



DAVID WILSON HOMES

PROPOSED DEVELOPMENT ON LAND WEST OF TYE LANE, WALBERTON, WEST SUSSEX

MINERAL RESOURCE ASSESSMENT

SEPTEMBER 2020

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DAVID WILSON HOMES

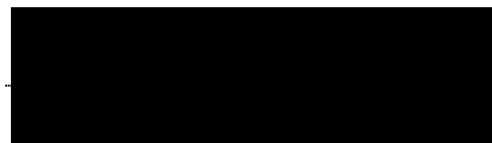
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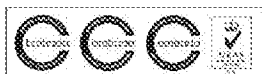
PREPARED & APPROVED BY:

Stephen Barry Technical Director &
Chartered Minerals Surveyor



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ENERGY AND CLIMATE CHANGE
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MINERAL ESTATES
WASTE RESOURCE MANAGEMENT

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Appendix 3	Policy M9: Safeguarding Minerals

DRAWINGS	TITLE	SCALE
ST18292-001-REV A	Superficial Geology	1:5,000@A4

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EXECUTIVE SUMMARY

This report has been prepared to support a planning application by David Wilson Homes for a proposed residential development on land west of Walberton, located to the east of Chichester. The site has been reviewed in relation to West Sussex County Council's Joint Minerals Local Plan.

The site comprises approximately 7 ha of agricultural land. Published geological maps for the area indicate that the superficial geology on the site consists of a raised beach deposit of sand and gravel, a river terrace sand and gravel deposit and a head deposit. The raised beach deposit and the river terrace deposit are both designated as a safeguarded mineral resource. The head deposit is composed of rock fragments, sand, silt and clay, and this is not a safeguarded mineral resource. The solid geology is the London Clay Formation, and is composed of clay, silt and sand. This is not a safeguarded mineral resource.

There are residential properties to the south and west of the site, Tye Lane to east of the site and a commercial property to the north. These features mean that the site is not large enough to be a commercially viable mineral extraction site. It is therefore not practicable or environmentally acceptable for the mineral to be extracted, even if the proposed housing development did not go ahead. Consequently, the proposed development is compatible with criterion 3 of the adopted mineral safeguarding policy.

1 INTRODUCTION

- 1.1 This report has been prepared in accordance with instructions from David Wilson Homes to prepare a Mineral Resource Assessment report in support of an outline planning application for a proposed residential development on land west of Tye Lane, Walberton. The site is located to the east of Chichester. The site boundary is shown edged red on the site location plan attached at **Appendix 1**.
- 1.2 The site comprises approximately 7 ha of agricultural land to the west of Tye Lane. The area is bounded by agricultural land and industrial properties to the north, Tye Lane to the east and by residential properties to the south and 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 geological map at 1:50,000 scale shows that the site contains three separate superficial deposits and an extract of that map is shown on the attached drawing ST18292-001 REV-A. A small area in the northern part of the site is underlain by a head deposit. Head is an unsorted mixture of glacial outwash debris composed of rock fragments, sand, silt and clay. The central part of the site is underlain by a raised beach sand and gravel deposit, which is one of two safeguarded mineral resources on the site. The southern part of the site is covered in a river terrace sand and gravel deposit. Both the raised beach deposit and the river terrace deposit have been designated as a safeguarded mineral resource, and the Mineral Safeguarding Area for West Sussex is shown on the drawing in **Appendix 2**.
- 2.3 There is one borehole in the area, approximately 200m to the north which shows a silt content of 24% in the head deposit and 30% in the river terrace deposit. This is much higher than the typical maximum acceptable proportion of 15% so the superficial deposits are not of suitable quality to be considered as a potentially economically viable mineral resource.

Solid Geology

- 2.4 The British Geological Survey (BGS) online map at 1:50,000 scale indicates that the solid geology is the London Clay Formation which is composed of clay, silt and sand. This formation is not a safeguarded mineral resource.

3 MINERAL SAFEGUARDING POLICY

- 3.1 The Joint Minerals Local Plan (MLP) for West Sussex was jointly prepared by West Sussex County Council and South Downs National Park Authority. It was adopted in July 2018 and covers the period up to 2033. The Minerals Local Plan was prepared to make consistent decisions about planning applications and to set out key areas which will help shape the future of minerals activities.
- 3.2 Policy “M9 – Safeguarding Minerals”, which is attached at **Appendix 3**, states that proposals for non-mineral development within the Mineral Safeguarding 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 regard 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 M9

- 3.3 Paragraph 6.9.5 of the MLP states that the strategic objective underlying mineral safeguarding is “to safeguard potential economically viable mineral resources from sterilisation” (emphasis added). The site is bounded on two sides by existing residential property. If mineral extraction were to take place, it would need buffer zones of at least 100m width. The site area is approximately 9 ha. approximately 4-5 ha of that is already indirectly sterilised due to the proximity of houses on the southern and western boundaries of the site. The remaining area of 4 to 5 ha is much too small for mineral extraction to be commercially viable. It is therefore clear that the sand and gravel in this site is not a “potentially viable mineral resource”, which is the class of mineral deposit that the MLP designates for safeguarding. The site therefore meets

criterion (b) (i) that “mineral sterilisation will not occur” because the sand and gravel is not a potentially viable mineral resource, so it does not qualify to be safeguarded.

- 3.4 Prior extraction is not a practicable or commercially viable option because much of the site is already indirectly sterilised by the proximity of residential property to the south and west, and the remainder is too small to justify commercial mineral extraction. Furthermore, mineral extraction would lower the surface and there is no space for processing plant to be installed on site. The site therefore also meets criterion (b) (iii) because prior extraction is not practicably viable nor environmentally acceptable. Consequently, so the proposed development is compatible with the adopted safeguarding “Policy M9 Safeguarding Minerals”.

4 CONCLUSION

- 4.1 The safeguarded mineral resource on the site is the sand and gravel contained within the raised beach deposit and river terrace deposit. The BGS geological map at 1:50,000 scale shows that the site contains three separate superficial deposits. The raised beach and the river terrace are safeguarded, due to their sand and gravel content. The third superficial deposit is a head deposit which is not a safeguarded mineral resource.
- 4.2 The sand and gravel deposits contain excessive proportions of silt, in the order of 24% to 30% so they are not a potential economically viable mineral resource. Even without the proposed development, with an area of 9 ha, the site would be too small to be a commercially viable mineral resource. In any event, the deposits could not be environmentally or practicably extracted prior to development taking place due to the proximity of residential property to the west and the south which causes existing indirect sterilisation of approximately half of the site. The site therefore meets the criteria set out in the adopted safeguarding Policy M9 for built development to be acceptable in a Mineral Safeguarding Area.

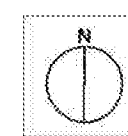
Appendix 1
Site location plan

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KEY:
Development Boundary



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Rev	Description	Date	Au	Ch
P1	Preliminary issue.	06.05.20	CMI	CMI
P2	Extent of Red Line increased.	12.08.20	CMI	CMI
P3	Extent of Red Line amended.	16.09.20	CMI	CMI

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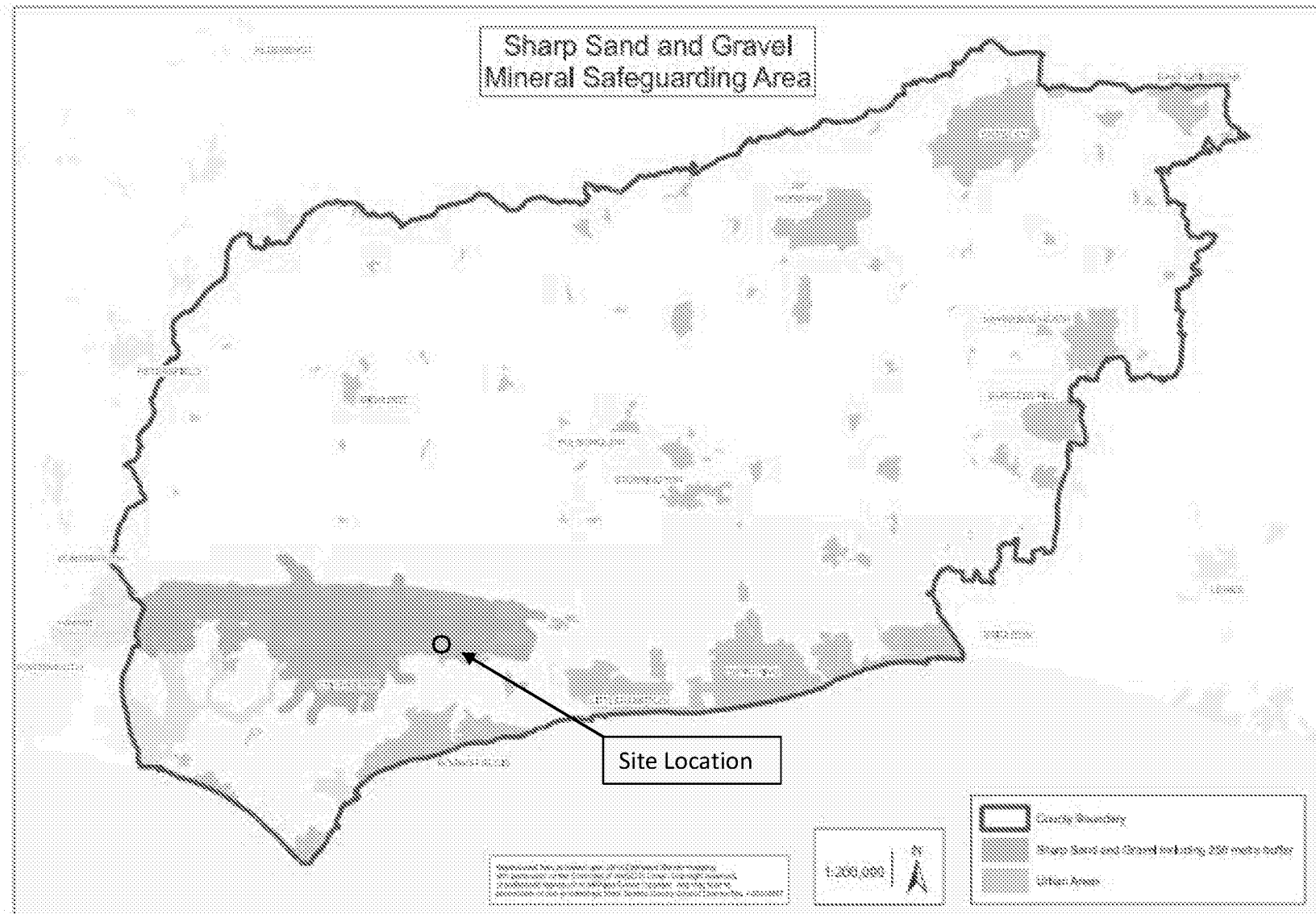
Project Tye Lane, Walberton
Drawing Location Plan

Client	David Wilson Homes	Date	06.05.20
Job no.	BARR190813	Rev.	P3
Dwg no.	LP.01	Scale	1:1000 at A1
Author	CMI	Checked	
Status	PRELIMINARY	Office	Romsey
Client ref.			

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Appendix 2
West Sussex Mineral safeguarding map for sharp sand

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Appendix 3
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.

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DRAWINGS

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-  Site Boundary
-  Head Deposit
-  Raised Beach Deposit
-  River Terrace Deposit



0 50 100
Metres

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CLIENT	David Wilson Homes	DRG No	ST18292-001 REV-A	SCALE	1:2,500 @ A4	DATE	21/09/2020
PROJECT	Land off Tye Lane, Walberton	DRAWN BY	BVC	CHECKED BY	SDB	APPROVED BY	SDB
DRAWING TITLE							
Superficial Geology							

DISTRICT COUNCIL WA/68/20/OUT

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