

East Stour Solar Farm
Ashford Borough Council Planning Reference:
22/00668/AS

On behalf



Mineral Safeguarding Assessment

September 2024



East Stour Solar Farm
EDF Renewables

Mineral Safeguarding Assessment
ABC Ref: 22/00668/AS

IC Planning Ltd
6 Pickersgill Court
Quay West Business Village
Sunderland
SR5 2AQ

Date: September 2024

Contents

1. INTRODUCTION	4
2. PLANNING POLICY	9
3. THE MINERAL RESOURCE	13
4. PLANNING POLICY ASSESSMENT	17
5. CONCLUSION	25

Appendices

Appendix A	Site Boundary Plan
Appendix B	Kent County Council Minerals and Waste Response dated 1 February 2024
Appendix C	Kent Minerals and Waste Local Plan, Ashford Borough Council Mineral Safeguarding Map.
Appendix D	Drawings
	ICP/ES/001 – Mineral Safeguarding Plan
	ICP/SS/002 – Existing Mineral Extraction Constraints Plan

Originator	Approved	Version	Date Issued	Version Comments
ST	JL	Final	September '24	

© Identity Consult Planning (IC Planning Ltd). All rights reserved December 2023. This document is expressly provided to and solely for the use of EDF Renewables Limited and must not be quoted from, referred to, used by or distributed to any other party without the prior consent of Identity Consult Planning who accept no liability of whatsoever nature for any use by any other party.

1. Introduction

1.1 This Mineral Safeguarding Assessment ('MSA') has been prepared on behalf EDF Energy Renewables Ltd (trading as EDF Renewables) ('the Applicant') to consider the impact of the proposed East Stour Solar Farm upon known mineral resources that are anticipated to lie beneath the site.

1.2 This MSA has been produced to address Reason for Refusal 5 of the 29 April 2024 decision notice issued by Ashford Borough Council (ABC), which states:

5. By reason of the absence of a Minerals Assessment, the applicant has failed to demonstrate that the safeguarded mineral deposit on the site is not being needlessly sterilised. The development would therefore be contrary to policy DM7 of the Kent Minerals and Waste Local Plan (2013 to 2030) as amended by the Early Partial Review (adopted 2020).

1.3 The following report demonstrates that the proposed East Stour Solar scheme (The "Project") will not result in the needless sterilisation of the existing mineral resources found beneath limited parts of the site.

The Project

1.4 The Project comprises an application for the construction, operation, maintenance, and decommissioning of a 49.9 Mega Watt (MW) solar farm. The proposals comprise supporting infrastructure which includes access tracks, 4 substations, 20 inverters/transformer units, 3 site cabinets, underground cabling, security fencing and CCTV.

1.5 The solar farm will be temporary. The proposed solar farm will have an operational lifespan of 40 years, after which point the panels and supporting infrastructure will be removed and the site will be returned to its existing agricultural use.

1.6 The renewable electricity generated by the proposed solar farm will feed directly into the National Grid (NG) via underground cables routed along internal access tracks and Church Lane to the Sellindge Converter Station.

1.7 The location of the Project is shown in the attached site location plan which is included in Appendix A of this report.

Site Description

- 1.8 The Project site is located on land to the south of the M20 to the east of Aldington and west of Sellindge. The red line site boundary encompasses an area of 103.9 hectares (ha), of which 65.49 ha would be fenced and 28.8ha would be required for solar panels and associated infrastructure. Of the total 103.9ha of the site boundary 40ha is directly located within mineral safeguarding areas.
- 1.9 The site is broadly split in to three parcels of land that are separated by the existing High Speed Rail 1 (HS1) line and Church Lane. The northern parcel of land comprises a single arable field located between the M20 to the north and HS1 railway to the south. This northern parcel of land is affected by the safeguarded sub alluvial river terrace deposits and the Limestone Hythe formation (Kentish Ragstone) mineral deposits.
- 1.10 The western parcel lies to the south of the HS1 railway and the East Stour River and extends across two arable fields. The land rises gently from the HS1 line to a high point of Bested Hill. This parcel of land is crossed from south west to north east by large scale 400kv overhead electricity cables. The cables are supported within the centre of the site by two large existing pylons. This western parcel of land is underlain by Limestone Hythe formation mineral deposits only.
- 1.11 The remaining eastern parcel of land lies to the east of Church Lane within two fields that are used for sheep grazing. There are no safeguarded mineral resources within this part of the site.
- 1.12 The local area is predominantly rural in nature and undulating in character, consisting of a mix of woodland and arable and pasture farmland within an irregular field pattern. The fields are bound by a mix of post and wire fencing, hedgerows and woodland blocks. The site is also in close proximity to various pieces of existing and consented energy and transport infrastructure. These include the Sellindge Converter Station and an existing solar farm (comprising a 10.6MW, 16ha solar array) on land known as Partridge Farm adjacent to the north and east of the Project on the opposite side of Church Lane.
- 1.13 Based on the 2023 Kent Local Aggregates Assessment¹ (LAA) the nearest active quarry is located over 10km to the north of the site at Crundale. The mineral extracted at that location is chalk, a resource which is unaffected by the proposed scheme. The nearest active building sand quarry is located over 20km north west at Lenham Heath.

¹ https://www.kent.gov.uk/__data/assets/pdf_file/0007/159703/Kents-11th-Local-Aggregate-Assessment.pdf

- 1.14 The Project lies within a two-tier area, within the administrative boundaries of Ashford Borough Council ('ABC') and Kent County Council ('KCC'). KCC are the Mineral Planning Authority (MPA) for the site.
- 1.15 The locations of the safeguarded mineral deposits are shown on Drawing Ref. ICP/SS/002 (Appendix D). The Site includes approximately 35ha of land safeguarded for potential Sub-Alluvial River Terrace deposits, and approximately 5ha of Limestone from the Hythe Formation.

Structure of this Mineral Safeguarding Assessment

- 1.16 This assessment has been prepared following a review of the available information produced by the British Geological Survey ('BGS'), Kent County Council Minerals and Waste Local Plan and background papers, Kent Local Aggregate Assessment, Kent Minerals and Waste Monitoring Report and Historic England. In addition, feedback has been gained from minerals operators supplying building stone as well as engagement with the Stone Federation Great Britain; the trade association for the natural stone industry.
- 1.17 The rest of this assessment is structured in the following sections:
- Section 2 – Planning Policy
 - Section 3 – The Mineral Resource
 - Section 4 – Planning Policy Assessment
 - Section 5 – Conclusion

IC Planning minerals experience

- 1.18 The Managing Director of IC Planning ('ICP') has prepared this report who has an extensive track record of working within the minerals, energy and waste sectors nationwide. He has appeared as an expert mineral planning witness at a number of high profile nationally significant extraction proposals supporting their development. He has also provided several mineral safeguarding specific Continuing

Professional Development events for both the Royal Town Planning Institute and the Royal Institute of Chartered Surveyors.

- 1.19 Prior to working as a mineral planning consultant, members of the ICP team also worked for minerals developers identifying new sites for extraction and gaining consent for them through the planning process.
- 1.20 ICP currently represent a number of mineral operators nationwide including those who extract sand and gravel and limestone. Alongside this ICP are also the retained minerals planning adviser for Stone Federation Great Britain who are an industry body that represents the majority of dimension building stone operators within the country.
- 1.21 The ICP team have undertaken numerous mineral safeguarding assessments nationwide including several within Kent.

Kent County Council Minerals and Waste Consultation response – 1/2/2024

- 1.22 The KCC Environment and Waste Team submitted a consultation response during the determination of the application on 1 February 2024. A copy of that consultation response is attached in Appendix B of this report.
- 1.23 The response confirms that the Project site does not² affect any safeguarded minerals or waste facility and therefore does not need to be assessed against Policy DM 8: Safeguarding Minerals Management, Transportation, Production and Waste Management Facilities of the adopted Kent Minerals and Waste Local Plan (KMWLP) 2013-30.
- 1.24 The response confirms that in relation to land-won minerals the site is coincident with safeguarded mineral deposits in the area, which include Hythe Formation (Kentish Ragstone) and the Sub-Alluvial River Terrace Deposit.
- 1.25 The response concludes that the proposal should include a Minerals Assessment to determine if the safeguarded mineral deposit is being needlessly sterilised by the development proposed, and if not

² The KCC response contains what is understood to be a typo in that the word “not” is missing in the first line of the second paragraph. The text then confirms that Policy DM8 is not relevant and the proposed site is not coincident with or is within 250m of any existing safeguarded minerals or waste facility.

whether an exemption to mineral safeguarding pursuant to Policy DM 7: Safeguarding Mineral Resources of the KMWLP (as amended by the Early Partial Review 2020) can be invoked.

- 1.26 The KCC response acknowledges that of the two safeguarded minerals the Sub Alluvial River Terrace Deposits are only very marginally affected. On that basis KCC have advised that the temporary sterilisation of the Sub Alluvial River Terrace deposits within the site boundary can be treated as *de minimis*.
- 1.27 In relation to the Hythe Formation deposits, the response confirms that the proposed development around Bested Hill in the western portion of the site should be subject to further assessment. The consultation response then states that until a mineral assessment is produced that assesses in particular the effect of the proposal upon the Hythe Formation deposits below the western portion of the site around Bested Hill, KCC's response should be considered to be an objection to the scheme.
- 1.28 The objection raised by KCC is on the basis of a conflict with mineral safeguarding Policy CSM 5: Land-won Mineral Safeguarding of the KMWLP. Policy CSM 5 is not referred to in the Council's Reasons for Refusal; however this assessment has engaged with that Policy as well as Policy DM7, which are referred to in the consultation response from KCC (Appendix B).

2. Planning Policy

- 2.1 The following section sets out the relevant national and local planning policies that are applicable to safeguarding mineral resources that are affected by the proposed scheme.

National Planning Policy Framework (NPPF)– December 2023

- 2.2 Chapter 17 of the NPPF entitled “Facilitating the sustainable use of minerals” provides several policy details covering a wide range of matters relating to mineral planning. Paragraph 215 outlines the overall policy approach to mineral supply, recognising that mineral resources are finite and limited:

215. It is essential that there is a sufficient supply of minerals to provide the infrastructure, buildings, energy and goods that the country needs. Since minerals are a finite natural resource, and can only be worked where they are found, best use needs to be made of them to secure their long-term conservation.

- 2.3 Following this overarching policy position statement, the NPPF then outlines the specific measures that mineral planning policies should cover in paragraph 216. In relation to the safeguarding of mineral resources, the following clarification is made in sub section c) of paragraph 216:

216. c) [Mineral Planning Authorities] safeguard mineral resources by defining Mineral Safeguarding Areas and Mineral Consultation Areas; and adopt appropriate policies so that known locations of specific minerals resources of local and national importance are not sterilised by non-mineral development where this should be avoided (whilst not creating a presumption that the resources defined will be worked);

- 2.4 The prescribed approach to mineral safeguarding is further explained within paragraph 218, which states:

218. Local planning authorities should not normally permit other development proposals in Mineral Safeguarding Areas if it might constrain potential future use for mineral working.

- 2.5 National planning policy is clear that any potentially viable mineral working should not be needlessly sterilised by permanent alternative development. The NPPF sets out the broad principles against which the local minerals policies must be set against.

2.6 In relation to the July 2024 consultation draft of the NPPF, there are no changes proposed to the above-mentioned paragraphs. It should be noted that the consultation draft of the NPPF includes changes which increase the weight that planning authorities should give to proposals for renewable energy generation, and that those benefits should be given significant weight.

Kent Minerals and Waste Local Plan – Adopted September 2020

2.7 The KMWLP provides information regarding the geology and mineral resources within Kent. The plan sets out planning policies to guide and determine mineral planning applications.

2.8 The latest version of the KMWLP was adopted in September 2020 following an Early Partial Review (EPR) into the previously adopted 2016 KMWLP. The approach to mineral safeguarding outlined within the KMWLP remains largely unchanged as a result of the EPR.

2.9 Policy CSM 5 of the KMWLP states the principle that economic mineral resources will be safeguarded from unnecessary sterilisation by the identification of two broad areas and mineral sites within the KMWLP. These include the identification of mineral safeguarding areas, which the Project site falls into, as well as mineral consultation areas and specific mineral sites allocated within the KMWLP.

2.10 In relation to assessing the effect of a proposal upon mineral safeguarding areas, Policy DM7³ sets out the circumstances when non-minerals development may be acceptable at a location within a Minerals Safeguarding Area. This policy recognises that the aim of safeguarding is to avoid unnecessary sterilisation of resources and encourage prior extraction of the mineral where practicable and viable before non-mineral development occurs.

2.11 Policy DM7 states that where a non-mineral development affects a mineral safeguarding allocation the planning application should be accompanied by a “Minerals assessment”. Policy DM7 states the following:

“Policy DM 7

Safeguarding Mineral Resources

Planning permission will only be granted for non-mineral development that is incompatible with minerals safeguarding, where it is demonstrated that either:

³ Page 117 of the KMWLP

1. *the mineral is not of economic value or does not exist; or*
2. *that extraction of the mineral would not be viable or practicable; or*
3. *the mineral can be extracted satisfactorily, having regard to Policy DM9, prior to the non-minerals development taking place without adversely affecting the viability or deliverability of the non-minerals development; or*
4. *the incompatible development is of a temporary nature that can be completed, and the site returned to a condition that does not prevent mineral extraction within the timescale that the mineral is likely to be needed; or*
5. *material considerations indicate that the need for the development overrides the presumption for mineral safeguarding such that sterilisation of the mineral can be permitted following the exploration of opportunities for prior extraction; or*
6. *it constitutes development that is exempt from mineral safeguarding policy, namely householder applications, infill development of a minor nature in existing built up areas, advertisement applications, reserved matters applications, minor extensions and changes of use of buildings, minor works, non-material amendments to current planning permissions; or*
7. *it constitutes development on a site allocated in the adopted development plan where consideration of the above factors (1-6) concluded that mineral resources will not be needlessly sterilised.*

Further guidance on the application of this policy will be included in a Supplementary Planning Document.”

- 2.12 The criteria outlined above have been used to guide the assessment provided in Section 4 of this report.
- 2.13 Policy DM9: Prior Extraction of Minerals in Advance of Surface Development is also a relevant consideration. The supporting text of DM9⁴ within the KMWLP states that when development is

⁴ Page 107 of the KMWLP

proposed within a mineral safeguarding area applicants will be encouraged to assess the potential of extracting the mineral prior to the main development commencing. Policy DM9 is drafted as follows:

“Planning permission for, or incorporating, mineral extraction in advance of development will be granted where the resources would otherwise be permanently sterilised provided that:

- 1. The mineral extraction operations are only for a temporary period; and*
- 2. The proposal will not cause unacceptable adverse impacts to the environment or communities*

Where planning permission is granted for the prior extraction of minerals, conditions will be imposed to ensure that the site can be adequately restored to a satisfactory after - use should the main development be delayed or not implemented”.

- 2.14 The Project has been assessed against Policy DM9 and it is considered that prior extraction of minerals would not be appropriate as it would delay an urgently required project and would lead to unacceptable adverse impacts to the environment. This is discussed in further detail in Section 4 of this report.

**Kent Minerals and Waste Local Plan – Safeguarding Supplementary Planning Document
Adopted March 2021**

- 2.15 Further clarifications regarding how a minerals assessment required under Policy DM7⁵ of the KMWLP should be undertaken are listed within the KWMLP Safeguarding Supplementary Planning Document (SPD). The following Sections 3 and 4 of this assessment provide further information regarding the factors discussed in Chapter 5 of the SPD in particular.

⁵ Page 3 of the Safeguarding SPD

3. The Mineral Resource

- 3.1 The adopted KMWLP is accompanied by a series of Mineral Safeguarding maps for all of the Local Planning Authorities in Kent. The safeguarding maps identify the anticipated extent of superficial and bedrock mineral resource within each district based upon the available BGS data for that area. A copy of the mineral safeguarding map for ABC is attached to this report in Appendix C.
- 3.2 The safeguarding map in Appendix C shows that there are two separate mineral safeguarding areas that fall within the red line boundary for the Project. The site location plan in Appendix A shows a more detailed plan showing the extent of the Site.
- 3.3 The yellow area represents Sub-Alluvial River Terrace Deposits which can broadly be defined as containing sand and gravel. The blue area represents Limestone from the Hythe Formation, which is also known as “Kentish Ragstone” which is used primarily as a building stone but can be broken down and used as an aggregate. Both of these resources are discussed in more detail below.
- 3.4 The full extent of the above-mentioned safeguarding areas has been overlaid with the Project’s boundary and is shown on Drawing ICP/ES/001 which is appended to this report in Appendix D.
- 3.5 The authors of this report are not aware of any formal expressions of interest by any minerals operators in extracting either of the resources indicated as being present on site.

Sand and Gravel - Sub-Alluvial River Terrace Deposits

- 3.6 These are sands and gravels that have been deposited over 10,000 years ago by river action, as opposed to glaciation. Being deposited in this way means that these resources are generally free of clays and silts and are consistent in their sizing compared to sand and gravel deposits that have been formed as a result of retreating glaciers at the end of the last ice age which are more common across northern England, Scotland and Wales.
- 3.7 The sand and gravel deposits contain an element of sharp sand which is important in concrete manufacturing. It is recognised in the SPD⁶ and by the mineral extraction industry that opportunities for land won sand and gravel of this nature are becoming exhausted.

⁶ Page 58 of the SPD

- 3.8 The Mineral Planning team at KCC actively monitor the supply of sand and gravel and other minerals through both the Local Aggregate Assessment ('LAA') and the production of Annual Minerals and Waste Monitoring Reports ('AMWMR').
- 3.9 The most recent LAA was published in December 2023 which assessed the supply of permitted sand and gravel reserves against the recent sales of those minerals to calculate the number of years' supply that was permitted.
- 3.10 The NPPF (December 2023) states⁷ that Mineral Planning Authorities should maintain landbanks of at least 7 years for sand and gravel. The LAA estimated in December 2023 that based on the last 10-years' sales average, Kent had a landbank of 12.67 years of sharp sands and gravel⁸. This position conforms with NPPF requirements; however, it is acknowledged that this is set in the context of a general declining trend of sand and gravel supply within Kent.
- 3.11 The above position is confirmed in the KCC AMWMR which was produced in December 2023, which summarised the position for sharp sand and gravel as being:
- Annual production rate of 0.176 million tonnes per annum which continues to have the effect of maintain the landbank in the region of 12+ years;
 - The 10-year average was also down to 0.176million tonnes per annum ('mtpa'); and
 - The permitted reserves were also down to 2.23mt.
- 3.12 The AMWR summarises the position as the following⁹:
- “Land won reserves continue to be depleted and are not being replenished. The data gives the impression that the NPPF landbank requirements and supply are being met, however this is as a result of sales decreasing and depleting reserves. Importation is steady, supplanting the land won element of sand and gravel supply overall.”*
- 3.13 In relation to the sub alluvial river terrace deposits indicated as being within the site, it is clear there is demand and need for this mineral. It is the MPA's position that whilst the requisite NPPF level of

⁷ Paragraph 219, f)

⁸ Paragraph 4.3 of the December 2023 LAA

⁹ Table 4 on page 30 of the AMWR

landbank supply is being met, it is anticipated that this may not continue being the case for the duration of the Project.

- 3.14 The MPA has acknowledged in its response to the application that the Sub Alluvial River Terrace Deposits are of a “*de minimis*” scale (Appendix B).

Limestone – Hythe formation (Kentish Ragstone)

- 3.15 The ragstone occurs in a geological formation known as the Hythe Beds of the Lower Greensand, a layer of limestones that run broadly from Kent into Surrey. Within the Ashford Borough area, where the Project is located, the ragstone occurs in a belt trending in east-west orientation across the district.
- 3.16 Ragstone has been historically extracted and used in the construction of houses and other public works in the surrounding area. Some of these buildings have included Sessions House KCC and HMP Maidstone and the Archbishop's Palace in Maidstone. The stone has also been used in infrastructure projects and other buildings outside of Kent, for example, the Tower of London.
- 3.17 Modern demand for this stone is diverse with its properties lending itself for use as an aggregate in ready mix concrete, road construction and other civil engineering applications. Larger blocks of the material have been used in the construction of sea barriers to protect against coastal erosion.
- 3.18 The ragstone is therefore treated as an aggregate (when crushed) in relation to its monitoring under the LAA but it can also be an important material used in the restoration of historic buildings. There are currently two active hard rock quarries producing crushed rock aggregate using the Kent ragstone.
- 3.19 The NPPF¹⁰ requires that at least a 10-year landbank supply of crushed hard rock is maintained. The 2023 LAA has been able to provide actual sales and reserves data for the county following a mineral operator waiving their right to maintain confidentiality. Previously hard rock sales and reserves data had been restricted on commercial grounds as there were only two sites. This fell below the minimum three required by agreement with the South East Aggregate Working Party that would allow the reporting of sales per year.

¹⁰ Paragraph 219, f)

- 3.20 The sales data has been shared which shows a larger than anticipated 1.24 million tonnes being sold in 2022. The sales figures showed a reversion from a high in 2020 (1.5 million tonnes) to a more historical level of 800,000 tonnes per annum in recent years.
- 3.21 Coupled with the sharing of the actual sales figures, the remaining reserves at the existing Hermitage Quarry and Blaise Farm Quarry had been accurately surveyed, resulting in an estimated 14.8 million tonnes being available for extraction.
- 3.22 This additional information resulted in the AMWMR¹¹ confirming the following position in relation to the need for land won crushed aggregates:

Closer examination of the recorded sales between 2017 and 2022 demonstrated a greater than previously reported rate of extraction. The Annual Production Rate (APR) for crushed rock has therefore been revised to use the 6-year sales average of 1.24mtpa. This draw down rate will be insufficient over the anticipated Plan period to 2039. Either further allocations in the Mineral Sites Plan or greater importation will be required to maintain a steady and adequate supply of this aggregate type.

- 3.23 On that basis it is reasonable to conclude that over the longer term there may be a need for new limestone mineral resources similar to those found beneath the Project site to be brought forward for extraction.

¹¹ Page 8 of the 2023 AMWMR

4. Planning Policy Assessment

- 4.1 The following section has assessed the Project against the relevant policies outlined in both the KMWLP and Reason for Refusal 5 of decision notice 22/00668/AS.
- 4.2 A key focus of this assessment has been Policy DM7 of the KMWLP and the Mineral Safeguarding SPD. The Project is considered to be consistent with those policies for the following reasons:
- The Project seeks planning consent for a temporary 40 year period, following which the solar farm and its supporting infrastructure will be removed, this will remove any constrain on future mineral extraction; and
 - Existing Site constraints have effectively already sterilised a significant portion of the minerals resource indicated as being present on-Site and as such Policy DM7 criteria 2 is relevant.
- 4.3 The following section expands upon the two key points noted above.

Temporary nature of the Project

- 4.4 Under the terms of the proposed scheme, the Project only seeks planning consent for 40 years, after which the site would be returned wholly to its existing agricultural use, on that basis Section 4 of policy DM7 is relevant, which states that planning permission will only be granted for non-mineral development that is incompatible with minerals safeguarding, where it is demonstrated that:
- “The incompatible development is of a temporary nature that can be completed and the site returned to a condition that does not prevent mineral extraction within the time scale that the mineral is likely to be needed.”*
- 4.5 Following cessation of energy generation at the site from the Project, all physical infrastructure constructed as part of the Project will be removed and recycled or disposed of in accordance with good practice, market conditions and available technologies for recycling/reprocessing at that time.
- 4.6 The decommissioning of the site will be secured through a planning condition which will also time limit the proposed development. As a result of this requirement, no substantial manmade structures will be left on site that would need to be removed following mineral extraction operation. On that basis the

proposed solar farm will not constrain any future potential mineral extraction following the completion of its 40 year operational period.

Supply of Minerals in the Region

- 4.7 Section 3 of this report provides an overview of the supply positions of the two minerals identified as being present on site. The sand and gravel found within the sub alluvial deposits is a resource that is in demand due to its importance in the concrete and wider construction markets. Currently, KCC have a greater than seven-year landbank of sand and gravel.
- 4.8 The sub alluvial river terrace deposits of sand and gravel is one of the few mineral resources to occur within every district within Kent. The mineral resource is therefore comparatively widespread, meaning that it is reasonable to conclude that alternative opportunities for the extraction of the mineral resource outside of the red line boundary are likely to exist within Kent. It is set within this context that the temporary sterilisation of the indicated sand and gravel beneath the site should be acceptable, particularly when weighed alongside these significant benefits associated with the production of renewable energy through a large-scale solar farm.
- 4.9 However, the scale of the sub alluvial river terrace deposits within the site are viewed as being de minimis by the KCC Minerals and Waste team (see Appendix B), therefore the resources located on site are unlikely to make any meaningful contribution to this supply position, regardless of the temporary sterilisation which will occur as a result of the proposed solar scheme.
- 4.10 There is a healthier supply of the limestone from the existing quarries that are operating within Kent. However, as the latest LAA confirmed there is likely to be a need to increase the supply of crushed stone through new sites over the longer term in order to maintain the required landbank to 2039.
- 4.11 Under the current anticipated supply of crushed limestone there may be an overlapping period when there is a need for the crushed aggregate whilst the proposed solar scheme is operational. The AMR acknowledges that further sites will need to be allocated to meet this need later in the plan period.
- 4.12 As is noted above in relation to the sand and gravel extraction, the potential recovery of limestone from within the site would be subject to several existing environmental constraints, discussed below, which would likely render any potential extraction technically unviable or significantly reduced to the point of being unworkable.

- 4.13 There is no indication that demand for crushed limestone will not exist beyond the end date of the proposal solar scheme. The limestone resource is spread widely across the county with active quarries extracting the mineral resource from longstanding and well established sites. There may be an overlapping period, when other sites within the county are not brought forward or extensions sought to existing quarries, when the limestone beneath the proposed site is in demand.
- 4.14 However, there are no indications that this demand will not existing beyond the end date of the proposed solar scheme, at which point the limestone could be extracted, notwithstanding the significant existing constraints that are present on the site. On that basis the proposed temporary solar scheme complies with policy DM7 criteria 4.

Existing constraints on mineral extraction

- 4.15 The following section of this report highlights features in and around the site that would represent a significant constraint to any potential mineral extraction. It is important to review the existing constraints so that the level of temporary sterilisation which would be associated with the Project can be fully understood.
- 4.16 The two separate mineral resources highlighted as being within the site boundary are broadly located within the northern and western portions of the Project. Each part of the site is subject to differing types of constraint. Similarly, the two different mineral resources can be extracted in different ways which in turn dictates the degree to which they are affected by the existing constraints.
- 4.17 For example, the sand and gravel extraction will largely involve a relatively modest set of excavation plant and machinery due to the resource by its nature being loose and relatively shallow within the ground. Conversely, the removal of limestone will involve the breaking up of the mineral on site, a process which can involve the use of explosive blasting and the creation of associated vibrations and the physical crushing of stone down to a size which can be used as an aggregate.
- 4.18 Both forms of extraction will result in impacts upon amenity (e.g. dust, noise, vibration and visual impact), although it is reasonable to conclude that the extraction of the limestone would have the potential to create the greater environmental impact. As such, the degree to which the site is already effectively sterilised by existing receptors needs to be considered when establishing the potential temporary mineral sterilisation which would occur as a result of the Project.

- 4.19 This section of the report is accompanied by Drawing ref: ICP/ES/002 (Appendix D) that has broadly highlighted the extent to which the mineral resources found on-site are already effectively sterilised. The following details and associated standoff distances from any possible mineral extraction scheme have been used:
- Residential properties – 250m standoff in all direction;
 - Woodlands – 15m standoff;
 - Hedgerows – 10m standoff;
 - East Stour River – 50m standoff;
 - Roads – 20m standoff;
 - Channel Tunnel Rail link / HS1 railway line and railway line operated by Network Rail as part of the Kent Route between Ashford and Westenhanger– 50m standoff;
 - Public rights of way – 10m standoff;
 - Electrical pylons – 50m from the base of the Pylons carrying the 400Kv electrical cabling; and
 - Overhead power lines – 20m corridor.
- 4.20 It is accepted that there are no statutory standoffs required for mineral developments. The above-mentioned distances are based on experience of the author's involvement with multiple mineral extraction sites nationwide.
- 4.21 In relation to the 250m distance from residential properties, this distance has been used as within that range it is more likely that the effects of noise, air quality and vibration will need to be significantly controlled and mitigated to avoid having unacceptable impacts.
- 4.22 The logic of using the 250m standoff distance is consistent with the approach outlined within the Mineral Safeguarding SPD. The SPD uses the 250m distance as a buffer zone around safeguarded minerals sites and infrastructure. Any non-minerals development that is proposed within this 250m buffer zone needs to be assessed to ensure that it will not introduce a new receptor, or receptors, that could impinge upon the operation of that site.
- 4.23 The SPD advises that unacceptable levels of dust, noise, lighting and vibration could be experienced by receptors within that 250m distance. This is used to ensure that new non-mineral related development brought forward within the 250m buffer zone does not result in any additional mitigation

being placed upon minerals operators as they would introduce new sensitive receptors. This approach is consistent with the “Agent of Change” principle which is outlined in the NPPF¹².

- 4.24 It is accepted that residential receptors can be located within 250m of an active minerals operation and equally that there can be receptors beyond 250m that do experience unacceptable amenity impacts. For the purposes of this mineral safeguarding assessment, the 250m distance provides a robust indication of an acceptable proximity to a residential receptor.
- 4.25 The standoff distances noted for the hedgerows and woodlands are based on general working practices and would vary based on each section of vegetation. For the purposes of this assessment, the distance indicated on the plan is from the tree or hedgerow to any potential extraction. Ancillary mineral extraction features such as soil mounds, fencing and drainage channels would be accommodated within that distance.
- 4.26 The standoff from the East Stour River would be to ensure that any excavation does not have an impact upon the existing hydrological and hydrogeological regimes associated with the water course. The distance chosen provides a broad indication of the likely acceptable proximity of any mineral extraction. It is accepted that a closer or further distance of working could be allowed but this would be following detailed intrusive investigations into the surface water and groundwater drainage environment on site. In the absence of this information the 50m distance used is robust.
- 4.27 Given the nature of the Channel Tunnel rail link/HS1 railway line and the railway line operated by Network Rail as part of the Kent Route between Ashford and Westenhanger, a significant degree of caution is applied to any form of development which would have the potential to affect the geotechnical stability of this piece of infrastructure. As was the case in relation to the East Stour River, this distance could be shortened or increased subject to further geotechnical assessment, on that basis the 50 metre distance used is fair.
- 4.28 The presence of the public highway can also constrain development. Excavation areas generally have to stand off from the public highway to ensure that the roads remain geotechnically stable and they do not present a risk to road users if a vehicle was to leave the carriageway. Typically, a 20m standoff from the public highway is observed.
- 4.29 The high voltage overhead cables and the associated pylons that carry them across the site are essential infrastructure and form a critical part of the country’s electricity network. Due to their

¹² NPPF Paragraph 193

importance and similarly to the HS1 rail link, the geotechnical stability of these features needs to be protected. For the purposes of this assessment a 50m stand off from the base of the pylon has been applied, which given the nature of is reasonable.

- 4.30 The route of the overhead cables is also stood off as excavation machinery with long reach arms, such as excavators are not typically permitted to operate beneath them due to the associated health and safety risks.
- 4.31 Taking account of the above mentioned existing constraints, the extent to which each of the mineral resources could be recovered is discussed in more detail below.

Sand and Gravel - Sub-Alluvial River Terrace Deposits

- 4.32 The sand and gravel deposits broadly lay beneath the northern portion of the site, extending from the M20 to the HS1 rail link to the south. The safeguarded mineral resource only affects a minor part of the central portion of the northern part of the site.
- 4.33 This mineral resource is only constrained by the presence of the HS1 rail link which would render the northern part of the resource unworkable. The isolated nature of the safeguarded mineral, coupled with its very modest size, mean that on its own it would not be viable to extract. This is a view that is shared by the KCC minerals and waste department who confirm that the sub alluvial river terrace deposits are “de minimis” (Appendix B), a position that this report agrees with.
- 4.34 Both the rail lines and the river are highly sensitive to changes in the geotechnical and hydrogeological regimes they sit within and as such, any mineral extraction undertaken in this area would most likely need to observe significant buffer zones from each of these assets. Accounting for these standoffs within what will be a very constrained working area would likely render any potential mineral extraction in these areas technically challenging as well as potentially economically unviable.

Limestone – Hythe formation (Kentish Ragstone)

- 4.35 The limestone resource occurs within the western portion of the Project, broadly occupying an area around Bested Hill. The southern portion of the limestone resource is within 250m of the residential property at the Paddock which renders this portion of the site unviable for the purposes of this assessment.

- 4.36 A stand off from Backhouse Wood has also been applied on the western boundary of the resource area, further reducing the viable reserves.
- 4.37 The largest constraint on this part of the site is the presence of the overhead electricity pylons. The line of the overhead cable runs between the majority of the mineral resource and the nearest public highway, Church Lane.
- 4.38 It may be possible to cross beneath the power lines to undertake mineral extraction however there may be additional operational costs associated with it and minimum standoff distances to be observed which may restrict the viability of any mineral extraction operation.
- 4.39 The electricity pylon in the centre of the site and the associated need to ensure its stability would also sterilise a large central area of the mineral resource. It would present a significant liability to any potential mineral operator who may not wish to undertake excavation activities close to it, when alternative sites would be available. Due to the scale of the pylon, it is unlikely that it could be moved economically to allow the mineral extraction to take place.
- 4.40 Daily vehicle movements would need access the site via Church Lane which is narrow and a single carriage way. At the northern end of Church Lane, the road passes through two railway bridges. The southern bridge has a height restriction of 3.8m. Both the narrow nature of Church Lane and the constrained access beneath the southernmost bridge will restrict further the potential for available mineral operations to remove any extracted material from the site.
- 4.41 A typical mineral extraction site will need to be served by a mixture of large Heavy Good Vehicles (HGV) ranging between 20 to 30 tonnes in capacity in order to efficiently remove the material to and from the site. Whilst the solar scheme will use this route to facilitate the construction over a relatively short period of time, a mineral extraction scheme will require regular daily movements on this road for the lifespan of its operation, generating a far greater number of trips using some of the largest road going vehicles.
- 4.42 It is unlikely that planning permission would be granted for a mineral extraction scheme that proposed the access route beneath the bridges on Church Lane due to their size restrictions. The use of this route for mineral extraction traffic would increase the potential for abnormal wear and tear on the road and supporting structures and would likely present an unacceptable risk to other road users.

- 4.43 The proposed solar scheme would not generate the same volume of HGV highway movements both during its construction and even less so during its operational period. The scale of movements required to support an active mineral extraction operation are not comparable with those required to support the initial construction phase of a solar project.
- 4.44 Overall, the potential future extraction of limestone from the site is already heavily constrained by both the presence of the existing electrical pylons on site as well as the highways access. On that basis the extraction of the mineral would not be viable or practical and as such the proposal complies with criteria 2 of Policy DM7.
- 4.45 It is considered that the Project complies with Policy DM7 of the KMWLP as it is a temporary development. Alongside this, the mineral resources indicated as being present beneath the site are already significantly constrained to the point that their extraction would be unlikely to occur over the 40-year operational lifespan of the Project compared to other potentially less constrained sites elsewhere within Kent which may come forward over the lifespan of the Project.

Policy DM9

- 4.46 The first part of policy DM9 states that prior extraction of minerals should be considered where they would otherwise be permanently sterilised by proposed non mineral development. The Project will not result in the permanent sterilisation of the mineral reserves on site. On that basis alone an assessment against policy DM9 should not apply.
- 4.47 Minerals extraction on site would have the potential for a range of significant environmental impacts and would delay the delivery of a critical national project. Prior extraction is therefore not considered appropriate.

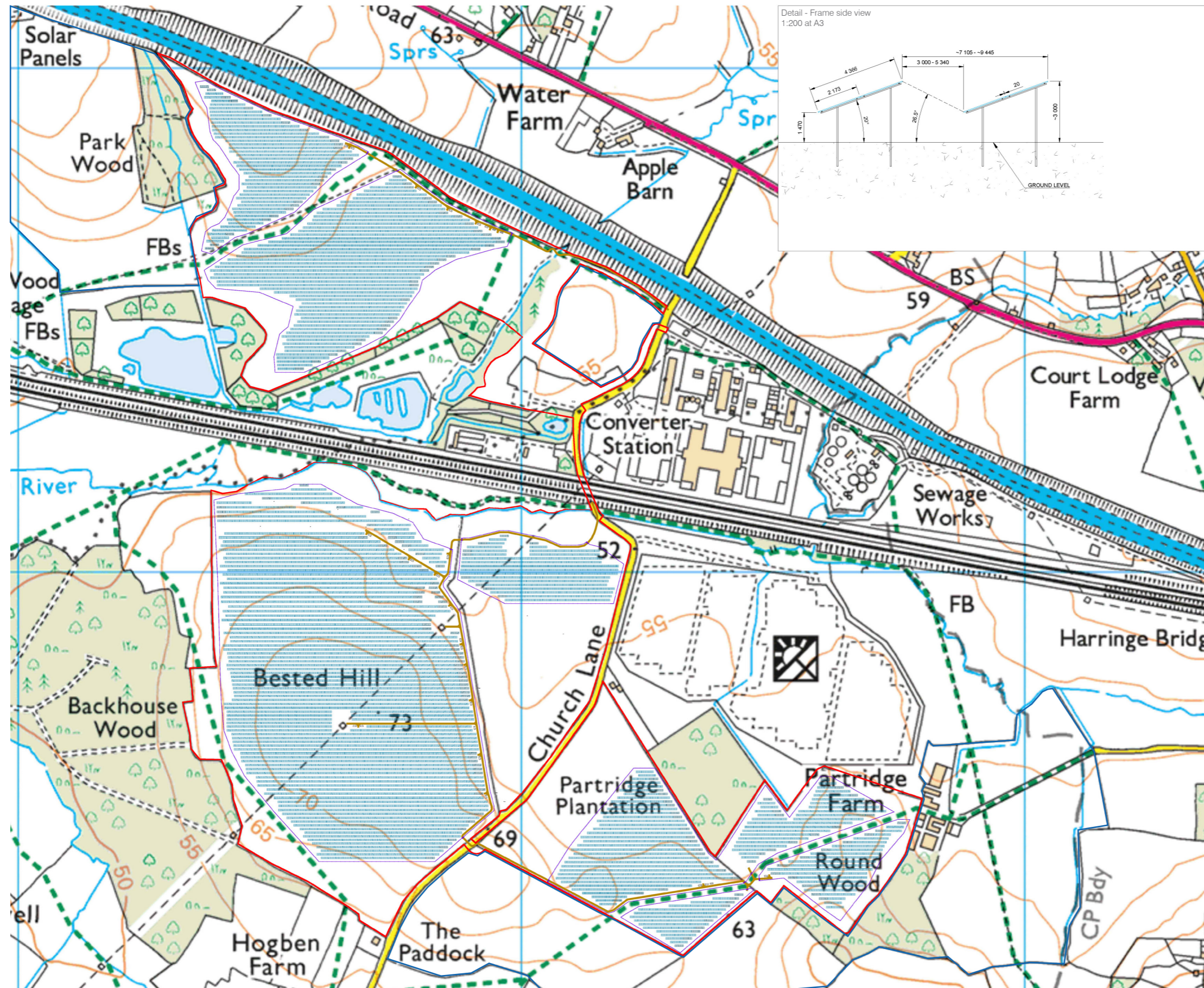
5. Conclusion

- 5.1 This report demonstrates that the Project is of a temporary nature that can be completed and returned to a condition that does not prevent future mineral extraction following its proposed 40 year operational period.
- 5.2 It is common ground between the applicant and the MPA, KCC, that the impact of the proposals upon sub alluvial sand and gravel deposits will “de minimis”. Nonetheless this report has fully considered the impact of the proposed solar farm upon that mineral resource.
- 5.3 The assessment has demonstrated that the remaining limestone mineral resources found on site are already significantly sterilised by the presence of a number of existing constraints. These existing restrictions render the extraction of these limestone mineral resources impractical and unviable. Within this context the temporary sterilisation of the resources that would arise from the Project should be acceptable.
- 5.4 Section 3 of this report provides an overview of the supply positions of the two minerals identified as being present on site. The sand and gravel found within the sub-alluvial deposits is a resource that is in demand due to its importance in the concrete and wider construction markets. Currently, KCC have a greater than seven-year landbank of sand and gravel.
- 5.5 Notwithstanding the fundamental constraints on the extraction of the mineral resources, consideration has been given to the current supply of the safeguarded limestone resources. There is likely to be demand for crushed limestone, if no other sites or extensions to existing sites are brought forward between now and the end of the KMWLP plan period 2039. It should be noted that the proposed site will be capable of meeting any future demand for crushed limestone following the decommissioning of the solar scheme in the longer term.
- 5.6 Regard has been had to both Policy DM7 of the KMWLP and the Mineral Safeguarding SPD. The Project is considered to be consistent with those policies for the following reasons:
- Existing site constraints have effectively already sterilised a significant portion of the minerals indicated as being present on site and as such Policy DM7 criteria 2 is relevant, in that the minerals found on site are not practical or viable to extract.

- The Project is of a temporary nature that can be completed and the site returned to a condition that does not prevent future mineral extraction and therefore complies with Policy DM7 criteria 4.
- 5.7 The Project will deliver significant benefits through the generation of renewable energy. This benefit far outweighs any limited temporary impact the Project would have upon the safeguarded mineral resources.
- 5.8 In conclusion, the Project is consistent with Policy DM7 and on that basis Reason for Refusal 5 should not be upheld.

Appendix A

Site Boundary Plan












EAST STOUR SOLAR FARM

Proposed Site Layout

Figure 1.2

KEY

-  North
-  Solar Development Boundary
-  Immediately adjoining landholding
-  Fence
-  Gate
-  Solar panels on frames
-  New site access track
-  Storage, spares, inverter/transformer unit and substation cabinet
-  Welfare container

PREPARED ON BEHALF OF



A Client of



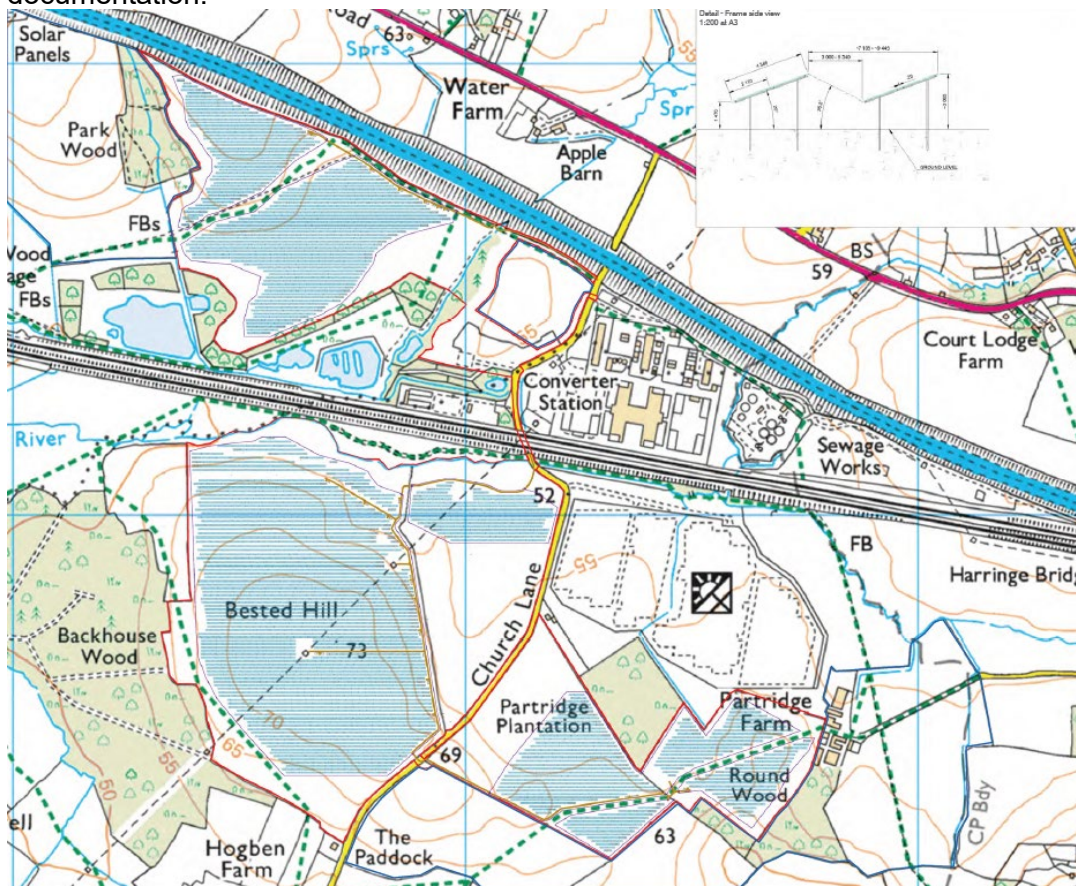
Appendix B

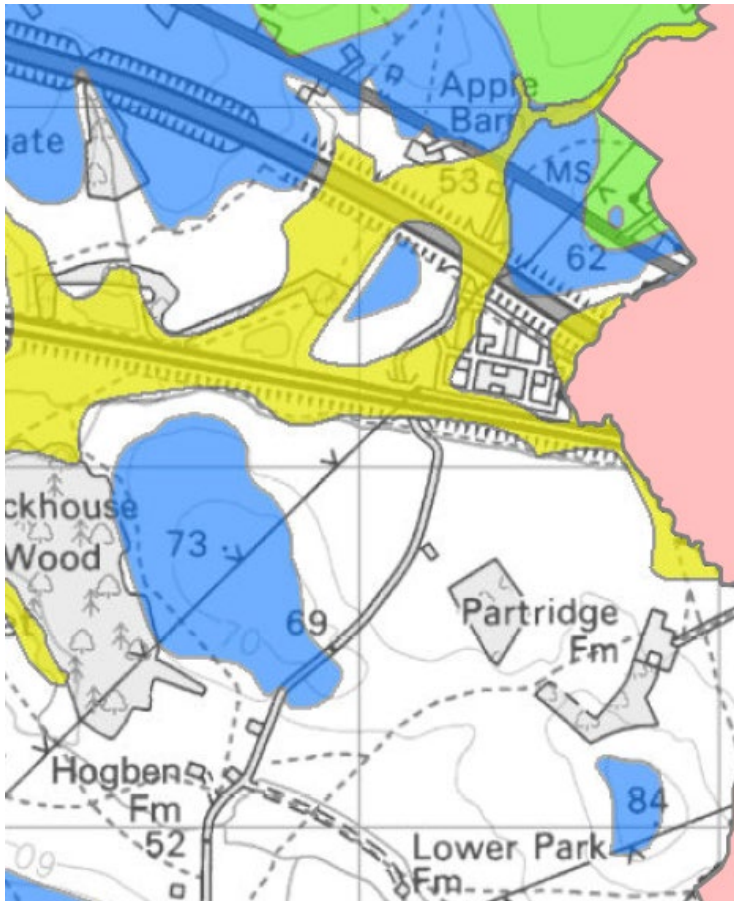
KCC Minerals and Waste Response 1/2/24

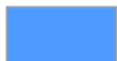
Thank you for consulting the County Council's Minerals and Waste Planning Policy Team on the above planning application.

I can confirm that the application site is coincident with or within 250 metres of any safeguarded mineral or waste facility, and thus would not have to be considered against the safeguarding exemption provisions of Policy DM 8: Safeguarding Minerals Management, Transportation, Production and Waste Management Facilities of the adopted Kent Minerals and Waste Local Plan 3013-30.

With regard to land-won minerals safeguarding matters it is the case that the area of the application site is coincident with a safeguarded mineral deposits in the area, they being Hythe Formation (Kentish Ragstone) and the Sub-Alluvial River Terrace Deposits, as shown in the extracts from the Mineral Safeguarding Area proposals map (below) for the Ashford Borough area, as part of the adopted proposals maps of the Kent Minerals and waste Local Plan 2013-30 as amended by the Early partial Review 2020, and the application's submitted documentation.





 Limestone Hythe Formation (Kentish Ragstone)

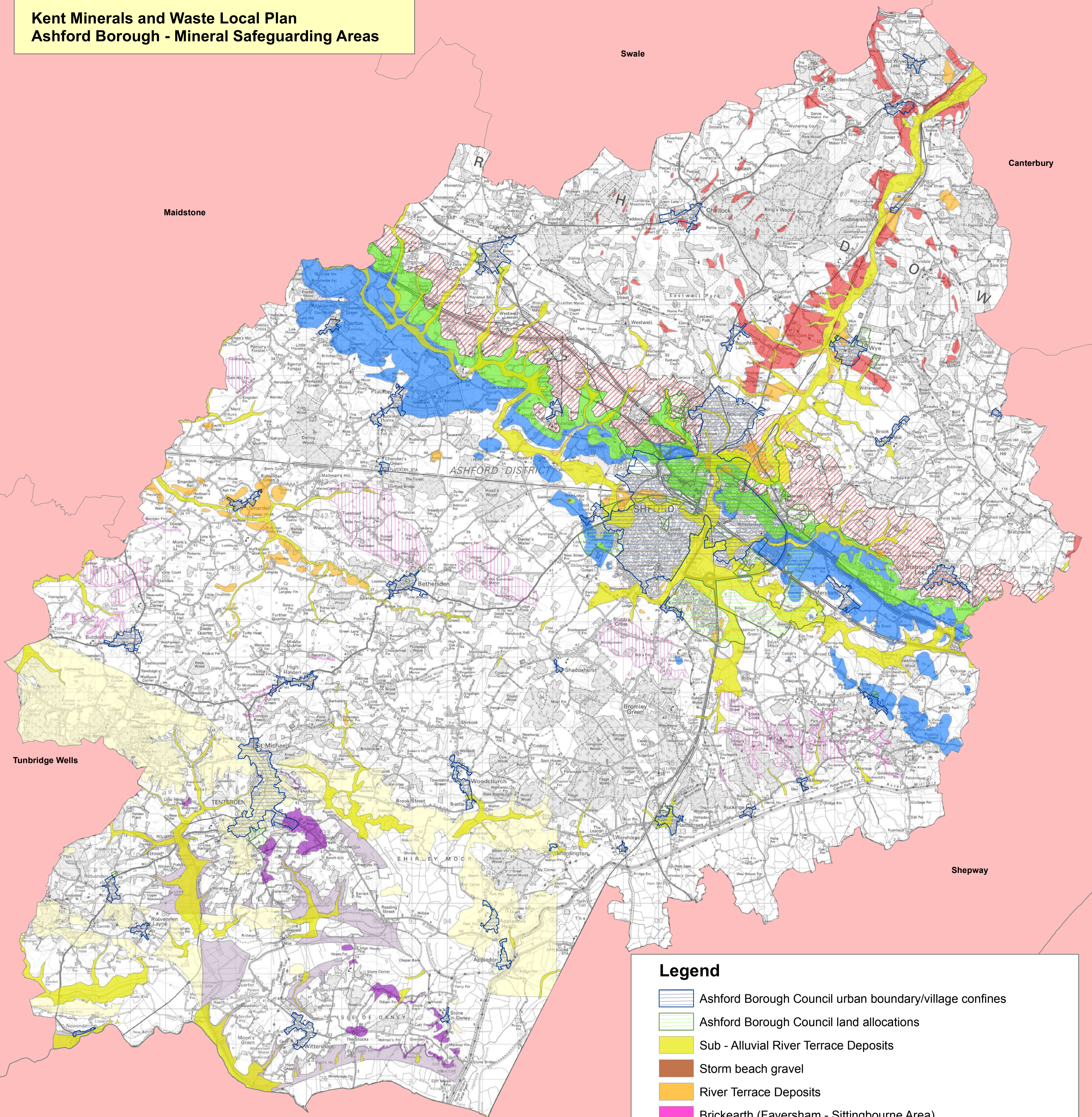
 Sub - Alluvial River Terrace Deposits

Therefore, the application details should include a Minerals Assessment (MA) to determine if the safeguarded mineral deposit is being needlessly sterilised by the development proposed, and if not whether an exemption to mineral safeguarding pursuant to Policy DM 7: Safeguarding Mineral Resources of the Kent Minerals and Waste Local Plan 2013-30 (as amended by the Early Partial Review 2020) can be invoked. The application details do not include a MA for this to be objectively determined, nor does the planning statement consider national or local planning policy for land-won mineral safeguarding. Of the two safeguarded minerals the Sub-Alluvial River Terrace Deposits are only very marginal potentially affected, and therefore these can be considered as *de minimis*. The Hythe Formation deposit that is threatened with sterilisation, particularly that at the Bested Hill area, should be subjected to a MA. Until this is done the County Council wishes to lodge an objection on the grounds of conflict with mineral safeguarding Policy CSM 5: Land-won Mineral Safeguarded of the adopted Kent Minerals and Waste Local Plan 2013-30 (as amended by the Early Partial Review 2020).

Appendix C

Ashford Borough Council Mineral Safeguarding Map

**Kent Minerals and Waste Local Plan
Ashford Borough - Mineral Safeguarding Areas**



Legend

-  Ashford Borough Council urban boundary/village confines
-  Ashford Borough Council land allocations
-  Sub - Alluvial River Terrace Deposits
-  Storm beach gravel
-  River Terrace Deposits
-  Brickearth (Faversham - Sittingbourne Area)
-  Brickearth (Other Areas) - Ashford, Canterbury, Dover, Shepway
-  Sandstone - Ardingly Sandstone
-  Sandstone - Ashdown Formation
-  Sandstone - Upper Tunbridge Wells Sand Formation
-  Sandstone - Wadhurst Clay Formation
-  Ironstone - Wadhurst Clay Formation
-  Limestone - Pauldina Limestone, Weald Clay Formation
-  Sandstone - Tunbridge Wells Sand Formation
-  Limestone - Calcareous Tufa
-  Sandstone - Sandgate Formation
-  Limestone Hythe Formation (Kentish Ragstone)
-  Sandstone - Cuckfield Stone Bed, Tunbridge Wells Sand Formation
-  Silica Sand/Construction Sand - Sandstone: Folkestone Formation

1:57,000 at A1 paper size 0 1 2 Kilometres

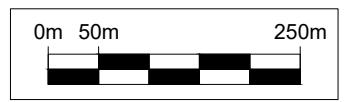
© Crown Copyright and database right 2015. Ordnance Survey 100019238



English Channel

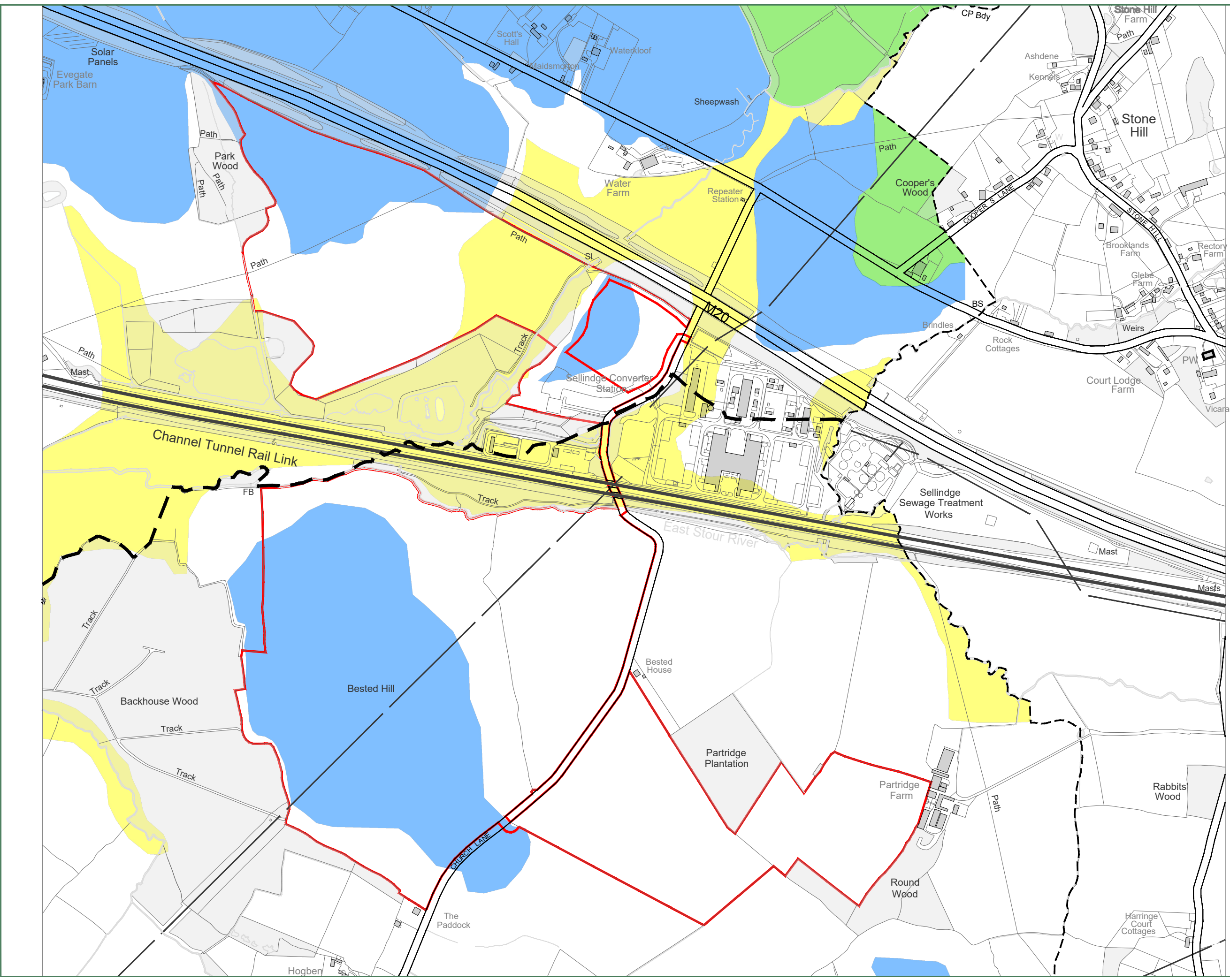
Appendix D

Mineral Safeguarding Plans



LEGEND

- SITE BOUNDARY
- SANDSTONE - SANDGATE FORMATION
- LIMESTONE HYTHE FORMATION (KENTISH RAGSTONE)
- SUB - ALLUVIAL RIVER TERRACE DEPOSITS



Rev	Date	Details	Chkd

IC Planning Ltd
 6 Pickersgill Court
 Quay West Business Village
 Sunderland SR5 2AQ
 Tel: 01910548 0570
www.identityconsult.co.uk
 Email: info@identityconsult.co.uk

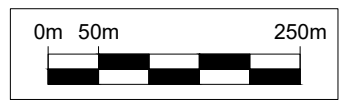
Date	Scale	Drawn	Checked	Approved
07/08/2024	1:7500 @ A3	By GTB	by ST	by ST

Drawing Status: **WORKING DRAWING**

Project Title:
**EAST STOUR
 SOLAR FARM
 ASHFORD**

Drawing Title:
MINERAL SAFEGUARDING PLAN

Drawing Number	Rev
ICP/ES/001	-

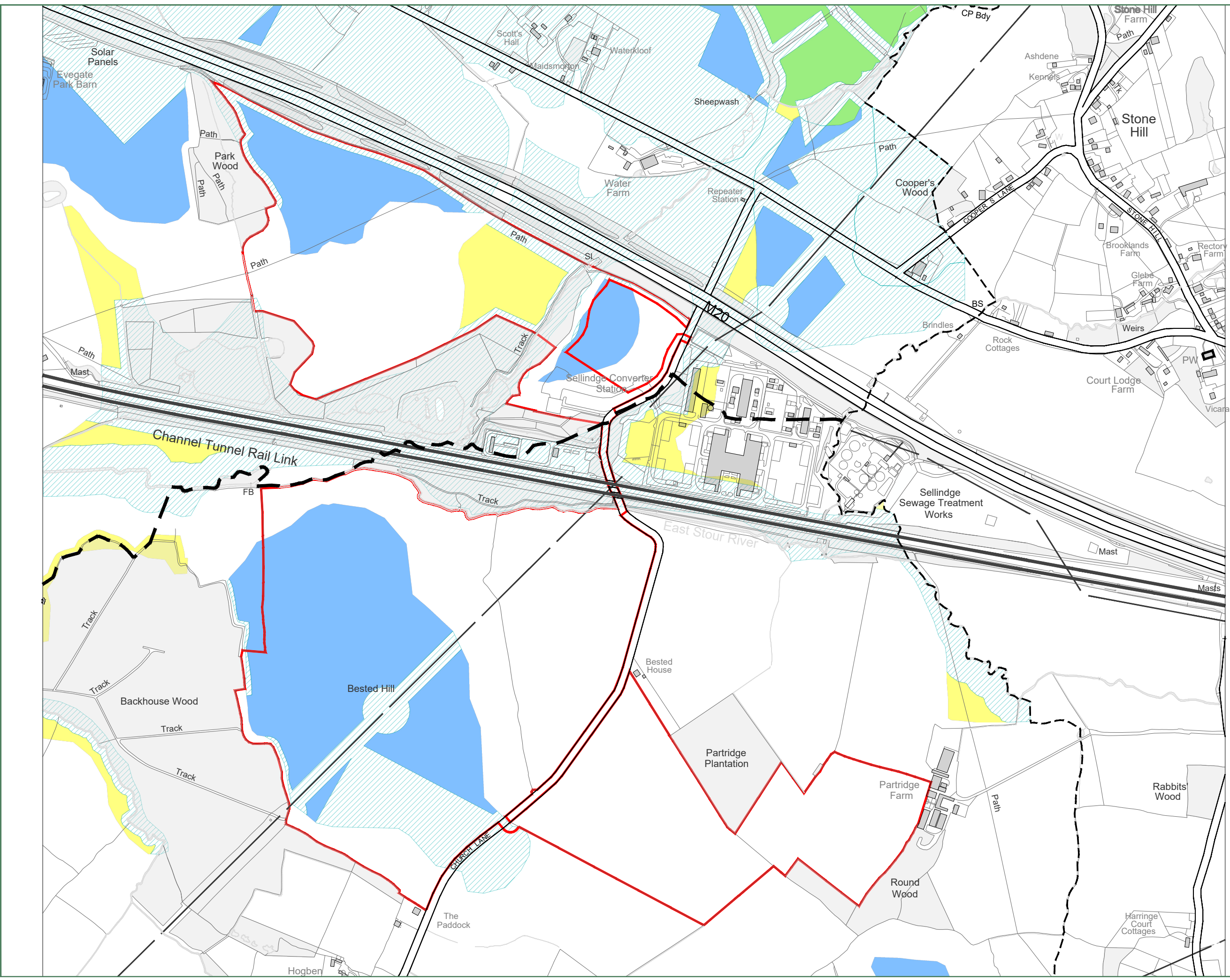


LEGEND

- SITE BOUNDARY
- SANDSTONE - SANDGATE FORMATION
- LIMESTONE HYTHE FORMATION (KENTISH RAGSTONE)
- SUB - ALLUVIAL RIVER TERRACE DEPOSITS
- MINERALS SAFEGUARDING AREAS ALREADY STERILISED

NOTE

- MINERALS SAFEGUARDING AREAS ALREADY STERILISED BY EXISTING LANDSCAPE FEATURES
- 250m from any residential property in all directions
 - Any woodlands 15m and 10m from any hedgerows
 - 20m from any roads
 - 50m from the East Stour River.
 - 50m from the rail line.
 - 10m from any public rights of way
 - 50m from base of pylons
 - 20m from power lines corridor



Rev	Date	Details	Chkd

IC Planning Ltd
6 Pickersgill Court
Quay West Business Village
Sunderland SR5 2AQ
Tel: 01910548 0570
Email: info@identityconsult.co.uk
www.identityconsult.co.uk/ic-planning

Date	Scale	Drawn By	Checked By	Approved By
07/08/2024	1:7500 @ A3	GTB	ST	ST

Drawing Status: **WORKING DRAWING**

Project Title:
**EAST STOUR
SOLAR FARM
ASHFORD**

Drawing Title:
EXISTING MINERAL EXTRACTION CONSTRAINTS PLAN

Drawing Number	Rev
ICP/ES/002	-