code. If the court does

make an order it set out the terms and conditions on which basis the rights are granted and, critically, the level of compensation and consideration payable to the owner under paragraph 7. Once the agreement has been entered into, there are only two ways in which an owner can seek the removal of an operator's apparatus under the code. These are set out in paragraphs 20 (alteration of equipment) and 21 (removal of equipment) of the code.

Code powers do not exist to benefit a particular operator but to protect public access to electronic communications networks and associated services. The increase in network coverage means that it is increasingly difficult for network operators to prove that the loss of a particular site will produce a gap in coverage. In this context, counter notices are only served in the hope that it will be a deterrent, either forcing the landlord to drop their demands or at least increase time for negotiation.

Network operators do not welcome the costs and risk of going to court. In fact, I am not aware of any case actually brought by mobile phone network operators since the Act's inception. In my experience, telecommunications operators tend not to stand in the way of a redevelopment, not least because of the compensation they might have to pay (as a result of their successful paragraph 5 application) if the redevelopment is prevented as a result of their enforced occupation.

Operators do not generally like to engage the Code as it affords them significant protection which may make it unattractive for landlords to engage with them regarding the placement of their equipment in the first place. The terms make it clear that the tenant cannot rely upon its rights under the Code.

The New Electronic Communications Code

This Code is in the process of being replaced over the next year or two as part of the Digital Economy Bill and is designed to benefit the Operators by granting them increased rights for less rent, although crucially it will not be retrospective.

The table below provides a comparison of how we expect the new Electronic Communications Code to impact on the telecoms sector.

CURRENT CODE	NEW CODE
Valuation of land based on the value to the operator	"no scheme" valuation system
Right to share and upgrade Code rights determined by contract	Automatic right to share and upgrade Code rights
In addition to the current Code, the Landlord and Tenant Act 1954 may apply to provide security of tenure unless excluded	Landlord and Tenant Act 1954 will not apply to telecommunications leases
Code may be contracted out from pursuant to contract, however not tested	Cannot contract out of the new Code
Dispute to the County Court	Disputes to the Lands Chamber of the Upper Tribunal

5 RISK MITIGATION

With the protection provided to the operators through the Electronic Communications Code landlords are advised to take necessary precautions before agreeing to host a new development on their buildings or land assets.

We strongly advise that the Council establish what holdings are due for redevelopment over the short, medium and long term before considering hosting any new telecommunications development. With that in mind all new leases should contain a 'lift and shift' provision to allow the Council to carry out any planned or emergency maintenance works. We can advise further on how best to mitigate these risks should negotiations develop for any new sites.

Where the Council have forecast the major redevelopment of a building or land asset the operators will agree to a short term lease or flexible break clause. Once a telecoms development is in situ it is essential that the Council anticipate any redevelopment at least 18 months in advance in order to secure the removal or relocation of the operators prior to the commencement of any works.

Lambert Smith Hampton's experience of securing the removal or relocation of an operator from a building or plot of land confirms that the early engagement with the operators, alongside the service of the relevant legal notices under the Landlord and Tenant Act 1954 and Electronic Communications Code, is the most effective way of securing vacant possession.

The time in which it can take to obtain vacant possession can often be shortened if a landlord is able to offer up an alternative site close to the existing site location, whether that be on a permanent basis or even a temporary mast whilst a permanent site was secured nearby. Given Cambridgeshire

County Council's extensive estate the Council are well placed to assist the operators maintain coverage, whilst ensuring the timely removal of the equipment from the asset due for development.

6 HEALTH & SAFETY

There is a public misconception that telecoms developments produce high levels of radiation that can cause long term health problems.

Mobile phone base stations are radio transmitters with antennas mounted on either freestanding masts or on buildings. Radio signals are fed through cables to the antennas and then launched as radio waves into the area, or cell, around the base station.

Mobile phones and devices are new but the technology is not and research has been going on in this area for almost 75 years. Radio base stations are designed to comply with stringent, precautionary public exposure guidelines set out by ICNIRP (International Commission on Non-Ionizing Radiation Protection).

These guidelines have been developed following a thorough review of the science surrounding radio waves.

After a thorough review of the available scientific findings, the World Health Organisation reported:

"To date, the only health effect from RF fields identified in scientific reviews has been related to an increase in body temperature ($> 1\text{ }^{\circ}\text{C}$) from exposure at very high field intensity found only in certain industrial facilities, such as RF heaters. The levels of RF exposure from base stations and wireless networks are so low that the temperature increases are insignificant and do not affect human health".

Control of Electromagnetic Fields at Work Regulations 2016

In the UK, new legislation will shortly be coming into effect, namely the Control of Electromagnetic Fields at Work Regulations 2016.

The document states that: "Some work activities will involve exposure to levels of EMFs which may exceed the ELVs and so potentially pose a risk to workers;" and goes on to list "Broadcast & telecoms base stations inside the operator's designated exclusion zone" as presenting a risk. The underlined passage is relevant here.

Exclusion zones

Close to some telecoms base station antennas, the power density can exceed Guideline Levels (see below). Operators calculate compliance distances in various directions from their antennas in order to define a boundary outside which the guidelines can never be exceeded.

Preventative measures such as administrative procedures or physical barriers are implemented to ensure that people do not accidentally enter regions defined as exclusion zones. The design of sites would normally be such that the general public would not be able to stray into regions designed as exclusion zones.

For large macrocellular base stations radiating around 100 W or more, exclusion zones in the range 10 to 15 m may be required in front of the antennas to ensure exposures remain within the ICNIRP guidelines for public exposure. In other directions such as below and behind the antennas, the exclusion zones would extend for lesser distances. The operators will produce detailed drawings for all new installations detailing the exclusion zones of the antennas, therefore employees and contractors will never normally enter the operator's designated exclusion zone.

Guideline Levels

All telecoms base stations installed on Cambridgeshire Council property will be designed to be in full compliance with the requirements of the radio frequency public exposure guidelines of the International Commission on Non-Ionizing Radiation Protection. These guidelines are designed so that no member of the public is expected to be exposed to electromagnetic fields in excess of these guidelines.

The International Commission on Non-Ionizing Radiation Protection public exposure guidelines have been taken as the numerical basis for the EU Council recommendation of 12 July 1999 (Reference 1999/519/EC) "on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)".

In summary, if a base station is ICNIRP compliant then no further action is required. A certificate or statement of compliance will be provided by all Telecoms network providers for each site where there is equipment to be installed.

Measuring Exposure Levels

Public Health England Centre for Radiation, Chemical and Environmental Hazards (CRCE) carries out surveys of exposure levels in the environment around base stations using spectral monitoring equipment that can measure all of the radio signals present at a location separately. The equipment

consists of a set of measuring antennas mounted on tripods that are connected in turn to a spectrum analyser which measures the signal strengths and passes the data to a computer for subsequent analysis.

The total exposure due to all of the radio signals acting together is calculated from the data acquired with the spectral monitoring equipment and presented as an exposure quotient. The exposure quotient describes the exposure in relation to the ICNIRP guidelines; for example, the exposure at a typical location might be 1/5,500 of these guidelines.

The CRCE has made many measurements of exposure levels at publicly-accessible locations around macrocell base stations and in June 2000 the NRPB Report was published, which contains measurements taken at 118 locations from 17 different base station sites.

Average exposures were found to be 0.002% of the ICNIRP public exposure guidelines and at no location was exposure found to exceed 0.2% of the guidelines.

7 OPPORTUNITY AND BENEFITS

Income

There is a time limited opportunity for Cambridgeshire County Council to let their property assets to generate income from the telecoms market. If the Council cannot offer these assets to the market quickly, then the network operators will look for alternative private sites to locate their equipment.

Market research and soft market testing, undertaken on behalf of Cambridgeshire County Council, indicates that there is an appetite to utilise building assets to provide better coverage in both the mobile network and wireless broadband services in a fast paced and rapidly growing market:

- For the mobile network operators this will be to enhance their coverage of 2G (phone and text) and 3G (mobile broadband) services and, primarily, adding new 4G and 4G L TE (fast mobile broadband) services;
- For the wireless broadband operators this will be to break into new markets and compete with the fixed line broadband suppliers.

Digital Connectivity

The Council acknowledges that there is a need to speed up broadband and mobile coverage in the County, by supporting network operators to upgrade and expand the telecommunications infrastructure that exists today.

The aim of the process will be to find the optimum balance of benefits and income levels; where sites have been identified you should seek to lease these on a site-by-site basis so as not to lose the interest of the network operators, who will seek alternative sites if you do not move quickly enough.

In order to maximise the opportunity for improved network coverage in the region it is essential that you obtain the buy in from the 5 local authorities within Cambridgeshire County Council – Cambridge City Council, East Cambridgeshire District Council, South Cambridgeshire District Council, Huntingdonshire District Council and Fenland District Council.

By offering up their estates to the network operators we are far more likely to achieve the Council's primary objective of achieving the residents and small medium enterprises request for improved telecoms coverage in the region.

8 PLANNING PERMISSION FOR TELECOMMUNICATIONS DEVELOPMENTS

Telecommunications Operators benefit from certain permitted development rights with regard to the installation, alteration or replacement of telecommunications apparatus. This means that development is either 'permitted development' under Part 16 of the Town and Country (General Permitted Development) (England) Order 2015 (the GPDO), or it requires 'planning permission' for which an application must be made to the local planning authority.

Permitted development rights are restricted in certain designated areas, such as the South Downs National Park, Conservation Areas or Sites of Special Scientific Interest (SSSI). Nor do they apply on listed buildings or scheduled monuments.

While most other categories within the GPDO, such as householders, can carry out permitted development without involving the local planning authority, mobile operators are subject to restrictions on these rights.

1. Permitted Development

Minor forms of development that meet the criteria defined within the General Permitted Development Order, are classed as permitted development. This includes development such as; the installation of additional antennas on existing masts and equipment cabinets with a volume of less than 2.5 cubic metres.

The developer is obliged under Regulation 5 of the Electronic Communications Code (Conditions and Restrictions) Regulations 2003 to notify the Local Planning Authority in writing of the intention to

install telecommunications apparatus. The development however, is permitted by law and does not require an application to, consultation with or determination by the Council.

2. Full Planning Permission

Development that does not comply with the GPDO requires planning permission. This includes development such as;

- Masts over 15 metres in height,
- Dish antennas that exceed 1.3m separately or 3.5m in any dimension when measured collectively.

An application for full planning permission must be submitted to the Council who have 56 days in which to carry out the determination process. By the end of the 56 days a decision is made to either Refuse or Approve the proposal. If the proposal is Refused, the applicant can submit an appeal to the Planning Inspectorate who would make a final decision on the application. Conditions requiring additional details, such as screening, can be attached to the grant of consent.

3. Permitted Development that requires Prior Approval

Development that complies with the requirements of the GPDO, is permitted development. However if the development falls within one of the following categories an application for prior approval is required from the Local Planning Authority:

The prior approval procedure applies to, the construction, installation, alteration or replacement of:

- A ground based mast of up to and including 15 metres in height
- A mast of up to and including 15 metres in height installed on a building or structure
- An antenna (including any supporting structure) which exceeds the height of the building or structure (other than a mast) by 4 metres or more at the point where it is installed or to be installed
- Radio equipment housing with a volume of 2.5 cubic metres
- Development ancillary to radio equipment housing (for example, fences or access roads)

Furthermore any development on Article 2(3) land (e.g. National Park, Conservation Area) or Sites of Special Scientific Interest (SSSI) also require an application for prior approval, unless the development is in relation to fixed line broadband equipment where Prior Approval is not required.

Development within the above category must follow the prior approval procedure, under which the Council is given the opportunity to say whether it wishes to approve details of the siting and appearance of the installation. The developer is obliged as part of this process to give notice of the proposed development to any owner or tenant of the land in question prior to the submission of an application.

The only factors that can be considered under an application for prior approval are those concerning the 'siting' and 'appearance' of the proposed development. Factors concerning siting may involve, height of the site in relation to surrounding land, topography of the site and vegetation, openness and visibility of the site, designated areas, the site in relation to existing masts, structures or buildings or proximity to residential property. With regard to appearance this can include details such as; materials, colour, design, dimensions, overall shape, solid or open framework. No other factors can be considered by the Council for this type of application.

Applications for masts that require planning permission are dealt with under the normal planning procedures and will be assessed against a range of planning criteria as well as policies set out in the adopted development plan, such as a Local Plan and Neighbourhood Plan.

The planning authority will need to balance the social and economic benefits of any particular telecoms development against its potential environmental impact.

In addition the Local plan states that whilst the Council are aware of the public concerns regarding the Health and Safety implication of telecommunications however if the National Government guidance states that if a proposed mobile base station meets the International Commission on Non-Ionizing Radiation Protection (ICNIRP) guidelines for public exposure then it should not be necessary for a local planning authority to further consider concerns about its effect on Health and Safety.

9 WORKING WITH NETWORK OPERATORS

The Council recognises the importance of its position, as a major landowner in the County in facilitating the provision of a modern telecommunications infrastructure. However, the Council has to balance this role with its duty, as a public body, to consider the interests and concerns of the people who live and work in Cambridgeshire.

Therefore, while the Council may be prepared to allow its land and buildings to be used for the siting of telecommunications equipment this should be subject to the equipment/development meeting a number of conditions.

The recommended approach is to work with the network operators to see if their requirements can be accommodated on Cambridgeshire County Council's buildings or Land Assets and agree the grant of leases at open market rents. A wider marketing exercise to offer all Cambridgeshire County Council's building and land assets has been carried out with network operators who are looking to lease building assets quickly to enhance their network rollouts.

As well as the revenue potential the project will benefit businesses, residents and visitors by enhancing coverage of the 4G network (i.e. fast mobile internet access) and introducing access to wireless broadband technologies, we are also hopeful that it will stimulate the telecoms market and encourage other network operators to enhance their connectivity in Cambridgeshire, bringing better coverage and competition.

10 NEW SITE DEMAND

We understand there to be a moderate demand for new sites across the County and having undertaken a thorough review of Cambridgeshire County Council and the District Councils' planning portals we have established that there have been over 20 planning applications for new telecoms developments and existing site upgrades over the past 18-24 months

This provides us with a strong indication for the new site demand over the next 12-24 months and through soft market testing we understand that CTIL have an active demand for new sites across the County, and this is supported by the majority of the planning applications within the County over the last 2 years made by O2 and Vodafone.

Optimity and UK Broadband are two well funded businesses that are new to the sector and have rolled out a wireless broadband network in London over the past 12 months, with this set to continue over the next 2 years. Their focus will then switch to the regional towns and cities in the following 3 years with Cambridge and Peterborough very much in their focus.

Network planning is a complex and commercially sensitive area. Each operator will initially conduct their own survey of the sites in a particular area, guided by the level of demand and their own internal governance procedures, and submit a proposal to lease a particular site if it is deemed suitable for their purposes.

Site demand is driven by multiple factors including customer and network demand for coverage, capacity & quality; existing network topology; terrain; population density; traffic flows; self-imposed service criteria and competitor analysis. Rural areas are far less likely to see inward investment unless the operators are incentivised. One solution would be to offer up the 5 District Council's portfolios thus allowing for the operators to plan a network over a far greater area.

A potential site is then assessed to determine how well it will meet this demand. Criteria include: building height & location; space available; position of antennas; adjacent installations; potential for signal interference; lease costs; build costs and the data link to the main network (backhaul).

Given the inherent complexity of this process it is impossible for a landowner to accurately determine the potential value of a specific site to a network operator. What may be a valuable site to one operator may have only negligible value to another.

That said the operators are likely to target the more populated areas such as tourist attractions and the city centre locations of Cambridge and Peterborough. Other areas of significant interest are likely to be the main trunk roads through the County along with the A1 and M11 and the land adjacent to the railway lines.

By offering up the entire land and property portfolio, including the schools which are likely to prove of significant interest, the operators are far more likely to plan an entire network based on your assets, as opposed to approaching other landlords for individual site acquisitions.

Working with Housing Authorities, landlords, with large property holdings and the Police will also increase the chances of improving network coverage in the County.

11 INCOME PROJECTION

We have undertaken a high level review of the potential income achievable across the estate and we have based new site demand on the information provided and have extrapolated this based on our experience of other Council's portfolios. We have also modelled the impact of any premiums we are confident we would be able to negotiate alongside changing equipment rights and associated lease terms.

If the Council implement a policy that proactively supports the development of telecoms installation then we forecast the following income over the next 5 years.

	Operator(s)	No of Sites	Minimum Rent **	Maximum Rent ***	One Off Premiums	Portfolio Rental Income
Phase 1 – 2017	CTIL	5	£25,000	£60,000	£10,000 - £20,000	£25,000 - £60,000
Phase 2 – 2018	CTIL	5	£25,000	£60,000	£10,000 - £20,000	£50,000 - £120,000
Phase 3 – 2019	CTIL, EE&3, UKB & Optimity (speculative)	6	£30,000	£72,000	£12,000 - £25,000	£80,000 - £192,000
Phase 4 – 2020	EE&3, UKB & Optimity (speculative)	5	£25,000	£60,000	£10,000 - £20,000	£105,000 - £252,000
Phase 5 – 2021	EE&3, UKB & Optimity (speculative)	5	£25,000	£60,000	£10,000 - £20,000	£130,000 - £312,000
	TOTAL	26	£130,000	£312,000	£52,000 - £105,000	£130,000 - £312,000

** On the assumption that all new sites are Greenfield installations with rents of c.£5,000 pa

*** On the assumption that all new sites are Rooftop installations with rents of c.£12,000 pa

CTIL have indicated that subject to planning they would like to acquire up to 10 new sites on Cambridgeshire County Council's holdings over the next 24 months, phases 1 & 2. At this stage CTIL have not confirmed which buildings or land holdings they would like to utilise so we have had to caveat the revenue model based on the two different types of telecommunication installation – a Rooftop and a Greenfield mast.

The operators new site rollout is forecast up to 24 months in advance and therefore for phases 3 – 5 we have speculated the level of interest based on the size of your portfolio, planning applications within the County over the last 12-24 months, the emergence of wireless broadband services in the regions and the expected developments in technology, such as 5G and the likely network demand that will result from it.