13 Appendices

13.1 Appendix 1 – Development Plans & Photos

See next page.

NOTES

Written dimensions only are to be used from this drawing. If any doubt exist the contractor must ask for clarification. On no account must the contractor scale off this drawing.

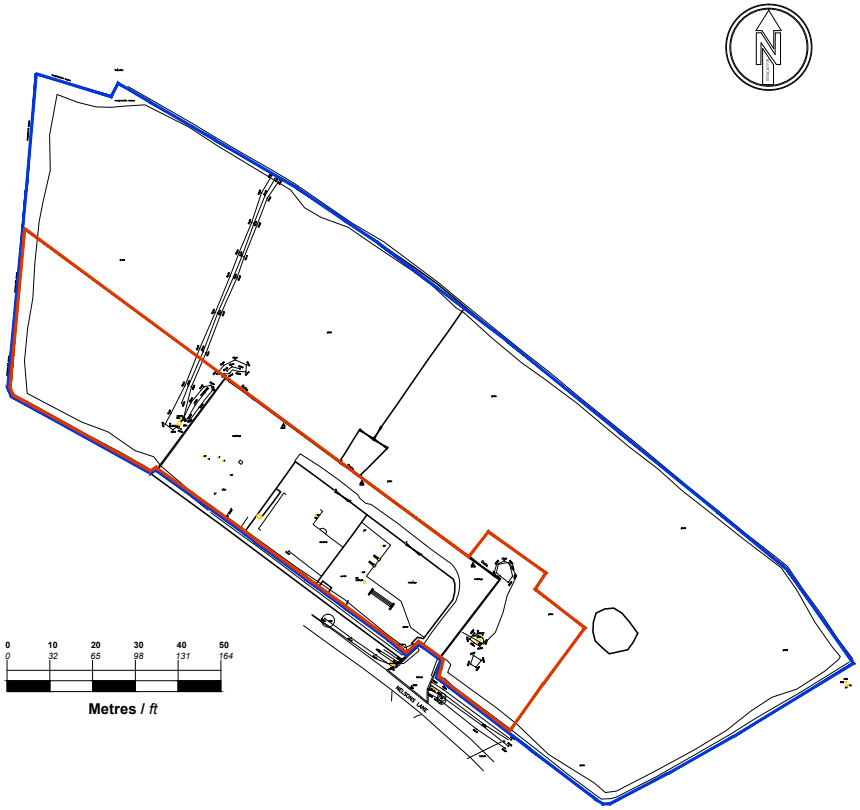
Contractors and sub contractors must check and agree all dimensions before preparing workshop drawings or commencing work on site.

Contractors are responsible for informing mpas of any discrepancy discovered on this drawing or between this drawing and any other related documents issued in respect of the work.

This drawing and the copyrights and patents herein are the property of mpas Ltd and may be used or reproduced only under contract.

All work must be carried out in accordance with the current Building Regulations, Codes of Practice and British Standards. If any doubt exists the contractor must ask for clarification.

The Construction Design and Management Regulations 20 15: It is the responsibility of the client to instruct the appointed contractor to identify any special hazards in the carrying out of the construction works and prepare a Health & Safety Plan and submit the relevant information to the Health & Safety Executive if necessary.



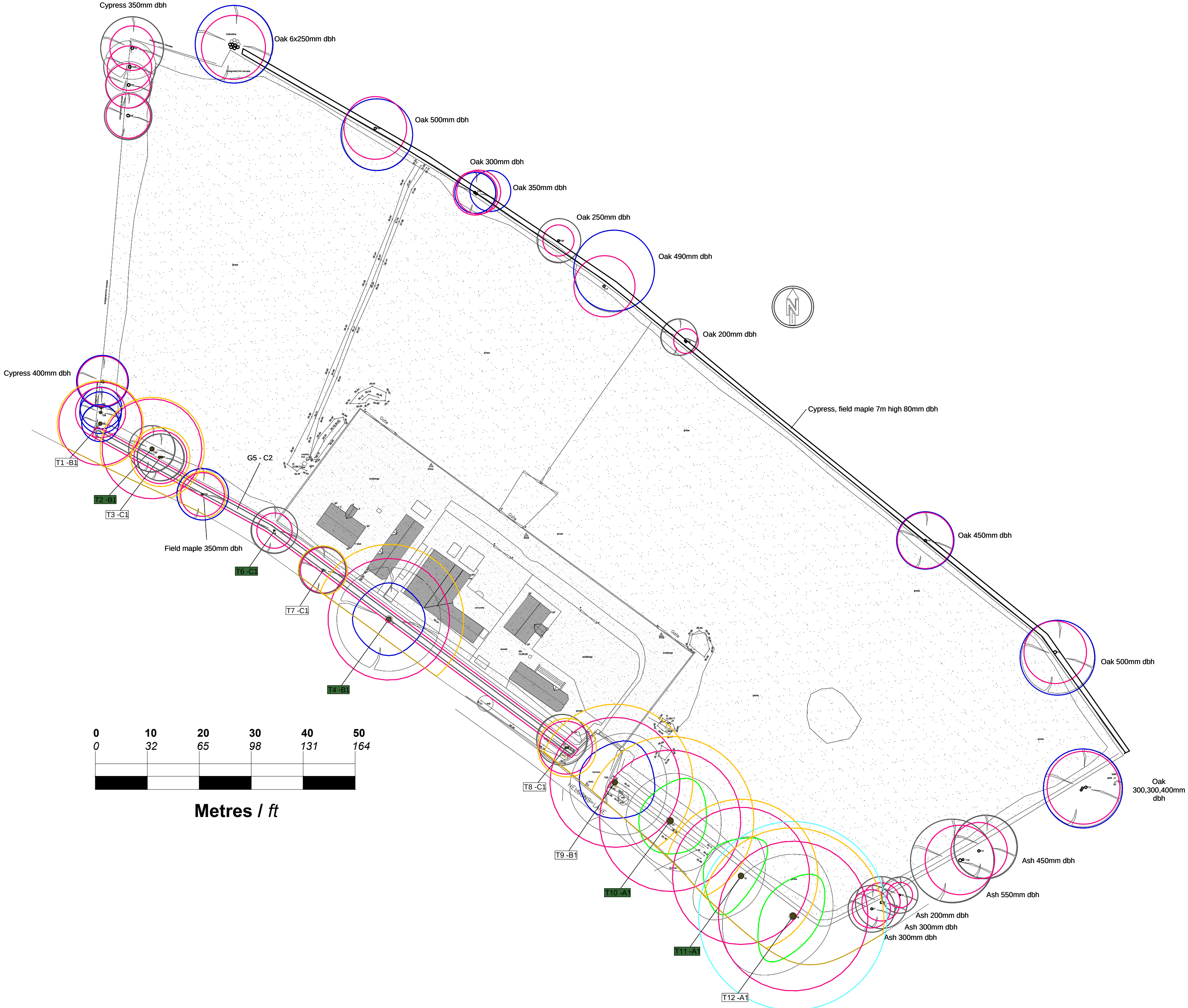
A Amended To Client Requirements 01-05-2024

Contract: Proposed Alterations At Dunn Elms, Nelsons Lane, Reading, RG10 0RR	mpas
Client:	Martin Peacock Architectural Services Limited
Drawing: Location Plan	Old Reading Room, Main Street, Stainforth, Settle, North Yorkshire BD24 3PE. Tel: 07765 224 261

Drawn	MDP	Job No	Drawing No	Revision
Scale	1:1250 @A3	2024-11	400	A
Date	04-03-2024			

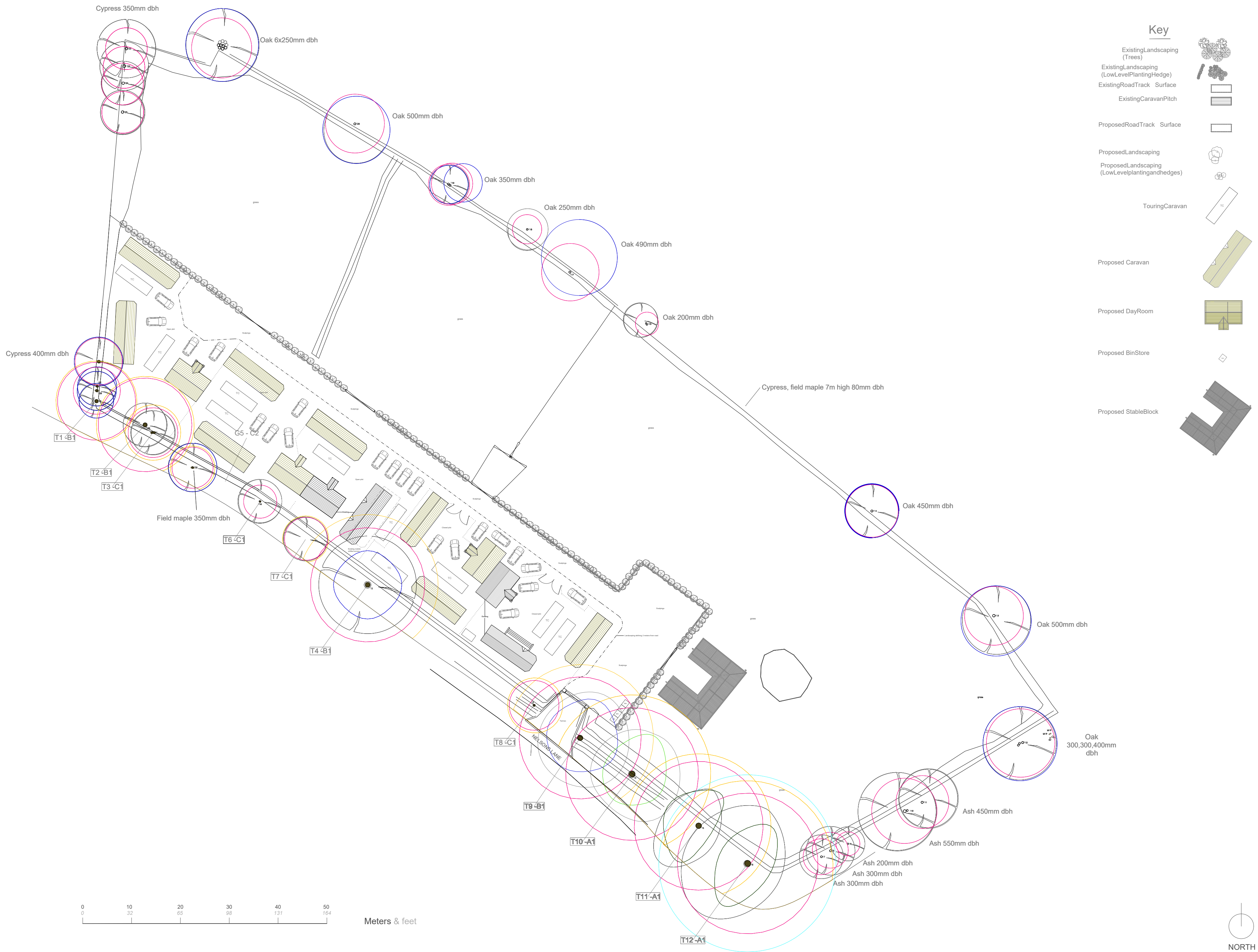
Key

- Existing Landscaping (Trees)
- Existing Landscaping (Low Level Planting / Hedge)
- Existing Road / Track Surface
- Existing Caravan Pitch
- Application Boundary



A Amended To Client Requirements 01-05-2024

Contract: Proposed Alterations At Dunn Elms, Nelsons Lane, Reading, RG10 0RR	mpas
Client:	Martin Peacock Architectural Services Limited
Drawing: Site Layout As Existing	Old Reading Room, Main Street, Stainforth.Settle, North Yorkshire BD24 9PE. Tel: 07765 224 261
Drawn: MDP / Scale: 1:250 @A0 / Date: 04-03-2024 / Job No: 2024-11	Drawing No: 500 / Revision: A



Do not scale from this drawing - Work to figured dimensions only. All dimensions to be checked on site prior to the execution of any work.

For the avoidance of doubt all dimensions are measured to wall structure and not the finishes unless otherwise stated.

Where any discrepancy is found to exist within or between drawings and/or documents it should be reported to the architect immediately.

OSKAR architecture shall not be liable for any use of drawings and documents for any purpose other than for which the same were prepared by or on behalf of OSKAR architecture.

Rev No.	Date	Drawn	Description
501 E	21.10.24	OJ	Amended Plans
501 F	08.11.24	OJ	Amended Plans
501 G	27.11.24	OJ	Amended Plans

-

Proposed Alterations At Dunn Elms, Nelsons Lane, Reading, RG10 0RR

Site Layout As Proposed

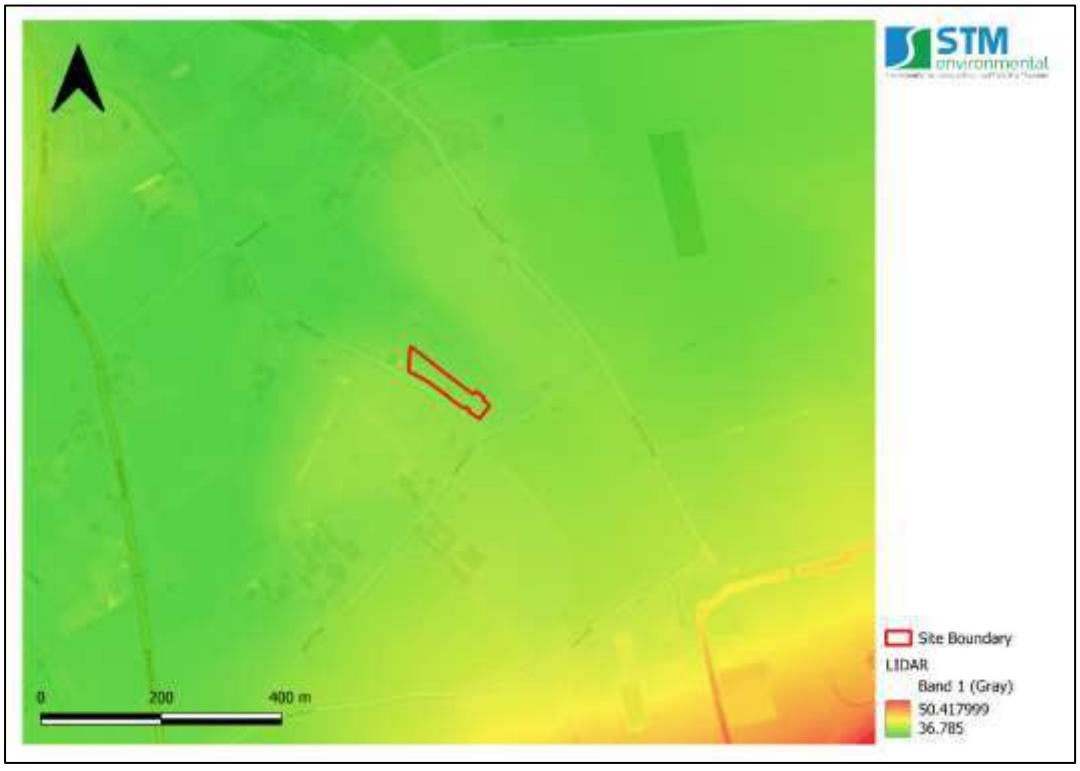
21.10.24 OJ 1:250 @ A0

501 Rev G

Malden Court
London ,KT3 4PW
Tel : 07854070847
Email: office@oskararchitecture.com

13.2 Appendix 2.1– Site Topography and Drainage Characteristics

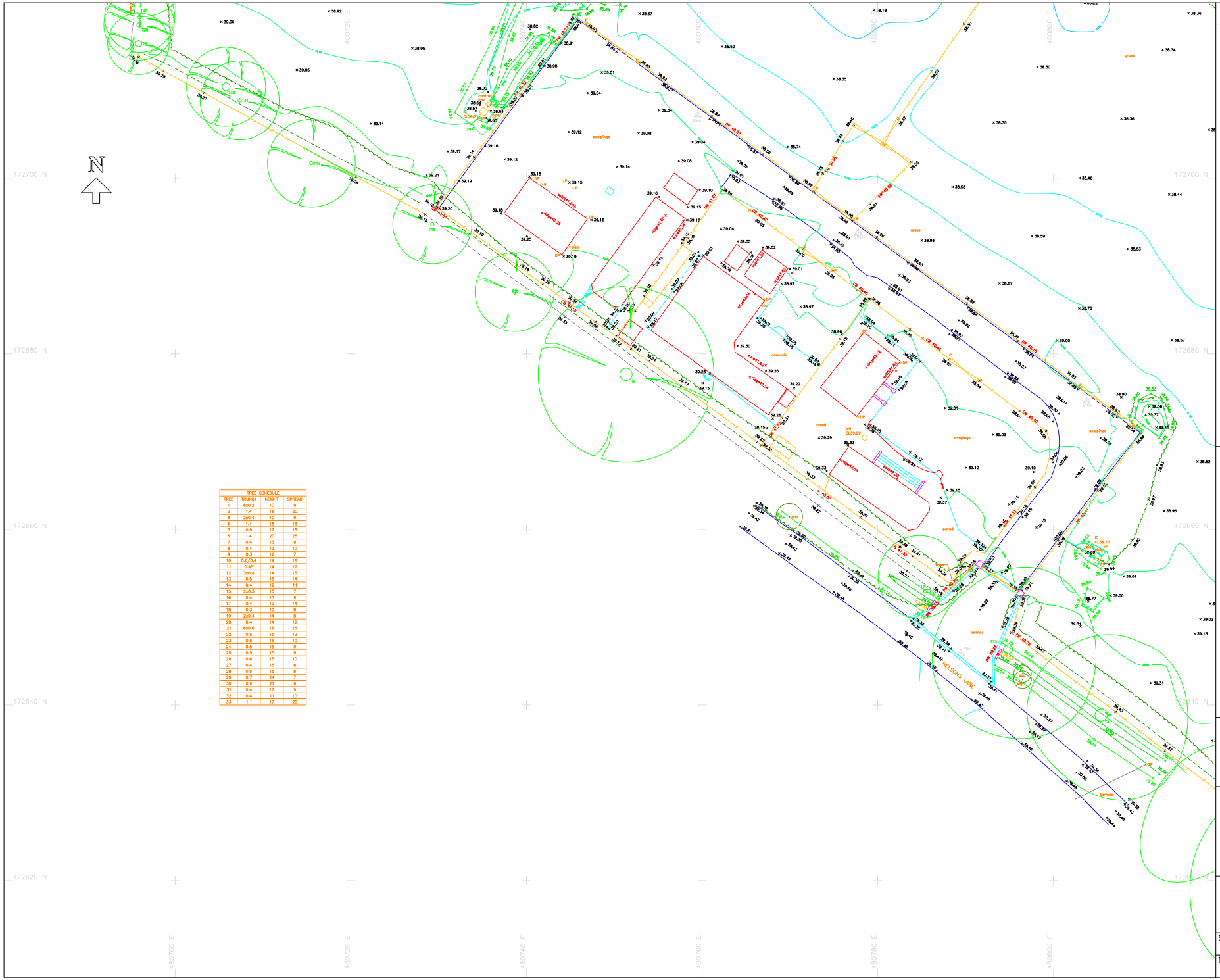
13.2.1 LIDAR Mapping showing Site Topography - (Source: LiDAR DTM 2022)




STM environmental
Site Boundary
Blue Line Boundary
LIDAR (Blue Line)
Band 1 (Gray)
39.993999
37.235001
0
40
80 m

13.2.2 Topographic Survey Map

See next page.



TREE SCHEDULE

TREE	TRUNK#	HEIGHT	SPREAD
1	6×0.2	10	9
2	1.4	16	20
3	2×0.4	10	9
4	1.4	18	18
5	0.9	12	16
6	1.4	20	25
7	0.4	13	9
8	0.4	13	10
9	0.3	12	7
10	0.6/0.4	14	16
11	0.45	14	12
12	3×0.4	14	15
13	0.5	15	14
14	0.4	12	11
15	2×0.3	10	7
16	0.4	13	9
17	0.4	12	14
18	0.3	10	8
19	2×0.4	14	8
20	0.4	14	12
21	6×0.6	16	15
22	0.5	15	12
23	0.6	15	10
24	0.5	15	9
25	0.5	15	9
26	0.6	15	10
27	0.4	15	8
28	0.5	15	8
29	0.7	24	7
30	0.9	27	9
31	0.4	12	9
32	0.4	11	10
33	1.1	17	20

LEGEND

FEATURE STYLES

SURVEY CONTROL
FENCE
HEDGE
FWS
SWS
WATER
POWER LINE (OVERHEAD)
TELECOM LINE (OVERHEAD)
ELECTRIC MAIN
GAS MAIN
EMBANKMENT

FENCE TYPES

BWR Barbed Wire
CB Close Board
CI Corrugated Iron
CL Chain Link
CPL Conc Panel
CP Chestnut Paling
CW Chicken Wire
IW Interwoven
IR Iron Railing
OB Openboard
PR Post and rail
PW Post and Wire

FEATURE ABREVIATIONS

AV Air Valve
BS Bus Stop
BT British Telecom
BW Brick Wall
CB Conc Bollard
CL Cover Level
CTO cable TV outlet
EB Electric Box
EC Electric Cover
EP Electricity Pole
FH Fire Hydrant
FL Floor level
G Gully
GM Gas Meter
GV Gas Valve
IL Invert Level
IC Inspection Chamber
KLS Keep Left Sign
KO Kerb Offset
LB Letter Box
LP Lamp Post
MKR Marker
MP Metal Post
MH Manhole
MB Metal Bollard
P Post
PI Petrol Interceptor
RG Road Gully
RNB Road Name Board
RS Road Sign
RW Retaining Wall
SA Soakaway
SC Stopcock
SV Sluice Valve
TP Telegraph Pole
TCB Telephone Box
TJB Tel.Junc.Box
TL Traffic Light
V Valve
VP Vent Pipe
WL Water Level
WM Water Meter
WO Water Outlet
WV Water Valve

DATUM
GRID – ORDNANCE SURVEY NATIONAL GRID (OSTN15)
LEVELS – ORDNANCE SURVEY (OSGM15)
SCALE FACTOR REMOVED

SURVEY CONTROL

STN	-E-	-N-	-Z-
1	480780.469	172645.870	39.363
2	480803.787	172674.621	38.918
3	480777.795	172693.816	38.929
4	480750.499	172707.206	38.944

NOTES

Drainage and service covers that were buried, obscured or not visible at the time of the survey cannot be shown. Sewer connections between manholes are assumed to be straight and only pipes visible from above ground are shown. All critical dimensions and connections should be checked and verified prior to starting work.

Tree canopy measured values are written as maximum spreads.
Tree species/condition to be verified by arboriculist.
Offsite Tree positions/sizes are approximate.

Surveyed physical features may not necessarily represent the legal boundary and should be checked with support of the Land Registry Title.

Some areas overgrown at time of survey

Dashed/grey features are indicative of a feature not accessible at time of survey

SURVEYED BY
ATLAS GEOMATICS LTD
land & engineering surveyors

14 Park Close
Sonning Common
Oxfordshire
RG4 9RY

T: 07900 243622

e: office@atlasgeomatics.co.uk
www.atlasgeomatics.co.uk

CLIENT

ET PLANNING

SITE

DUNN ELMS
NELSONS LANE
READING
RG10 0RR

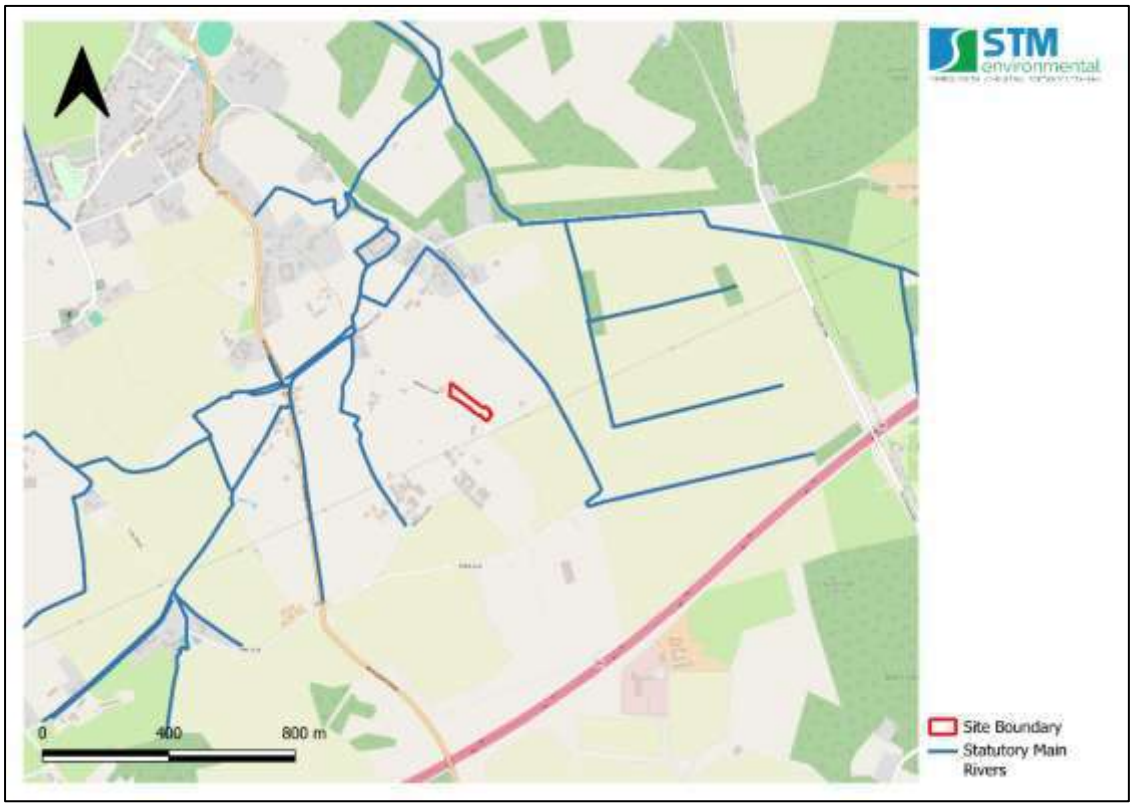
TITLE

SITE SURVEY

AS EXISTING

SCALE	DATE
1/200 (A1)	FEBRUARY 2024
DRAWING No. T02	JOB No. 2402521

13.2.3 Hydrology Map

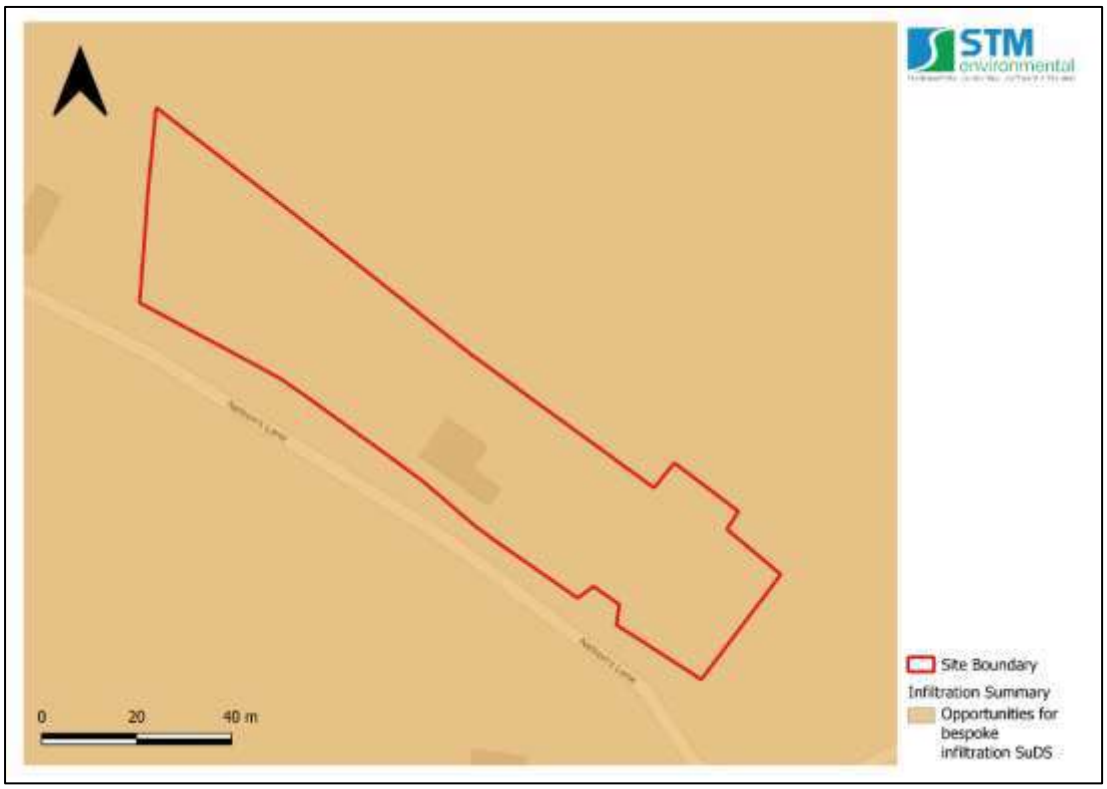


13.2.4 Bedrock Geology, Hydrogeology & Permeability (Source: BGS, 2016)

13.2.5 Superficial Deposits, Hydrogeology, & Permeability (Source: BGS, 2016)

N/A.

13.2.6 Infiltration Drainage Potential (Source: BGS, 2016)



13.2.7 Groundwater Table Depth (Source: BGS 2016)

13.3 Appendix 2.2– Site Investigation

13.3.1 Site Investigation Photos





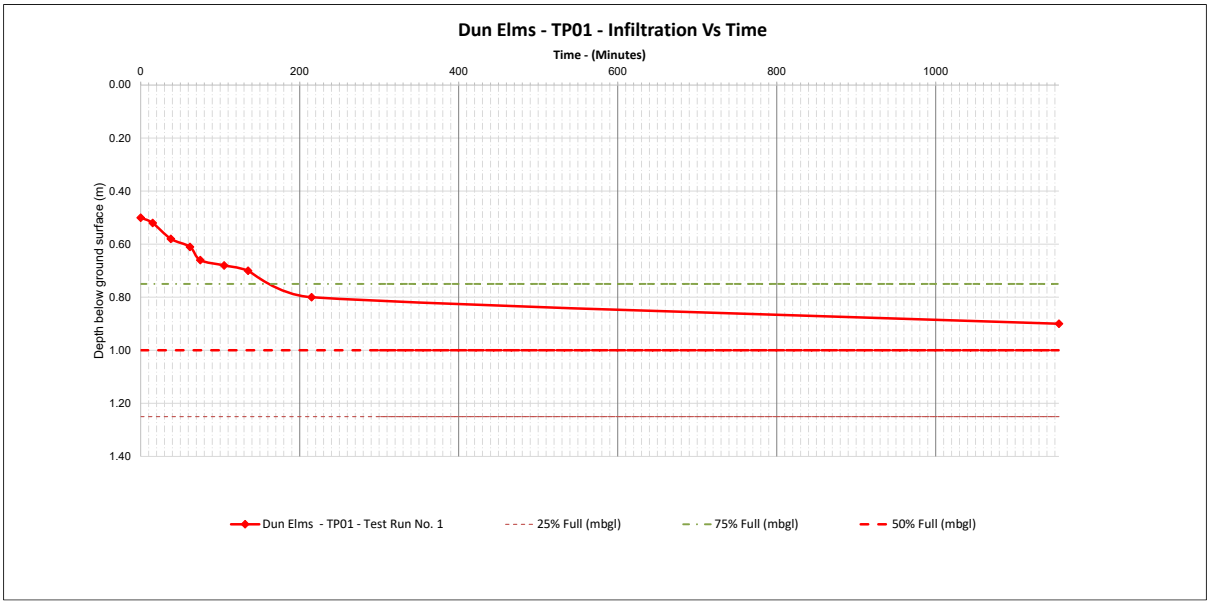


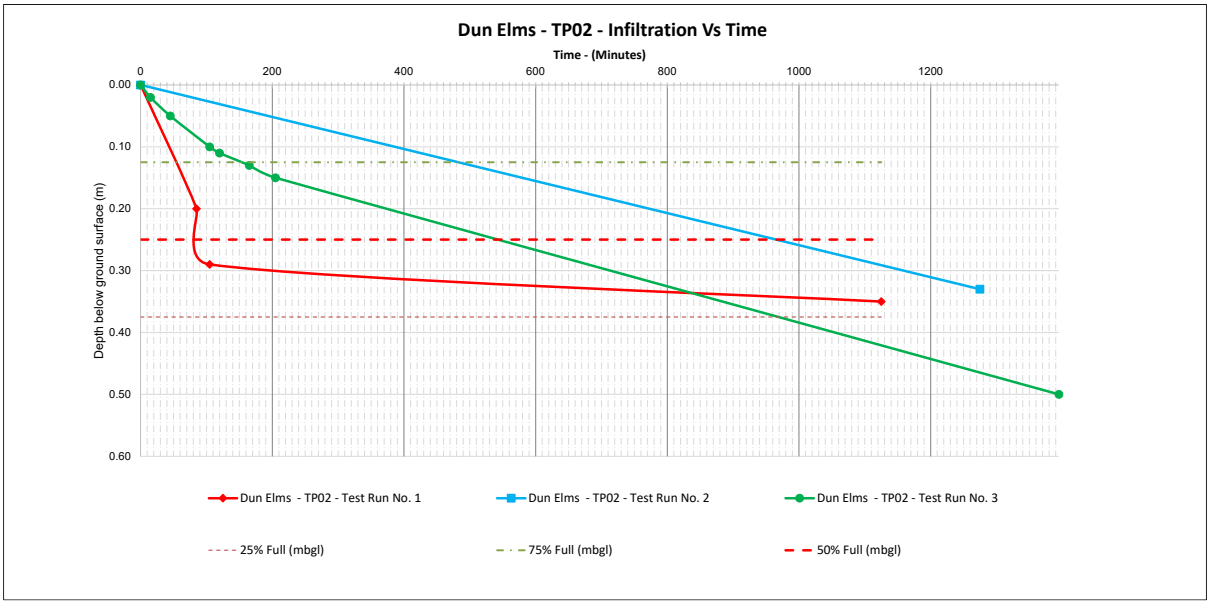


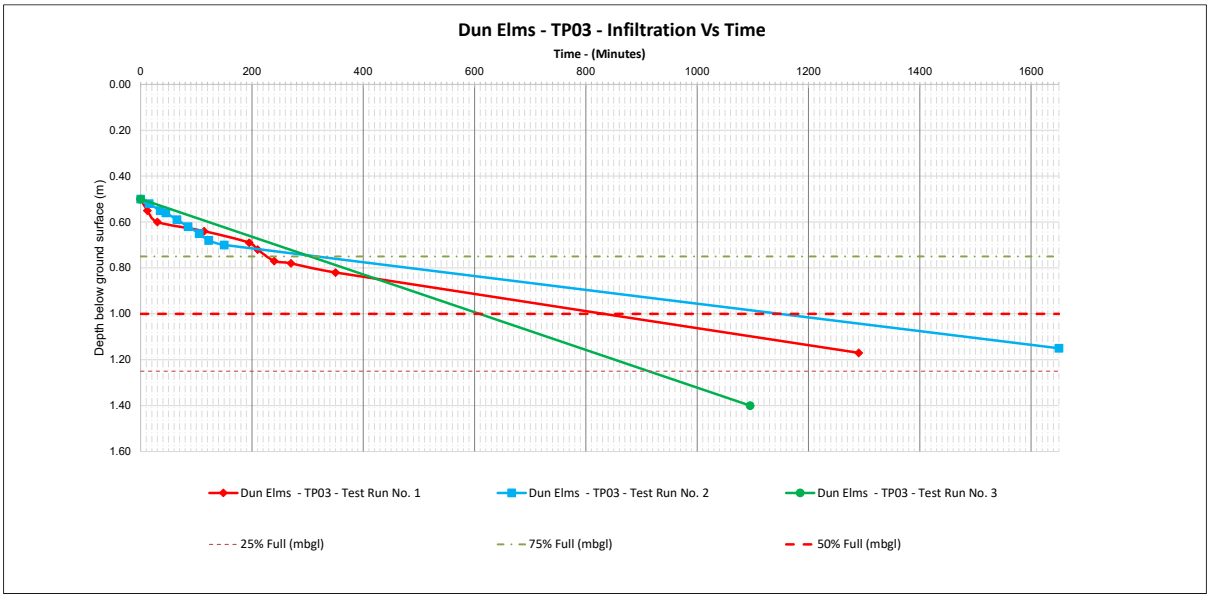


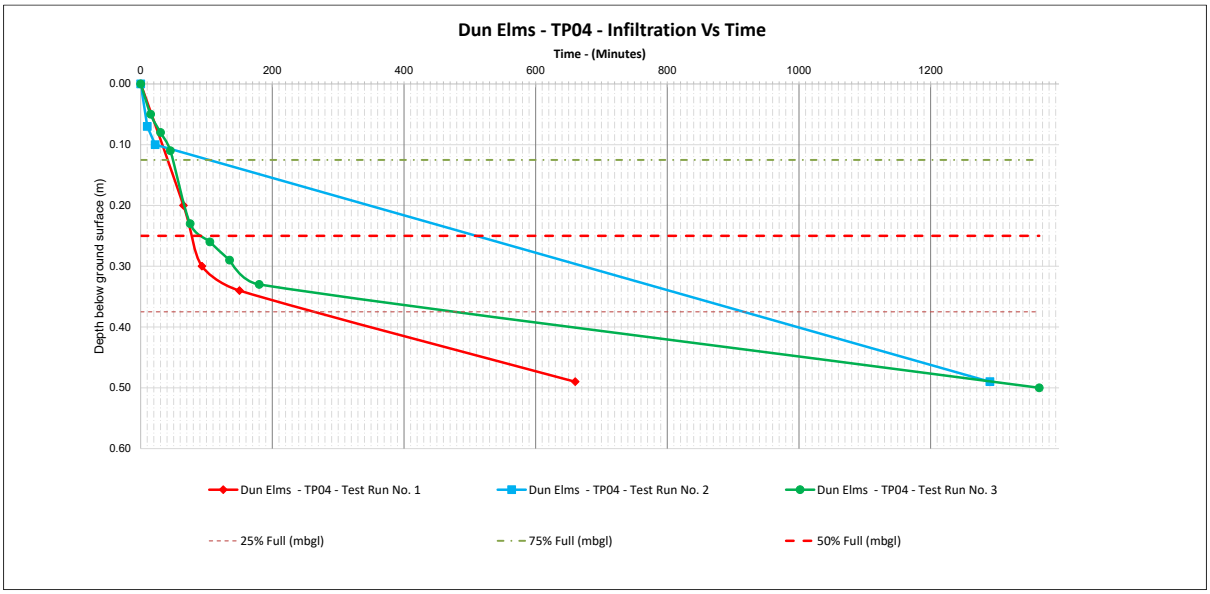



13.3.2 Infiltration Testing Graphs






Dun Elms - TP03 - Infiltration Vs Time
Time - (Minutes)
0
200
400
600
800
1000
1200
1400
1600
Depth below ground surface (m)
0.00
0.20
0.40
0.60
0.80
1.00
1.20
1.40
1.60
Dun Elms - TP03 - Test Run No. 1
Dun Elms - TP03 - Test Run No. 2
Dun Elms - TP03 - Test Run No. 3
25% Full (mbgl)
75% Full (mbgl)
50% Full (mbgl)


Dun Elms - TP04 - Infiltration Vs Time
Time - (Minutes)
0
200
400
600
800
1000
1200
Depth below ground surface (m)
0.00
0.10
0.20
0.30
0.40
0.50
0.60
Dun Elms - TP04 - Test Run No. 1
Dun Elms - TP04 - Test Run No. 2
Dun Elms - TP04 - Test Run No. 3
25% Full (mbgl)
75% Full (mbgl)
50% Full (mbgl)

13.3.3 Infiltration Data and Results – TP04

Site Location	Dun Elms		
Area	Dun Elms		
Trial Pit ID	TP04		
Test Run	1	2	3

Dun Elms - TP04 - Test Run No. 1

insert time according to the measured units

Dip Readng	Water Level Above Base	Depth (mbgl)	Time (hours)	Time (minutes)	Time (s)	Time	25% Full (mbgl)	50% Full (mbgl)	75% Full (mbgl)
	0.5	0.00	0.00	0	0 0:00	13:00:00	0.375	0.25	0.125
	0.3	0.20	1.08	65	3900.00 1:05	14:05:00	0.375	0.25	0.125
	0.2	0.30	1.55	93	5580.00 1:33	14:33:00	0.375	0.25	0.125
	0.2	0.34	2.50	150	9000.00 2:30	15:30:00	0.375	0.25	0.125
	0.0	0.49	11.00	660	39600.00 11:00	00:00:00	0.375	0.25	0.125
							0.375	0.25	0.125
							0.375	0.25	0.125
							0.375	0.25	0.125
							0.375	0.25	0.125

Reached 25% within 24 hours. Second run undertaken.

Dun Elms - TP04 - Test Run No. 2

insert time according to the measured units

Dip Readng	Water Level Above Base	Depth (mbgl)	Time (hours)	Time (minutes)	Time (s)	Time	25% Full (mbgl)	50% Full (mbgl)	75% Full (mbgl)
	0.5	0.00	0.00	0	0 0:00	16:00:00	0.375	0.25	0.125
	0.43	0.07	0.17	10	600.00 0:10	16:10:00	0.375	0.25	0.125
	0.4	0.10	0.37	22	1320.00 0:22	16:22:00	0.375	0.25	0.125
	0.01	0.49	21.50	1290	77400.00 21:30	13:30:00	0.375	0.25	0.125
							0.375	0.25	0.125
							0.375	0.25	0.125
							0.375	0.25	0.125
							0.375	0.25	0.125
							0.375	0.25	0.125

Reached 25% within 24 hours. Second run undertaken.

Dun Elms - TP04 - Test Run No. 3

insert time according to the measured units

Dip Readng	Water Level Above Base	Depth (mbgl)	Time (hours)	Time (minutes)	Time (s)	Time	25% Full (mbgl)	50% Full (mbgl)	75% Full (mbgl)
	0.5	0.00	0.00	0	0 0:00	09:15:00	0.375	0.25	0.125
	0.45	0.05	0.25	15	900.00 0:15	09:30:00	0.375	0.25	0.125
	0.42	0.08	0.50	30	1800.00 0:30	09:45:00	0.375	0.25	0.125
	0.39	0.11	0.75	45	2700.00 0:45	10:00:00	0.375	0.25	0.125
	0.27	0.23	1.25	75	4500.00 1:15	10:30:00	0.375	0.25	0.125
	0.24	0.26	1.75	105	6300.00 1:45	11:00:00	0.375	0.25	0.125
	0.21	0.29	2.25	135	8100.00 2:15	11:30:00	0.375	0.25	0.125
	0.17	0.33	3	180.00	10800.00 3:00	12:15:00	0.375	0.25	0.125
	0	0.50	22.75	1365.00	81900.00 22:45	08:00:00	0.375	0.25	0.125

$f = V_{p75 - 25} * 0.3 / a_{s50} * t_{p75-25}$

Infiltration Coef. Calculations

Width	0.50	m
Depth	0.50	m
Length	0.50	m
Total Volume	0.13	m3
Effective Storage Depth	0.50	m
25% Full	0.38	mbgl
50% Full	0.25	mbgl
75% Full	0.13	mbgl
Pipe Depth		
a_{s50}	0.75	m^2
V_{p75-25}	0.06	m^3
$t_{p75-25\ (read\ from\ graph)}$	512.00	mins
f	**2.71267E-06**	m/s
f	9.76563	mm/hr
f	0.00977	m/hr

Infiltration Rate (mm/hr)

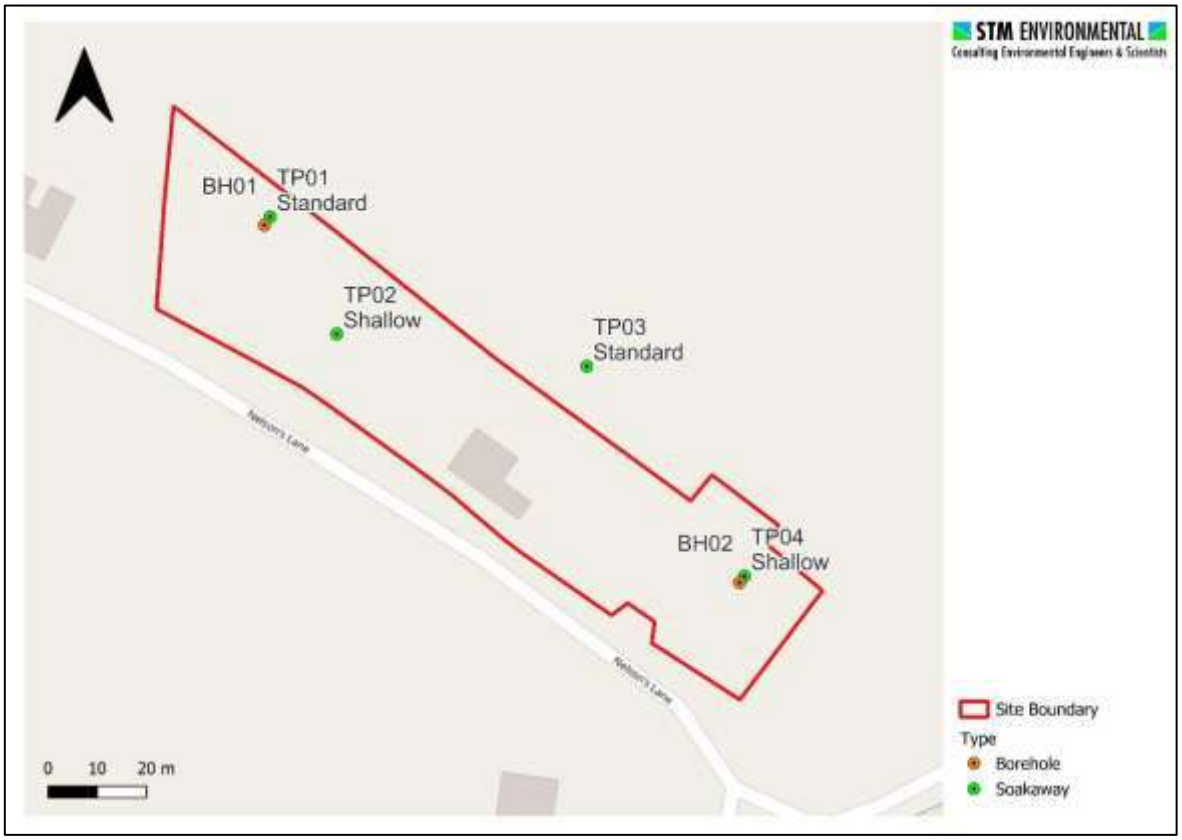
IR < 0.036	IMPERMEABLE
0.036 < IR < 0.38	VERY SLOW
0.38 < IR < 3.7	MODERATELY SLOW
3.7 < IR < 37	MODERATE
37 < IR < 370	MODERATELY RAPID
IR > 370	RAPID

BASIC INFILTRATION RATES FOR VARIOUS SOIL

Soil type	Basic infiltration rate (mm/hour)
sand	less than 30
sandy loam	20 - 30
loam	10 - 20
clay loam	5 - 10
clay	1 - 5

Water level = Pipe Depth - Dip

13.3.4 Soakaway Test Location Map



13.3.5 Groundwater Monitoring

Groundwater Monitoring Data		
Site: Dun Elms, Nelsons Lane,		
Date: n 13/10/2025		
Operative: AA		
	BH01	**BH03**
Water Depth:	3.5	4.8
Well Depth:	4.2	5.2
Time of Measurement:	10:00	10:15
Water Level after Bailing:	3.9	5.1
Time of Measurement:	10:10	10:20
Final Water Depth:	3.5	4.5
Time of Measurement:	4.2	5.2

13.4 Appendix 3 – Flood Risk Mapping

13.4.1 Flood Map for Planning (EA)

See next page.

Flood map for planning

Your reference	Location (easting/northing)	Created
Unspecified	**480783/172703**	**23 October 2025 10:34**

Your selected location is in flood zone 3, an area with a high probability of flooding.

This means:

- you must complete a flood risk assessment for development in this area
- you should follow the Environment Agency's standing advice for carrying out a flood risk assessment (see https://www.gov.uk/guidance/flood-risk-assessment-standing-advice)

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

Environment Agency

Flood map for planning

Your reference
Unspecified

Location (easting/northing)
480783/172703

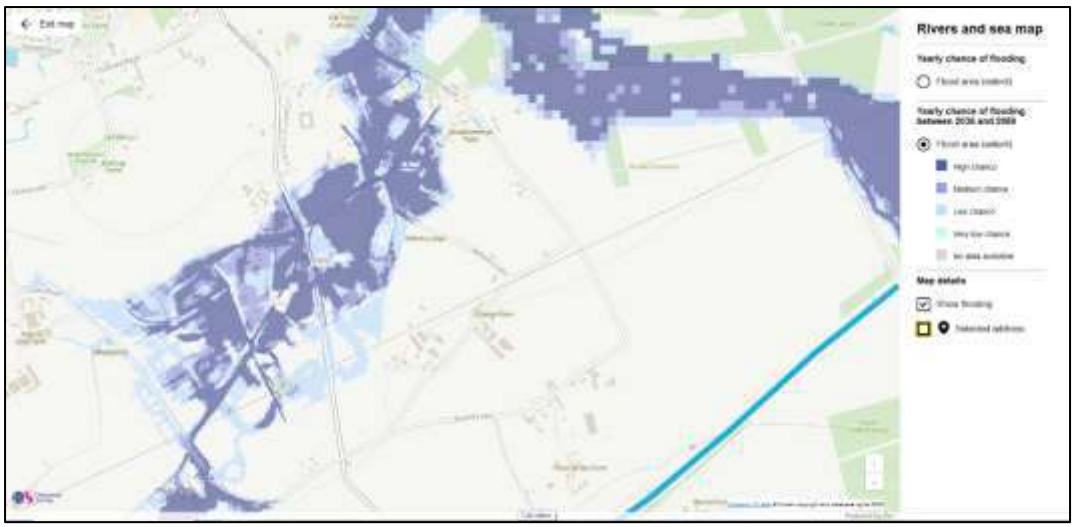
Scale
1:2,500

Created
23 Oct 2025 10:34

- Selected area
- Flood zone 3
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Water storage area

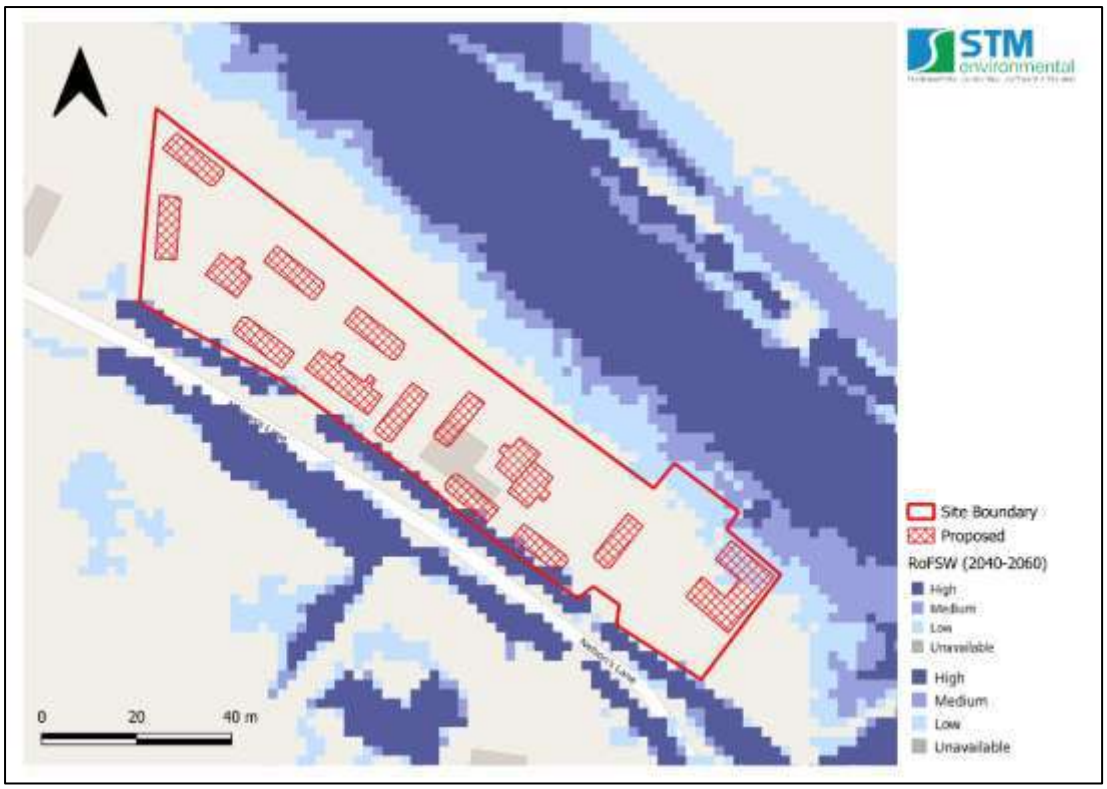
0 20 40 60 m

13.4.2 Long Term Fluvial Flood Risk Map (EA)

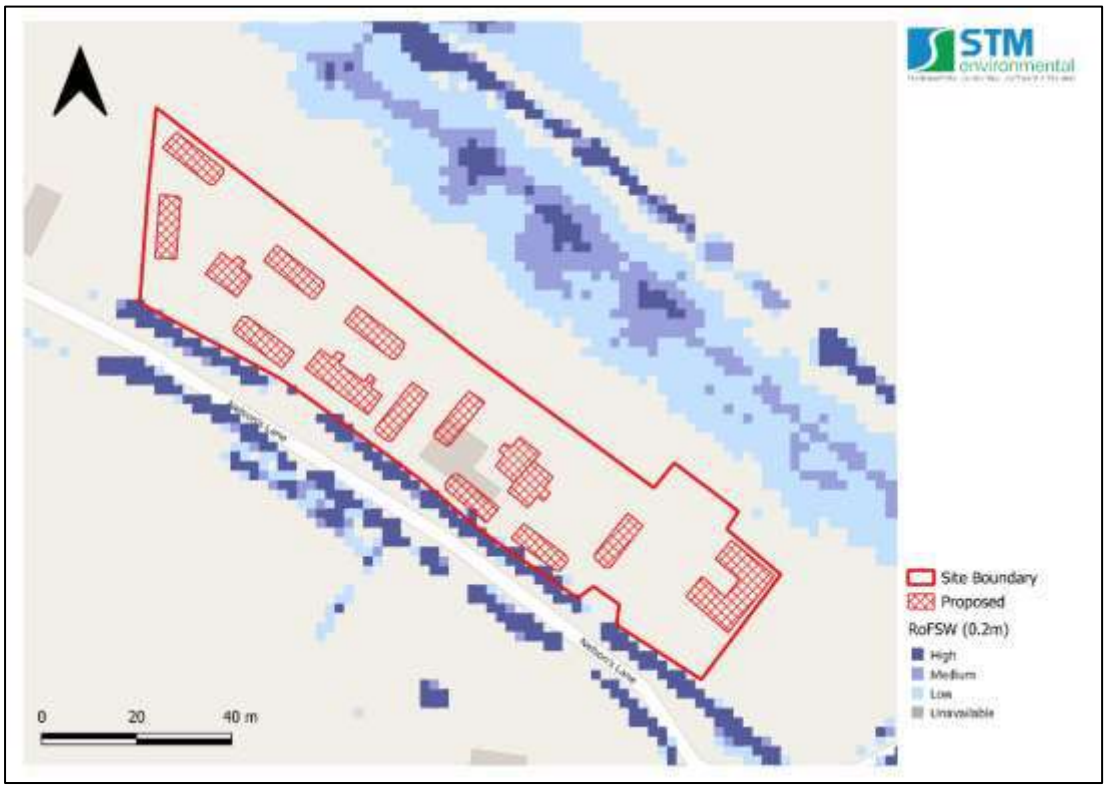


13.4.3 Long Term Pluvial Flood Risk Map (EA)

13.4.4 Risk of Flooding from Surface Water (2040-2060) (EA, 2025)



13.4.5 Risk of Flooding from Surface Water (2040-2060), 0.2m (EA, 2025)



13.4.6 Groundwater flooding susceptibility (Source: BGS, 2016).

N/A.

13.5 Appendix 4 – Runoff Rate and Storage Calculations

13.5.1 UK SuDS

See next page.

Surface water storage volume design tool

www.uksuds.com | Surface water storage volume design tool (https://www.uksuds.com/)

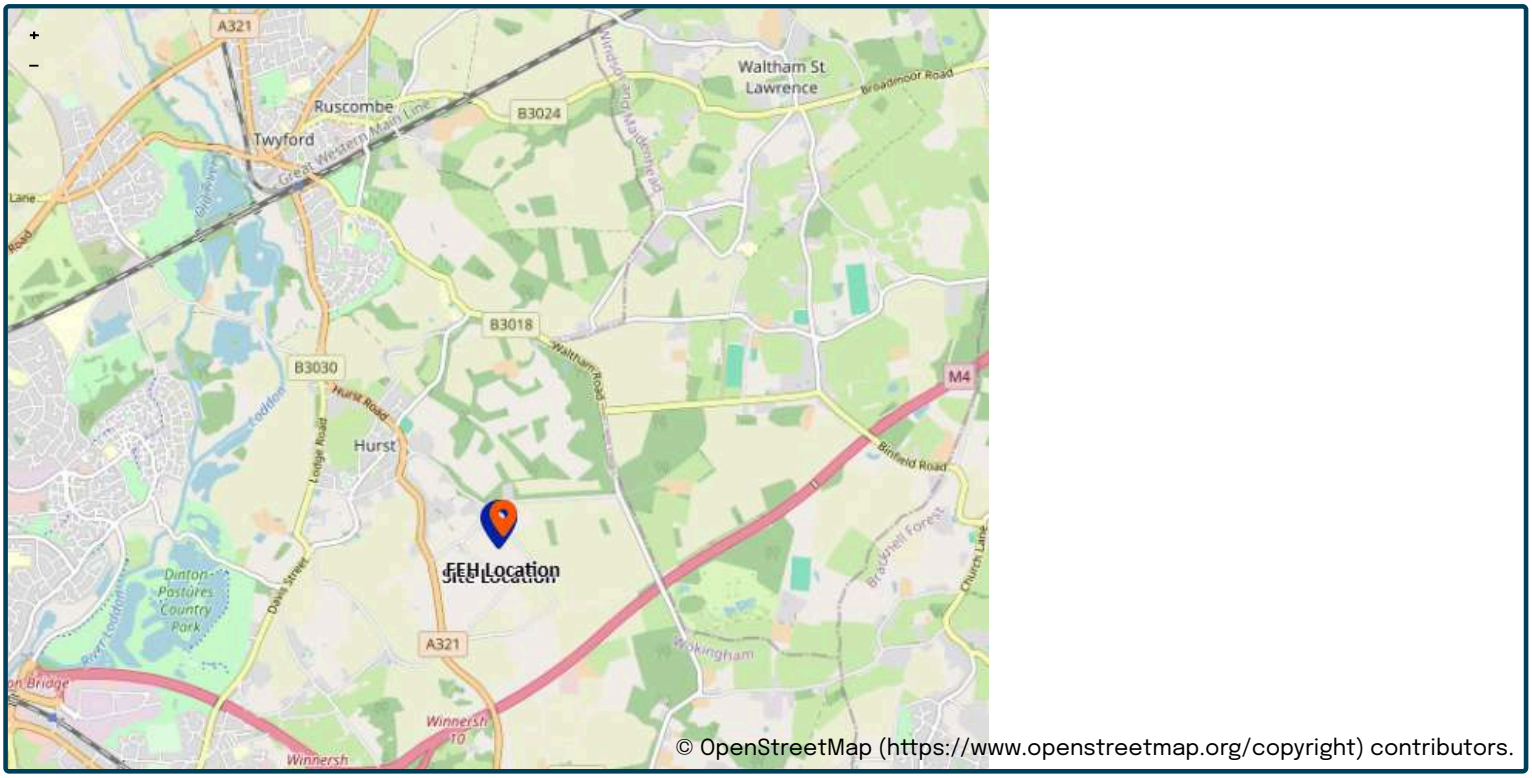
This is an estimation of the storage volume requirements that are needed to meet normal best practice criteria in line with Environment Agency guidance “Rainfall runoff management for developments”, SC030219 (2013), the SuDS Manual C753 (CIRIA, 2015) and the non-statutory standards for SuDS (Defra, 2015). It is recommended that the total storage volume for the site is distributed across the site using multiple SuDS and that hydraulic modelling software is used to undertake and finalise the detailed design of the drainage system.

Project details

Date	02/10/2025
Calculated by	Yonas Makoni
Reference	SWDS - 2025 - 000034
Model version	2.1.2

Location

Site name	Dun Elms
Site location	Wokingham



Site easting (British National Grid)	480730
Site northing (British National Grid)	172694

Site areas

⚠ There are problems with this field.

Total site area (ha)	0.461	ha

Roof area

Total roof area (ha)	0.0915	ha
Contributing roof area (ha)	0.0915	ha
Non-contributing roof area (ha)	0	ha

Paved area

Total paved area (ha)	0.3695	ha
Contributing paved area (ha)	0.3695	ha
Non-contributing paved area (ha)	0	ha

Grass / vegetated area

Total grass / vegetated area (ha)	0	ha
Contributing grass / vegetated area (ha)	0	ha
Non-contributing grass / vegetated area (ha)	0	ha

Total area

Total contributing area (ha)	0.461	ha

Contributing areas with urban creep allowance

Urban creep allowance factor	+0% (no creep)

Storage design parameters

Storage base shape	Rectangular / square	
Storage base length to width ratio	2:1	
Storage design depth (m)	0.4	m
Storage side slope (1 in x)	1 in 1	
Storage voids ratio (%)	90% (e.g. geocellular crate systems)	
Storage volume design return period (years)	1:100 years	

Discharge flow rate from the site

Method

Type of site	Previously developed
Specify the method	FEH statistical + relaxation

FEH statistical

	My value		Map/default value
SAAR (mm)	652 mm		652
BFIHOST	0.171		
QMed (l/s)	2.19 l/s		
QMed-QBar conversion	1.136		1.136
Total area for greenfield runoff calculation (ha)	0.461 ha		0.461
QBar (l/s)	2.49 l/s		
Hydrological region	6		6
Return period (years)	Qbar (1:2.3 years)		
Growth curve factor	1		
Flow rate (FEH statistical) (l/s)	2.49 l/s		
Relaxation factor	1x		

Final discharge rate

Runoff calculation method	FEH statistical + relaxation
Design flow rate (l/s)	2.49 l/s

Blockage risk

Specify the method	Flow rate
Minimum discharge flow rate to prevent blockage	1l/s

	My value		Calculated value
Design orifice diameter (mm)	44 mm		44
Flow rate of orifice (l/s)	2.49 l/s		

Rainfall and runoff

Rainfall input type	FEH22 CSV file
	FEH_Point_Rainfall_FEH22_AM_480758_172693.csv
Distance from FEH location to site (km)	0 km
Climate change allowance factor	140%

Model results

- **Maximum discharge flow rate:** 2.5 (l/s)
- **Outflow orifice diameter:** 44 (mm)
- **Storage base length:** 48 (m)
- **Storage base width:** 24 (m)
- **Storage base area:** 1160 (m^2)
- **Storage total volume:** 474 (m^3)
- **Storage total water volume:** 427 (m^3)
- **Storm return periods run:** 1, 2, 10, 30, 100, 200 (years)
- **Storm durations run:** 15, 30, 60, 120, 180, 240, 360, 540, 720, 900, 1080, 1440, 1800, 2160, 2880, 3600, 4320, 5040, 5760 (minutes)

Return Period (years)	Critical Duration (minutes)	Peak Flow Rate (l/s)	Max Depth (m)	Max water volume (m^3)	Max storage volume (m^3)
1	1440	1.3	0.12	129	143
2	1080	1.4	0.15	156	173
10	900	1.9	0.25	267	297
30	720	2.2	0.32	339	377
100	720	2.5	0.40	427	474
200	720	2.7	0.45	489	543

Please note runoff estimation and storage volume estimation are subject to uncertainty. Storage volume results are therefore reported to the nearest 1 m^3 value, unless storage volumes are less than 10 m^3, in which case, storage volumes are provided to 1 decimal place.

Disclaimer

Greenfield runoff rate estimation tool

www.uksuds.com | Greenfield runoff rate estimation tool (https://www.uksuds.com/)

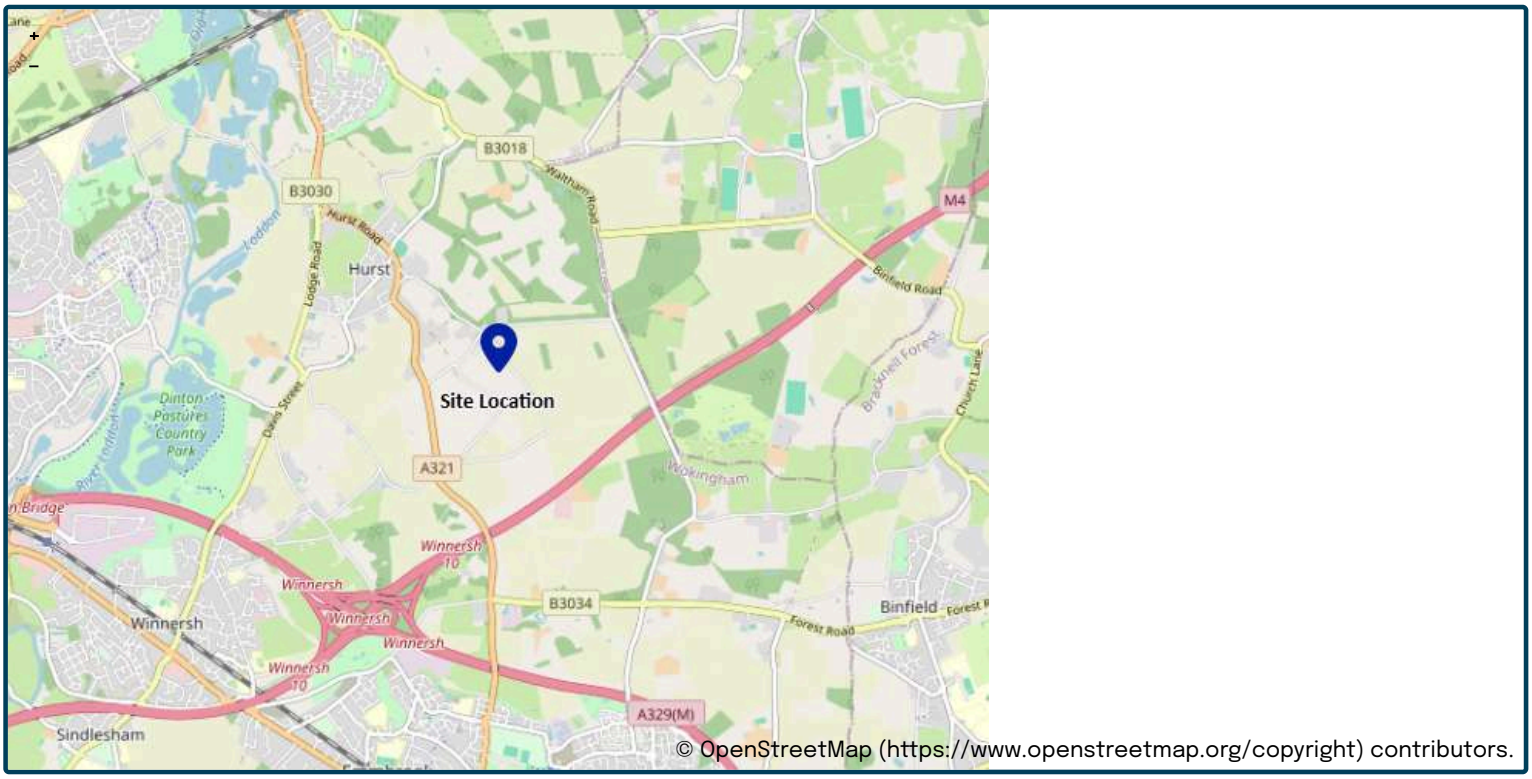
This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance “Rainfall runoff management for developments”, SC030219 (2013), the SuDS Manual C753 (CIRIA, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Project details

Date	25/09/2025
Calculated by	Yonas Makoni
Reference	SWDS - 2025 - 000034
Model version	2.1.2

Location

Site name	Dun Elms
Site location	Wokingham



Site easting (British National Grid)	480759
Site northing (British National Grid)	172696

Site details

Total site area (ha)	0.4610 ha

Greenfield runoff

Method

Method	FEH statistical

FEH statistical

	My value		Map value
SAAR (mm)	652 mm		652
BFIHOST	0.171		
QMed-QBar conversion	1.136		1.136
QMed (l/s)	2.19 l/s		
QBar (FEH statistical) (l/s)	2.49 l/s		

Growth curve factors

	My value		Map value
Hydrological region	6		6
1 year growth factor	0.85		
2 year growth factor	0.88		
10 year growth factor	1.62		
30 year growth factor	2.3		
100 year growth factor	3.19		
200 year growth factor	3.74		

Results

Method	FEH statistical
Flow rate 1 year (l/s)	2.1 l/s
Flow rate 2 year (l/s)	2.2 l/s
Flow rate 10 years (l/s)	4.0 l/s
Flow rate 30 years (l/s)	5.7 l/s
Flow rate 100 years (l/s)	7.9 l/s
Flow rate 200 years (l/s)	9.3 l/s

Please note runoff estimation is subject to significant uncertainty. Results are therefore normally reported to only 1 decimal place. Where 2 decimal places are provided, this does not indicate accuracy to this level, it has been adopted to prevent 'zero' figures from being reported. Outputs less than 0.01 l/s are reported as 0.01 l/s.

Disclaimer

13.6 Appendix 5 – Drainage Asset Search

See next page.

Asset Location Search

Property Searches

STM Environmental
STM PROPERTY HOLDINGS LTD, UNI
TWICKENHAM
TW2 6RS

Search address supplied

Dun Elms
Nelsons Lane
Hurst
Wokingham
RG10 0RR

Your reference Dun Elms

Our reference ALS/ALS Standard/2025_5215613

Search date 29 August 2025

Keeping you up-to-date

Notification of price changes

We're changing our report prices from 4th June 2025. The price will increase by 3.5% based on Retail Price Index (RPI).

Find our new prices on our website thameswater.co.uk/property-searches

Any Questions? We're happy to talk through the changes with you – give our Property Searches team a call on 0800 009 4540 .

Thames Water Utilities Ltd
Property Searches,
Clearwater Court, Vastern Road, Reading RG1 8DB

property.searches@thameswater.co.uk
thameswater.co.uk/propertysearches

0800 009 4540

Asset Location Search

Property Searches

Search address supplied: Dun Elms, Nelsons Lane, Hurst, Wokingham, RG10 0RR

Dear Sir / Madam

An Asset Location Search is recommended when undertaking a site development. It is essential to obtain information on the size and location of clean water and sewerage assets to safeguard against expensive damage and allow cost-effective service design.

The following records were searched in compiling this report: - the map of public sewers & the map of waterworks. Thames Water Utilities Ltd (TWUL) holds all of these.

This search provides maps showing the position and size of Thames Water assets close to the proposed development and also manhole cover and invert levels, where available.

Please note that none of the charges made for this report relate to the provision of Ordnance Survey mapping information. The replies contained in this letter are given following inspection of the public service records available to this company. No responsibility can be accepted for any error or omission in the replies.

You should be aware that the information contained on these plans is current only on the day that the plans are issued. The plans should only be used for the duration of the work that is being carried out at the present time. Under no circumstances should this data be copied or transmitted to parties other than those for whom the current work is being carried out.

Thames Water do update these service plans on a regular basis and failure to observe the above conditions could lead to damage arising to new or diverted services at a later date.

Contact Us

If you have any further queries regarding this enquiry please feel free to contact a member of the team on 0800 009 4540, or use the contact details below:

Thames Water Utilities Ltd
Property Searches
Clearwater Court
Vastern Road
Reading
RG1 8DB

Email: property.searches@thameswater.co.uk
Web: thameswater.co.uk/propertysearches

Asset Location Search

Thames Water Property Searches

Waste Water Services

Please provide a copy extract from the public sewer map.

Enclosed is a map showing the approximate lines of our sewers. Our plans do not show sewer connections from individual properties or any sewers not owned by Thames Water unless specifically annotated otherwise. Records such as "private" pipework are in some cases available from the Building Control Department of the relevant Local Authority. Where the Local Authority does not hold such plans it might be advisable to consult the property deeds for the site or contact neighbouring landowners. The public sewer map relates only to sewerage apparatus of Thames Water Utilities Ltd, it does not disclose details of cables and or communications equipment that may be running through or around such apparatus. The sewer level information contained in this response represents all of the level data available in our existing records. Should you require any further Information, please refer to the relevant section within the 'Further Contacts' page found later in this document.

For your guidance:

- The Company is not generally responsible for rivers, watercourses, ponds, culverts or highway drains. If any of these are shown on the copy extract they are shown for information only.
- Any private sewers or lateral drains which are indicated on the extract of the public sewer map as being subject to an agreement under Section 104 of the Water Industry Act 1991 are not an ‘as constructed’ record. It is recommended these details be checked with the developer.

Clean Water Services

Please provide a copy extract from the public water main map.

Enclosed is a map showing the approximate positions of our water mains and associated apparatus. Please note that records are not kept of the positions of individual domestic supplies. For your information, there will be a pressure of at least 10m head at the outside stop valve. If you would like to know the static pressure, please contact our Customer Centre on 0800 316 9800. The Customer Centre can also arrange for a full flow and pressure test to be carried out for a fee.

For your guidance:

- Assets other than vested water mains may be shown on the plan, for information only.
- If an extract of the public water main record is enclosed, this will show known public water mains in the vicinity of the property. It should be possible to estimate the likely length and route of any private water supply pipe connecting the property to the public water network.

Further contacts:

Waste Water queries

Should you require verification of the invert levels of public sewers, by site measurement, you will need to approach the relevant Thames Water Area Network Office for permission to lift the appropriate covers. This permission will usually involve you completing a TWOSA form. You can do this by emailing customer.feedback@thameswater.co.uk with the email subject header 'Enquiry – TWOSA', along with details of the request.

If you have any questions regarding sewer connections, budget estimates, diversions or building over issues please direct them to our service desk which can be contacted by writing to:

Developer Services (Waste Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0800 009 3921
Email: developer.services@thameswater.co.uk

Clean Water queries

Should you require any advice concerning clean water connections, please contact:

Developer Services (Clean Water)
Thames Water
Clearwater Court
Vastern Road
Reading
RG1 8DB

Tel: 0800 009 3921
Email: developer.services@thameswater.co.uk

Asset Location Search Sewer Map - ALS/ALS Standard/2025_5215613

The width of the displayed area is 500 m and the centre of the map is located at OS coordinates 480803,172654

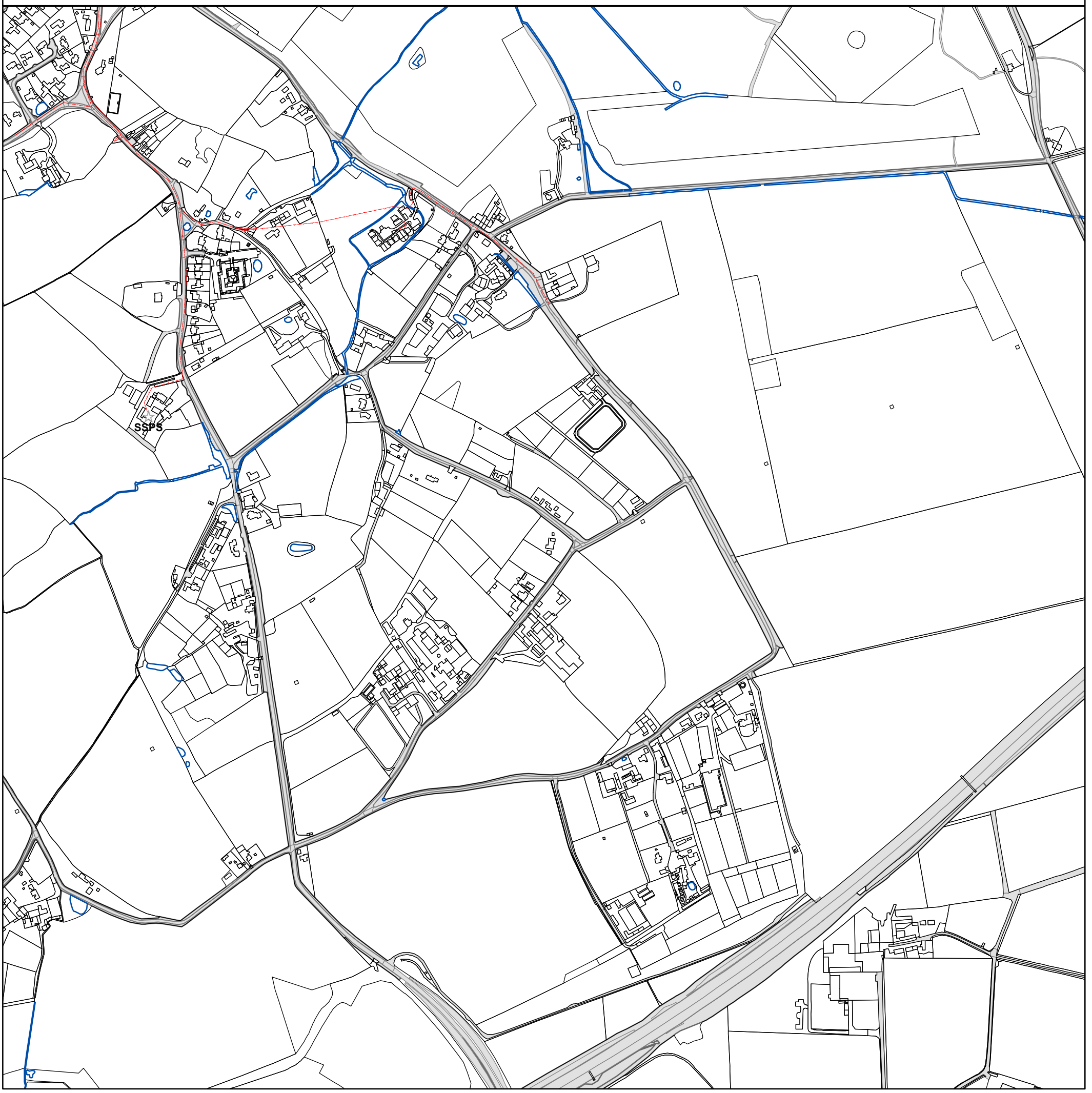
The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

NB. Levels quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates that no survey information is available

Manhole Reference	Manhole Cover Level	Manhole Invert Level
n/a	n/a	n/a

The position of the apparatus shown on this plan is given without obligation and warranty, and the accuracy cannot be guaranteed. Service pipes are not shown but their presence should be anticipated. No liability of any kind whatsoever is accepted by Thames Water for any error or omission. The actual position of mains and services must be verified and established on site before any works are undertaken.

ALS/ALS Standard/2025_5215613



Scale:	1:7161
Width:	2000m
Printed By:	SEswara1
Print Date:	29/08/2025
Map Centre:	480755,172605
Grid Reference:	SU8072NE

Comments:

ALS/ALS Standard/2025_5215613

NB: Level quoted in metres Ordnance Newlyn Datum. The value -9999.00 indicates no Survey information is available.

REFERENCE	COVER LEVEL	INVERT LEVEL
9502	39.08	36.99
9403	38.89	36.17
9303	38.76	34.4
8301	39.1	37.27
5202	37.04	34.18
0202	38.7	35.09
0901	38.45	37.3
0001	39.69	36.88
0902	39.31	37.16
1201	37.74	35.94
5204	37.17	35.08
6101	37.79	35.59
0204		
6102	38.01	35.81
9402	39.3	36.38
9401	39.35	36.63
931A		
211C		
221A		
091A		

REFERENCE	COVER LEVEL	INVERT LEVEL
9501	39.12	36.65
7301	39.26	37.73
8401	39.09	36.79
0301	38.73	34.6
7101	38.31	36.43
0201	38.86	35.15
0102	39.05	36.04
0101	39.39	36.46
1202		
5203	37.12	34.25
6201	37.49	35.39
1101	37.63	36.23
0203		
6103	38.34	36.09
7001		
9302	37.66	33.29
521A		
211B		
211A		

Asset Location Search - Sewer Key

Public Sewer Types (Operated and maintained by Thames Water)

Foul Sewer: A sewer designed to convey waste water from domestic and industrial sources to a treatment works.

Surface Water Sewer: A sewer designed to convey surface water (e.g. rain water from roofs, yards and car parks) to rivers or watercourses.

Combined Sewer: A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.

- Storm Sewer
- Sludge Sewer
- Foul Trunk Sewer
- Surface Trunk Sewer
- Combined Trunk Sewer
- Foul Rising Main
- Surface Water Rising Main
- Combined Rising Main
- Vacuum
- Thames Water Proposed
- Vent Pipe
- Gallery

Other Sewer Types (Not operated and maintained by Thames Water)

- Sewer
- Culverted Watercourse
- Proposed
- Decommissioned Sewer
- Content of this drainage network is currently unknown
- Ownership of this drainage network is currently unknown

Sewer Fittings

A feature in a sewer that does not affect the flow in the pipe. Example: a vent is a fitting as the function of a vent is to release excess gas.

- Air Valve
- Meter
- Dam Chase
- Vent
- Fitting

Operational Controls

A feature in a sewer that changes or diverts the flow in the sewer. Example: A hydrobrake limits the flow passing downstream.

- Ancillary
- Drop Pipe
- Control Valve
- Weir

End Items

End symbols appear at the start or end of a sewer pipe. Examples: an Undefined End at the start of a sewer indicates that Thames Water has no knowledge of the position of the sewer upstream of that symbol. Outfall on a surface water sewer indicates that the pipe discharges into a stream or river.

- Inlet
- Outfall
- Undefined End

Other Symbols

Symbols used on maps which do not fall under other general categories.

- Change of Characteristic Indicator
- Public / Private Pumping Station
- Invert Level
- Summit

Areas

Lines denoting areas of underground surveys, etc.

- Agreement
- Chamber
- Operational Site

Ducts or Crossings

- Casement — Ducts may contain high voltage cables. Please check with Thames Water.
- Conduit Bridge
- Subway
- Tunnel

Notes:

1) All levels associated with the plans are to Ordnance Datum Newlyn.
2) All measurements on the plan are metric.
3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate the direction of flow.
4) Most private pipes are not shown on our plans, as in the past, this information has not been recorded.
5) 'na' or '0' on a manhole indicates that data is unavailable.
6) The text appearing alongside a sewer line indicates the internal diameter of the pipe in millimeters. Text next to a manhole indicates the manhole reference number and should not be taken as a measurement.

If you are unsure about any text or symbology, please contact Property Searches on 0800 009 4540.

Asset Location Search Water Map - ALS/ALS Standard/2025_5215613

The width of the displayed area is 500 m and the centre of the map is located at OS coordinates 480803, 172654.

Asset Location Search - Water Key

Water Pipes (Operated & Maintained by Thames Water)

4"

Distribution Main: The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.

16"

Trunk Main: A main carrying water from a source of supply to a treatment plant or reservoir, or from one treatment plant or reservoir to another. Also a main transferring water in bulk to smaller water mains used for supplying individual customers.

3" SUPPLY

Supply Main: A supply main indicates that the water main is used as a supply for a single property or group of properties.

3" FIRE

Fire Main: Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.

3" METERED

Metered Pipe: A metered main indicates that the pipe in question supplies water for a single property or group of properties and that quantity of water passing through the pipe is metered even though there may be no meter symbol shown.

Transmission Tunnel: A very large diameter water pipe. Most tunnels are buried very deep underground. These pipes are not expected to affect the structural integrity of buildings shown on the map provided.

Proposed Main: A main that is still in the planning stages or in the process of being laid. More details of the proposed main and its reference number are generally included near the main.

Valves

- General Purpose Valve
- Air Valve
- Pressure Control Valve
- Customer Valve

Hydrants

- Single Hydrant

Meters

- Meter

End Items

Symbol indicating what happens at the end of a water main.

- Blank Flange
- Capped End
- Emptying Pit
- Undefined End
- Manifold
- Customer Supply
- Fire Supply

Operational Sites

- Booster Station
- Other
- Other (Proposed)
- Pumping Station
- Service Reservoir
- Shaft Inspection
- Treatment Works
- Unknown
- Water Tower

Other Symbols

- Data Logger
- **Casement:** Ducts may contain high voltage cables. Please check with Thames Water.

PIPE DIAMETER	DEPTH BELOW GROUND
Up to 300mm (12")	900mm (3')
300mm - 600mm (12" - 24")	1100mm (3' 8")
600mm and bigger (24" plus)	1200mm (4')

Other Water Pipes (Not Operated or Maintained by Thames Water)

Other Water Company Main: Occasionally other water company water pipes may overlap the border of our clean water coverage area. These mains are denoted in purple and in most cases have the owner of the pipe displayed along them.

Private Main: Indiates that the water main in question is not owned by Thames Water. These mains normally have text associated with them indicating the diameter and owner of the pipe.