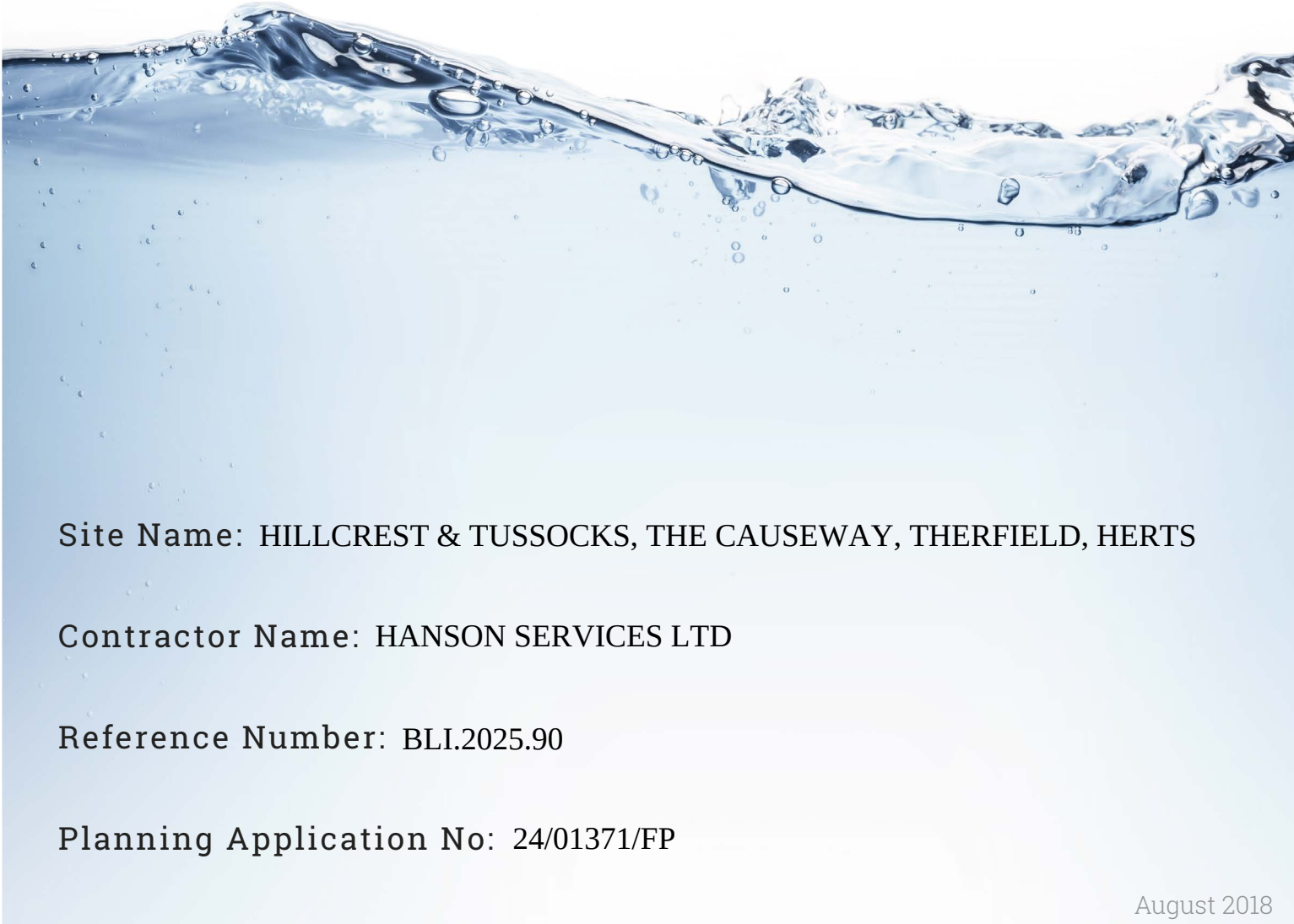


CONSTRUCTION SURFACE WATER MANAGEMENT PLAN

The background of the lower half of the page is a high-resolution photograph of a water splash. The water is captured mid-air, creating a series of droplets and a dynamic, flowing shape. The color is a clear, bright blue, and the lighting highlights the 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

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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

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 - Approved Surface Water Drainage Design / Layout

Appendix C - Approved Surface Water Maintenance Plan

Appendix D - 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 approved 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 a geo-cellular attenuation tank and permeable paving sub-base construction.
- 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 geo-cellular attenuation tank, permeable subbase construction and the flow control chamber 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 tank / permeable subbase construction 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 approved 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
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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 is required from Thames Water and approval is currently being obtained.

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

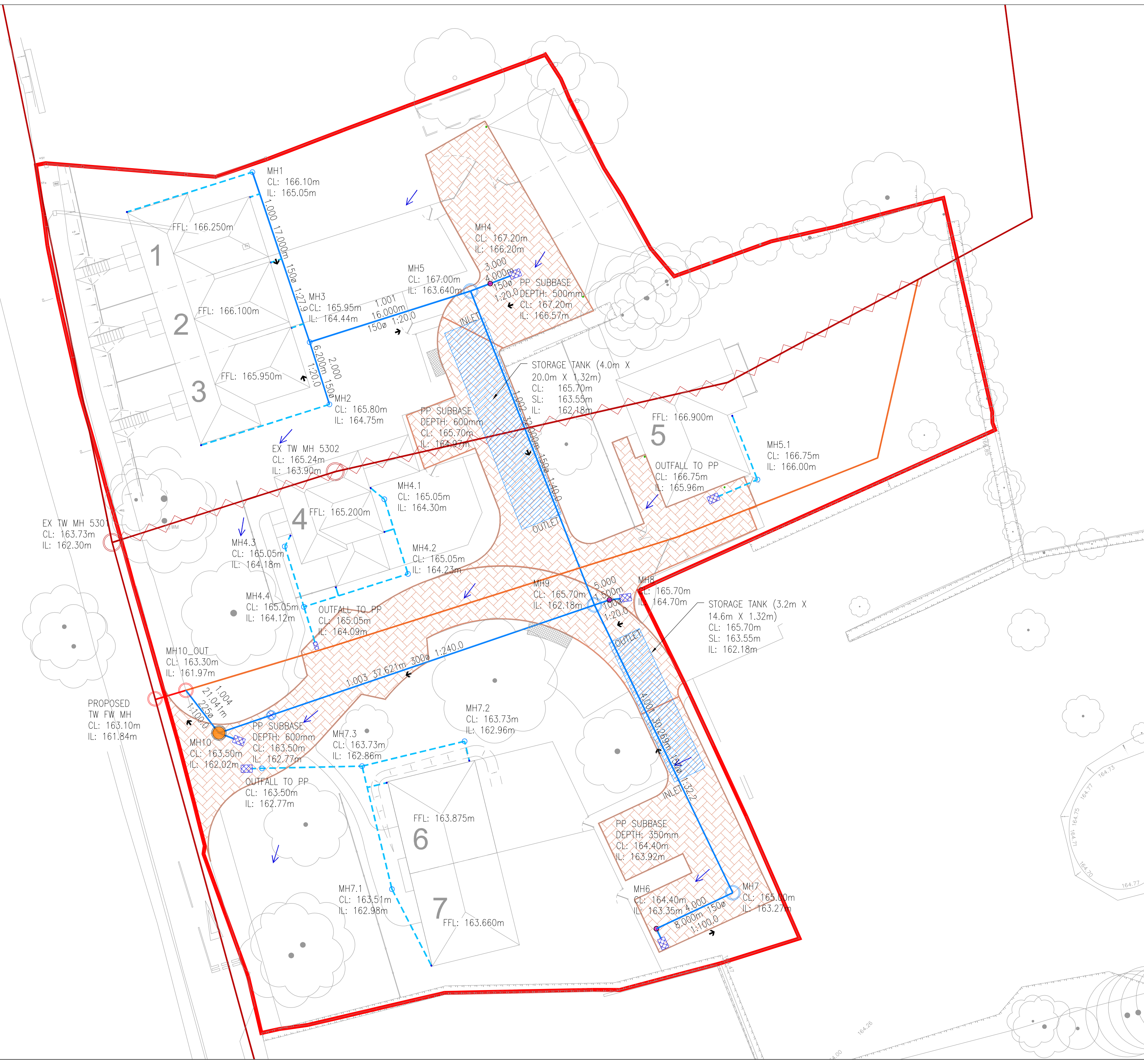
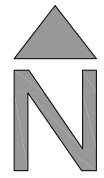
- The final inspection chamber prior to discharging into the attenuation tank and permeable subbase construction shall comprise of a catchpit inspection chamber.
- Installation of a geo-textile debris screen within the final inspection chamber prior to discharging into the attenuation tank and permeable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

Construction Surface Water Management Plan

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

Appendix B

Approved Surface Water Drainage Design / Layout



KEY

- SITE BOUNDARY (TOTAL SITE AREA 0.51ha)
- PERMEABLE PAVING
- PROPOSED GEO-CELLULAR STORAGE TANK
- SURFACE WATER PIPE NETWORK—SIZE AND GRADIENT SHOWN ON DRAWING
- 150mmØ DRAINAGE RUNS TO BE LAID AT 1:100
- SURFACE WATER MANHOLE
- PERMAVOID DIFFUSER UNIT
- RAINWATER DOWNPIPE
- RAINWATER DOWNPIPE FITTED WITH A SHOE
- ORIFICE PLATE WITH SUITABLE FILTER
- 21mm ORIFICE PLATE WITH A SUITABLE FILTER
- FLOW ARROW
- DOWNSTREAM DEFENDER
- SURFACE WATER PIPE NETWORK
- FOUL WATER SEWER DEMARCATION CHAMBER
- FOUL WATER RISING MAIN DIVERSION
- FOUL WATER SEWER DIVERSION

REV	DATE	BY	DESCRIPTION	CHK	APD

DRAWING STATUS:
FOR PLANNING PURPOSES ONLY

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CLIENT:
HANSON SERVICES LTD

ARCHITECT:

PROJECT:
HILLCREST & TUSOCKS
THE CAUSEWAY, THERFIELD

TITLE:
SURFACE WATER DRAINAGE STRATEGY

SCALE: A2: 1:250	DESIGN—DRAWN: RC/JC	DATE: 18.11.2024
PROJECT No: 4405	DRAWING No: DR01—REV B	

Construction Surface Water Management Plan

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

Appendix C

Approved Surface Water Maintenance Plan

7 Maintenance of Development Drainage

- 7.1 The maintenance of the SuDS/drainage infrastructure will remain the responsibility of an appointed management/maintenance company; other than individual pipework, raingarden planters and other features within private curtilage, which will be the responsibility of the house owner.
- 7.2 Regular inspections and maintenance should be carried out, particularly after periods of heavy rainfall. Maintenance tasks and frequencies for permeable paving, raingarden planters and geo-cellular storage are detailed in the CIRIA SUDS Manual (C753) and are summarised below in Tables 7.1 - 7.3 below.

Maintenance Schedule	Required Action	Frequency
Regular maintenance	Brushing and vacuuming.	Three times per year at end of winter, mid-summer, after autumn leaf fall, or as required based on site specific observations of clogging or manufacturer's recommendations.
Occasional maintenance	Stabilise and mow contributing and adjacent areas.	As required.
	Removal of weeds.	As required.
Remedial actions	Remediate any landscaping which, through vegetation maintenance of soil slip, has been raised to within 50mm of the level of the paving.	As required
	Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance of a hazard to the user.	As required
	Rehabilitation of surface and upper sub-surface.	As required (if infiltration performance is reduced as a result of significant clogging.)
Monitoring	Initial inspection	Monthly for 3 months after installation. 3 monthly, 48 hours after large storms.
	Inspect for evidence of poor operation and/or weed growth. If required, take remedial action.	Annually.
	Inspect silt accumulation rates and establish appropriate brushing frequencies.	
	Monitor inspection chambers.	Annually.

Table 7.1: Maintenance tasks for permeable paving (Source: CIRIA C753, The SUDS Manual)

Maintenance Schedule	Required Action	Typical Frequency
Regular Inspections	Inspect infiltration surfaces for silting and ponding, record de-watering time of the facility and assess standing water levels in underdrain (if appropriate) to determine if maintenance is necessary.	Quarterly.
	Check operation of underdrains by inspection of flows after rainfall.	Annually.
	Assess plants for disease infection, poor growth, invasive species etc and replace as necessary.	Quarterly.
	Inspect inlets and outlets for blockage.	Quarterly.
Regular Maintenance	Remove litter and surface debris and weeds.	Quarterly (or more frequently for tidiness or aesthetic reasons).
	Replace any plants, to maintain planting density.	As required.
	Remove sediment, litter and debris build-up from around inlets or from forebays.	Quarterly or biannually.
Occasional Maintenance	Infill any holes or scour in the filter medium, improve erosion protection if required.	As required.
	Repair minor accumulations of silt by raking away surface mulch, scarifying surface of medium and replacing mulch.	As required.
Remedial Actions	Remove and replace filter medium and vegetation above	As required but likely to be > 20 years.

Table 7.2: Maintenance tasks and frequencies for bioretention systems (raingarden planters) (The SUDS Manual C753, CIRIA)

Maintenance Schedule	Required Action	Frequency
Routine Maintenance	Remove litter and debris and inspect for sediment, oil and grease accumulation Change the filter media Remove sediment, oil, grease and floatables	Sixth Monthly As recommended by the manufacturer As necessary-indicated by a system inspections or immediately following significant spill
Remedial Actions	Replace malfunctioning parts or structures	As required
Monitoring	Inspect for evidence of poor operation Inspect filter media and establish appropriate replacement frequencies Inspect sediment accumulation rates and establish appropriate removal frequencies	Six Monthly Six Monthly Monthly during first half year of operation, then every six months

Table 7.3: Example operation and maintenance requirements for propriety treatment systems (The SUDS Manual C753, CIRIA)

Maintenance Schedule	Required Action	Frequency
Regular maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action. Remove debris from the catchment surface (where it may cause risks to performance). Remove sediment from pre-treatment structures and/or internal forebays.	Monthly for 3 months, then annually. Monthly Annually or as required.
Remedial actions	Repair/rehabilitate inlets, outlet, overflows and vents.	As required
Monitoring	Inspect/check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed. Survey inside of tank/crate system for sediment build-up and remove if necessary.	Annually Every 5 years or as required.

Table 7.4: Maintenance tasks for cellular storage tank (Source: CIRIA C753, The SUDS Manual)

- 7.3 Inspection chambers and manhole covers should be lifted each year to remove visible debris and check for blockages. It is suggested that this is undertaken every November after the heaviest leaf-fall has occurred.
- 7.4 Any control chambers/orifice plate filters should be regularly inspected (every 4 months) and cleared of silt and debris if necessary.
- 7.5 Should a blockage occur at any time, it is advised to seek professional help to jet the drainage system to clean and clear the system.
- 7.6 It is good practice to ensure that gutters and downpipes are occasionally inspected to ensure they are in good order and free of leaves & debris. Once every 6 months should be sufficient.

Construction Surface Water Management Plan

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

Appendix D

Construction Site Plan

