



CONSTRUCTION SURFACE WATER MANAGEMENT PLAN

Discharge of Planning Condition 6

Planning Permission 21/01038/FUL

Royal Arms Hotel

Main Street, Sutton Cheney
Nuneaton, Leicestershire, CV13 0AG

PREPARED FOR Ideal Design	JOB REFERENCE FRE-ROYALARMS-2026	REVISION P1
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Document Control

Project Details

Item	Detail	Item	Detail
Project	Royal Arms Hotel, Sutton Cheney	Job Ref.	FRE-ROYALARMS-2026
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Applicant	APA Leisure Ltd	Decision Date	7 July 2023
LPA	Hinckley & Bosworth Borough Council	Site Postcode	CV13 0AG
LLFA	Leicestershire County Council (LLFA)	Topographical Survey	Site survey by others
Discharging	Condition 6 (Construction SW Management)	Companion Doc	Strategy Report + LTMP combined (Conds 5 & 7)

Revision History

Rev.	Description	Author	Date
P1	First issue for submission	AR	07 May 2026

Author & Sign-off

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Purpose of this Document

This Construction Surface Water Management Plan (CSWMP) has been prepared by Flood Risk Environmental on behalf of Ideal Design (acting for the applicant, APA Leisure Ltd) to discharge Condition 6 of planning permission 21/01038/FUL (Hinckley & Bosworth Borough Council, granted 7 July 2023).

It sets out the construction-phase surface water management, pollution control, and liner protection measures required to ensure that the development is constructed without exacerbating flood risk or generating polluting discharges, and that the permanent SuDS components installed under the Drainage Strategy Report are protected during construction so that they perform as designed in service.

This CSWMP is a live document; any contractor undertaking work on the development is expected to review and adopt the principles set out herein, and to develop them into project-specific Method Statements and Risk Assessments before commencing work.



Contents

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Abbreviations

The following abbreviations are used throughout this CSWMP:

Abbreviation	Meaning
CBPP	Concrete Block Permeable Paving
CCTV	Closed-Circuit Television (drainage survey)
CDM 2015	Construction (Design and Management) Regulations 2015
CIRIA C532	CIRIA Report C532 — Control of Water Pollution from Construction Sites
CIRIA C753	CIRIA Report C753 — The SuDS Manual
COSHH	Control of Substances Hazardous to Health
CSWMP	Construction Surface Water Management Plan
DER	Developer Enquiry Response (Severn Trent Water)
DM7	Policy DM7 — adopted Site Allocations and DM Policies DPD (2016)
DWS	Diamond Wood & Shaw Limited (original drainage consultant)
EA	Environment Agency
FRE	Flood Risk Environmental (this consultancy)
HBBC	Hinckley & Bosworth Borough Council
H&S	Health and Safety
HGV	Heavy Goods Vehicle
LLFA	Lead Local Flood Authority
LPA	Local Planning Authority
LTMP	Long-Term Maintenance Plan
PH	Public House
PPG	Pollution Prevention Guidelines (Environment Agency)
PRoW	Public Right of Way
RPA	Root Protection Area (arboricultural)
SEL	SEL Environmental Ltd (SuDS component manufacturer)
STW	Severn Trent Water
SuDS	Sustainable Drainage Systems
SW	Surface Water
WASP	Waterproof Adhesion Sealing Plate (SEL Environmental)

Executive Summary

This Construction Surface Water Management Plan (CSWMP) sets out the surface water management, pollution control and liner protection measures to be applied during the construction phase of the Royal Arms Hotel redevelopment. It is submitted to discharge Condition 6 of planning permission 21/01038/FUL.

The development is a small-scale heritage conversion in a Conservation Area: nine residential units within retained historic buildings, retention of the public house, change of use of the paddock, and one new community building (the principal new-build element). The construction footprint is therefore largely contained within an existing developed curtilage. The principal construction-phase surface water risks are:

- **Sediment runoff during ground works** — particularly during community building substructure and permeable car park excavations.
- **Damage to the F-LowFlex 300 WASP impermeable liner** — a single-event risk that, if it occurs, compromises the in-service performance of the entire eastern catchment SuDS system.
- **Pollution to the existing private combined sewer** — concrete washout, fuel/oil spills, plant maintenance discharges.
- **Continued operation of the public house** — which remains in business throughout construction; phasing must protect customer safety and access.
- **Existing tree Root Protection Areas** — drainage trenches in the vicinity of mature trees require hand-dig and root-respect protocols (per the original DWS proposed drainage plan).

The plan addresses these risks through a structured framework comprising: pre-construction surveys and consents (CCTV survey, refreshed Severn Trent DER, S.106 application); a defined construction sequence with specific liner installation protocol and exclusion-zone enforcement; gully silt protection bags fitted to all retained gullies before any soil disturbance; silt fencing along the Main Street highway boundary and around the community building work zone; a jet wash kept on site for cleaning vehicle wheels as and when required; road sweeping of Main Street as required; designated concrete washout, fuel storage and spill response stations; and a daily/weekly inspection regime led by the principal contractor with FRE oversight at key construction milestones.

The CSWMP is structured to align with the principal contractor's CDM 2015 obligations and is intended to be used by the contractor in conjunction with their own Construction Phase Plan. Method Statements and Risk Assessments for specific high-risk activities (notably liner installation and concrete washout) should be developed by the contractor before commencement.

Key Construction-Phase Commitments

- Pre-construction CCTV survey and refreshed Severn Trent DER before any excavation.
- Gully silt protection bags fitted to every retained gully and inspection chamber before any soil-disturbing activity.
- Continuous silt fencing along the Main Street highway boundary, plus a containment silt fence

around the community building work zone.

- Jet wash kept on site for vehicle wheel cleaning; road-sweeping of Main Street as and when required.
- F-LowFlex 300 WASP liner installed by manufacturer-certified installer; weld test reports retained.
- Strict no-plant exclusion zone over the prepared sub-base/liner zone, demarcated and signed.
- Designated concrete washout station with bunded containment.
- Daily walkover by site manager; weekly inspection by site manager + H&S advisor.
- Construction phasing maintains operational public house and Public Right of Way access at all times.

1. Introduction

1.1 Background

Planning permission 21/01038/FUL was granted by Hinckley & Bosworth Borough Council on 7 July 2023 for the redevelopment of the Royal Arms Hotel, Main Street, Sutton Cheney. The permission authorises the conversion of the existing public house, hotel and outbuilding to nine residential units (with retention of the public house element), the change of use of the existing paddock to private garden and public open space, and the construction of a new community building.

The permission is subject to nineteen conditions. Three of those conditions (5, 6 and 7) relate to surface water drainage. This document responds to Condition 6. Conditions 5 and 7 are addressed through separate companion documents — the Drainage Strategy Report and the Long-Term Maintenance Plan respectively.

1.2 Condition 6

Condition 6 — Construction Surface Water Management

"No development shall take place until details in relation to the management of surface water on site during construction of the development has been submitted to, and approved in writing by the Local Planning Authority. The construction of the development must be carried out in accordance with these approved details."

Reason: To ensure that the development is provided with a satisfactory means of drainage as well as reduce the risk of creating or exacerbating flooding and minimise the risk of pollution to accord with Policy DM7 of the adopted Site Allocations and Development Management Policies Plan.

1.3 Scope

This CSWMP sets out:

1. Site constraints and pre-construction requirements (Section 2).
2. The construction phasing and sequencing approach (Section 3).
3. Surface water management arrangements during construction (Section 4).
4. Liner protection and the permeable paving installation sequence (Section 5).
5. Stockpile and materials management (Section 6).
6. Pollution control measures (Section 7).
7. Concrete washout management (Section 8).
8. Inspection, monitoring and records (Section 9).
9. Emergency procedures (Section 10).
10. Construction-phase risks and CDM 2015 (Section 11).
11. A statement of compliance against Condition 6 (Section 12).

1.4 Relationship with Other Documents

This CSWMP should be read in conjunction with the following documents:

- **Drainage Strategy Report** (FRE-ROYALARMS-2026, May 2026) — discharging Condition 5; sets the design intent that this CSWMP protects.

- **Long-Term Maintenance Plan** (FRE-ROYALARMS-2026, May 2026) — discharging Condition 7; takes effect from handover.
- **FRE Drawings 1269/_1001, _1002 and _1003** — design and construction details.
- **Construction Environmental Management Plan (CEMP)** — required by Condition 9; addresses dust, noise, contamination and broader environmental controls. The CEMP and this CSWMP are complementary; surface water management is a component of the wider CEMP.
- **Principal Contractor's Construction Phase Plan** (CDM 2015) — to be developed by the appointed principal contractor before commencement.
- **Specific Method Statements and Risk Assessments** for high-risk activities (liner installation, concrete washout, work near public sewer, work in tree RPAs) — to be developed by the appointed contractor.

1.5 Working Hours

Construction working hours are restricted by Condition 9 of the planning permission to:

- Monday – Friday: 07:30 – 18:00.
- Saturday: 08:00 – 13:00.
- No working on Sundays or Bank Holidays.

All construction activities undertaken under this CSWMP are subject to these working hours.

2. Site Constraints & Pre-Construction Requirements

2.1 Site Constraints

The site presents a number of physical and operational constraints that influence the construction-phase surface water management approach:

Constraint	Implication for Construction
Sutton Cheney Conservation Area	Heritage-sensitive setting; existing buildings retained in place; no whole-site clearance.
Operational public house remains in business	Construction must be phased to maintain operational access for staff, customers, deliveries and emergency vehicles.
Public Right of Way through site	PRoW remains accessible at all times (per Condition 13). Drainage works affecting the PRoW require diversion / signage scheme.
Mature trees with Root Protection Areas	Drainage trenches in vicinity of trees to be hand-dug; outfall route subject to further site investigation per the original DWS proposed drainage plan.
Severn Trent public combined sewer in Main Street	Any works adjacent to Severn Trent apparatus must comply with their General Conditions and Precautions; hand-dig within 1 m of the centre line of any STW asset.
Existing private combined drainage of unknown condition	CCTV survey required prior to any excavation or connection works.
Adjacent residential properties to south	Construction-phase noise, dust and light pollution to be managed under the Construction Environmental Management Plan (Condition 9).
Site at topographical high point	Surface water runs off the site towards the north-east and south-west; perimeter management is needed to protect downhill receptors.

2.2 Pre-Construction Surveys and Consents

The following pre-construction activities shall be completed before any excavation or invasive ground works commence on site:

Activity	Action	Responsibility
CCTV survey of existing private drainage	Pre-existing DWS CCTV survey to be reviewed and supplemented by a refreshed CCTV survey at the proposed connection points (MH2, MH3 and the connection to existing combined network in Main Street).	Principal Contractor / specialist drainage contractor
Refresh of Severn Trent Developer Enquiry	The 2022 DER (ref 1032038) has expired (validity period 6 months). A refreshed DER to be obtained from Severn Trent Water New Connections (0800 707 6600).	Applicant / Principal Contractor
Severn Trent S.106 sewer connection approval	Submit S.106 application and obtain approval before reuse of, or any alteration to, the existing connection to the public combined sewer.	Applicant

Topographical confirmation of existing levels	Confirm the existing levels in the vicinity of the proposed community building, MH01–MH03 chamber positions, and the FFL of 122.58 m AOD against the Fosse Surveying topo (Job 1269).	Setting-out engineer / Principal Contractor
Tree survey and RPA confirmation	Confirm the location and extent of the Root Protection Areas of the mature trees adjacent to drainage routes; agree any required arboricultural method statement.	Principal Contractor / Arboricultural Consultant
Underground services search	Issue C2 search to all statutory undertakers; obtain plans for gas, water, electricity, telecoms and any private services. Conduct CAT-and-genny scan of all dig zones before excavation.	Principal Contractor
Construction Environmental Management Plan (CEMP) approval	Discharge Condition 9 with the CEMP separately; this addresses dust, noise, light and contamination matters complementing this CSWMP.	Applicant / Principal Contractor
Site set-up plan	Develop site compound location, materials storage zones, parking, welfare, and emergency vehicle access. Submit to the LPA / LLFA on request.	Principal Contractor

2.3 Site Set-up Considerations

At site set-up the principal contractor shall ensure that:

- The site compound, plant lay-down and materials storage are located away from the line of any drainage feature, existing or proposed (refer Section 6 for stockpile management).
- The designated concrete washout area is established at site set-up, with appropriate bunding (refer Section 8).
- Spill kits are positioned at all materials storage and refuelling points.
- Gully silt protection bags, highway-boundary silt fencing and community-building-zone silt fencing are installed before invasive ground works begin (refer Section 4).
- Welfare and parking provisions do not encroach on the proposed permeable car park footprint after liner installation has commenced.
- A site induction is delivered to all operatives covering the SuDS-specific protections set out in this CSWMP.

3. Construction Phasing & Sequencing

3.1 Phasing Logic

The construction sequence has been planned to manage surface water risk, protect the in-service SuDS performance, and maintain operational access for the public house throughout. A four-phase construction approach is recommended:

Phase	Scope	Duration (indicative)	Surface Water Considerations
1 — Pre-construction	Surveys, consents, CEMP, S.106, site set-up.	4 – 6 weeks	No invasive ground works; site set-up controls in place before Phase 2.
2 — Internal conversion works	Internal works to existing buildings (PH, hotel rooms, Dovecote, ancillary).	6 – 9 months	Limited external excavation; existing drainage retained without alteration; gully relocations as required for landscape proposals.
3 — Community building & SuDS	Demolition of caretaker's shed; new community building substructure and superstructure; permeable car park; tanked sub-base; F-LowFlex liner; Controflow installation; carrier connections.	4 – 6 months	HIGHEST surface water risk phase. All controls in this CSWMP apply with full force.
4 — Landscape, commissioning & handover	Landscape works; PRow signing scheme; SuDS commissioning (drain-down test); CCTV of as-built carriers; handover of LTMP to landowner.	2 – 3 months	SuDS components in service; transitional handover to LTMP regime.

3.2 Order of Works within Phase 3 (Critical SuDS Phase)

Within Phase 3, the order of works has a direct bearing on the in-service performance of the SuDS system. The following sequence shall be observed:

Step	Activity	Critical Control
3.1	Demolition of caretaker's shed.	Demolition arisings removed from site; not stockpiled in proposed paving zone.
3.2	Excavation of community building substructure.	Spoil removed from site; foundation excavation completed before adjacent paving formation.
3.3	Community building substructure / floor slab.	Conventional structural sequence; no SuDS-specific controls.
3.4	Excavation of permeable car park subgrade.	Hand-dig in vicinity of tree RPAs; spoil removed to off-site tip.
3.5	Subgrade preparation — proof-rolling, removal of sharp stones / debris.	Subgrade must be free of any sharp objects that could puncture the F-LowFlex liner.

3.6	Installation of MH01 (Controflow), MH02, MH03 chambers.	Chambers set to design IL and CL; lower carrier pipework installed to MH02 / MH03.
3.7	Installation of geotextile separator at formation level.	Continuous separator with overlapping joints; protects subgrade and liner from interaction.
3.8	Installation of F-LowFlex 300 WASP impermeable geomembrane.	Manufacturer-certified installer; welded seams; WASP puddle flange penetrations sealed at all pipe entries; weld test reports retained.
3.9	EXCLUSION ZONE established.	Demarcate paving zone with fencing / signage; no vehicles, no foot traffic except for paving operatives. Refer Section 5.
3.10	Hand-place first lift (~150 mm) of 4/40 mm sub-base aggregate over liner.	Light hand-spreading; no plant on the liner during first lift placement.
3.11	Subsequent sub-base lifts (~150–200 mm each) with light compaction.	Tracked plant working off the placed aggregate (never directly on liner). Light compaction only — manufacturer recommendation.
3.12	Bedding course (50 mm of 2/6.3 mm grit), levelled.	Manufacturer specification for grit grading and depth.
3.13	CBPP block laying with grit-filled joints.	Joints filled with appropriate grit; brushed in; lightly vibrated to seat blocks.
3.14	Edge restraints (Type EF on Gen1 concrete bed, or per paving manufacturer guidance).	Restraints around full paving perimeter to prevent block creep under load.
3.15	Connection to existing private combined network at MH3.	Final live connection — only undertaken once upstream system is complete and approved.
3.16	Final commissioning — drain-down test.	Pour / spray test water onto paving; observe drain-down through MH01; confirm orifice operation; record baseline performance.

4. Surface Water Management During Construction

4.1 Approach

Construction-phase surface water generated on the site (from rainfall, vehicle / plant water, washwaters and groundwater seepage) must be managed so that it does not (a) generate sediment-laden runoff to adjacent properties, the highway or the existing combined sewer; (b) accumulate on the site and create flood risk; or (c) damage the prepared subgrade or the F-LowFlex liner once installed.

Two complementary control strategies are applied: source-and-perimeter silt control through gully protection bags and silt fencing; and controlled management of any pumped or accumulated construction water through silt socks/filter bags before release into the existing on-site gully system.

4.2 Silt Control and Highway Protection

A coordinated set of source-control, perimeter-control and exit-control measures shall be installed before any invasive ground works begin in Phase 3, and shall be maintained in working condition throughout the construction phase. The measures are summarised below and located on the Construction Phase Site Management Plan to be produced by the principal contractor (refer Section 11.3).

4.2.1 Gully Silt Protection (Source Control on Existing Drainage)

All existing gullies, ACO drainage channels and inspection chambers within the working area or its immediate vicinity (including the existing courtyard, the existing car park, the Main Street frontage and any retained gullies serving the public house) are to be protected by proprietary silt protection bags / inserts (e.g. DrainBag, GullyBag or equivalent) installed before any soil-disturbing activity begins. The protection bags:

- Sit beneath the gully grate and capture silt, leaves and gross debris before they enter the existing private combined network.
- Allow water to pass through but trap sediment.
- Are inspected at every daily walkover and emptied / replaced when 50% full or after any significant rainfall event.
- Are recorded on the daily walkover log and inspected at the weekly formal inspection.

This measure is critical because the existing private combined drainage network is retained without alteration and discharges to the Severn Trent public combined sewer at MH SK41009701 in Main Street. Construction-phase silt entering the existing network would compromise both the residual capacity of the existing network and the receiving public sewer.

4.2.2 Silt Fencing — Highway Boundary

Continuous silt fencing shall be installed along the full length of the boundary adjoining Main Street (the highway frontage), positioned approximately 1 m inside the property boundary on the inside (working-area) face of any boundary wall or hedgerow. The silt fence:

- Comprises woven geotextile fabric (typical 70 g/m² minimum) supported on timber stakes at maximum 2 m spacing.

- Is keyed into the ground at its base (approximately 150 mm trench, fabric folded back in and backfilled).
- Provides at least 600 mm above-ground height.
- Is supplemented by straw / coir wattles at the base on the upslope (working) side as a secondary trap.
- Is inspected at every daily walkover; trapped silt is removed when accumulation reaches one third of fence height; damaged sections are replaced immediately.

This silt fence is the primary defence against sediment-laden runoff escaping onto the public highway during construction.

4.2.3 Silt Fencing — Community Building Work Zone

Additional silt fencing (specification as §4.2.2) shall be installed around the perimeter of the community building work zone — i.e. enclosing the demolition footprint of the existing caretaker's shed, the new community building footprint, and the proposed permeable car park area — for the duration of demolition, substructure construction and sub-base preparation. This containment fence:

- Localises the highest-sediment-risk activities to a defined zone.
- Prevents sediment migration into the surrounding retained landscape, the courtyard, and the western catchment retained drainage.
- Is supplemented by straw / coir wattles at the lowest exit points where access is required for plant.
- Is removed only at the point of permeable paving installation and replaced by the strict liner exclusion zone protocol set out at Section 5.4.

4.2.4 Jet Wash

A pressure jet wash shall be kept on site throughout Phase 3 for cleaning vehicle wheels and tracks before exit onto Main Street, as and when conditions require it. The jet wash is used at the discretion of the site manager based on observed mud conditions on the highway, and is supplemented by the road-sweeping commitment at §4.2.5 below.

4.2.5 Road Sweeping

Main Street between the site exit and the next road intersection (in either direction) shall be swept by mechanical road sweeper as and when required — specifically:

- On any day that visible mud / silt is observed on the highway.
- Following any HGV or skip movement during wet weather where mud has been tracked out.
- At the discretion of the site manager based on the daily walkover.
- Sweepings disposed of off-site as inert construction waste.

4.3 Discharge of Construction-Phase Runoff

Construction-phase surface water shall be managed as far as possible at source through the silt fencing and gully protection measures at §4.2. Where any pumped or accumulated construction water requires discharge, it shall be:

- Filtered through a temporary silt sock or geotextile filter bag before any release.

- Discharged via existing on-site gully connections to the existing private combined network — only after passing through the gully silt protection bags installed under §4.2.1.
- Subject to no direct discharge of unsettled, sediment-laden water to any drainage feature.
- Subject to no discharge of contaminated water (concrete washout, fuel/oil, plant maintenance water — refer Sections 7 and 8 for separate management).
- Subject to no discharge to the partially-completed permanent SuDS system at any time during construction.

4.4 Active Dewatering

Where excavations encounter the local groundwater table (which the DWS trial pit identified at 0.72 m below ground level in March 2022), active dewatering may be required for community building substructure and / or sub-base formation. The following protocols apply:

- **Pump capacity** matched to the inflow rate; over-pumping risks subgrade disturbance.
- **Pumped water** filtered through a silt sock / geotextile filter bag at the discharge point before release into the existing on-site gully system, with a clean-water filter sock on the pump intake to minimise sediment uptake.
- **Suction location** away from the excavation face to avoid undermining.
- **Dewatering duration** limited to that required for the specific work activity; pumps switched off and excavation backfilled / structures made watertight at the earliest opportunity.
- **Adjacent tree RPAs** protected from inadvertent dewatering effects — any sustained dewatering near tree root zones to be reviewed with the arboricultural consultant.

4.5 Rainfall Event Management

Construction is paused during periods of significant rainfall, particularly when the open subgrade or installed liner is exposed. The following thresholds apply:

Activity	Rainfall Pause Threshold
Subgrade preparation (pre-liner)	Met Office Yellow rain warning or sustained rainfall >5 mm/hr — pause until conditions allow.
Liner installation (F-LowFlex 300 WASP)	Any rainfall — liner welds must not be undertaken in wet conditions per manufacturer guidance.
Sub-base placement after liner installation	Met Office Yellow rain warning — pause to prevent washout of placed aggregate.
Block paving installation	Met Office Yellow rain warning — pause to prevent washout of joint material.
Concrete pours	Heavy or sustained rainfall — pause and protect uncured concrete; risk of washout to drainage if concrete laitance is allowed to enter system.

5. Liner Protection & Permeable Paving Installation Sequence

The F-LowFlex 300 WASP impermeable geomembrane is the most safety-critical SuDS component on this site. A breach of the liner — whether at installation or during subsequent sub-base placement — would compromise the in-service tanked-storage performance of the entire eastern catchment and could allow contamination of the underlying ground / shallow groundwater. This Section sets out the specific protection regime; it expands on the construction sequencing of Section 3.2.

5.1 Subgrade Preparation

- Subgrade levels confirmed against design.
- All sharp objects (broken stone, debris, glass, metal) removed by hand inspection.
- Subgrade compacted in accordance with ground investigation findings — but not over-compacted (must not damage the underlying clay strata).
- Subgrade proof-rolled to identify any soft spots; remediated by removal and replacement with suitable fill prior to liner installation.
- Final subgrade clean swept before geotextile separator installation.

5.2 Geotextile Separator

- Permeable geotextile separator (specification per manufacturer guidance, typically 200–250 g/m²) laid continuously across the subgrade.
- Sheets overlapped by at least 300 mm at all joints.
- Separator laid up the full extent of the side slopes to match the planned liner profile.
- No machinery, tools or operatives walk directly on the geotextile beyond what is necessary for liner laying.

5.3 F-LowFlex 300 WASP Liner Installation

Liner installation is undertaken by a SEL Environmental-approved (or otherwise manufacturer-certified) installer. The following protocols apply:

- **Pre-installation inspection:** liner sheets visually inspected for any factory defects before unrolling. Any defective material returned to manufacturer.
- **Weather window:** liner installation undertaken in dry weather only. No installation during rainfall or when humidity / dew point indicate that welding may be compromised.
- **Welded seams:** seams between liner sheets formed by hot-air or hot-wedge welding per manufacturer procedure.
- **Weld testing:** every weld tested by air-pressure or vacuum-box test as specified by the manufacturer; pass / fail recorded with date, weather conditions, operative name. Failed welds re-welded and re-tested before acceptance.
- **WASP puddle flange penetrations:** every pipe entry through the liner is formed using the WASP puddle flange detail per SEL Drawing reference. Flange clamped to liner with appropriate sealant; integrity verified visually.
- **Liner returns:** liner extends up the full extent of the side slopes to a minimum 300 mm above the maximum design water level (i.e. above 122.207 m AOD per the modelling). Edges anchored / weighted to prevent uplift.

- **As-installed records:** photographs of completed installation (overlap details, all penetrations, side returns, edge anchorage) and weld test reports retained by the principal contractor and provided at handover.

5.4 Exclusion Zone Enforcement

Once the liner is installed, the paving footprint becomes a strict exclusion zone for the duration of construction. The following arrangements apply:

- Heras-fence enclosure of the entire liner footprint, signed "F-LowFlex Liner Installed — Exclusion Zone — No Vehicles, No Plant".
- Single controlled access point for paving operatives only.
- No vehicles, plant or scaffolding enter the exclusion zone after liner installation. (Spoil removal vehicles working from outside the zone using long-reach plant where adjacent excavation is required.)
- No materials stockpiled within the exclusion zone (refer Section 6).
- Site induction reinforces the exclusion zone protocol; daily walkover confirms compliance.

5.5 Hand-Placement of First Sub-Base Lift

The first lift of 4/40 mm clean angular sub-base aggregate (~150 mm depth) is hand-placed over the installed liner. This is the highest-risk operation for liner damage and warrants explicit controls:

- **Aggregate delivery:** aggregate tipped at the perimeter of the exclusion zone, not directly onto the liner.
- **Hand spreading:** aggregate moved into position by wheelbarrow over plywood track-mats, or by hand-shovelling. No tracked plant on the liner during first lift.
- **Spread over geotextile (where applicable):** the geotextile separator beneath the liner provides additional protection; aggregate placed evenly to avoid concentrated point loads.
- **Inspection during placement:** site supervisor / FRE present during first lift placement to verify no liner damage occurs.
- **Documentation:** first-lift placement photographed for the construction records.

5.6 Subsequent Sub-Base Lifts

- Subsequent lifts placed in 150–200 mm thicknesses; tracked plant works off the placed aggregate, never directly on the liner.
- Light compaction only — vibrating plate compactor (max ~100 kg) or light vibratory roller (<1.5 t static).
- No heavy compaction (which would reduce sub-base porosity below the design $n = 0.30$ and compromise the storage volume).
- Each lift checked for level; final sub-base level to design.
- All works in accordance with manufacturer specification.

5.7 Bedding Course and CBPP Blocks

- 50 mm bedding course of 2/6.3 mm clean grit, levelled to design with screeding boards.

- CBPP blocks laid with grit-filled joints; joints kept consistent in width per manufacturer specification.
- Edge restraints (Type EF concrete edgings on Gen1 concrete bed, or as per paving manufacturer guidance) installed around the full paving perimeter.
- Joints brushed in with clean kiln-dried jointing grit per manufacturer specification.
- Lightly vibrated to seat blocks; manufacturer's vibratory plate specification not exceeded.
- No surcharging of the paving by stockpiles or plant during the curing / settling period.

5.8 Commissioning

Before handover, the paving and SuDS system shall be commissioned to confirm in-service performance:

12. Visual inspection of the paving surface — block alignment, joint filling, edge restraints intact.
13. Drain-down test: pour or spray clean water onto the paving surface; observe drainage through the system to MH01.
14. Orifice operation test: confirm 20 mm Ø orifice is unobstructed; observe outflow through to MH02 / MH03.
15. CCTV survey of the Ø110 carrier pipework (MH01 → MH02 → MH03 → existing combined network connection) — full pipe-bore visible; no joint defects.
16. Photograph all chambers internally (MH01, MH02, MH03) for the handover record.
17. Production of the as-built drainage drawing (revision update of FRE 1269/_1001) showing actual installed levels and pipe runs.
18. Establishment of the baseline ASTM C1781 surface infiltration rate at three locations (this becomes the reference point for future 5-yearly performance tests under the LTMP).
19. Handover of the LTMP, as-built drawings, weld test reports and commissioning records to the landowner.

6. Stockpile & Materials Management

Materials and spoil stockpiles are a significant source of construction-phase sediment runoff and, if poorly located, can interfere with the SuDS installation footprint.

6.1 Stockpile Location

- No stockpiles within the proposed permeable car park footprint after liner installation has commenced.
- No stockpiles within the proposed community building footprint or its immediate vicinity once substructure works begin.
- Stockpiles located at least 5 m from any drainage feature (existing or proposed), any tree RPA, and the Public Right of Way.
- Stockpiles not located on the Main Street / public highway side of the site so as to avoid sediment entering the highway grips and (potentially) the Severn Trent public combined sewer.
- Designated stockpile area shown on the contractor's site set-up plan and reviewed at site induction.

6.2 Stockpile Management

- **Topsoil stockpiles:** covered with breathable geotextile or sown with a fast-germinating grass seed if expected to remain in place for >4 weeks. Maximum height 2 m to limit wind erosion.
- **Aggregate stockpiles:** on impermeable base (e.g. compacted Type 1 sub-base, polythene sheeting under) where there is significant potential for fines washout. Surrounded by silt fence or sandbag bund.
- **Spoil stockpiles:** removed from site as soon as practicable; not stockpiled overnight if rainfall is forecast. Covered with sheeting if temporarily retained.
- **Materials in bags / on pallets:** cement, mortar, etc. stored on raised platforms with weatherproof covering. Damaged bags removed from site immediately.
- **Reactive materials:** any cement, lime or other reactive materials stored in dedicated covered bunded areas, away from drainage features.

6.3 Sub-Base Aggregate (4/40 mm) Specific Considerations

The 4/40 mm clean angular stone forming the permeable paving sub-base is a specialist aggregate (BS EN 13242 type 4/40 to MCHW 803 / Interpave Edition 7:2018). Specific handling requirements apply:

- Aggregate certified clean (no fines, no contamination) at point of delivery; delivery tickets retained.
- Stockpile (if temporary on-site storage required) located outside the paving footprint, on hardstanding, sheeted to prevent contamination by surface dust / fines.
- Aggregate handled by clean plant only (no muddy buckets, no general-purpose plant fresh from earthworks).
- Any aggregate that becomes contaminated (mud splatter, fines ingress) rejected and removed from site.

7. Pollution Control

7.1 Pollution Prevention Principles

Pollution control during construction is governed by the principles of CIRIA C532 (Control of water pollution from construction sites) and the Environment Agency's Pollution Prevention Guidelines (PPG) series. The following principles apply:

- Pollution risks identified at the start of each work activity through pre-task Risk Assessment and Method Statement.
- Source controls applied to prevent pollutants entering the surface water system.
- Spill response equipment (kits, absorbents, signage) located close to all storage and refuelling points.
- All operatives trained in pollution-incident response at site induction.
- No washing of plant, tools or vehicles in any drainage feature.
- No discharge of fuel, oil, solvent, paint, mortar, concrete or similar to any drainage feature.

7.2 Fuel and Oil Storage

- All fuel storage in bunded containers (110% of contained volume).
- Fuel storage area minimum 10 m from any drainage feature, watercourse or surface water inlet.
- Fuel storage area on impermeable surface; bunded perimeter; lockable when unattended.
- Refuelling of plant within a designated refuelling area only — never on open ground or directly over any drainage chamber.
- Drip trays under all parked plant overnight.
- Spill kits adjacent to fuel storage; site induction covers spill response.

7.3 Plant Maintenance

- Plant maintenance restricted to a designated area on impermeable hardstanding.
- No oil changes, hydraulic fluid changes or similar operations conducted in unprotected areas.
- Used oils, filters, hydraulic fluids and similar collected in designated waste containers and removed by licensed waste contractor.
- Damaged plant (leaking hydraulics, fuel leaks) immediately taken out of service and removed for repair.

7.4 COSHH Materials

- All COSHH-controlled materials (paints, solvents, adhesives, sealants, chemical admixtures etc.) stored in their original containers in a locked, bunded COSHH store.
- COSHH register maintained by site manager; safety data sheets accessible to all operatives.
- No COSHH materials in unauthorised locations on site.
- Disposal of waste COSHH materials by licensed waste contractor.

7.5 Spill Response

In the event of a spill (fuel, oil, or other contaminant):

- 20.
- 21.
- 22.
- 23.
- 24.
- 25.
- 26.

8. Concrete Washout

Concrete and mortar washwaters are highly alkaline (pH typically 12–13) and aggressive to drainage features and watercourses. They cannot be discharged to any drainage feature, watercourse or to ground.

8.1 Designated Washout Area

- A designated concrete washout station is established at site set-up, in a location outside the line of any existing or proposed drainage feature.
- The washout station consists of a contained (bunded or lined) pit or skip — sized to receive the volume of washwater anticipated for the project — into which all concrete and mortar washwater is directed.
- Pit / skip lined with impermeable membrane to prevent ground contamination.
- Signage: "CONCRETE WASHOUT — NO DISCHARGE TO DRAINS".
- Location and condition of the washout station inspected daily.

8.2 Washout Operations

- All concrete-related washing (chutes, pumps, mixers, hand tools, etc.) carried out at the washout station only.
- No washing of concrete tools or surfaces in any drainage chamber, gully or surface water feature.
- Set / hardened concrete material removed from the washout station as solid waste; transported by licensed waste contractor.
- Any spillage of fresh concrete outside the washout station is contained immediately and shovelled before it can enter any drainage feature; surface water rinsed water collected and returned to the washout station.

8.3 Pile Cap and Foundation Concrete Pours

- Pour zones isolated from drainage features by physical barrier and / or local containment.
- Concrete trucks discharge directly into the formwork; minimal handling outside the formwork.
- After completion of the pour, residual concrete in pump lines / chutes / hoses is washed at the designated washout station.
- Spillages on completed slabs allowed to set, then mechanically removed; not washed into any drainage feature.

8.4 Mortar and Bedding Concrete

- Edge restraint Gen1 concrete bedding mixed in a designated mixing area with surface protection beneath.
- Tools cleaned at the concrete washout station, never in any drainage chamber or feature.
- Excess mortar / Gen1 concrete returned to the washout station as set / hardened waste.

9. Inspection, Monitoring & Records

9.1 Inspection Regime

A structured inspection regime confirms ongoing compliance with this CSWMP throughout the construction period. The minimum inspection regime is:

Inspection	Frequency	Responsibility	Scope
Daily walkover	Every working day	Site Manager	General compliance check — gully silt protection bags (level / function), highway-boundary silt fence (integrity / accumulation), community-building-zone silt fence, jet wash availability, exclusion zone integrity, materials storage, pollution control, washout station, daily housekeeping; observation of any mud on Main Street to trigger road sweeping if required.
Weekly inspection	Weekly	Site Manager + project H&S advisor	Formal recorded inspection — all elements of CSWMP. Reported to project team weekly meeting.
Pre-rain / post-rain	Triggered by Met Office Yellow rain warning	Site Manager	Pre-storm: confirm controls are intact and excavations are protected. Post-storm: inspect for any damage, sediment migration or pollution.
Liner installation hold-points	Before / during / after liner laying	FRE + manufacturer-certified installer	Subgrade preparation; geotextile separator condition; liner inspection; weld testing; WASP puddle flange penetration sealing; first-lift sub-base placement.
Sub-base placement	Each lift	Site Manager + FRE (random visits)	Compaction control; aggregate cleanliness; protection of liner; lift thickness; level survey.
Pre-handover	Once	FRE + Principal Contractor	As-built CCTV; drain-down test; orifice operation; baseline ASTM C1781 permeability test; handover record.

9.2 Records

The principal contractor shall maintain the following records throughout the construction period and provide them at handover:

- Daily walkover log (date, time, signatory, any observations / actions).
- Weekly inspection reports.

- Pre-construction CCTV survey reports.
- Severn Trent DER refresh and S.106 application correspondence.
- F-LowFlex liner installation: weld test reports, photographs of all overlap details, photographs of all WASP puddle flange penetrations, manufacturer's installer certificate.
- Sub-base placement: lift records, compaction records, level survey on completion.
- Concrete supply tickets and washout disposal records.
- Waste transfer notes for all waste streams.
- Spill / pollution incident logs (if any).
- As-built drainage drawings.
- Commissioning records — drain-down test, CCTV, baseline ASTM C1781 permeability test results.
- A "drainage handover pack" provided to the landowner on completion, comprising the LTMP, as-built drawings, manufacturer datasheets, weld test reports and commissioning records.

10. Emergency Procedures

In the event of a flood or pollution emergency on or affecting the construction site, the following procedures apply:

10.1 Flooding On-Site

- Stop affected work activities and move plant / personnel to higher ground.
- Confirm that silt fences and gully silt protection bags are intact and functioning.
- If the existing private combined network is overwhelmed and surcharging, contact Severn Trent Water (0800 783 4444 — 24-hour line).
- Do not attempt to enter flooded excavations until water has subsided and the work zone has been re-assessed for safety.
- Once the flood event has passed, inspect all surface water management features and reinstate as required before resuming work.

10.2 Pollution Incident

- Follow the spill response protocol set out in Section 7.5.
- Contact the Environment Agency on 0800 80 70 60 (24-hour) for any spill with potential to reach a watercourse or significant drainage system.
- Contact Severn Trent Water on 0800 783 4444 for any spill with potential to enter the public combined sewer.
- Implement contractor's incident response plan; record fully.

10.3 Liner Damage

- Stop work in the immediate vicinity of the damage.
- Photograph and document the damage extent and location.
- Notify FRE and SEL Environmental immediately for technical guidance.
- Do not place any further sub-base aggregate over the damaged zone until repaired.
- Repair using manufacturer-approved hot-air or chemical weld procedure; weld-test the repair before reinstating cover material.

10.4 Emergency Contacts

Service	Contact	When to Call
Environment Agency	0800 80 70 60 (24-hour)	Pollution incidents with potential to reach a watercourse or significant drainage system.
Severn Trent Water (Emergency / Pollution)	0800 783 4444 (24-hour)	Public sewer flooding, surcharging, or pollution to public sewer.
Severn Trent Developer Services (New Connections)	0800 707 6600	S.106 connection queries; non-emergency.
Hinckley & Bosworth Borough Council (Planning)	01455 238141	Planning queries; CSWMP compliance.
Leicestershire County Council (LLFA / FRM)	via Customer Service Centre	Surface water flooding queries; SuDS performance.
SEL Environmental Ltd	01254 589987	Liner damage; manufacturer technical support.
Flood Risk Environmental	07826 705389	Design / SuDS technical queries.

11. Construction-Phase Risks & CDM 2015

11.1 CDM 2015

The development is a notifiable construction project under the Construction (Design and Management) Regulations 2015 (CDM 2015). The principal designer (TBC at handover to the contractor) and principal contractor (TBC) are responsible for the discharge of CDM duties; FRE's role as drainage designer is captured within the wider design team.

FRE's designer's risk register for the drainage works is provided to the principal contractor at handover and forms part of the project's pre-construction information. The register identifies residual risks where design choices cannot fully eliminate the hazard, and proposes mitigation through the contractor's Construction Phase Plan and Method Statements.

11.2 Designer's Residual Risk Register

Risk	Mitigation Required
Existing private drainage of unknown condition prior to first works.	Pre-construction CCTV survey; rehabilitation of any defects identified prior to making any new connection.
Permeable paving sub-base must not be trafficked by construction plant after geotextile / liner installation (risk of liner damage and loss of void ratio in sub-base).	Strict exclusion zone during liner / sub-base / paving installation, demarcated and signed; site induction; daily walkover compliance check.
SEL Controflow Micro flow control chamber constitutes a confined space.	Refer to manufacturer's safe entry procedures; orifice access via screw-cap from cover level negates need for confined-space entry under normal maintenance.
Drainage trenches in vicinity of mature tree RPAs.	Hand-dig in vicinity of identified RPAs per the original DWS proposed drainage plan; arboricultural method statement to be developed by contractor.
Site adjacent to operational licensed premises (public house remains in use).	Construction phasing to maintain pedestrian access and customer safety; works coordinated with public house management.
Public Right of Way through site (subject to Condition 13 signing scheme).	PRoW kept open during construction; signage in accordance with Condition 13 scheme.
Severn Trent public combined sewer beneath Main Street.	Compliance with Severn Trent General Conditions and Precautions adjacent to apparatus; hand-dig within 1 m of any STW asset; consultation with Severn Trent if any works within 3 m of apparatus.
Local groundwater table at 0.72 m BGL — potential for excavation dewatering.	Active dewatering protocol set out at Section 4.4; settlement before discharge; suspension of work in extreme rainfall.
Working in vicinity of unknown buried services.	C2 search to all undertakers; CAT-and-genny scan of all dig zones; banks-man supervision of mechanical excavation.
Concrete and mortar washing waters — alkaline pollutants.	Designated washout station per Section 8; no washing of concrete tools at any drainage

feature.

11.3 Contractor Method Statements

The principal contractor shall develop project-specific Method Statements and Risk Assessments for the following high-risk activities, before they commence:

- F-LowFlex 300 WASP liner installation (including sequencing, weld testing, WASP puddle flange penetration sealing, and exclusion zone enforcement).
- Concrete washout management.
- Active dewatering of excavations (where required).
- Working in vicinity of mature tree RPAs.
- Working adjacent to Severn Trent apparatus in Main Street.
- Connection of new private drainage to the existing combined network.
- Working at the operational public house interface (deliveries, customer access, emergency vehicles).

12. Statement of Compliance with Condition 6

Condition 6 of planning permission 21/01038/FUL requires that:

Condition 6

"No development shall take place until details in relation to the management of surface water on site during construction of the development has been submitted to, and approved in writing by the Local Planning Authority. The construction of the development must be carried out in accordance with these approved details."

Reason: To ensure that the development is provided with a satisfactory means of drainage as well as reduce the risk of creating or exacerbating flooding and minimise the risk of pollution to accord with Policy DM7 of the adopted Site Allocations and Development Management Policies Plan.

12.1 Compliance Demonstration

Requirement	How Satisfied
Details in relation to the management of surface water on site during construction have been submitted to the LPA.	This Construction Surface Water Management Plan (CSWMP) constitutes those details. It identifies the site constraints (Section 2), construction phasing (Section 3), surface water management arrangements (Section 4), liner protection regime (Section 5), stockpile management (Section 6), pollution control (Section 7), concrete washout (Section 8), inspection and records (Section 9), emergency procedures (Section 10), and CDM-aligned residual risk register (Section 11).
Reduce the risk of creating or exacerbating flooding (policy reason).	Continuous silt fencing along the Main Street highway boundary, containment silt fencing around the community building work zone, gully silt protection bags fitted to all retained gullies, on-site jet wash for vehicle wheels, road sweeping of Main Street as required, controlled discharge of any pumped construction water through silt socks/filter bags, and rainfall-event work suspension thresholds collectively prevent the construction phase from generating uncontrolled runoff, escaping the site onto the public highway, or compromising the residual capacity of the existing private combined network.
Minimise the risk of pollution (policy reason).	Sediment-laden runoff is intercepted by gully silt protection bags, perimeter and zonal silt fencing, and on-site jet washing of vehicle wheels before it can reach the existing combined sewer or the public highway. A specific pollution control regime additionally addresses fuel and oil storage (Section 7.2), plant maintenance (Section 7.3), COSHH materials (Section 7.4), spill response (Section 7.5) and concrete washout (Section 8). EA and Severn Trent emergency contacts are included at Section 10.
Compliance with Policy DM7.	The CSWMP is fully consistent with Policy DM7. It is also consistent with CIRIA C532 (Control of water pollution from construction sites), the Environment Agency PPG series, the Severn Trent General Conditions and Precautions, and the principal contractor's CDM 2015 obligations.

Construction in accordance with these approved details.	The CSWMP is binding on the principal contractor and the wider construction supply chain. Compliance is monitored through the daily walkover and weekly inspection regime (Section 9). Records of compliance are retained and provided at handover.
Pre-commencement timing.	This CSWMP is submitted prior to commencement, in accordance with the temporal requirement of Condition 6. Approval of these details by the LPA is required before development can commence.

13. Conclusions

This Construction Surface Water Management Plan has been prepared by Flood Risk Environmental on behalf of Ideal Design (acting for the applicant, APA Leisure Ltd) to discharge Condition 6 of planning permission 21/01038/FUL (Hinckley & Bosworth Borough Council, granted 7 July 2023) in respect of the Royal Arms Hotel redevelopment at Main Street, Sutton Cheney, CV13 0AG.

The CSWMP sets out a structured construction-phase regime addressing the principal surface water management risks: sediment runoff during ground works, damage to the F-LowFlex 300 WASP impermeable liner, pollution to the existing private combined sewer, and the operational constraints of an active public house and a Conservation Area setting. The plan establishes pre-construction surveys and consents (refreshed Severn Trent DER, S.106 application, CCTV survey), a defined construction sequence with explicit liner protection protocol, controls on stockpiling and pollution, a designated concrete washout station, a structured inspection regime led by the principal contractor with FRE oversight at key construction milestones, and emergency response procedures.

The CSWMP is a live document. The appointed principal contractor will develop project-specific Method Statements and Risk Assessments before commencement, in line with their CDM 2015 obligations, and will operate under the principles set out herein. Records of compliance will be retained throughout construction and provided at handover, transitioning to the LTMP regime for the in-service life of the SuDS system.

On this basis, the CSWMP is considered to:

- Provide satisfactory arrangements for the management of surface water on site during construction.
- Reduce the risk of creating or exacerbating flooding through gully silt protection, perimeter and zonal silt fencing, on-site jet wash and rainfall-event work suspension.
- Minimise the risk of pollution through specific controls on fuel, oil, COSHH materials, plant maintenance and concrete washout.
- Protect the in-service performance of the SuDS components (notably the F-LowFlex 300 WASP impermeable liner) through a defined installation sequence and exclusion zone regime.
- Comply with Policy DM7 of the adopted Site Allocations and Development Management Policies DPD (2016) and with the principal contractor's CDM 2015 obligations.

The CSWMP is therefore considered suitable for approval in discharge of Condition 6.

Submitted by:

Antony Riozzi BEng (Hons)

Director, Flood Risk Environmental

07826 705389 · Floodriskenvironmental@gmail.com

Date: 07 May 2026

References and Standards

The construction-phase surface water management approach set out in this CSWMP has been developed in accordance with the following standards, guidance documents and reference works:

Statutory Instruments

- Construction (Design and Management) Regulations 2015 (CDM 2015).
- Control of Substances Hazardous to Health Regulations 2002 (as amended).
- Environmental Permitting (England and Wales) Regulations 2016.
- Confined Spaces Regulations 1997.

Planning Policy and Guidance

- National Planning Policy Framework (NPPF), latest revision.
- Hinckley & Bosworth Borough Council — adopted Site Allocations and Development Management Policies Development Plan Document (2016) — Policy DM7.

Technical Guidance

- CIRIA C753 (2015) — The SuDS Manual.
- CIRIA C532 (2001) — Control of Water Pollution from Construction Sites.
- CIRIA C648 (2006) — Control of Water Pollution from Linear Construction Projects.
- Environment Agency Pollution Prevention Guidelines (PPG) series — particularly PPG 1, 5, 6 and 26.

Local Authority and Statutory Consultee Standards

- Leicestershire County Council Lead Local Flood Authority — Sustainable Drainage Standards.
- Severn Trent Water — General Conditions and Precautions; Developer Services standard requirements.

Project-Specific References

- FRE Combined Drainage Strategy Report and Long-Term Maintenance Plan (Discharge of Conditions 5 and 7) — companion document.
- Diamond Wood & Shaw Limited (March 2022). Drainage Statement — Royal Arms Hotel, document ref 21-16445 0-040 P6.
- Severn Trent Water Developer Enquiry Response — DER ref 1032038, dated 3 February 2022.
- Hinckley & Bosworth Borough Council — Decision Notice for planning permission 21/01038/FUL, dated 7 July 2023.

Manufacturer Literature

- SEL Environmental Ltd — F-LowFlex 300 WASP impermeable geomembrane installation guidance.
- SEL Environmental Ltd — Raintaina filter inlet installation guidance.
- SEL Environmental Ltd — Controflow Micro 300 Series flow control installation guidance.

Appendices

The following appendices accompany this CSWMP. Appendices A–F are bound separately and submitted as part of the same discharge of conditions package.

- **Appendix A:** Decision Notice extract — Condition 6 wording.
- **Appendix B:** Reference Drawing — FRE 1269/_1001 (Community Centre Detailed Drainage Strategy).
- **Appendix C:** Reference Drawing — FRE 1269/_1003 (SuDS-Specific Construction Details — including liner / sub-base / inlet detail).
- **Appendix D:** Severn Trent Water DER ref 1032038 (3 February 2022) — for reference; to be refreshed prior to commencement.
- **Appendix E:** Designer's Residual Risk Register (FRE).
- **Appendix F:** Inspection Form Template (for use during routine and weekly inspections).



APPENDIX A

Decision Notice — Verbatim Conditions 5, 6 and 7

Appendix to Drainage Strategy Report & Long-Term Maintenance Plan and CSWMP

Royal Arms Hotel

Main Street, Sutton Cheney, CV13 0AG

Planning Permission 21/01038/FUL

PREPARED FOR Ideal Design	JOB REFERENCE FRE-ROYALARMS-2026	REVISION P1
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Issued **07 May 2026**

Appendix A — Decision Notice Extract

This Appendix reproduces the verbatim wording of the three pre-development surface water drainage conditions imposed by Hinckley & Bosworth Borough Council on the grant of planning permission 21/01038/FUL (7 July 2023). The full Decision Notice is held by the applicant and the LPA and is referenced as part of this discharge of conditions submission.

Application Particulars

Item	Detail
Application Reference	21/01038/FUL
Local Planning Authority	Hinckley & Bosworth Borough Council
Date of Permission	7 July 2023
Site	Royal Arms Hotel, Main Street, Sutton Cheney, CV13 0AG
Applicant	APA Leisure Ltd
Description of Development	Conversion of the Royal Arms Hotel to nine residential units with retention of the public house, change of use of paddock to private garden and public open space, and construction of a new community building.
Decision	Granted with conditions

Condition 5 — Surface Water Drainage Scheme

Wording:

Condition 5 — Verbatim Wording

"Development shall not begin until a scheme to provide a surface water drainage system has been submitted to and approved by the Local Planning Authority, and the scheme shall subsequently be implemented in accordance with the approved details before the development is completed."

Reason:

Condition 5 — Reason

"To ensure that the development is provided with satisfactory means of surface water drainage to prevent flooding and minimise the risk of pollution in accordance with Policy DM7 of the adopted Site Allocations and Development Management Policies Development Plan Document (2016)."

Timing: Pre-commencement.

Discharged by: FRE Drainage Strategy Report and Long-Term Maintenance Plan (combined), submitted as part of this application.

Condition 6 — Construction Surface Water Management

Wording:

Condition 6 — Verbatim Wording

"No development shall take place until details in relation to the management of surface water on site during construction of the development has been submitted to, and approved in writing by the Local Planning Authority. The construction of the development must be carried out in accordance with these approved details."

Reason:

Condition 6 — Reason

"To ensure that the development is provided with a satisfactory means of drainage as well as reduce the risk of creating or exacerbating flooding and minimise the risk of pollution to accord with Policy DM7 of the adopted Site Allocations and Development Management Policies Plan."

Timing: Pre-commencement.

Discharged by: FRE Construction Surface Water Management Plan (CSWMP), submitted as part of this application.

Condition 7 — Long-Term Maintenance

Wording:

Condition 7 — Verbatim Wording

"No occupation of the development approved by this planning permission shall take place until details in relation to the long-term maintenance of the surface water drainage system within the development have been submitted to and approved in writing by the Local Planning Authority. The surface water drainage system shall then be maintained in accordance with these approved details in perpetuity."

Reason:

Condition 7 — Reason

"To ensure that the development is provided with a satisfactory means of drainage as well as reduce the risk of creating or exacerbating flooding and minimise the risk of pollution to accord with Policy DM7 of the adopted Site Allocations and Development Management Policies Plan."

Timing: Pre-occupation.

Discharged by: FRE Drainage Strategy Report and Long-Term Maintenance Plan (combined), Section 12 — submitted as part of this application.

Summary

All three pre-development surface water drainage conditions are addressed within this single grouped discharge of conditions submission. The combined Drainage Strategy Report and Long-Term Maintenance Plan addresses Conditions 5 and 7 within a single integrated document, and a separate Construction Surface Water Management Plan addresses Condition 6.



CSWMP APPENDIX B

Reference Drawing 1269/_1001

Appendix to Construction Surface Water Management Plan

Royal Arms Hotel

Main Street, Sutton Cheney, CV13 0AG

Planning Permission 21/01038/FUL

PREPARED FOR Ideal Design	JOB REFERENCE FRE-ROYALARMS-2026	REVISION P1
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Issued **07 May 2026**

CSWMP Appendix B — Reference Drawing 1269/_1001

This Appendix presents FRE Drawing 1269/_1001 (Community Centre Detailed Drainage Strategy) for reference during construction works. Drawing _1001 sets out the layout of the new community building drainage to be installed under the surface water management regime described in this CSWMP.

Drawing Particulars

Item	Detail
Drawing Number	1269/_1001
Drawing Title	Community Centre Detailed Drainage Strategy
Scale	1:250 @ A2
Date	May 2026
Status	P1 — issued for discharge of conditions
Origin	Flood Risk Environmental (FRE)
Discipline	Civil / Drainage Engineering

Relevance to Construction-Phase Surface Water Management

Drawing _1001 is provided as an Appendix to this CSWMP because the construction sequence (CSWMP Section 3) and the construction-phase surface water controls (CSWMP Sections 4 and 5) are closely tied to the layout shown:

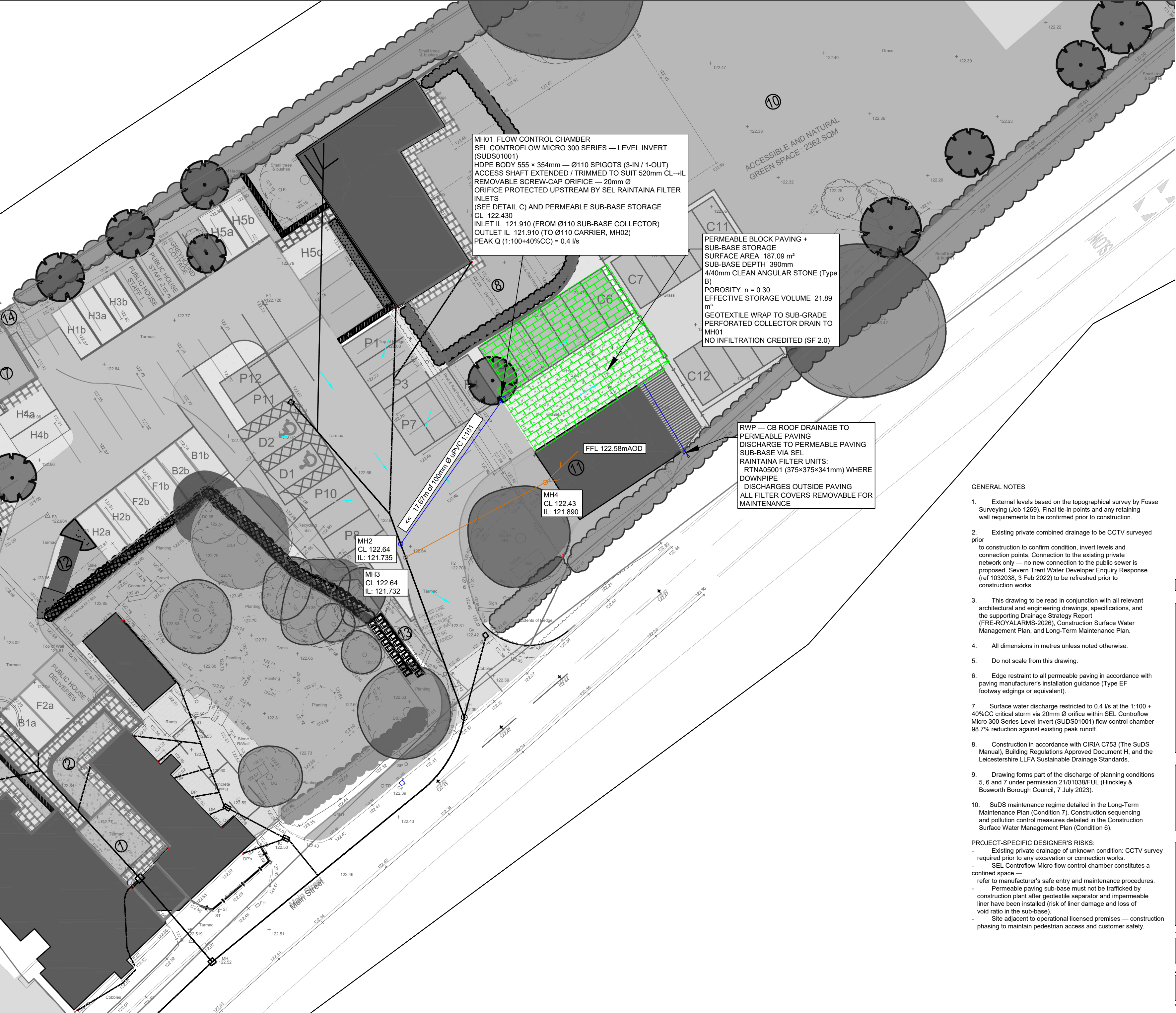
- The community building work zone (CSWMP §4.2.3 silt fence containment) is defined by the building footprint and adjacent permeable car park shown on _1001.
- The retained existing private combined drainage network (CSWMP §4.2.1 gully silt protection) is shown on _1001 in its retained configuration.
- The location of the new flow control chamber MH01 (CSWMP §5 critical liner installation point) is shown on _1001.
- The connection point to the existing combined network at MH03 is shown on _1001.

Note on Bound Output

Drawing 1269/_1001 follows this cover sheet.

The drawing should be displayed at full A2 scale during construction-phase site briefings and inspections.

For general drainage construction details refer to Drawing _1002 (companion document); for SuDS-specific liner / sub-base / inlet details refer to Drawing _1003 (CSWMP Appendix C).



Key:

- Existing private surface water sewer
- Existing private foul water sewer
- Existing private combined sewer
- Private surface water drainage run with 450mmØ inspection chamber for pipes 150mmØ and below, 600mmØ inspection chambers for 225mmØ
- Foul Manhole Details, to be used for inspection chambers and manholes and include diameter in mm (eg. S475Ø)
- Private foul water drainage run with 450mmØ inspection chamber for pipes 150mmØ and below, 600mmØ inspection chambers for 225mmØ
- Storm Manhole Details, to be used for inspection chambers and manholes and include diameter in mm (eg. S475Ø)
- Storm Rodding Eye (inc connection)
- Permeable Paving

MH01 FLOW CONTROL CHAMBER
SEL CONTROFLOW MICRO 300 SERIES — LEVEL INVERT (SUDS01001)
HDPE BODY 555 × 354mm — Ø110 SPIGOTS (3-IN / 1-OUT)
ACCESS SHAFT EXTENDED / TRIMMED TO SUIT 520mm CL→IL
REMOVABLE SCREW-CAP ORIFICE — 20mm Ø
ORIFICE PROTECTED UPSTREAM BY SEL RAINAINA FILTER INLETS
(SEE DETAIL C) AND PERMEABLE SUB-BASE STORAGE
CL 122.430
INLET IL 121.910 (FROM Ø110 SUB-BASE COLLECTOR)
OUTLET IL 121.910 (TO Ø110 CARRIER, MH02)
PEAK Q (1:100+40%CC) = 0.4 l/s

PERMEABLE BLOCK PAVING +
SUB-BASE STORAGE
SURFACE AREA 187.09 m²
SUB-BASE DEPTH 390mm
4/40mm CLEAN ANGULAR STONE (Type B)
POROSITY n = 0.30
EFFECTIVE STORAGE VOLUME 21.89 m³
GEOTEXTILE WRAP TO SUB-GRADE
PERFORATED COLLECTOR DRAIN TO MH01
NO INFILTRATION CREDITED (SF 2.0)

RWP — CB ROOF DRAINAGE TO
PERMEABLE PAVING
DISCHARGE TO PERMEABLE PAVING
SUB-BASE VIA SEL
RAINTAINA FILTER UNITS:
RTNA05001 (375×375×341mm) WHERE
DOWNPIPE
DISCHARGES OUTSIDE PAVING
ALL FILTER COVERS REMOVABLE FOR
MAINTENANCE

GENERAL NOTES

- External levels based on the topographical survey by Fosse Surveying (Job 1269). Final tie-in points and any retaining wall requirements to be confirmed prior to construction.
- Existing private combined drainage to be CCTV surveyed prior to construction to confirm condition, invert levels and connection points. Connection to the existing private network only — no new connection to the public sewer is proposed. Severn Trent Water Developer Enquiry Response (ref 1032038, 3 Feb 2022) to be refreshed prior to construction works.
- This drawing to be read in conjunction with all relevant architectural and engineering drawings, specifications, and the supporting Drainage Strategy Report (FRE-ROYALARMS-2026), Construction Surface Water Management Plan, and Long-Term Maintenance Plan.
- All dimensions in metres unless noted otherwise.
- Do not scale from this drawing.
- Edge restraint to all permeable paving in accordance with paving manufacturer's installation guidance (Type EF footway edgings or equivalent).
- Surface water discharge restricted to 0.4 l/s at the 1:100 + 40%CC critical storm via 20mm Ø orifice within SEL Controflow Micro 300 Series Level Invert (SUDS01001) flow control chamber — 98.7% reduction against existing peak runoff.
- Construction in accordance with CIRIA C753 (The SuDS Manual), Building Regulations Approved Document H, and the Leicestershire LLFA Sustainable Drainage Standards.
- Drawing forms part of the discharge of planning conditions 5, 6 and 7 under permission 21/01038/FUL (Hinckley & Bosworth Borough Council, 7 July 2023).
- SuDS maintenance regime detailed in the Long-Term Maintenance Plan (Condition 7). Construction sequencing and pollution control measures detailed in the Construction Surface Water Management Plan (Condition 6).

PROJECT-SPECIFIC DESIGNER'S RISKS:

- Existing private drainage of unknown condition: CCTV survey required prior to any excavation or connection works.
- SEL Controflow Micro flow control chamber constitutes a confined space — refer to manufacturer's safe entry and maintenance procedures.
- Permeable paving sub-base must not be trafficked by construction plant after geotextile separator and impermeable liner have been installed (risk of liner damage and loss of void ratio in the sub-base).
- Site adjacent to operational licensed premises — construction phasing to maintain pedestrian access and customer safety.

Rev.	Description	Drawn	Date
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Flood Risk Environmental
1 Morgans Orchard,
Barrow Upon Soar,
Leicestershire
LE12 8HZ
Contact Number: 07826705389
Email:
floodriskenvironmental@gmail.com

Project Title
ROYAL ARMS HOTEL, MAIN STREET, SUTTON
CHENEY, CV13 0AG

Drawing Title
Community Centre Detailed Drainage Strategy

Scale	Drawn By	Designer	Check	Engineer	Check
1:250	AR	AR			
	Date 06.05.26	Date 06.05.26		Date	

Job No.	Drawing No.	Revision
1269	_1001	—

Original Sheet Size A2



CSWMP APPENDIX C

Reference Drawing 1269/_1003 — SuDS Construction Details

Appendix to Construction Surface Water Management Plan

Royal Arms Hotel

Main Street, Sutton Cheney, CV13 0AG

Planning Permission 21/01038/FUL

PREPARED FOR Ideal Design	JOB REFERENCE FRE-ROYALARMS-2026	REVISION P1
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Issued **07 May 2026**

CSWMP Appendix C — Reference Drawing 1269/_1003

This Appendix presents FRE Drawing 1269/_1003 (SuDS-Specific Construction Details). Drawing _1003 sets out the critical construction details for the SuDS components — particularly the F-LowFlex 300 WASP impermeable geomembrane installation, the permeable paving sub-base build-up, and the SEL Environmental component installation — which require strict construction-phase quality control under this CSWMP.

Drawing Particulars

Item	Detail
Drawing Number	1269/_1003
Drawing Title	SuDS-Specific Construction Details
Scale	Various — NTS @ A3
Date	May 2026
Status	P1 — issued for discharge of conditions
Origin	Flood Risk Environmental (FRE)
Discipline	Civil / SuDS Engineering

Critical Construction Details Shown

Drawing _1003 contains the following construction details, all of which are critical to the in-service performance of the SuDS system and require strict adherence during construction:

- **Permeable paving build-up section:** 80 mm CBPP blocks → 50 mm 2/6.3 mm clean grit bedding → 390 mm 4/40 mm clean angular stone sub-base → F-LowFlex 300 WASP geomembrane → geotextile separator → prepared subgrade.
- **F-LowFlex 300 WASP liner installation:** lap and weld details, side-return geometry, weld test points.
- **WASP puddle flange penetration detail:** every pipe penetration through the liner sealed with manufacturer-approved puddle flange; weld test required after each.
- **SEL Raintaina filter inlet installation:** mounting in WASP catchpit; outlet to sub-base; cover and finished surface arrangement.
- **SEL Controflow Micro 300 chamber installation:** chamber base level (IL 121.91 m AOD), 20 mm Ø orifice screw-cap arrangement, cover (CL 122.43 m AOD).
- **Sub-base aggregate specification:** 4/40 mm clean angular stone, n = 0.30 minimum, free of fines.

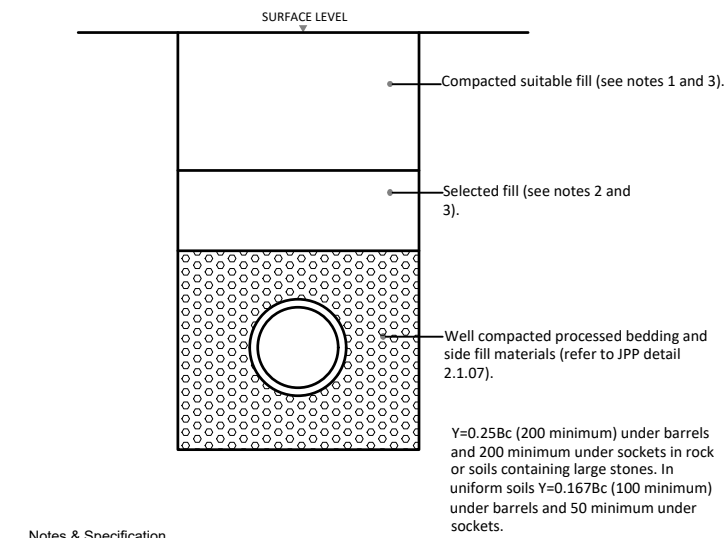
Construction Phase Critical Notes

No mechanical plant trafficking on the F-LowFlex liner once installed (refer CSWMP §5).
First 150 mm sub-base lift to be hand-placed before any mechanical placement.
All liner welds to be tested by the manufacturer-certified installer (test reports retained).
All puddle flange penetrations to be sealed and tested before sub-base placement at the penetration location.
No concrete washout, fuel/oil storage or other COSHH activities within the liner exclusion zone.

Note on Bound Output

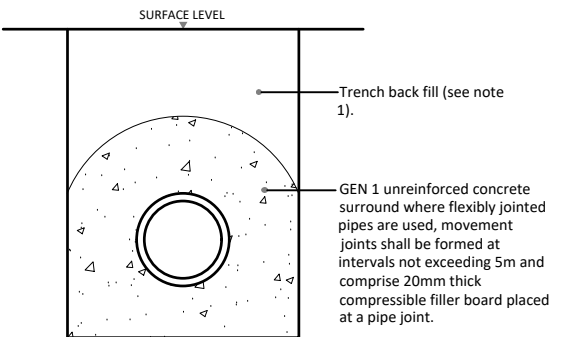
Drawing 1269/_1003 follows this cover sheet.

The drawing should be displayed at full A3 scale during all SuDS-related construction activities. Construction operatives should be inducted on the critical construction details before commencing liner / sub-base works.



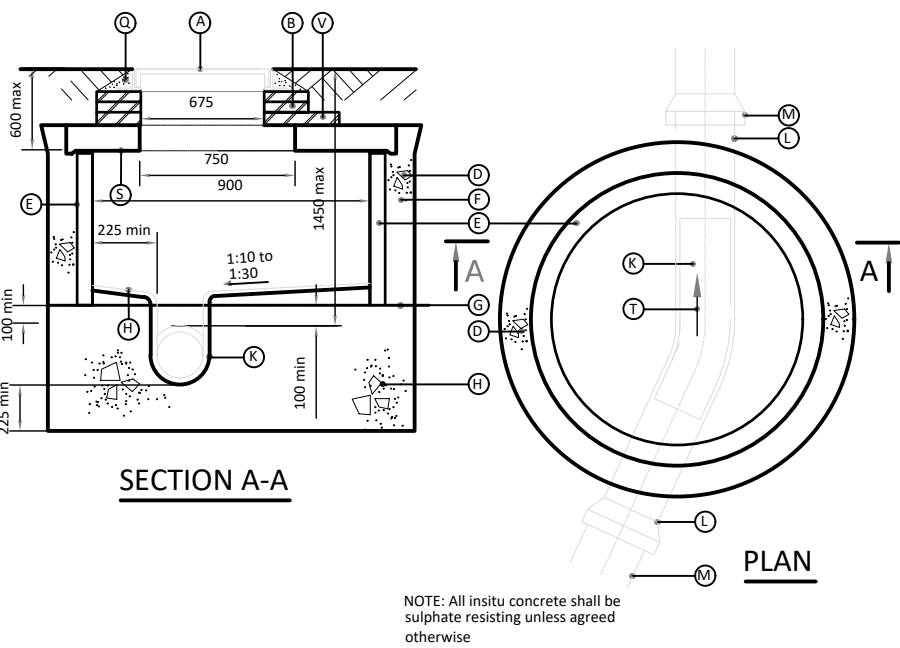
- Notes & Specification
- Suitable fills shall be capable of accepting compaction plant subject to the Engineer's approval and shall exclude boulders, lumps of concrete, bricks, timber and vegetable matter.
 - Selected fill shall be readily compatible material free from roots, organic material, building material, and shall be in an unfrozen condition. Selected fill shall exclude clay lumps exceeding 25mm size. Selected fill shall be carefully compacted around and above the pipe, taking care not to damage the pipe.
 - Where the pipe is installed in areas which are paved or future settlement of back fills is not acceptable then back filling of the trench shall be carried out using type 1 sub-base to Highways Agency specification for Highway Works compacted to the same specifications.
 - Minimum cover: Cover shall be greater than: 2000mm in areas subject to heavy construction plant. 1000mm in areas subject to normal construction traffic. 1200mm to finished level of new main road pavements. 600mm in landscape areas, foot ways, gardens or fields Otherwise use class 2 bedding and surround.
 - Flexible pipes shall be unplasticised UPVC to BS EN 13598
 - Construction, subsequent testing, operation and maintenance shall be carried out in accordance with BS EN 752. Sewers to be adopted by water companies shall be installed in accordance with the current edition of 'Sewers for Adoption' produced by the Water Services Association. Sewers to be adopted by highway authorities shall be installed in accordance with the authority's specification.
 - Workmanship shall be in accordance with BS 8000 - 14:1989

Flexible carrier drain, class s bedding, surround and sidefill



- Notes & Specification
- Trench excavation shall be back filled as follows: a) Outside road pavements or areas where surface settlement cannot be accepted, back filling shall be carried out using suitable fills. Suitable fills shall be capable of accepting compaction plant subject to the Engineer's approval and shall exclude boulders, lumps of concrete, bricks, timber and vegetable matter. b) In areas below road pavements (or where surface settlement cannot be accepted) (i) Where soffit of pipe is less than 0.5m below formation, back fill with GEN 0 unreinforced concrete. (ii) Where soffit of pipe is between 0.5m and 1.0m below formation, back fill with Type 1 sub-base.
 - Cover to pipes shall be: 2000mm or less in areas subject to heavy construction plant. 1000mm or less in areas subject to normal construction traffic. 1200mm or less to finished level of new main road pavements. 600mm or less in landscape areas, foot ways, gardens or fields Otherwise use other specified surround and back fill details.
 - Pipes, unless otherwise stated, shall be: (i) Clay pipes with min FN of 40 to BS EN 205 and BS65 (ii) Concrete pipes to BS 5911 and BS EN 1916 or, (iii) Flexible pipes shall be unplasticised UPVC to BS EN 13598. Concrete pipes shall not be used for foul sewers unless otherwise stated.
 - Construction, subsequent testing, operation and maintenance shall be carried out in accordance with BS EN 752. Sewers to be adopted by water companies shall be installed in accordance with the current edition of 'Sewers for Adoption' produced by the Water Services Association. Sewers to be adopted by highway authorities shall be installed in accordance with the authority's specification.
 - Back filling shall only be undertaken when the concrete bedding and surround has obtained sufficient strength to accommodate back filling operations.
 - This detail shall not be used where the drainage is to be adopted by Water companies.
 - Workmanship shall be in accordance with BS 8000 - 14: 198.

Carrier drain - class z bedding, surround and backfill



SHAFT DIAMETERS	
Dia of largest pipe in MH (mm)	Int. Dia of MH (mm)
Upto 450	1200

If the pipe diameter exceeds 450mm, manhole types B or C shall be used

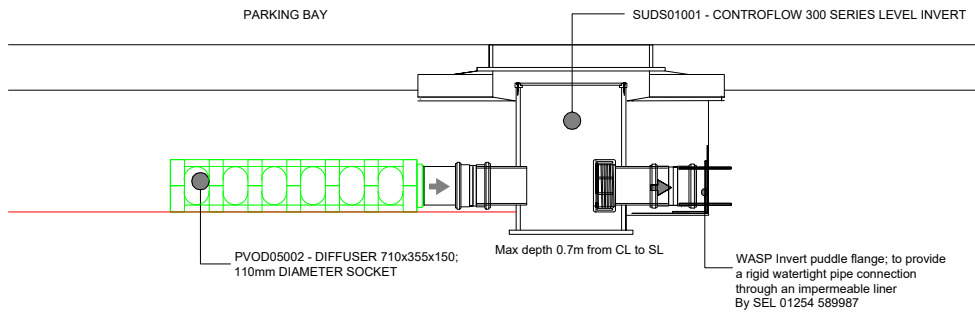
For every two additional incoming pipes, the diameter of the manhole shall be increase by 150mm.

ROCKER PIPES	
Pipe diameter (mm)	Effective Length (mm)
150 to 450	600

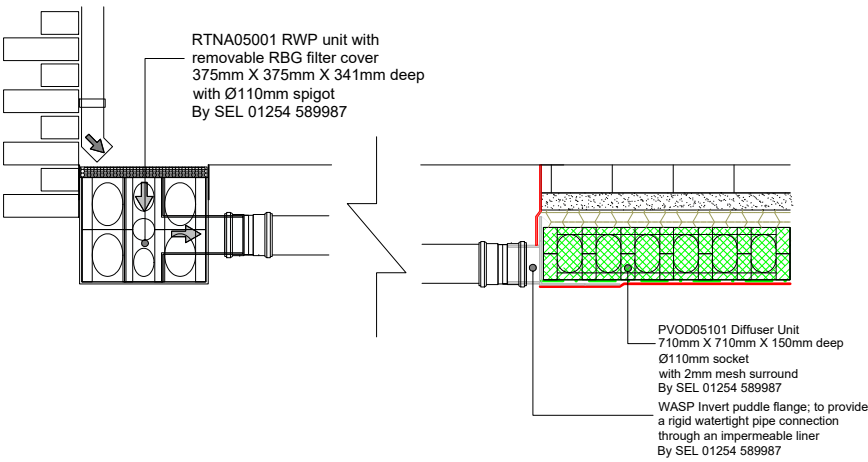
Key to Precast Concrete Manhole Chamber Details

- Cover and frame shall be ductile iron to BS 7903, BS EN 124 and Highways Agency document HA 104/ 02 Class D400, minimum frame depth shall be 100mm (unless in block paved areas where the minimum depth shall be 150mm) in residential cul-de-sac, 150mm deep elsewhere, bedded on designation (i) mortar to BS EN 998 parts 1 and 2. Approved Packing material may be used if required. Manhole covers and frames shall be of non design which does not rely on the use of cushion inserts. Manhole covers shall be the non type and shall have closed key.
- Type 2 cover frame seating rings with central access hole.
- 150mm thick GEN3 unreinforced concrete surround concrete mix shall also be designed with reference to BRE Special Digest 1' Concrete in Aggressive ground and with reference to the ground investigation report (refer to specification clause (5.2.9.) of Sewers for Adoption 6th Edition.)
- Pre-cast concrete shaft, chamber sections and cover slab to BS 5911-3 and BS EN1917 on mortar bedding, with approved proprietary 10mm uncompressed thickness bitumen or resin mastic sealant. Lifting eyes in concrete rings shall be pointed in with mortar designation (i).
- The bottom of the chamber shall be set 75mm into the base slab.
- Construction Joint.
- GEN3 unreinforced concrete mix shall also be designed with reference to BRE Special Digest 1' Concrete in Aggressive ground and with reference to the ground investigation report benching shall be finished with a minimum of 20mm thickness of grano concrete bought up to a dense smooth face, neatly shaped and finished to all branch connections. Benching slope to be between 1 in 10 and 1 in 30.
- Invert within chamber to be formed using channel pipes.
- All pipes entering or leaving manholes shall have a joint as close as possible to the face of the manhole to allow a satisfactory joint.
- Rocker pipe
- Class M1, M2 to BS EN 998-2 or Epoxy mortar haunching for manhole cover and frame
- Heavy Duty reinforced concrete cover slab to BS 5911 with 750x600 access (BS752)
- Direction of Flow
- Type 1 cover frame a seating ring with eccentric access hole (BS752) bedded on mortar.

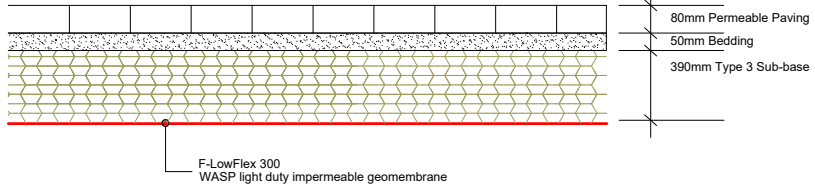
OUTLET FROM MICRO-CATCHMENTS



INLET - REMOTE DOWNPIPE RAINAINA FILTER UNIT where downpipe discharges outside of permeable paving

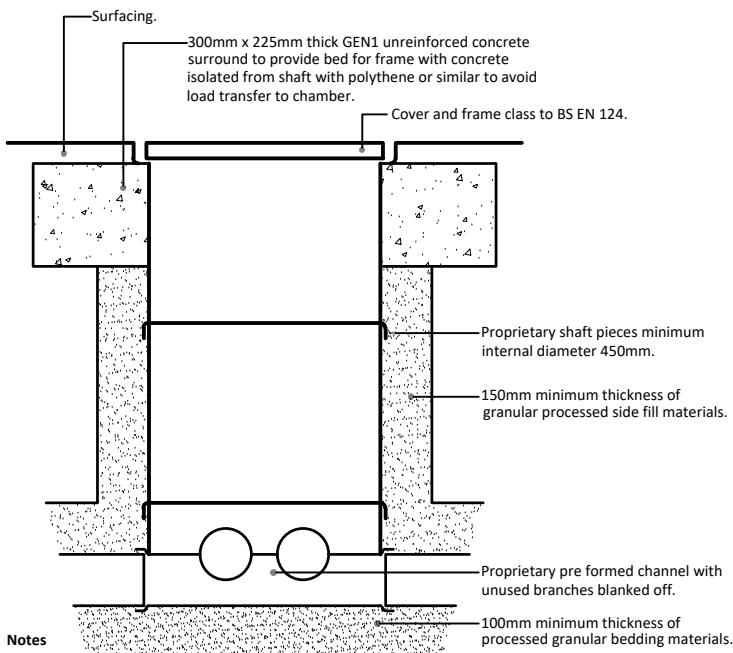


TYPICAL DRIVE CONSTRUCTION



- Notes & Specification
- Processed granular bedding and side fill materials shall include aggregates to BS EN 12620 + A1 and lightweight aggregates to BS EN 13055-1 and shall be graded as defined in the following tables:
Table 1
- | Pipe Nominal Size (mm) | Maximum Partial Size (mm) | Maximum CF Value | Material |
|------------------------|---------------------------|------------------|---|
| 100 | 10 | 0.15 | 10mm nominal single size |
| over 100 to 150 | 15 | 0.15 | 10 or 14mm nominal single size or 14 to 5mm graded. |
| over 150 to 300 | 20 | 0.15 | 10, 14 or 20mm nominal single size or 14 to 5mm graded or 20mm to 5mm graded. |
| over 300 to 550 | 20 | 0.15 | 14 or 20mm nominal single size or 14 to 5mm graded or 20mm to 5mm graded. |
| over 550 | 40 | 0.15 | 14, 20 or 40mm nominal single size or 14 to 5mm graded or 20mm to 5mm graded or 40 to 5mm graded. |
- The sulphate content of bedding and side fill materials shall not be greater than 0.3% as sulphur trioxide. The above specification has been produced based on the Water Industry specification publication
 - No. 4-08-01 (issue 4) February 1994.
 - Compaction factor (CF) shall be determined in accordance with the water industry publication No 4-08-02 (issue 1) February 1994 - appendix B.

Specification for bedding and sidefill materials for flexible pipes (class s & b bedding)



- Notes
- Plastic inspection chambers shall be to BS7158: 1989.
 - Vitrified clay inspection chambers shall be to BS65: 1991 and BS EN 295-6: 1996.
 - Proprietary inspection chambers shall be installed strictly in accordance with manufacturers instructions.
 - Refer to JPP specification for granular processed bedding and side fill materials.
- Limitations of Use
- Chamber can be used in areas subject to light vehicular loading.
 - Chamber is unsuitable for adoption by water companies.
 - Chamber as detailed is not suitable for internal installation.
 - Maximum inlet and outlet size is typically 110mm.
 - Maximum depth to invert 4000mm.
 - Access for inspection and remotely operated equipment only.

Proprietary plastic inspection chamber

Rev	Description	Drawn	Date
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Project Title
ROYAL ARMS HOTEL, MAIN STREET, SUTTON
CHENEY, CV13 0AG

Drawing Title
Construction Details

Scale	Drawn By	Designer	Check	Engineer	Check
NTS	AR				
	Date 07.05.26	Date		Date	

Job No.	Drawing No.	Revision
1269	1003	—

Original Sheet Size A2



CSWMP APPENDIX D

Severn Trent DER 1032038 (3 February 2022)

Appendix to Construction Surface Water Management Plan

Royal Arms Hotel

Main Street, Sutton Cheney, CV13 0AG

Planning Permission 21/01038/FUL

PREPARED FOR Ideal Design	JOB REFERENCE FRE-ROYALARMS-2026	REVISION P1
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Issued **07 May 2026**

CSWMP Appendix D — Severn Trent Water Developer Enquiry Response

This Appendix reproduces the Severn Trent Water Developer Enquiry Response (DER ref 1032038, dated 3 February 2022) for reference during the construction phase. The DER establishes the public sewer connection arrangement that the existing private combined drainage network discharges to.

DER Particulars

Item	Detail
Issuer	Severn Trent Water Ltd (STW)
DER Reference	1032038
Date Issued	3 February 2022
Validity	Six months from issue (now expired)
Status	Reproduced for context — to be refreshed prior to commencement of construction works
Site	Royal Arms Hotel, Main Street, Sutton Cheney, CV13 0AG
Application	21/01038/FUL

Pre-Construction Action Required

A refreshed DER must be obtained from Severn Trent Water prior to commencement of construction works (refer CSWMP Section 2.3 — Pre-construction Requirements):

- **Refresh the DER** via Severn Trent Developer Services (0800 707 6600) prior to any works affecting the existing private combined drainage network or the public sewer connection.
- **Submit a Section 106 sewer connection application** under the Water Industry Act 1991 to confirm continued use of the existing connection at MH SK41009701 for the redeveloped site.
- **Engage with STW** on any pre-construction CCTV survey findings that affect the connection arrangement.

Key Information Within the DER

The DER contains the following information directly relevant to the construction phase and to this CSWMP:

- Identification of the public combined sewer in Main Street as the receiving network for both foul and surface water from the site.
- Manhole references with cover and invert levels (refer also Combined Strategy Appendix F — MH Reference Table).
- STW pre-application advice on SuDS treatment requirements and discharge rate reduction expectations.
- Connection point identification at MH SK41009701.
- Recommendation that a Section 106 sewer connection application be submitted for any continued / new connection.

Note on Bound Output

The Severn Trent Water DER document follows this cover sheet.

The DER is reproduced for reference / context only — the validity period (six months from issue) has expired and a refreshed DER is required pre-construction.

Severn Trent Water emergency contact (24-hr): 0800 783 4444. Developer Services: 0800 707 6600.



CSWMP APPENDIX E

Designer's Residual Risk Register (CDM 2015)

Appendix to Construction Surface Water Management Plan

Royal Arms Hotel

Main Street, Sutton Cheney, CV13 0AG

Planning Permission 21/01038/FUL

PREPARED FOR Ideal Design	JOB REFERENCE FRE-ROYALARMS-2026	REVISION P1
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Issued **07 May 2026**

CSWMP Appendix E — Designer's Residual Risk Register

This Appendix sets out the Designer's Residual Risk Register prepared by Flood Risk Environmental in support of the Construction Surface Water Management Plan, in accordance with the duties of the Designer under Regulation 9 of the Construction (Design and Management) Regulations 2015 (CDM 2015).

Purpose: To identify residual risks arising from the design of the surface water drainage system that the Principal Contractor and downstream contractors will need to manage during construction, and to identify hazards that the Principal Designer should incorporate into their wider construction-phase risk assessment.

Status: Live — to be reviewed and updated by FRE if the design is materially modified.

E.1 Risk Rating Methodology

Risks are categorised by likelihood and severity into a 5×5 matrix:

Likelihood	Severity 1 (Negligible)	Severity 2 (Minor)	Severity 3 (Moderate)	Severity 4 (Major)	Severity 5 (Catastrophic)
5 (Almost certain)	M	H	H	VH	VH
4 (Likely)	L	M	H	H	VH
3 (Possible)	L	M	M	H	H
2 (Unlikely)	VL	L	M	M	H
1 (Rare)	VL	VL	L	L	M

Key: VL — Very Low; L — Low; M — Medium; H — High; VH — Very High.

Residual risk is the rating after the design / mitigation measures set out in this CSWMP have been applied. Where a residual risk remains High or Very High, additional contractor-led measures (Method Statements, Risk Assessments, supervision, training) are required.

E.2 Residual Risk Register

The principal residual risks identified in the design of the surface water drainage system at the Royal Arms Hotel are tabulated below.

Risk 1 — F-LowFlex 300 WASP Liner Damage During Sub-base Placement

Field	Detail
Hazard	Puncture or tear of the F-LowFlex 300 WASP impermeable geomembrane during placement of overlying 4/40 mm sub-base aggregate or trafficking by construction plant.
Affected parties	Sub-base placement operatives; downstream landowner (loss of containment).
Inherent risk	Likelihood 4 / Severity 3 = High
Design mitigation	Specify SEL F-LowFlex 300 (heavy-grade puddle membrane); manufacturer-certified installer; weld test on all joints; geotextile separator above and below liner; strict no-plant exclusion zone over prepared liner; hand-place first 150 mm sub-base lift before mechanical placement.
Residual risk	Likelihood 2 / Severity 3 = Medium
Contractor action	Method Statement for sub-base placement; visual liner inspection by site manager before sub-base placement; daily walkover during sub-base placement (CSWMP §9.1).

Risk 2 — Silt-laden Construction Runoff Entering Existing Combined Sewer

Field	Detail
Hazard	Sediment-laden surface water runoff from active works zone entering the existing private combined drainage network and discharging via STW public combined sewer at MH SK41009701, with potential for blockage / pollution to receiving environment.
Affected parties	Severn Trent Water; downstream water environment; landowner (legal exposure under Water Resources Act 1991).
Inherent risk	Likelihood 4 / Severity 3 = High
Design mitigation	Gully silt protection bags on all retained gullies (CSWMP §4.2.1); silt fencing along Main Street boundary and around community building work zone (CSWMP §4.2.2 / §4.2.3); on-site jet wash; road sweeping commitment; rainfall-event work suspension thresholds.
Residual risk	Likelihood 2 / Severity 2 = Low
Contractor action	Daily walkover monitoring of gully bags and silt fences; replace gully bags when 50% full; immediate response to any visible mud on Main

Field	Detail
	Street.

Risk 3 — Concrete Washout / Cement Laitance Entering SuDS System

Field	Detail
Hazard	Concrete or cementitious washout water entering the partially-completed permeable paving sub-base, the F-LowFlex liner zone, or the existing combined network — potentially permanently impairing in-service permeability of the SuDS or causing pollution.
Affected parties	Landowner; receiving environment; future SuDS performance.
Inherent risk	Likelihood 3 / Severity 4 = High
Design mitigation	Designated bunded concrete washout station (CSWMP §8); strict prohibition on washout within 10 m of liner exclusion zone; spill kits at all materials storage points.
Residual risk	Likelihood 1 / Severity 4 = Low
Contractor action	Method Statement for concrete pours and washout; site induction covering washout protocol; daily walkover of washout station.

Risk 4 — Fuel / Oil Spill on Permeable Paving (Once Constructed)

Field	Detail
Hazard	Spillage of plant fuel, hydraulic oil or COSHH materials on the completed permeable paving surface during late-stage construction works (e.g. landscape works, snagging) or on the existing site surfaces — risk of pollutant entering sub-base storage zone or existing private combined network.
Affected parties	Receiving environment; landowner; SuDS performance.
Inherent risk	Likelihood 3 / Severity 3 = Medium
Design mitigation	Bunded fuel storage area only; spill kits at all materials storage and refuelling points; plant maintenance off-site; specific pollution incident response protocol (CSWMP §10.2).
Residual risk	Likelihood 2 / Severity 2 = Low
Contractor action	Site induction covering pollution protocol; immediate response (CONTAIN → PREVENT → NOTIFY → ENGAGE → DOCUMENT); EA emergency hotline 0800 80 70 60 and STW 0800 783 4444 displayed at site office.

Risk 5 — Confined Space Entry to Controflow Chamber (MH01)

Field	Detail
Hazard	Entry to the SEL Controflow Micro 300 flow control chamber (MH01) constitutes a confined-space activity within the meaning of the Confined Spaces Regulations 1997 — risk of asphyxiation, drowning, entrapment.
Affected parties	Construction operatives; downstream maintenance contractors.
Inherent risk	Likelihood 2 / Severity 5 = High
Design mitigation	Design avoids the need for routine confined-space entry — orifice screw-cap is accessible from cover level; chamber sized for inspection from above only.
Residual risk	Likelihood 1 / Severity 5 = Medium
Contractor action	For any required entry (one-off works, post-incident inspection): full Confined Space Entry permit, gas testing, harness, retrieval system, trained operatives only.

Risk 6 — Working Adjacent to Operational Public House

Field	Detail
Hazard	Drainage works in the vicinity of the operational Royal Arms public house — risk of injury to third-party customers, disruption to PH access,

Field	Detail
	hot-works ignition risk in licensed premises.
Affected parties	PH customers and staff; construction operatives; PH operator.
Inherent risk	Likelihood 3 / Severity 3 = Medium
Design mitigation	Design phasing maintains PH access throughout construction; works zoned away from PH frontage where practicable.
Residual risk	Likelihood 2 / Severity 2 = Low
Contractor action	Site liaison with PH operator; barriers and signage to PH approach; PRow management plan.

Risk 7 — Working Adjacent to Existing Mature Trees / Root Protection Areas

Field	Detail
Hazard	Drainage works (gully relocations, carrier connections) in the vicinity of retained mature trees — risk of root damage, tree decline, prosecution under TPO / Conservation Area legislation.
Affected parties	Tree health; landowner (legal exposure); LPA.
Inherent risk	Likelihood 3 / Severity 3 = Medium
Design mitigation	Hand-dig protocol within Root Protection Areas (per arboricultural advice); no mechanical excavation within RPA; tree protection fencing during construction.
Residual risk	Likelihood 2 / Severity 2 = Low
Contractor action	Method Statement for excavation within RPA; on-site arboricultural supervision for any trenching within RPA; report any root encounters >25 mm Ø to the arboricultural consultant.

Risk 8 — Underground Services Strike During Excavation

Field	Detail
Hazard	Strike of unmarked underground services (electricity, gas, water, telecoms, existing private drainage) during community building substructure or sub-base excavation.
Affected parties	Construction operatives; utility customers; landowner.
Inherent risk	Likelihood 3 / Severity 4 = High
Design mitigation	Pre-construction CCTV survey of existing private drainage; advisory to obtain utility records for the site (LinesearchbeforeUdig or equivalent); CAT scanning before excavation.
Residual risk	Likelihood 2 / Severity 3 = Medium
Contractor action	Full statutory undertaker enquiry pack; CAT scan before any excavation; HSG47 protocol; permit-to-dig system.

E.3 Review and Update

This Designer's Residual Risk Register has been prepared by FRE based on the design as set out in the parent Drainage Strategy Report. It is to be reviewed and updated:

- At any material change to the design (e.g. revised sub-base build-up, changed flow control specification, changed site phasing).
- In response to issues identified by the Principal Contractor or Principal Designer during construction.
- At handover, when residual risks should be reflected in the Long-Term Maintenance Plan as relevant.

Author: Antony Riozzi BEng (Hons), Director, Flood Risk Environmental.

Date: 07 May 2026

Status: Initial issue (P1) — to be reviewed at any material design change and at handover.



CSWMP APPENDIX F

Daily Walkover & Weekly Formal Inspection Forms

Appendix to Construction Surface Water Management Plan

Royal Arms Hotel

Main Street, Sutton Cheney, CV13 0AG

Planning Permission 21/01038/FUL

PREPARED FOR Ideal Design	JOB REFERENCE FRE-ROYALARMS-2026	REVISION P1
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Issued **07 May 2026**

CSWMP Appendix F — Construction Inspection Forms

This Appendix provides standard inspection form templates for use during the construction phase of the development under the Construction Surface Water Management Plan (CSWMP). Two forms are provided:

- **Form CSWMP-1:** Daily walkover inspection — to be completed by the site manager every working day.
- **Form CSWMP-2:** Weekly formal inspection — to be completed jointly by the site manager and the project H&S advisor, weekly throughout Phase 3.

Records retention: All completed forms shall be retained on site or at the Principal Contractor's offices and provided at handover. They form part of the CDM 2015 Health & Safety File. Inspection records may also be requested by Hinckley & Bosworth Borough Council or the Environment Agency in the event of any incident or complaint.

Form CSWMP-1 — Daily Walkover Inspection

Frequency: Every working day during Phase 3 (community building & SuDS works) and as required during preceding / subsequent phases.

Field	Detail
Site	Royal Arms Hotel, Main Street, Sutton Cheney, CV13 0AG
Job Reference	FRE-ROYALARMS-2026
Date	_____
Time on site	_____
Weather conditions	_____
Site Manager (name)	_____
Site Manager (signature)	_____
Construction phase active	Phase: ☐ 1 (Pre-construction) ☐ 2 (Internal) ☐ 3 (Community / SuDS) ☐ 4 (Landscape / Handover)

Walkover Compliance Checks

For each item, mark: ✓ (compliant) / ✗ (non-compliant — action required) / N/A (not applicable today).

Item	Status	Notes / Action Required
Gully silt protection bags — all retained gullies and ICs	_____	_____
Gully bags level (visual — empty if 50%+ full)	_____	_____
Highway-boundary silt fence — full length intact along Main Street boundary	_____	_____
Highway silt fence — sediment accumulation level (remove at 1/3 fence height)	_____	_____
Community-building work zone silt fence — perimeter intact	_____	_____
Jet wash on site and operational	_____	_____
Wheel-washing actually used today (where mud / wet conditions)	_____	_____
Main Street observation — any visible mud / silt on highway?	_____	_____
Road sweeping called for? (✓ if yes, mark on weekly form)	_____	_____
Liner exclusion zone —	_____	_____

Item	Status	Notes / Action Required
demarcation visible, no plant trafficking		
Materials storage — covered / bunded as required		
Fuel / oil storage area — bund integrity, no leakage		
Spill kits at all materials storage and refuelling points		
Concrete washout station — clean, contained, no overflow		
Site housekeeping — no stockpiled silt / spoil draining off-site		
Existing private drainage — no slurry / silt entry observed		
Pollution incidents on site (any)?		
Flooding on site (any)?		

Reactive Actions Triggered Today

Action	Priority (H/M/L)	Assigned to	Target completion

Sign-off

Field	Detail
Site Manager — print name	
Site Manager — signature	
Date / time signed	
Filed in CSWMP records? (Y/N)	

Form CSWMP-2 — Weekly Formal Inspection

Frequency: Weekly throughout the construction phase, undertaken jointly by the Site Manager and the Project H&S Advisor (or competent appointee).

Field	Detail
Site	Royal Arms Hotel, Main Street, Sutton Cheney, CV13 0AG
Job Reference	FRE-ROYALARMS-2026
Inspection date	_____
Week ending	_____
Construction phase	Phase: ☐ 1 ☐ 2 ☐ 3 ☐ 4
Site Manager (name)	_____
H&S Advisor (name)	_____
Other attendees	_____

Weekly Detailed Inspection — Surface Water Management

Item	Compliant?	Issues Identified	Action / Resolution
§4.2.1 Gully silt protection bags — all retained gullies	_____	_____	_____
§4.2.2 Highway-boundary silt fence — Main Street frontage	_____	_____	_____
§4.2.3 Community building zone silt fence	_____	_____	_____
§4.2.4 Jet wash facility — operational, water supply, used as required	_____	_____	_____
§4.2.5 Road sweeping — frequency (this week)	_____	_____	_____
§4.3 Discharge of construction water — silt sock filtering before release	_____	_____	_____
§4.4 Active dewatering — controlled, filtered	_____	_____	_____
§4.5 Rainfall event work suspension — observed during week?	_____	_____	_____
§5 Liner protection / exclusion zone — integrity maintained	_____	_____	_____

Item	Compliant?	Issues Identified	Action / Resolution
§6 Stockpile management — sub-base aggregate covered / bunded	_____	_____	_____
§7 Pollution control — fuel / oil / COSHH storage compliant	_____	_____	_____
§7.5 Spill response readiness — kits inspected and stocked	_____	_____	_____
§8 Concrete washout — bunded station compliant	_____	_____	_____
§10 Emergency procedures — contacts displayed at site office	_____	_____	_____

Weekly Walkover Form Review

Field	Detail
Number of daily walkover forms completed this week	_____
Any significant findings escalated for action?	_____
Outstanding actions from previous week — closed out?	_____
Any reportable incidents this week?	_____

Site Briefing / Toolbox Talk Topics This Week

- _____
- _____
- _____

Issues Escalated to Project Team / Designer

Issue	Escalated to	Action Required	Status
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Sign-off

Field	Detail
Site Manager — print name & signature	_____
H&S Advisor — print name & signature	_____
Date signed	_____
Distribution (project team / designer / client)	_____
Filed in CSWMP records / CDM H&S File? (Y/N)	_____