IN SITU SOAKAWAY TEST RESULT

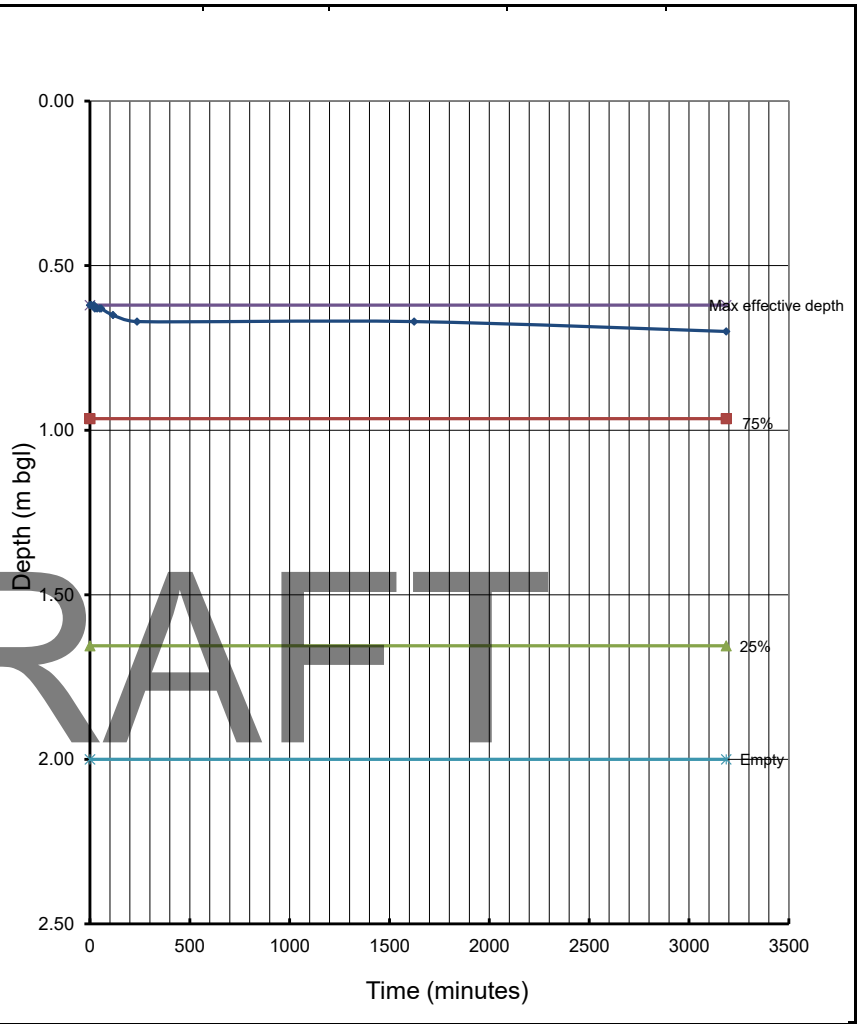
Trial Pit No.	TP7

Filling	1 of 1

Date	10/05/2021
Operator	FC
Test Strata	Gravelly Clay
Stability of pit	Stable
Backfill used	None

Trial Pit Length (m)	1.60
Trial Pit Width (m)	0.50
Trial Pit Depth (m)	2.00
Amount of Backfill placed (m)	0
Assumed Backfill Void Ratio	N/A

Time (Minutes)	Water level (m.bgl)
0.00	0.62
7.00	0.62
20.00	0.62
24.00	0.63
35.00	0.63
48.00	0.63
55.00	0.63
115.00	0.65
235.00	0.67
1623.00	0.67
3186.00	0.70



Initial Water Level (m)	0.62	Total internal surface area of pit (m^2)	9.20
Final Water Level (m)	0.70	Internal surface area of trial pit within effective depth range (m^2)	3.70
Change in Water Level (m)	0.08	Volume outflowing between 75% and 25% effective depth (m^3)	0.55
Effective Depth at 25% (tp25) (m)	1.66	Time at 25% (tp25) (minutes)	
Effective Depth at 75% (tp75) (m)	0.97	Time at 75% (tp75) (minutes)	

Soil Infiltration Rate (m/s)	*

Notes: 1. Undertaken in general accordance with BRE DG 365 method
2. Based on extrapolated data NO

* Water level did not drop sufficiently for the calculation to be made

Client:	Patron Hook Ltd
Project:	Bartley Wood Business Park, Hook
Project No.	AG3265-21

APPLiED GEOLOGY

IN SITU SOAKAWAY TEST RESULT

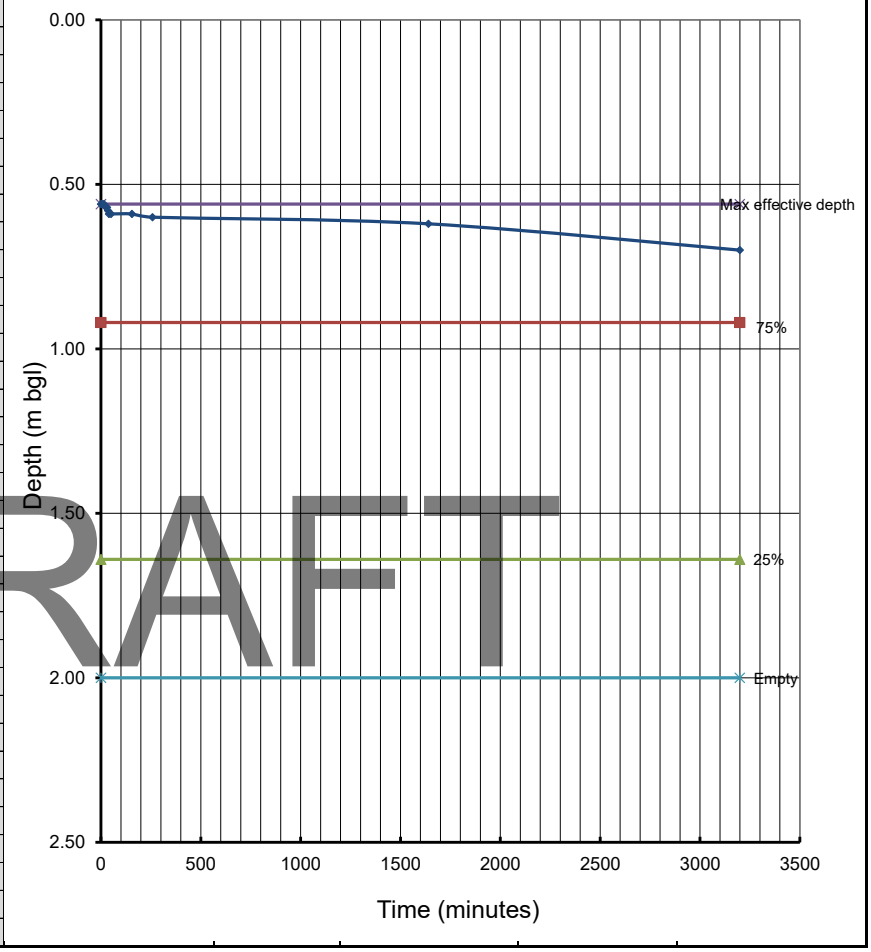
Trial Pit No.	TP8

Filling	1 of 1

Date	10/05/2021
Operator	FC
Test Strata	Sandy Clay
Stability of pit	Stable
Backfill used	None

Trial Pit Length (m)	1.70
Trial Pit Width (m)	0.50
Trial Pit Depth (m)	2.00
Amount of Backfill placed (m)	0
Assumed Backfill Void Ratio	N/A

Time (Minutes)	Water level (m.bgl)
0.00	0.56
5.00	0.56
15.00	0.56
25.00	0.57
30.00	0.57
35.00	0.58
40.00	0.59
50.00	0.59
155.00	0.59
258.00	0.60
1640.00	0.62
3199.00	0.70



Initial Water Level (m)	0.56	Total internal surface area of pit (m^2)	9.65
Final Water Level (m)	0.70	Internal surface area of trial pit within effective depth range (m^2)	4.02
Change in Water Level (m)	0.14	Volume outflowing between 75% and 25% effective depth (m^3)	0.61
Effective Depth at 25% (tp25) (m)	1.64	Time at 25% (tp25) (minutes)	
Effective Depth at 75% (tp75) (m)	0.92	Time at 75% (tp75) (minutes)	

Soil Infiltration Rate (m/s)	*

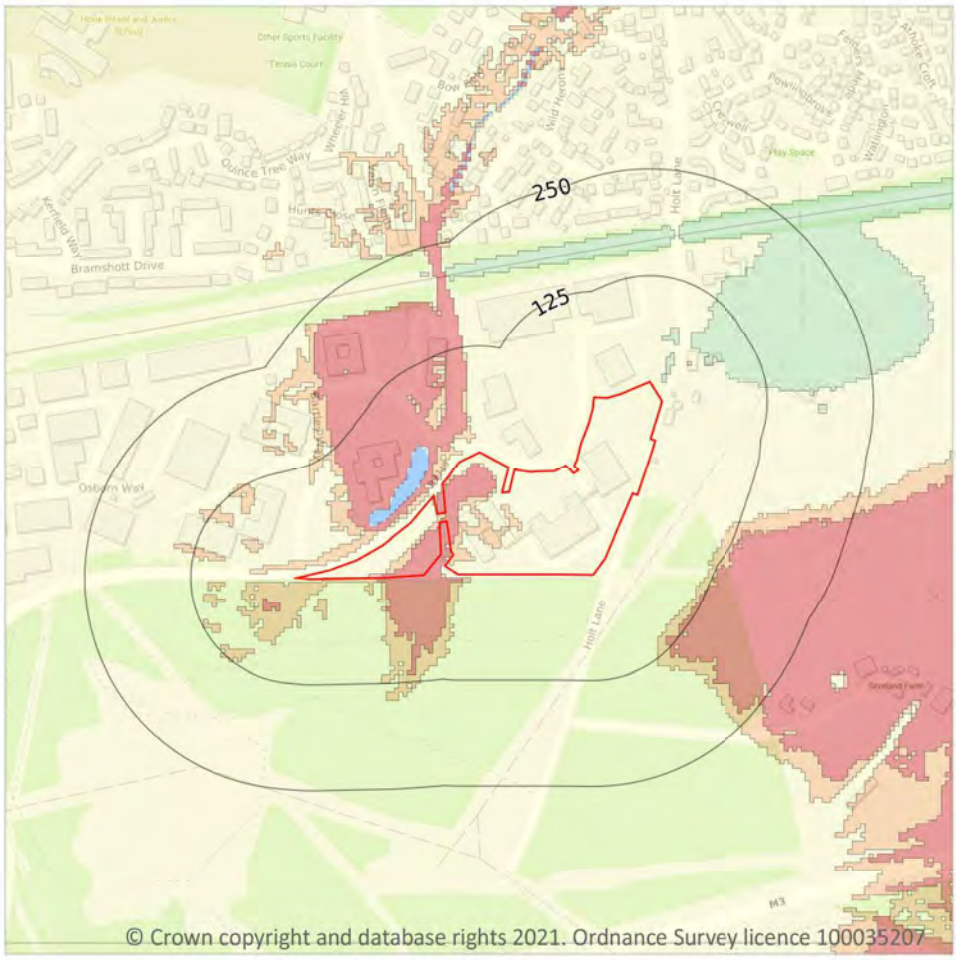
Notes: 1. Undertaken in general accordance with BRE DG 365 method
2. Based on extrapolated data NO

* Water level did not drop sufficiently for the calculation to be made

Client:	Patron Hook Ltd
Project:	Bartley Wood Business Park, Hook
Project No.	AG3265-21

APPLiED GEOLOGY

9 Groundwater flooding



Site Outline

Search buffers in metres (m)

- High
- Moderate - High
- Moderate
- Low
- Negligible

9.1 Groundwater flooding

Highest risk on site	**High**
Highest risk within 50m	**High**

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on **page 49**

This data is sourced from Ambiental Risk Analytics.

Asset location search

Property Searches

Greenhatch Group
Rowan HouseDuffield Road Little Eaton
DERBY
DE21 5DR

Search address supplied

Virgin Media
10-14
Bartley Way
Bartley Wood Business Park
Hook
RG27 9UP

Your reference RG27 9UP

Our reference ALS/ALS Standard/2020_4195615

Search date 8 June 2020

Knowledge of features below the surface is essential for every development

The benefits of this knowledge not only include ensuring due diligence and avoiding risk, but also being able to ascertain the feasibility of any development.

Did you know that Thames Water Property Searches can also provide a variety of utility searches including a more comprehensive view of utility providers' assets (across up to 35-45 different providers), as well as more focused searches relating to specific major utility companies such as National Grid (gas and electric).

Contact us to find out more.

Thames Water Utilities Ltd
Property Searches, PO Box 3189, Slough SL1 4WW
DX 151280 Slough 13

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

0845 070 9148

Asset location search

Thames Water Property Searches

Search address supplied: Virgin Media, 10-14, Bartley Way, Bartley Wood Business Park, Hook, RG27 9UP

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 searchprovides 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 0845 070 9148, 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

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.

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.

With regard to the fresh water supply, this site falls within the boundary of another water company. For more information, please redirect your enquiry to the following address:

South East Water
Rocfort Road
Snodland

Asset location search

Property Searches

Kent
ME6 5AH

Tel: 0845 301 0845

www.southeastwater.co.uk.

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

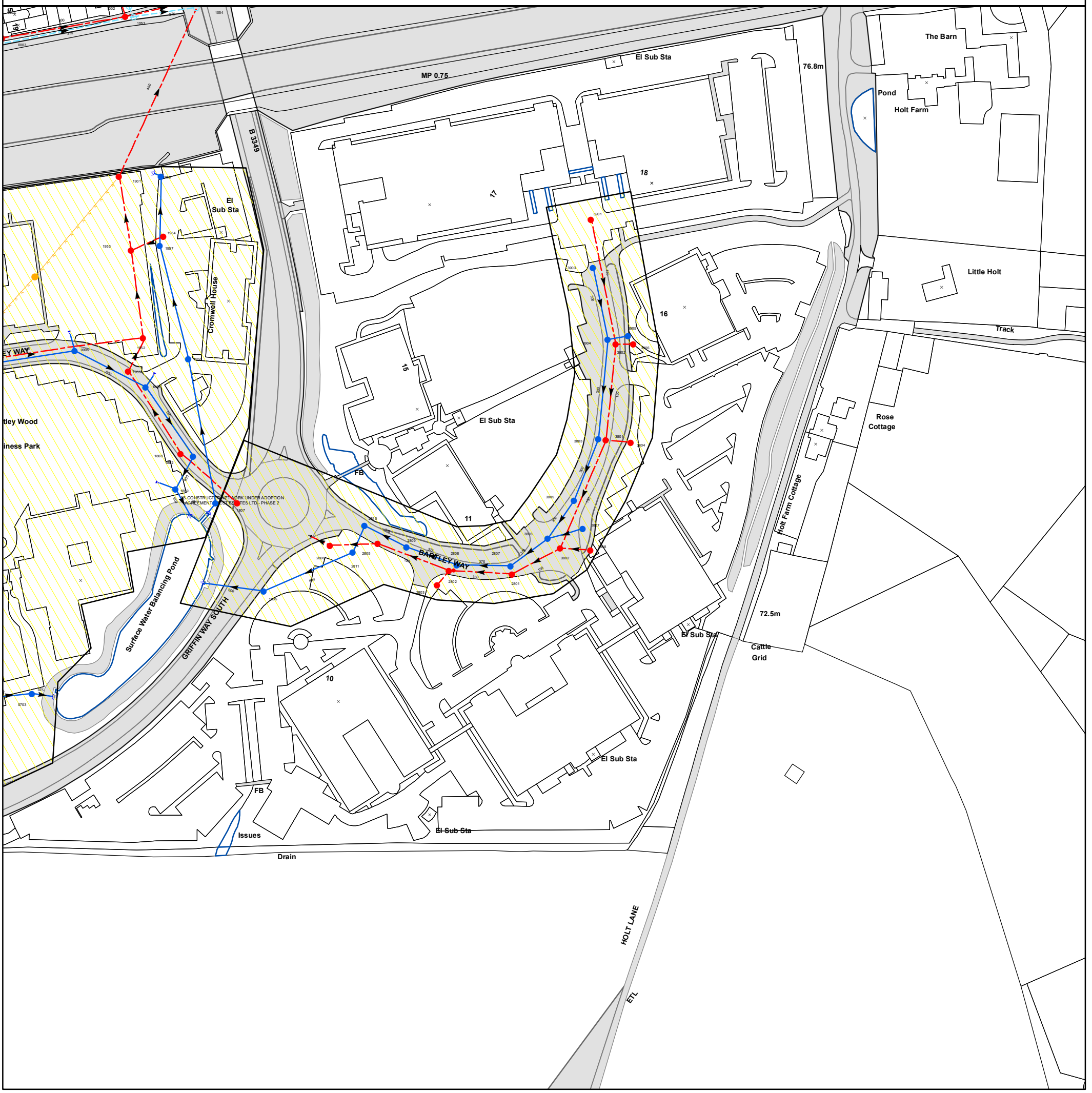
Should you require any advice concerning clean water operational issues or clean water connections, please contact:

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

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

Based on the Ordnance Survey Map with the sanction of the Controller of H.M Stationary Office License Number 10019345

ALS/ALS Standard/2020_4195615



0 10 20 40 60 80 Meters

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 before any works are undertaken. Crown copyright Reserved

Scale:	1:1792
Width:	500m
Printed By:	G1KANAGA
Print Date:	09/06/2020
Map Centre:	473310,153825
Grid Reference:	SU7353NW

Comments:

ALS/ALS Standard/2020_4195615

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

REFERENCE	COVER LEVEL	INVERT LEVEL
0703	69.49	67.63
3902	76.13	74.21
3906	76.48	74.37
3901	77.45	74.73
2805	71.05	68.96
2806	70.5	67.96
2802	71.81	69.3
1807	69.55	67.21
1801	69.73	67.72
1809	69.1	67.6
1901		
1053	68.68	67.54
1054		
1811		
1958		
1952	69.58	66.52
3905	76.63	75.15
3807	73.43	70.9
3803	74.78	73.23
2809	71.18	68.96
2810	70.64	68.38
2808	71.78	69.84

REFERENCE	COVER LEVEL	INVERT LEVEL
3801	74.47	73.09
3804	74.84	73.41
3808	73.31	71.42
3802	72.94	71.32
2801	72.39	70.83
2803	72.13	69.47
1955	69.63	66.81
1808	69.82	67.04
1802	69.84	67.69
0905	69.32	67.77
1953	68.95	66.14
1956		
1954		
1957		
1002	69.18	66.04
3904	76.07	74.52
3805	73.44	71.89
3903	77.33	74.91
3806	72.92	70.66
2811	70.9	67.9
2807	72.35	70.21
1805	69.9	67.53

Based on the Ordnance Survey Map with the sanction of the Controller of H.M Stationary Office License Number 10019345

ALS/ALS Standard/2020_4195615

0 45 90 180 270 360
Meters

Scale:	1:7158
Width:	2000m
Printed By:	G1KANAGA
Print Date:	09/06/2020
Map Centre:	473310,153825
Grid Reference:	SU7353NW

Comments:

ALS Sewer Map Key

Public Sewer Types (Operated & Maintained by Thames Water)

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

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

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

- Trunk Surface Water
- Trunk Foul
- Storm Relief
- Trunk Combined
- Vent Pipe
- Bio-solids (Sludge)
- Proposed Thames Surface Water Sewer
- Proposed Thames Water Foul Sewer
- Gallery
- Foul Rising Main
- Surface Water Rising Main
- Combined Rising Main
- Sludge Rising Main
- Proposed Thames Water Rising Main
- Vacuum

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
- Dam Chase
- Fitting
- Meter
- Vent Column

Operational Controls

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

- Control Valve
- Drop Pipe
- Ancillary
- 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.

- Outfall
- Undefined End
- Inlet

Other Symbols

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

- Public/Private Pumping Station
- Change of characteristic indicator (C.O.C.I.)
- Invert Level
- Summit

Areas

Lines denoting areas of underground surveys, etc.

- Agreement
- Operational Site
- Chamber
- Tunnel
- Conduit Bridge

Other Sewer Types (Not Operated or Maintained by Thames Water)

- Foul Sewer
- Surface Water Sewer
- Combined Sewer
- Gulley
- Culverted Watercourse
- Proposed
- Abandoned Sewer

Notes:

1) All levels associated with the plans are to Ordnance Datum Newlyn.
2) All measurements on the plans are metric.
3) Arrows (on gravity fed sewers) or flecks (on rising mains) indicate 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 level indicates that data is unavailable.
6) The text appearing alongside a sewer line indicates the internal diameter of the pipe in milimetres. 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 present on the plan, please contact a member of Property Insight on 0845 070 9148.

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 14 days from due 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. Thames Water does not accept post-dated cheques-any cheques received will be processed for payment on date of receipt.
5. In case of dispute TWUL`s terms and conditions shall apply.
6. 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'.
7. Interest will be charged in line with current Court Interest Charges, if legal action is taken.
8. 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 316 9800

If you are unhappy with our service you can speak to your original goods or customer service provider. If you are not satisfied with the response, your complaint will be reviewed by the Customer Services Director. You can write to her at: Thames Water Utilities Ltd. PO Box 492, Swindon, SN38 8TU.

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 0121 345 1000 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**	**Cheque**
Call **0845 070 9148** quoting your invoice number starting CBA or ADS / OSS	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	Made payable to '**Thames Water Utilities Ltd**' Write your Thames Water account number on the back. Send to: **Thames Water Utilities Ltd., PO Box 3189, Slough SL1 4WW** or by DX to **151280 Slough 13**

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

2. Study Area

The Hart SFRA study area (Ffigure 2.1) covers 215 km^2. Within this is the River Blackwater along with the River Whitewater, River Hart and Fleet Brook which are the primary watercourses. As well as the main watercourses there are a number of smaller tributaries including Sandy Lane Ditch, Pine Grove Stream (both in Fleet), the Great Sheldon Stream, the Dorchester Stream (Hook), Tudor Stream, Cricket Hill Stream, Dungells Stream, Southwark Brook, Moulsham Copse Stream, Catsby Stream (Yateley), Cypress Stream, Bailey Stream (in Blackwater) and Green Lane Stream (Hartley Wintney). A section of the Basingstoke Canal, which is managed by the Basingstoke Canal Authority, passes through the study area and has the potential to influence the watercourses in this study.

Figure 2.1 Study Area

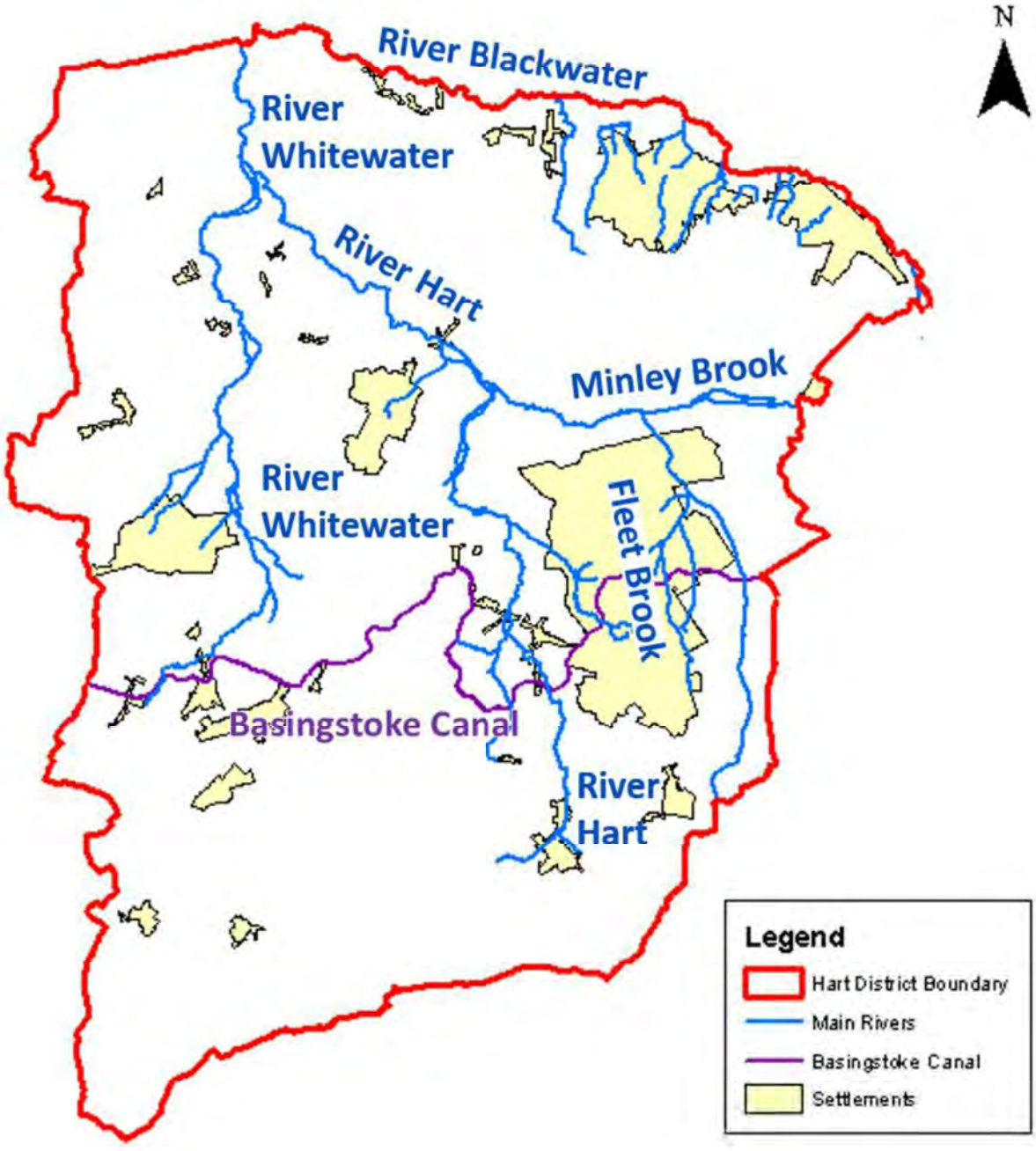


Figure 2.2 Topography of Hart

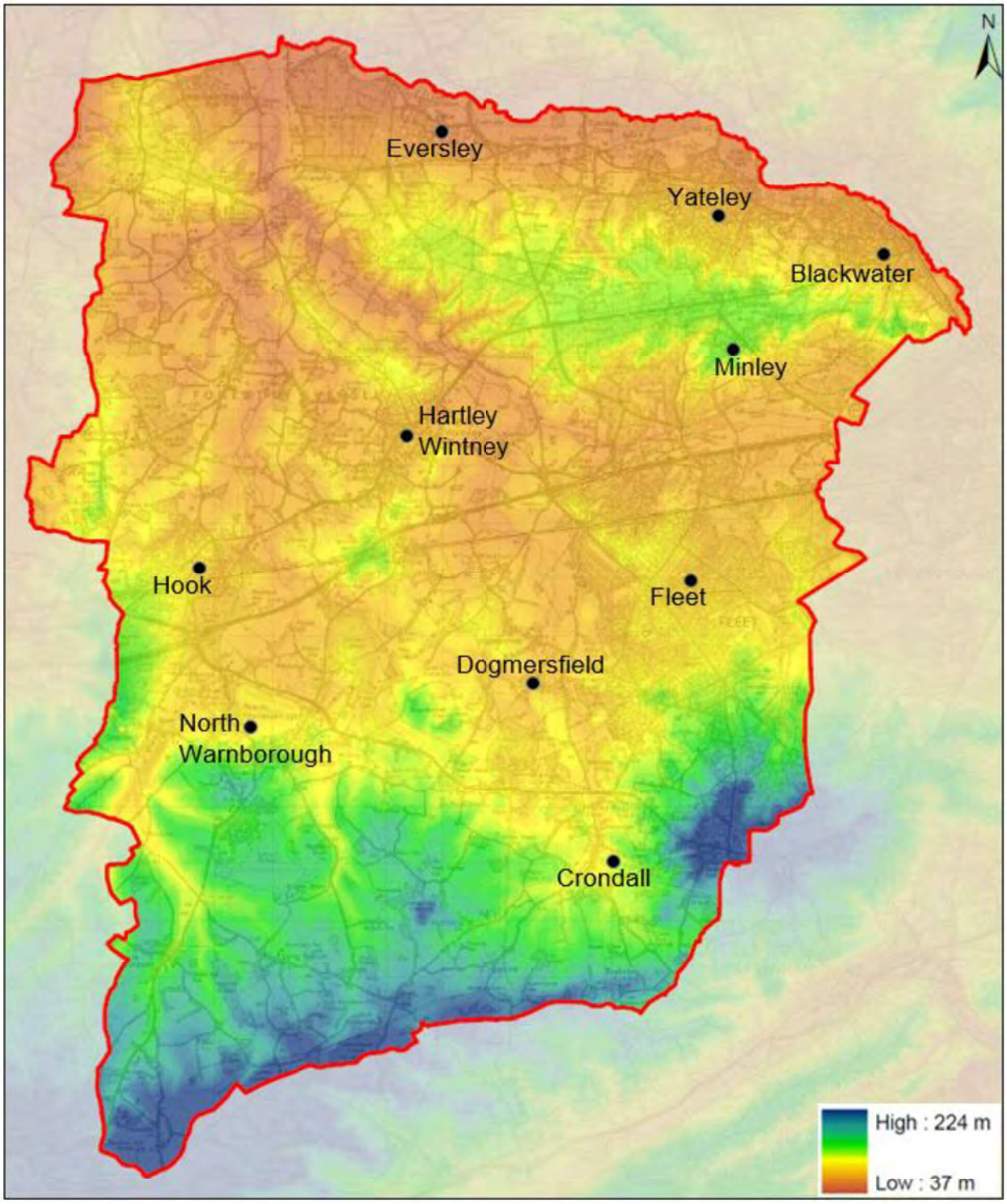
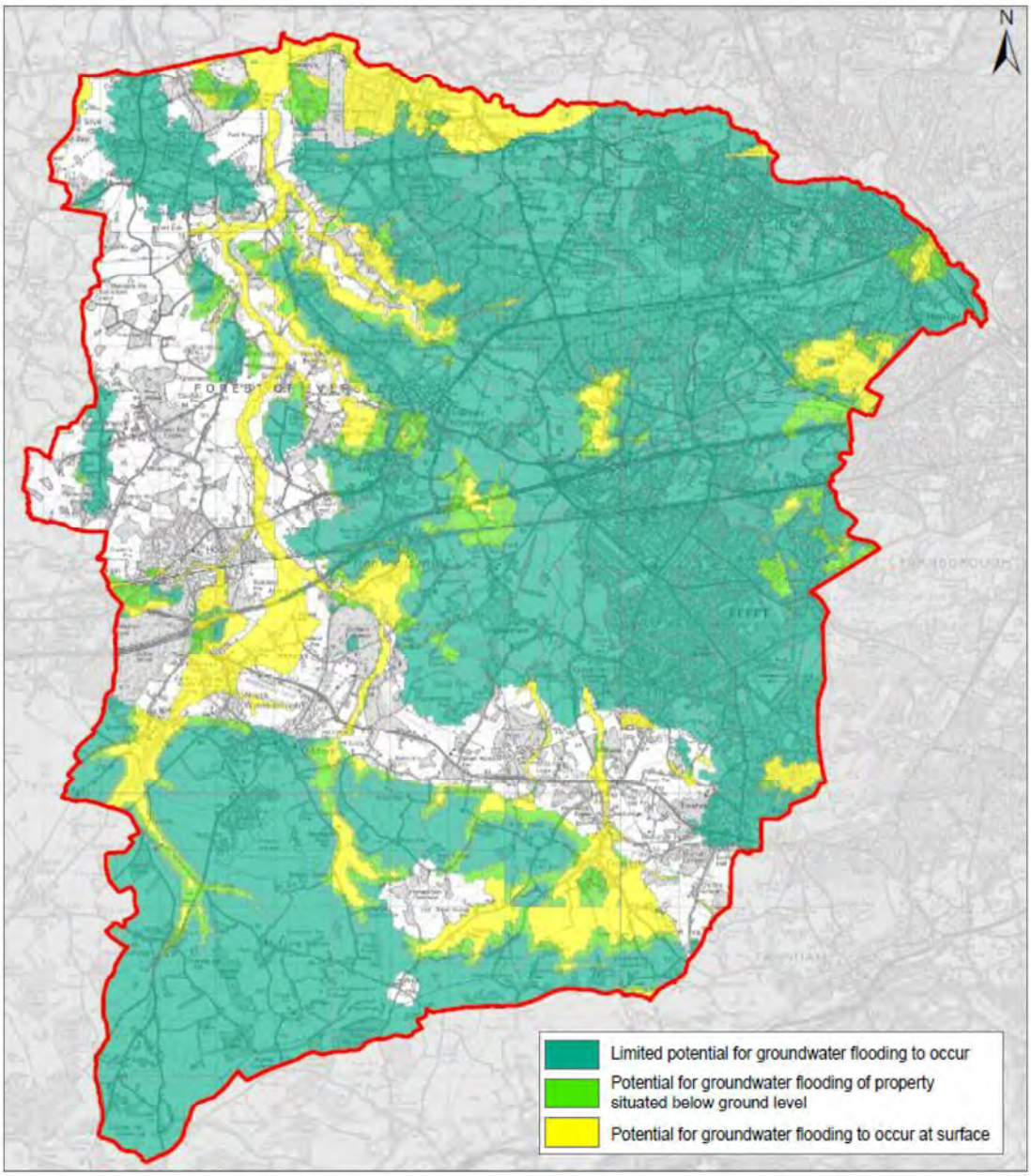


Figure 8.2 Areas susceptible to groundwater flooding



Crondall, Blackwater/Hawley, Fleet, Hook, Eversley and North Warnborough contain 91% of the properties with a susceptibility to groundwater flooding in Hart. 29% of the risk is contained in Crondall alone with 473 properties being at risk from at the surface or below ground flooding. Many of the locations in Hart with a risk of groundwater flooding at the surface are located along the river corridors of the River Whitewater, River Hart and Blackwater River floodplain.

Bartley Wood Business Park, Hook, Hampshire

SUDS Maintenance Plan

Project Ref: EB/12962
First Issue: May 2021

Client:
Patron Hook Ltd

Baynham Meikle Partnership
8 Meadow Road
Edgbaston
Birmingham
B17 8BU

Tel: +44 (0) 121 434 4100
Fax +44 (0) 121 434 4073

SUSTAINABLE DRAINAGE AND LANDSCAPE MANAGEMENT PLAN FOR

Bartley Wood Business Park

An introduction to sustainable drainage systems or SuDS

- SuDS are a new environmentally friendly approach to managing rainfall that use landscape features (pond, swales) to deal with surface water. SuDS aim to:
- Control the flow, volume and frequency of water leaving a development area
- Prevent pollution by intercepting silt and cleaning runoff from hard surfaces
- Provide attractive surroundings for the community
- Create opportunities for wildlife

SuDS Features

The proposed SuDS are designed to prevent flooding and control the flow of surface water using attractive landscape features.

It is proposed that cellular storage tanks will be incorporated within the proposed site development. This feature is the primary source of surface water storage for the proposed site development which will then discharge into the existing public sewers running along Bartley Way.

The controlled outfall allows heavy rainfall to leave the site slowly and make its way through proposed SUDs features.

Further to the cellular storage tanks, storage is also provided by the use of large capacity drainage channels and managed surface water flooding.

The surface water flows will pass through a petrol interceptor in order to filter all of the pollutant prior to being discharged off site.

SuDS Management

The proposed SuDS measures, have been designed with easy maintenance in mind. Maintenance will generally fall into one of the three following categories:

- **Regular day to day care** - litter collection, grass cutting and checking the inlets and outlets where water enters or leaves a SuDS feature
- **Occasional tasks** - managing vegetation and removing any silt that builds up in the SuDS features also after flooding events.
- **Remedial work** - repairing damage where necessary

SUDS Maintenance – Summary

	REGULAR MAINTENANCE	Frequency	Unit Rate	Total
1	**LITTER MANAGEMENT**			
1.1	Pick up all litter in SuDS and Landscape areas and remove from site	Monthly		
2	**GRASS MAINTENANCE** – all cuttings to wildlife piles			
2.1	Mow all grass verges, paths and amenity at 35-50mm with 75mm max. Leaving grass in situ	As required or monthly		
2.2	Wildflower areas trimmed to 50mm in Sept Or Wildflower areas trimmed to 50mm on 3 year rotation 30% each year	1 visit annually 1 visit annually		
3	**HARD SURFACES**			
3.1	Sweep all paving regularly.	1 visit		
	OCCASIONAL TASKS			
4	**SILT MANAGEMENT**			
4.1	Excavate silt, stack and dry within 10m of the SuDS feature, but outside the design profile where water flows, spread, rake and overseed	As required.		
5	**NATIVE PLANTING**			
5.1	Remove lower branches where necessary to ensure good ground cover to protect soil profile from erosion.	1 visit annually		
	REMEDIAL WORK			
6	Inspect SuDS system regularly to check for damage or failure. Undertake remedial work as required.	As required		

SuDS Features:

SuDS techniques include control structures to manage discharge of water from the site into the existing sewer. It is proposed that surface water discharge is to be limited to greenfield run off rates.

Cellular Tanks are used to manage and control surface runoff. Also, they are used to store surface water under the ground before discharging into existing sewer.

Permeable surfaces such as permeable block paving, permeable tarmac, gravel or free draining soils that allow rain to percolate through the surface into underlying drainage layers. They must be protected from silt, sand, compost, mulch, etc.

Inspection Chambers and rodding eyes are used on bends or where pipes come together. They allow cleaning of the system if necessary.

Overflows can be below ground through gratings and chambers or over grass weirs in the open They must be kept clear at all times to protect areas from flooding.

Flood routes (exceedance routes) allow water volumes exceeding the capacity of the SUDS system to escape from the site without causing damage to property. This route must be clear of obstructions at all times.

Proprietary interceptor allows all of the surface water to pass through the device in order to filter pollutants and capture hydrocarbons, total suspended solids or heavy metals.

Sustainable Drainage Maintenance Specification

1.0 GENERAL REQUIREMENTS

Maintenance activities comprise • **Regular Maintenance** • **Occasional Tasks** • **Remedial Work**	**Frequency**
Generally **Litter** Collect all litter or other debris and remove from site at each site visit.	 Monthly

- **Avoid** use of weed killers and pesticides to prevent chemical pollution
- **Avoid** de-icing agents wherever possible to allow bio-remediation of pollutants in permeable surfaces.
- **Protect** all permeable, porous and infiltration surfaces from silt, sand, mulch and other fine particles.

2.0 PERMEABLE SURFACES

- **Permeable surfaces** including permeable block paving, gravel or free draining soils that allow rain to percolate through the surface into underlying drainage layers. They must be protected from silt, sand, compost, mulch, etc. Permeable block paving can be cleaned by suction brushing.

PERMEABLE AND POROUS SURFACES	
Regular Maintenance	**Frequency**
Cleaning Brush regularly and remove sweepings from all hard surfaces	 Monthly
Occasional Tasks	**Frequency**
Permeable Pavements. Brush and vacuum surface once a year to prevent silt blockage and enhance design life.	Annually
Remedial Work	**Frequency**
Monitor effectiveness of permeable pavement and when water does not infiltrate immediately advise Client of possible need for reinstatement of top layers or specialist cleaning. Recent experience suggests jet washing and suction cleaning will substantially reinstate pavement to 90% efficiency.	As required

3.0 INLETS, OUTLETS, CONTROLS, AND INSPECTION CHAMBERS

- **Inlets and outlets structures** may be surface structures or conveyance pipes with guards or headwalls. They must be free from obstruction at all times.
- **SuDS flow control structures** can be protected orifices, slots weirs or other controls at or near the surface to be accessible and easy to maintain. They may be in baskets, in small chambers or in the open.
- **Inspection Chambers** and rodding eyes are used on bends or where pipes come together and allow cleaning of the system if necessary. They should be designed out of the system where possible.

INLETS, OUTLETS, CONTROLS AND INSPECTION CHAMBERS	
Regular Maintenance	**Frequency**
Inlets, outlets and surface control structures	
Inspect surface structures removing obstructions and silt as necessary. Check there is no physical damage.	Monthly
Strim vegetation 1m min. surround to structures and keep hard aprons free from silt and debris	Monthly
Inspection chambers and below ground control chambers	
Remove cover and inspect ensuring water is flowing freely and that the exit route for water is unobstructed. Remove debris and silt. Undertake inspection after leaf fall in autumn	Annually
Occasional Maintenance	
Check topsoil levels are 20mm above edges of baskets and chambers to avoid mower damage	As necessary
Remedial work	**Frequency**
Unpack stone in basket features and unblock or repair and repack stone as design detail as necessary.	As required
Repair physical damage if necessary.	As required

4.0 OVERFLOWS AND FLOOD ROUTES

- **Overflows** are overland across weirs, through gratings or within chambers and must be kept clear at all times to protect areas from flooding. They allow onward flow when part of the SuDS system is blocked.
- **Flood routes (exceedance routes)** allow water volumes that exceed the capacity of the SuDS system to pass through or round the site without causing damage to property. These routes must be clear of obstructions at all times.

OVERFLOWS AND FLOOD ROUTES	
Regular Maintenance	**Frequency**
Overflows. Jet pipes leading from overflow structures annually and check by running water through the overflow. Check free flow at next SUDS feature – inlet to basin or chamber.	Annually
Overflows. Remove any accumulated grass cuttings or other debris on top of grass weirs or stone filled baskets overflows.	Monthly
Flood Routes. Make visual inspection. Check route is not blocked by new fences, walls, soil or other rubbish. Remove as necessary.	Monthly
Remedial	**Frequency**
Overflows. If overflow is not clear then dismantle structure and reassemble to design detail.	As required

5.0 Cellular Storage Tanks

Cellular Storage	
Regular Maintenance	**Frequency**
Inspect inlets, outlets and control structures and remove obstructions and silt as necessary.	Monthly
Remove cover and inspect ensuring water is flowing freely and that the exit route for water is unobstructed. Remove debris and silt. Undertake inspection after leaf fall in autumn	Annually
Occasional Maintenance	
Remove silt from catchpits and cellular storage	As necessary
Remedial work	**Frequency**
Repair inlet/outlet if necessary, removal of silt build up	As required
Repair physical damage if necessary.	As required

6.0 Proprietary Interceptor

The proprietary interceptor unit is to be maintained on a periodic basis in line with the recommendation of the particular manufacturer.

This should include the following:

- Inspect the integrity of the separator and all mechanical parts,
- Inspect all filters and replace or repair as required,
- Assess the amount of collected contaminants (oil and fuel) and silt,
- Service any electrical systems including volume alarms and any interceptor management systems,
- Inspect the coalescing device if installed, and replace if required,
- Conduct safe silt/contaminant removal in accordance with waste transit and disposal regulations,
- Install new separators to meet site and regulatory requirements,
- Inspect supporting infrastructure such as gullies, manholes and pipework,
- Maintain industry standard documentation,
- Maintain logs of inspections, maintenance, incidents, services and contaminant removal.

7.0 SPILLAGE – EMERGENCY ACTION

Most spillages on development sites are of compounds that do not pose a serious risk to the environment if they enter the drainage in a slow and controlled manner with time available for natural breakdown in a treatment system. Therefore small spillages of oil, milk or other known organic substances should be removed where possible using soak mats as recommended by the Environment Agency with residual spillage allowed to bio-remediate in the drainage system.

In the event of a serious spillage, either by volume or of unknown or toxic compounds, then isolate the spillage with soil, turf or fabric and block outlet pipes from chamber(s) downstream of the spillage with a bung(s). (A bung for blocking pipes may be made by wrapping soil or turf in a plastic sheet or close woven fabric.)

Contact the Environment Agency immediately.

8.0 QUERIES REGARDING A DESIGN FEATURE.

In the event of a concern or failure of a SuDS design feature contact The Baynham Meikle Partnership.

8 Meadow Road, Edgbaston, Birmingham B17 8BU
Tel: (0121) 434 4100
Email admin@bm-p.co.uk

9.0 RESPONSIBILITIES

The new on-site drainage will not be adopted it is to remain in private ownership. All drainage maintenance will be managed by Patron Hook Ltd, details below:

Patron Hook Ltd
3rd Floor
Liberation House
Castle Street
St Helier, Jersey
JE1 2LH