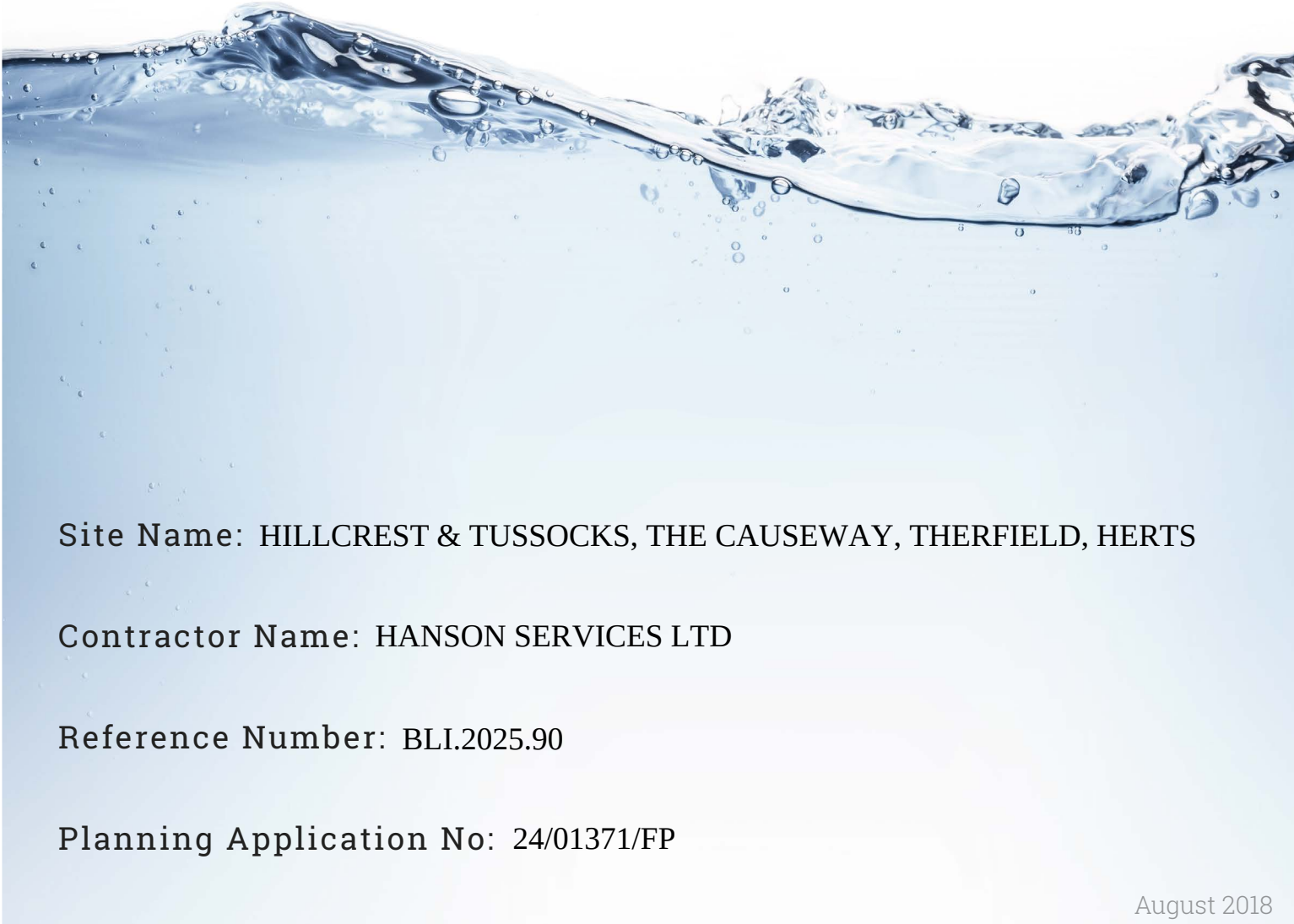


CONSTRUCTION SURFACE WATER MANAGEMENT PLAN

The background of the lower half of the page is a high-quality photograph of a water splash. The water is captured mid-air, creating a series of droplets and a dynamic, flowing shape. The lighting is bright, highlighting the clarity and texture of the water.

Site Name: HILLCREST & TUSSOCKS, THE CAUSEWAY, THERFIELD, HERTS

Contractor Name: HANSON SERVICES LTD

Reference Number: BLI.2025.90

Planning Application No: 24/01371/FP

Index

- 1. Introduction & Aim
- 2. Site Details
- 3. Roles & Responsibilities
- 4. Managing Surface Water During Construction
- 5. Flood & Weather Alert
- 6. Legislation & Guidance
- 7. Company, Contractor Accreditation (e.g. ISO) and Environmental Policies
- 8. Appendices List

Content Amendment Record

Issue No	Revision	Description	Date	Signature
01	00	APPROVAL	01/08/2025	R.MARTIN
02	01	APPROVAL	03/09/2026	R.MARTIN

1. Introduction & Aim

- 1.1** The requirement for a Construction Surface Water Management Plan (CSWMP) is based on the duty to ensure that surface water quality and quantity is managed throughout the construction process to mitigate impacts off site.

2. Site Details

- 2.1** Location: HILLCREST & TUSOCKS, THE CAUSEWAY, THERFIELD, HERTS, SG8 9PP



3. Roles & Responsibilities

3.1 This section identifies the key roles and responsibilities for the scheme.

This is to be completed by the appointed contractor.

Role	Contact	Company Name & Address	Contact No & Email	Key Responsibilities
Principal	James Hanson	Hanson Services	01763 448446	Director
Contractor		Ltd, 6a Melbourn	07730 533075	
		Street, Royston	james@hansonserv	
		Hertfordshire	ices.co.uk	
		SG8 7BZ		

4. Managing Surface Water During Construction

Tick one option box from the type of surface water system you intend to use and supply details as an appendix.

Option 1.

Build, use and remediate permanent surface water drainage system



Option 2.

Install, use and remove a temporary surface water drainage system

☐

Option 3.

Utilise existing system with pollution control measures (Brownfield sites only)

☐

Details to include:

- Construction Surface Water Drainage System Design
- Construction Management, Maintenance and Remediation Schedules
- Required Consents (e.g. Land Drainage Act, Environmental Permit etc)
- Flood Risk Controls
- Pollution, Water Quality & Emergency Control Measures
- Phasing Plan (if required)
- Construction Site Plan showing compounds, material storage areas, temporary site parking etc

5. Flood & Weather Alert

5.1 Flood Alert (River and Sea Flood Risk)

Project Manager and Works Manager should sign up to the Environmental Agency flood warning system <https://www.gov.uk/sign-up-for-flood-warnings> if the site is within a flood zone 2 or 3.

Alert Level	Definition	Action	Responsibility
Flooding Alert	Flooding is possible – be prepared	N/A - NOT WITHIN FLOOD ZONE 2 OR 3	
Flood Warnings	Flooding is expected – immediate action required	N/A	
Severe Flood Warning	Severe flooding danger to life	N/A	



5.2 Weather Alerts (Surface Water Flood Risk)

Project Manager and Works Manager should sign up to the Met Office weather warning system <https://www.metoffice.gov.uk/public/weather/warnings>

Alert Level	Definition	Action	Responsibility
Yellow: Be Aware	Yellow warnings can be issued for a range of weather situations. Many are issued when it is likely that the weather will cause some low-level impacts, including some disruption to travel in a few places. Other yellow warnings are issued when the weather could bring much more severe impacts to many people but the certainty of those impacts occurring is much lower. It is important to read the content of yellow warnings to determine which weather situation is being covered by the yellow warning.	Be prepared to take action and continue to monitor Met Office Weather Warning	James Hanson
Amber: Be Prepared	There is an increased likelihood of impacts from severe weather, which could potentially disrupt your works plans. This means there is the possibility of travel delays, road and rail closures, power cuts and the potential risk to life and property.	Prepare the site for temporary closure and make safe.	James Hanson
Red: Take Action	Dangerous weather is expected and, if you haven't already done so, you should take action now to keep yourself and your works force safe from the impact of the severe weather. It is very likely that there will be a risk to life, with substantial disruption to travel, energy supplies and possibly widespread. You should avoid travelling, where possible, and follow the advice of the emergency services and local authorities.	Close site following earlier preparation, cancel all deliveries and send work force home.	James Hanson

6. Legislation & Guidance

The Water Environment (England and Wales) regulation 2009
Land Drainage Act 1991
SEPA Engineering in the Water Environment Good Practice Guide Temporary Construction Methods

Methods
Control of Water Pollution from Construction Sites – Guide to Good Practice (SP156)
Control of Water Pollution from Construction Sites – Guidance for Consultants and Contractors (C532)
Control of Water Pollution from Linear Construction Projects – Technical Guidance (C648)
Control of Water Pollution from Linear Construction Projects – Site Guide (C649)
Environmental Good Practice – Site Guide (C650)
The SUDS Manual (C753)
BS 8582:2013 Code of practice for surface water management for development sites
BS 8582:2013 Code of practice for surface water management for development sites

7. Company, Contractor Accreditation (e.g.ISO) and Environmental Policies

8. Appendices List

Appendix A - Construction Surface Water Management Plan

Appendix B - Surface Water Drainage Design / Layout

Appendix C - Surface Water Maintenance Plan

Appendix D - Thames Water Section 106 Approval

Appendix E - Construction Site Plan

Appendices

Construction Surface Water Management Plan

Hillcrest & Tussocks, The Causeway, Therfield, Hertfordshire, SG8 9PP

Appendix A

Construction Surface Water Management Plan

Construction Surface Water Management Plan

Hillcrest & Tussocks, The Causeway, Therfield, Hertfordshire, SG8 9PP

Construction Surface Water Management Plan

- 1.1 The surface water drainage layout / strategy intended to serve the post-construction development has been included within Appendix B. The strategy comprises of a restrict discharge into the adjacent public sewer network with the provision of onsite attenuation within two geo-cellular attenuation tanks. A small area of permeable paving will also drain via infiltration where percolation tests identified the soil conditions to be suitable.
- 1.2 The SUDS design also includes suitable pollution control measures for all different land uses in accordance with Section 26 of the CIRIA SuDS Manual.

Construction Surface Water Drainage Design

- 1.3 To ensure the risk of surface water flooding and pollution is not temporarily increased during the construction phase, the following procedures / order of construction will be put in place.
 - Prior to the construction of any impermeable areas, the two geo-cellular attenuation tanks and flow control chambers shall be constructed, and connection made to the public sewer network. As the impermeable roof and external hardstanding areas are constructed, these will then be connected to the attenuation tanks to ensure no temporary increased in flood risk.
 - To protect the permeable subbase construction from sediment ingress during construction, one of the two methods provided below will be utilises.
 - A 100mm sacrificial layer of subbase construction will be laid onto top of the permanent subbase construction with a separation layer of geo-textile located between the two layers of subbase. Prior to the permanent construction of the permeable block paving, the 100mm sacrificial layer will be removed.
 - An impermeable layer of asphalt construction (AC32) will be placed onto top of the permanent permeable subbase construction. Areas of the asphalt will be cut out at low point along the private road to enable runoff from the asphalt to enter the permeable subbase construction. The areas cut out within the asphalt will be protected temporarily with a 100mm sacrificial layer of subbase construction and a geo-textile. Prior to the permanent construction of the permeable block paving, the 100mm sacrificial layer will be removed and coring within the asphalt construction will be undertaken.

Construction Surface Water Management Plan

Hillcrest & Tussocks, The Causeway, Therfield, Hertfordshire, SG8 9PP

Construction Management, Maintenance & Remediation Schedule

- 1.4 During construction, the drainage features will require regular maintenance to ensure the continued performance of the drainage infrastructure and to ensure flood risk and pollution are not increased.
- 1.5 The Maintenance Plan intended to serve the post-construction development has been included within Appendix C and should also be used during the construction phase. However, additional inspection and maintenance works shall be undertaken by the contractor during the construction phase as detailed within Table 1 below.

Surface Water Maintenance Schedule		
Required Maintenance	Typical Frequency	Remedial Action
Landscaping Inspection and removal of litter and other debris (leaves) from the drainage catchment, including roads, car parks and soft landscaping areas.	Weekly Daily for any wheel washing facilities.	N/A
Landscaping Maintain adjacent vegetation such as pruning of bushes, removal of nuisance plants and grass cutting.	Monthly	N/A
Piped Drainage Network Inspection and debris removal of the surface water drainage network. Including inspection chambers, pipework, and catchpit gullies.	Daily	Replace any section of the drainage network where clearance cannot be achieved via usual maintenance methods such as jetting.
Attenuation Tank Install a geo-textile debris screen within the final manhole/inspection chamber prior to discharging into the Attenuation Tank. This will be inspected and maintained as part of the pipe drainage network above.	Daily Inspection	Replace any section of the drainage network where clearance cannot be achieved via usual maintenance methods such as jetting.

Construction Surface Water Management Plan

Hillcrest & Tussocks, The Causeway, Therfield, Hertfordshire, SG8 9PP

Permeable Paving Refer to Paragraph 1.3 above.	N/A	N/A
--	-----	-----

Table 1 – Construction Maintenance Schedule

- 1.6 The above Maintenance Schedule should be considered as a live document and should be updated during construction and adapted where necessary to ensure a system failure does not occur and the risk of flooding is minimised.
- 1.7 Following completion of the site development, a full inspection of the surface water drainage network will be undertaken to ensure all sediment and construction debris is removed and no damage to the drainage system has occurred.

Required Consents

- 1.8 The proposed surface water drainage strategy comprises of a restricted discharge into the adjacent public sewer network. Section 106 approval for the proposed connections has been obtained from Thames Water and included with Appendix D.

Flood Risk Controls

- 1.9 The surface water drainage infrastructure has been designed to accommodate the 100-year (+40%) plus climate change storm event. As previously stated, the drainage infrastructure will be constructed prior to the construction of any impermeable area (roof and/or hardstanding) and therefore, providing a suitable flood risk control measure during the construction phase.

Pollution, Water Quality & Emergency Control Measures

- 1.10 The provision of additional pollution and water quality measures will be provided during the construction phase as detailed below:
- Wheel washing facilities where any significant sediment/debris can be collected prior to the entering the drainage system.

Construction Surface Water Management Plan

Hillcrest & Tussocks, The Causeway, Therfield, Hertfordshire, SG8 9PP

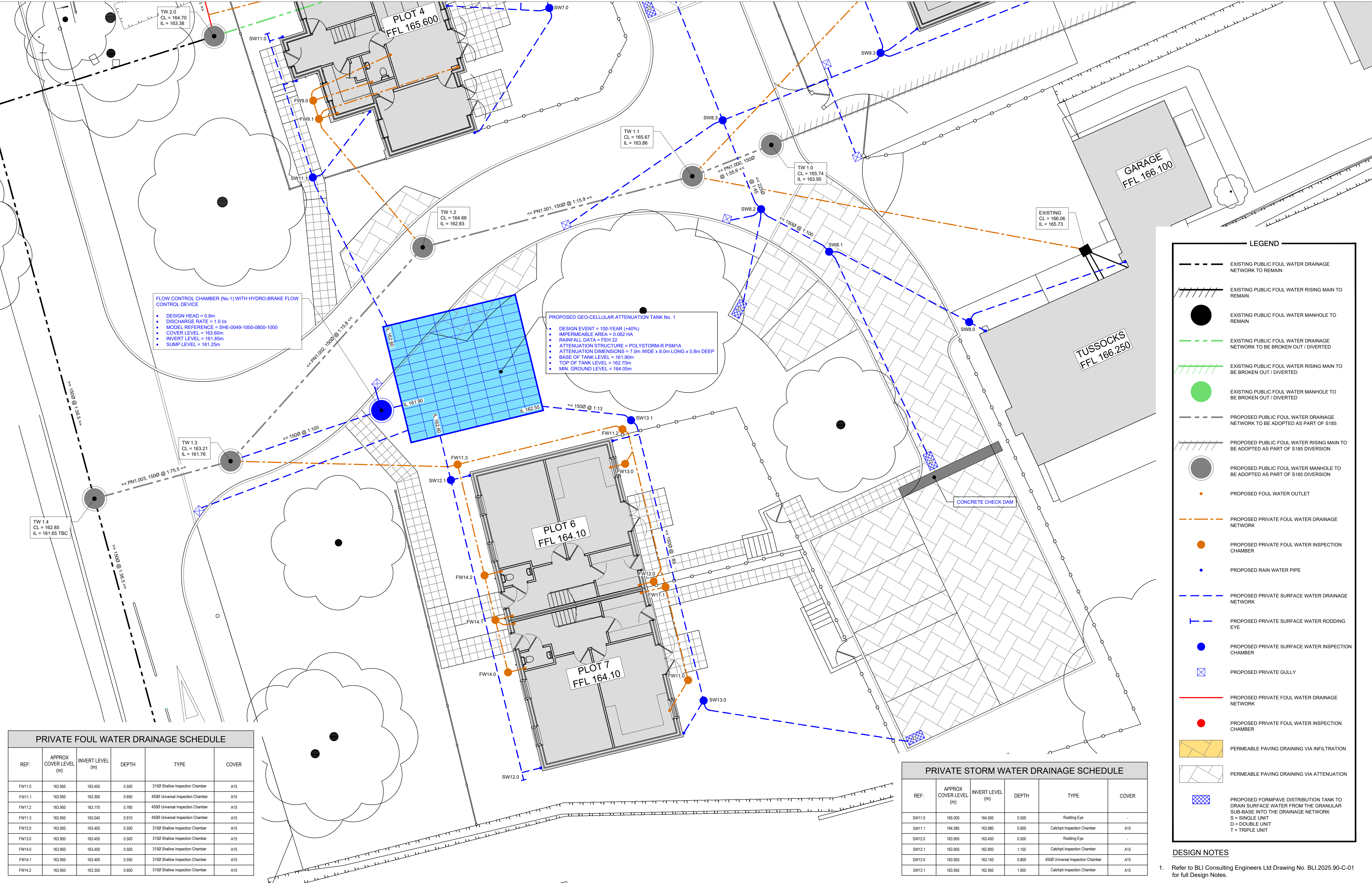
- The final inspection chamber prior to discharging into the attenuation tank and permeable subbase construction shall comprise of a catchpit inspection chamber.
- Installation of a geo-textile debris screen within the final inspection chamber prior to discharging into the attenuation tank and permeable subbase construction.

Construction Surface Water Management Plan

Hillcrest & Tussocks, The Causeway, Therfield, Hertfordshire, SG8 9PP

Appendix B

Surface Water Drainage Design / Layout



LEGEND

EXISTING PUBLIC FOUL WATER DRAINAGE NETWORK TO REMAIN

EXISTING PUBLIC FOUL WATER RISING MAIN TO REMAIN

EXISTING PUBLIC FOUL WATER MANHOLE TO REMAIN

EXISTING PUBLIC FOUL WATER DRAINAGE NETWORK TO BE BROKEN OUT / DIVERTED

EXISTING PUBLIC FOUL WATER RISING MAIN TO BE BROKEN OUT / DIVERTED

EXISTING PUBLIC FOUL WATER MANHOLE TO BE BROKEN OUT / DIVERTED

PROPOSED PUBLIC FOUL WATER DRAINAGE NETWORK TO BE ADOPTED AS PART OF S185

PROPOSED PUBLIC FOUL WATER RISING MAIN TO BE ADOPTED AS PART OF S185 DIVERSION

PROPOSED PUBLIC FOUL WATER MANHOLE TO BE ADOPTED AS PART OF S185 DIVERSION

PROPOSED FOUL WATER OUTLET

PROPOSED PRIVATE FOUL WATER DRAINAGE NETWORK

PROPOSED PRIVATE FOUL WATER INSPECTION CHAMBER

PROPOSED RAIN WATER PIPE

PROPOSED PRIVATE SURFACE WATER DRAINAGE NETWORK

PROPOSED PRIVATE SURFACE WATER RODDING EYE

PROPOSED PRIVATE SURFACE WATER INSPECTION CHAMBER

PROPOSED PRIVATE GULLY

PROPOSED PRIVATE FOUL WATER DRAINAGE NETWORK

PROPOSED PRIVATE FOUL WATER INSPECTION CHAMBER

PERMEABLE PAVING DRAINING VIA INFILTRATION

PERMEABLE PAVING DRAINING VIA ATTENUATION

PROPOSED FORMPAVE DISTRIBUTION TANK TO DRAIN SURFACE WATER FROM THE GRANULAR SUB-BASE INTO THE DRAINAGE NETWORK
S = SINGLE UNIT
D = DOUBLE UNIT
T = TRIPLE UNIT

PRIVATE FOUL WATER DRAINAGE SCHEDULE					
REF.	APPROX COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH	TYPE	COVER
FW11.0	163.950	163.450	0.500	3150 Shallow Inspection Chamber	A15
FW11.1	163.950	163.300	0.650	4500 Universal Inspection Chamber	A15
FW11.2	163.950	163.170	0.780	4500 Universal Inspection Chamber	A15
FW11.3	163.950	163.040	0.910	4500 Universal Inspection Chamber	A15
FW12.0	163.950	163.450	0.500	3150 Shallow Inspection Chamber	A15
FW13.0	163.950	163.450	0.500	3150 Shallow Inspection Chamber	A15
FW14.0	163.950	163.450	0.500	3150 Shallow Inspection Chamber	A15
FW14.1	163.950	163.400	0.550	3150 Shallow Inspection Chamber	A15
FW14.2	163.950	163.350	0.600	3150 Shallow Inspection Chamber	A15

PRIVATE STORM WATER DRAINAGE SCHEDULE					
REF.	APPROX COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH	TYPE	COVER
SW11.0	165.000	164.500	0.500	Rodding Eye	-
SW11.1	164.580	163.980	0.600	Catchpit Inspection Chamber	A15
SW12.0	163.950	163.450	0.500	Rodding Eye	-
SW12.1	163.950	162.800	1.150	Catchpit Inspection Chamber	A15
SW13.0	163.950	163.150	0.800	4500 Universal Inspection Chamber	A15
SW13.1	163.950	162.950	1.000	Catchpit Inspection Chamber	A15

DESIGN NOTES

1. Refer to BLI Consulting Engineers Ltd Drawing No. BLI.2025.90-C-01 for full Design Notes.

© Copyright BLI Consultant Engineers Ltd.				RSM	RSM
P8	03/09/26	Design amended to reflected changes to Plot 5	RSM	RSM	
P7	20/05/26	Catchpit inspection chamber added to drainage schedule	RSM	RSM	
P6	25/02/26	Internal building plan for Plot 5 added.	RSM	RSM	
P5	07/01/26	Minor amendment	RSM	RSM	
P4	19/12/25	Private drainage design progressed across the site.	RSM	RSM	
P3	15/10/25	Revised attenuation strategy	RSM	RSM	
P2	15/10/25	Revised attenuation strategy	RSM	RSM	
P1	14/10/25	First Issue	RSM	RSM	
Rev.	Date	Description	Drawn	Chk'd	

bli

Consultant Engineers

client:

HANSON SERVICES LTD

project:

TUSSOCKS & HILLCREST, THE CAUSEWAY, THERFIELD, HERTS

dwg title:

SURFACE & FOUL WATER DRAINAGE LAYOUT - SHEET 1 OF 2

discipline:

CIVIL ENGINEERING

project no.:

BLI.2025.90

drawn:

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chk'd:

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date:</

PRIVATE STORM WATER DRAINAGE SCHEDULE					
REF:	APPROX COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH	TYPE	COVER
SW1.0	166.100	165.600	0.500	3150 Shallow Inspection Chamber	A15
SW1.1	166.100	165.250	0.850	4500 Universal Inspection Chamber	A15
SW1.2	166.100	165.100	1.000	Catchpit Inspection Chamber	A15
SW2.0	166.300	165.300	1.000	Catchpit Inspection Chamber	A15
SW3.0	166.300	165.300	1.000	Catchpit Inspection Chamber	A15
SW4.0	166.000	165.300	0.700	Catchpit Inspection Chamber	A15
SW5.0	167.200	166.750	0.450	Rodding Eye	-
SW5.1	166.850	166.000	0.850	Catchpit Inspection Chamber	B125
SW6.0	167.200	166.750	0.450	Rodding Eye	-
SW6.1	167.15	166.55	0.600	Catchpit Inspection Chamber	B125
SW7.0	165.40	164.80	0.600	3150 Shallow Inspection Chamber	A15
SW7.1	166.30	164.70	1.600	Non-entry Inspection Chamber	B125
SW7.2	165.450	164.650	0.800	4500 Universal Inspection Chamber	A15

PRIVATE STORM WATER DRAINAGE SCHEDULE					
REF:	APPROX COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH	TYPE	COVER
SW8.0	165.850	165.250	0.600	3150 Shallow Inspection Chamber	B125
SW8.1	165.650	164.850	0.800	Catchpit Inspection Chamber	C250
SW8.2	165.640	164.800	0.840	6000 SERIES 600 Inspection Chamber	C250
SW8.3	165.840	164.670	1.170	6000 SERIES 600 Inspection Chamber	C250
SW8.4	166.750	164.520	2.230	6000 SERIES 600 Inspection Chamber	C250
SW9.0	166.650	166.200	0.450	Rodding Eye	-
SW9.1	166.630	166.030	0.600	3150 Shallow Inspection Chamber	A15
SW9.2	166.480	165.700	0.780	4500 Universal Inspection Chamber	B125
SW9.3	166.180	165.280	0.900	Catchpit Inspection Chamber	B125
SW10.0	166.650	166.050	0.600	3150 Shallow Inspection Chamber	A15

PRIVATE FOUL WATER DRAINAGE SCHEDULE					
REF:	APPROX COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH	TYPE	COVER
FW1.0	166.250	165.650	0.600	3150 Shallow Inspection Chamber	A15
FW2.0	166.350	165.750	0.600	3150 Shallow Inspection Chamber	A15
FW3.0	166.350	165.750	0.600	3150 Shallow Inspection Chamber	A15
FW4.0	166.350	165.750	0.600	3150 Shallow Inspection Chamber	A15
FW5.0	166.130	165.540	0.590	3150 Shallow Inspection Chamber	A15
FW6.0	166.020	165.600	0.420	3150 Shallow Inspection Chamber	A15
FW7.0	166.250	165.650	0.600	3150 Shallow Inspection Chamber	A15
FW7.1	166.000	165.300	0.700	4500 Universal Inspection Chamber	A15
FW8.0	165.100	164.500	0.600	3150 Shallow Inspection Chamber	A15
FW9.0	164.900	164.350	0.550	3150 Shallow Inspection Chamber	A15
FW9.1	164.900	164.300	0.600	3150 Shallow Inspection Chamber	A15
FW10.0	166.560	166.060	0.500	3150 Shallow Inspection Chamber	B125
FW10.1	166.450	165.920	0.530	4500 Universal Inspection Chamber	B125

DESIGN NOTES

1. Refer to BLI Consulting Engineers Ltd Drawing No. BLI.2025.90-C-01 for full Design Notes.

LEGEND

EXISTING PUBLIC FOUL WATER DRAINAGE NETWORK TO REMAIN

EXISTING PUBLIC FOUL WATER RISING MAIN TO REMAIN

EXISTING PUBLIC FOUL WATER MANHOLE TO REMAIN

EXISTING PUBLIC FOUL WATER DRAINAGE NETWORK TO BE BROKEN OUT / DIVERTED

EXISTING PUBLIC FOUL WATER RISING MAIN TO BE BROKEN OUT / DIVERTED

EXISTING PUBLIC FOUL WATER MANHOLE TO BE BROKEN OUT / DIVERTED

PROPOSED PUBLIC FOUL WATER DRAINAGE NETWORK TO BE ADOPTED AS PART OF S185

PROPOSED PUBLIC FOUL WATER RISING MAIN TO BE ADOPTED AS PART OF S185 DIVERSION

PROPOSED PUBLIC FOUL WATER MANHOLE TO BE ADOPTED AS PART OF S185 DIVERSION

PROPOSED FOUL WATER OUTLET

PROPOSED PRIVATE FOUL WATER DRAINAGE NETWORK

PROPOSED PRIVATE FOUL WATER INSPECTION CHAMBER

PROPOSED RAIN WATER PIPE

PROPOSED PRIVATE SURFACE WATER DRAINAGE NETWORK

PROPOSED PRIVATE SURFACE WATER RODDING EYE

PROPOSED PRIVATE SURFACE WATER INSPECTION CHAMBER

PROPOSED PRIVATE GULLY

PROPOSED PRIVATE FOUL WATER DRAINAGE NETWORK

PROPOSED PRIVATE FOUL WATER INSPECTION CHAMBER

PERMEABLE PAVING DRAINING VIA INFILTRATION

PERMEABLE PAVING DRAINING VIA ATTENUATION

PROPOSED FORMPAVE DISTRIBUTION TANK TO DRAIN SURFACE WATER FROM THE GRANULAR SUB-BASE INTO THE DRAINAGE NETWORK
S = SINGLE UNIT
D = DOUBLE UNIT
T = TRIPLE UNIT

The diagram is a detailed site plan for a development with five plots. It shows the layout of storm water and foul water drainage systems. Storm water is represented by blue dashed lines, and foul water by orange dashed lines. Key features include:
- **Plots 1-5:** Each plot has its Finished Floor Level (FFL) indicated. Plot 1 (FFL 166.400), Plot 2 (FFL 166.400), Plot 3 (FFL 166.175), Plot 4 (FFL 165.600), and Plot 5 (FFL 166.800).
- **Proposed Geo-cellular Attenuation Tank No. 2:** A large blue rectangular area with a grid pattern, designed for a 100-year (+40%) design event. It has a base level of 163.65m and a top level of 164.85m.
- **Flow Control Chamber (No. 2):** A circular structure with a hydro-brake flow control device, designed for a 1.20m head and 1.0 l/s discharge rate.
- **Concrete Check Dams:** Two locations marked with 'CONCRETE CHECK DAM' labels.
- **Garages:** A yellow hatched area labeled 'GARAGES FFL 167.200'.
- **Gully 5:** A grey rectangular area labeled 'G 5 FFL 166.650'.
- **Inspection Chambers:** Numerous chambers are marked with labels like SW1.0, FW1.0, SW2.0, FW2.0, etc.
- **Manholes:** Large black circles represent existing manholes to remain, while smaller green circles represent those to be broken out or diverted.
- **Drainage Networks:** Blue dashed lines for storm water and orange dashed lines for foul water.
- **Permeable Paving:** Yellow hatched areas indicate paving that drains via infiltration, while white areas indicate paving that drains via attenuation.
- **Formpave Distribution Tank:** A blue hatched area designed to drain surface water from the granular sub-base into the drainage network.
- **Design Notes:** A box in the center provides details for the attenuation tank and flow control chamber.
- **Legend:** A comprehensive key for all symbols and line types used in the plan.
- **Tables:** Three tables at the top and bottom right provide schedules for private storm water, private foul water, and private combined water drainage, respectively.
- **North Arrow:** Located at the bottom center, pointing upwards.

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P10	03/09/26	Design amended to reflected changes to Plot 5	RSM RSM
P9	20/05/26	Catchpit inspection chamber added to drainage schedule	RSM RSM
P8	25/02/26	Internal building plan for Plot 5 added and invert levels of CW1.0, CW1.1 and Attenuation Tank 2 amended	RSM RSM
P7	07/01/26	Minor amendment	RSM RSM
P6	19/12/25	Private drainage design progressed across the site.	RSM RSM
P5	16/12/25	Revised attenuation strategy & private drainage added.	RSM RSM
P4	27/11/25	Revised attenuation strategy	RSM RSM
P3	15/10/25	Revised attenuation strategy	RSM RSM
P2	15/10/25	Revised attenuation strategy	RSM RSM
P1	14/10/25	First Issue	RSM RSM
Rev.	Date	Description	Drawn/ Chk'd

bli

Consultant Engineers

client: HANSON SERVICES LTD

project: TUSSOCKS & HILLCREST, THE CAUSEWAY, THERFIELD, HERTS

dwg title: SURFACE & FOUL WATER DRAINAGE LAYOUT - SHEET 2 OF 2

discipline: CIVIL ENGINEERING

project no: BLI.2025.90

drawn: RSM

chk'd: RSM

date: OCT 2025

scale @ A1: 1:100

status: COMMENT & APPROVAL

rev: P10

dwg no: C 04

dwg no: C 04

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Construction Surface Water Management Plan

Hillcrest & Tussocks, The Causeway, Therfield, Hertfordshire, SG8 9PP

Appendix C

Surface Water Maintenance Plan

Drainage Maintenance Plan

Hillcrest & Tussocks, The Causeway, Therfield, Hertfordshire, SG8 9PP

Drainage Maintenance Plan

- 1.1 The maintenance regime for the surface and foul water drainage system has been undertaken in accordance with CIRIA 753 The SuDS Manual and is set out within Table 1.1, Table 1.2 and Table 1.3 below.

Surface & Foul Water Drainage Network		
Required Maintenance	Typical Frequency	Works Undertaken
Inspection & Monitoring of the surface & foul water drainage network including inspection chamber, pipework, and catchpit chambers.	Monthly for 12 months following installation to understand rate of sediment build-up. Then annually as a minimum or more frequently if the rate of sediment build-up dictates.	Occupants and/or Management Company
Inspection & clearance of the gutters and filter meshes.	Annually as a minimum or more frequently if the rate of sediment build-up dictates.	Occupants
Inspection and removal of litter and other debris (leaves) from the drainage catchment, including roads, car parks and soft landscaping areas.	As required (approximately twice a year)	Occupants and/or Management Company
Maintain adjacent vegetation such as pruning of bushes, removal of nuisance plants and grass cutting.	As required (approximately twice a year)	Occupants and/or Management Company
Arrange repair works to any damaged areas of the surface and foul water drainage network.	Depending on observations made during the inspection and monitoring of the drainage network.	Specialist Contractor overseen by Occupants and/or Management Company

Table 1.1 – Surface & Foul Water Drainage System Maintenance Plan

Drainage Maintenance Plan

Hillcrest & Tussocks, The Causeway, Therfield, Hertfordshire, SG8 9PP

Permeable Paving Construction		
Require Maintenance	Typical Frequency	Works Undertaken
Inspection & Monitoring	Monthly for 3 months following installation. Then two further inspections at 3-month intervals and/or within 48hr after a large storm event. During programmed maintenance works as detailed below.	Contractor Initially Occupants and/or Management Company
Brushing and vacuuming (standard cosmetic sweep over whole surface) of permeable paving construction and adjacent sub-catchment.	As required (approximately once a year) based on site-specific observations of clogging.	Occupants and/or Management Company
Removal of weeds and management of their return using glyphosate applied directly into the weeds by an applicator rather than spraying.	As required (approximately once a year) based on site-specific observations of weed growth.	Occupants and/or Management Company
Replace lost jointing material located between permeable block paving.	As required	Occupants and/or Management Company
Maintain adjacent vegetation such as pruning of bushes and cutting of grass.	As required (approximately twice a year)	Occupants and/or Management Company
Undertake remedial works to any depressions, rutting, cracked or broken blocks considered detrimental to the structural performance of the permeable block paving or a hazard to users.	As required	Occupants and/or Management Company
Rehabilitation of surface and upper substructure by remedial sweeping	Every 10 to 15 years or as required (if infiltration performance is reduced due to significant clogging)	Specialist Contractor overseen by Occupants and/or Management Company

Table 1.2 – Permeable Paving Maintenance Plan

Drainage Maintenance Plan

Hillcrest & Tussocks, The Causeway, Therfield, Hertfordshire, SG8 9PP

Geo-Cellular Attenuation Tank		
Require Maintenance	Typical Frequency	Works Undertaken
Inspect/check all inlets, outlets, overflows, and vents associated with the geo-cellular attenuation tank to ensure they are in good condition and operating as designed. If required, take remedial action.	Annually or more frequent if required.	Contractor Initially Occupants and/or Management Company
Survey the inside of the geo-cellular attenuation tank for sediment build-up and remove if necessary.	Every 5 year or more frequent if required.	Specialist Contractor overseen by Occupants and/or Management Company
Inspection & clearance of the flow control chamber.	Monthly for 12 months following installation to understand rate of sediment build-up. Then annually as a minimum or more frequently if the rate of sediment build-up dictates.	Contractor Initially Occupants and/or Management Company

Table 1.3 – Geo-cellular Attenuation Tank Maintenance Plan

- 1.2 The maintenance regime recommended above is put in place to minimise the risk of blockages occurring and to prevent water surcharging from the inspection chambers and manholes.
- 1.3 The above maintenance plan should be considered as a live document and should be updated over the lifetime of the development and adapted where necessary to ensure a system failure does not occur and the risk of flooding is minimised.

Construction Surface Water Management Plan

Hillcrest & Tussocks, The Causeway, Therfield, Hertfordshire, SG8 9PP

Appendix D

Thames Water Section 106 Approval



Mr James Hanson,
HANSON SERVICES LTD,
6A Melbourn Street,
Royston.
SG8 7BZ.

DS reference DS6153823

developer.services@thameswater.co.uk

0800 009 3921

Monday to Friday, 8am to 5pm

thameswater.co.uk/developerservices

20 January 2026

Notice of consent to connect to a public sewer / public lateral drain

Site address: TUSSOCKS & HILLCREST, THE CAUSEWAY, THERFIELD, SG8 9PP

Dear James,

Thank you for your application for a new sewer connection at the above address.

We are pleased to inform you that we have given our conditional consent for your proposed connection(s) to the public sewer under Section 106 of the Water Industry Act 1991.

What is this consent for?

This consent is given solely for the legal right of communication (i.e. method/mode of connection) with the public sewer, in accordance with the description in the below box.

This consent does not and cannot be used to discharge any drainage related planning conditions. Any planning conditions related to drainage should be applied to be removed to the LPA and Thames Waters Development Control team. For pre planning capacity-based enquiries or pre planning concerns regarding our network please make a Pre-Planning Enquiry application. Applications can be made on the Thames Water website.

This Consent does not give you any inferred right to enter or cross land owned by a third party and must not be used to discharge any drainage-related planning conditions. You will be responsible for obtaining any necessary licences and/or permission from the highway authority, planning authority and/or private/third-party landowners.

Inspections and Completion certificates

We'll need to inspect the work if you're connecting directly to a public sewer or relocating/altering one of our manhole chambers. Please try to give us as much notice as possible to accommodate your preferred inspection date.

Call us on 0800 009 3921 Monday to Friday, 8am – 5pm to arrange an inspection.

There are a few steps to remember:



- The work needs to be done exactly as described in the 'Consent to Connect' and as per our agreed specification
- You should be ready with all work completed to be inspected on date of inspection
- Make sure you leave the connection point open so we can fully inspect the work

If you fail to comply with any of the above at the time of inspection, e.g. the works are not complete, you are not ready, or the works do not meet the approved design specifications and fail to pass, we will charge you to come back another time. The revisit fee is £245 + VAT per visit.

Once you've passed the inspection, we'll issue a completion certificate. This confirms that your work has been completed and to the required standard.

This certificate authenticates the standards to which your connection works were carried out and does not infer adoption of your new drains or sewers. You will be responsible for repairs and maintenance of all drains including those outside your site boundary. You will need to submit an adoption application under section 102 or 104 of the Water Industry Act if you want us to adopt any of your lateral drains or sewers. You can do this via

<https://developers.thameswater.co.uk/Developing-a-large-site/Apply-and-pay-for-services/Wastewater-services/Adopting-sewers-and-other-assets>

Sewer Connection Quotes

If you would like us to carry out the connection works on your behalf, we will provide you a quote and deliver in accordance with the below.

Waste connection only (no pipe laying)

We will discuss the requirements with you and quote for the works required and charge in accordance with section 7 (pages 25-28) of our current fixed price charging arrangements.

lateral drain and sewer requisitions

Waste connections including pipelaying for the provision of a lateral drain (pipe serving one property or one curtilage) and/or a new sewer (pipe serving more than one property).

If there is no public sewer easily accessible to your property or your site has no means to connect your lateral drain and/or sewer due to third party land, you can requisition (formally request) Thames Water to lay these pipes as part of our public network under Section 98-101 of the Water Industry Act 1991. Please refer to section 8 (pages 29-31) of our current charging arrangements.

You can estimate the costs for these connections yourself by referring to section 7 and 8 of our current charging arrangements here.



Our consent is subject to the conditions below:

Location	Description
TUSSOCKS & HILLCREST, THE CAUSEWAY, THERFIELD. SG8 9PP	x150mm internal Ø direct combined water connection to 150mm Ø foul water sewer via a new manhole connection in accordance with Code for Adoption Sewerage Plan no: C 03 Rev P5 Direct Foul Connection 2x100mm internal Ø direct foul water connection to 150mm Ø foul water sewer located via a new manhole connection in accordance with Code for Adoption Sewerage Plan no: C 03 Rev P5 Direct Foul Connection 1x100mm internal Ø direct foul water connection to 100mm Ø foul water sewer via a new manhole connection in accordance with Code for Adoption Sewerage Plan no: C 04 Rev. P7 Direct Surface Connection 1x150mm internal Ø direct surface water connection to 150mm Ø foul water sewer via a new manhole connection in accordance with Code for Adoption Sewerage Plan no: C 04 Rev. P7

Please note that we will allow ONE amendment to be made to this consent within 12 months from date of issue. Any more than ONE amendment within this time will entail additional fees. Any amendments sought beyond this time will require a new application to be submitted.

The reference number for your application is **DS6153823** please quote this in any future correspondence.

If you're making a connection from a basement, you'll need to ensure that you install the necessary backflow prevention devices to protect the property from internal flooding. You should assume that the local sewerage network will surcharge to local ground level. Please refer to condition 18 for more details.

If you're proposing to build within three metres of a public sewer, or within one metre of a lateral drain, you'll need to apply to us for a separate build over agreement. You can do this via thameswater.co.uk/buildover.

If you've any queries, please call our helpdesk on 0800 009 3921 (8am to 5pm, Monday to Friday) or email developer.services@thameswater.co.uk.



Yours sincerely,



Dominic Olu Alabi
Technical Coordinator – Wastewater Connections
Developer Services – Wastewater



Conditions of Consent

1. This consent is subject to conditions that may be imposed through the planning process.
2. An infrastructure charge will be payable as a result of connecting a property to the Public Sewerage System for the first time for domestic purposes by virtue of Section 146(2)b of the Water Industry Act 1991. We will invoice this charge separately if applicable.
3. Where the connection is to be made to a public sewer in third party land (i.e. outside your site boundary including public land), it is recommended that a demarcation chamber is constructed on the lateral drain at the property boundary, or as near to the property boundary as possible. The demarcation chamber and lateral drain will not be adopted as part of the section 106 agreement. You will need to submit an adoption agreement under section 102 or 104 of the Water Industry Act if you want us to adopt any of your private drains or sewers. You can do this via <https://developers.thameswater.co.uk/Developing-a-large-site/Apply-and-pay-for-services/Wastewater-services/Adopting-sewers-and-other-assets>
4. All materials used and standard of sewer connection works should be in accordance with Code for Adoption sewerage. Where the connection is to be constructed in plastic, please confirm the standards of materials to be used with a technical coordinator/project engineer prior to carrying out the connection. Please ensure that the specification sheet/documents for the plastic materials used are kept for review by the field engineer. Please refer to the attached **Construction and Connection guide** for best practice.
5. It is your responsibility to ensure that your works are inspected before the trench is backfilled. You must arrange our attendance by calling 0800 009 3921 and giving us at least ten working days' notice. If the connection cannot be inspected by a field engineer for any reason, we may request that the trench is reopened for inspection or require additional information deemed necessary for us to approve the connection. Where a connection is made via a heading/tunnelling or a field engineer cannot attend site within the agreed ten working days' notice period required, we may, in exceptional circumstances accept photographs and/or a CCTV survey report and footage subject to prior agreement with a Technical Coordinator or Project Engineer.
6. It is your responsibility to confirm the exact location, diameter, and invert levels of the public sewer prior to making the connection. You will be held liable for any misconnection (i.e. foul water discharge to a surface water sewer or surface water discharge to foul water sewer) resulting from this connection. Where you are making an indirect connection, you should carry out connectivity surveys to confirm the type of sewer your existing private drains connect to and take appropriate action to rectify if you find cross connections.
7. Connections into manholes must be made with soffits level and must enter 'with the flow'. Backdrops must be constructed outside the manhole chamber.
8. Junction connections must be made by cutting in a purpose made oblique or swept junction fitting of the same material as the public sewer, jointed using flexible couplings. Core drilled saddle connections are usually not permitted on sewers smaller than 375mm



(unless otherwise approved by a Technical Coordinator/Project Engineer in writing).

Where a core drilled saddle connection is approved, a flexible saddle fitting must be used to ensure that no part of the new drains protrude into the existing sewer. We do not accept clay saddles attached to the public sewer with mortar.

9. Some Infill/recessed manhole/chamber covers are permitted on adoptable drains/sewers in accordance with the attached **construction and connection guide**.
10. All connections to the public sewer should be via a gravity-fed pipe. A direct connection of a rising/pumped main to the public sewer is not permitted. Where there is a proposed connection from a pump station, a break chamber should be installed at the end of the pumped main to ensure that flows into the public sewer are via gravity for a minimum of 5m
11. It is your responsibility to ensure that your appointed private drainage contractor is competent and has all relevant permits necessary to carry out the connection. You will be responsible for obtaining any easements for crossing third party land and licences from the highway authority. All requirements of the highway authority must be observed and signing, guarding and lighting will be required at all times in accordance with Chapter 8 of the Department of Transport's Traffic Signs Manual 2009.
12. Where there is a proposed discharge from a private pumping station and rising main system, it is your responsibility to design the system to ensure acceptable discharge levels of hydrogen sulphide (H₂S), this can be achieved by ensuring that all effluent is cycled through the pumping station and rising main within a maximum of six hours to prevent septicity. Where necessary, preventative measures to ensure H₂S cannot build up to dangerous levels in the system should be installed. You will be responsible for the ongoing maintenance and monitoring of the private system. Hydrogen sulphide is a major public health risk and causes serious damage to the receiving sewerage network which may result in a third party damage claim against you under Section 111 of the Water Industry Act 1991.
13. Under no circumstances should foul water be discharged into the surface water sewerage system. Surface water drainage must not discharge to the foul sewerage system unless otherwise stated in the description above. If you want to discharge surface water directly to a soakaway or to a watercourse, then you will need to obtain the consent of the Environment Agency or the Lead Local Flood Authority.
14. All proposed discharge of surface water flows must be in accordance with the site's drainage strategy as approved by planning application, which should specify the final discharge rates and volumes. Sites proposing to discharge surface water flows with no planning requirement must connect into the nearest surface water sewer unless otherwise agreed by Thames Water.
15. Only the connections detailed in the enclosed notice are approved by Thames Water. No other works affecting the public sewerage system may be carried out without Thames Water's written consent.



16. Confined space entry procedures must be observed when breaking into the existing public sewerage system.
17. Where the developer/owner/occupier proposes to discharge trade effluent into the public sewer, a trade effluent consent will be required. Trade effluent can be best described as anything other than domestic sewage (toilet, bath or sink waste) or uncontaminated surface water and roof drainage (rainwater). For enquiries and application forms contact your Retailer or visit the Thames Water website at <https://wholesale.thameswater.co.uk/Wholesale-services/Business-customers/Trade-effluent>
18. For low-lying sites (where the ground level of the site or the level of a basement is below the ground level at the point where the drainage connection connects to the public sewer) care should be taken to ensure that the property is not at increased risk of flooding. For more information on how to protect your property (s) from internal flooding please refer to Building Regs Part H1 (Surcharging of drains, conditions 2.8, 2.9.2.11 & 2.12)



Hazard information

Third-party connection to sewers

Anyone wishing to connect their property to a Thames Water sewer must comply with the requirements of Section 106 of the Water Act 1991, as amended.

Significant Hazards

We strongly recommend that before carrying out work to connect to our sewers, you consider the following significant hazards:

- Oxygen deficiency
- Toxic gases, fumes or vapours
- Explosion (methane, petrol)
- Flooding
- Physical injury (slips, trips, falls)
- Infections from sewage (Weils disease)

Confined spaces

Particular care must be taken before entering or working in confined spaces. A confined space is defined as any place in which, by virtue of its enclosed nature, there arises a foreseeable specified risk. A specified risk is a risk of any of the following:

- Serious injury from a fire or explosion
- Loss of consciousness due to an increase in body temperature
- Loss of consciousness or asphyxiation arising from gases or the lack of oxygen
- Drowning arising from an increase in the level of a liquid

In addition:

- When detailing the private drainage, you should assume that the public sewer might occasionally surcharge up to ground level, and particular care is needed where development is proposed in low lying areas.
- Before entering any Thames Water asset a competent person must carry out an assessment to determine the need for entry and a safe system of work to be applied.
- Children and young persons must not enter the workspace.
- After the sewer connection work, it is important to wash before eating, smoking or treating cuts and abrasions. It is also important to avoid infection by maintaining strict personal hygiene and effective care of cuts and abrasions.

Construction Surface Water Management Plan

Hillcrest & Tussocks, The Causeway, Therfield, Hertfordshire, SG8 9PP

Appendix E

Construction Site Plan

