
Mineral Resource Assessment

Land east of Albion Road and north of Copper Lane,
Marden, Kent, TN12 9ED

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1. Introduction

This Mineral Resource Assessment (MRA) has been prepared on behalf of Rydon Homes Ltd in respect of a proposed planning application for the development of approximately 117 dwellings and associated infrastructure on land east of Albion Road and north of Copper Lane, Marden.

The MRA addresses the requirements of the Minerals Planning Authority (MPA), in this case Kent County Council, for safeguarding mineral resources against sterilisation by non-minerals development.

For this MRA report we have reviewed and relied upon the following:

1. A Location Plan prepared by Rydon Homes Ltd – reference 1035-L-02, dated February 2021. This indicates the extent of the land forming the proposed development site.
2. An Site Layout Plan prepared by OSP Architecture – reference 22037/SK25G, dated June 2023.
3. Information available from the British Geological Survey (BGS) online resource including the Geology of Britain Viewer and related Borehole Scans. All such information is used courtesy of BGS © UKRI 2022.
4. A report prepared by RSK Geosciences entitled Phase 1 & Phase 2 Geo-environmental Factual Interpretive Report: Albion Road, Marden, TN12 9EG dated 29 June 2022, in relation to the subject site (the 'RSK Report').
5. Information available from the Kent County Council (KCC) online planning resource including the Kent Minerals and Waste Local Plan 2013-30 (adopted July 2016 with an early partial review adopted September 2020), the KCC 14th Annual Minerals and Waste Monitoring Report dated December 2021 and the KCC Local Aggregate Assessment 2021, dated December 2021.
6. Information available from the Maidstone Borough Council (MBC) planning resource including the MBC Local Plan, adopted 2017, and the Local Plan Review submitted to the Secretary of State for examination on 31 March 2022.

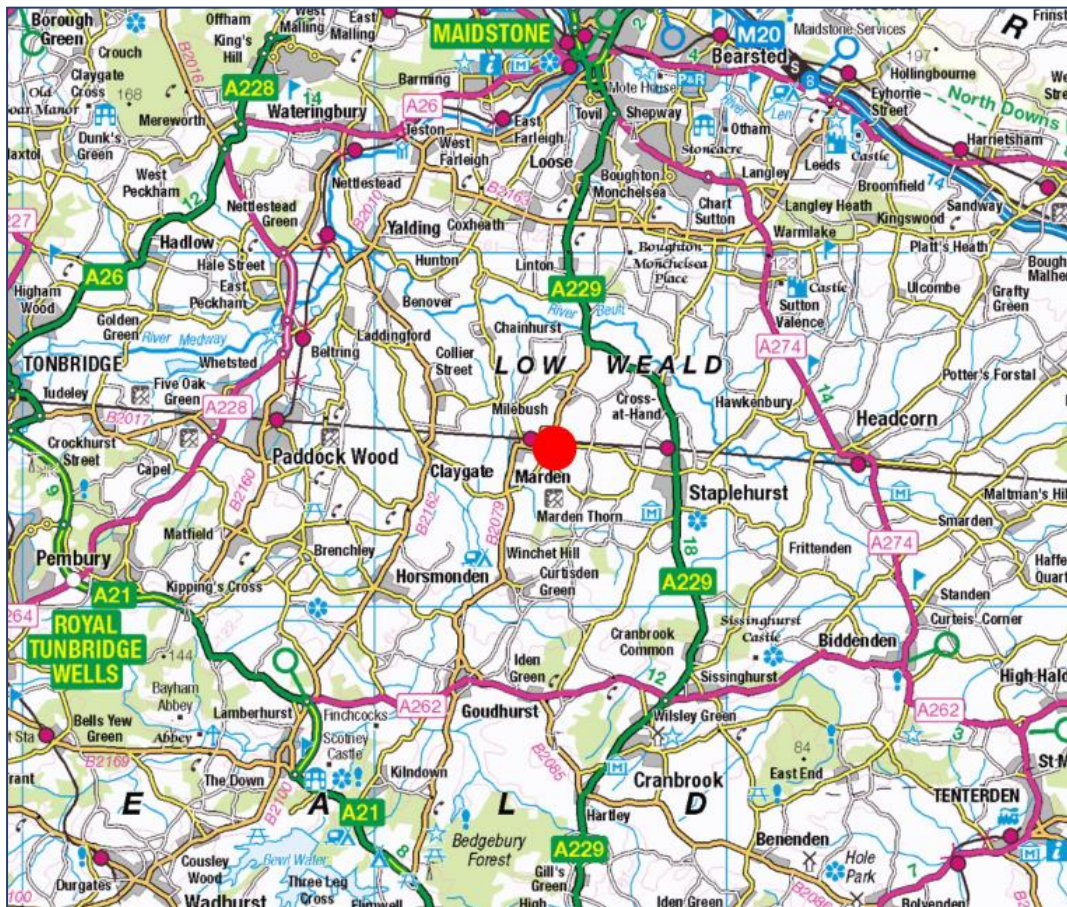
Unless otherwise indicated, items picked out in **bold** in this report are highlighted by us for the purposes of this assessment.

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2. Description & Proposed Development

Marden is located around 6 miles south of Maidstone and around 10 miles northeast of Royal Tunbridge Wells, as shown marked red on the plan below:



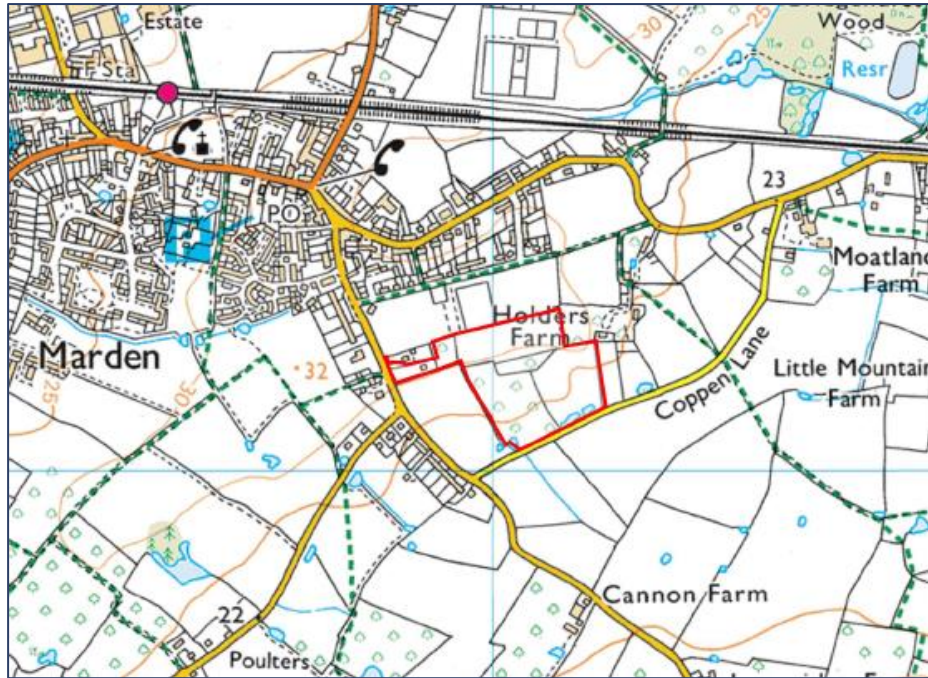
The land is situated on the southeast edge of Marden. The main boundaries comprise: to the south, Copper Lane, a single track public road; to the west, a short length of boundary along Albion Road, a two way minor public road; to the north, a recently completed residential development; and to the east by hedge rows and then fields/paddocks associated with adjacent residential property.

The total site extends to approximately **5.94 hectares/14.68 acres**, as shown outlined red on the plan below. The landform generally slopes downwards from the north at around 30m AOD to south at around 23m AOD.

The existing land use is agricultural, mainly orchard.

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The Ordnance Survey plan extract above does not show the recent residential development immediately to the north of the property however this is shown on the draft Indicative Concept Plan below. The property's development proposal is also shown on this Concept Plan, and this envisages up to 117 dwellings with associated garden ground, parking, hedgerows, woodland, ponds and the retention of part of the existing orchard area.



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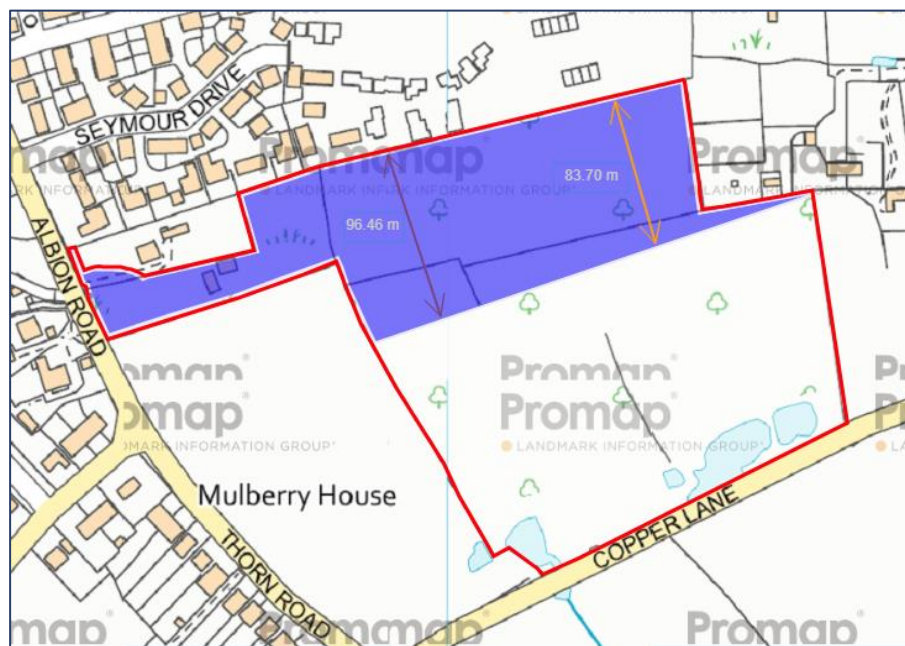
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3. Geology

The British Geological Survey (BGS) 1:50,000 online Mapping Resource confirms that the site is underlain by bedrock of the Weald Clay Formation, generally comprising mudstones, sandstones, shelly limestones and clay ironstones. It is widely recorded as being between 180m and 460m thick. Clay resources are extensive in much of Kent.

The surface (superficial) deposits indicated by the BGS are River Terrace Deposits (RTD), comprising silts, sand & gravel (S&G) and clays, although these deposits are only found in the northern section of the site. No surface deposits are indicated in the remaining area. The plan below shows the estimated indicated extent of the RTD, coloured blue:



Weald Clay, along with other clays and brick earths, has been used for many years in the manufacture of a range of building products including bricks, pavers, roof tiles and pipes. Brick and clay product manufacturing has declined significantly in Kent in recent years and there are now only a two operational works in the County. Due to their very low value and heavy weight, clays are worked adjacent to brickworks or other clay manufacturing facilities and very rarely ever as discrete site.

RTD can provide S&G suitable for use as a construction material, subject to the extent and quality of the deposit.

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The BGS web resource has no publicly available borehole information from within the site area. The closest BGS boreholes where data is available are situated approximately 670m to the northwest. These shallow boreholes confirm the surface generally comprises circa 0.25m thick topsoil followed by clays of up to 2.75m thickness. A separate borehole, some 1,310m to the northwest, records at least 5.50m thick clay below 0.50m of topsoil/made ground.

4. Planning

The National Planning Policy Framework (NPPF), first published in March 2012 and updated in July 2018, February 2019 and July 2021, sets out the government's planning policies for England and how these are expected to be applied. Chapter 17: Facilitating the sustainable use of minerals (paragraph 210) includes the following guidelines:

Planning policies should...

c) 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);

d) set out policies to encourage the prior extraction of minerals, where practical and environmentally feasible, if it is necessary for non-mineral development to take place...

The Kent Minerals and Waste Local Plan 2013-30 (KM&WLP) provides the policy for decision making on mineral matters in the County based on the NPPF guidance. This includes the following directly relevant matters:

Policy CSM 5 - Land-won Mineral Safeguarding

Economic mineral resources are safeguarded from being unnecessarily sterilised by other development by the identification of:

1. Mineral Safeguarding Areas for the areas of brickearth, sharp sand and gravel, soft sand (including silica sand), ragstone and building stone as defined on the Mineral Safeguarding Area Policies Maps in Chapter 9.

Paragraph 5.5.9 of the KM&WLP further notes that

"Economic land-won minerals that are identified for safeguarding in Kent are sharp sand and gravel, soft sand, silica sand, crushed rock, building stone and brickearth. As chalk and clay (other than brickearth) are abundant across the county, they are not being safeguarded. The mineral resource areas identified for safeguarding are shown in the MSAs in Chapter 9: Adopted Policies Maps".

The relevant MSA for the subject site is shown coloured brown on the Maidstone Borough MSA Map, confirming that the Kent CC Mineral Safeguarding policy applies to S&G on the area shown coloured blue on the plan provided at section 3 above.

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With regard to this report, the relevant parts of Policy DM 7 - Safeguarding Mineral Resources confirms that *“planning permission will only be granted for non-mineral development that is incompatible with minerals safeguarding, where it is demonstrated that either:*

- 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...., prior to the non-minerals development taking place without adversely affecting the viability or deliverability of the non-minerals development; or...*

Only one of the above exemption criteria is needed to satisfy this policy.

(There are in total seven exemptions - 4, 6 and 7 are not relevant to this proposed development; 5 relates to the need for development overriding the safeguarding presumption)

In view of the above, the subject site under consideration requires a MRA to validate any planning application for non-minerals development.

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5. Mineral Assessment

We have undertaken a mineral assessment referencing the relevant planning policy and guidance, the BGS geological data, and additional on-site investigations (detailed below). We have applied our knowledge and experience of the minerals sector as part of this assessment.

We have reviewed the RSK Report, entitled Phase 1 & Phase 2 Geo-environmental Factual Interpretive Report. This includes the results of on-site intrusive investigations with subsequent laboratory analysis and provides additional data on the site geology. The investigations involved six boreholes (WS1 to WS6), four trial pits (TP1 to TP4) and one hand pit (HP1) undertaken at the locations shown on the report plan extract below:



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The log data taken from these confirms that topsoil is present across the entire site, varying between 0.15m and 0.60m thickness. Below this, RTD are only recorded in HP1, WS2 and WS4, which are all in the northernmost part of the site, and are noted as 0.60m, 3.35m and 3.60m thick respectively. Below the topsoil and/or RTD, the deposits are all Weald Clay Formation, typically 2.70m to 3.15m thick, although the base of the Weald Clay mineral was not encountered due to the overall depth of the investigations terminating at a depth of around 3.5m to 4.0m.

The detailed logs from HP1, WS2 and WS4 show that the RTD material is split into a range of strata comprising Clay, Silt, Sand and Gravel. Almost all the Sand and Gravel is noted as “clayey” or “silty” in nature. Although HP1 is recorded as RTD, all the strata are noted as gravelly Clay. Furthermore, the RTD in WS2 and WS4 is split into sub-strata whereby the Sand or Gravel is very thinly bedded and contains a series of inter-burdens of Clay and Silt.

Based on these findings, along with the absence of S&G in any of the remaining boreholes or pits, we consider there to be no recoverable S&G at the site, either in economic or practical terms. Accordingly, the site conforms to exemption items 1 **and** 2 of Kent M&WLP Policy DM7.

In view of the nature and extent of the on-site S&G, we consider that exemption 3 is not relevant to this Assessment as there is no suitable mineral that can be satisfactorily extracted.

Finally, and although not within the requested scope of this Mineral Assessment, we also consider it extremely unlikely that any Sand or Gravel could be obtained through incidental extraction during the construction of the proposed development.

6. Summary & Conclusions

This MRA relates to the proposed development of up to 117 dwellings on approximately **5.94 hectares/14.68 acres** of land at southeast edge of Marden. The existing land use is agricultural.

The site is underlain by bedrock of the Weald Clay Formation. The surface (superficial) deposits are River Terrace Deposits (RTD), comprising silts, sand, gravel and clays, although these deposits are only found in the northern section of the site.

National and County planning policies require minerals of local and national importance to be safeguarded against non-mineral development. In Kent, the relevant policy in the M&WLP seeks to safeguard potentially economically viable resources of sand & gravel, soft sand, silica sand, rock, building stone and brickearth through the identification of Mineral Safeguarding Areas. The northern part of the subject site is located within a sand & gravel MSA.

Policy DM 7 of the M&WLP states that *“planning permission will only be granted for non-mineral development that is incompatible with minerals safeguarding, where it is demonstrated that either: 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....., prior to the non-minerals development taking place without adversely affecting the viability or deliverability of the non-minerals development.* Accordingly, the subject site requires a MRA assessment to validate any planning application for non-minerals development.

We have undertaken a mineral assessment referencing the relevant planning policy and guidance, the published BGS geological data and additional on-site intrusive investigations & analysis carried out by RSK Geosciences.

Based on this, we have concluded that due to the very limited extent and poor quality of the sand and gravel deposits, there is no viable or recoverable sand & gravel mineral at the site, either in economic or practical terms. Accordingly, the site conforms to exemption items 1 and 2 of Kent M&WLP Policy DM7 and as such the mineral deposits underlying the property should not be considered a constraint to non-mineral development.

In addition, we consider that exemption 3 is not relevant as there is no suitable mineral that can be satisfactorily extracted.

End of Report