

MELBOURN PARISH COUNCIL – PLANNING COMMITTEE

(District of South Cambridgeshire)

A meeting of this Committee was held in the Austen Room, The Community Hub, 30 High Street, Melbourn, SG8 6DZ on Monday, 12 June 2023 at 19:30

Members of the public are reminded that copies of reports and supporting documentation for agenda items can be obtained from the Parish Council website, <http://melbournparishcouncil.co.uk> or on request to the Clerk

Present: Cllrs Kilmurray (Chair), Hart, Clark, Alexander, Barnes, Barley

Absent:

In attendance: Sophie Marriage (Parish Clerk) and Abigail Williams and Alex Coxall (Assistants to the Parish Clerk), District Councillor Hales

PL001/23 To receive nominations and elect a Chair of the Planning Committee

Nominations were received for Cllr Kilmurray to be elected Chair of the Planning Committee. No other nominations were received.

It was RESOLVED to elect Cllr Kilmurray as Chair of the Planning Committee.

Proposed by Cllr Clark, seconded by Cllr Hart.

In favour: Cllrs Hart, Clark, Alexander, Barnes, Barley

Against:

Abstain: Cllr Kilmurray

PL002/23 To receive nominations and elect a Vice Chair of the Planning Committee

Nominations were received for Cllr Wilson to be elected as Vice Chair of the Planning Committee. No other nominations were received.

It was RESOLVED to elect Cllr Wilson as Chair of the Planning Committee.

Proposed by Cllr Clark, seconded by Cllr Alexander. All in favour

PL003/23 To receive and approve apologies for absence

Apologies were received from Cllr Wilson with acceptable reasons given.

It was RESOLVED to accept apologies for absence from Cllr Wilson.

Proposed by Cllr Clark, seconded by Cllr Alexander. All in favour.

PL004/23 To receive any Declarations of Interest and Dispensations

- To receive declarations of interest from councillors on items on the agenda
- To receive written requests for dispensations for disclosable pecuniary interests (if any)
- To grant any requests for dispensation as appropriate

Cllr Hart declared an interest in item PL011/23a). Cllr Barley declared an interest in item PL011/23c).

The Clerk granted dispensations to remain for the discussion but not vote.

PL005/23 To approve the minutes of the Planning Committee Meeting on 9 May 2023

It was noted that several typos need to be amended, but the minutes were an accurate record.

It was RESOLVED, following the correction of typos, to approve the minutes of the Planning Committee Meeting on 9 May 2023 as an accurate record.

Proposed by Cllr Hart, seconded by Cllr Alexander. All in favour.

PL006/23 To report back on the minutes of the Planning Committee Meetings on 9 May 2023

It was noted that the upcoming SCDC planning committee would not include an item to discuss the Bruntwood science park application. Council will be informed when this item is discussed so that a representative can attend.

PL007/23 Public Participation: (For up to 15 minutes members of the public may contribute their views and comments and questions to the Planning Committee – 3 minutes per item)

There were no members of the public present.

PL008/23 Decision Notices: To receive any Decision notices issued since last meeting.

- [23/01051/HFUL](#) Proposal: Replacement of existing windows and French doors.
Site address: 137 High Street Melbourn Cambridgeshire SG8 6AR
Decision – granted
MPC's original comments – support no comments
It was noted.

PL009/23 Correspondence

- To note correspondence regarding Bridgefoot farm application 23/01726/FUL

It was noted that the Parish Council was not a consultee on the application although it was in the parish boundary. The officer has been made aware of the situation. It was noted that the signs outside the entrance to the farm are new, however it is understood that it is an unpermitted entrance. ACTION: Clerk to investigate why Highways erected the signs.

Signed..... Dated:.....

- b) To note correspondence regarding application (for information only) [22/01913/CONDB](#) | Submission of details required by conditions 4 (surface water and foul water), 11 (hard and soft landscaping) and 12 (vehicular parking) of planning permission 22/01913/FUL | Land To The Rear Of 151 To 155 High Street Melbourn Cambridgeshire SG8 6AT
It was noted.
- c) To note correspondence regarding application(for information only) [22/02011/CONDA](#) | Submission of details required by conditions 3 (facing materials walls and roofs), 7 (surface water and foul water drainage), 8 (hard and soft landscaping), 10 (traffic management plan), 11 (management and maintenance of streets) and 12 (phase 1 desk top study and phase 2 site investigation strategy) of planning permission 22/02011/FUL | 29 High Street Melbourn Cambridgeshire SG8 6EB
It was noted.
- d) To note the response to the licensing department at SCDC regarding a new pavement license application
The Parish Council's response agreed via email decision was noted.
- e) To note pre-application consultation letter and proposed plans in relation to a proposed telecommunications installation
It was noted.
- f) To receive any updates and consider actions
There were none received.

PL010/23 To note the following applications for tree work:

- a) To receive any updates and consider actions
There were none received.

PL011/23 Planning Applications:

- a) [23/02072/FUL](#) | Proposal: Change of use of taxi headquarters/control centre to car servicing workshop (ClassE(g)(iii)) |Site address: 10A The Moor Melbourn Cambridgeshire SG8 6ED | Applicant: Melbourn Properties Ltd .
Concern was raised about having a car servicing workshop in a residential areas next-door to a care home. It was noted that car servicing workshop are noisy and smelly with hazardous materials. The supporting documents did not detail how hazardous materials will be stored. It was also noted that it is possible that there will be an increased number of vehicles.
It was RESOLVED to object with comments about the noise, inconvenience to neighbours in a residential area, proximity to a care home, smells, concern about the storage of hazardous materials, and the increase of vehicles.
Proposed by Cllr Barnes, seconded by Cllr alexander.
In favour: Cllrs Kilmurray, Clark, Alexander, Barnes, Barley
Against:
Abstain: Cllr Hart
- b) [23/02026/HFUL](#) | Proposal: Single storey rear extension with flat roof. | Site address: 9 Dickasons Melbourn Cambridgeshire SG8 6EL | Applicant: Mr and Mrs Jeff and Jane Vogelmann
It was RESOLVED to support with no comment.
Proposed by Cllr Clark, Cllr Barley. All in favour.
- c) [23/01869/HFUL](#) Proposal: Erection of detached double garage |Site address: 31 High Street Melbourn Cambridgeshire SG8 6EB | Applicant: MR H. Simmonds.

It was RESOLVED to support with no comment.
Proposed by Cllr Hart, seconded by Cllr Barnes.
In favour: Cllrs Kilmurray, Clark, Alexander, Barnes, Hart
Against:
Abstain: Cllr Barley
- d) [23/01921/HFUL](#) | Single storey extension to rear. | 5 Trayles Melbourn Cambridgeshire SG8 6PH

It was RESOLVED to support with no comment.
Proposed by Cllr Kilmurray, seconded by Cllr Hart. All in favour.
- e) [23/01906/HFUL](#) | Single storey rear lean to extension and single storey rear flat roof extension. | 4 Pryors Orchard Melbourn Cambridgeshire SG8 6UT
It was RESOLVED to support with no comment.
Proposed by Cllr Clark, seconded by Cllr Barnes. All in favour.
- f) To receive any updates and consider actions
There were none received.

**PL012/23 Compliance updates: To consider any compliance updates received since last meeting
To receive an updates and consider actions**

There were none received.

PL013/23 To note the date of next meeting : Monday 10 July 2023

It was noted that the date of next meeting is Monday, 10th July.

Meeting closed at 20:03

Signed..... Dated:.....

MELBOURN PARISH COUNCIL – PLANNING COMMITTEE

(District of South Cambridgeshire)

A meeting of this Committee was held in the Austen Room, The Community Hub, 30 High Street, Melbourn, SG8 6DZ on Tuesday, 9 May 2023 at 19:30

Members of the public are reminded that copies of reports and supporting documentation for agenda items can be obtained from the Parish Council website, <http://melbournparishcouncil.co.uk> or on request to the Clerk

Present: Cllrs Kilmurray (Chair), Hart, Clark, Alexander, Barnes

Absent:

In attendance: Sophie Marriage (Parish Clerk) and 2 members of the public.

PL124/22 To receive and approve apologies for absence

Apologies were received from Cllrs Barley and Wilson with acceptable reasons.

It was RESOLVED to accept the apologies for absence from Cllrs Barley and Wilson.

Proposed by Cllr Hart, seconded by Cllr Clark. All in favour.

Apologies were noted from District Cllr Hales.

PL125/22 To receive any Declarations of Interest and Dispensations

- a) To receive declarations of interest from councillors on items on the agenda
- b) To receive written requests for dispensations for disclosable pecuniary interests (if any)
- c) To grant any requests for dispensation as appropriate

Cllr Hart declared an interest in agenda item PL131/22a) and PL132/22c). Cllr Kilmurray declared an interest in agenda item PL132/22c). The Clerk granted dispensation to remain in attendance for the discussion but they were not permitted to vote.

PL126/22 To approve the minutes of the Planning Committee Meeting on 11 April 2023

It was noted that under PL121/22c) it should include the impact of the development on residents wellbeing.

It was RESOLVED, following the amendment above, to approve the minutes of the Planning Committee Meeting on 11 April 2023 as an accurate record.

Proposed by Cllr Clark, seconded by Cllr Barnes. All in favour.

PL127/22 To report back on the minutes of the Planning Committee Meetings on 11 April 2023

It was reported that some residents wishing to speak at the SCDC planning meeting relating to planning application 23/01134/FUL have contacted the clerk. Others wishing to speak are encourage to contact the Parish Office for further details.

PL128/22 Public Participation: (For up to 15 minutes members of the public may contribute their views and comments and questions to the Planning Committee – 3 minutes per item)

Two members of the public were in attendance and spoke in relation to item PL132/22c) on the agenda (planning application 22/04904/FUL). They indicated their support of the current proposal and noted that domestic properties would be more appropriate than a commercial development. They also noted other residents were in support of the proposal, however it would be preferred for the leylandii hedge is removed and replaced by a mixed species native hedge, as in the original proposal.

PL129/22 Decision Notices: To receive any Decision notices issued since last meeting.

- a) [22/03297/FUL](#) | Installation of 5 no. EVC bays and associated infrastructure. | Flint Cross Service Station Newmarket Road Melbourn Royston Cambridgeshire SG8 7PN
Decision – Granted
MPC original comments – support no comment
The decision was noted.
(The Chairman re-ordered the agenda)

PL130/22 Correspondence

- c) To receive any updates and consider actions
It was noted.

PL132/22 Planning Applications:

- c) [22/04904/FUL](#) | Demolition of existing commercial unit and erection of 2 no. new build residential units | 4 Station Road Melbourn Cambridgeshire SG8 6DX, Applicant: Mr and Mrs Care of Agent
It was RESOLVED to support the application with the following comments:
 - All vehicles in relation to the site must park within the boundaries of site during the development as it is not safe to park on the road.

Signed:.....Date.....

- The leylandii hedge should be removed and replaced with a mixed species native hedge as in the original proposals. If the current leylandii hedge were cut to hedge level this would leave only tree trunks with no hedge effect.

Proposed by Cllr Barnes, seconded by Cllr Clark.

In favour: Cllrs Barnes, Clark, and Alexander.

Against:

Abstain: Clls Hart and Kilmurray.

(The Chairman resumed the order of the agenda)

(The two members of the public left the meeting at 19:46)

PL130/22 Correspondence

- a) To note correspondence relating to application 23/01134/FUL

It was noted.

- b) Notification of Planning Appeal: 21/03616/FUL

It was noted.

PL131/22 To note the following applications for tree work:

- a) [23/0415/TTCA](#) Proposal: T.1 Eucalyptus - Fell to ground level dead tree.

Site address: 62 High Street Melbourn Cambridgeshire

No comments received

It was noted.

- b) 23/0388/TTCA | T.1 Beech - Crown reduce height of the tree by 10M to allow more light to the rear garden of 1 Brooksbank. (create new pollard at approx 50%) H.1 - Beech - Reduce height back to previous - Approx. 5M from ground level (new regrowth is approx. 2M) to allow more light to the rear garden of 1 Brooksbank. | Melbourn Village College The Moor Melbourn Cambridgeshire SG8 6EF

No comments received

It was noted.

- c) To receive any updates and consider actions

There were none to receive.

PL132/22 Planning Applications:

- a) [23/01495/FUL](#) | Erection and siting of fibre exchange telecommunications infrastructure to provide a full fibre (gigabit) to the premises service | Land To Rear Three Prospects Royston Road Melbourn Cambridgeshire, Applicant: CityFibre

It was RESOLVED to support with no comments.

Proposed by Cllr Kilmurray, seconded by Cllr Barnes. All in favour.

- b) [23/01319/HFUL](#) | Single storey extension to front. | 12 Elm Way Melbourn Cambridgeshire SG8 6UH, Applicant: Mr Tamas Monos

It was RESOLVED to support with no comments.

Proposed by Cllr Clark, seconded by Cllr Barnes. All in favour.

- d) [23/01546/LBC](#) | Single storey rear extension | 153 High Street Melbourn Cambridgeshire SG8 6AT, Applicant: Mr Beech

It was RESOLVED to support with no comments.

Proposed by Cllr Barnes, seconded by Cllr Alexander. All in favour.

- e) To receive any updates and consider actions

There were none to receive.

PL133/22 Compliance updates: To consider any compliance updates received since last meeting

To receive any updates and consider actions

There were none to receive.

PL134/22 To consider having a parish council representative at the SCDC planning meeting when application 23/01134/FUL

It was RESOLVED that either Cllr Travis or Cllr Clark will attend the planning meeting at SCDC as a representative of the Parish Council.

Proposed by Cllr Kilmurray, seconded Cllr Clark. All in favour.

ACTION: Clerk to draft a script for the representatives and to inform SCDC of their attendance.

PL135/22 To note the date of next meeting : Monday 12 June 2023

The date of the next meeting was noted at Monday 12 June 2023.

Meeting closed at 19:57

Signed:.....Date.....

Signed:.....Date.....

From: [Cllr Steve Kilmurray](#)
To: [assistant clerk gov](#); "[jose hales](#)"; "[Cllr Sally Ann Hart](#)"
Cc: [parishclerk](#)
Subject: Re: Planning query
Date: 01 June 2023 13:05:22

Hi Abi et al

The previous application was sent to us and the property in question is definitely within our area, so I do not understand why we didn't get this one.

However, from memory, we objected strongly to it - it will be in the minutes somewhere. I believe that there is an enforcement action going on - Jose or Sally Ann would know more - with this applicant on various safety grounds relating to the A505 access.

This application does attempt to mitigate this, but I agree with Great and Little Chishill that putting another junction in this busy area of the A505 would still be a big problem in an area where there are often accidents both minor (I've been witness to several) and major. It would simply make that section of the A505 too complex for safe driving.

In a distance of less than 400m, we currently have junctions for the driveway to the coach place, Barley Road, entry/exit to the Garage, entry/exit to Fowlmere Road, entry/exit to the vets. - That is 5 official junctions (or 8 if you count each entry and exit) plus the current problematic one for the packing plant. Moving that along the road a little won't really improve things.

I don't think that any other of our other previous objections have been considered in this new application.

Cheers
Steve

Councillor Steve Kilmurray

Melbourn Parish Council

On 31/05/2023 14:07, assistant clerk gov wrote:

Good afternoon All

I am hoping you can help me with a planning query that has come in via the office.

Planning application 23/01726/FUL

(<https://applications.greatercambridgeplanning.org/online-applications/applicationDetails.do?activeTab=summary&keyVal=RU537ZDXFRD00>)

██████████ called in with regard to the planning application above, this is a new application for a similar project that has previously been withdrawn.

██████████ concerns are:

- The application is to the wrong Parish (Great And Little Chishill CP) as she believes this should be Melbourn (although G & LC CP have recommended refusal)
- The application is using an incorrect address (actually Caroline's) and the area seems to not have an address of its own
- Deadline for comment is the 6 June, so time is running out!
- General concerns of safety if the application were to be approved.

Jose, [REDACTED] informs me that you know all about this application and is hoping that you can help her fight it.

If you would like to speak to [REDACTED] you can contact her on [REDACTED]

If you have a response you would like me to share please let me know.

Many thanks

Abi

Abi Williams
Assistant to the Parish Clerk

Melbourn Parish Council
Melbourn Community Hub
30 High Street
Melbourn
Cambridgeshire
SG8 6DZ

Tel: 01763 263303 (option 3)
assistantclerk@melbournparishcouncil.gov.uk
<http://melbournparishcouncil.co.uk>

Please note: My working hours are usually Monday to Friday, 9am - 4pm

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From: [Cllr Jose Hales \(SCambs - Melbourn\)](#)
To: michael.allen@greatercambridgeplanning.org; [Cllr SallyAnn Hart \(SCambs - Melbourn\)](#)
Cc: [assistant_clerk.gov](#)
Subject: FW: Planning query
Date: 31 May 2023 14:32:58

Dear Michael,

I'm conscious that you might not be the officer who is dealing with this application, however if you are please see the email from the clerks office at Melbourn Parish Council.

If you're not the right person, would you be kind enough to let Sally Ann and I know who is please.

The application below if it's not actually in the Melbourn parish, it borders/straddles it. If possible I would very much like Melbourn PC to be added as a consultee.

Please don't hesitate to contact me.

Kind regards

Cllr Jose Hales

District Councillor for the Melbourn Ward (Liberal Democrat)

M: 07703 262649

E-Newsletter: https://www.sclibdems.org.uk/email_signup_melbourn

From: assistant clerk gov <assistantclerk@melbournparishcouncil.gov.uk>

Sent: Wednesday, May 31, 2023 2:07 PM

To: 'jose hales' <josehales@gmail.com>; 'Cllr Sally Ann Hart' <cllr.hart@melbournparishcouncil.gov.uk>; 'Cllr Steve Kilmurray' <cllr.kilmurray@melbournparishcouncil.gov.uk>

Cc: parishclerk <parishclerk@melbournparishcouncil.gov.uk>

Subject: Planning query

Good afternoon All

I am hoping you can help me with a planning query that has come in via the office.

Planning application 23/01726/FUL (<https://applications.greatercambridgeplanning.org/online-applications/applicationDetails.do?activeTab=summary&keyVal=RU537ZDXFRD00>)

██████████ called in with regard to the planning application above, this is a new application for a similar project that has previously been withdrawn.

██████████ concerns are:

- The application is to the wrong Parish (Great And Little Chishill CP) as she believes this should be Melbourn (although G & LC CP have recommended refusal)
- The application is using an incorrect address (actually Caroline's) and the area seems to not have an address of its own
- Deadline for comment is the 6 June, so time is running out!
- General concerns of safety if the application were to be approved.

Jose, [REDACTED] informs me that you know all about this application and is hoping that you can help her fight it.

If you would like to speak to [REDACTED] you can contact her on [REDACTED].

If you have a response you would like me to share please let me know.

Many thanks

Abi

Abi Williams
Assistant to the Parish Clerk

Melbourn Parish Council
Melbourn Community Hub
30 High Street
Melbourn
Cambridgeshire
SG8 6DZ

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PL009/23d)

Good morning,

I have shared this with council and although the drawings show space for seating, it does not appear to reflect the true space need so that people can use the seating area. There is concern that the area is quite "tight" with nowhere to put down a cup or plate. Even as a perching place, it is feared that people's legs could cause obstruction or if they have their dogs with them that there isn't sufficient room.

The pavement is very narrow in this area and close to the crossing so people wait nearby while waiting for the lights to change. The addition of seating in this area will make the pavement very congested and possibly result in people walking into the road to get by. There is also concern that people using the seating with buggies, bikes, and walking frames may cause additional obstructions.

Based on the reasons above, the council feel that they cannot support the application.

Many thanks

Sophie

Sophie Marriage

Parish Clerk

Melbourn Parish Council
Melbourn Community Hub
30 High Street
Melbourn
Cambridgeshire
SG8 6DZ

Tel (01763) 263303 option 3

<http://melbournparishcouncil.co.uk>

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From: Licensing (SCDC) <Licensing@scams.gov.uk>

Sent: 31 May 2023 11:43

Subject: New Pavement Licence Application Received - Consultation

Importance: High

Good afternoon,

We have received an application for a Pavement Licence and require any comments by the end of consultation which is 06/06/2023.

If you have any questions regarding the application, please contact us before end of consultation.

Kind regards,

Our ref: CTIL 11097322

18th May 2023

Melbourn Parish council
parishclerk@melbournparishcouncil.gov.uk

Clarke Telecom Ltd
Unit E
Madison Place
Northampton Road
Manchester
M40 5AG

Dear Cllr Van De Ven

PROPOSED UPGRADE TO EXISTING RADIO BASE STATION INSTALLATION AT CTIL 11097322, MELBOURN, CHERRY PARK FARM IND. EST, CAMBRIDGE ROAD, MELBOURN, HERTFORDSHIRE, SG86EY, NGR: E 539096 N 245542

Cornerstone is the UK's leading mobile infrastructure services company. We acquire, manage, and own over 20,000 sites and are committed to enabling best in class mobile connectivity for over half of all the country's mobile customers. We oversee works on behalf of telecommunications providers and wherever possible aim to:

- promote shared infrastructure
- maximise opportunities to consolidate the number of base stations
- significantly reduce the environmental impact of network development

Cornerstone is in the process of identifying a suitable site in the Melbourn area for a radio base station to maintain and improve existing levels of service provision. The purpose of this letter is to consult with you and seek your views on our proposal before proceeding with the works. We understand that you are not always able to provide site specific comments, however, Cornerstone is committed to consultation with communities on our mobile telecommunications proposals and as such would encourage you to respond.

As part of Cornerstone's continued network improvement program, there is a specific requirement for an upgrade to the existing installation at this location to provide enhanced coverage and capacity, and new 5G coverage ensuring that this area of Melbourn has access to the latest technologies.

Mobiles can only work with a network of base stations in place where people want to use their mobile phones or other wireless devices. Without base stations, the mobile phones, and other devices we rely on simply won't work.

Please find below the details of the proposed site: -

Our technical network requirement is as follows:

AT CTIL 11097322, MELBOURN

In the first instance, all correspondence should be directed to the agent.

Cornerstone Planning Consultation Letter to Councillors - Standard V.3 – 15/04/2021

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

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

The site is needed to provide enhanced 2G, 3G, 4G coverage and capacity as well as new 5G service provision to ensure that customers experience access to the latest technologies currently available. The installation will also meet the extra demands on the network in this area as new technologies improve increasing the demand for 4G and 5G technology.

The Government recognises that widespread coverage of mobile connectivity is essential for people and businesses. People expect to be connected where they live, work, visit and travel. That is why the Government is committed to extending mobile geographical coverage further across the UK, with continuous mobile connectivity provided to all major roads and to being a world leader in 5G. This will allow everyone in the country to benefit from the economic advantages of widespread mobile coverage. As well as improved mobile signal, 5G networks are also crucial to drive productivity and growth across the sectors that local areas are focusing on through their emerging Local Industrial Strategies. Enabling and planning for 5G implementation is central to achieving the Government's objective to deliver property at the local level and enable all places to share in the proceeds of growth.

The Government is determined to ensure the UK receives the coverage and connectivity it needs. To this end, the Government wants to be a world leader in 5G, the next generation of wireless connectivity, and for communities to benefit from the investments in the new technology.

The case for 5G is compelling as it will bring faster, more responsive and reliable connections than ever before. More than any previous generation of mobile networks, it has the potential to improve the way people live, work and travel, and to deliver significant benefits to the economy and industry through the ability to connect more devices to the Internet at the same time, creating the so-called "Internet of Things". This will enable communities to manage traffic flow and control energy usage, monitor patient health remotely, and increase productivity for business and farmers, all through the real-time management of data.

The demand for mobile data in the UK is increasing rapidly, and as households and businesses become increasingly reliant on mobile connectivity, the infrastructure must be in place to ensure supply does not become a constraint on future demand.

The preferred Cornerstone option is as follows:

MELBOURN, CHERRY PARK FARM IND. EST, CAMBRIDGE ROAD, MELBOURN, HERTFORDSHIRE, SG86EY, NGR: E 539096 N 245542

The proposed works comprise the remove 1No. 15m monopole with 3No. Antennas & 1No. 300mm Dish. Install 1No. 17.6m monopole with 6No. Antennas, 15No. RRU's & 2No. 300mm Dishes. Install GPS Module.

The operators are proposing to upgrade their existing installation to ensure the latest high quality, reliable, secure communications technology is able to be provided from this location. The amendments to the existing scheme are essential in order that customers' handheld devices continue to operate for the purposes in which they have become accustomed, accessible wherever they are whether that be indoors or outside.

As this is an existing ground based installation, this is sequentially the most preferable site for the operators to upgrade their existing service provision to this cell area. As such, no other options have been considered.

In the first instance, all correspondence should be directed to the agent.

Cornerstone Planning Consultation Letter to Councillors - Standard V.3 – 15/04/2021

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

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

The Local Planning Authority mast register and our records of other potential sites have already been reviewed, the policies in the Development Plan have been taken into account and the planning history of the site has been examined.

All Cornerstone installations are designed to be fully compliant with the public exposure guidelines established by the International Commission on Non-Ionizing Radiation Protection (ICNIRP). These guidelines have the support of UK Government, the European Union and they also have the formal backing of the World Health Organisation. A certificate of ICNIRP compliance will be included within the Regulation 5 notification.

In order to give you time to send your comments or request further information, we commit to allow at least 14 days before proceeding with the works. This 14-day period starts from the date at the top of this letter.

We would also be grateful if you could please advise of any local stakeholders or groups that might like to make comments. For your information pre-consultation letters and a set of plans have been sent to the local ward councillors for Melbourn district, Melbourn & Bassingbourn county councillor, Melbourn parish council, local MP and Fowlmere Airfield.

We look forward to receiving any comments you may have on the proposal within 14 days of the date of this letter.

Should you have any queries regarding this matter, please do not hesitate to contact me (quoting cell number 11097322)

Yours faithfully

Amy Day

Amy Day
Acquisition surveyor
Acquisition
Clarke-telecom
T: 0161 785 4500
E: Amy.Day@Clarke-Telecom.com

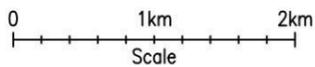
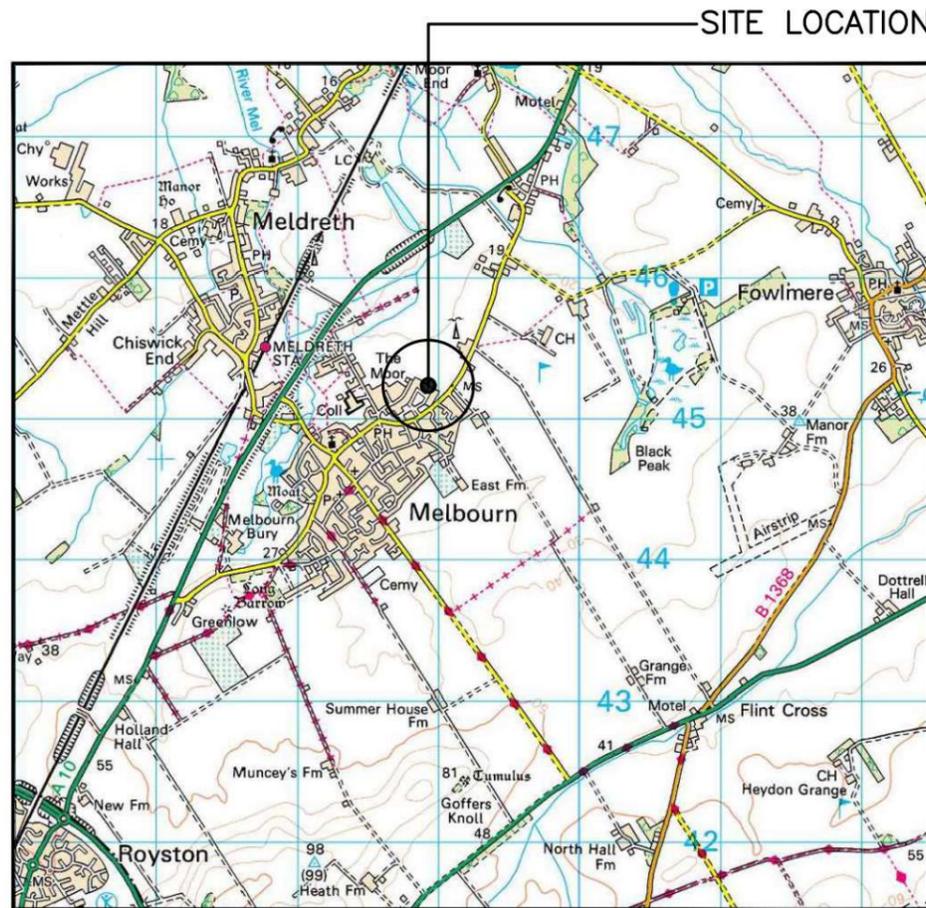
(For and behalf of cornerstone)

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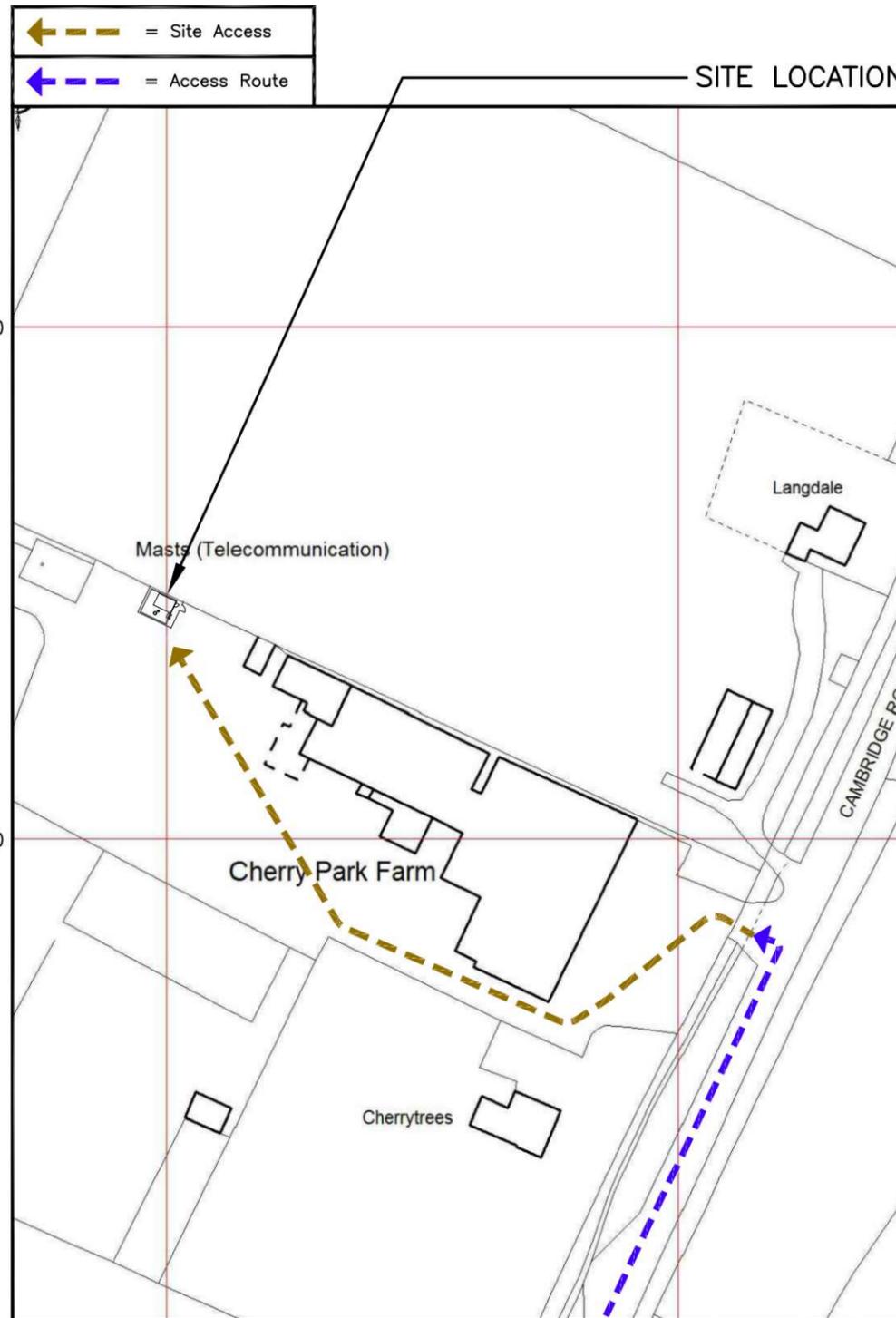
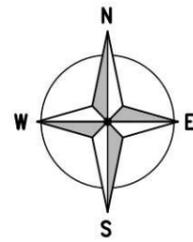
SITE LOCATION
(Scale 1:50000)

Ordnance Survey map extract based upon Landranger map series with the permission of the controller of Her Majesty's Stationery Office. Licence No. 0100023487. Crown copyright.



SITE PHOTOGRAPH

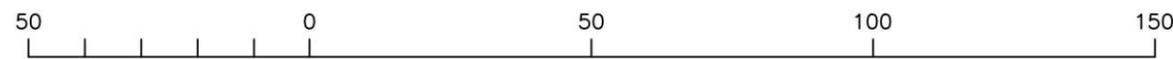
These drawings comply with VMO2 Standard ICNIRP guidelines, Designed in accordance with Cornerstone documents: SDN0007 & SDN0008



DETAILED SITE LOCATION

(Scale 1:1250)

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ORIGINAL SCALE AT A3 - 1:1250

ALL DIMENSIONS IN METRES

ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE

N.G.R E: 539096 N: 245542

DIRECTIONS TO SITE:

TRAVELLING EAST M62. AT JUNCTION 32A, EXIT ONTO A1(M). CONTINUE ONTO A1. CONTINUE ONTO A1(M) (SIGNS FOR RED HOUSE/THE SOUTH/M18/M1). CONTINUE ONTO A1. CONTINUE ONTO A1 (M) (SIGNS FOR LONDON). CONTINUE ONTO A14. CONTINUE ONTO M11 (SIGNS FOR LONDON). AT JUNCTION 11, TAKE THE A1309 EXIT TO A10/CAMBRIDGE(SOUTH)/ROYSTON. AT THE ROUNDABOUT, TAKE THE 3RD EXIT ONTO CAMBRIDGE ROAD/A10. CONTINUE TO FOLLOW A10. TURN LEFT ONTO CAMBRIDGE ROAD

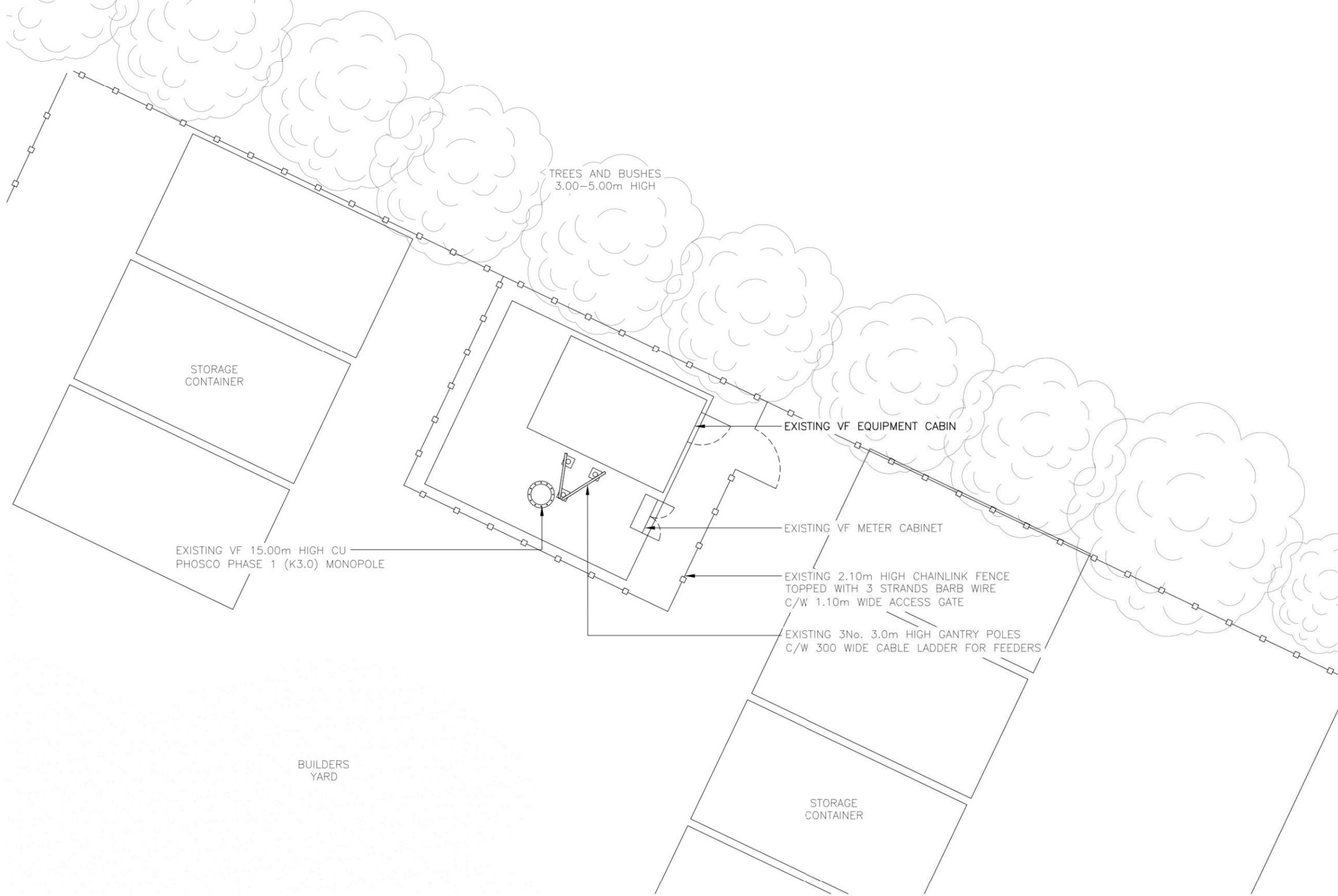
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A	Issued for Approval	DP	SD	12.05.23
REV	MODIFICATION	BY	CH	DATE

Cell Name		Opt.
MELBOURN		-
Cell ID No		
CORNERSTONE	VF	VMO2
110973_22	N/A	70896

Site Address / Contact Details		
CHERRY PARK FARM IND. EST. CAMBRIDGE ROAD MELBOURN HERTFORDSHIRE SG8 6EY		

Drawing Title: SITE LOCATION MAPS		
Purpose of issue: PLANNING		Dwg Rev: A
Drawing Number: 100		
Surveyed By: SSH	Original Sheet Size: A3	Pack Issue:
Drawn: DP	Date: 03.05.23	Checked: SD
		Date: 12.05.23
		A



EXISTING SITE PLAN

(1:100) 5000 0 5000 10000

ORIGINAL SCALE AT A3 - 1:100

ALL DIMENSIONS IN MILLIMETRES

ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE

N.G.R E: 539096 N: 245542

NOTES:

REV	MODIFICATION	BY	CH	DATE
A	Issued for Approval	DP	SD	12.05.23

CLARKE telecom
 Unit E, Madison Place, Northampton Road,
 Manchester, M40 5AG
 Tel: 0161 785 4500
 Fax: 0161 785 4501
 Web: www.clarke-telecom.com

cornerstone

Cell Name	Opt.
MELBOURN	-

Cell ID No		
CORNERSTONE	VF	VMO2
110973_22	N/A	70896

Site Address / Contact Details
 CHERRY PARK FARM IND. EST.
 CAMBRIDGE ROAD
 MELBOURN
 HERTFORDSHIRE
 SG8 6EY

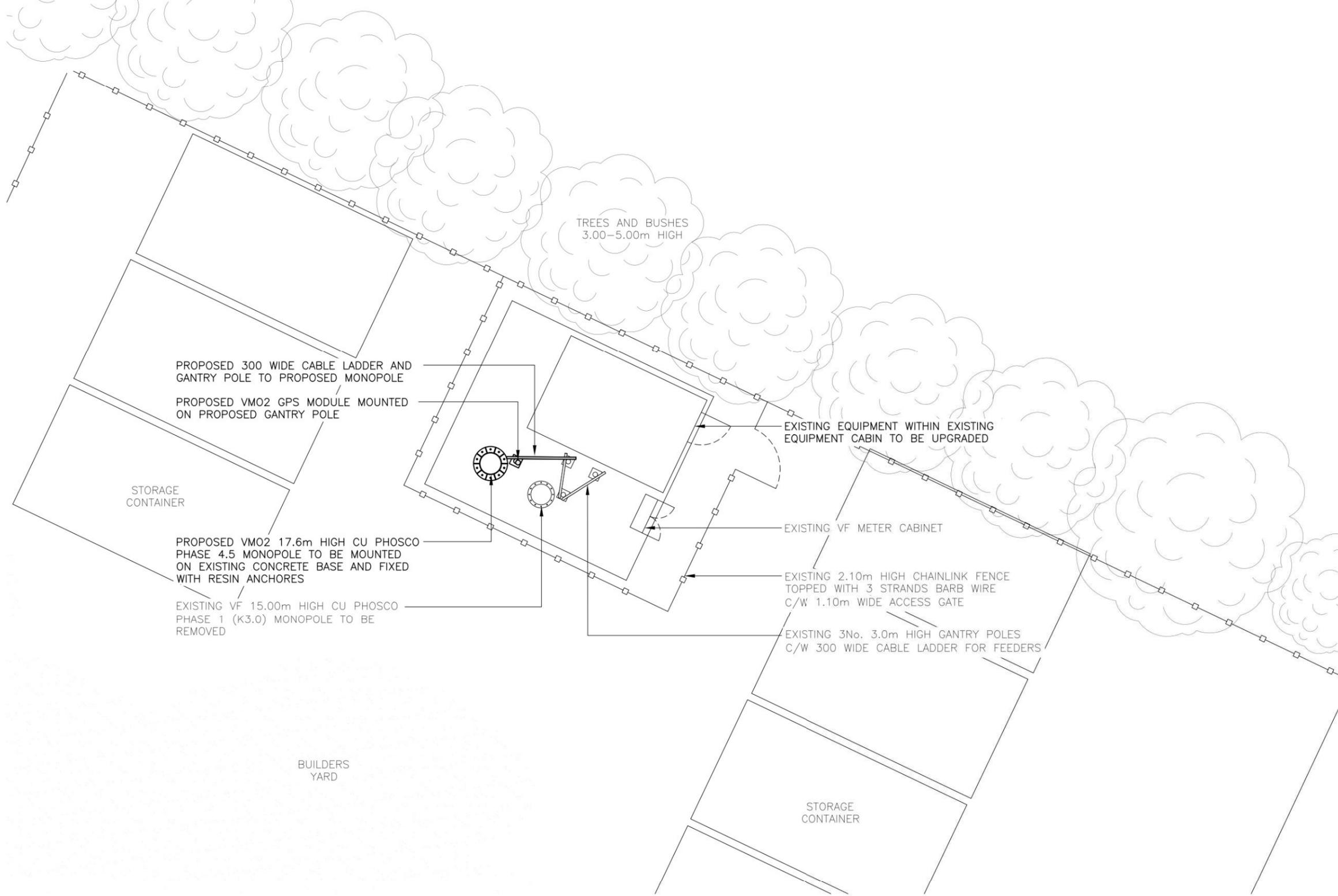
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Purpose of issue: PLANNING Dwg Rev: A

Drawing Number: 200

Surveyed By: SSH Original Sheet Size: A3 Pack Issue: A

Drawn: DP Date: 03.05.23 Checked: SD Date: 12.05.23



PROPOSED SITE PLAN



**These drawings comply with VMO2 Standard ICNIRP guidelines,
Designed in accordance with Cornerstone documents: SDN0007 & SDN0008**

ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE

N.G.R | E: 539096 N: 245542

NOTES:

A	Issued for Approval	DP	SD	12.05.23
REV	MODIFICATION	BY	CH	DATE

Cell Name | Opt.

MELBOURN | -

Cell ID No

CORNERSTONE	VF	VMO2
110973_22	N/A	70896

Site Address / Contact Details

CHERRY PARK FARM IND. EST.
CAMBRIDGE ROAD
MELBOURN
HERTFORDSHIRE
SG8 6EY

Drawing Title: PROPOSED SITE PLAN

Purpose of issue: PLANNING | Dwg Rev: A

Drawing Number: 201

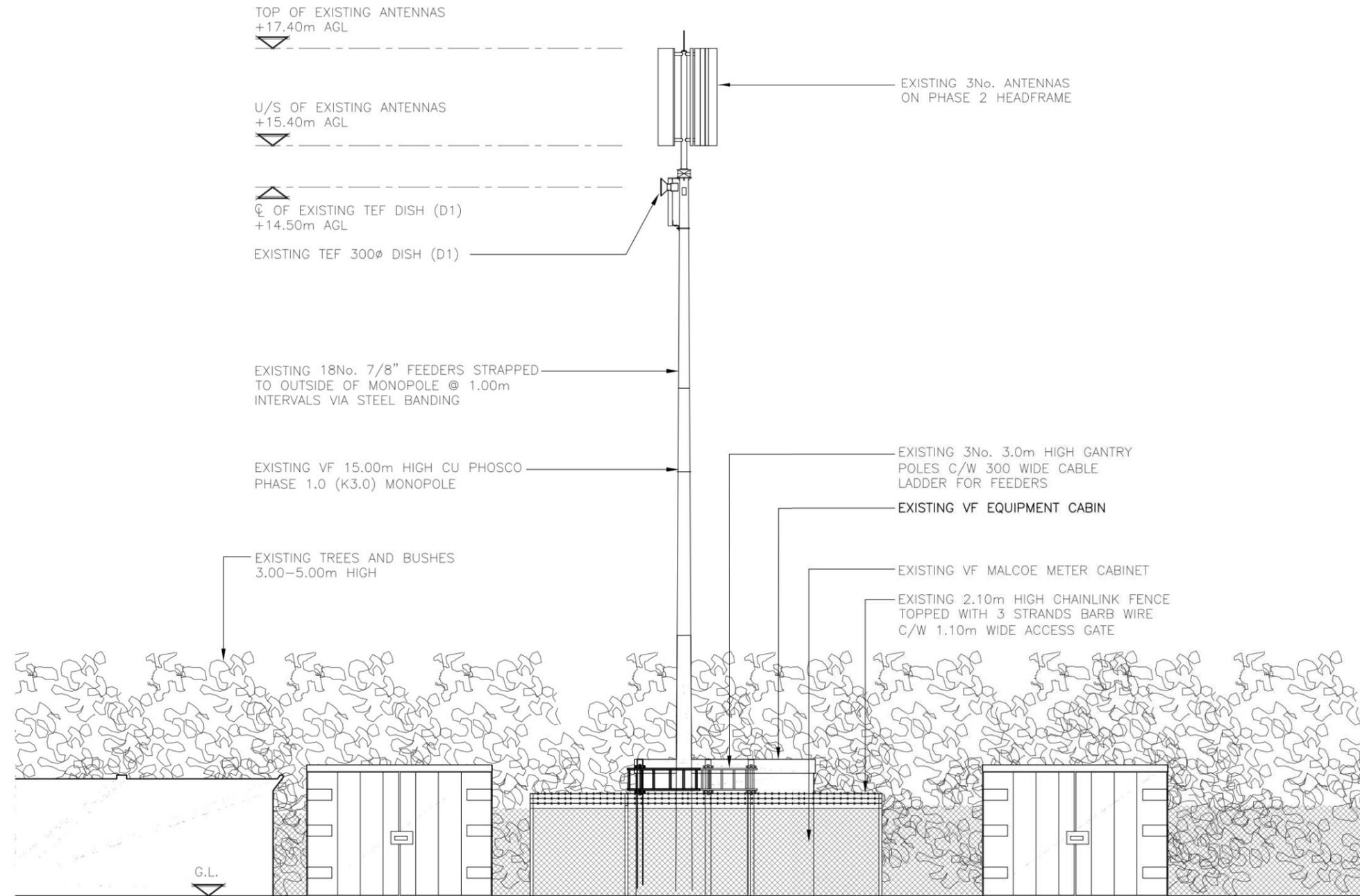
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Drawn: DP | Date: 03.05.23 | Checked: SD | Date: 12.05.23 | A

ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE

N.G.R E: 539096 N: 245542

NOTES:



EXISTING SOUTH WEST ELEVATION
(1:100)

5000 0 5000 10000
ORIGINAL SCALE AT A3 - 1:100 ALL DIMENSIONS IN MILLIMETRES

A	Issued for Approval	DP	SD	12.05.23
REV	MODIFICATION	BY	CH	DATE

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Manchester, M40 5AG
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cornerstone

Cell Name	Opt.
MELBOURN	-

Cell ID No		
CORNERSTONE	VF	VMO2
110973_22	N/A	70896

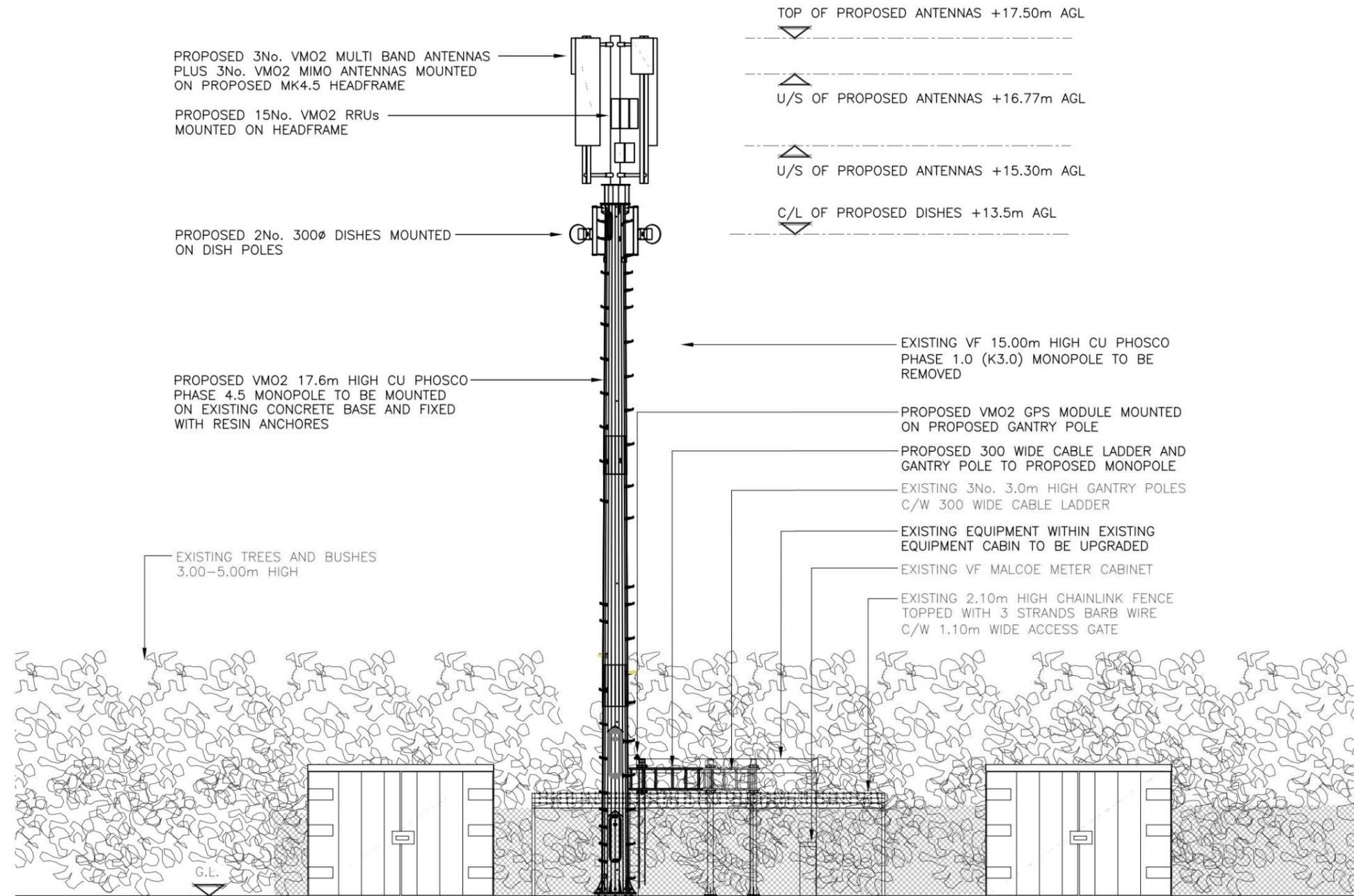
Site Address / Contact Details
CHERRY PARK FARM IND. EST.
CAMBRIDGE ROAD
MELBOURN
HERTFORDSHIRE
SG8 6EY

Drawing Title: EXISTING SITE ELEVATION		Dwg Rev: A
Purpose of issue: PLANNING		Dwg Rev: A
Drawing Number: 300		Pack Issue: A
Surveyed By: SSH	Original Sheet Size: A3	Pack Issue: A
Drawn: DP	Date: 03.05.23	Checked: SD
Date: 12.05.23	Date: 12.05.23	Date: 12.05.23

ALL DIMENSIONS ARE IN mm UNLESS NOTED OTHERWISE

N.G.R E: 539096 N: 245542

NOTES:



PROPOSED SOUTH WEST ELEVATION
(1:100)

5000 0 5000 10000

ORIGINAL SCALE AT A3 - 1:100

ALL DIMENSIONS IN MILLIMETRES

These drawings comply with VMO2 Standard ICNIRP guidelines,
Designed in accordance with Cornerstone documents: SDN0007 & SDN0008

A	Issued for Approval	DP	SD	12.05.23
REV	MODIFICATION	BY	CH	DATE

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cornerstone

Cell Name	Opt.
MELBOURN	-

Cell ID No		
CORNERSTONE	VF	VMO2
110973_22	N/A	70896

Site Address / Contact Details
CHERRY PARK FARM IND. EST.
CAMBRIDGE ROAD
MELBOURN
HERTFORDSHIRE
SG8 6EY

Drawing Title: PROPOSED SITE ELEVATION

Purpose of issue: PLANNING Dwg Rev: A

Drawing Number: 301

Surveyed By: SSH Original Sheet Size: A3 Pack Issue: A

Drawn: DP Date: 03.05.23 Checked: SD Date: 12.05.23

Cornerstone Community Information Sheet

Safety Guidelines on electromagnetic fields from antennas

Radio frequency fields are a type of electromagnetic field. Virtually everyone in the modern world is exposed to electromagnetic fields generated by man-made sources. These include TV and radio transmissions, communications by the emergency services, medical and factory equipment, electronic car keys, baby-listening devices, WiFi and any household appliance that uses electricity.

Various regulations and guidelines apply to the construction and operation of radio base stations, including those that serve to protect health and safety.

All installations are designed to comply with the precautionary International Commission on Non-Ionizing Radiation Protection (ICNIRP) public exposure guidelines as adopted in a European Union recommendation. The UK Government and the UK Health Security Agency support this view.

Mobile phone base stations are generally composed of a cabin or cabinet, which houses the electrical equipment that generates the radio signal, a supporting structure such as a tower or pole and a set of antennas. Only the antennas emit radio waves. As one moves away from the antenna, the strength of the radio wave falls off very rapidly and as the strength decreases, so does the radiofrequency exposure level. Closer to the antennas, there is an area, or volume, where it is possible that ICNIRP guidelines for the public may be exceeded. This is known as the ICNIRP Public Zone and measures are taken, in the form of antenna positioning, signage and physical barriers, to prevent inadvertent access to this area by the public.

The extent of the zone will vary from site to site and is dependent on power input, distribution of the radiofrequency fields and the frequency range.

Clear signage at mobile phone operator sites will indicate restrictions on access and these restrictions should always be observed. The signage provides the relevant contact details for further advice.

How the guidelines are established

Many countries have adopted international guidelines suggested by ICNIRP. These guidelines, which have the formal backing of the World Health Organisation, were developed following a thorough review of the science and took into consideration **both thermal and non-thermal effects**. They are designed to protect all sectors of the population, 24 hours a day, wherever they are in relation to a radio base station. The guidelines are made up of two parts: the first is based on established and proven science; the second part incorporates a safety factor. In this way, the guidelines come with a built-in precautionary element.

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VAT No. GB142 8555 06

In 2020 the ICNIRP updated their safety guidelines, Dr Eric van Rongen stated 'When we revised the guidelines, we looked at the adequacy of the ones we published in 1998. We found that the previous ones were conservative in most cases, and they'd still provide adequate protection for current technologies...However, the new guidelines provide better and more detailed exposure guidance in particular for the higher frequency range, above 6 GHz, which is of importance to 5G and future technologies using these higher frequencies'.

https://www.icnirp.org/cms/upload/presentations/ICNIRP_Media_Release_110320.pdf

For further information please contact:

Community, Cornerstone

The Hive 2, 1530 Arlington Business Park, Theale, Berks, RG7 4SA

Tel. 01753 564306, community@cornerstone.network



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**General Background
Information for
Telecommunications
Development.**

England

Introduction.

Cornerstone is the UK's leading mobile infrastructure services company. We acquire, manage, and own over 20,000 sites and are committed to enabling best in class mobile connectivity for over half of all the country's mobile customers. We oversee works on behalf of telecommunications providers and wherever possible aim to:

- Promote shared infrastructure;
- Maximise opportunities to consolidate the number of base stations;
- Significantly reduce the environmental impact of network development.

This document is designed to provide general background information on the development of UK mobile telecommunications networks.

It has been prepared for inclusion with planning applications and supports network development proposals with general information.

Background

Over 30 years ago under the Telecommunications Act 1984, a licence was granted to mobile network operators. The licence was to provide wireless (or mobile) phone services utilising unused radio frequencies adjacent to those transmitted for over 50 years by the television industry.

With the wireless technology being new and the number of potential customers unknown, several tall masts were used to provide basic radio coverage to the main populated areas.

As the way we use our phones and other technologies have changed over the past 30 years, where we locate masts is crucial.

Due to the increased data transfer necessary for the latest telecommunication services, locations of base stations must be where the local demand exists.



Digital networks.



2G

2G digital networks developed in the early 1990s.

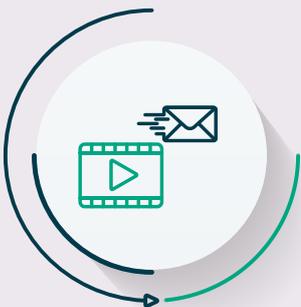
This digital technology is also known as GSM (Global System for Mobile Communications), which is the common European operating standard. This technology enabled phones to interconnect to other networks throughout Europe and internationally.



3G

In 2000, the 'Third Generation' mobile telecommunications service was launched, known as 3G or UMTS.

In addition to voice services, this allowed broadband access to the internet for mobile phones and laptop computer data card users.



4G

2013 saw the launch of 4G services on the network.

This technology allows for ultra-fast speeds when browsing the internet, streaming videos or sending emails. It also enables faster downloads.

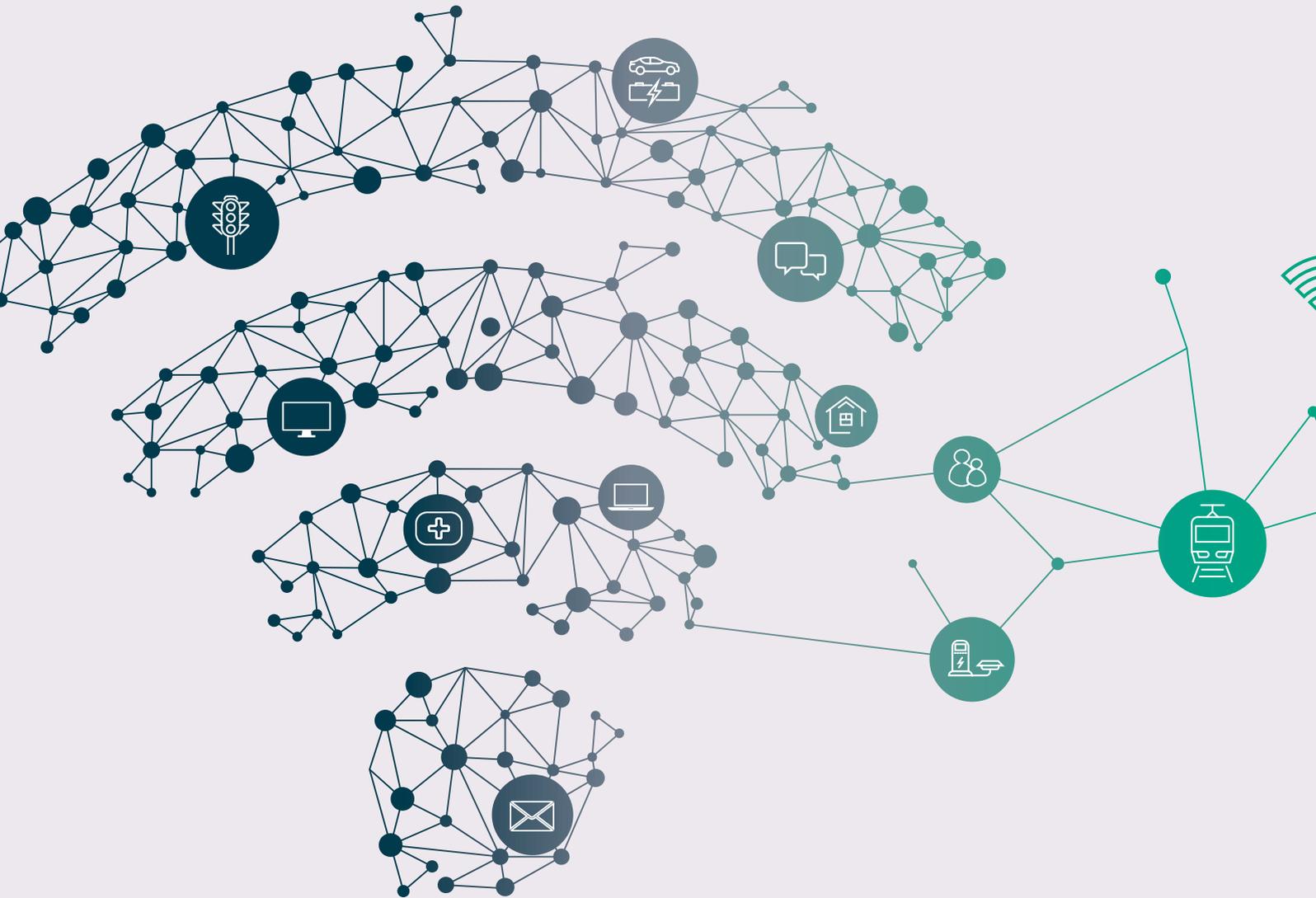


5G

2019 saw the introduction of 5G services, with the Government's ambition for the UK to become a world leader in this technology.

5G Connectivity will ensure that everyone benefits from early advantages of its potential and that the UK creates a world-leading digital economy that works for all.

What is 5G?



5G is the new generation of wireless technology that will deliver reliable and faster networks of the future, changing how we understand wireless connectivity.

The technology will see us all move from something we experience through personal devices to an integrated infrastructure across buildings, transport and utilities. The new technology will provide enormous benefits for citizens, businesses and urban regions alike.

5G will also offer a new level of underlying connectivity to transform services and create new digital ecosystems.



The benefits of 5G.

The economic benefit

- Businesses offering online services can extend their products to a broader audience
- Local areas and businesses can benefit from tourists and visitors as hotels, attractions, and restaurants can be booked online from anywhere in the world
- Business owners and services like doctors can provide a faster and more cost effective service by offering both online appointments and ordering
- Digital connectivity facilitates economic growth, something which the Government is keen to progress and promote

The social benefit

- Mobile communications can help people to stay in touch wherever and whenever, which can help improve social wellbeing
- Contacting emergency services is easier, especially in remote areas
- Using a mobile wherever you go can provide better personal security
- Having access to social networking sites and applications can keep people entertained with their lifestyles and interests
- Mobile connectivity helps promote smarter and productive ways of working. For example, working from home can help minimise commuting which can provide better work and home life balance
- Access to personal information 24/7, e.g. bank accounts, can offer efficiency and convenience

5G is the next generation of mobile connectivity, providing us with a new level of experience. It will offer immense opportunities, given the faster and more reliable connectivity that it will provide.

We will experience new technologies that will help us become more efficient and save costs as an individual or business.

What can we expect from 5G?

- Driverless vehicles – this will give drivers autonomy to do other things while driving
- Advanced healthcare facilities – performing surgeries remotely will be made possible, along with freeing up more GP time through better online facilities
- Enhanced Virtual and Augmented reality (AR) – used in gaming and entertainment already, with 5G, live interactions will be taken to the next level
- Greater Internet of Things (IoT) transformation – with better connected devices, the IoT will enable us to control devices more independently
- Cutting-edge agricultural operations – operating farming machinery and tools remotely will promote smart agriculture, saving time and increasing productivity for farmers

We need to continue to work together to enable the opportunities that mobile technology brings to all of us.



Planning policies.

Planning policy guidance on telecommunications

The revised National Planning Policy Framework (NPPF), published on 20th July 2021, supports high-quality communications infrastructure and recognises it as a strategic priority.

Within paragraph 114 it states that:

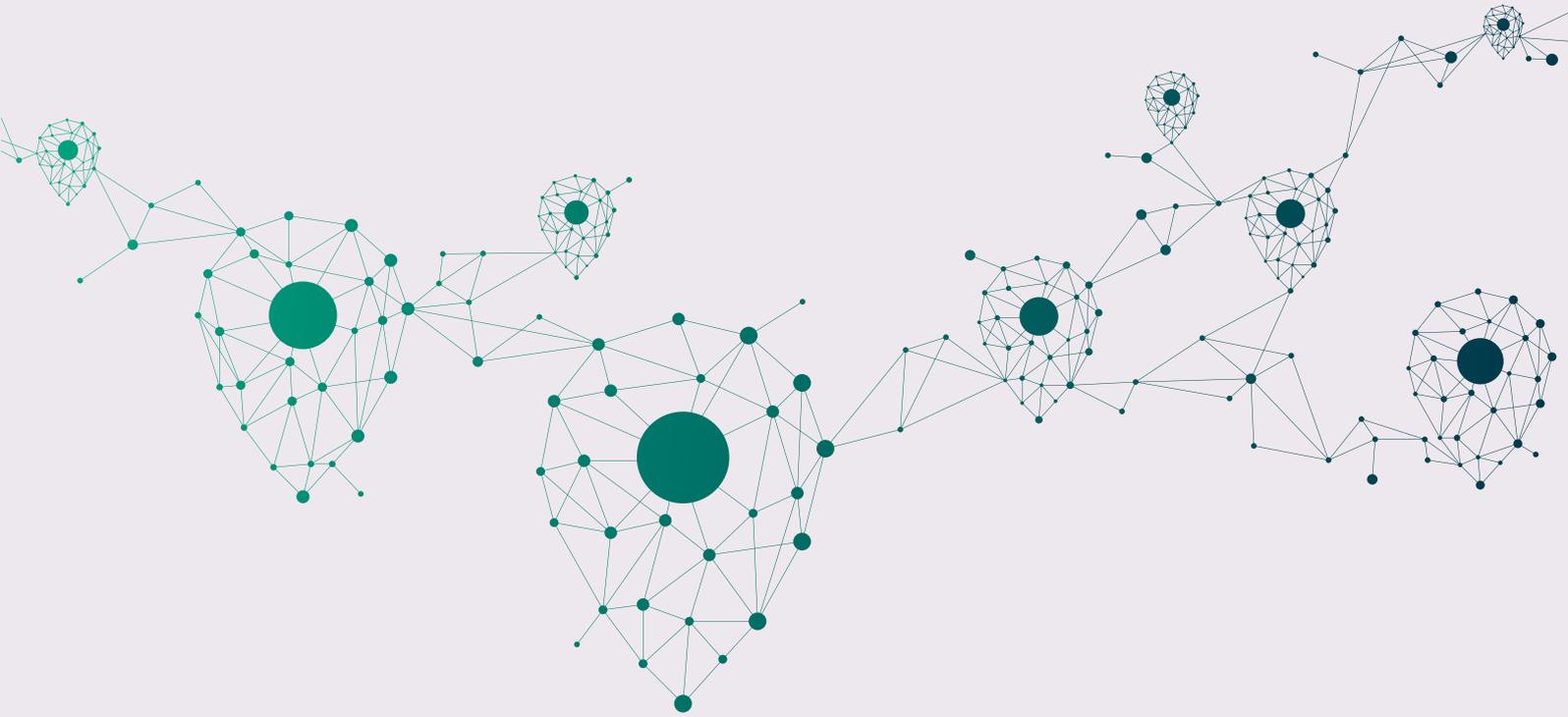
“Advanced, high-quality and reliable communications infrastructure is essential for economic growth and social well-being. Planning policies and decisions should support the expansion of electronic communications networks, including next-generation mobile technology (such as 5G) and full-fibre broadband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

The NPPF goes on to state within Paragraph 118 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.”



Site/mast sharing.



Cornerstone actively encourages and supports site-sharing for both commercial and environmental reasons.

All operators are required to explore site-sharing opportunities under the terms of their licences.

Cornerstone has implemented many measures to identify and maximise site-sharing opportunities.



Consultation & legal case.

Consultation

Cornerstone is committed to carrying out appropriate consultations with Local Planning Authorities, stakeholders and the public. The Code of Practice for Wireless Network Development in England (March 2022) gives guidance on the factors that operators should consider when determining what consultation is required, as each development is different. These factors are equally applicable for Local Planning Authorities who carry out their own consultation once the application has been submitted.

Legal case

The following legal case may be helpful:

Harrogate case November 2004

The Court of Appeal gave a judgement that Government Planning Guidance in PPG8 (now replaced by the NPPF) is perfectly clear in relation to compliance with the Health and Safety standards for mobile phone base stations. The Court of Appeal and the High Court both upheld Government policy in response to a planning inspector's decision that departed from that policy and failed to give adequate reasons for doing so.

Bardsey case January 2005

The Court of Appeal confirmed that the permitted development regime for mobile phone base stations is compliant with the Human Rights Act. This was a case in which a local planning authority failed to comply with its obligations to act within the 56 day period provided under the permitted development regulations.



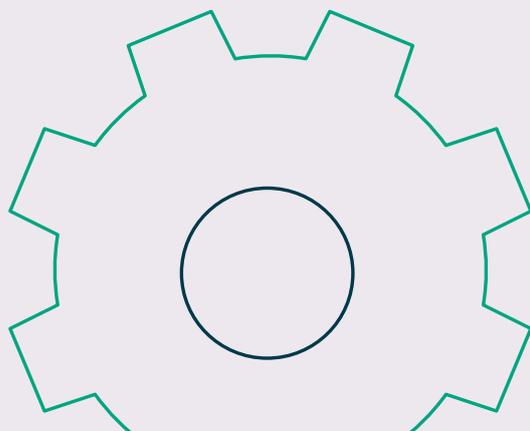
Further information.

We trust that this document answers your main queries regarding our planned installation.

The enclosed site-specific details will identify any alternative discounted options and reasons why they were rejected and how the proposed site complies with national and local planning policies.

The Local Government Ombudsman's Special Report on Telecommunication Masts gives some positive recommendations and advice to Local Planning Authorities in determining prior approval applications.

The **Digital Connectivity Portal** provides guidance for local authorities and network providers on improving connectivity across the UK. Produced by DCMS, it promotes closer co-operation between network providers and local authorities, and offers guidance on effective policies and processes to facilitate deployment of digital networks.



For further information or to contact Cornerstone,
please visit [**www.cornerstone.network**](http://www.cornerstone.network)

or write to us at:

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



Cornerstone Community Information Sheet

5G Services

As 5G technology is deployed across the country more and more services will become available and our lifestyles, economy and even the way we commute will be transformed. Additional base stations and upgrades to existing ones will be needed to meet this demand and improve the quality of service.

Practical uses of 5G

Two areas where these benefits are becoming evident are education and health,

The relationship between 5G and education is evolving at a massive rate with educators exploring the relevance of Virtual Reality (VR) technologies for education and training. Crucially, VR can support remote learning, allowing students a presence in the classroom even when working elsewhere.

5G's ability to deliver real-time information (low latency), ultra-fast speeds (critical for high-definition images and video), increased capacity and heightened security will also allow learning on the job, thanks to technologies such as Augmented Reality (AR) goggles, which can give engineers real-time instructions on how to fix a machine on a production line, for example.

Health care is undergoing a rapid transformation, patients across the country are now becoming accustomed to relying on remote healthcare services such as virtual GP appointments, and ordering online deliveries of essential medical supplies.

5G will prove critical in providing the infrastructure required to deliver remote health services over the next decade. 5G's fast and secure services will be fundamental in scaling the patient benefits of remote healthcare and keeping medical records protected and private. Trials have shown that connecting ambulance crews to expert resources using 5G allows paramedics to work with doctors and conduct specialist procedures in real time whilst on the road.

Health concerns

Various international assessments have concluded that below the International Commission on Non-Ionizing Radiation (ICNIRP) Guidelines there is no evidence of adverse health effects for wireless networks (including 5G).

In January 2019 the Finnish Radiation and Nuclear Safety Authority (STUK) concluded that:

In the light of current information, exposure to radio frequency radiation from base stations will not rise to a significant level with the introduction of the 5G network. From the point of view of exposure to radio frequency radiation, the new base stations do not differ significantly from the base stations of existing mobile communication technologies (2G, 3G, 4G).'
<https://www.stuk.fi/aiheet/matkapuhelimet-ja-tukiasemat/matkapuhelinverkko/5g-verkon-sateilyturvallisuus>

In the UK Ofcom, the regulator for the communications services, undertook measurements of electromagnetic fields (EMFs) around 5G base stations. In 2020 they noted: "In all cases, the measured EMF levels from 5G-enabled mobile phone base stations are at small fractions of the levels identified in the ICNIRP Guidelines" https://www.ofcom.org.uk/data/assets/pdf_file/0015/190005/emf-test-summary.pdf

In Norway the Norwegian Radiation and Nuclear Safety Authority (DSA), noted:

'The overall research shows that the radiation from wireless technology is not hazardous to health, as long as the levels are below the recommended limit values. This is the prevailing view among researchers in many countries today, and it is supported by the EU Scientific Committee. We have used cell phones and radio transmitters for decades and much research has been done on how this affects our health. Risk factors of importance to public health have not been found. With the knowledge we have today, there is no need to worry that 5G is hazardous to health.' January 2019
<https://www.dsa.no/temaartikler/94565/5g-teknologi-og-straaling>

In the light of concerns about 5G signals from some members of the public the UK Health Security Agency (UKHSA) commented in 2019:

"It is possible that there may be a small increase in overall exposure to radio waves when 5G is added to an existing network or in a new area. However, the overall exposure is expected to remain low relative to guidelines and, as such, there should be no consequences for public health"
<https://www.gov.uk/government/publications/5g-technologies-radio-waves-and-health/5g-technologies-radio-waves-and-health>.

In 2020 the ICNIRP updated their safety guidelines to include further restrictions for frequencies used for 5G services. ICNIRP Chairman, Dr Eric van Rongen stated 'the new guidelines provide better and more detailed exposure guidance in particular for the higher frequency range, above 6 GHz, which is of importance to 5G and future technologies using these higher frequencies. The most important thing for people to remember is that 5G technologies will not be able to cause harm when these new guidelines are adhered to.' https://www.icnirp.org/cms/upload/presentations/ICNIRP_Media_Release_110320.pdf.

In 2020 the World Health Organisation commented on 5G stating: "Provided that the overall exposure remains below international guidelines, no consequences for public health are anticipated"
<https://www.who.int/news-room/q-a-detail/5g-mobile-networks-and-health>.

In common with all mobile phone base stations, Cornerstone sites with 5G technology will be checked and certified for ICNIRP compliance.

For further information please contact

Community, Cornerstone

The Hive 2, 1530 Arlington Business Park, Theale, Berks, RG7 4SA

Tel. 01753 564306, community@ctil.co.uk

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1530 Arlington Business Park
Theale, Berkshire, RG7 4SA



Allaying health concerns regarding 5G and exposure to radio waves

An IET guide for policy makers
and local planning authorities
2nd edition

theiet.org/5G-health

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Allaying health concerns regarding 5G and exposure to radio waves is published by the Institution of Engineering and Technology.

Please note that the views expressed in this publication are not necessarily those of the IET. It is not intended to be a guidance note with a specified set of recommendations or actions but rather seeks to add understanding and debate around the topic.



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— About this guide

This Institution of Engineering and Technology Guide aims to give policy makers and Local Planning Authorities a better understanding of what 5G is, and what it is not, as it affects the concerns that have been expressed about exposure to radio waves.

The document is intended as a brief overview and references for further reading are provided in the footnotes.

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The IET Digital Panel would welcome any comments you may have on the contents/ your ideas for future digital publications. Please get in touch via sep@theiet.org.

— Foreword



There has been an "infodemic" of misleading and false information circulating in the media about 5G and alleged health effects. Some of it is pure fantasy, but there have also been sincere concerns expressed by some people, including scientists, who are not up to date with how 5G has evolved in the UK.

The second edition of the IET Guide "Allaying health concerns regarding 5G and exposure to radio waves" provides a bridge to understanding how the 5G technology being implemented and the frequencies being used affect radio wave exposure, compared to the earlier mobile technologies that everyone is very familiar with.

The Guide is also helpful in another respect. It brings together, in one publication, an explanation of the overall rigorous radio exposure safety framework for public mobile services, embracing both the mobile networks and smartphones. The conclusion that 5G is as safe as 4G, 3G and Global System for Mobile communication (GSM) is not a political soundbite, but a conclusion drawn from an objective detailed examination, by independent professional engineers, who belong to institutions committed to the very highest professional standards.

A handwritten signature in black ink that reads "D. A. George".

Professor Danielle George
IET Deputy President

Introduction



What is 5G?

5G is the next evolution in mobile technology that will provide the underlying wireless infrastructure to cope with the relentless rise in data consumption¹ and support many new applications. This includes everything from connected cars and virtual and augmented reality through to the foundations for emerging smart city and Internet of Things (IoT) technologies. It delivers this through the use of revolutionary new hardware like beam forming antennas and innovative new radio coding software at its core.

Features of 5G



Faster download speeds

It is expected that 5G will provide Gb/s data speeds. This would mean things that currently take minutes to download would only take seconds. Even more important will be the ability to support higher download speeds for many more concurrent users in the same place. This will lead to a more predictable and consistent performance.



Lower latency

5G can support significantly lower latency, where appropriate, meaning very little lag, or buffering. This could enable mobile applications that simply aren't possible today, such as multiplayer gaming, factory automation and other tasks that demand quick responses.



Greater capacity

5G will also have vastly greater capacity, allowing networks to better cope with not only the rapidly increasing data demands of customers today, but also the growth of high-demand applications being planned in the future.

¹ Ofcom "Enabling 5G in the UK" https://www.ofcom.org.uk/_data/assets/pdf_file/0022/111883/enabling-5g-uk.pdf.

Key observations



The 5G technology itself, *in so far as it affects radio wave exposure*, is very similar to 4G and in terms of its pulsed signals, the same as Global System for Mobile communication (GSM), Digital Enhanced Cordless Telecommunications (DECT) phones and a version of 4G.



As there has been no dispensation for 5G safety standards, it will have to meet the same safety standards as 4G, 3G and GSM, meaning **5G will be just as safe as 4G, 3G and GSM.**



There are no "higher frequency" (mmWaves) commercial 5G mobile antennas **deployed anywhere in the UK** and none are currently planned (due to high cost of coverage).



Reducing exposure to radio waves in the future requires more base stations **in order to drive down both** smartphone and base station power levels.

Electromagnetic Field (EMF) exposure guidelines developed by the International Commission on Non-Ionizing Radiation Protection (ICNIRP)

The first element of the cellular mobile radio wave exposure safety framework are the international recommended guidelines set by the ICNIRP at levels to ensure no harm².



The most recent set of ICNIRP guidelines were published on the 11th March 2020, following a comprehensive assessment of peer-reviewed scientific literature over two decades, covering both thermal and non-thermal effects. The guidelines are designed to ensure that all people are not exposed to electromagnetic radiation at radio frequencies³ in a way that would have any adverse effect on the body, such as excessive heating. No evidence for cancer, infertility or other health effects⁴ has been found at the exposure levels recommended in the guidelines.

The reference exposure level for bands below 6 GHz (i.e. all the frequencies currently used in the UK for GSM, 3G, 4G & 5G) has not been changed in the revised guidelines. They have been calculated by reference to specific absorption rate (SAR)⁵ and incorporate a substantial margin of safety.

For bands above 6 GHz, where the body does not really absorb the Radio Frequency (RF), the guidelines are set by reference to Power Density (PD)⁶, and again incorporating a substantial margin of safety.

² <https://www.icnirp.org/en/frequencies/radiofrequency/index.html>.

<https://www.icnirp.org/cms/upload/publications/ICNIRPrfgdl2020.pdf>.

³ The radiofrequency ranges are in the non-ionising part of the Electromagnetic Spectrum (30Hz to 300GHz), well below, for example, the visible light portion of the Electromagnetic Spectrum (c.430-740THz).

⁴ Other health effects mentioned include absurd theories linking 5G to Coronavirus.

⁵ SAR is defined as the power absorbed per mass of tissue and has units of watts per kilogram (W/kg). SAR is usually averaged either over the whole body or over a small sample volume (typically 1g or 10g of tissue).

⁶ Power density is the amount of power per unit area (Watts/M2).

Compliance with ICNIRP guidelines for 5G mobile broadband networks

The second element of the cellular mobile radio wave exposure safety framework is *compliance* of base stations with ICNIRP recommended limits.

Ofcom intends to introduce a new condition in spectrum licences that will require licensees to ensure that all Electric and Magnetic Fields (EMF) emissions from radio equipment in excess of 10 watts (effective isotropic radiated power) complies with the relevant levels for general public exposure from the ICNIRP Guidelines. It will ensure Ofcom is in a position to take appropriate enforcement action in the event of non-compliance with the ICNIRP Guidelines.

Ofcom has already carried out their own independent measurements on some deployed 5G base stations and verified their compliance with the guidelines⁷.

As part of the process for obtaining planning consent for new 4G/5G sites and upgrades, each operator will continue to confirm compliance with ICNIRP guidelines⁸.



⁷ See <https://www.comsoc.org/publications/ctn/truth-out-there-examining-science-around-5g-paranoia>.

⁸ See <https://www.ofcom.org.uk/manage-your-licence/radiocommunication-licences/mobile-wirelessbroadband/exposure-electro-magnetic-fields>.

Compliance with ICNIRP guidelines for 5G smartphones and consumer choice

The third element of the cellular mobile radio wave exposure safety framework are the recommended limits for smartphones and other mobile devices.

A manufacturer, by adding a CE marking, is declaring, on its own responsibility, conformity with all of the legal requirements to achieve CE marking, including compliance with ICNIRP guidelines.

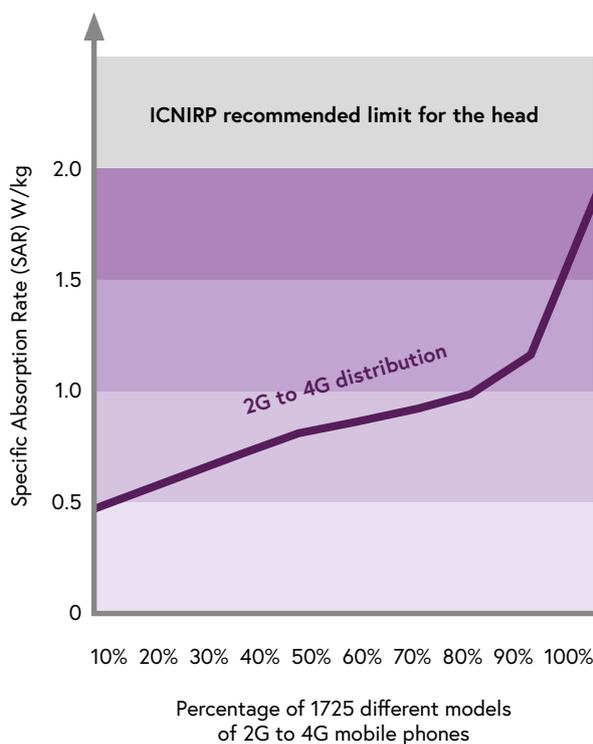
The illustration below indicates the distribution of Specific Absorption Rate (SAR) values for the head with GSM, 3G and 4G mobile technology generations based upon a very large sample of 1725 different models from 14 different manufacturers over a number of years.

The result shows almost 80% of all models in this very large sample had SAR values under 50% of the recommended limit. Data has been gathered on a number of 5G smartphones on sale in the UK. All the values were compliant and comparable to the earlier generations of smartphones. The frequencies built into the UK 5G smartphones were all below 6 GHz.

In recent years, SAR information for some phones has not always been easy for consumers to locate. SAR information should be included in publicly available technical specifications of all smartphones in order to facilitate consumer choice.

Finally, "handsfree working" is now standard on all smartphones. This offers consumers the discretion for further reducing RF exposure.

Specific Absorption Rate (SAR) values for the head with GSM, 3G and 4G mobile technology



Exposure level reductions from new masts and small cells

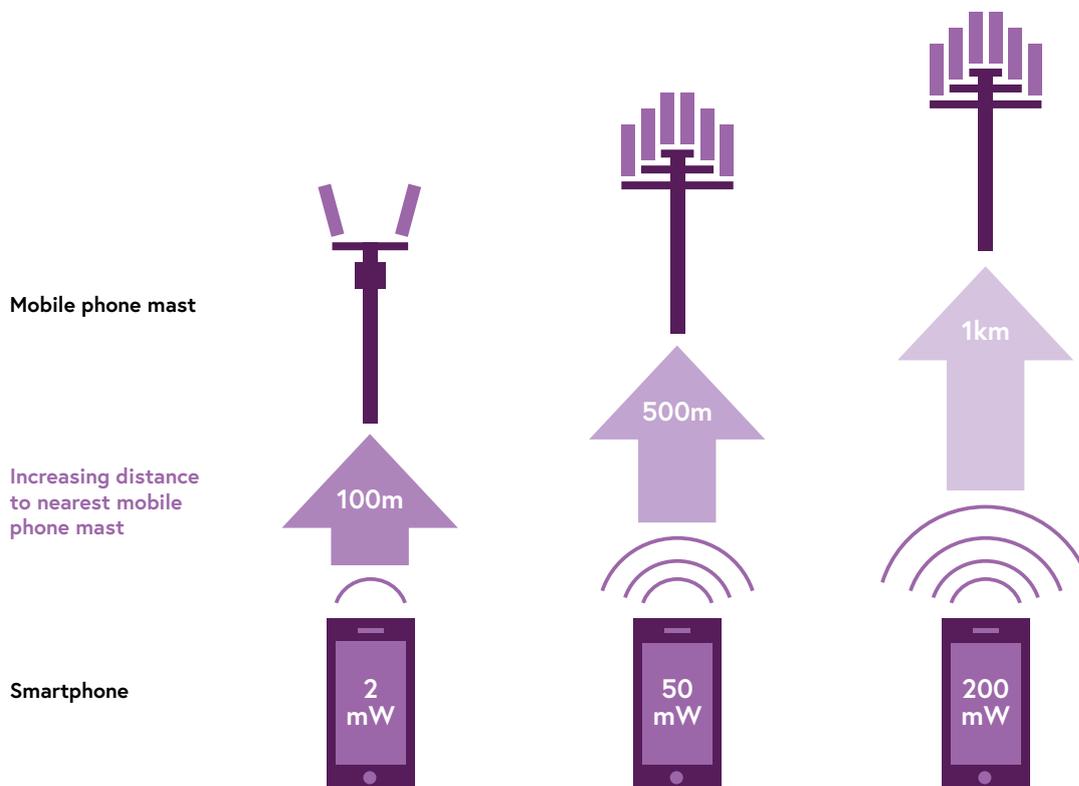
Small cells (micro-cells or pico-cells) are physically smaller antenna systems designed to work over a very short range to ease network congestion or fill in gaps in coverage.

Some people have expressed concern that a large number of 5G cells may increase a person's exposure to radio waves. However, that is not the way cellular mobile networks work. Every time a new mast or small cell is added, the distance the signal has to travel reduces. Therefore, from the laws of physics, the power needed at the smartphone and base station for a reliable connection is much less. Using the lowest practical power level is essential to prevent users located in different cells from disrupting each other's connections. It also saves the user's smartphone battery life.

For many people, their smartphone will be by far the nearest source of radio wave energy to them. As a result, more masts or 5G small cells will lead to a reduction in the overall radio wave signal strength an individual smartphone user is exposed to.

At the moment, there are relatively few small cells in use in the UK and though their numbers are likely to increase over time, we don't expect a mass rollout of them any time soon.

Illustrating how more base stations reduce smartphone powers and hence RF exposure⁹



⁹ The numbers are purely illustrative and the actual powers will be determined by many factors including, importantly, the physical distance but also the urban topology between the network antenna and the smartphone.

The most widely used 5G band in the UK will be 3.6GHz

The UK and Europe proposed the use of three bands for 5G¹⁰. These were termed the 5G pioneer bands and each had a different purpose.



This band is to secure pervasive national coverage. It's likely to be deployed from the traditional tall mobile phone masts. Only modest data capacity can be supported.



The 3.6GHz band sits between the current WiFi bands at 2.4GHz and 5GHz that are already widely deployed in homes, offices and public places. 3.6GHz is the 'sweet spot' for achieving the best capacity over the largest areas for the lowest cost and has wide international support. The mass deployment of small low power base stations in towns and cities will most likely use this band¹¹.



This high frequency (mmWaves) supports the largest capacity but at the highest cost of coverage. There are no 26 GHz (mmWaves) commercial 5G mobile antenna being deployed anywhere in the UK and none are currently planned.

Research engineers see a potential for 26GHz to be used for a data capacity lift in the limited number of locations where the 3.6 GHz frequency maxes out over the next 10 years (less than 3% of the UK¹³). Another use may be as a low power advanced manufacturing broadband access point (industry 4.0). Such examples of relatively short distance applications only need relatively low power levels.

Beam forming antennas

For the past 20 years mobile operators have typically used three or four sectored antennas, so as not to waste radio energy in directions where it's not needed. New beam forming antennas (sometimes referred to as Massive (complexity) Multiple input Multiple output antenna) make the transmission much more efficient, with the equivalent of 40, much smaller sectors, but still able to deliver the same power to a user standing at the edge of the cell's coverage area but wasting less energy to achieve this¹².



¹⁰ European Commission Radio Spectrum Policy Group's "Strategic Roadmap towards 5G in Europe"

https://rspg-spectrum.eu/wp-content/uploads/2013/05/RPSG16-032-Opinion_5G.pdf

and IET "5G Networks for Policy Makers" report <https://www.theiet.org/media/1166/5g-report.pdf>.

¹¹ Ofcom "Enabling 5G in the UK" March 2018 paragraph 1.13 https://www.ofcom.org.uk/_data/assets/pdf_file/0022/111883/enabling-5g-uk.pdf.

¹² IEEE Spectrum "5G Bytes: Massive MIMO Explained" <https://spectrum.ieee.org/video/telecom/wireless/5gbytes-massive-mimo-explained>.

¹³ techUK "UK SPF publish principles for the release of 26 GHz 5G pioneer band" <https://www.techuk.org/insights/reports/item/15915-uk-spf-publish-principles-for-the-release-of-26-ghz-5g-pioneer-band>.

Conclusion



5G is just as safe as 4G, 3G and GSM

This document has aimed to set out the reality around concerns regarding radio wave exposure, mobile coverage and 5G.

Small 5G base stations in our towns and cities will allow improved network coverage. They will reduce radio wave exposure to individual smartphone users and improve local 5G capacity for all manner of useful bandwidth-hungry applications. A good 5G fibre base local broadband infrastructure will be important to local communities over the coming decades in view of the ever-increasing amounts of data being consumed by the general public.

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