

Our Ref: 29228 L01 (01) / AT

19th December 2019

Wates Developments Limited and Redrow Homes Limited

Letter sent via email

For the attention of Luke Vallins

Dear Luke,

RE: FORD AIRFIELD MARKET REDEVELOPMENT, LAND CONTAMINATION ASSESSMENT

1. INTRODUCTION

RSK Environment Limited (RSK) have been commissioned by Wates Developments Limited and Redrow Homes Limited (the clients) to provide a land contamination assessment in relation to a proposal to redevelop the market at Ford Airfield, which is located between to the villages of Ford and Yapton in West Sussex (as shown on **Figure 1**).

RSK have recently undertaken a geo-environmental and geotechnical investigation of the wider airfield associated with a separate residential development, the findings of which can be found in RSK Report 29228-R01 (00), dated November 2018. RSK have used the information obtained during this investigation to assess the above proposal.

This report is subject to the service constraints presented in **Appendix A**.

2. PROPOSED DEVELOPMENT

The former concrete runways in the centre of site are currently used for car boot sales two days of the week. It is proposed that the layout will be reconfigured to accommodate the loss of the western concrete apron as part of the residential development. The market redevelopment proposal comprises:

- Retention of the existing eastern and southern aprons for trading and car parking;
- removal of the western concrete apron;
- construction of a new overflow car park to the east of the existing sewage works and Grundon waste treatment facilities to replace the loss of the western apron; and
- construction of new footways, pedestrian crossing points and emergency access.

The proposed development plans are presented in **Appendix B**. A new access road to the Grundon waste treatment facilities is shown on the plans, but the route has not yet been finalised and does not form part of current proposal.

3. FINDINGS OF RSK 2018 INVESTIGATION

A review of desk historical information indicated that prior to the construction of the airfield, the site was used for agriculture. The Chichester and Arundel Canal bisected the northern portion of the site, which was shown to be disused and later infilled.

The site was first used as an airfield during the First World War and was later redeveloped / expanded during the Second World War. The airfield was not relinquished by the military until 1958, and was subsequently used by a civilian flying club until 1980. The former airfield maintenance areas (located to the west and east of the former airfield) were redeveloped as a prison and an industrial estate. The existing Grundon waste treatment facilities occupied the former hangers located in the centre of the former airfield, and a sewage works was constructed to the northeast of the runways. The land between the runways was given back to agriculture.

An earth mound is located to the east of the Grundon waste treatment facilities and is designated as an inert landfill.

Based on the historical information the following sources of contamination were identified on-site:

- Potential for contamination associated with the former use of the site as a military and civilian airfield.
- Inert landfill located to the east of the Grundon waste treatment facilities.
- Made ground associated with the infilled canal.
- Current use of the site for agricultural purposes.
- Haulage company / highways compound located in the northern portion of the site.

In order to assess the above potential sources of contamination an intrusive investigation was carried out by RSK, which included the formation of six cable percussive boreholes to 20 m depths, 56 trial pits to 3 m depth and ten window sample boreholes to 5m depth with soil and groundwater testing.

The results of the soil testing recorded the presence of low quantities (<0.001%) of fibrous asbestos and elevated concentrations of PAHs (benzo-a-pyrene, benzo-b-fluoranthene and dibenzo-ah-anthracene) above human health assessment criteria for a residential land use within the inert landfill. The presence of Japanese Knotweed has also been identified within the inert landfill by ecologists. A single elevated concentration of lead was also recorded in the shallow made ground at one exploratory point to the northeast of the landfill. No other contamination was identified by the ground investigation.

Based on the results of the investigation, it was concluded that little evidence of contamination had been identified on the former airfield site, but that the investigation was exploratory in nature and additional site works were recommended to target parts that could not be accessed, including the haulage compound to the north of the airfield, bulk fuel storage facilities (to the south of the airfield), and infilled canal (to the north).

Assessment of findings in relation to market redevelopment

The findings of the investigation have been reappraised in consideration of the market redevelopment proposals, which is summarised in the following bullet points.

- A review of the historical plans (see **Appendix C**) indicates that the past uses of the site comprises the former airfield runways and empty land between the runways. The site is currently used for car boot sales and as agricultural land. The areas that were highlighted by RSK's previous report as requiring additional site works including the infilled canal, bulk fuel storage facilities and existing haulage compound are located on other parts of the airfield. However, an inert landfill containing low concentrations of fibrous asbestos and elevated concentrations of PAHs (compared to a residential end use) is located to the northwest of the proposed car park.
- The landfill is currently heavily vegetated and difficult to access. The potential for any dust (and asbestos fibre) release from the landfill or direct contact with the impacted soils by visitors using the car park is considered to be very low in its current state. However, Japanese's Knotweed is also present on the landfill, which may pose a risk to structures if not treated or contained.

The risk from Japanese Knotweed has been considered in a draft Ecologists Impact Assessment for the market development produced by ECOSA, dated July 2019. The assessment concluded that *'a specialist should be consulted to remove the Japanese knotweed from habitat in proximity to the site'*. As part of the assessment the risk the existing habitat should also be considered.

- The exploratory holes located within the vicinity of the proposed car park (TP43, S5 and WS5), show that this area is underlain by natural soils comprising topsoil over superficial Brickearth and River Terrace Deposits, with Chalk at depth. Furthermore, no visual or olfactory evidence of contamination was noted at these exploratory points (see **Appendix D**).
- Samples were taken at TP43 0.6, WS5 0.2 m and S5 0.5 m and tested for heavy metals, speciated polycyclic aromatic hydrocarbons, petroleum hydrocarbon and pesticides. No elevated concentrations of contaminants were recorded above the human health assessment criteria for a residential end-use (see **Appendix D**).
- The northern, eastern and southern concrete aprons will remain unaltered as part of the redevelopment works. No contamination issues have been identified with the continued use of the runways as a market, and car park.

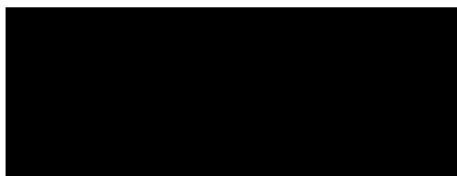
4. CONCLUSIONS

The results of the investigation have not identified any contaminative issues that would impact on the proposed development except for the presence of Japanese Knotweed in the inert landfill, located to the northwest of the proposed car park. It is recommended that a specialist be consulted with regards to the removal of the knotweed. No other measures are considered to be necessary, however, the groundworkers should maintain a watching brief during the construction works for any suspect contamination (i.e. oil / fuel odours, visible fragment of asbestos). If found, then advice should be sought from an Environmental Consultant and the Local Authority to determine whether further assessment is required.

If you have any questions, then please do not hesitate to contact the undersigned.

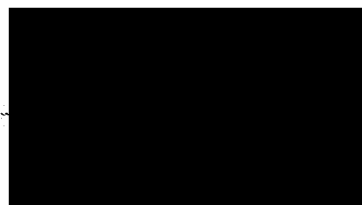
Yours sincerely,

For RSK Environment Limited



Andrew Tranter

Principal Environmental Consultant



Duncan Sharp

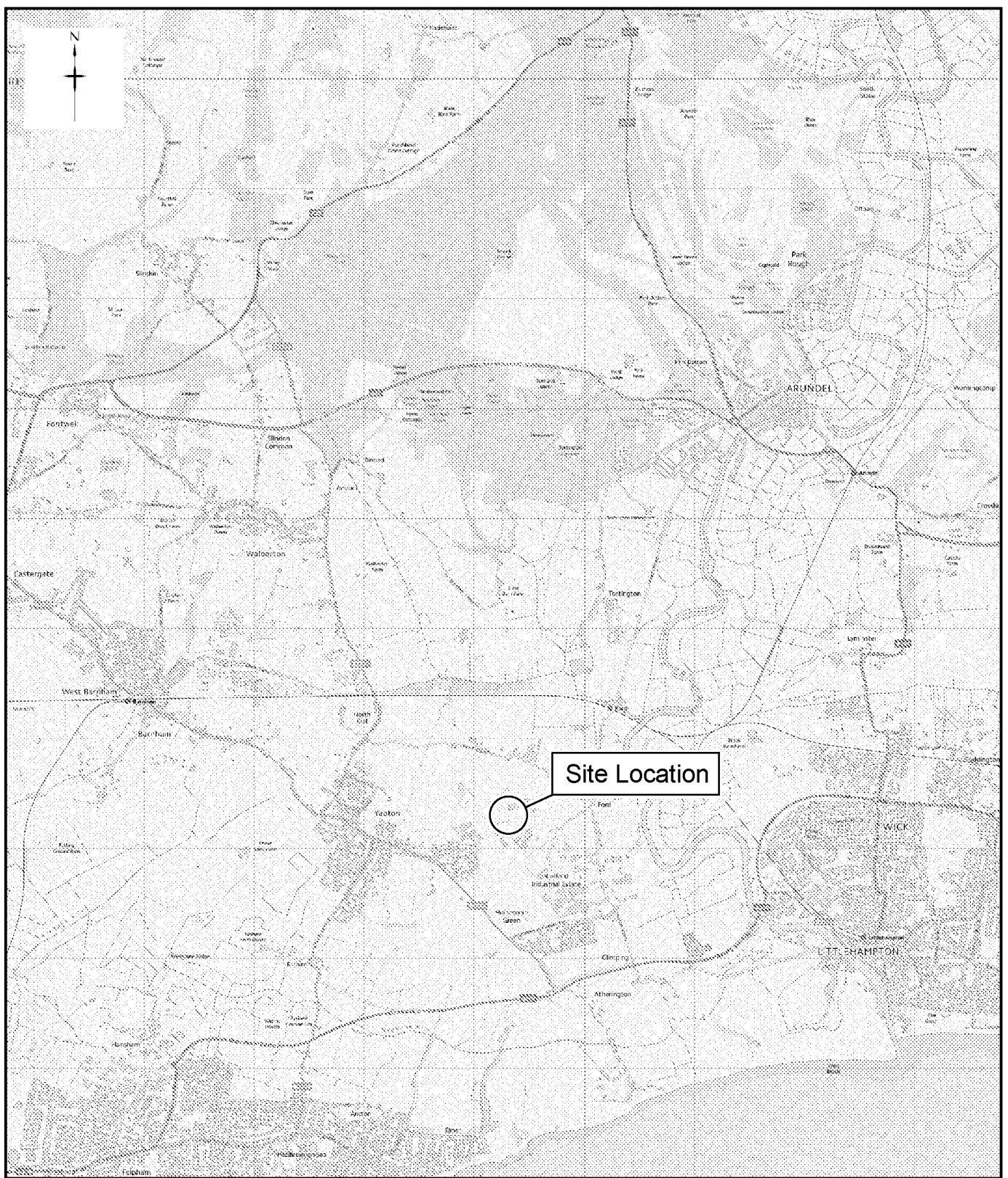
Associate Director

Enc.

Appendices:

Figure 1	Site Location plan
Appendix A	Service Constraints
Appendix B	Proposed development plans
Appendix C	Historical plans
Appendix D	Exploratory hole logs / chemical test results

FIGURES



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Client
REDROW HOMES LIMITED AND WATES DEVELOPMENTS LIMITED

Project Title
FORD AIRFIELD

Drawing Title
SITE LOCATION MAP

Rev	Drawn	Date	Checked	Date	Approved	Date
00	AP	19.10.18	AT	19.10.18	AT	19.10.18
Dimensions		Scale		Original Size		
m		1:50,000		A4		

Project Number	Drawing File	Drawing Number
29228 - L01 (00)	29228 - SLP.dwg	FIGURE 1

APPENDIX A

SERVICE CONSTRAINTS

1. This report and the site investigation carried out in connection with the report (together the "Services") were compiled and carried out by RSK Environment Limited (RSK) for Wates Developments Limited and Redrow Homes Limited (the "Client") in accordance with the terms of a contract [RSK Environment Standard Terms and Conditions] between RSK and the Client. The Services were performed by RSK with the reasonable skill and care ordinarily exercised by an environmental consultant at the time the Services were performed. Further, and in particular, the Services were performed by RSK taking into account the limits of the scope of works required by the client, the time scale involved and the resources, including financial and manpower resources, agreed between RSK and the Client.
2. Other than that, expressly contained in paragraph 1 above, RSK provides no other representation or warranty whether express or implied, in relation to the Services.
3. Unless otherwise agreed in writing, the Services were performed by RSK exclusively for the purposes of the Client. RSK is not aware of any interest of or reliance by any party other than the Client in or on the Services. Unless expressly provided in writing, RSK does not authorise, consent or condone any party other than the client relying upon the Services. Should this report or any part of this report, or otherwise details of the Services or any part of the Services be made known to any such party, and such party relies thereon that party does so wholly at its own and sole risk and RSK disclaims any liability to such parties. **Any such party would be well advised to seek independent advice from a competent environmental consultant and/or lawyer.**
4. It is RSK's understanding that this report is to be used for the purpose described in the introduction to the report. That purpose was a significant factor in determining the scope and level of the Services. Should the purpose for which the report is used, or the proposed use of the site change, this report may no longer be valid and any further use of or reliance upon the report in those circumstances by the client without RSK's review and advice shall be at the client's sole and own risk. Should RSK be requested to review the report after the date of this report, RSK shall be entitled to additional payment at the then existing rates or such other terms as agreed between RSK and the client.
5. The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions contained in this report should not be relied upon in the future without the written advice of RSK. In the absence of such written advice of RSK, reliance on the report in the future shall be at the Client's own and sole risk. Should RSK be requested to review the report in the future, RSK shall be entitled to additional payment at the then existing rate or such other terms as may be agreed between RSK and the client.
6. The observations and conclusions described in this report are based solely upon the Services which were provided pursuant to the agreement between the Client and RSK. RSK has not performed any observations, investigations, studies or testing not specifically set out or required by the contract between the client and RSK. RSK is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the Services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this report, RSK did not seek to evaluate the presence on or off the site of asbestos, invasive plants, electromagnetic fields, lead paint, heavy metals, radon gas or other radioactive or hazardous materials, unless specifically identified in the Services.
7. The Services are based upon RSK's observations of existing physical conditions at the Site gained from a visual inspection of the site together with RSK's interpretation of information, including documentation, obtained from third parties and from the Client on the history and usage of the site, unless specifically identified in the Services or accreditation system (such as UKAS ISO 17020:2012 clause 7.1.6):
 - a. The Services were based on information and/or analysis provided by independent testing and information services or laboratories upon which RSK was reasonably entitled to rely.
 - b. The Services were limited by the accuracy of the information, including documentation, reviewed by RSK and the observations possible at the time of the visual inspection.
 - c. The Services did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services, during the performance of the Services.

RSK is not liable for any inaccurate information or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to RSK and including the doing of any independent investigation of the information provided to RSK save as otherwise provided in the terms of the contract between the Client and RSK.

8. The intrusive environmental site investigation aspects of the Services are a limited sampling of the site at pre-determined locations based on the known historic / operational configuration of the site. The conclusions given in this report are based on information gathered at the specific test locations and can only be extrapolated to an undefined limited area around those locations. The extent of the limited area depends on the properties of the materials adjacent and local conditions, together with the position of any current structures and underground utilities and facilities, and natural and other activities on site. In addition, chemical analysis was carried out for a limited number of parameters (as stipulated



in the scope between the client and RSK, based on an understanding of the available operational and historical information) and it should not be inferred that other chemical species are not present.

9. Any site drawing(s) provided in this report is (are) not meant to be an accurate base plan but is (are) used to present the general relative locations of features on, and surrounding, the site. Features (intrusive and sample locations etc) annotated on site plans are not drawn to scale but are centred over the approximate location. Such features should not be used for setting out and should be considered indicative only.
10. The comments given in this report and the opinions expressed are based on the ground conditions encountered during the site work and on the results of tests made in the field and in the laboratory. However, there may be conditions pertaining to the site that have not been disclosed by the investigation and therefore could not be taken into account. In particular, it should be noted that there may be areas of made ground not detected due to the limited nature of the investigation or the thickness and quality of made ground across the site may be variable. In addition, groundwater levels and ground gas concentrations and flows, may vary from those reported due to seasonal, or other, effects and the limitations stated in the data should be recognised.
11. Asbestos is often observed to be present in soils in discrete areas. Whilst asbestos-containing materials may have been locally encountered during the fieldworks or supporting laboratory analysis, the history of brownfield and demolition sites indicates that asbestos fibres may be present more widely in soils and aggregates, which could be encountered during more extensive ground works.
12. Unless stated otherwise, only preliminary geotechnical recommendations are presented in this report and these should be verified in a Geotechnical Design Report, once proposed construction and structural design proposals are confirmed.

APPENDIX B

PROPOSED DEVELOPMENT PLANS



 Site Boundary
- 7.43Ha / 18.36Ac

 Other Land Under the Control of the Applicant

Project
FORD AIRFIELD

Drawing Title
**MARKET,
SITE BOUNDARY PLAN**

Date	Scale	Drawn by	Check by
02.05.19	1:2500@A1	SM	SG
Project No	Drawing No	Revision	
23885	RG-M-108	D	

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Development Boundary

PAVING MATERIALS

- | | |
|----|--|
| P1 | P1 - Existing concrete base retained |
| P2 | P2 - Road: Bituminous tarmac/adam; Colour: Black; with white paint markings |
| P3 | P3 - Footway: Aggregate Surface |
| P4 | P4 - Proposed Car Park & Other Hardstanding Area:
Aggregate Surface |

BOUNDARIES

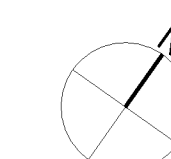
- | | |
|----|--|
| F1 | Proposed 2.0m high powder coated galvanized steel frames with wire mesh infill panels; Colour: Black |
| G1 | Proposed 2.0m high powder coated galvanized steel single gate to match F1; Colour: Black |
| G2 | Existing Gate to be made good/replaced as necessary |

SOFT LANDSCAPE

-  Existing retained tree
 Proposed Tree
 Proposed Shrubs

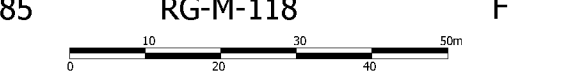
NOTES:

1. Drawings should be read in conjunction with other consultants information and cross referenced.
2. All no-dig areas along RPA's of retained trees are to be of porous paving material.

Project
FORD AIRFIELD

Drawing Title
PROPOSED SITE PLAN

Date 07.05.19	Scale 1:1000@A0	Drawn by DS	Check by JH
Project No 23885	Drawing No RG-M-118	Revision F	



DATA

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