Phase II
Geo-Environmental Site Assessment

Ford Lane & Yapton Road Roundabouts, Ford Airfield, Arun, West Sussex, BN17 5QZ

Prepared for:
Vistry Housebuilding South-East
Linden House
Guards Avenue
Caterham
Surrey
CR3 5XL

December 2024

Omnia ref: A11918-4/3.0

ISO Accredited Certification (UKAS)

www.omnia-consulting.co.uk
info@omnia-consulting.co.uk

QUALITY ASSURANCE

Project Number: A11918-4
December 2024

Geo-Environmental

Phase II Geo-Environmental Assessment

Prepared by:	O. Maxwell	**Date:**	17/12/24	**Signature:**	[redacted]
Checked and Authorised by:	T. Rees-Blanchard	Date:	19/12/24	Signature:	

North Office
No.3 Fulwood,
3 Caxton Road,
Preston,
PR2 9ZZ

Midlands Office
Office 203,
St Nicholas House,
31 Park Row,
Nottingham,
NG1 6FG

South Office
Suite 1, Pure Offices,
One Port Way,
Port Solent,
Portsmouth
PO6 4TY

[redacted]

Executive Summary

Site Address	Proposed Ford Lane & Yapton Road Roundabouts, Ford Airfield, Ford, West Sussex, BN17 5QZ
National Grid Reference	498947, 102499 (Ford Lane Roundabout) 499038, 102499 (Yapton Road Roundabout)
Current Site Use	At the time of the site investigation the Ford Lane Roundabout area was accessed via Ford Lane at the north of the site. The area comprised an existing tarmacadam access road, with gravel verge and trees lining the road. The roundabout area further extends into the fields to the east and west of the access road, which at the time was used for agricultural crop. The Yapton Road Roundabout was accessed via Yapton Road at the west of the site. The area comprised an existing stretch of the existing runway through the centre of the roundabout. The roundabout area further extends into the field to the north and south of the runway, which at the time of the investigation had been recently harvested.
Site History	The Ford Lane roundabout area and Yapton Road roundabout area remains unchanged from recent history.
Geology & Hydrogeology	

Geological Unit	Classification	Description	Aquifer
Made Ground	Made Ground	Made Ground	N/A
Superficial Deposits	Brickearth	Sand, silt and clay	Superficial A
	River Terrace Deposits	Sands and gravels	Superficial A
Bedrock	Upper Chalk	Chalk	Principal

Revised Conceptual Site Model

Following completion of the Tier 1 risk assessment no active pollution pathways have been identified based on a Public open space (Park) end use.

Recommendations

Environmental

With reference to Condition 12, it is therefore considered that part 3 is detailed within this report, and no remediation strategy or verification plan (4) is required. Condition 13 is also therefore not considered to apply.

It is recommended that a discovery strategy is implemented during construction of the proposed roundabouts.

Should any additional significant visual or olfactory evidence of unexpected contamination be identified during the development then works should be halted in the affected area and contact made with a suitably qualified and experienced Environmental Consultant to determine an appropriate course of action, which may include additional investigation, and as necessary, a Remediation Method Statement.

Contact should be made with the regulator to confirm the proposed scope of works.

The following list is not exhaustive, but should be used as guidance with regards to what should be considered indicative of soil contamination that may require remedial works:

- Free-phase contamination (liquid oils or fuels);
- Loose fibrous materials or cement bound materials (PACM);
- Visually significant staining of soils;
- Evidence of invasive plants such as Japanese Knotweed, Himalayan Balsam, Marestail or Giant Hogweed; and
- Olfactory evidence of hydrocarbon contamination.

ARUN DISTRICT COUNCIL F/38/24/DOC

TABLE OF CONTENTS

Quality Assurance ..... **ii**
Table of Contents ..... **iii**
1 INTRODUCTION **5**
1.1 Background 5
1.2 Proposed Development 5
1.3 Objectives 6
1.4 Sources of Information 7
1.5 Limitations 7
1.6 Confidentiality 7
2 SITE SETTING **8**
2.1 Site Details 8
2.2 Current Site Use 8
2.2.1 Site Description 8
2.2.2 Hazardous Materials Storage 8
2.2.3 Potential Asbestos Containing Materials (PACM) 8
2.2.4 Waste Storage 8
2.2.5 Tree Species 9
2.2.6 Potential Invasive Species 9
2.3 Surrounding Area 9
3 PREVIOUS REPORTS **10**
3.1 Omnia, Technical Note, Ford Airfield, Arun, West Sussex, BN17 5QZ – Site Wide Technical Summary, Ref: A11918-1/230622/L1. 10
3.1.1 Ford Lane Roundabout (Northern Development Parcel) 10
3.1.2 Yapton Road Roundabout (Southern Development Parcel) 10
4 SITE INVESTIGATION **11**
4.1 General 11
4.2 Laboratory Analysis 12
5 GROUND AND GROUNDWATER CONDITIONS **14**
5.1 Summary of Ground Conditions 14
5.2 Summary of Ground Conditions – Ford Lane 14
5.2.1 Made Ground 14
5.2.2 Topsoil 14
5.2.3 Superficial Deposits – Brickearth Deposits 14
5.2.4 Superficial Deposits – River Terrace Deposits 15
5.2.5 Bedrock Deposits – Upper Chalk 15
5.3 Summary of Ground Conditions – Yapton Road 15
5.3.1 Made Ground 15
5.3.2 Topsoil 16
5.3.3 Superficial Deposits – Brickearth Deposits 16
5.3.4 Superficial Deposits – River Terrace Deposits 16
5.3.5 Bedrock Deposits – Upper Chalk 17
5.4 Groundwater Conditions 17
6 TIER 1 QUANTITATIVE CONTAMINATED LAND RISK ASSESSMENT **18**
6.1 Human Health Risk Assessment 18
6.1.1 Implementation of a Discovery Strategy 19
6.2 Controlled Waters Assessment 20
6.3 Ground Gas Assessment 20

ARUN DISTRICT COUNCIL F/38/24/DOC

7 REVISED CONCEPTUAL SITE MODEL 21
8 CONCLUSIONS AND RECOMMENDATIONS 22
APPENDIX I - LIMITATIONS 23
APPENDIX II – GLOSSARY 25
APPENDIX III - DRAWINGS 28
APPENDIX IV - PHOTOGRAPHS 29
APPENDIX V - EXPLORATORY HOLE LOGS 34
APPENDIX VI - CHEMICAL ANALYSIS CERTIFICATES 35
APPENDIX VII - ORIGIN OF GAC VALUES 36

Tables

Table 2-1 Site Details 8
Table 2-2 Land Use 9
Table 4-1 Site Investigation Summary 11
Table 4-2 Summary of chemical analysis testing – Ford Lane 12
Table 4-3 Summary of chemical analysis testing – Yapton Road 13
Table 5-1 Geological sequence on site 14
Table 6-1 Summary of Inorganic and Hydrocarbon Toxicity Assessment for a Public Open Space (Park) – Yapton Road 19

ARUN DISTRICT COUNCIL F/38/24/DOC

1 INTRODUCTION

1.1 Background

Omnia have been commissioned by Vistry Housebuilding South-East (Vistry) to undertake a supplementary ground investigation at the site of the proposed Ford Lane and Yapton Road Roundabouts at the Former Ford Airfield Site, Arun, west Sussex, BN17 5QZ. A site location plan is presented as Figure 1.0 within Appendix III.

1.2 Proposed Development

It is understood an outline planning application has been submitted to and approved by Arun District Council under application reference: F/4/20/OUT for the following:

"Outline planning application (with all matters reserved except for access) for the development of up to 1,500 dwellings (Use Class C3), 60-bed care home (Use Class C2), up to 9,000 sqm of employment floorspace (Use Classes B1), local centre of up to 2,350 sqm including up to 900 sqm retail / commercial (Use Classes A1-A5) and 1,450 sqm community / leisure floorspace (Use Classes D1-D2), land for a two-form entry primary school (Use Class D1), public open space, allotments, new sports pitches and associated facilities, drainage, parking and associated access, infrastructure, landscape, ancillary and site preparation works, including demolition of existing buildings and part removal of existing runway hardstanding.

This application affects a Public Right of Way. This application is the subject of an Environmental Statement. This application may affect the setting of a Listed Building. This application falls within CIL Zone 1 - Zero Rated. that the client is proposing to redevelop the site into a residential development comprising low-rise dwellings, gardens, areas of public open space, parkland and associated infrastructure. At this stage a planning application has not been submitted."

Conditional permission has been granted with the following environmentally pertinent conditions applied:

Condition 12

Prior to the commencement of each phase of development, as identified within the Phasing Strategy under Condition 5, the following components of a scheme to deal with the risks associated with contamination within that phase shall be submitted to and approved, in writing, by the Local Planning Authority:

1) *A preliminary risk assessment which has identified: all previous uses; potential contaminants associated with those uses; a conceptual model of the site indicating sources, pathways and receptors; and potentially unacceptable risks arising from contamination at the site.*

2) *A site investigation scheme, based on (1) to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off site.*

3) *The site investigation results and the detailed risk assessment (2) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.*

ARUN DISTRICT COUNCIL F/38/24/DOC

4) *A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in (3) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action.*

5) *The scheme shall be implemented as approved.*

In each phase where demolition is required, where part 2 identifies no overriding risk from the demolition works, parts 3. and 4. can take place post demolition for that phase.

Condition 13

Prior to commencement of each phase of development, as identified within the Phasing Strategy under Condition 5 to submit:

- *An initial verification report demonstrating completion of pre commencement works set out in the approved remediation strategy for that phase and the effectiveness of the remediation shall be submitted to and approved, in writing, by the Local Planning Authority. The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met.*

Prior to first occupation of each phase of development, as identified within the Phasing Strategy under Condition 5 to submit:

- *A final verification report demonstrating completion of pre-occupation works set out in the approved remediation strategy for that phase and the effectiveness of the remediation shall be submitted to and approved, in writing, by the Local Planning Authority. The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met. It shall also include any plan (a "long-term monitoring and maintenance plan") for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action, as identified in the verification plan, and for the reporting of this to the Local Planning Authority.*

The outline proposed masterplan is presented as Figure 2.0, The Ford Lane Roundabout layout is presented as Figure 2.1 and the Ypaton Road Roundabout layout is presented as Figure 2.2 (Appendix III).

1.3 Objectives

A Phase I Desk Top Study has previously been produced for the site to satisfy Condition 12 (1). This report aims to satisfy the requirements of Condition 12 (2), (3) and (4) to assist with the discharge of pre-commencement conditions for the proposed roundabout areas only.

The objectives of the Phase II Geo-Environmental Site Assessment are to:

- Undertake an assessment of the near surface through intrusive site investigation;
- Assess the implications of any potential environmental risks, liabilities and development constraints associated with the site in relation to the future use of the site and in relation

ARUN DISTRICT COUNCIL F/38/24/DOC

to off-site receptors; and,

- Provide a factual and interpretative report relating to the site and provide recommendations on any potential development issues with consideration of residential and environmental receptors.

1.4 Sources of Information

Background information was sought from the following sources:

- The British Geological Survey (BGS) map for the site (Chichester and Bognor, Solid and Drift, Sheet 317/332 at a scale of 1: 50,000, 1996);
- British Standard BS10175:2011+A2:2017 – Investigation of Potentially Contaminated Sites – Code of Practice;
- British Standard BS5930:2015+A1:2020 – *Code of Practice for Ground Investigations;*
- British Standard BS1377-9:1990 Incorporating Amendment No. 1 – *Methods of Test for Soils for Civil Engineering Purposes – Part 9: In-situ Tests;*
- Magnitude Surveys Geophysical Survey Report – Ford Airfield, West Sussex ref: MSSU354 dated September 2018
- RSK Geo-Environmental and Geotechnical Site Assessment – Ford Airfield, Arundel, BN18 0YH – ref: 29228-R01(01) dated 6th November 2018
- RSK Infiltration Testing – Ford Airfield, Arundel, BN18 0YH – ref: 29228 INF/01 dated 16th April 2020
- JNP Group Land Engineering Works Statement – Ford Airfield – ref: C85228/TN004D dated 14th February 2020
- JNP Group Technical Note – Ford Airfield – ref: C85228-JNP-92-XX-RP-C-1005 P02 dated 21st June 2022
- RSK Supplementary Site Investigation at Ford Airfield, near Arundel, BN18 0YH – ref: 29228 L01 (1) dated 16th October 2023
- Omnia Supplementary Interpretive Report – Ford Airfield – ref: A11918-1/1.0 dated November 2023
- Leap Environmental Supplementary Site Investigation Factual Report– Ford Airfield – ref: LP3560 dated 5th December 2023
- Omnia, Technical Note, Ford Airfield, Arun, West Sussex, BN17 5QZ – Site Wide Technical Summary, Ref: A11918-1/230622/L1.

1.5 Limitations

The limitations of this report are presented in Appendix I.

1.6 Confidentiality

Omnia has prepared this report solely for the use of the Client and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from Omnia; a charge may be levied against such approval.

ARUN DISTRICT COUNCIL F/38/24/DOC

2 SITE SETTING

2.1 Site Details

Table 2-1 Site Details

Site Address	Proposed Ford Lane & Yapton Road Roundabouts, Ford Airfield, Ford, West Sussex, BN17 5QZ
National Grid Reference	498947, 102499 (Ford Lane Roundabout) 499038, 102499 (Yapton Road Roundabout)

All acronyms used within this report are defined in the Glossary presented in Appendix II.

A site location plan is presented as Figure 1.0 (Appendix III).

2.2 Current Site Use

2.2.1 Site Description

The areas of investigation are located 1.2km northeast (Ford Lane Roundabout) and 1.1km southeast of the centre of Yapton and were irregularly shaped covering the footprint of the proposed roundabouts (including soft verges referenced within the general arrangement plans).

At the time of the site walkover the Ford Lane Roundabout area was accessed via Ford Lane at the north of the site. The area comprised an existing tarmacadam access road, with gravel verge and trees lining the road. The roundabout area further extends into the fields to the east and west of the access road, which at the time was used for agricultural crop.

The Yapton Road Roundabout was accessed via Yapton Road at the west of the site. The area comprised an existing stretch of the existing runway through the centre of the roundabout. The roundabout area further extends into the field to the north and south of the runway, which at the time had been recently harvested.

A site location plan showing the areas of the proposed roundabouts in the context of the existing site layout is presented as Figure 3.1 and 3.2 (Appendix III). Relevant photographs from the site walk-over and site survey are located in Appendix IV.

2.2.2 Hazardous Materials Storage

None observed on site.

2.2.3 Potential Asbestos Containing Materials (PACM)

No buildings are present on-site (in the area of the 2 roundabouts), however given that asbestos has been identified on-site previously within soils on-site, there is a potential that further asbestos containing soils may be present.

2.2.4 Waste Storage

None observed on site.

ARUN DISTRICT COUNCIL F/38/24/DOC

2.2.5 Tree Species

At the time of the site walkover the Ford Lane area comprised a tree and hedge lined access road. The hedges and trees were noted to be deciduous. The Yapton Road area also comprised an access road along the former runway, which was hedge lined on the southern boundary. The hedge was deciduous.

2.2.6 Potential Invasive Species

During the site walkover no obvious signs of potential invasive species were identified. However, it is recommended that a further inspection is undertaken by a trained Ecologist during the growing season.

2.3 Surrounding Area

The site is situated predominantly in a residential area with commercial structures to the west.

The surrounding land uses are summarised in Table 2-2 below:

Table 2-2 Land Use

Direction	Land Use
	Ford Lane
North	Small industrial estate and farm buildings
East	Ford Airfield Development Site (currently agricultural field)
South	Ford Airfield Development Site (currently access road and previous highways yard)
West	Ford Airfield Development Site (currently agricultural field)
	Yapton Road
North	Ford Airfield Development Site (currently agricultural field)
East	Ford Airfield Development Site (currently agricultural field)
South	Agricultural field
West	Agricultural field and yard

ARUN DISTRICT COUNCIL F/38/24/DOC

3 PREVIOUS REPORTS

As set out in Section 1.4 a series of intrusive investigations covering the wider Ford Airfield development site have previously been undertaken. A technical note summarising all of the previously identified contamination concerns was produced by Omnia in November 2023, the findings of which are summarised in the following sections.

3.1 Omnia, Technical Note, Ford Airfield, Arun, West Sussex, BN17 5QZ – Site Wide Technical Summary, Ref: A11918-1/230622/L1.

The technical note identified a number of areas of concern across the entire development site which had the potential to pose a contamination risk to the development and which required further investigation.

The following sub-sections summarise the potential risks identified in the vicinity of the proposed Yapton Road and Ford Lane Roundabouts.

3.1.1 Ford Lane Roundabout (Northern Development Parcel)

Previous ground investigation works in the vicinity of the proposed Ford Lane roundabout identified elevated concentrations of PAHs within the surface of the existing track which runs approximately north-south from the national highways yard. No exceedances were identified within the fields to the east and west of the proposed roundabout.

It was recommended the access road was further investigated.

3.1.2 Yapton Road Roundabout (Southern Development Parcel)

Previous ground investigation works in the vicinity of the proposed Yapton Road roundabout identified elevated concentrations of PAHs and TPH associated with the existing runway (coal tar layer). No elevated concentrations were identified in the natural soils below or adjacent to the existing runway, such that no vertical or lateral migration was considered to have occurred.

Further elevated concentrations were identified within the field to the north of the proposed roundabout, where a historic runway had been removed. Concentrations of PAH, TPH, Beryllium and Chrysotile asbestos was identified. It was recommended this area of the field was further investigated, which it subsequently has been, and relevant results from the investigation are highlighted within this report.

ARUN DISTRICT COUNCIL F/38/24/DOC

4 SITE INVESTIGATION

4.1 General

A ground investigation was designed based on the wider site requirements and the proposed site development as shown in Figure 2.0 (Appendix III).

Following completion of the wider site investigation works, Omnia were requested to produce a standalone report to assist with Condition 12 (Section 1.1) specific to the proposed roundabouts.

The following intrusive locations are considered relevant to the roundabout assessment, although are not necessarily located within the footprint of the proposed roundabout, as set out within Figure 3.1 and Figure 3.2.

Table 4-1 Site Investigation Summary

Rationale	Location Hole	Type	Maximum Depth (m bgl)
Ford Lane			
Targeting the existing access road. To obtain chemical samples of the soils beneath the tarmacadam road.	WS510 (Omnia 2024)	WS	3.00
Targeting the existing agricultural fields adjacent to the proposed roundabout (west). No chemical sampling obtained, however logs detail ground conditions.	WS601 (Omnia 2024)	WS	5.00
Targeting the existing agricultural fields adjacent to the proposed roundabout (west). No chemical sampling obtained, however logs detail ground conditions.	TP601 (Omnia 2024)	TP	3.00
Targeting the existing agricultural fields adjacent to the proposed roundabout (south west). No chemical sampling obtained, however logs detail ground conditions.	CP601 (Omnia 2024)	CP	15.00
Targeting the existing agricultural fields adjacent to the proposed roundabout (south east). No chemical sampling obtained, however logs detail ground conditions.	TP603 (Omnia 2024)	TP	3.00
Targeting the existing agricultural fields adjacent to the proposed roundabout (east). No chemical sampling obtained, however logs detail ground conditions.	WS610 (Omnia 2024)	WS	3.00
Targeting the existing agricultural fields adjacent to the proposed roundabout (south west). Chemical sampling obtained and logs detail ground conditions.	WS10 (RSK)	WS	5.45
Targeting the existing agricultural fields adjacent to the proposed roundabout (south west). Chemical sampling obtained and logs detail ground conditions.	TP24 (RSK)	WS	3.00

ARUN DISTRICT COUNCIL F/38/24/DOC

Rationale	Location Hole	Type	Maximum Depth (m bgl)
Yapton Road			
Targeting the former runway within the field north of the proposed roundabout. Chemical sampling obtained and logs detail ground conditions.	TP511 (Omnia 2024)	TP	3.00
	TP512 (Omnia 2024)	TP	3.20
	TP513 (Omnia 2024)	TP	3.00
	TP514 (Omnia 2024)	TP	3.10
	TP515 (Omnia 2024)	TP	3.25
	TP104 (RSK)	TP	1.00
	TP105 (RSK)	TP	1.00
	TP301 (RSK)	TP	2.40
	TP305 (RSK)	TP	2.30
Targeting existing runway adjacent to the proposed roundabout. Chemical sampling obtained and logs detail ground conditions.	WS304 (RSK)	WS	3.00
Targeting the field to the south of the proposed runway. No chemical sampling obtained, however logs detail ground conditions.	T19 (RSK)	TP	0.80
	BH2 (RSK)	CP	20.00
Targeting the field to the south of the proposed runway. Chemical sampling obtained, however logs detail ground conditions.	S2 (RSK)	TP	2.60

The exploratory hole locations are illustrated on Figure 3.1 and Figure 3.2 (Appendix III). The ground conditions encountered are indicated on the exploratory hole logs, which are provided in Appendix V.

4.2 Laboratory Analysis

Selected soil samples were submitted for a range of chemical analysis, either by Omnia, or RSK previously, with the number of samples from each strata tested indicated within Table 4-2 and Table 4-3 below.

Table 4-2 Summary of chemical analysis testing – Ford Lane

Determinant	Brickearth
Asbestos Fibre Screen	3
CLEA Metals	3
Phenol	1
Total Cyanide	1
Speciated Polycyclic Aromatic Hydrocarbons (PAH)	3
Banded Total Petroleum Hydrocarbons (EPH and GRO)	2
Speciated Total Petroleum Hydrocarbons (CWG)	1

ARUN DISTRICT COUNCIL F/38/24/DOC

Determinant	Brickearth
BTEX	1
Herbicides and Pesticides	1
pH and Sulphate	1

Table 4-3 Summary of chemical analysis testing – Yapton Road

Determinant	Made Ground	Brickearth
Asbestos Fibre Screen	16	3
CLEA Metals	15	3
Phenol	5	0
Total Cyanide	5	0
Speciated Polycyclic Aromatic Hydrocarbons (PAH)	16	3
Speciated Total Petroleum Hydrocarbons (CWG)	16	3
Volatile Organic Compounds	1	0
BTEX	12	3
pH and Sulphate	5	0

Element Materials Technology of Deeside undertook the analytical work on behalf of Omnia and Leap and Envirolab undertook testing on behalf of RSK in accordance with UKAS accreditation where applicable and the laboratory analysis certificates are presented as Appendix VI and discussed in Section 6.

ARUN DISTRICT COUNCIL F/38/24/DOC

5 GROUND AND GROUNDWATER CONDITIONS

5.1 Summary of Ground Conditions

The British Geological Survey (BGS) map for the site (Chichester and Bognor, Solid and Drift, Sheet 317/332 at a scale of 1: 50,000, 1996) indicates that the site is underlain by the following geological sequence:

Table 5-1 Geological sequence on site

Geological Unit	Classification	Description
Superficial Deposits	Brickearth	Sand, silt and clay
	River Terrace Deposits	Sands and gravels
Bedrock	Lewes Nodular Chalk, Seaford chalk, Newhaven Chalk, Culver chalk and Portsdown Chalk Chalk (Upper Chalk)	Chalk

Geology encountered on site generally corresponds with that highlighted within BGS Mapping and the findings have been outlined below.

5.2 Summary of Ground Conditions – Ford Lane

5.2.1 Made Ground

Made Ground was encountered within one (1no.) intrusive location (WS510) to a depth of 0.40m bgl. The location containing Made Ground was located adjacent to the access road in an area of gravel hardcore. The Made Ground was found to comprise very dark brown gravelly clayey fine to coarse SAND with low cobble content of sub-angular brick and flint. Gravel is angular to rounded fine to coarse brick, clinker and flint.

No visual or olfactory evidence of contamination was identified within the Made Ground on site.

5.2.2 Topsoil

Topsoil was encountered from ground level to depths of approximately 0.30m bgl within all remaining locations, which were located within the field. The soils typically comprised brown slightly gravelly sandy CLAY with roots and rootlets.

No visual or olfactory evidence of contamination was identified within the Topsoil on site.

5.2.3 Superficial Deposits – Brickearth Deposits

This stratum was encountered beneath the Made Ground/Topsoil and was found to be variable in consistency and strength comprising a firm to stiff, low to high strength orange brown and grey slightly sandy, slightly gravelly silty CLAY which typically increased in sand content with depth.

Brickearth was encountered from a minimum depth of 0.30m bgl, to a maximum depth of 3.30m bgl.

ARUN DISTRICT COUNCIL F/38/24/DOC

No visual or olfactory evidence of contamination was identified within the Brickearth on site.

5.2.4 Superficial Deposits – River Terrace Deposits

Soils attributed to River Terrace Deposits were encountered within the majority of locations directly beneath the Brickearth deposits. The boundary between the Brickearth deposits and River Terrace deposits was noted to be gradational. River Terrace Deposits were noted to comprise granular deposits comprising clayey SAND or gravelly clayey SAND.

River Terrace Deposits were encountered from a minimum depth of 1.20m bgl, to a maximum depth of 3.00m bgl.

No visual or olfactory evidence of contamination was identified within the River Terrace Deposits on site.

5.2.5 Bedrock Deposits – Upper Chalk

Soils attributed to the Upper Chalk (undifferentiated Lewes Nodular Chalk, Seaford chalk, Newhaven Chalk, Culver chalk and Portsdown Chalk Chalk) were encountered directly beneath the River Terrace Deposits or the Brickearth deposits within four (4no.) locations (CP601, WS601, WS610 and WS10).

The majority of Chalk encountered from on-site observations was presumed to be Grade Dm in shallow deposits where the chalk was weathered, increasing to Grade Dc with depth.
The Upper Chalk typically comprised the following:

- Recovered as structureless chalk composed of cream sandy gravelly SILT. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse flint and low to medium density weak chalk with black specks.
- Structureless CHALK recovered as sandy clayey subangular to subrounded fine to medium GRAVEL of intact chalk and occasional flint. Sand is medium to coarse. Chalk is moderately weak medium density.
- Chalk was encountered from a minimum depth of 1.6m bgl, to a maximum depth of 15.0m bgl, the base of the investigation.

No visual or olfactory evidence of contamination was identified within the Chalk on site.

5.3 Summary of Ground Conditions – Yapton Road

5.3.1 Made Ground

Made Ground was encountered within eleven (11no.) intrusive locations (TP511, TP512, TP513, TP514, TP515, TP301, TP104, TP105, TP305, WS304 and S2) to a depth of 1.60m bgl. The locations containing Made Ground were located within the existing runway (WS304), adjacent to the existing runway (S2) and the field to the north of the proposed roundabout, where the previous runway has been removed.

The Made Ground within the runway was found to comprise:

- Concrete from ground level to 0.28m bgl;
- Black sandy GRAVEL. Sand is fine to coarse. Gravel is angular to sub-rounded fine to

ARUN DISTRICT COUNCIL F/38/24/DOC

coarse flint. A strong hydrocarbon odour was noted. The layer was identified directly below the concrete to a depth of 0.45m bgl;
- Grey sandy GRAVEL. Sand is fine to coarse. Gravel is singular to sub-rounded fine to coarse flint and blacktop. A strong hydrocarbon odour was noted. The layer was identified to a depth of 0.65m bgl

The Made Ground within S2 was found to comprise:
- Brown slightly gravelly sandy silty CLAY with roots. Gravel is subangular to subrounded fine to medium flint (Topsoil material placed over Made Ground) to a depth of 0.30m bgl;
- Orange brown sandy gravelly silty CLAY. Sand is fine. Gravel is fine to coarse angular to subrounded flint (Subsoil material placed over Made Ground) to a depth of 0.50m bgl;
- Multicoloured sandy GRAVEL. Sand is fine. Gravel is medium to coarse angular brick, flint, ash and clinker to a depth of 0.65m bgl

The Made Ground within the extent of the form runway within the northern field generally comprised:
- Soft brown gravelly silty CLAY with rootlets and rare cobbles of brick. Gravel is subangular to subrounded fine to coarse flint and brick;
- Black or brown gravelly silty fine to coarse SAND/CLAY with frequent cobbles of chalk. Gravel is subangular to subrounded fine to coarse macadam, clinker and chalk;
- Soft black gravelly SILT/CLAY/SAND with occasional fragments of wood and shell. Gravel is subangular to subrounded fine to coarse flint and macadam

5.3.2 Topsoil

Topsoil was encountered from ground level to depths of 0.35 – 0.40m bgl within two (2no.) locations (T19 and BH2), which were located within the south field adjacent to the existing runway. The soils typically comprised brown slightly sandy/silty CLAY with roots and rootlets and occasional angular to subangular fine to coarse gravel of flint.

No visual or olfactory evidence of contamination was identified within the Topsoil on site.

5.3.3 Superficial Deposits – Brickearth Deposits

This stratum was encountered beneath the Made Ground/Topsoil and was found to be variable in consistency and strength comprising a soft to firm orange brown and grey slightly sandy, slightly gravelly silty CLAY which typically increased in sand content with depth.

Brickearth was encountered from a minimum depth of 0.35m bgl, to a maximum depth of 3.25m bgl.

No visual or olfactory evidence of contamination was identified within the Brickearth on site.

5.3.4 Superficial Deposits – River Terrace Deposits

Soils attributed to River Terrace Deposits were encountered within two (2no.) locations (TP511 and TP512) directly beneath the Brickearth deposits. The boundary between the Brickearth deposits and River Terrace deposits was noted to be gradational. River Terrace deposits were noted to comprise granular deposits comprising silty clayey SAND.

River Terrace Deposits were encountered from a minimum depth of 2.30m bgl, to a maximum depth of 2.70m bgl.

ARUN DISTRICT COUNCIL F/38/24/DOC

No visual or olfactory evidence of contamination was identified within the River Terrace Deposits on site.

5.3.5 Bedrock Deposits – Upper Chalk

Soils attributed to the Upper Chalk (undifferentiated Lewes Nodular Chalk, Seaford chalk, Newhaven Chalk, Culver chalk and Portsdown Chalk Chalk) were encountered directly beneath the River Terrace Deposits or the Brickearth deposits within three (3no.) locations (TP511, TP512 and BH2).

The majority of Chalk encountered from on-site observations was presumed to be Grade Dm in shallow deposits where the chalk was weathered, increasing to Grade Dc with depth.
The Upper Chalk typically comprised the following:

- Recovered as structureless chalk composed of cream sandy gravelly SILT. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse flint and low to medium density weak chalk with black specks.
- Structureless CHALK recovered as sandy clayey subangular to subrounded fine to medium GRAVEL of intact chalk and occasional flint. Sand is medium to coarse.
- Chalk is moderately weak medium density. Chalk was encountered from a minimum depth of 2.50m bgl, to a maximum depth of 20.00m bgl, the base of the investigation.

No visual or olfactory evidence of contamination was identified within the Chalk on site.

5.4 Groundwater Conditions

No groundwater strikes were encountered during works.

ARUN DISTRICT COUNCIL F/38/24/DOC

6 TIER 1 QUANTITATIVE CONTAMINATED LAND RISK ASSESSMENT

Omnia has undertaken a Tier 1 quantitative risk assessment utilising chemical analysis obtained by Omnia, RSK and Leap from multiple phases of investigation to determine if any potential contaminants within the underlying soils pose an unacceptable level of risk to the identified receptors.

It is understood that areas of hardstanding (including coal tar and subbase below) within the existing runway (at Yapton Road roundabout), will be excavated and remediated by the client's remediation contractor OCL Regeneration. OCL Regeneration (S. Gready 20/12/24) have provided the following summary of works:

OCL Regeneration will deploy mobile treatment license EPR/BB3807MD (attached) in accordance with the remediation strategy and MMP. This permit and the deployment form MPP2 (https://www.gov.uk/government/publications/deployment-form-for-land-and-groundwater-remediation) suitably manages any risk to the environment.

1. Concrete runway will be broken / planed out and the Recycled Concrete Aggregate (RCA) carted to storage for onward use on the project.
2. The identified contaminated layer that underlies the defined runway area only will be excavated and carted to a surge pile area (TBA) which is impermeable with a sealed drainage system. Verification testing will be undertaken to prove that the contaminated layer has been isolated and entirely removed.
3. The excavated spoil / soil will then be treated via a 2 phase remediation process using ex-situ mixing under factory process control (FPC) to stabilise / solidify the candidate material to immobilise the contaminants of interest.
4. The resultant stabilised material will be classified to BSEN14227-5 / Specification for Highways works 600 series for re-use as a capping material for installation under the roads infrastructure on site.

It is understood that areas of existing roadway (including subbase below (at Ford Lane roundabout)) will be excavated and stripped for re-use as part of the road capping layer on-site.

The hardstanding (both runway and roadway) has therefore been excluded from the Tier 1 assessment, as the materials will be segregated and managed separately from the roundabout works.

6.1 Human Health Risk Assessment

At a Tier 1 stage the long term (chronic) human health toxicity of the soil has been assessed by comparing the on-site concentrations of organic and inorganic compounds with Suitable for Use Levels (S4UL) 2015 published by the LQM/CIEH and LCRM C4SL values and where absent, EA (Contaminated Land Exposure Assessment (CLEA) Soil Guideline Values (SGV)).

Omnia has adopted screening values for a Public Open space (Park) given the proposed development of the roundabouts to comprise limited soft landscaping and verges. These screening values are considered highly conservative given the areas will likely comprise limited verges, and will not be used as parks or playing spaces etc. The origin of the GAC values are presented within Appendix VII.

Screening values based on 1% SOM have been adopted.

ARUN DISTRICT COUNCIL F/38/24/DOC

The chemical results have been provided within Appendix VI (please note, as results have been obtained for this assessment from previous assessments, some additional chemical results are presented within the Appendix, however only those locations detailed within Table 4-1 have been used), with a summary of the identified exceedances presented within Table 6-1.

No exceedances were identified in the area of the proposed Ford Lane Roundabout.

Table 6-1 Summary of Inorganic and Hydrocarbon Toxicity Assessment for a Public Open Space (Park) – Yapton Road

Determinant	Units	GAC	n	EC	Loc. of Ex	Pathway	Assessment
Asbestos	%	<0.001% Chrysotile	11	0.002% Chrysotile	TP305 0.30m	5	Further discussion below

Notes
Main Exposure Pathways: 1 = Ingestion of Soil & Indoor Dust, 2 = Consumption of Homegrown Produce & Attached Soil; 3 = Dermal Contact (Indoor & Outdoor); 4 = Inhalation of Vapour (Indoor & Outdoor); 5 = Inhalation of Dust (Indoor & Outdoor), 6 = Inhalation of Fibres

Abbreviations: GAC = General Assessment Criteria, n = number of samples, EC = Exceedance Concentration; Loc of Ex = Location of Exceedance.
Total cyanide Tier 1 GAC is taken from the Dutch Intervention Value (2010) for complex cyanide.

** The Tier 1 GAC for the banded hydrocarbon fraction is derived from the CIEH/S4UL assessment for petroleum hydrocarbons Criteria Working Group (CWG) for both aliphatic and aromatic compounds. Omnia has utilised the lowest of the aliphatic and aromatic chain lengths in order to adopt a conservative approach, which is considered satisfactory for the protection of human health.

(sol) – GAC presented exceeds the solubility saturation limit.
(vap) – GAC presented exceeds the vapour saturation limit.

Referring to Table 6-1 above, the results of this direct comparison indicate that there has been an exceedance for Asbestos from a single sample. The asbestos was located within the field north of the Yapton Road roundabout area (>70m north). A location plan detailing the results of the Tier 1 analysis is presented as Figure 3.1 and Figure 3.2, where locations are shown as having either passed, failed or not tested for the above Tier 1 assessment.

TP305 is located within the field where the historic runway has been removed, however a further eight (8no.) locations have also been tested, which were located within the extent of the historic runway footprint, with no other samples identifying the presence of asbestos.

Given that the asbestos identified in TP305 is considered isolated (when considering the wider dataset), it is not considered that asbestos is likely to be present in the areas excavated as part of the development of the roundabout given the distance (>70m) from the identified exceedance.

Furthermore, it is considered the proposed development of the roundabout and associated limited soft landscaping is very low risk, as there will be very little public interaction with the space.

It is therefore considered that the land at both the Ford Lane, and Yapton Road roundabouts are suitable for the proposed end use, without requirement for remediation.

6.1.1 Implementation of a Discovery Strategy

A discovery strategy should be implemented as part of the development process for any previously un-encountered contamination.

ARUN DISTRICT COUNCIL F/38/24/DOC

Should any additional significant visual or olfactory evidence of unexpected contamination be identified during the development then works should be halted in the affected area and contact made with a suitably qualified and experienced Environmental Consultant to determine an appropriate course of action, which may include additional investigation, and as necessary, variation to the agreed RMS.

Contact should be made with the regulator to confirm the proposed scope of works and any variation to the RMS.

The following list is not exhaustive, but should be used as guidance with regards to what should be considered indicative of soil contamination that may require remedial works:

- Free-phase contamination (liquid oils or fuels);
- Loose fibrous materials or cement bound materials (PACM);
- Visually significant staining of soils;
- Evidence of invasive plants such as Japanese Knotweed, Himalayan Balsam, Marestail or Giant Hogweed; and,
- Olfactory evidence of hydrocarbon contamination.

6.2 Controlled Waters Assessment

The site (Ford Lane and Yapton Road Roundabout) is considered to present a low risk to controlled waters for the following reasons:

- The site is not located in a currently defined groundwater Source Protection Zone (SPZ);
- There are no potable groundwater abstractions within influencing distance of the site;
- There are no surface watercourses within influencing distance of the subject site;
- Shallow groundwater strikes were not encountered during site works;
- The primarily cohesive superficial deposits are considered likely to act as an aquitard limiting the downward migration of contaminants;
- Both superficial geologies (Brickearth and River Terrace) are classified as Secondary A Aquifers;
- Bedrock geology (Upper Chalk) is classified as a Principal Aquifer, however, is protected by an aquiclude above;
- Elevated concentrations of Metals, PAH and TPH (C21-35) are limited to Made Ground, and given the low mobility risk of the determinants, and the cohesive Brickearth identified below the Made Ground, it is not considered the determinants will be mobile.

6.3 Ground Gas Assessment

A ground gas assessment is not required for the development of the two roundabouts, as no buildings are proposed within the extent of the proposed plans.

ARUN DISTRICT COUNCIL F/38/24/DOC

7 REVISED CONCEPTUAL SITE MODEL

Following completion of the Tier 1 risk assessment no active pollution pathways have been identified based on a Public open space (Park) end use.

With reference to Condition 12, it is therefore considered that part 3 is detailed within this report, and no remediation strategy or verification plan (4) is required. Condition 13 is also therefore not considered to apply.

ARUN DISTRICT COUNCIL F/38/24/DOC

8 CONCLUSIONS AND RECOMMENDATIONS

Revised Conceptual Site Model

Following completion of the Tier 1 risk assessment no active pollution pathways have been identified based on a Public open space (Park) end use.

Recommendations

Environmental

With reference to Condition 12, it is therefore considered that part 3 is detailed within this report, and no remediation strategy or verification plan (4) is required. Condition 13 is also therefore not considered to apply.

It is recommended that a discovery strategy is implemented during construction of the proposed roundabouts.

Should any additional significant visual or olfactory evidence of unexpected contamination be identified during the development then works should be halted in the affected area and contact made with a suitably qualified and experienced Environmental Consultant to determine an appropriate course of action, which may include additional investigation, and as necessary, a Remediation Method Statement.

Contact should be made with the regulator to confirm the proposed scope of works.

The following list is not exhaustive, but should be used as guidance with regards to what should be considered indicative of soil contamination that may require remedial works:

- Free-phase contamination (liquid oils or fuels);
- Loose fibrous materials or cement bound materials (PACM);
- Visually significant staining of soils;
- Evidence of invasive plants such as Japanese Knotweed, Himalayan Balsam, Marestail or Giant Hogweed; and,
- Olfactory evidence of hydrocarbon contamination.

ARUN DISTRICT COUNCIL F/38/24/DOC

APPENDIX I - LIMITATIONS

ARUN DISTRICT COUNCIL F/38/24/DOC

1. This report and its findings should be considered in relation to the terms of reference and objectives agreed between Omnia and the Client as indicated in Section 1.2.

2. For the work, reliance has been placed on publicly available data obtained from the sources identified. The information is not necessarily exhaustive and further information relevant to the site may be available from other sources. When using the information, it has been assumed it is correct. No attempt has been made to verify the information.

3. This report has been produced in accordance with current UK policy and legislative requirements for land and groundwater contamination, which are enforced, by the local authority and the Environment Agency. Liabilities associated with land contamination are complex and requires advice from legal professionals.

4. During the site walkover reasonable effort has been made to obtain an overview of the site conditions. However, during the site walkover no attempt has been made to enter areas of the site that are unsafe or present a risk to health and safety, are locked, barricaded, overgrown, or the location of the area has not been made known or accessible.

5. Access considerations, the presence of services and the activities being carried out on the site limited the locations where sampling locations could be installed and the techniques that could be used.

6. Site sensitivity assessments have been made based on available information at the time of writing and are ultimately for the decision of the regulatory authorities.

7. Where mention has been made to the identification of Japanese Knotweed and other invasive plant species and asbestos or asbestos-containing materials this is for indicative purposes only and do not constitute or replace full and proper surveys.

8. The executive summary, conclusions and recommendations sections of the report provide an overview and guidance only and should not be specifically relied upon without considering the context of the report in full.

9. Omnia cannot be held responsible for any use of the report or its contents for any purpose other than that for which it was prepared. The copyright in this report and other plans and documents prepared by Omnia is owned by them, and no such plans or documents may be reproduced, published or adapted without written consent. Complete copies of this may, however, be made and distributed by the client as is expected in dealing with matters related to its commission. Should the client pass copies of the report to other parties for information, the whole report should be copied, but no professional liability or warranties shall be extended to other parties by Omnia in this connection without their explicit written agreement there to by Omnia.

10. New information, revised practices or changes in legislation may necessitate the re-interpretation of the report, in whole or in part.

ARUN DISTRICT COUNCIL F/38/24/DOC

APPENDIX II – GLOSSARY

ARUN DISTRICT COUNCIL F/38/24/DOC

AST	Above Ground Storage Tank
BGS	British Geological Survey
BSI	British Standards Institute
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CIEH	Chartered Institute of Environmental Health
CIRIA	Construction Industry Research Association
CLEA	Contaminated Land Exposure Assessment
CSM	Conceptual Site Model
DNAPL	Dense Non-Aqueous Phase Liquid (Chlorinated Solvents, PCB)
DWS	Drinking Water Standard
EA	Environment Agency
EQS	Environmental Quality Standard
GAC	General Assessment Criteria
GL	Ground Level
GSV	Gas Screening Value
HCV	Health Criteria Value
ICSM	Initial Conceptual Site Model
LNAPL	Light Non-Aqueous Phase Liquid (Petrol, Diesel, Kerosene)
ND	Not Detected
LMRL	Lower Method Reporting Limit
NR	Not Recorded
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Poly-Chlorinated Biphenyl
PID	Photo-Ionisation Detector
QA	Quality Assurance
SGV	Soil Guideline Value
SPH	Separate Phase Hydrocarbon
TPH (CWG)	Total Petroleum Hydrocarbon (Criteria Working Group)
SPT	Standard Penetration Test
SVOC	Semi Volatile Organic Compound
UST	Underground Storage Tank
VCCS	Vibro Concrete Columns
VOC	Volatile Organic Compound
WTE	Water Table Elevation

UNITS

M	Metres
KM	Kilometres
%	Percent
%V/V	Percent Volume in Air
MB	Milli Bars (Atmospheric Pressure)
L/HR	Litres Per Hour
µG/L	Micrograms Per Litre (Parts Per Billion)
PPB	Parts Per Billion
MG/KG	Milligrams Per Kilogram (Parts Per Million)
PPM	Parts Per Million
MG/M^3	Milligram Per Metre Cubed
M BGL	Metres Below Ground Level
M BCL	Metres Below Cover Level
MAOD	Metres Above Ordnance Datum (Sea Level)

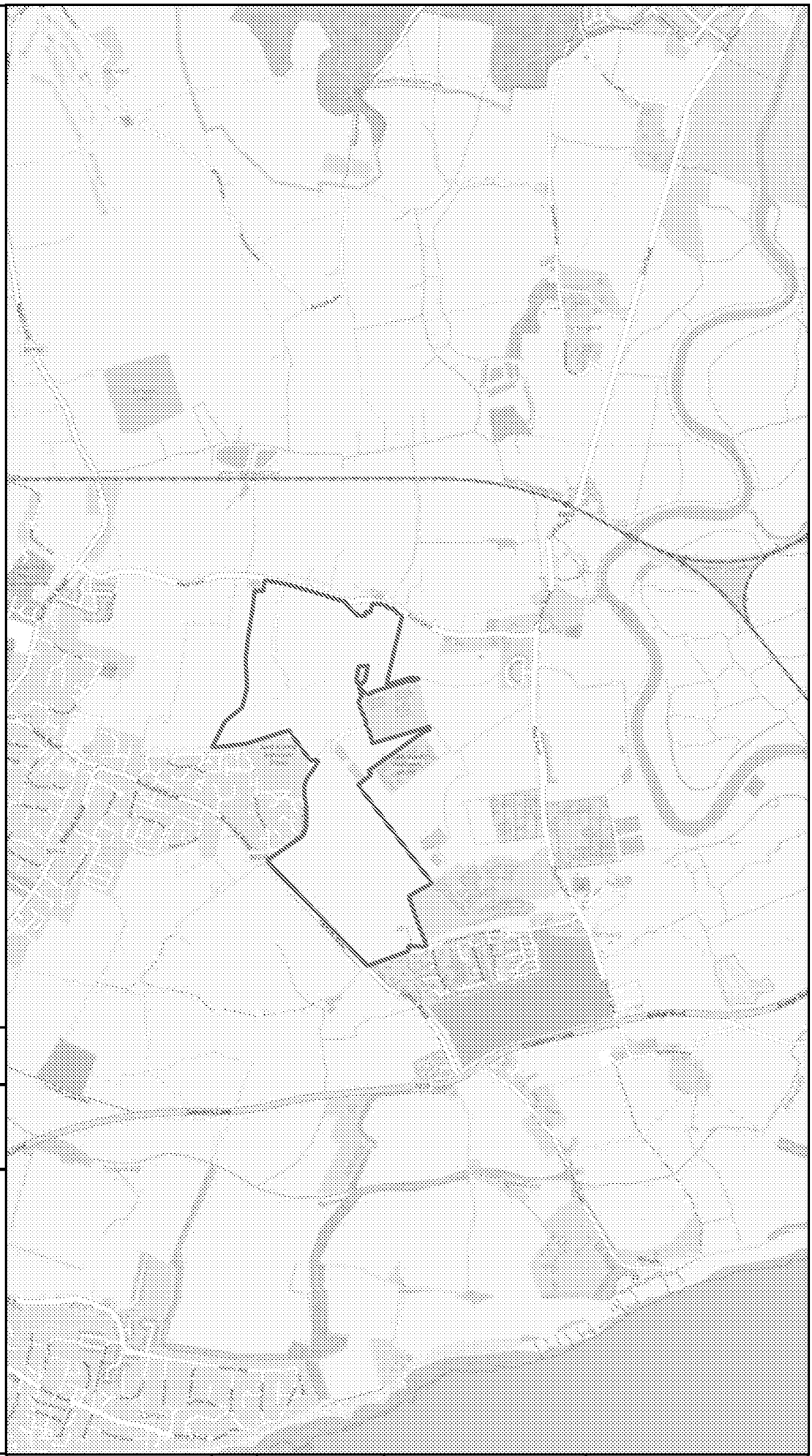
ARUN DISTRICT COUNCIL F/38/24/DOC

KN/M^2	Kilo Newtons Per Metre Squared
µM	Micrometre

ARUN DISTRICT COUNCIL F/38/24/DOC

APPENDIX III - DRAWINGS

ARUN DISTRICT COUNCIL F/38/24/DOC



Scale	Paper Size
1:25,000	A4

© OpenStreetMap contributors

The client must not amend any drawing, design or other intellectual property produced by Omnia without permission in writing from Omnia in advance of any amendments being made.

In the event that such written permission is not obtained in advance of the amendments bein made Omnia shall not be liable for any damage and/or losses incurred as a result of the amended drawing, design or intillectual property.

Omnia Consulting,
Suite 1 Pure Offices
One Port Way
Port Solent
Portsmouth
PO6 4TY
T: (01489) 808 088
E: info@omnia-consulting.co.uk
W: www.omnia-consulting.co.uk

OMNIA

Project Number: A11918-4	Client: Vistry Housebuilding South East	Drawn By: O. Maxwell	Drawing Title: Figure 1.0 Site Location Map
Job Title: Ford Airfield	Date: 02/10/2024	Authorised By: L. McDonald	

ARUN DISTRICT COUNCIL F/38/24/DOC

Key



0 50 100 150 200 250 300 m

Scale	Paper Size
1:8,000	A4

Contains Tor & Co Masterplan Drawing 180641-TOR-A0 04/2023

The client must not amend any drawing, design or other intellectual property produced by Omnia without permission in writing from Omnia in advance of any amendments being made.

In the event that such written permission is not obtained in advance of the amendments bein made Omnia shall not be liable for any damage and/or losses incurred as a result of the amended drawing, design or intillectual property.

Omnia Consulting,
Suite 1 Pure Offices
One Port Way
Port Solent
Portsmouth
PO6 4TY
T: (01489) 808 088
E: info@omnia-consulting.co.uk
W: www.omnia-consulting.co.uk

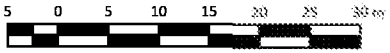
OMNIA

Project Number: A11918-4	Client: Vistry Housebuilding South East	Drawn By: O. Maxwell	Drawing Title: Figure 2.0 Illustrative Masterplan
Job Title: Ford Airfield	Date: 29/10/2024	Authorised By: L. McDonald	

ARUN DISTRICT COUNCIL F/38/24/DOC

Key





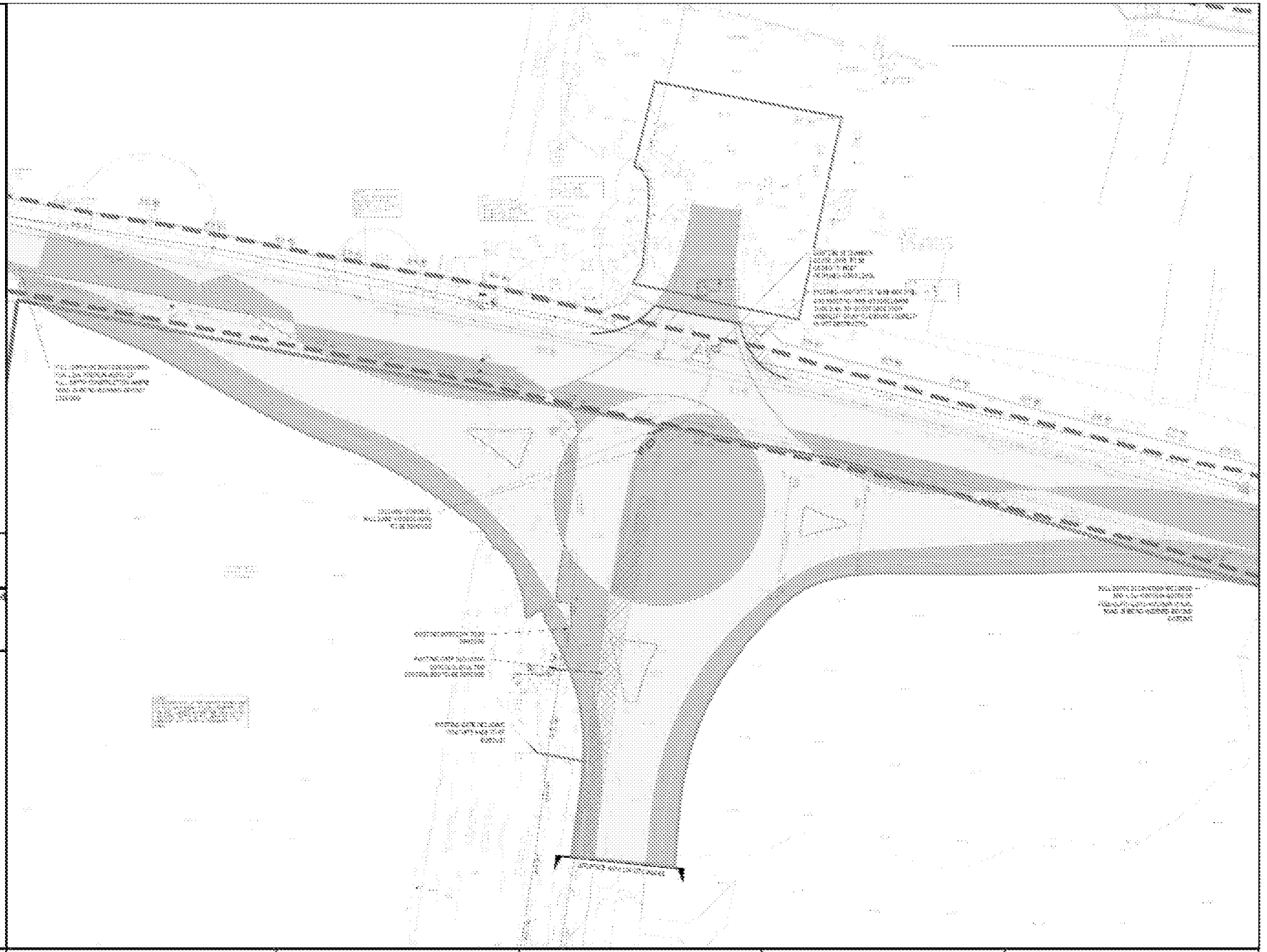
Scale	Paper Size
1:750	A4

Contains Ardent Drawing 220573-D1000-Rev T2 dated 07.06.24

The client must not amend any drawing, design or other intellectual property produced by Omnia without permission in writing from Omnia in advance of any amendments being made.

In the event that such written permission is not obtained in advance of the amendments bein made Omnia shall not be liable for any damage and/or losses incurred as a result of the amended drawing, design or intellectual property.

Omnia Consulting,Suite 1, Pure Offices, Port Solent,
Portsmouth, Hampshire, PO6 4TY
T: (01489) 808 088
E: info@omnia-consulting.co.uk
W: www.omnia-consulting.co.uk



OMNIA

Job Title:	Client:	Project Number:	Date:	Drawing Title:
Ford Airfield	Vistry South East	A11918-4	18/12/2024	Figure 2.1 General Arrangement - Ford Lane Roundabout
		Drawn By: O. Maxwell	Authorised By: T. Rees-Blanchard	

ARUN DISTRICT COUNCIL F/38/24/DOC

Key

5 0 5 10 15 20 25 30 m

Scale	Paper Size
1:750	A4

Contains Ardent Drawing 2205772-D1100-Rev T5 dated 07.06.24

The client must not amend any drawing, design or other intellectual property produced by Omnia without permission in writing from Omnia in advance of any amendments being made.

In the event that such written permission is not obtained in advance of the amendments bein made Omnia shall not be liable for any damage and/or losses incurred as a result of the amended drawing, design or intellectual property.

Omnia Consulting,Suite 1, Pure Offices, Port Solent,
Portsmouth, Hampshire, PO6 4TY
T: (01489) 808 088
E: info@omnia-consulting.co.uk
W: www.omnia-consulting.co.uk

OMNIA

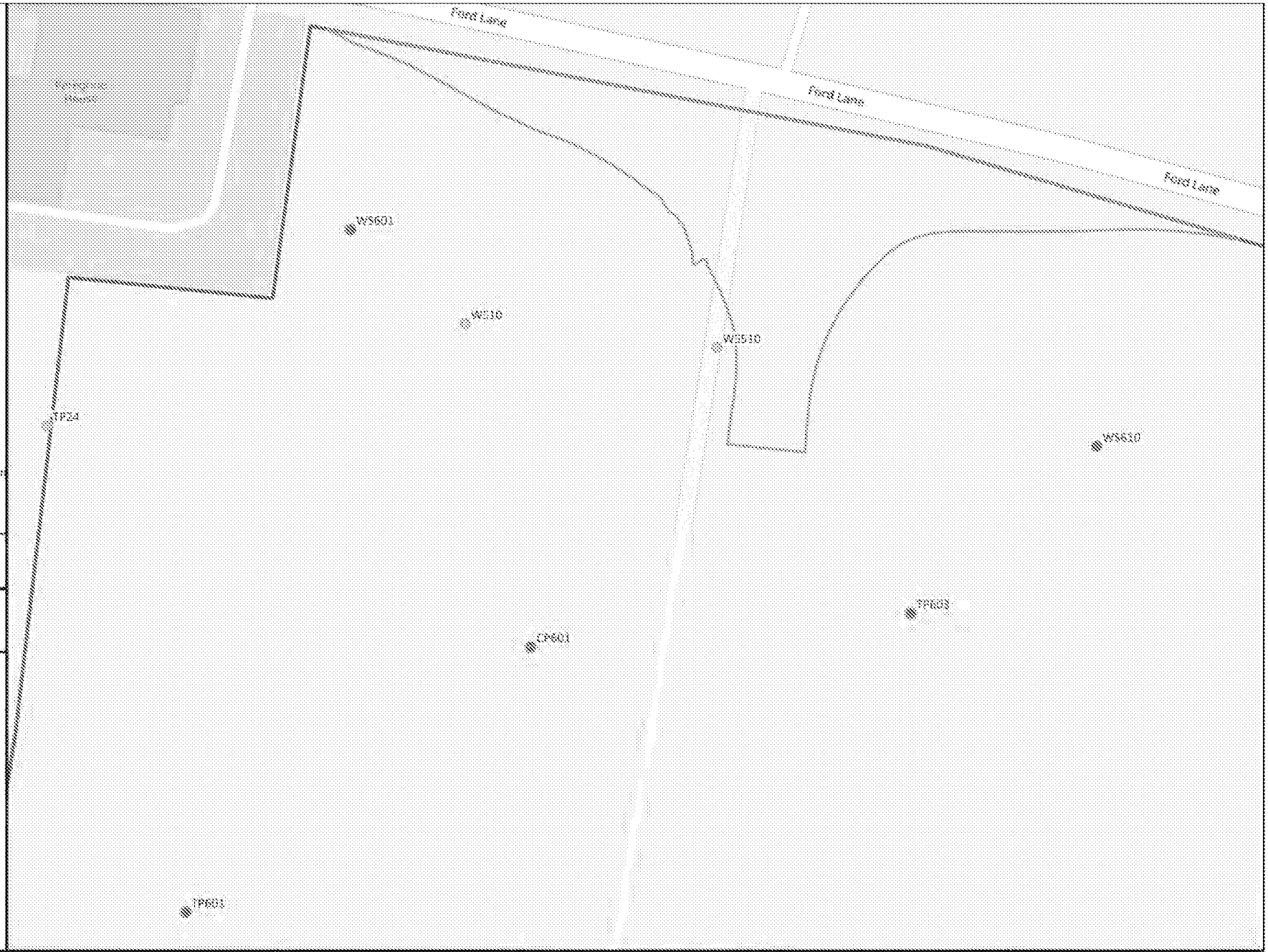
Job Title:	Client:	Project Number:	Date:	Drawing Title:
Ford Airfield	Vistry South East	A11918-4	18/12/2024	Figure 2.2 General Arrangement - Yapton Road Roundabout
		Drawn By: O. Maxwell	Authorised By: T. Rees-Blanchard	

Key

- Ford Lane Roundabout
- Whole Site Boundary

Intrusive Locations & Tier 1

- Fail
- N/A
- Pass



10 0 10 20 30 40

Scale:	Paper Size
1:1,000	A4

Contains OpenStreetMap

The client must not amend any drawing, design or other intellectual property produced by Omnia without permission in writing from Omnia in advance of any amendments being made.

In the event that such written permission is not obtained in advance of the amendments bein made Omnia shall not be liable for any damage and/or losses incurred as a result of the amended drawing, design or intellectual property.

Omnia Consulting,Suite 1, Pure Offices, Port Solent,
Portsmouth, Hampshire, PO6 4TY
T: (01489) 808 088
E: info@omnia-consulting.co.uk
W: www.omnia-consulting.co.uk

OMNIA	Job Title: Ford Airfield	Client: Vistry South East	Project Number: A11918-4	Date: 18/12/2024
			Drawn By: O. Maxwell	Authorised By: T. Rees-Blanchard
				Drawing Title: Figure 3.1 Intrusive Locations - Ford Lane Roundabout

Key

- Histroic Runway
- Runway and Taxiway Area (On Site
- Whole Site Boundary
- Yapton Road Roundabout

Intrusive Locations and Tier 1

- Fail
- N/A
- Pass

*WS304 indicates a failure within the Made Ground, which is being excavated and managed separately from the round-about works by a specialist remediation contractor. This is therefore excluded from the risk assessment

10 0 10 20 30 40 m

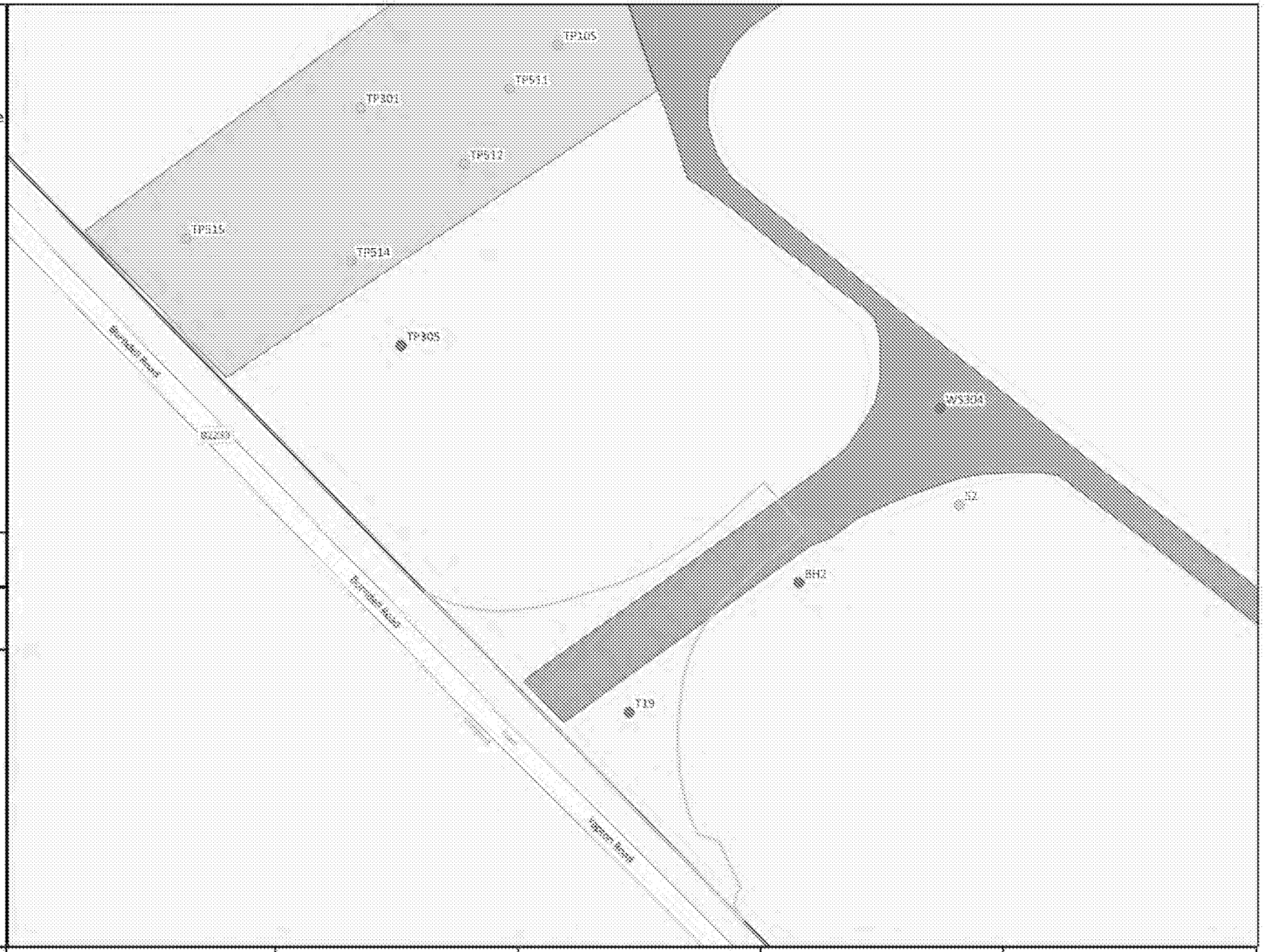
Scale	Paper Size
1:1,200	A4

Contains OpenStreetMap

The client must not amend any drawing, design or other intellectual property produced by Omnia without permission in writing from Omnia in advance of any amendments being made.

In the event that such written permission is not obtained in advance of the amendments beig made Omnia shall not be liable for any damage and/or losses incurred as a result of the amended drawing, design or intellectual property.

Omnia Consulting,Suite 1, Pure Offices, Port Solent,
Portsmouth, Hampshire, PO6 4TY
T: (01489) 808 088
E: info@omnia-consulting.co.uk
W: www.omnia-consulting.co.uk



OMNIA	Job Title: Ford Airfield	Client: Vistry South East	Project Number: A11918-4	Date: 18/12/2024
			Drawn By: O. Maxwell	Authorised By: T. Rees-Blanchard

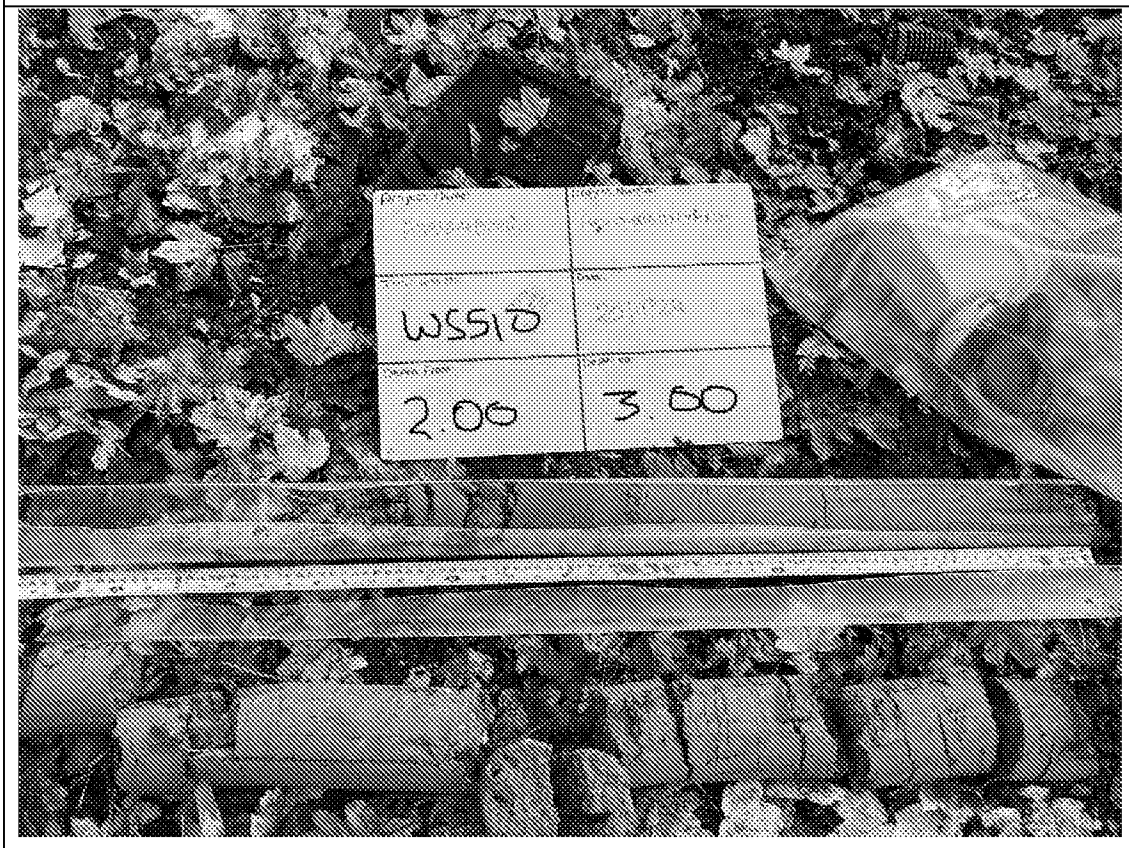
Drawing Title: Figure 3.2 Intrusive Locations - Yapton Road Roundabout

APPENDIX IV - PHOTOGRAPHS

ARUN DISTRICT COUNCIL F/38/24/DOC



Photograph 1 – WS510 1.20 – 2.00m bgl

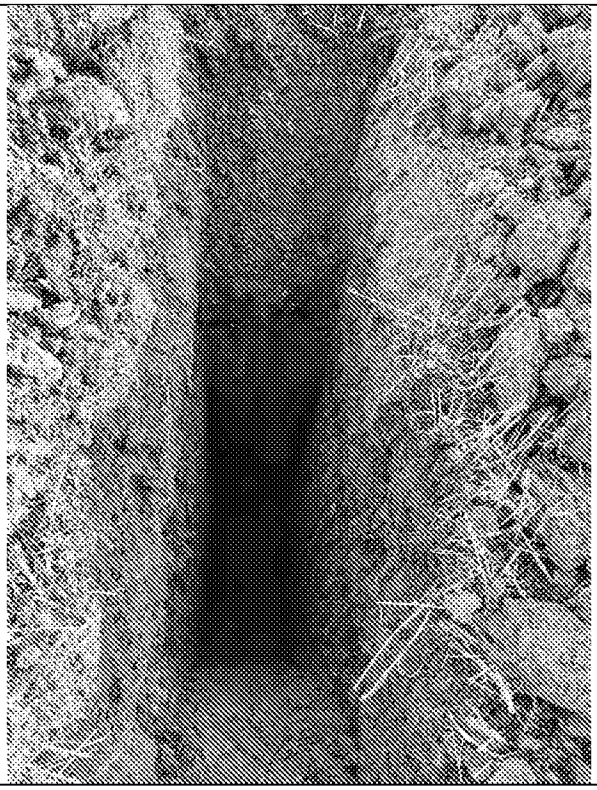


Photograph 2 – WS510 2.00 – 3.00m bgl

ARUN DISTRICT COUNCIL F/38/24/DOC

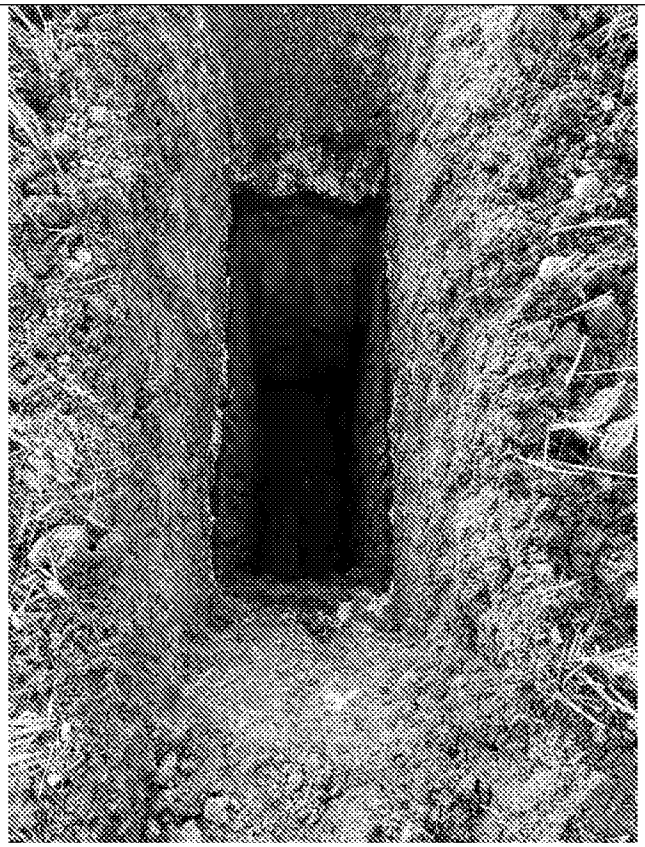


Photograph 3 – TP511

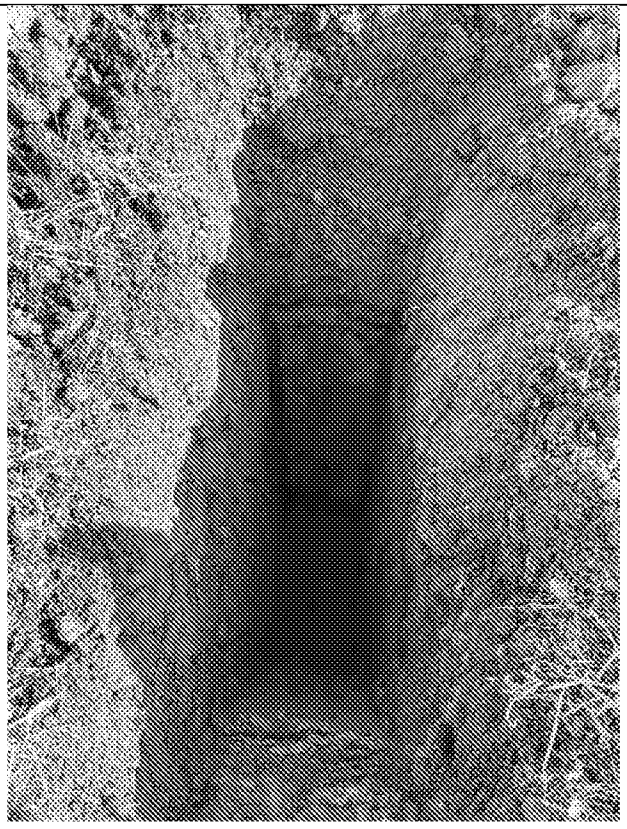


Photograph 4 – TP512

ARUN DISTRICT COUNCIL F/38/24/DOC

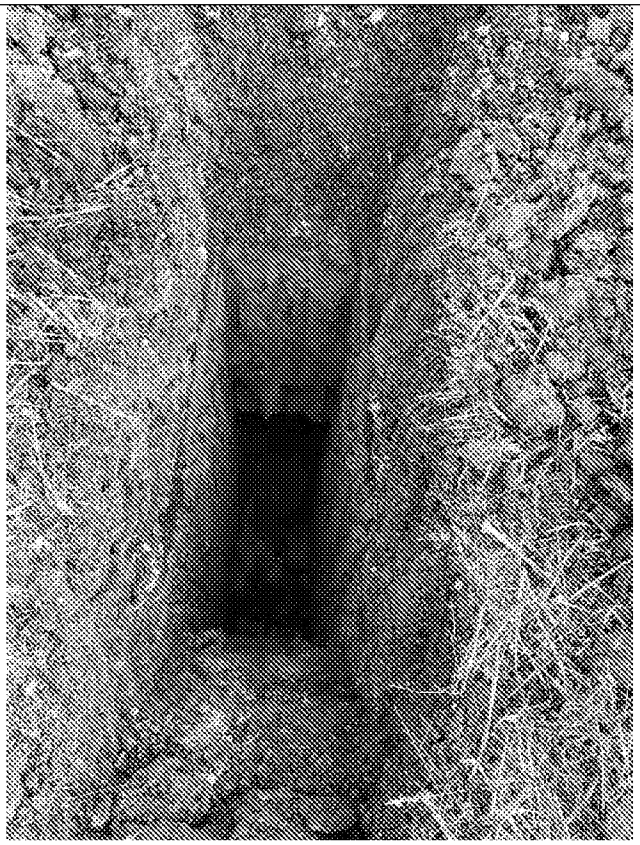


Photograph 5 – TP513



Photograph 6 – TP514

ARUN DISTRICT COUNCIL F/38/24/DOC



Photograph 7 – TP515

ARUN DISTRICT COUNCIL F/38/24/DOC

APPENDIX V - EXPLORATORY HOLE LOGS

ARUN DISTRICT COUNCIL F/38/24/DOC

Borehole Log

OMNIA

Borehole No. **WS510** Sheet 1 of 1

Project Name:	Ford Airfield - Supplementary GI (Yard)	Project No. A11918-4 (Yard)	Co-ords:	498932.37 - 103875.15	Hole Type WS
Location:	Northern Grainstore, Ford Airfield Industrial Estate, Ford, Arundel BN18 0HY		Level:	7.03	Scale 1:25
Client:	Vistry South East		Dates:	20/11/2024 - 20/11/2024	Logged By AD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20 - 0.30	ES					Very dark borwn gravelly clayey fine to coarse SAND with low cobble content of sub-angular brick and flint. Gravel is angular to rounded fine to coarse brick, clinker and flint. [MADE GROUND]
		0.40 - 0.50	ES		0.40	6.63		Orangeish brown silty fine to coarse SAND. [BRICKEARTH]
		1.00		N=9 (3,3/3,2,2,2)	0.80	6.23		Firm orangeish brown very sandy CLAY. Sand is fine to coarse. [BRICKEARTH]
								Between 1.40m bgl and 1.60m bgl becoming slightly gravelly. Gravel is angular to sub-rounded fine flint.
		2.00		N=15 (3,3/4,3,4,4)				
					2.45	4.58		Orangeish brown silty fine to coarse SAND. [RIVER TERRACE DEPOSITS]
		3.00		N=50 (5,8/10,19,18,3)	3.00	4.03		End of borehole at 3.00 m

Remarks
1. Position scanned with calibrated CAT & 'Genny' prior to excavation. 2. No groundwater encountered

AGS

Borehole Log

OMNIA

Borehole No. **CP601** Sheet 1 of 2

Project Name:	Ford Airfield - Supplementary GI (RM1)	Project No. A11918-4 RM1	Co-ords:	498898.02 - 103819.90	Hole Type CP
Location:	Northern Grainstore, Ford Airfield Industrial Estate, Ford, Arundel BN18 0HY		Level:	7.30	Scale 1:50
Client:	Vistry South East		Dates:	28/11/2024 - 28/11/2024	Logged By AD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00 - 0.30	B					Soft brown slightly gravelly silty CLAY with rootlets. Gravel is sub-angular to sub-rounded fine to coarse flint. [TOPSOIL]
		0.30 - 0.70	B		0.30	7.00		Soft dark orangeish brown silty CLAY. [BRICKEARTH]
		0.70 - 1.20	B		0.70	6.60		Soft dark orangeish brown slightly sandy silty CLAY. Sand is fine to coarse. [BRICKEARTH]
		1.50		N=3 (1,0/1,1,0,1)				
					2.00	5.30		Yellowish brown slightly gravelly silty fine to coarse SAND. Gravel is sub-angular to sub-rounded fine to coarse flint. [RIVER TERRACE DEPOSITS]
		2.50		N=5 (1,1/1,1,2,1)				
					3.00	4.30		Recovered as structureless chalk composed of soft off-white gravelly SILT. Gravel is sub-angular to sub-rounded fine to coarse weak low density white with black specks chalk. (Presumed Grade Dm) [UPPER CHALK]
		3.50		N=10 (1,2/2,3,2,3)				
		4.50		N=14 (1,2/3,3,4,4)				
					5.00	2.30		Recovered as structureless chalk composed of off-white slightly sandy silty sub-angular to sub-rounded fine to coarse GRAVEL of strong medium density white chalk with occasional cobbles of angular to sub-angular flint. (Presumed Grade Dc). [UPPER CHALK]
		6.00		N=16 (2,3/3,4,5,4)				
		7.50		N=19 (2,3/4,4,5,6)				
		9.00		N=22 (2,4/4,5,6,7)				

Continued on next sheet

Remarks
1. Position scanned with calibrated CAT & 'Genny' prior to excavation.

AGS

OMNIA

Borehole Log

Borehole No.
CP601
Sheet 2 of 2

Project Name:	Ford Airfield - Supplementary GI (RM1)	Project No. A11918-4 RM1	Co-ords:	498898.02 - 103819.90	Hole Type CP
Location:	Northern Grainstore, Ford Airfield Industrial Estate, Ford, Arundel BN18 0HY		Level:	7.30	Scale 1:50
Client:	Vistry South East		Dates:	28/11/2024 - 28/11/2024	Logged By AD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		10.50		N=26 (4,5/6,8,5,7)				
		12.00		N=39 (6,8/9,9,11,10)				
					15.00	-7.70		End of borehole at 15.00 m

Remarks
1. Position scanned with calibrated CAT & 'Genny' prior to excavation.

AGS

Trial Pit Log

Trialpit No: **TP601**

Sheet 1 of 1

Project Name:	Ford Airfield - Supplementary GI (RM1)	Project No.: A11918-4 RM1	Co-ords: 498834.33 - 103771.00 Level: 7.12
Location:	Northern Grainstore, Ford Airfield Industrial Estate, Ford, Arundel BN18 0HY	Dimensions (m): Depth 3.00	2 × 0.4
Client:	Vistry South East		

Date: 03/12/2024

Scale: 1:20

Logged: JW

Water Strike	Samples and In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
							Soft brown slightly gravelly silty CLAY with rootlets. Gravel is sub-angular to sub-rounded fine to coarse flint. [TOPSOIL]
				0.30	6.82		Soft dark orangeish brown slightly sandy silty CLAY. Sand is fine to coarse. [BRICKEARTH]
	0.50 - 1.00	B					
				1.40	5.72		Soft to firm orangeish brown mottled brown sandy silty CLAY. Sand is fine to coarse. [BRICKEARTH]
	1.50 - 2.00	B					
							At 2.40m bgl becoming very sandy.
	2.50 - 2.70	B					
	2.70 - 3.00	B		2.70	4.42		Orange and yellow silty fine to coarse SAND. [RIVER TERRACE DEPOSITS]
				3.00	4.12		End of pit at 3.00 m

Remarks: 1. Position scanned with calibrated CAT & 'Genny' prior to excavation. 2. No groundwater encountered

Stability: STABLE

AGS

Trial Pit Log

Trialpit No: **TP603**

Sheet 1 of 1

Project Name:	Ford Airfield - Supplementary GI (RM1)	Project No.: A11918-4 RM1	Co-ords: 498968.16 - 103826.09 Level: 7.27
Location:	Northern Grainstore, Ford Airfield Industrial Estate, Ford, Arundel BN18 0HY	Dimensions (m): Depth 3.00	2.2 × 0.45
Client:	Vistry South East		

Date: 04/12/2024

Scale: 1:20

Logged: JW

Water Strike	Samples and In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
	0.30 - 0.80	B		0.30	6.97		Soft dark brown silty CLAY with rootlets. [TOPSOIL]
	1.40 - 1.80	B		1.40	5.87		Soft dark orangeish brown slightly sandy silty CLAY. Sand is fine to coarse. [BRICKEARTH]
	2.20 - 2.50	B		2.20	5.07		Soft to firm orange brown and occasionally mottled light greyish brown slightly sandy silty CLAY. Sand is fine to coarse. [BRICKEARTH]
				3.00	4.27		Orange slightly gravelly clayey fine to coarse SAND. Gravel is sub-angular to sub-rounded fine to coarse flint. [RIVER TERRACE DEPOSITS]
							End of pit at 3.00 m

Remarks: 1. Position scanned with calibrated CAT & 'Genny' prior to excavation. 2. No groundwater encountered

Stability: STABLE

Borehole Log

OMNIA

Borehole No. **WS601** Sheet 1 of 1

Project Name:	Ford Airfield - Supplementary GI (RM1)	Project No. A11918-4 RM1	Co-ords: 498864.75 - 103896.94	Hole Type WS
Location:	Northern Grainstore, Ford Airfield Industrial Estate, Ford, Arundel BN18 0HY		Level: 6.63	Scale 1:25
Client:	Vistry South East		Dates: 04/12/2024 - 04/12/2024	Logged By AD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.40	6.23		Brown clayey fine to coarse SAND with occasional sub-angular to rounded fine to coarse gravel of flint and occasional rootlets. [TOPSOIL]
		0.70 - 0.80	D					Soft orangeish brown mottled brown sandy clayey SILT. Sand is fine to coarse. [BRICKEARTH]
		1.00		N=19 (1,2/3,4,6,6)				
		1.20 - 1.60	B					*At 1.20m bgl becoming soft to firm.*
					1.30	5.33		Orangeish brown silty clayey fine to coarse SAND. [BRICKEARTH]
		1.60 - 2.00	B					
					1.80	4.83		Orangeish brown mottled yellowish brown silty fine to coarse SAND with occasional angular to sub-rounded fine to coarse gravel of flint. [RIVER TERRACE DEPOSITS]
		2.00		N=3 (0,0/0,1,0,2)				
		2.60 - 3.00	B					
					2.65	3.98		Recovered as structureless chalk composed of soft light brown mottled cream sandy gravelly SILT. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse weak medium density white with occasional black specks chalk. (Presumed Grade Dm). [UPPER CHALK]
		3.00		N=18 (2,3/3,5,5,5)				
		4.00		N=23 (5,5/6,6,6,5)				
								At 4.50m bgl becoming firm and very gravelly.
		5.00		N=18 (4,4/5,4,4,5)	5.00	1.63		End of borehole at 5.00 m

Remarks

1. Position scanned with calibrated CAT & 'Genny' prior to excavation. 2. No groundwater encountered.

AGS

OMNIA

Borehole Log

Borehole No.
WS610
Sheet 1 of 1

Project Name:	Ford Airfield - Supplementary GI (RM1)	Project No. A11918-4 RM1	Co-ords:	499002.49 - 103856.94	Hole Type WS
Location:	Northern Grainstore, Ford Airfield Industrial Estate, Ford, Arundel BN18 0HY		Level:	7.01	Scale 1:25
Client:	Vistry South East		Dates:	06/12/2024 - 06/12/2024	Logged By AD

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.40	6.61		Soft brown sandy CLAY with occasional rootlets. Sand is fine to coarse. [TOPSOIL]
		0.70 - 0.80	D					Soft orangeish brown slightly gravelly sandy SILT. Sand is fine to medium. Gravel is sub-angular ro sub-rounded fine to coarse flint. [BRICKEARTH]
		1.00		N=15 (4,4/3,4,4,4)				
		1.20 - 1.60	B		1.20	5.81		Orangeish brown fine to coarse SAND. [RIVER TERRACE DEPOSITS]
		1.60 - 2.00	B		1.60	5.41		Recovered as structureless chalk composed of cream mottled white and light brown sandy silty angular to sub-rounded fine to coarse GRAVEL of weak low density white with frequent black specks chalk. Sand is fine to coarse. (Presumed Grade Dc) [UPPER CHALK]
		2.00		N=34 (11,12/11,7,8,8)				
		2.60 - 3.00	B					
		3.00		N=61 (10,11/15,14,14,18)	3.00	4.01		End of borehole at 3.00 m

Remarks
1. Position scanned with calibrated CAT & 'Genny' prior to excavation. 2. No groundwater encountered.

AGS

WINDOW SAMPLE LOG

Contract:	Client:	Window Sample:
Ford Airfield	**Wates / Redrow**	**WS10**

Contract Ref:	Start:	Ground Level:	National Grid Co-ordinate:	Sheet:
29228	**08.08.18** End: **08.08.18**	**6.66**	**E:498885.9 N:103879.5**	**1** of **1**

Progress	Samples / Tests				Water	Backfill & Instru-mentation	Description of Strata	Reduced Level	Depth (Thick ness)	Material Graphic Legend
Window Run	Depth	No	Type	Results						
							TOPSOIL: Brown slightly gravelly sandy CLAY. Gravel is subangular to subrounded fine to medium flint.	6.36	0.30	
	0.40	ES1	ES				Firm light brown slightly gravelly sandy CLAY. Gravel is subangular to subrounded fine to medium flint. (BRICKEARTH)		(1.20)	
	0.90	ES2	ES							
	1.10	D1	D							
	1.20-1.65	1	SPT	3,3/4,4,5,5 N=18				5.16	1.50	
	1.60	D2	D				Orangish brown gravelly slightly clayey fine to medium SAND. Gravel is subangular to subrounded fine to coarse flint. Soil determined to be medium dense from field observations (BRICKEARTH)		(0.40)	
	2.00-2.45	2	SPT	3,3/3,4,4,4 N=15			. . . becoming more sandy with depth	4.76	1.90	
	2.40	D3	D				Orangish brown gravelly fine to medium SAND. Gravel is subangular fine to medium flint. Soil determined to be medium dense from field observations (BRICKEARTH)		(1.40)	
	3.00-3.45	3	SPT	9,10/9,8,7,8 N=32				3.36	3.30	
	3.40	D4	D				Structureless CHALK recovered as off white sandy clayey subangular to subrounded fine to medium GRAVEL intact chalk fragments with occasional flint. Sand is medium. Chalk is moderately weak medium density. (Grade Dc) (WHITE CHALK SUBGROUP)			
	4.00-4.45	4	SPT	6,7/7,7,6,7 N=27					(2.15)	
	4.40	D5	D				. . . band of strong high density solid chalk at 4.50m depth			
							. . . band of flint at 4.80m depth			
	5.00-5.45	5	SPT	4,5/4,4,5,5 N=18				1.21	5.45	
							Window sample hole terminated at 5.45m depth.			

Drilling Progress and Water Observations					
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)

General Remarks

1. Inspection pit hand dug to 1.20m bgl.
2. Standpipe installed to 2.80 m bgl; 0.80 m plain with bentonite, 2.00 m slotted with 10 mm gravel.
3. No groundwater encountered

All dimensions in metres | Scale: **1:33**

Method Used:	Plant Used:	Drilled By:	Logged By:	Checked By:
Inspection pit + Tracked window sampling	**Premier Tracker 110**	**Trevor Cannon**	**ADenton**	AGS

ARUN DISTRICT COUNCIL/38/24/DDC

GEOTECHNICAL_LIBRARY_V8_06.GLB LibVersion: v8_06_018 PrjVersion: v8_06 - Core+Logs - 002 | Log WINDOW SAMPLE LOG - A4P | 29228_FORD AIRFIELD.GPJ - v8_06.
RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437550, Fax: 01442 437500, Web: www.rsk.co.uk. | 05/11/18 - 11:08 | AT3 |

TRIAL PIT LOG

Contract:	Client:	Trial Pit:
Ford Airfield	**Wates / Redrow**	**TP24**

Contract Ref:	Start:	Ground Level:	National Grid Co-ordinate:	Sheet:
29228	**15.08.18** End: **15.08.18**	**6.84**	**E:498808.7 N:103860.7**	**1** of **1**

Samples and In-situ Tests				Water	Backfill	Description of Strata	Reduced Level	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results						
						TOPSOIL: Brown slightly gravelly sandy CLAY. Gravel is subangular to subrounded fine to medium flint.	6.54	(0.30) 0.30	
0.30	ES1	ES				Firm to stiff friable orangish brown slightly gravelly sandy CLAY. Gravel is subangular to subrounded fine to medium flint. (BRICKEARTH)			
1.00	D1	D							
1.20		V	c_u=81						
1.50	D2	D							
1.50		V	c_u=90					(2.70)	
1.80		V	c_u=94						
2.00	D3	D							
						. . . sand content increases at 2.30 m bgl			
2.50	D4	D				. . . fine to medium sand band between 2.50 and 2.70 m bgl			
						. . . flint content increases at 2.80 m bgl			
						. . . chalk clasts at 2.90 m bgl	3.84	3.00	
						Trial pit terminated at 3.00 m bgl.			

General Remarks

1. UXO scan performed from ground level.
2. Trial pit remained stable.
3. No groundwater encountered.
4. Backfilled with arisings.
5. Where no hand vane results were obtained, consistency term is the engineers field observation.

All dimensions in metres | Scale: **1:25**

Method Used:	Plant Used:	Logged By:	Checked By:
Machine dug	**JCB-3CX**	**ADenton**	AT

AGS

GINT_LIBRARY_V8_06.GLB LibVersion: v8_06_018 PrjVersion: v8_06 - Core+Logs - 002 | Log TRIAL PIT LOG - NO PLAN - A4P | 29228_FORD AIRFIELD.GPJ - v8_06.
RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437550, Fax: 01442 437500, Web: www.rsk.co.uk. | 05/11/18 - 11:10 | AT3 |
ARUN DISTRICT COUNCIL/38/24/DOC

Trial Pit Log

Trialpit No: **TP511**

Sheet 1 of 1

Project Name:	Ford Airfield - Supplementary GI (Historic Runway)	Project No.: A11918-4 (Historic Runway)	Co-ords: 499023.00 - 102634.00 Level:	Date: 11/10/2024
Location:	Northern Grainstore, Ford Airfield Industrial Estate, Ford, Arundel BN18 0HY	Dimensions (m): Depth 3.00	1.8 × 0.6	Scale: 1:20
Client:	Vistry South East			Logged: JW

Water Strike	Samples and In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
	0.00 - 0.75	ES					Vegetation over soft brown slightly gravelly silty CLAY with rootlets and rare cobbles of brick. Gravel is sub-angular to sub-rounded fine to coarse flint and brick. [MADE GROUND]
	0.80 - 0.90	ES		0.75 0.80 0.90			Black gravelly fine to coarse SAND with frequent cobbles of chalk. Gravel is sub-angular to sub-rounded fine to coarse macadam, clinker and chalk. [MADE GROUND] Firm grey and occasionally mottled brown silty CLAY. [MADE GROUND] Soft to firm orange brown mottled light brown slightly sandy CLAY. Sand is fine to coarse. [BRICKEARTH]
				2.30			Orange silty clayey fine to coarse SAND. [RIVER TERRACE DEPOSITS]
▼				2.50			Recovered as structureless chalk composed of soft cream slightly sandy gravelly SILT. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse weak low-density white with black specks chalk and occasional sub-angular to sub-rounded fine to coarse flint. (Presumed Grade Dm) [UPPER CHALK]
▽				3.00			End of pit at 3.00 m

1 2 3 4

Remarks: 1. Position scanned with calibrated CAT & 'Genny' prior to excavation.

Stability: Stable

AGS

Trial Pit Log

OMNIA

Trialpit No **TP512**

Sheet 1 of 1

Project Name:	Ford Airfield - Supplementary GI (Historic Runway)	Project No. A11918-4 (Historic Runway)	Co-ords: 499010.00 - 102617.00 Level:	Date 11/10/2024
Location:	Northern Grainstore, Ford Airfield Industrial Estate, Ford, Arundel BN18 0HY	Dimensions (m): Depth 3.20	1.8 × 0.6	Scale 1:20
Client:	Vistry South East			Logged JW

Water Strike	Samples and In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
	0.20 - 0.80	ES		0.20			Vegetation over soft brown gravelly silty CLAY with rootlets. Gravel is sub-angular to sub-rounded fine to coarse flint. [MADE GROUND]
							Light yellowish brown very gravelly silty SAND with occasional flint cobbles. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse flint. [MADE GROUND]
	0.80 - 0.95	ES		0.80			Soft black gravelly silty CLAY with occasional fragments of wood. Gravel is sub-angular to sub-rounded fine to coarse flint and macadam. [MADE GROUND]
				0.95 1.00			Black gravelly silty fine to coarse SAND. Gravel is sub-angular to sub-rounded fine to coarse flint and macadam. [MADE GROUND]
							Soft to firm orange brown mottled light brown slightly sandy silty CLAY. Sand is fine to coarse. [BRICKEARTH]
							At 2.10m bgl becoming very sandy.
				2.40			Orange silty clayey fine to coarse SAND. [RIVER TERRACE DEPOSITS]
				2.70			Recovered as structureless chalk composed of soft to firm cream and light brown slightly sandy gravelly SILT. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse weak low-density white with black specks chalk. (Presumed Grade Dm) [UPPER CHALK]
				3.20			End of pit at 3.20 m

1 2 3 4

Remarks: 1. Position scanned with calibrated CAT & 'Genny' prior to excavation.2. No Groundwater Encountered

Stability: Stable

AGS

Trial Pit Log

OMNIA			Trialpit No **TP513** Sheet 1 of 1
Project Name: Ford Airfield - Supplementary GI (Historic Runway)	Project No. A11918-4 (Historic Runway)	Co-ords: 499039.00 - 102662.00 Level:	Date 11/10/2024
Location: Northern Grainstore, Ford Airfield Industrial Estate, Ford, Arundel BN18 0HY		Dimensions (m): Depth 3.00 — 1.9 × 0.6	Scale 1:20
Client: Vistry South East			Logged JW

Water Strike	Samples and In Situ Testing: Depth	Type	Results	Depth (m)	Level (m)	Legend	Stratum Description
	0.20 - 0.60	ES		0.20			Vegetation over soft brown slightly gravelly silty CLAY. Gravel is sub-angular to sub-rounded fine to coarse flint. [MADE GROUND]
				0.90			Soft orangeish brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse flint with occasional shell fragments. [MADE GROUND]
	1.10 - 1.20	ES		1.05			Soft white gravelly SILT. Gravel is sub-angular to sub-rounded fine to coarse weak low-density chalk. [MADE GROUND]
				1.10			Black gravelly fine to coarse SAND. Gravel is sub-angular to sub-rounded fine to coarse macadam and clinker. [MADE GROUND]
							Firm grey and occasionally mottled brown silty CLAY. [MADE GROUND]
				1.60			Soft orangeish brown mottled grey slightly sandy silty CLAY. Sand is fine to coarse. [BRICKEARTH]
				3.00			End of pit at 3.00 m

1 2 3 4

Remarks: 1. Position scanned with calibrated CAT & 'Genny' prior to excavation.2. No Groundwater encountered

Stability: Stable

AGS