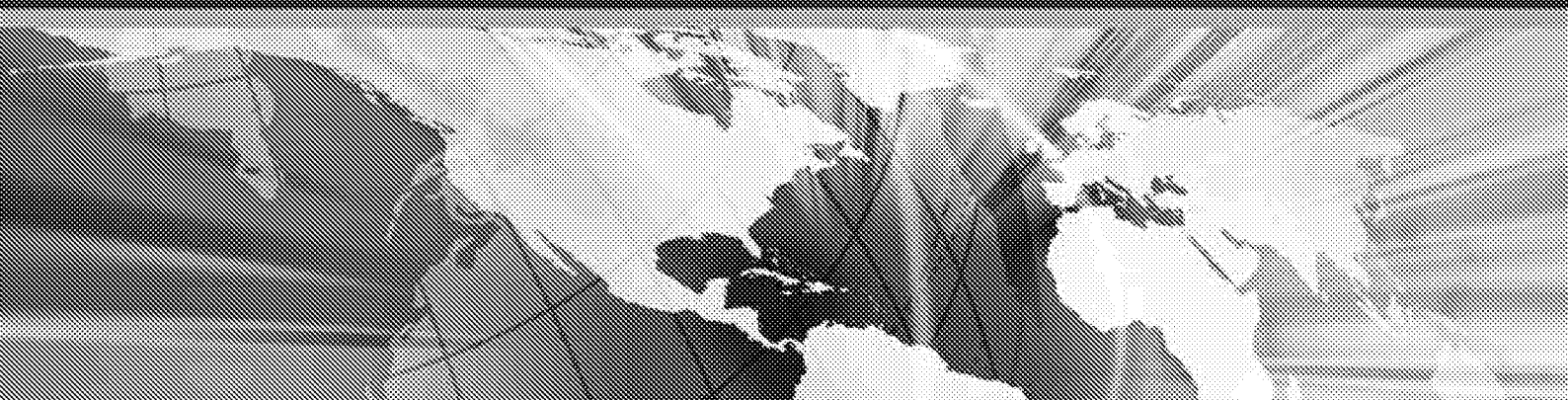




LANDACRE (EASTERGATE) LTD

**PROPOSED DEVELOPMENT ON LAND OFF BARNHAM ROAD, EASTERGATE, WEST
SUSSEX**

MINERAL RESOURCE ASSESSMENT

NOVEMBER 2020

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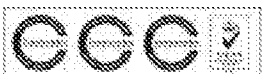
PREPARED & APPROVED BY

Stephen Barry Technical Director &
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DRAWINGS	TITLE	SCALE
ST18361-001	Superficial Geology	1:2,500@A4

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EXECUTIVE SUMMARY

This report has been prepared to support a planning application by Landacre (Eastergate) Ltd for proposed development on land off Barnham Road, Eastergate, West Sussex. The site is located approximately 6km north of Bognor Regis. The site has been reviewed in relation to the mineral safeguarding policies of the West Sussex Joint Minerals Local Plan.

The site comprises approximately 1.7 ha of agricultural land. Published geological maps for the area indicate that the superficial geology on the site comprises a river terrace sand and gravel deposit and a head deposit. Most of the proposed development site is covered with a river terrace sand and gravel deposit, which is the safeguarded mineral resource on the site. The south eastern part of the site is covered in a head deposit, which is not a safeguarded mineral resource.

The quantity of sand and gravel on the proposed development site is too small to be of any economic value and the minerals have already been indirectly sterilised by the presence of existing residential development to the north and east of the proposed development site. Consequently, the safeguarded mineral resource has no economic value, so prior extraction is not practicable or environmentally feasible and the proposed development is therefore compatible with criterion b(iii) of the County Council's Policy M9: Safeguarding Minerals.

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1 INTRODUCTION

- 1.1 This report has been prepared in accordance with instructions from Landacre (Eastergate) Ltd to prepare a Mineral Resource Assessment report in support of an outline planning application for proposed residential development on land off Barnham Road, Eastergate, West Sussex. The site is located approximately 6km to the north of Bognor Regis. The site boundary is shown edged red on the attached drawing ST18361-001 which also shows the superficial geology on the site. The site comprises approximately 1.7 ha of agricultural land and it is bounded by Barnham Road to the north, residential development to the east, arable land to the south and a horticultural nursery to the west.

2 GEOLOGY

- 2.1 Geologically, a distinction is made between “superficial deposits” and “solid geology”. Superficial deposits such as sand and gravel are found at, or close to, the surface. The solid bedrock beneath the superficial deposits is called the “solid geology”.

Superficial geology

- 2.2 The British Geological Survey (BGS) online map at 1:50,000 scale shows that most of the site is covered by a river terrace sand and gravel deposit. The sand and gravel is a safeguarded mineral resource, as it contains sharp sand and gravel. The south eastern part of the site is covered in a head deposit, which is composed of unsorted gravel, sand, silt and clay. However, due to the poor quality of sand and gravel in the head deposit, it is not considered to be a safeguarded mineral resource.
- 2.3 Part of the sand and gravel deposit is already indirectly sterilised by the presence of residential property to the east of the site. After assuming a 100m standoff from that property, the remaining area of the deposit would be approximately 0.9 ha, although approximately half of this is covered by the head deposit. Borehole records in the vicinity of the site indicate that the sand and gravel is typically only 2m thick. This combination of a very small area and a thin deposit of sand and gravel indicates that the quantity of sand and gravel on the site is not sufficient to constitute a commercially viable mineral deposit.
- 2.4 The small quantity of sand and gravel on the proposed development site is also too small to make any contribution to the landbank for sharp sand and gravel in West Sussex.

Local sand pits

- 2.5 There is a substantial sand pit called Sandgate quarry on Water Lane, Storrington, which is operated by CEMEX. The quarry area is approximately 40 hectares in extent. The size of this quarry demonstrates the scale of land that is required for a commercially sustainable mineral extraction operation

Solid geology

- 2.6 The BGS online map at 1:50,000 scale indicates that the solid geology is the London Clay Formation. The London Clay Formation is composed of clay, silt and sand and is not a safeguarded mineral resource.

3 MINERAL SAFEGUARDING GUIDANCE AND POLICY

Guidance

- 3.1 West Sussex County Council has produced a Draft Minerals Safeguarding Guidance document, which states that a mineral resource assessment should be proportionate to the size of the site and “may include consideration of other locations for the development that are outside the Mineral Safeguarding Area”. In the context of mineral safeguarding, this site is so small that there is no realistic prospect that mineral extraction would ever take place on it.

Policy

- 3.2 The relevant mineral planning policies are contained in the West Sussex Joint Minerals Local Plan, which was developed by West Sussex County Council and South Downs National Park Authority. It was adopted in July 2018 and is due for review by 2033. The Local Plan has been designed to set out West Sussex County Council’s vision, objectives, strategy and policies for minerals supply.
- 3.3 Policy “M9: Safeguarding Minerals” is attached in full at Appendix 1. Paragraph (b) of the policy states that soft sand (including potential silica sand), sharp sand and gravel, brick-making clay, building stone resources and chalk reserves are safeguarded against sterilisation. Proposals for non-mineral development within the Minerals Safeguarded Areas will not be permitted unless:
- (i) Mineral sterilisation will not occur; or
 - (ii) It is appropriate and practicable to extract the mineral prior to the development taking place, having regards to the other policies in this Plan; or

- (iii) The overriding need for the development outweighs the safeguarding of the mineral and it has been demonstrated that prior extraction is not practicable or environmentally feasible.

Compliance with the adopted safeguarding policy

Criterion (b)iii

- 3.4 The geology section of this report shows that the sand and gravel on the proposed development site is too small in area to be commercially viable, so prior extraction is not a practicable option. In terms of mineral extraction, the site is constrained by existing residential development to the east and west. It is clear that mineral extraction in such a confined area so close to houses is not practicable or environmentally feasible. The site therefore meets criterion b(iii) of Policy M9 Safeguarding Minerals for built development to be acceptable in a Mineral Safeguarding Area.

4 CONCLUSIONS

- 4.1 The proposed development site is located within a mineral safeguarding area for sharp sand and gravel, and there is a river terrace sand and gravel deposit present on the site. The quantity of sand and gravel on the proposed development site is too small to be commercially viable and prior extraction is not feasible due to the small area of the site.
- 4.2 Much of the mineral resource on the site is already indirectly sterilised by the presence of existing residential development, which is usually protected by a 100m wide buffer zone. A buffer zone of that size would cover a significant proportion of the sand and gravel on the site.
- 4.3 As a consequence of the small area of the mineral resource on the site and the existing indirect sterilisation by existing housing, the mineral is of no economic value as it will never be worked. Prior extraction is not practicable because the site is too small, nor is it environmentally feasible because the site is in a residential urban area which would act as a constraint on temporary mineral extraction. The site therefore meets the requirements of criterion b(iii) of the mineral safeguarding Policy M9, so the proposed development would be acceptable in a Mineral Safeguarding Area.

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Appendix 1
Policy M9 Safeguarding Minerals

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Implementation and Monitoring	
<i>Actions</i>	<i>Key Organisation(s)</i>
Development management process	WSCC, SDNPA, minerals industry
<i>Measure/Indicator</i>	<i>Trend/Target</i>
Number of mineral extraction proposals that include plant, processing and secondary activities	No trend/targets identified, as it is not expected that unacceptable proposals will progress to planning applications
Number of proposals for plant, processing or secondary proposals that are refused because of unsatisfactory impacts on the mineral working scheme	
<i>Intervention Levels</i>	Upward trend in proposals involving plant, processing or secondary activities that are refused.

6.9. Safeguarding Mineral Resources

- 6.9.1. Mineral resources are finite and must be protected to ensure future generations can meet their own needs. Minerals can only be worked where they naturally occur and with increased pressure on land use, resources should not be needlessly sterilised by other forms of development.
- 6.9.2. Sterilisation of mineral resources can occur as a result of surface development directly overlying the mineral resource, or by development that is situated on, or close to, the boundary of a resource. The approach to safeguarding each mineral type may vary according to the geology, supply and demand for minerals.
- 6.9.3. Based on the BGS assessment⁴¹ of the best available geological knowledge, four mineral resources (sand and gravel, chalk, clay and sandstone) were considered of economic importance in West Sussex, warranting safeguarding for future generations.
- 6.9.4. Non-minerals development may be proposed which is considered so important as to override the need to safeguard a mineral resource. Such development may include that which is of national and/or wider strategic importance. In any event, when assessing proposals, the need for

⁴¹ West Sussex County Council commissioned the British Geological Survey (BGS) to assist in identifying and delineating Mineral Safeguarding Areas (MSAs) and Mineral Consultation Areas (MCAs).

potentially sterilising development will be weighed against the need to avoid sterilisation of the underlying mineral and will take account of the objectives and policies of the development plan as a whole.

- 6.9.5. The **strategic objective** that is of particular relevance to the safeguarding of minerals is as follows: *5: To safeguard potential economically viable mineral resources from sterilisation.*
- 6.9.6. The plan safeguarding **strategy** is to ensure that the sand and gravel, chalk, clay and sandstone resources are appropriately safeguarded as described below in order that the potential sterilisation of important minerals is considered alongside other land uses when a planning application is being considered.
- 6.9.7. The safeguarded areas include a proximal buffer which extends 250m beyond its mapped extent. Defining MSAs does not carry a presumption that any areas within MSAs will ultimately be acceptable for mineral extraction.

Soft Sand, Silica Sand, and Sharp Sand and Gravel

- 6.9.8. The approach to safeguarding soft sand and sharp sand and gravel is to include the whole of the unconsolidated sand and gravel mineral resources. The soft sand resources may also have the potential to be of silica sand quality which is of national importance. This approach takes account of their more limited distribution and ensures that the safeguarding of these resources is maximised. The MSAs for soft sand (including potential for silica sand) and sharp sand and gravel are shown in Appendix E.

Chalk

- 6.9.9. Due to the broad extent of the chalk resource and the limited demand for it, there is no need to safeguard the entire resource. Prior extraction of chalk is not likely to be practicable due to the market for this mineral and the cost of transporting it. The existing and active chalk extraction sites within West Sussex hold sufficient reserves to meet the need over the Plan period. The existing safeguarded active and inactive⁴² chalk quarries that have unworked permitted reserves are listed in the Annual Monitoring Report.

Brick Clay

- 6.9.10. West Sussex contains regionally important brick-making raw materials. The most important clay resources that have been included in the brick clay MSA are the Weald and Wadhurst formations. Due its broader extent and lesser demand the MSA for the Weald formation excludes urban areas⁴³. The clay MSA will also include Pitsham brickworks, although the

⁴² See Glossary for definition of 'inactive'

⁴³ Urban areas are defined as the settlement areas in District and Borough Local Plans

Gault formation clay, which supplies Pitsham brickworks, will not be safeguarded in its entirety because it is only extracted in small quantities and not economically significant.

Sandstone (building stone)

6.9.11. In West Sussex, sandstone is only used on a small scale for local projects. If the character of historic buildings is to be maintained, supplies of new matching stone are needed for repair and for new construction. The Hythe Formation, Horsham Stone, Ardingly Sandstone and Cuckfield Stone are included in the MSA for stone matching purposes (excluding urban areas). Safeguarding the most important building stones will ensure that they are available for the repair of historic buildings in the future. The Strategic Stone Study provides a database of the most significant building stone types and which quarries they were sourced from.

Oil and Gas

The precise extent of oil and gas resources in West Sussex is unknown. Sterilisation of oil and gas resources is not likely to occur due to the depth at which it takes place, and the ability to use horizontal drilling. Existing onshore hydrocarbon exploration, appraisal and production facilities will be safeguarded from proximate development (see Policy M10).

Policy M9: Safeguarding Minerals

- (a) Existing minerals extraction sites⁴⁴ will be safeguarded against non-mineral development that prejudices their ability to supply minerals in the manner associated with the permitted activities.**
- (b) Soft sand (including potential silica sand), sharp sand and gravel, brick-making clay, building stone resources and chalk reserves⁴⁵ are safeguarded against sterilisation. Proposals for non-mineral development within the Minerals Safeguarded Areas (as shown on maps in Appendix E) will not be permitted unless:**
 - (i) Mineral sterilisation will not occur; or**
 - (ii) it is appropriate and practicable to extract the mineral prior to the development taking place, having regards to the other policies in this Plan; or**
 - (iii) the overriding need for the development outweighs the safeguarding of the mineral and it has been demonstrated that prior extraction is not practicable or environmentally feasible.**

⁴⁴ The existing minerals extraction sites which are safeguarded by Policy M9 are listed in the Annual Monitoring Report

⁴⁵ Chalk reserves specified in the Annual Monitoring Report will be safeguarded.

6.9.12. In order to ensure that consultation takes place between the County and District planning authorities a Mineral Consultation Area (MCA) has been defined. The MCA, which is published separately from the Minerals Local Plan, covers the same area as the MSA but also includes safeguarded minerals infrastructure. The MSA is to be included in District and Borough Council Local Plan Policies Maps. The MCA is a mechanism intended to ensure that consultation takes place between county and district/borough planning authorities in two-tier authority areas when mineral interests could be compromised by non-minerals development, especially in close proximity to a known mineral resource. District and Borough Councils will be required to consult the Authorities on proposals for non-mineral development in the MCA. Further explanation is provided in separate guidance on safeguarding.

6.9.13. Where non-mineral development is proposed, developers may be required to carry out investigation work to ascertain whether economically viable mineral resources are present and whether prior extraction is practicable. The results of this work should be reported in a 'Minerals Resource Assessment' that is submitted with any application (for more detail see separate guidance on safeguarding). For the Authorities to raise no objection to the non-mineral development, they will need to be satisfied that either minerals sterilisation will not occur (either because the mineral resources are not economically viable or that an appropriate and practicable level of prior extraction can take place) or because there is an overriding need for the development.

6.9.14. Pre-application discussions are encouraged to ensure that minerals safeguarding is considered at the earliest opportunity. Separate guidance has been published that explains further how safeguarding will work in practice.

6.9.15. MCAs will also include other infrastructure such as wharves, railheads, hydrocarbon production facilities, concrete batching plants and asphalt plants (see Policy M10). A list of safeguarded facilities is maintained in the Annual Monitoring Report.

Implementation and Monitoring	
<i>Actions</i>	<i>Key Organisation(s)</i>
Record all planning permissions for non-mineral development in the safeguard areas	WSCC, SDNPA, District and Borough planning authorities
<i>Measure/Indicator</i>	<i>Trend/Target</i>

DRAWINGS

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-  Site Boundary
-  Head Deposit
-  River Terrace Sand and Gravel Deposit



0 50 100
Metres

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CLIENT LANDACRE (EASTERGATE) LTD	DRG No ST18361-001	SCALE 1:2,500 @ A4	DATE 11/11/2020
PROJECT LAND OFF BARNHAM ROAD, EASTERGATE, WEST SUSSEX	DRAWN BY BVC	CHECKED BY SDB	APPROVED BY SDB
DRAWING TITLE SUPERFICIAL GEOLOGY			

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