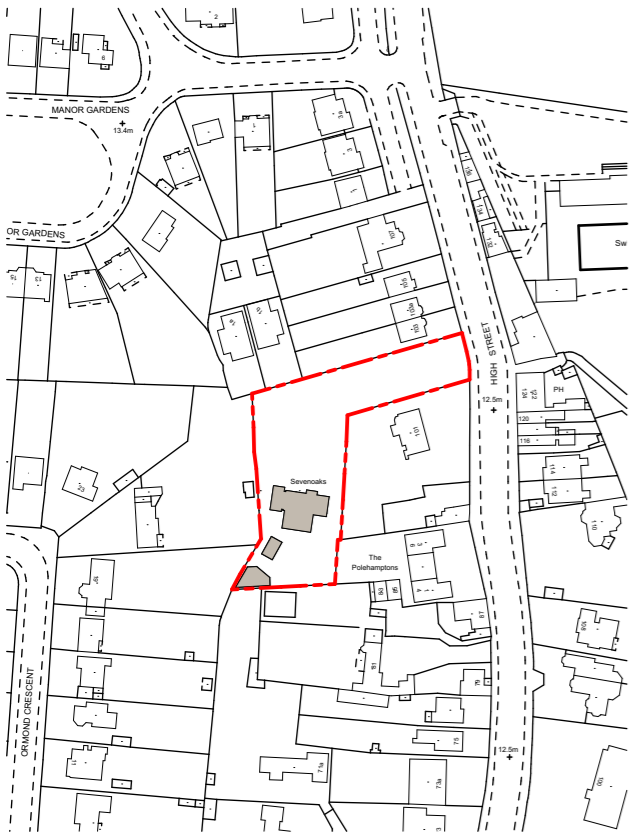


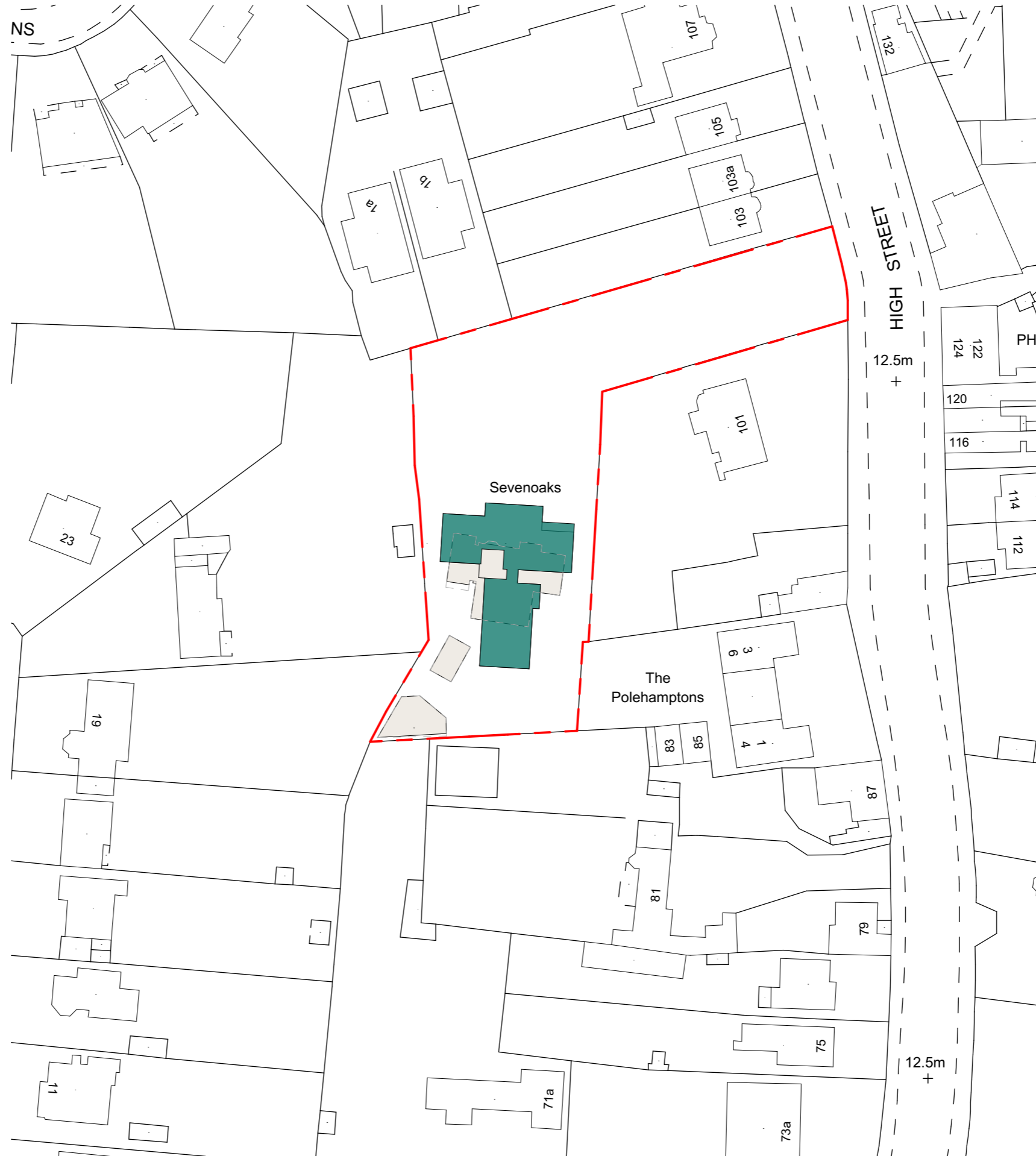
PLANS



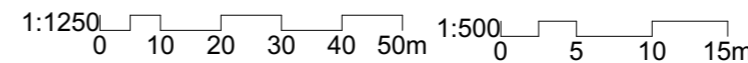
Existing Location Plan
1:2500



Aerial View
NOT TO SCALE



Proposed Location Plan
1:750



NOTES

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KEY LEGEND

INDICATIVE BOUNDARY LINE

EXISTING TO BE DEMOLISHED

PROPOSED

PLANNING

Stage: **PLANNING**
Drawing: Location Plan

Revision	Date	Details
PL-2	09/09/2024	Issued to Consultants

Project
Ross - Sevenoaks

Project Number
1553

Project Leader
Laira Piccinato

Scale
1:2500, 1:750 @ A3

Date
09 September 2024

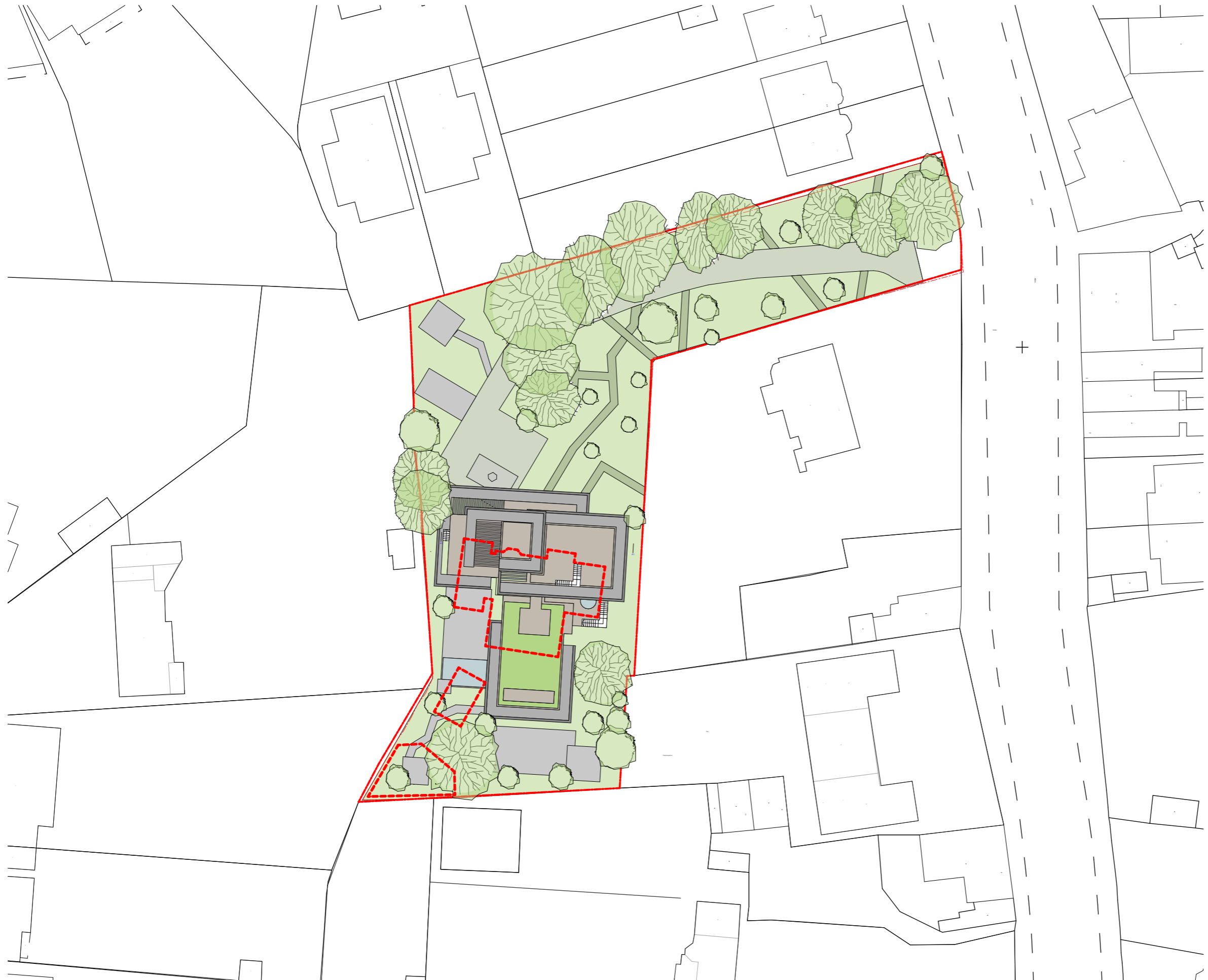
Drawing Number
010-100

Revision
PL-2

The Old Grammar School
Church Road
Thame
OX9 3AJ

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KEY LEGEND

INDICATIVE BOUNDARY LINE

PROPOSED

INDICATIVE TREE

PLANNING

Stage: **PLANNING**
 Drawing: Proposed Site Plan

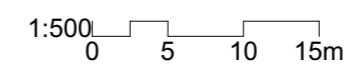
Revision	Date	Details
PL-2	09/09/2024	Issued to Consultants

Ross - Sevenoaks

Project Number: **1553**
 Project Leader: **Laura Piccinato**
 Scale: **1:500 @ A3**
 Drawing Number: **022-101**

Date: **09 September 2024**
 Revision: **PL-2**

SITE PLAN
 1:500



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 Church Road
 Thame
 OX9 3AJ

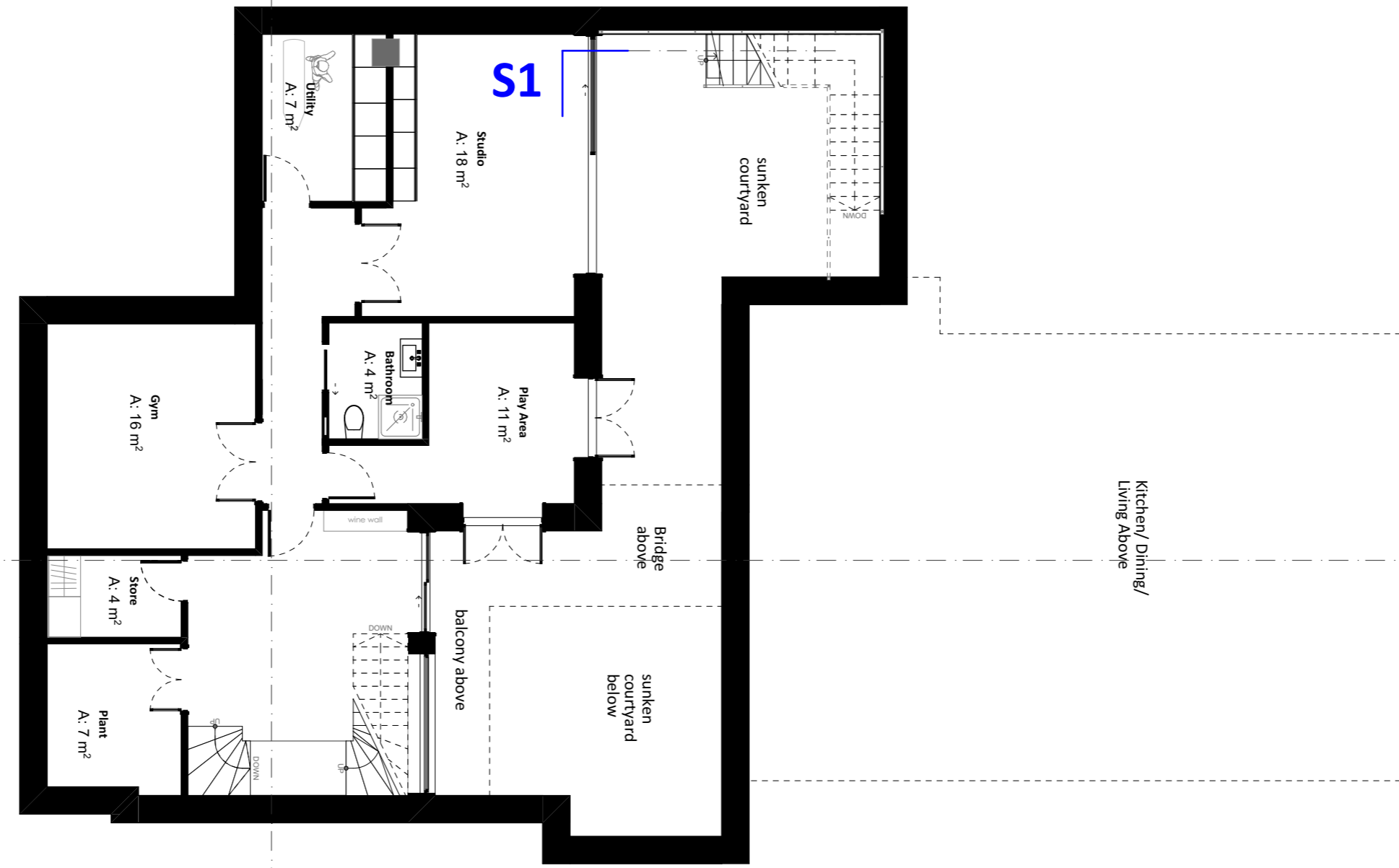
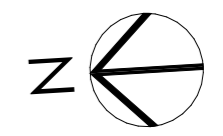
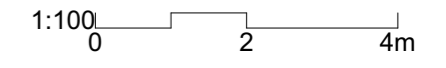
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PLANNING

Stage: **Proposed Basement**
 Drawing: **Proposed Basement**

Revision	Date	Details
PL-1	19/08/2024	Issued to Consultants
PL-2	29/08/2024	Issued to Consultants
PL-3	04/09/2024	Issued to Consultants
PL-4	09/09/2024	Issued to Consultants

Project
Ross - Sevenoaks

Project Number: **1553**
 Project Leader: **Laura Piccinato**
 Scale: **1:100 @ A3**
 Drawing Number: **051-106**

Sevenoaks, 101a High Street
Hampton Middlesex London
TW12 2SX

Date: **10 September 2024**

Revision: **PL-4**

Proposed Basement
 1:100

The Old Grammar School
 Church Road
 Thame
 OX9 3AJ

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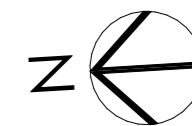
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1:100
0 2 4m



PLANNING

Stage: **Proposed Ground Floor**
Drawing:

Revision	Date	Details
PL-1	19/08/2024	Issued to Consultants
PL-2	29/08/2024	Issued to Consultants
PL-3	04/09/2024	Issued to Consultants
PL-4	05/09/2024	Issued to Consultants
PL-5	09/09/2024	Issued to Consultants

Project

Ross - Sevenoaks

Project Number
1553

Project Leader
Laura Piccinato

Scale
1:100 @ A3

Drawing Number

051-107

**Sevenoaks, 101a High Street
Hampton Middlesex London
TW12 2SX**

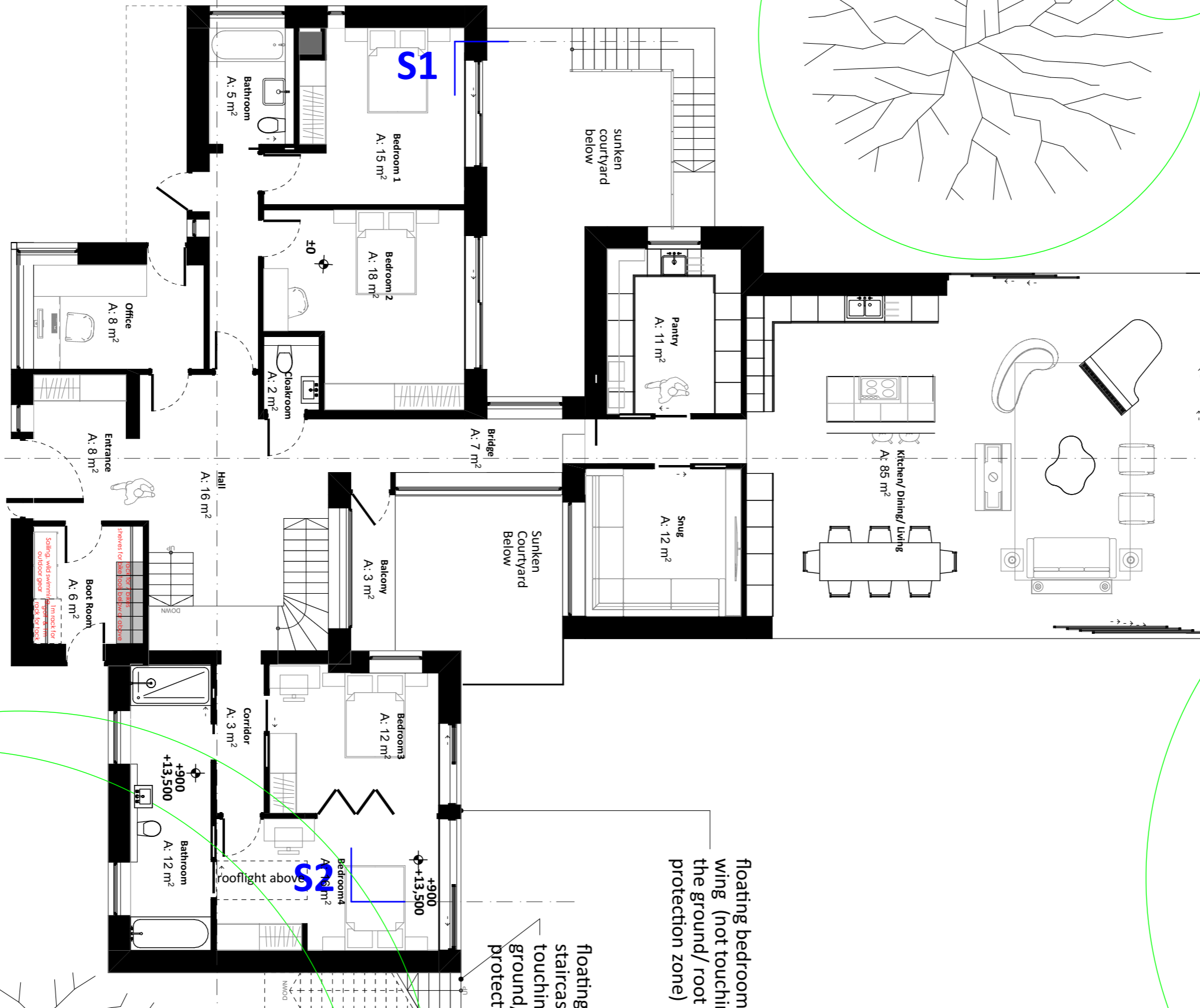
Date
10 September 2024

Revision

PL-5

The Old Grammar School
Church Road
Thame
OX9 3AJ

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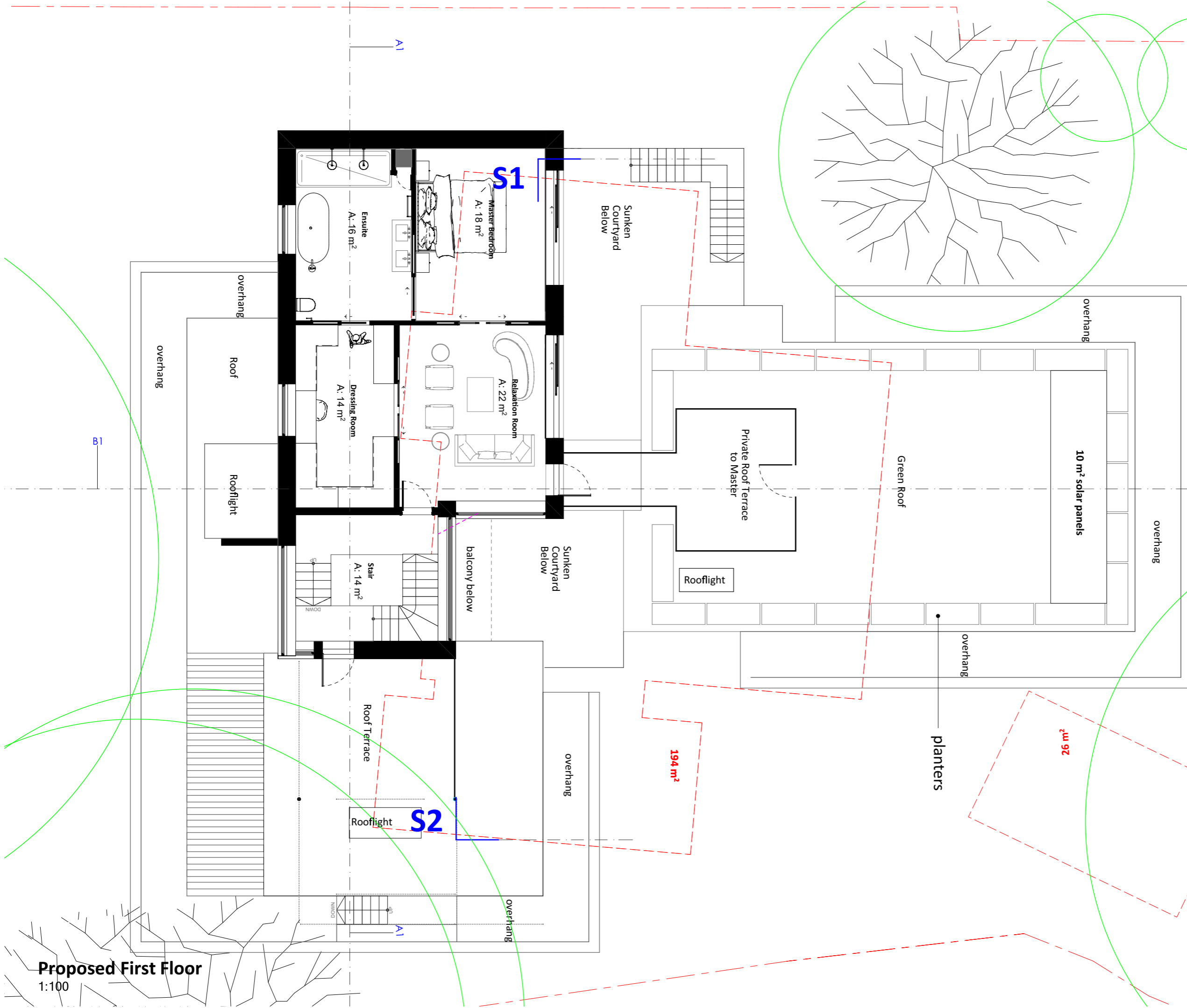


Proposed Ground Floor

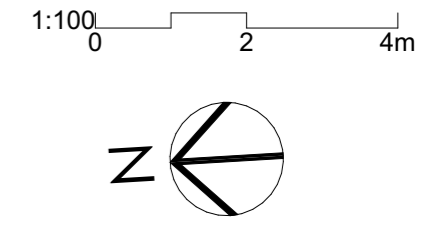
1:100

floating bedroom wing (not touching the ground/ root protection zone)

floating staircase (not touching the ground/ root protection zone)



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PLANNING

Stage: **Proposed First Floor**
 Drawing:

Revision	Date	Details
PL-1	19/08/2024	Issued to Consultants
PL-2	29/08/2024	Issued to Consultants
PL-3	04/09/2024	Issued to Consultants
PL-4	05/09/2024	Issued to Consultants
PL-5	09/09/2024	Issued to Consultants

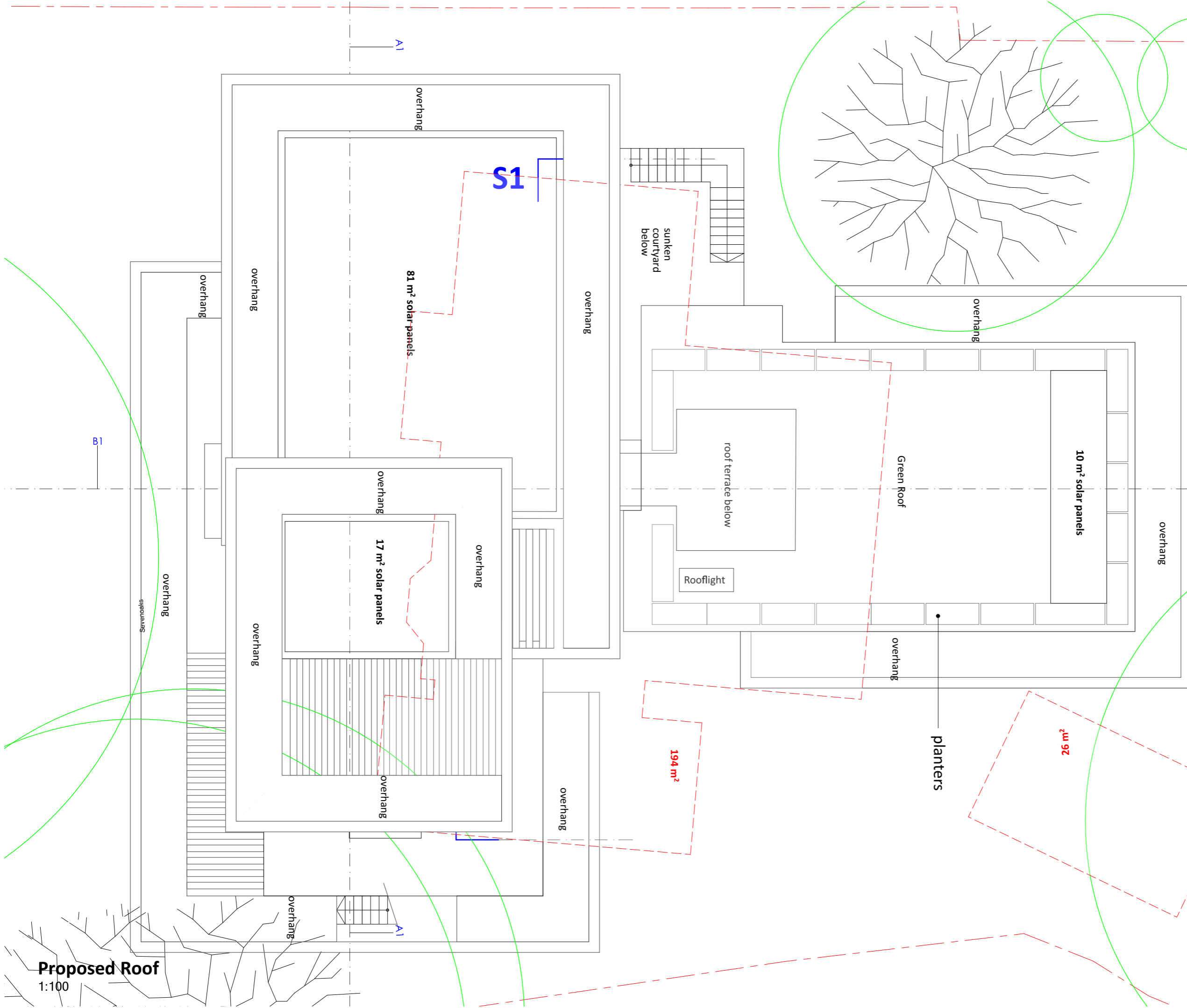
Ross - Sevenoaks

Project Number: **1553**
 Project Leader: **Laura Piccinato**
 Scale: **1:100 @ A3**
 Drawing Number: **051-109**
 Date: **10 September 2024**
 Revision: **PL-5**

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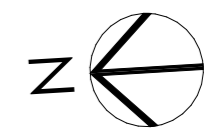
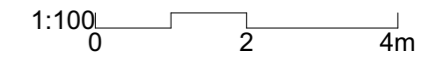
Proposed First Floor
 1:100



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PLANNING

Stage: **Proposed Roof**
 Drawing: **Proposed Roof**

Revision	Date	Details
PL-3	04/09/2024	Issued to Consultants
PL-4	09/09/2024	Issued to Consultants

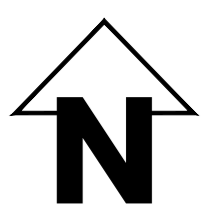
Ross - Sevenoaks

Project Number: **1553**
 Project Leader: **Laura Piccinato**
 Scale: **1:100 @ A3**
 Drawing Number: **051-110**
 Date: **10 September 2024**
 Revision: **PL-4**

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Proposed Roof
 1:100



SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION	
IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWINGS, NOTE THE FOLLOWING:	
CONSTRUCTION	
Ci	
Cii	
Ciii	
Civ	
C	
MAINTENANCE/CLEANING	
Mi	
Mii	
Miii	
Miv	
DECOMMISSIONING/DEMOLITION	
Di	
Dii	
Diii	
Div	
IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROVED METHOD STATEMENT	

ALL DIMENSIONS TO BE CHECKED BEFORE SITE OR OFF-SITE FABRICATION BY THE CONTRACTOR, THEIR SUB-CONTRACTOR OR SUPPLIER.

DO NOT SCALE PLANS - USE FIGURE OR GRID DIMENSIONS WHERE GIVEN. ANY DEVIATION FROM THE DRAWING IS TO BE REPORTED TO THE ORIGINATOR IMMEDIATELY.

DRAWING IS TO BE PRINTED IN COLOUR.

NOTES:

- BUILDING DRAINAGE TO BE AN INTERNAL SYPHONIC SYSTEM DIRECTED TO THE CENTRAL WESTERN SIDE TO A CONNECTION WITH THE ATTENUATION TANK.
- EXACT POSITION OF ATTENUATION TANK SUBJECT TO FULL DETAILED SURVEY OF UNDERGROUND SERVICES.
- TANK LOCATION ALSO SUBJECT TO FURTHER REVIEW BY SUITABLY QUALIFIED STRUCTURAL ENGINEER GIVEN PROXIMITY TO BOTH THE PROPOSED BUILDING, THE SWIMMING POOL AREA AND SITE REDLINE.
- GRAVITY CONNECTION TO SEWER SUBJECT TO DEPTH OF RECEIVING TW SEWER. A NEW CONNECTION POINT WILL BE REQUIRED TO SERVE THE SITE. THIS WILL REQUIRE FURTHER CONTACT WITH THAMES WATER AS PART OF THE DETAILED DESIGN WORKS.
- THIS DRAWING IS BASED ON DRAWING '051-106_PL-3 PROPOSED BASEMENT, 051-107_PL-4 PROPOSED GROUND FLOOR, 051-109_PL-4 PROPOSED FIRST FLOOR AND 051-110_PL-3 PROPOSED ROOF AND TOPOGRAPHIC SURVEY 'TG-21-1650-01-1.0'.
- RAIN WATER PIPE AND WATER BUTT LOCATIONS INDICATIVE PENDING CONFIRMATION OF ARCHITECTS.
- FOR PLANNING PURPOSES ONLY.

PROPOSED ROUTE OF SURFACE WATER SEWER TO CONNECTION WITH TW SURFACE WATER SEWER WITHIN HIGH STREET. SEWER POSITIONING TO BE CONFIRMED PENDING DETAILED SERVICES SURVEY. CONNECTION POINT WITH TW SURFACE WATER SEWER TO ALSO BE CONFIRMED.

POSITIVE PUMP SYSTEM, POSITIONED WITHIN SUNKEN COURTYARD AREA. LIFTING FLOWS FROM SUNKEN COURTYARD TO THE HEAD OF THE DRAINAGE RUN. CL 9.6 m AOD (BASEMENT FINISHED FLOOR LEVEL).

HYDROBRAKE OR SIMILAR RESTRICTING FLOWS TO 1.0 l/s FOR ALL EVENTS UPTO AND INCLUDING THE 1 IN 100 YEAR EVENT. CL 12.64, IL 11.126 m AOD.

GEO-CELLULAR ATTENUATION PROVIDING 43.86 m³ STORAGE CAPACITY FOR THE 1 IN 100 YEAR PLUS 40% CLIMATE CHANGE RAINFALL EVENT. CL 12.64, IL 11.226m AOD, GRATE THICKNESS 0.914m.

KEY

PROPOSED INDICATIVE GREEN ROOF	
PROPOSED STORAGE CRATES	
PROPOSED LINED PERMEABLE PAVING	
PROPOSED BASEMENT FOOTPRINT	
EXTREME EVENT EXCEEDANCE ROUTE	
PROPOSED RWP LOCATION	
PROPOSED WATERBUTT LOCATION	
PROPOSED SURFACE WATER SEWER	
SURFACE WATER RISING MAIN	
SITE REDLINE	

REV	DATE	DESCRIPTION	TT	JE
01	02/09/24	FOR INFORMATION ISSUE		

CLIENT
JAMES & CHARLIE BRADLEY ROSS

PROJECT
SEVENOAKS,
101A HIGH STREET,
HAMPTON

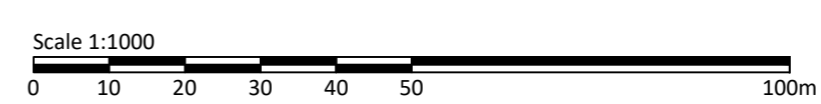
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SURFACE WATER DRAINAGE STRATEGY

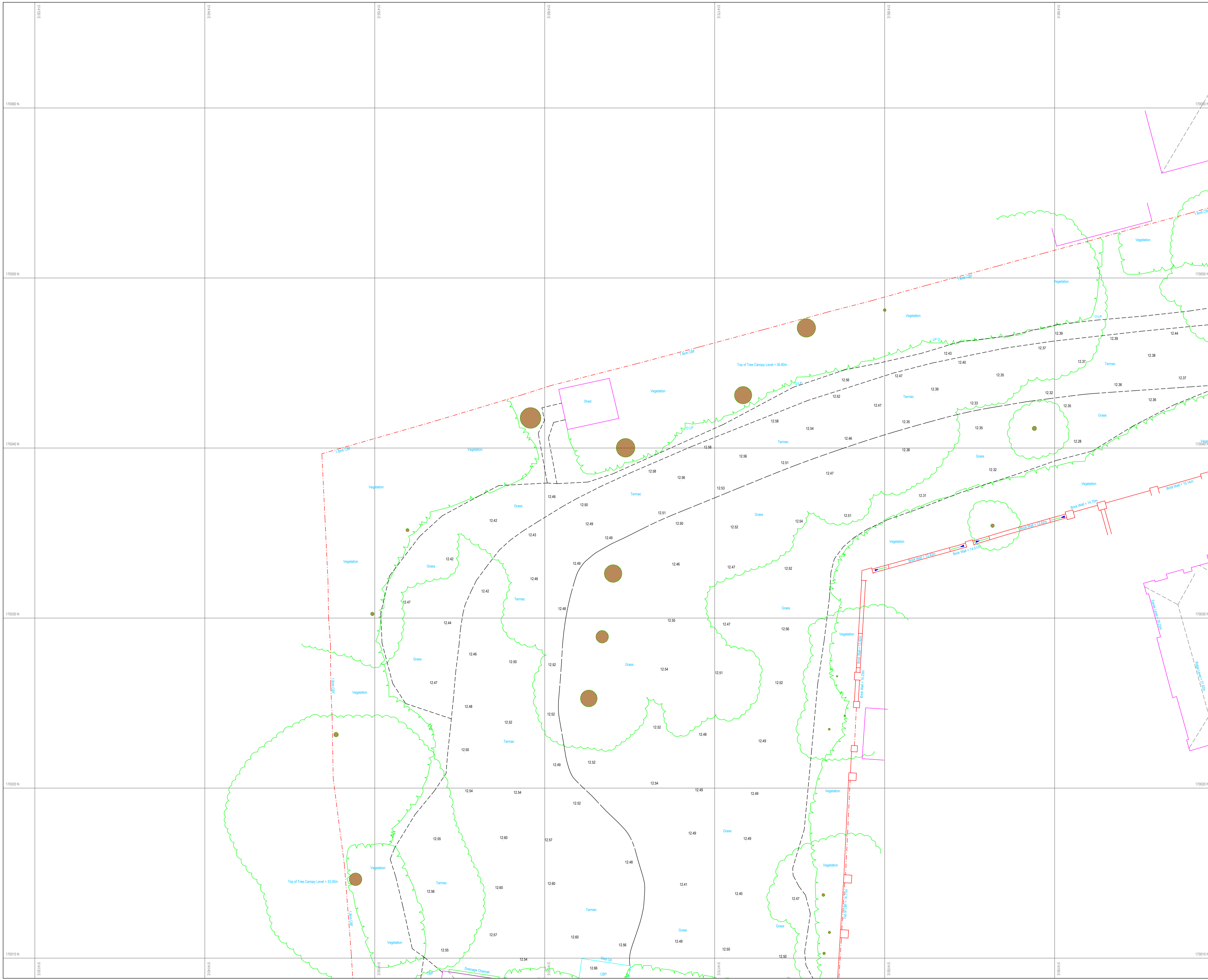
DATE	DESIGNED	DRAWN	CHECKED	SCALE(S)
06/09/24	TT	TT	JE	-@A1

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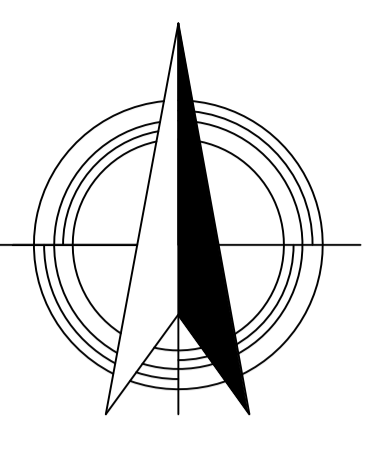
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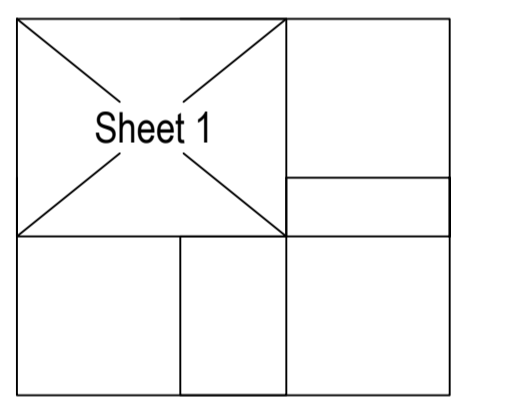




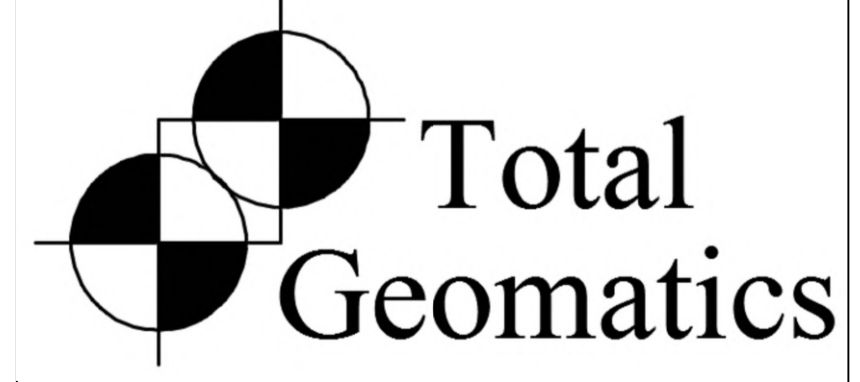
- ### Legend
- BdB Bottom of Bank
 - BT British Telecom
 - CATV Cable Television
 - CB Control Box
 - CBF Closed Board Fence
 - CBP Concrete Block Paving
 - CL Cover Level
 - CLF Chain Link Fence
 - CPS Concrete Paving Slabs
 - DC Drainage Channel
 - DP Down Pipe
 - ER Earth Rod
 - FB Flowerbed
 - FH Fire Hydrant
 - FP Flag Pole
 - G Gully
 - GV Gas Valve
 - IC Inspection Cover
 - IRF Iron Railing Fence
 - IL Invert Level
 - KW Kerb Weir
 - LP Lamp Post
 - MH Manhole
 - MKR Marker Post
 - PRF Post & Rail Fence
 - PS Pipe Size
 - PWF Post and Wire Fence
 - RE Rodding Eye
 - RN Road Name
 - RS Road Sign
 - SY Stay Wire
 - 0.34/8 Trunk(Dia)/Spread(Dia)/Height(Approx)
 - ToB Top of Bank
 - TP Telegraph Pole
 - VP Vent Pipe
 - WV Water Valve



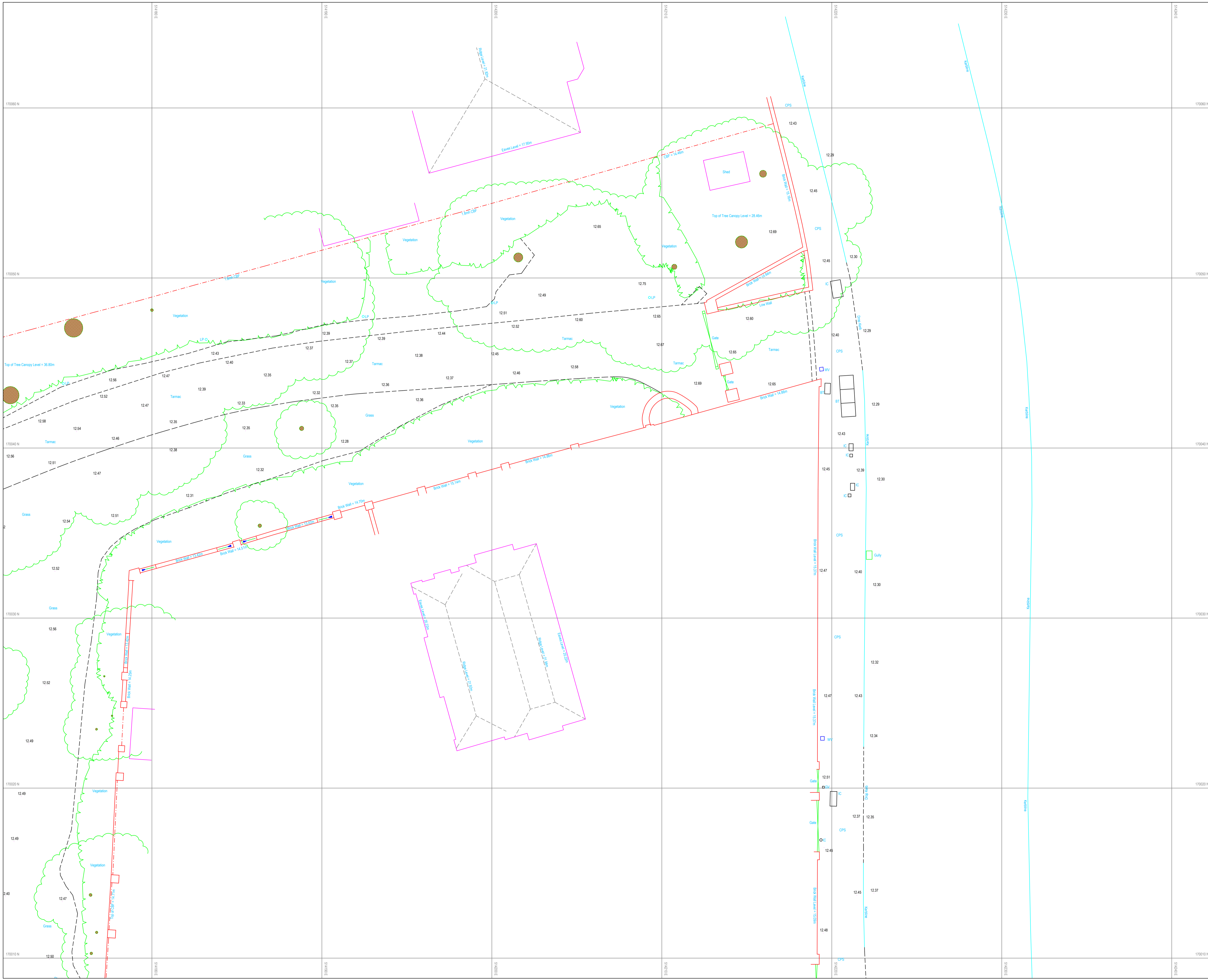
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- CL Window Cill Level
- dl Head of Door Level
- +52.00m Ceiling / Soffit Level
- +50.00m Floor Level



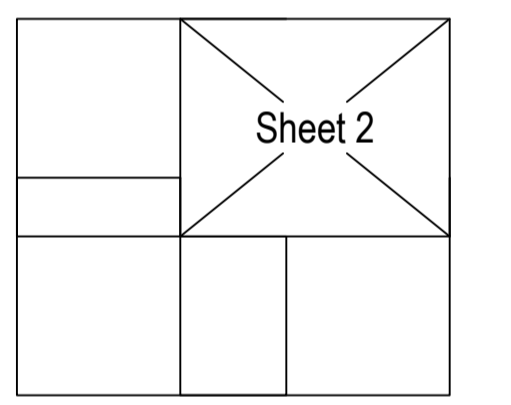
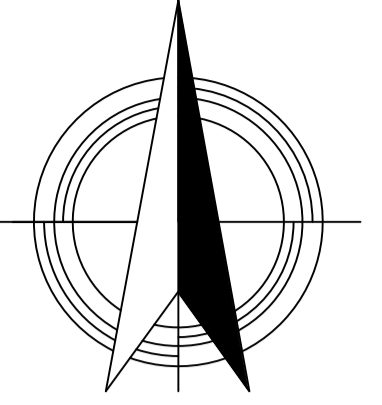
Client	
Holland Green Masters Court Church Road Thame, Oxfordshire OX9 3FA	
Project Description	
Sevenoaks High Street, Hampton	
Site Survey	
Levelling All levels and coordinates relate to Ordnance Survey grid and datum.	Scale 1:200 @ A1 Date of Survey June 2024
Drawing Number TG-24-1650-01 (Sheet 1 of 4)	



Total Geomatics Ltd
 7 Brunel Road
 Smeaton Close
 Aylesbury, Buckinghamshire
 HP19 8SU
 www.TotalGeomatics.co.uk
 mail@totalgeomatics.co.uk



- ### Legend
- BdB Bottom of Bank
 - BT British Telecom
 - CATV Cable Television
 - CB Control Box
 - CBF Closed Board Fence
 - CBP Concrete Block Paving
 - CL Cover Level
 - CLF Chain Link Fence
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 - FP Flag Pole
 - G Gully
 - GV Gas Valve
 - IC Inspection Cover
 - IRF Iron Railing Fence
 - IL Invert Level
 - KW Kerb Weir
 - LP Lamp Post
 - MH Manhole
 - MKR Marker Post
 - PRF Post & Rail Fence
 - PS Pipe Size
 - PWF Post and Wire Fence
 - RE Rodding Eye
 - RN Road Name
 - RS Road Sign
 - SY Stay Wire
 - 0.34/8 Trunk(Dia)/Spread(Dia)/Height(Approx)
 - ToB Top of Bank
 - TP Telegraph Pole
 - VP Vent Pipe
 - WV Water Valve
-
- HL Window Head Level
 - CL Window Cill Level
 - dl Head of Door Level
 - +52.00m Ceiling / Soffit Level
 - +50.00m Floor Level

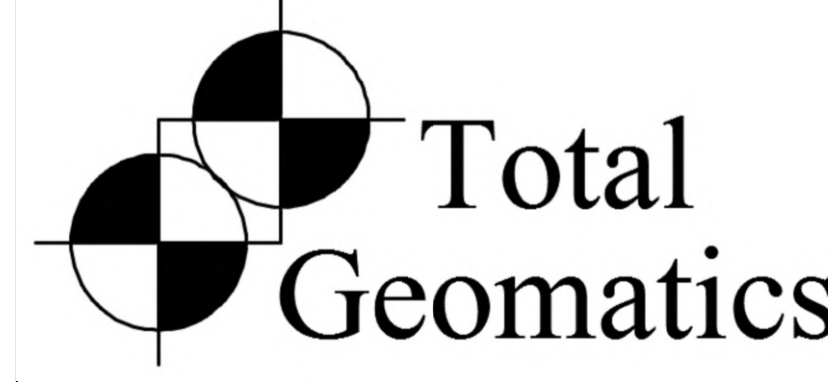


Client
 Holland Green
 Masters Court
 Church Road
 Thame, Oxfordshire
 OX9 3FA

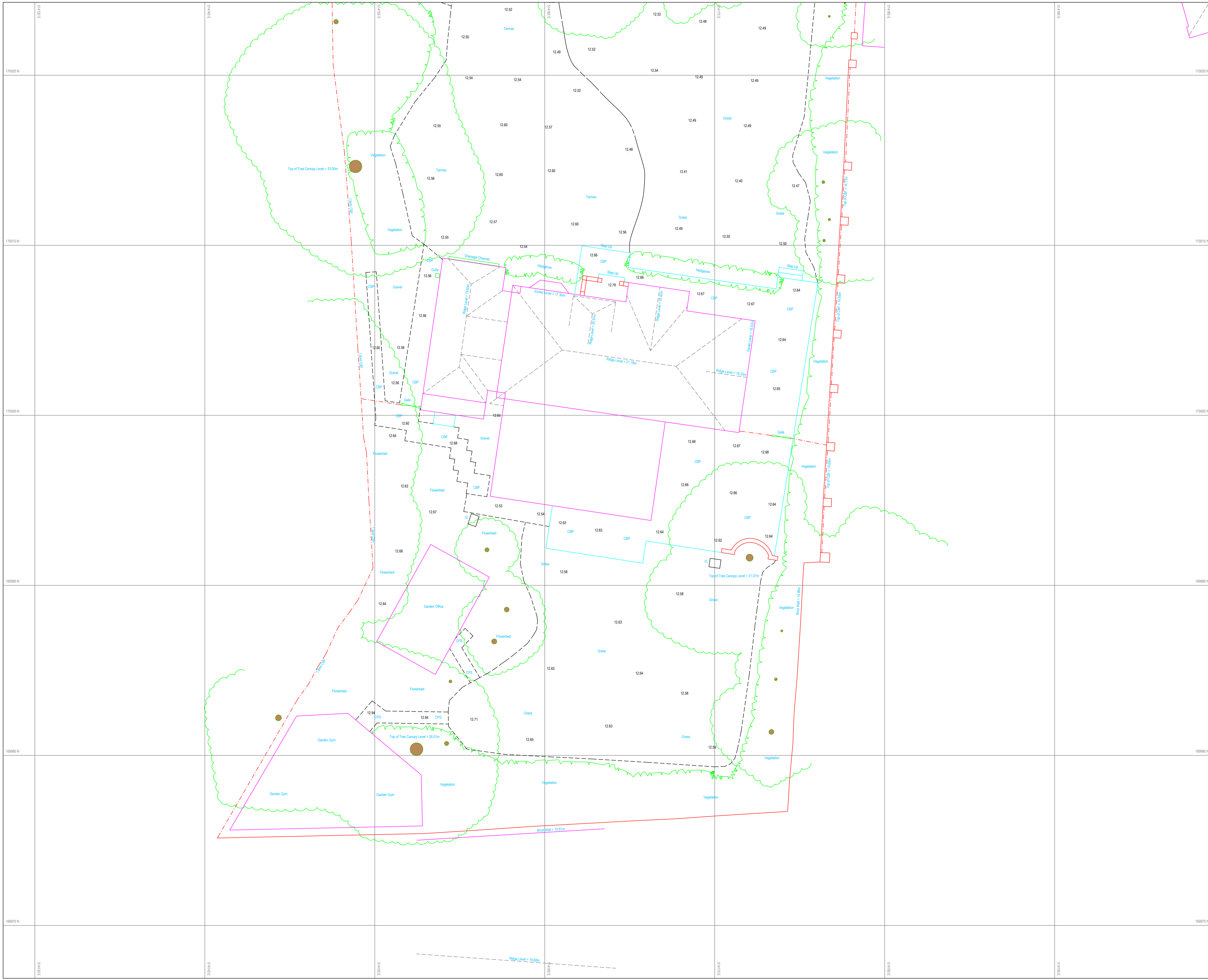
Project Description
 Sevenoaks
 High Street, Hampton
 Site Survey

Levelling All levels and coordinates relate to Ordnance Survey grid and datum.	Scale 1:200 @ A1
Date of Survey June 2024	

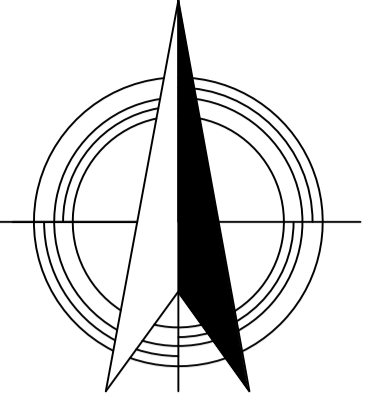
Drawing Number
TG-24-1650-01 (Sheet 2 of 4)



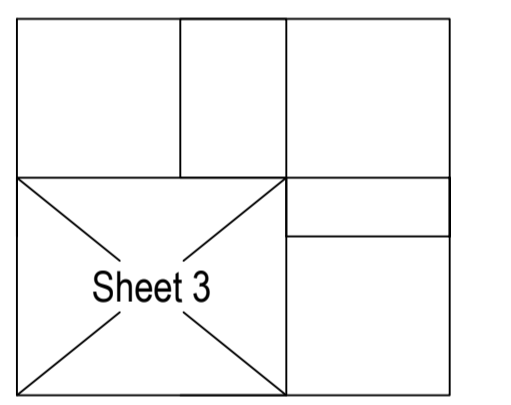
Total Geomatics Ltd
 7 Brunel Road
 Smeaton Close
 Aylesbury, Buckinghamshire
 HP19 8SU
 www.TotalGeomatics.co.uk
 mail@totalgeomatics.co.uk



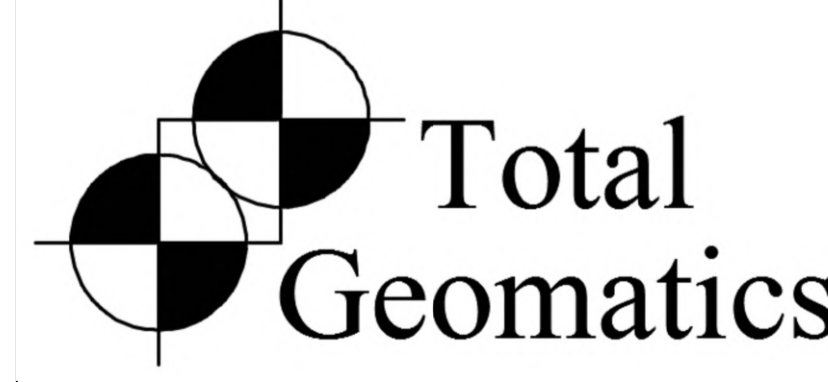
- ### Legend
- BaB Bottom of Bank
 - BT British Telecom
 - CATV Cable Television
 - CB Control Box
 - CBF Closed Board Fence
 - CBP Concrete Block Paving
 - CL Cover Level
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 - VP Vent Pipe
 - WV Water Valve



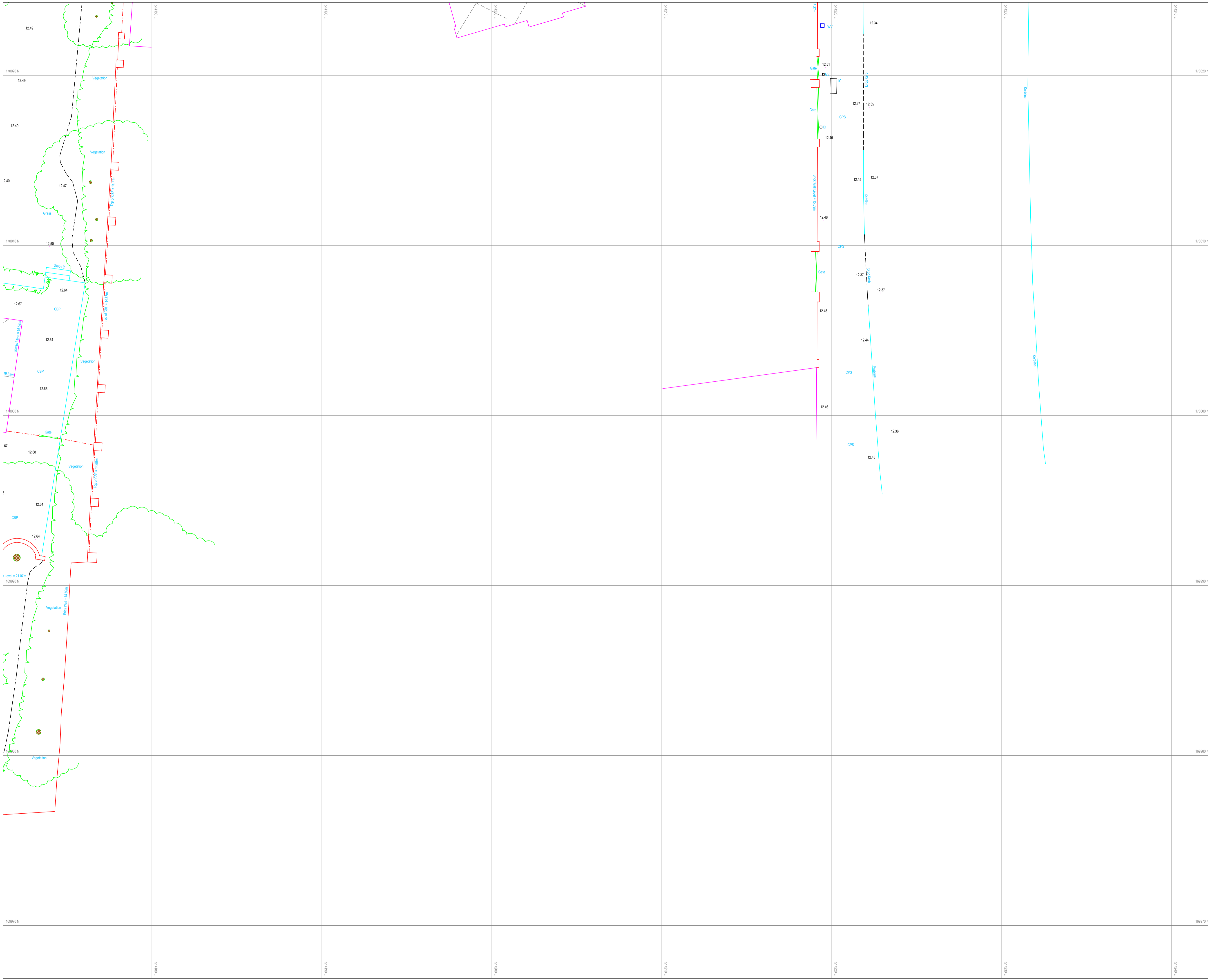
- HL Window Head Level
- CL Window Cill Level
- dl Head of Door Level
- +52.00m Ceiling / Soffit Level
- +50.00m Floor Level



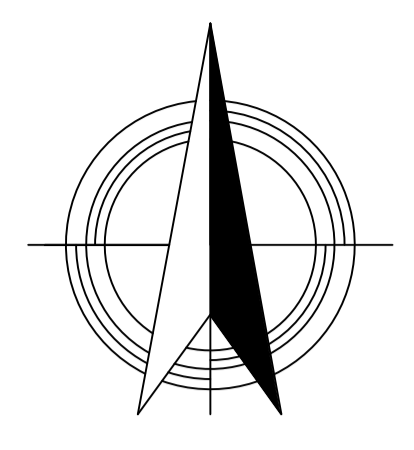
Client	
Holland Green Masters Court Church Road Thame, Oxfordshire OX9 3FA	
Project Description	
Sevenoaks High Street, Hampton	
Site Survey	
Levelling All levels and coordinates relate to Ordnance Survey grid and datum.	Scale 1:200 @ A1 Date of Survey June 2024
Drawing Number	
TG-24-1650-01 (Sheet 3 of 4)	



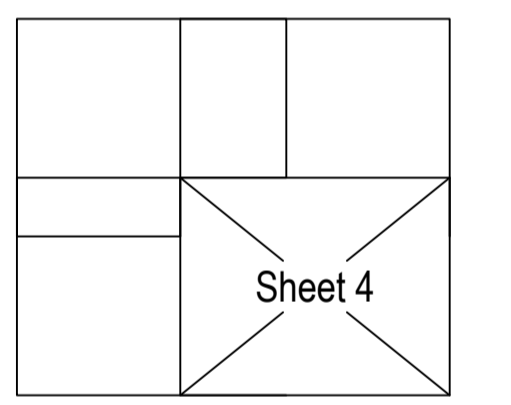
Total Geomatics Ltd
 7 Brunel Road
 Smeaton Close
 Aylesbury, Buckinghamshire
 HP19 8SU
 www.TotalGeomatics.co.uk
 mail@totalgeomatics.co.uk



- ### Legend
- BoB Bottom of Bank
 - BT British Telecom
 - CATV Cable Television
 - CB Control Box
 - CBF Closed Board Fence
 - CBP Concrete Block Paving
 - CL Cover Level
 - CLF Chain Link Fence
 - CPS Concrete Paving Slabs
 - DC Drainage Channel
 - DP Down Pipe
 - ER Earth Rod
 - FB Flowerbed
 - FH Fire Hydrant
 - FP Flag Pole
 - G Gully
 - GV Gas Valve
 - IC Inspection Cover
 - IRF Iron Railing Fence
 - IL Invert Level
 - KW Kerb Weir
 - LP Lamp Post
 - MH Manhole
 - MKR Marker Post
 - PRF Post & Rail Fence
 - PS Pipe Size
 - PWF Post and Wire Fence
 - RE Rodding Eye
 - RN Road Name
 - RS Road Sign
 - SY Slay Wire
 - 0.34/8 Trunk(Dia)/Spread(Dia)/Height(Approx)
 - ToB Top of Bank
 - TP Telegraph Pole
 - VP Vent Pipe
 - WV Water Valve



- HL Window Head Level
- CL Window Cill Level
- dl Head of Door Level
- +52.00m Ceiling / Soffit Level
- +50.00m Floor Level



Client	
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Total Geomatics

Total Geomatics Ltd
7 Brunel Road
Smeaton Close
Aylesbury, Buckinghamshire
HP19 8SU

www.TotalGeomatics.co.uk
mail@totalgeomatics.co.uk

APPENDICES

APPENDIX A



Create Consulting Engineers Ltd
CREATE CONSULTING ENGINEERS LT CREATE
CONSULTING ENGINEERS LT

NORWICH
NR3 1AF

Search address supplied 101A
High Street
Hampton
TW12 2SX

Your reference P24-3285

Our reference ALS/ALS Standard/2024_5041579

Search date 28 August 2024

Notification of Price Changes

From 1st April 2024 Thames Water Property Searches will be increasing the prices of its CON29DW Residential and Commercial searches along with the Asset Location Search. Costs will rise in line with RPI as per previous years, which is sat at 6%.

Customers will be emailed with the new prices by February 28th 2024.

Any orders received with a higher payment prior to the 1st April 2024 will be non-refundable. For further details on the price increase please visit our website at www.thameswater-propertysearches.co.uk.



Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW



searches@thameswater.co.uk
www.thameswater-propertysearches.co.uk



0800 009 4540

Search address supplied: 101A, High Street, Hampton, TW12 2SX

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, 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 address below:

Thames Water Utilities Ltd
Property Searches
PO Box 3189
Slough
SL1 4WW

Email: searches@thameswater.co.uk

Web: www.thameswater-propertysearches.co.uk

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.

This report 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.

Asset Location Search



Property Searches

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.

Payment for this Search

A charge will be added to your suppliers account.

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. For further information please contact our Customer Centre on Tel: 0845 920 0800. Alternatively, a survey can be arranged, for a fee, through our Customer Centre on the above number.

If you have any questions regarding sewer connections, budget estimates, diversions, building over issues or any other questions regarding operational 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 operational issues or 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

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
11ZV	n/a	n/a
10ZY	n/a	n/a
2103	12.6	10.85
20ZT	n/a	n/a
2104	12.42	n/a
201A	12.553	10.753
2003	n/a	n/a
20ZY	n/a	n/a
20ZX	n/a	n/a
201B	12.297	11.107
201G	12.411	10.241
201E	12.508	10.058
201F	12.494	11.704
201C	12.284	11.254
201D	12.303	11.313
211E	n/a	n/a
19ZV	n/a	n/a
19ZW	n/a	n/a
10ZX	n/a	n/a
101C	n/a	n/a
10ZW	n/a	n/a
101B	n/a	n/a
101A	n/a	n/a
1001	12.67	10.93
11ZW	n/a	n/a
2901	12.34	9.7
291A	n/a	n/a
291B	n/a	n/a
2902	n/a	n/a
29ZV	n/a	n/a
29ZT	n/a	n/a
29ZS	n/a	n/a
20ZW	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.









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

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.

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.

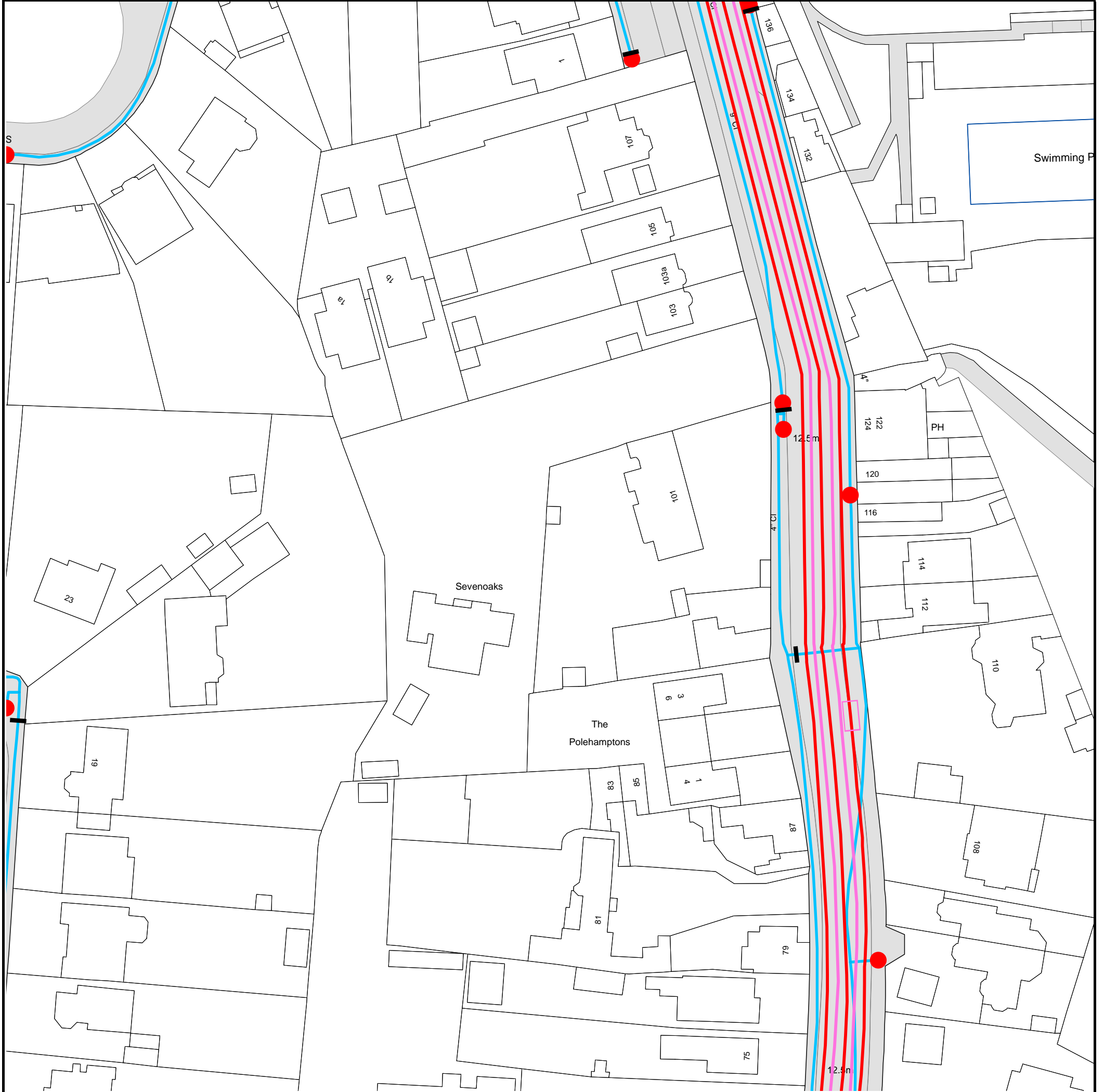
-  Agreement
-  Chamber
-  Operational Site

Ducts or Crossings

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

5) 'na' or 'of' 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.



The width of the displayed area is 200 m and the centre of the map is located at OS coordinates 514179, 170018.








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.

Based on the Ordnance Survey Map (2020) with the Sanction of the controller of H.M. Stationery Office, License no. 100019345 Crown Copyright Reserved.







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.

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')

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.

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:** Indicates 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.

Payment Terms and Conditions

All sales are made in accordance with Thames Water Utilities Limited (TWUL) standard terms and conditions unless previously agreed in writing.

1. All goods remain in the property of Thames Water Utilities Ltd until full payment is received.
2. Provision of service will be in accordance with all legal requirements and published TWUL policies.
3. All invoices are strictly due for payment within 14 days of the date of the invoice. Any other terms must be accepted/agreed in writing prior to provision of goods or service or will be held to be invalid.
4. Penalty interest may be invoked by TWUL in the event of unjustifiable payment delay. Interest charges will be in line with UK Statute Law 'The Late Payment of Commercial Debts (Interest) Act 1998'.
5. Interest will be charged in line with current Court Interest Charges, if legal action is taken.
6. A charge may be made at the discretion of the company for increased administration costs.

A copy of Thames Water's standard terms and conditions are available from the Commercial Billing Team (cashoperations@thameswater.co.uk).

We publish several Codes of Practice including a guaranteed standards scheme. You can obtain copies of these leaflets by calling us on 0800 980 8800.

If you are unhappy with our service, you can speak to your original goods or customer service provider. If you are still not satisfied with the outcome provided, we will refer the matter to a Senior Manager for resolution who will provide you with a response.

If you are still dissatisfied with our final response, and in certain circumstances such as you are buying a residential property or commercial property within certain parameters, The Property Ombudsman will investigate your case and give an independent view. The Ombudsman can award compensation of up to £25,000 to you if he finds that you have suffered actual financial loss and/or aggravation, distress, or inconvenience because of your search not keeping to the Code. Further information can be obtained by visiting www.tpos.co.uk or by sending an email to admin@tpos.co.uk.

If the Goods or Services covered by this invoice falls under the regulation of the 1991 Water Industry Act, and you remain dissatisfied you can refer your complaint to Consumer Council for Water on 0300 034 2222 or write to them at Consumer Council for Water, 1st Floor, Victoria Square House, Victoria Square, Birmingham, B2 4AJ.

Ways to pay your bill

Credit Card	BACS Payment	Telephone Banking
Please Call 0800 009 4540 quoting your invoice number starting CBA or ADS	Account number 90478703 Sort code 60-00-01 A remittance advice must be sent to: Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW. or email ps.billing@thameswater.co.uk	By calling your bank and quoting: Account number 90478703 Sort code 60-00-01 and your invoice number

Thames Water Utilities Ltd Registered in England & Wales No. 2366661 Registered Office Clearwater Court, Vastern Rd, Reading, Berks, RG1 8DB.

Sewer Flooding

History Enquiry



Property Searches

Create Consulting Engineers Ltd

Search address supplied 101A
High Street
Hampton
TW12 2SX

Your reference P24-3285

Our reference SFH/SFH Standard/2024_5041580

Received date 28 August 2024

Search date 28 August 2024



Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW



searches@thameswater.co.uk
www.thameswater-propertysearches.co.uk



0800 009 4540

Sewer Flooding

History Enquiry



Property Searches

Search address supplied: 101A,High Street,Hampton,TW12 2SX

This search is recommended to check for any sewer flooding in a specific address or area

TWUL, trading as Property Searches, are responsible in respect of the following:-

- (i) any negligent or incorrect entry in the records searched;
- (ii) any negligent or incorrect interpretation of the records searched;
- (iii) and any negligent or incorrect recording of that interpretation in the search report
- (iv) compensation payments



Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW



searches@thameswater.co.uk
www.thameswater-propertysearches.co.uk



0800 009 4540

History of Sewer Flooding

Is the requested address or area at risk of flooding due to overloaded public sewers?

The flooding records held by Thames Water indicate that there have been no incidents of flooding in the requested area as a result of surcharging public sewers.

For your guidance:

- A sewer is “overloaded” when the flow from a storm is unable to pass through it due to a permanent problem (e.g. flat gradient, small diameter). Flooding as a result of temporary problems such as blockages, siltation, collapses and equipment or operational failures are excluded.
- “Internal flooding” from public sewers is defined as flooding, which enters a building or passes below a suspended floor. For reporting purposes, buildings are restricted to those normally occupied and used for residential, public, commercial, business or industrial purposes.
- “At Risk” properties are those that the water company is required to include in the Regulatory Register that is presented annually to the Director General of Water Services. These are defined as properties that have suffered, or are likely to suffer, internal flooding from public foul, combined or surface water sewers due to overloading of the sewerage system more frequently than the relevant reference period (either once or twice in ten years) as determined by the Company’s reporting procedure.
- Flooding as a result of storm events proven to be exceptional and beyond the reference period of one in ten years are not included on the At Risk Register.
- Properties may be at risk of flooding but not included on the Register where flooding incidents have not been reported to the Company.
- Public Sewers are defined as those for which the Company holds statutory responsibility under the Water Industry Act 1991.
- It should be noted that flooding can occur from private sewers and drains which are not the responsibility of the Company. This report excludes flooding from private sewers and drains and the Company makes no comment upon this matter.
- For further information please contact Thames Water on Tel: 0800 316 9800 or website www.thameswater.co.uk



Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW



searches@thameswater.co.uk
www.thameswater-propertysearches.co.uk



0800 009 4540

Appendix B

SOUTHEASTERN DRILLING SERVICES LTD.

Client: *create*

BOREHOLE No.

*M07
BMO2*

Project Name: *LO1A High St
Hawthorn*

P/O No.

Project No.: *D24-3285*

Rig Type: *D4000*

SPT Hammer No. *SEDS 8*

Date: *2-9-24*

DESCRIPTION OF STRATA					DEPTH TO BASE OF STRATA m	SAMPLES & INSITU TESTING							CASING & WATER DEPTH				
Soft / Firm / Stiff	Colour	Clayey Silty Sandy etc	SOIL TYPE	Sand bands cobbles etc		Type No.	Depth (m)		U blows Vane	S.P.T. / C.P.T mm						water	casing
							From	To		0 to 75 *	75 to 150 *	150 to 225	225 to 300	300 to 375	375 to 450		
TIME: <i>08:00</i>		Start of day's drilling			<i>0.4</i>	<i>D</i>	<i>0.40</i>										
<i>Top soil with roots</i>					<i>0.7</i>	<i>D</i>	<i>1.50</i>										
<i>Brown sandy clay with sand/gravel's</i>					<i>0.90</i>	<i>C</i>	<i>2.50</i>		<i>3</i>	<i>4</i>	<i>3</i>	<i>4</i>	<i>4</i>	<i>3</i>	<i>-</i>	<i>-</i>	
						<i>B</i>	<i>2.50-3.0</i>										
						<i>D</i>	<i>3.0</i>										
						<i>C</i>	<i>3.50</i>		<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>7</i>	<i>7</i>	<i>3.0</i>	<i>3.50</i>	
						<i>B</i>	<i>3.50-4.0</i>										
<i>Sand/gravel's</i>					<i>1.70</i>	<i>D</i>	<i>4.0</i>										
						<i>C</i>	<i>4.50</i>		<i>4</i>	<i>5</i>	<i>5</i>	<i>3</i>	<i>2</i>	<i>2</i>	<i>4.0</i>	<i>4.50</i>	
						<i>B</i>	<i>4.50-5.0</i>										
<i>gray clay</i>					<i>4.70</i>	<i>D</i>	<i>5.0</i>										
						<i>C</i>	<i>5.50</i>		<i>3</i>	<i>3</i>	<i>5</i>	<i>5</i>	<i>6</i>	<i>6</i>	<i>5.50</i>	<i>5.0</i>	
						<i>D</i>	<i>6.0</i>										
						<i>C</i>	<i>6.50</i>		<i>3</i>	<i>4</i>	<i>4</i>	<i>5</i>	<i>7</i>	<i>7</i>	<i>Dry</i>	<i>5.50</i>	
						<i>D</i>	<i>7.0</i>										
						<i>C</i>	<i>7.50</i>		<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>7</i>	<i>7</i>			
						<i>D</i>	<i>8.0</i>										
						<i>C</i>	<i>8.50</i>		<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>7</i>	<i>8</i>			
						<i>D</i>	<i>9.0</i>										
						<i>C</i>	<i>9.50</i>		<i>4</i>	<i>4</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>			
						<i>D</i>	<i>10.0</i>										
TIME: <i>15:00</i>		End of day's drilling			<i>10.0</i>												

U = Undisturbed; P = Piston; D = Disturbed; B = Bulk; W = Water; S = Standard Penetration Test; C = Cone Penetration Test; V = Vane

CASING		
SIZE (mm)	FROM (m)	TO (m)
<i>150</i>	<i>0.4</i>	<i>5.50</i>

GROUNDWATER DETAILS									
DATE	TIME	DEPTH OF INFLOW	RATE OF INFLOW	RISING TO MINS				CASING DEPTH	SEALED
				5	10	15	20		

adding water @ 2.0m-4.0m

DELAYS/BAD ACCESS/PIT/HARD STRATA etc			
Cause and time encountered	From (m)	To (m)	Time (hr)
<i>SETUP on BMO2</i>			
<i>Dig pit to 1.20m</i>			<i>1h</i>
<i>lay out sheeting to</i>			
<i>keep clean</i>			<i>1/2h</i>

* SPT if 25 seating blows are achieved, record the penetration, i.e. 25/50mm and restart penetration

REMARKS
<i>install on install sheet</i>

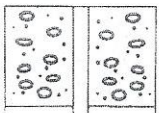
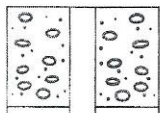


NAMES & SIGNATURES
 DRILLER: *[Signature]* CLIENT: *[Signature]*

Project Name: *101A High St Hampton* Project No: *P24-3285*

BMO2

Equipment:

Date: *2-9-24*

PIEZOMETER (S)	STANDPIPE / GAS WELL
Pipe Diameter mm	Pipe Diameter <i>50</i> mm Filter Wrap? Yes No
 G.L. & Stopcock/Barrel Cover	 G.L. & Stopcock/Barrel Cover
Base of concrete m	Base of concrete <i>0.10</i> m
GROUT / ARISINGS	<i>Benote</i> GROUT / ARISINGS
 Top of Seal m	 Top of Seal <i>0.10</i> m
Base of Seal m and Top of Sand Cell	Base of Seal <i>1.0</i> m and Top of Sand Cell
Piezo Tip m	Top of Slotted Pipe <i>1.0</i> m
Base of Sand Cell m and Top of Seal	Geowrap? Yes <input checked="" type="checkbox"/> No
Base of Seal m	Filter Type = <i>gravel</i> m
GROUT / ARISINGS	Base of Slotted Pipe <i>1.0</i> m
Base of Hole m	Base of Filter & m Top of Seal
GROUT / ARISINGS	Base of Seal m
GROUT / ARISINGS	GROUT / ARISINGS
Base of Hole m	Base of Hole <i>10.0</i> m

IF TWO PIEZOMETERS, STANDPIPES OR GAS WALLS ARE INSTALLED, USE A SEPERATE SHEET FOR SECOND INSTALLATION. DELETE OR AMEND DETAILS ON THIS SHEET AS APPROPRIATE, ie, IF INSTALLATION IS IN BASE OF BOREHOLE

DRILLER: 

SOUTHEASTERN DRILLING SERVICES LTD.

Client: *Create*

BOREHOLE No.

B3401

Project Name: *101A High St* P/O No.

Project No.: *P24-3285*

Rig Type: *D4000*

SPT Hammer No. *SE088*

Date: *3-9-24*

DESCRIPTION OF STRATA					DEPTH TO BASE OF STRATA m	SAMPLES & INSITU TESTING							CASING & WATER DEPTH				
Soft / Firm / Stiff	Colour	Clayey Silty Sandy etc	SOIL TYPE	Sand bands cobbles etc		Type No.	Depth (m)		U blows Vane	S.P.T. / C.P.T mm						water	casing
							From	To		0 to 75*	75 to 75*	150 to 225	225 to 300	300 to 375	375 to 450		
TIME: <i>07:30</i>		Start of day's drilling			<i>0/4</i>	<i>D 0.50</i>											
<i>TOP soil with roots</i>					<i>0/4</i>	<i>D 1.0</i>											
<i>Brown sandy, grady clay</i>					<i>0-90</i>	<i>C 1.50 - B 1.50 2.0</i>											
<i>Sand/gravel's</i>					<i>2-30</i>	<i>C 2.50 - B 2.50 3.0</i>											
<i>gray clay</i>					<i>4-80</i>	<i>C 3.50 - B 3.50 4.0</i>											
						<i>C 4.50 - B 4.50 5.0</i>											
						<i>D 5.0</i>											
						<i>C 5.50 - B 5.50 6.0</i>											
						<i>D 6.0</i>											
TIME: <i>14:00</i>		End of day's drilling			<i>6.0</i>												

U = Undisturbed; P = Piston; D = Disturbed; B = Bulk; W = Water; S = Standard Penetration Test; C = Cone Penetration Test; V = Vane

CASING		
SIZE (mm)	FROM (m)	TO (m)
<i>150</i>	<i>0/4</i>	<i>5.50</i>

GROUNDWATER DETAILS									
DATE	TIME	DEPTH OF INFLOW	RATE OF INFLOW	RISING TO MINS				CASING DEPTH	SEALED
				5	10	15	20		

adding water @ 2.50-4.0m

DELAYS/BAD ACCESS/PIT/HARD STRATA etc			
Cause and time encountered	From (m)	To (m)	Time (hr)
<i>Drop more setup on B3401</i>			
<i>Dig pit to 1.25m then clean up both B34's etc</i>			

* SPT if 25 seating blows are achieved, record the penetration, i.e. 25/50mm and restart penetration

REMARKS
<i>lay out sheeting to keep clean & install on install sheet</i>

NAMES & SIGNATURES

DRILLER:

CLIENT:



SOUTHEASTERN DRILLING SERVICES LTD.

RECORD OF EXPLORATORY HOLE INSTALLATION

EXPLORATORY HOLE No.

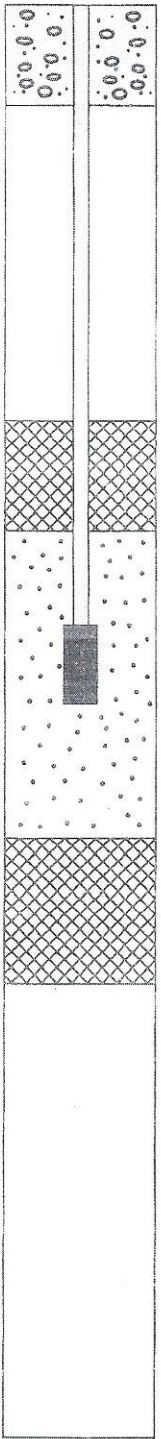
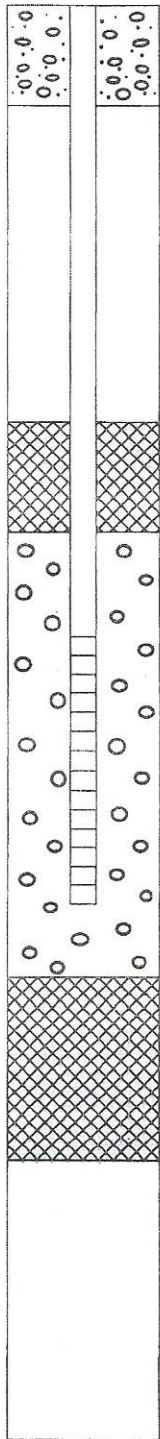
Project Name: *101A High St Hampton*

Project No: *P24-3285*

BH01

Equipment: *create*

Date: *3-9-24*

PIEZOMETER (S)	STANDPIPE / GAS WELL
 <p>Pipe Diameter mm</p>	 <p>Pipe Diameter <i>50</i> mm</p>
<p>G.L. & Stopcock/Barrel Cover</p>	<p>Filter Wrap? Yes No</p> <p>G.L. & <u>Stopcock</u>/Barrel Cover</p>
<p>Base of concrete m</p>	<p>Base of concrete <i>0.10</i> m</p>
<p>GROUT / ARISINGS</p>	<p><i>Ben</i> GROUT / ARISINGS</p>
<p>Top of Seal m</p>	<p>Top of Seal <i>0.10</i> m</p>
<p>Base of Seal m and Top of Sand Cell</p>	<p>Base of Seal <i>1.0</i> m and Top of Sand Cell</p>
<p>Piezo Tip m</p>	<p>Top of Slotted Pipe <i>1.0</i> m</p>
<p>Base of Sand Cell m and Top of Seal</p>	<p>Geowrap? Yes <i>No</i></p>
<p>Base of Seal m</p>	<p>Filter Type = <i>gravel</i> m</p>
<p>GROUT / ARISINGS</p>	<p>Base of Slotted Pipe <i>6.0</i> m</p>
<p>Base of Hole m</p>	<p>Base of Filter & m Top of Seal</p>
<p>GROUT / ARISINGS</p>	<p>Base of Seal m</p>
<p>GROUT / ARISINGS</p>	<p>GROUT / ARISINGS</p> <p>Base of Hole <i>6.0</i> m</p>

IF TWO PIEZOMETERS, STANDPIPES OR GAS WALLS ARE INSTALLED, USE A SEPERATE SHEET FOR SECOND INSTALLATION. DELETE OR AMEND DETAILS ON THIS SHEET AS APPROPRIATE, ie, IF INSTALLATION IS IN BASE OF BOREHOLE

DRILLER: *[Signature]*

APPENDIX C

M5-60 : 20 mm
r : 0.45

Wallingford Method - maps



For different durations,

From Table 1

Duration, D	Z1			
15 min	0.65	M5-15:	Z1 x M5-60	13.00 mm
30 min	0.82	M5-30:	Z1 x M5-60	16.40 mm
60 min	1	M5-60:	Z1 x M5-60	20.00 mm
6hr	1.51	M5-360:	Z1 x M5-60	30.20 mm

For different return intervals,

From Table 2*

Duration, D	M1	Z2	M30	M100
15 min	0.62		1.52	1.96
30 min	0.62		1.53	2.00
60 min	0.64		1.54	2.03
6 hr	0.68		1.51	1.97

Average point intensity, API = I/(D/60)

	D (min)	Calculation	I (mm)	API (mm/hr)
M 1-15	15	M5-15*Z2(M1)	8.06	32.24
M 1-30	30	M5-30*Z2(M1)	10.17	20.34
M 1-60	30	M5-360*Z2(M1)	12.80	25.60
M1-360	360	M5-360*Z2(M1)	20.54	3.42
M 30-15	15	M5-15*Z2(M30)	19.76	79.04
M 30-30	30	M5-30*Z2(M30)	25.09	50.18
M 30-60	60	M5-60*Z2(M30)	30.80	30.80
M30-360	360	M5-360*Z2(M30)	45.60	7.60
M 100-15	15	M5-15*Z2(M100)	25.48	101.92
M 100-30	30	M5-30*Z2(M100)	32.80	65.60
M100-60	60	M5-60*Z2(M100)	40.60	40.60
M100-360	360	M5-360*Z2(M100)	59.49	9.92

Peak Runoff

Q=2.78CiA Rational Method, SUDS Manual Section 4.3.3

where:

(1) C = Cv Cr

(2) i = API, defined above

(3) A = areas measured for subcatchments

Cv = 1

Cr = 1.3

C = 1.3

**

constant value for design purposes

Q=2.78CiA

2.78*C= 3.614

	i mm/hr	Contributing Impermeable Area (ha)	
		Site	Per hectare
		0.02	1
M 1-15	32.24	2.33	116.52
M 1-30	20.34	1.47	73.49
M 1-60	25.60	1.85	73.49
M1-360	3.42	0.25	12.37
M 30-15	79.04	5.71	285.65
M 30-30	50.18	3.63	181.36

	i mm/hr	Contributing Impermeable Area (ha)	
		Site	Per hectare
		0.02	1
M 30-60	30.80	2.23	181.36
M30-360	7.60	0.55	27.47
M 100-15	101.92	7.37	368.34
M 100-30	65.60	4.74	237.08
M 100-60	40.60	2.93	237.08
M100-360	9.92	0.72	35.84

Table 1

Minutes r	Rainfall Duration D									
	5	10	15	30	Hours 1	2	4	6	10	24
0.12	0.22	0.34	0.45	0.67	1.00	1.48	2.17	2.75	3.70	6.00
0.15	0.25	0.38	0.48	0.69	1.00	1.42	2.02	2.46	3.32	4.90
0.18	0.27	0.41	0.51	0.71	1.00	1.36	1.86	2.25	2.86	4.30
0.21	0.29	0.43	0.54	0.73	1.00	1.33	1.77	2.12	2.62	3.60
0.24	0.31	0.46	0.56	0.75	1.00	1.30	1.71	2.00	2.40	3.35
0.27	0.33	0.48	0.58	0.76	1.00	1.27	1.64	1.88	2.24	3.10
0.30	0.34	0.49	0.59	0.77	1.00	1.25	1.57	1.78	2.12	2.84
0.33	0.35	0.50	0.61	0.78	1.00	1.23	1.53	1.73	2.04	2.60
0.36	0.36	0.51	0.62	0.79	1.00	1.22	1.48	1.67	1.90	2.42
0.39	0.37	0.52	0.63	0.80	1.00	1.21	1.46	1.62	1.82	2.28
0.42	0.38	0.53	0.64	0.81	1.00	1.20	1.42	1.57	1.74	2.16
0.45	0.39	0.54	0.65	0.82	1.00	1.19	1.38	1.51	1.68	2.03

Table 2 - England and Wales

M5 rainfall	Growth Factor Z2									
	M1	M2	M3	M4	M5	M10	M20	M50	M100	M30 interpolated
5.00	0.62	0.79	0.89	0.97	1.02	1.19	1.36	1.56	1.79	1.25
10.00	0.61	0.79	0.90	0.97	1.03	1.22	1.41	1.65	1.91	1.49
15.00	0.62	0.80	0.90	0.97	1.03	1.24	1.44	1.70	1.99	1.53
20.00	0.64	0.81	0.90	0.97	1.03	1.24	1.45	1.73	2.03	1.54
25.00	0.66	0.82	0.91	0.97	1.03	1.24	1.44	1.72	2.01	1.53
30.00	0.68	0.83	0.91	0.97	1.03	1.22	1.42	1.70	1.97	1.51
40.00	0.70	0.84	0.92	0.97	1.02	1.19	1.38	1.64	1.89	1.47
50.00	0.72	0.85	0.93	0.98	1.02	1.17	1.34	1.58	1.81	1.42
75.00	0.76	0.87	0.93	0.98	1.02	1.14	1.28	1.47	1.64	1.34
100.00	0.78	0.88	0.94	0.98	1.02	1.13	1.25	1.40	1.54	1.30
150.00	0.78	0.88	0.94	0.98	1.01	1.12	1.21	1.33	1.45	1.25
200.00	0.78	0.88	0.94	0.98	1.01	1.11	1.19	1.30	1.40	1.23

* The rainfall depths from cells E8-E11 are compared with the depths given in cells J29-J40 and Z2 interpolated accordingly for each return period

** Cv varies between 0.6 (rapidly draining soils) and 0.9 (heavy clay) with an average of 0.75 taken if ground conditions not known.

Calculated by: Tracey Tooke

Site name: Sevenoaks

Site location: 101A High St, Hampton

Site Details

Latitude: 51.41753° N

Longitude: 0.35942° W

Reference: 1917748043

Date: Aug 29 2024 15:38

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.

Runoff estimation approach

FEH Statistical

Site characteristics

Total site area (ha): 0.27

Methodology

Q_{MED} estimation method: Calculate from BFI and SAAR

BFI and SPR method: Calculate from dominant HOST

HOST class: 7

BFI / BFIHOST: 0.682

Q_{MED} (l/s): 0.26

Q_{BAR} / Q_{MED} factor: 1.14

Notes

(1) Is $Q_{BAR} < 2.0$ l/s/ha?

When Q_{BAR} is < 2.0 l/s/ha then limiting discharge rates are set at 2.0 l/s/ha.

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consent for discharge is usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set where the blockage risk is addressed by using appropriate drainage elements.

(3) Is $SPR/SPRHOST \leq 0.3$?

Where groundwater levels are low enough the use of soakaways to avoid discharge offsite would normally be preferred for disposal of surface water runoff.

Hydrological characteristics

	Default	Edited
SAAR (mm):	598	598
Hydrological region:	6	6
Growth curve factor 1 year:	0.85	0.85
Growth curve factor 30 years:	2.3	2.3
Growth curve factor 100 years:	3.19	3.19
Growth curve factor 200 years:	3.74	3.74

Q_{BAR} (l/s):	0.29	0.29
1 in 1 year (l/s):	0.25	0.25
1 in 30 years (l/s):	0.68	0.68
1 in 100 year (l/s):	0.94	0.94
1 in 200 years (l/s):	1.1	1.1

This report was produced using the greenfield runoff tool developed by HR Wallingford and available at www.uksuds.com. The use of this tool is subject to the UK SuDS terms and conditions and licence agreement , which can both be found at www.uksuds.com/terms-and-conditions.htm. The outputs from this tool are estimates of greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, CEH, Hydrosolutions or any other organisation for the use of this data in the design or operational characteristics of any drainage scheme.

Calculated by: Tracey Tooke

Site name:

Site location:

Site Details

Latitude: 51.41753° N

Longitude: 0.35941° W

Reference: 1170465672

Date: Aug 29 2024 15:45

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.

Runoff estimation approach

FEH Statistical

Site characteristics

Total site area (ha): 0.1

Methodology

Q_{MED} estimation method: Calculate from BFI and SAAR

BFI and SPR method: Calculate from dominant HOST

HOST class: 7

BFI / BFIHOST: 0.682

Q_{MED} (l/s): 0.1

Q_{BAR} / Q_{MED} factor: 1.14

Hydrological characteristics

	Default	Edited
SAAR (mm):	598	598
Hydrological region:	6	6
Growth curve factor 1 year:	0.85	0.85
Growth curve factor 30 years:	2.3	2.3
Growth curve factor 100 years:	3.19	3.19
Growth curve factor 200 years:	3.74	3.74

Notes

(1) Is $Q_{BAR} < 2.0$ l/s/ha?

When Q_{BAR} is < 2.0 l/s/ha then limiting discharge rates are set at 2.0 l/s/ha.

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consent for discharge is usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set where the blockage risk is addressed by using appropriate drainage elements.

(3) Is $SPR/SPRHOST \leq 0.3$?

Where groundwater levels are low enough the use of soakaways to avoid discharge offsite would normally be preferred for disposal of surface water runoff.

Q_{BAR} (l/s):	0.11	0.11
1 in 1 year (l/s):	0.09	0.09
1 in 30 years (l/s):	0.25	0.25
1 in 100 year (l/s):	0.35	0.35
1 in 200 years (l/s):	0.41	0.41

This report was produced using the greenfield runoff tool developed by HR Wallingford and available at www.uksuds.com. The use of this tool is subject to the UK SuDS terms and conditions and licence agreement , which can both be found at www.uksuds.com/terms-and-conditions.htm. The outputs from this tool are estimates of greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, CEH, Hydrosolutions or any other organisation for the use of this data in the design or operational characteristics of any drainage scheme.

APPENDIX D

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Depth (m)
MH1	0.030	5.00	12.640	1200	1.340
MH2			12.640	1200	1.514
TANK 1	0.030	5.00	12.640	1200	1.414

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	1.000	13.5	100	Circular	12.640	11.300	1.240	12.640	11.226	1.314
1.001	1.000	10.0	100	Circular	12.640	11.226	1.314	12.640	11.126	1.414

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	MH1	1200	Manhole	Adoptable	TANK 1	1200	Manhole	Adoptable
1.001	TANK 1	1200	Manhole	Adoptable	MH2	1200	Manhole	Adoptable

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Additional Storage (m ³ /ha)	0.0
Summer CV	1.000	Skip Steady State	x	Check Discharge Rate(s)	x
Winter CV	1.000	Drain Down Time (mins)	240	Check Discharge Volume	x

Storm Durations

15	60	180	360	600	960	2160	4320	7200	10080
30	120	240	480	720	1440	2880	5760	8640	

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0
30	35	0	0
100	40	0	0

Node MH2 Online Hydro-Brake® Control

Flap Valve	x	Objective (HE)	Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	11.126	Product Number	CTL-SHE-0045-1000-1143-1000
Design Depth (m)	1.143	Min Outlet Diameter (m)	0.075
Design Flow (l/s)	1.0	Min Node Diameter (mm)	1200



Node TANK 1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	1.0	Invert Level (m)	11.226
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.97	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	48.2	0.0	0.914	48.2	0.0	0.915	1.1	0.0	1.414	1.1	0.0

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
2 year 15 minute summer	103.926	29.407
2 year 15 minute winter	72.930	29.407
2 year 30 minute summer	66.192	18.730
2 year 30 minute winter	46.451	18.730
2 year 60 minute summer	43.005	11.365
2 year 60 minute winter	28.572	11.365
2 year 120 minute summer	32.476	8.583
2 year 120 minute winter	21.576	8.583
2 year 180 minute summer	26.683	6.866
2 year 180 minute winter	17.345	6.866
2 year 240 minute summer	21.706	5.736
2 year 240 minute winter	14.421	5.736
2 year 360 minute summer	16.818	4.328
2 year 360 minute winter	10.932	4.328
2 year 480 minute summer	13.198	3.488
2 year 480 minute winter	8.769	3.488
2 year 600 minute summer	10.724	2.933
2 year 600 minute winter	7.328	2.933
2 year 720 minute summer	9.473	2.539
2 year 720 minute winter	6.367	2.539
2 year 960 minute summer	7.649	2.014
2 year 960 minute winter	5.067	2.014
2 year 1440 minute summer	5.402	1.448
2 year 1440 minute winter	3.631	1.448
2 year 2160 minute summer	3.787	1.047
2 year 2160 minute winter	2.609	1.047
2 year 2880 minute summer	3.126	0.838
2 year 2880 minute winter	2.101	0.838
2 year 4320 minute summer	2.389	0.625
2 year 4320 minute winter	1.573	0.625
2 year 5760 minute summer	2.012	0.515
2 year 5760 minute winter	1.302	0.515
2 year 7200 minute summer	1.761	0.449
2 year 7200 minute winter	1.136	0.449
2 year 8640 minute summer	1.588	0.405
2 year 8640 minute winter	1.025	0.405
2 year 10080 minute summer	1.464	0.373
2 year 10080 minute winter	0.945	0.373
30 year +35% CC 15 minute summer	411.357	116.400
30 year +35% CC 15 minute winter	288.672	116.400
30 year +35% CC 30 minute summer	264.453	74.831
30 year +35% CC 30 minute winter	185.581	74.831
30 year +35% CC 60 minute summer	174.350	46.076

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
30 year +35% CC 60 minute winter	115.834	46.076
30 year +35% CC 120 minute summer	111.590	29.490
30 year +35% CC 120 minute winter	74.138	29.490
30 year +35% CC 180 minute summer	86.147	22.169
30 year +35% CC 180 minute winter	55.998	22.169
30 year +35% CC 240 minute summer	67.693	17.889
30 year +35% CC 240 minute winter	44.974	17.889
30 year +35% CC 360 minute summer	50.454	12.983
30 year +35% CC 360 minute winter	32.796	12.983
30 year +35% CC 480 minute summer	38.735	10.237
30 year +35% CC 480 minute winter	25.735	10.237
30 year +35% CC 600 minute summer	30.998	8.479
30 year +35% CC 600 minute winter	21.180	8.479
30 year +35% CC 720 minute summer	27.065	7.254
30 year +35% CC 720 minute winter	18.190	7.254
30 year +35% CC 960 minute summer	21.475	5.655
30 year +35% CC 960 minute winter	14.225	5.655
30 year +35% CC 1440 minute summer	14.783	3.962
30 year +35% CC 1440 minute winter	9.935	3.962
30 year +35% CC 2160 minute summer	10.081	2.786
30 year +35% CC 2160 minute winter	6.946	2.786
30 year +35% CC 2880 minute summer	8.142	2.182
30 year +35% CC 2880 minute winter	5.472	2.182
30 year +35% CC 4320 minute summer	5.993	1.567
30 year +35% CC 4320 minute winter	3.947	1.567
30 year +35% CC 5760 minute summer	4.895	1.253
30 year +35% CC 5760 minute winter	3.169	1.253
30 year +35% CC 7200 minute summer	4.172	1.064
30 year +35% CC 7200 minute winter	2.693	1.064
30 year +35% CC 8640 minute summer	3.675	0.937
30 year +35% CC 8640 minute winter	2.372	0.937
30 year +35% CC 10080 minute summer	3.318	0.846
30 year +35% CC 10080 minute winter	2.141	0.846
100 year +40% CC 15 minute summer	549.859	155.591
100 year +40% CC 15 minute winter	385.866	155.591
100 year +40% CC 30 minute summer	356.117	100.769
100 year +40% CC 30 minute winter	249.907	100.769
100 year +40% CC 60 minute summer	235.754	62.303
100 year +40% CC 60 minute winter	156.629	62.303
100 year +40% CC 120 minute summer	148.810	39.326
100 year +40% CC 120 minute winter	98.866	39.326
100 year +40% CC 180 minute summer	114.526	29.471
100 year +40% CC 180 minute winter	74.445	29.471
100 year +40% CC 240 minute summer	90.019	23.789
100 year +40% CC 240 minute winter	59.806	23.789
100 year +40% CC 360 minute summer	67.352	17.332
100 year +40% CC 360 minute winter	43.781	17.332
100 year +40% CC 480 minute summer	51.835	13.699
100 year +40% CC 480 minute winter	34.438	13.699
100 year +40% CC 600 minute summer	41.524	11.358
100 year +40% CC 600 minute winter	28.372	11.358
100 year +40% CC 720 minute summer	36.263	9.719

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year +40% CC 720 minute winter	24.371	9.719
100 year +40% CC 960 minute summer	28.736	7.567
100 year +40% CC 960 minute winter	19.035	7.567
100 year +40% CC 1440 minute summer	19.695	5.278
100 year +40% CC 1440 minute winter	13.236	5.278
100 year +40% CC 2160 minute summer	13.287	3.672
100 year +40% CC 2160 minute winter	9.155	3.672
100 year +40% CC 2880 minute summer	10.616	2.845
100 year +40% CC 2880 minute winter	7.134	2.845
100 year +40% CC 4320 minute summer	7.660	2.003
100 year +40% CC 4320 minute winter	5.044	2.003
100 year +40% CC 5760 minute summer	6.150	1.574
100 year +40% CC 5760 minute winter	3.980	1.574
100 year +40% CC 7200 minute summer	5.169	1.319
100 year +40% CC 7200 minute winter	3.336	1.319
100 year +40% CC 8640 minute summer	4.500	1.148
100 year +40% CC 8640 minute winter	2.905	1.148
100 year +40% CC 10080 minute summer	4.023	1.026
100 year +40% CC 10080 minute winter	2.597	1.026

Results for 2 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
240 minute summer	MH1	164	11.361	0.061	1.9	0.0688	0.0000	OK
240 minute summer	MH2	168	11.359	0.233	3.2	0.2638	0.0000	OK
240 minute summer	TANK 1	168	11.360	0.134	4.4	6.3959	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m ³)	Discharge Vol (m ³)
240 minute summer	MH1	1.000	TANK 1	3.3	0.983	0.198	0.0064	
240 minute summer	MH2	Hydro-Brake®		0.8				14.0
240 minute summer	TANK 1	1.001	MH2	3.2	0.504	0.163	0.0078	

Results for 30 year +35% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
240 minute winter	MH1	236	11.883	0.583	3.7	0.6599	0.0000	SURCHARGED
240 minute winter	MH2	236	11.883	0.757	2.5	0.8560	0.0000	OK
240 minute winter	TANK 1	236	11.883	0.657	7.2	31.4760	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m ³)	Discharge Vol (m ³)
240 minute winter	MH1	1.000	TANK 1	3.5	1.156	0.214	0.0078	
240 minute winter	MH2	Hydro-Brake®		0.8				21.4
240 minute winter	TANK 1	1.001	MH2	2.5	0.599	0.131	0.0078	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 100.00%

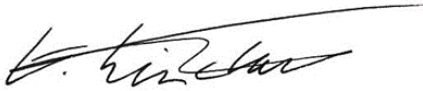
Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
240 minute winter	MH1	236	12.172	0.872	5.0	0.9861	0.0000	SURCHARGED
240 minute winter	MH2	236	12.171	1.045	1.6	1.1820	0.0000	OK
240 minute winter	TANK 1	236	12.172	0.946	9.8	43.8595	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m ³)	Discharge Vol (m ³)
240 minute winter	MH1	1.000	TANK 1	4.8	1.190	0.289	0.0078	
240 minute winter	MH2	Hydro-Brake®		1.0				23.9
240 minute winter	TANK 1	1.001	MH2	1.6	0.577	0.081	0.0078	

APPENDIX E

LBR BIA Assessment Verification Form

Site Details	Applicant Information
Site Name	Sevenoaks
Planning Application Reference (If applicable)	N/A
Address and Postcode	Sevenoaks, 101 A High Street, Hampton, TW12 2SX
Brief description of the proposed works	Demolition of current dwelling and construction of replacement dwelling with basement
Geology type	Kempton Park Gravels and London Clay Formation
Presence of aquifer?	Yes – Kempton Park Gravels
Total Site Area	0.27 ha
Is the site currently know to be at risk of flooding from any sources?	Long Term Flood Risk Maps show surface water flooding at the site.

Professional Details	Application Information
Name	Graham Sinclair
Profession/Areas of Expertise	Flood Risk and Drainage Engineer
Chartered Institution and Membership Level	Chartered Water and Environment Manager (C.WEM) with the Chartered Institute of Water and Environmental Management (CIWEM)
Brief description of the assessment involved	Replacement dwelling with basement
Brief Summary of the assessment results	<p>Site is at risk of surface water flooding in isolated areas, but the location of the replacement house is outside the area of surface water risk.</p> <p>Perched groundwater is present in the Kempton Park Gravels Member. London Clay commences at 5 m bgl. The true groundwater position will be below the London Clay which goes past 10 m bgl. The basement will interact with the perched groundwater, and the basement needs to be suitably tanked to prevent groundwater ingress or seepage.</p>
Signature	

The London Sustainable Drainage Proforma

Introduction

This proforma is intended to accompany a drainage strategy prepared for a planning application where required by national or local planning policy. It should be used to summarise the key outputs from the strategy to allow assessing officers at the Lead Local Flood Authority (LLFA) to quickly assess compliance with sustainable drainage (SuDS) planning

The proforma is divided into 4 sections, which are intended to be used as follows:

1. Site and project information - Provide summary details of the development, site and drainage
2. Proposed discharge arrangement – Summarise site ground conditions to determine potential for infiltration. Select a surface water discharge method (or mix of methods) following the hierarchical approach set out in the London Plan.
3. Drainage strategy – Prioritise SuDS measures that manage runoff as close to source as possible and contribute to the four main pillars of SuDS; amenity, biodiversity, water quality and water quantity.
4. Supporting information – Provide cross references to the page or section of the drainage strategy report where the detailed information to support each element can be found. This may be more than one reference for each

Policy

Drainage strategies for developments in the London Borough of Richmond upon Thames need to comply with the following policies on SuDS:

1. [London Borough of Richmond upon Thames Local Plan policy LP21](#)
2. [London Plan policy 5.13](#) and draft [New London Plan policy S13](#)
3. [The National Planning Policy Framework \(NPPF\)](#)

Technical Guidance

- Post-development surface water discharge rate should be limited to greenfield runoff rates. Proposals for higher discharge rates should be agreed with the LLFA ahead of submission of the Planning Application. Clear evidence should be provided with the Planning Application to show why greenfield rates cannot be achieved.
- Greenfield runoff rate is the runoff rate from a site in its natural state, prior to any development. This should be calculated using one of the runoff estimation methods set out in Table 24.1 of CIRIA C753 The SuDS Manual.
- Attenuation storage volumes required to reduce post-development discharge rates to greenfield rates should be calculated using one of the runoff estimation methods set out in Table 24.1 of CIRIA C753 The SuDS Manual.
- 'CC' refers to climate change allowance from the current Environment Agency guidance.
- An operation and maintenance strategy for proposed SuDS measures should be submitted with the Planning Application and include the details set out in section 32.2 of CIRIA C753 The SuDS Manual. The manual should be site-specific and not directly reproduce parts of The SuDS Manual.
- Other useful sources of guidance are:
 - [o Richmond upon Thames Sustainable Drainage guidance](#)
 - [o The London Plan Sustainable Design and Construction SPG](#)
 - [o DEFRA non-statutory technical standards for sustainable drainage](#)
 - [o Environment Agency climate change guidance](#)
 - [o CIRIA C753 The SuDS Manual](#)

1. Project & Site Details	Project / Site Name (including sub-catchment / stage / phase where appropriate)	Sevenoaks Maidenhead & Sunbury Management Catchment outline planning
	Address & post code	Sevenoaks, 101A High Street , Hampton, TW12 2SX
	OS Grid ref. (Easting, Northing)	E 514164 N 70010
	LPA reference (if applicable)	
	Brief description of proposed work	Replacement single occupancy dwelling
	Total site Area	2700 m ²
	Total existing impervious area	193.7 m ²
	Total proposed impervious area	600 m ²
	Is the site in a surface water flood risk catchment (ref. local Surface Water Management Plan)?	No but small areas of surface water flood risk on site
	Existing drainage connection type and location	Assumed foul connection to tw sewer in High Street
	Designer Name	Tracey Tooke
	Designer Position	Senior Consultant Water & Flood Risk
	Designer Company	Create Consulting Engineers Ltd

2. Proposed Discharge Arrangements	2a. Infiltration Feasibility		
	Superficial geology classification	Kempton Park Gravel Member	
	Bedrock geology classification	London Clay	
	Site infiltration rate	unknown	m/s
	Depth to groundwater level	2.0 (perched)	m below ground level
	Is infiltration feasible?	no concentrated features due to high perched groundwater	
	2b. Drainage Hierarchy		
		<i>Feasible (Y/N)</i>	<i>Proposed (Y/N)</i>
	1 store rainwater for later use	y	y
	2 use infiltration techniques, such as porous surfaces in non-clay areas	n	n
	3 attenuate rainwater in ponds or open water features for gradual release	n	n
	4 attenuate rainwater by storing in tanks or sealed water features for gradual release	y	y
	5 discharge rainwater direct to a watercourse	n	n
6 discharge rainwater to a surface water sewer/drain	y	y	
7 discharge rainwater to the combined sewer.	n	n	
2c. Proposed Discharge Details			
Proposed discharge location	Thames Water surface sewer in High Street		
Has the owner/regulator of the discharge location been consulted?	no		

3a. Discharge Rates & Required Storage				
	Greenfield (GF) runoff rate (l/s)	Existing discharge rate (l/s)	Required storage for GF rate (m ³)	Proposed discharge rate (l/s)
Qbar	0.11			
1 in 1	0.09	unknown	1.0	1.0
1 in 30	0.25		1.0	1.0
1 in 100	0.35		1.0	1.0
1 in 100 + CC			1.0	1.0
Climate change allowance used		40%		
3b. Principal Method of Flow Control		hydrobrake		
3c. Proposed SuDS Measures				
	Catchment area (m ²)	Plan area (m ²)	Storage vol. (m ³)	
Rainwater harvesting	0		0	
Infiltration systems	0		0	
Green roofs	207.5	207.5	0	0
Blue roofs	0	0	0	0
Filter strips	0	0	0	0
Filter drains	0	0	0	0
Bioretention / tree pits	0	0	0	0
Pervious pavements	51.5	51.5	0	0
Swales	0	0	0	0
Basins/ponds	0	0	0	0
Attenuation tanks	600		43.86	0
Total	0	0	0	0

3. Drainage Strategy

4a. Discharge & Drainage Strategy	Page/section of drainage report
Infiltration feasibility (2a) – geotechnical factual and interpretive reports, including infiltration results	Appendix B - perched groundwater between 2 - 4 m bgl, infiltration unfeasible except for shallow features draining themselves such as pathways etc.
Drainage hierarchy (2b)	To surface sewer section 10 of report
Proposed discharge details (2c) – utility plans, correspondence / approval from owner/regulator of discharge location	See drainage drawing and section 10 of the report
Discharge rates & storage (3a) – detailed hydrologic and hydraulic calculations	Section 10 of the report and Appendix D
Proposed SuDS measures & specifications (3b)	Section 10 of the report and Appendix D
4b. Other Supporting Details	Page/section of drainage report
Detailed Development Layout	Appended Plans
Detailed drainage design drawings, including exceedance flow routes	Drainage drawing appended
Detailed landscaping plans	
Maintenance strategy	Section 10 of the report
Demonstration of how the proposed SuDS measures improve:	
a) water quality of the runoff?	section 10 and Appendix D
b) biodiversity?	Section 10
c) amenity?	Section 10

4. Supporting Information