



SILT MANAGEMENT PLAN

ROYSTON ROAD (SITE 13) BALDOCK BA4, HERTFORDSHIRE

CHALKDENE DEVELOPMENTS

MARCH 2026

RR-IES-XX-XX-RP-C-3030

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SILT MANAGEMENT PLAN

RR-IES-XX-XX-RP-C-3030

REPORT ISSUE

Revision	Date	Notes
P01	26/09/2025	Draft for Planning
P02	18/02/2026	Planning
P03	04/03/2026	Planning
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1 INTRODUCTION

- 1.1 This report has been prepared for Chalkdene Developments in relation to the proposed development at Royston Road, Baldock, Hertfordshire, SG7 6QZ.

The site is located to on the north-east side of Baldock and west of the A505 Baldock Bypass. A site location plan is provided in **Appendix A**.

In this report the existing site shall be referred to simply as 'the site', and the proposed development shall be referred to simply as 'the development'.

- 1.2 This report has been prepared in order to assist in satisfying and discharging the following planning condition:

Condition 8

Prior to the commencement of development, details and a method statement for interim and temporary drainage measures during the demolition and construction phases shall have been submitted to and approved in writing by the Local Planning Authority. This information shall provide full details of who will be responsible for maintaining such temporary systems and demonstrate how the site will be drained to ensure there is no increase in the off-site flows, nor any pollution, debris and sediment to any receiving watercourse or sewer system. The site works and construction phase shall thereafter be carried out in accordance with the approved details and method statement.

- 1.3 This report is titled a 'Silt Management Plan (SMP)' and is intended to identify the sensitive receptors of silt and recommend preventative measures as well as monitoring procedures and recommendations to mitigate silt accumulation on site. All phases of development will be considered from the start of construction works to the completed works following handover.
- 1.4 This report should be read in conjunction with the Construction Strategy and Management Plan (CMP), and other relevant documents listed in the **References section** of this report.

2 SITE DESCRIPTION

- 2.1. The site comprises a roughly rectangular plot of land approximately 120m wide x 150m long, which covers an area of about 1.84Ha, and is situated in the north-eastern outskirts of Baldock.
- 2.2. The site has a history of use as an agricultural field and since the construction of the adjacent housing estate, it has been used as a publicly accessible open field. Localised areas of littering were noted during the walkover of the site. However due to the localised nature of this, it is not likely to pose a significant contamination risk to the site.
- 2.3. The site lies at an approximate elevation of between 69m – 67m Above Ordnance Datum (AOD). The ground falls gently from the south-west corner to the north-east corner.
- 2.4. There is a watercourse along the eastern boundary that has been inspected on several occasions at different times of the year and was always found to be dry. There was no visual evidence of contamination. Refer to the **References section** for the reports by Leap Environmental.
- 2.5. Semi-mature and/or mature trees and shrubs were observed in the vicinity of the ditch.
- 2.6. A site investigation has been carried out and the findings regarding ground water are that groundwater was encountered within the chalk layer at a depth of 8.3m to 15.1m below ground level. Refer to the **References section** for the report by Leap Environmental.
- 2.7. Inspection of the Environment Agency indicative flood plain map suggests that the nearest main river to the site is the River Ivel, located approximately 1.4km to the west. The River Ivel, a tributary of the River Ouse, originates from a spring just north of Baldock and runs through Stotfold, Arlesey, Henlow, Langford, Biggleswade, Sandy and Blunham.
- 2.8. The proposed development is situated within Flood Zone 1, as identified by the indicative floodplain map. NPPG identifies that all uses of land are appropriate within this Flood Zone.
- 2.9. Surface water flood risk pathways exist at the site because of the existing site levels. These have been assessed as low risk to the development with appropriate mitigations in place.
- 2.10. It is proposed that the surface water pathway is preserved by preserving pathways around and away from buildings with minimum floor levels set to protect entrances against water ingress.

- 2.11. Other flood sources have been assessed – from sewers, groundwater and artificial sources. The findings are that there are no significant risks affecting the site from these sources.
- 2.12. The re-aligned watercourse will run along the eastern boundary of the site.
- 2.13. It is proposed that surface water run-off from the site will not enter the re-aligned watercourse.

3 PROPOSED DEVELOPMENT WORKS

3.1 PROPOSED DEVELOPMENT

- It is proposed to develop the site with 42 No. residential properties with associated gardens.

3.2 CONSTRUCTION MANAGEMENT PLAN (CMP)

- The CMP outlines the site logistics and proposed sequence of works.

3.2.1 Site Logistics

The site logistics primarily consist of the following:

- Forming site access off Royston Road at the northern site boundary
- Forming temporary car park and site welfare offices along the northern site boundary
- Constructing the proposed new roads up to base course level and forming a haul road to link the roads in order that site traffic can move around the site.

3.2.2 Development Phases

The proposal is to split the house construction works into three phases:

- Phase 1 – Construction of plots located in the eastern half of the site (plots 28-42)
- Phase 2 - Construction of plots located in the western half of the site (plots 1-18)
- Phase 3 – Construction of plots located in the northern part of the site (plots 19-27)

3.3 WATERCOURSE REALIGNMENT

The proposal is for the watercourse realignment to be carried out as one of the first tasks in phase 1. Moving the watercourse adjacent to the site boundary will allow it to be better protected for the duration of the construction works.

4 SITE PERSONNEL AND DOCUMENTATION

4.1 MEASURES TO BE IMPLEMENTED

- The following measures are to be implemented to increase awareness and bring existing site documentation up to date:

4.1.1 Undertake additional detailed site-based awareness training (Site Safe Briefing) on silt management and protection for all site staff including the groundworker(s).

4.1.2 Include a detailed section relating to silt protection within the site induction folder; and

4.1.3 Undertake a weekly site audit, maintain a written and photographic record of the audits and obtain support from the appointed environmental consultant if or when required.

5 SENSITIVE RECEPTORS TO SILT

5.1 ON-SITE

- Existing field boundary ditches located along the eastern boundary and at the north-east corner, as detailed in **Appendix C**.
- The drains, gullies and surface water sewers of the drainage system (upon installation).
- Storm manhole inspection chambers (upon installation).
- Permeable paving (upon installation).
- Residents in completed plots (upon completion and occupation).

5.2 OFF-SITE

- Existing residential housing adjacent to the site (to the west and south of site).
- Existing sewers located off-site (to the north, west and south of the site).

6 PREVENTATIVE MEASURES WITHIN ACTIVE DEVELOPMENT AREA

- The following protection measures are to be implemented on all active development areas of the site to protect the on-site drainage ditches, (please refer to the **Appendix C – Indicative only**).

6.1 INITIAL PHASE OF ENABLING / PREPARATORY EARTHWORKS

- 6.1.1 Shallow soil bunds should be constructed adjacent to either side of existing surface water ditches. An existing vegetated buffer should (ideally no less than 5m) should be maintained between the ditch and the newly installed bund. Soil bunds of circa. 500mm in height should be sufficient (subject to periodic review). Refer to **Appendix C** for indicative locations (not definitive and subject to review in accordance with the following advisory notes provided below).
- 6.1.2 Due to a variable site topography, depending on the construction programme it may be necessary to install additional shallow soil bunds around specific areas of construction, with particular reference to areas within close proximity to site boundaries with adjacent residential properties and or access roads.
- 6.1.3 Due to a variable site topography, it may be necessary to incorporate straw bales or silt netting within lower lying / 'higher' risk areas. Staggering the use of straw bales within shallow soils bunds can assist in slowing and filtrating silt laden surface water.
- 6.1.4 Areas of proposed Public Open Space should be retained with topsoil and vegetation left undisturbed to provide area of natural filtration.
- 6.1.5 Maintaining a vegetated boundary buffer zone (ideally no less than 10m) will also provide an area of natural filtration should the development footprint become inundated with silt laden surface water during construction.
- 6.1.6 Where possible it is recommended to retain as much of the existing vegetation and topsoil as feasible for as long as feasible to reduce potential run-off. (i.e. adopting a phased approach to avoid excessive soil stripping).
- 6.1.7 Placement of stockpiled materials (topsoil/subsoil) should be within designated areas, and located as far from ditches, watercourses and any proposed gullies (upon excavation and installation) as is practically possible. If required (e.g. if the topsoil mounds are constructed closer than 5 m from

the boundary), it is recommended that a silt fence is placed at the base of any stockpile to control run-off. Any silt fencing should be monitored and maintained during the duration of the construction works.

- 6.1.8 Potential installation of silt matting within the dry ditch or the installation of a silt fence along either side of the dry ditch should there be any evidence during enabling works that the ditch/ditch water is impacted with silt.
- 6.1.9 Record any redundant drains/land drains uncovered and ensure they do not provide a future pathway for silty run-off to nearby watercourses.
- 6.1.10 Sealing (tamping down or seeding) of soil (topsoil/subsoil storage mounds to minimise run-off, scouring or erosion).

6.2 CONSTRUCTION PHASE

- In addition to the above measures, the following should also be utilised during construction works.

6.2.1 ROADS

- 6.2.1.1 The placement of gully protection in all gullies during construction, and to be inspected and replaced/cleaned when necessary.
- 6.2.1.2 Regular scraping of roads to remove significant silt build-up, avoid excessive use of water or jet-washing the road as this will wash the silt and mud into the drainage system.
- 6.2.1.3 Minimise the movement of plant on and off roads to prevent the tracking of excess soil onto roads and highways (i.e. planning of working day, utilising crossing points).
- 6.2.1.4 Construction of speed ramps to slow traffic down and to help direct surface water to collection areas.

- 6.2.1.5 Use/installation of wheel washes (if necessary).

6.2.2 DRAINAGE

- 6.2.2.1 Should dewatering of excavations be required, consideration to be given to over-pumping to a vegetated area away from sensitive receptors to allow infiltration. Ensure adequate protection measures (potentially comprising, but not limited to, use of filter bags or a settlement tank) are in place to prevent discharge of silt into the dry ditch and/or watercourses. The implemented measures should be frequently monitored and maintained to prevent discharge of silt into the dry ditch and/or watercourses.
- 6.2.2.2 Placement of silt entrapment materials (such as silt mats/hay bales) at any headwalls (outlets) to the dry ditch during construction should be allowed for.
- 6.2.2.3 Construction of any surface water drainage system(s) should not be connected to the public surface water sewer network during the initial construction phase until the system has been flushed through and the likelihood of silt entering the system is low.

6.2.3 SITE CONDITION

- 6.2.3.1 The installation of hardstanding areas to the front of all plots to enable 'clean' forklift access.
- 6.2.3.2 The placement of topsoil and planting/seeding at the earliest opportunity to control surface run-off from completed areas.

6.2.4 SITE ACTIVITIES

- 6.2.4.1 Avoid tracking or washing out next to any drainage ditches; or in close proximity to watercourses, gullies, or boundaries with adjacent off-site residents.
- 6.2.4.2 General good housekeeping of the site.

7 PREVENTATIVE MEASURES WITHIN NON-ACTIVE DEVELOPMENT AREA

- 7.1 Minimise vegetation removal within non-active development areas.
- 7.2 Prevent the movement of any plant within those areas of the site which may cause disturbance to the existing ground surface cover.

8 ONGOING SITE MAINTENANCE (BOTH ACTIVE AND NON-ACTIVE AREAS)

- 8.1 On site storage/availability of silt fencing, silt matting and straw bales to enable deployment at short notice if required (i.e. during inclement weather) and to facilitate on-going maintenance of potential installations.
- 8.2 Removal of residual silt held back by installed protection measures (i.e. at headwalls, behind silt fencing etc).

9 MONITORING PROCEDURES, RECORDS AND RECOMMENDATIONS

- 9.1 Depending on the site conditions, as development progresses and site levels change other measures may be required to be installed once activities commence on site (to be identified through monitoring).
- 9.2 The following monitoring procedures should be carried out by the contractor to enable continuous review of the measures listed above. A comprehensive record of the effectiveness of the system will be maintained to enable further review by any parties attending site.
- 9.3 It is recommended that there is a quarterly attendance to the site for visual checks of the following monitoring points carried out by a competent personal during the duration of the development works. Please refer to **Appendix C** for the location of the monitoring points.
- 9.4 Monitoring of the following on a weekly basis and daily during periods of heavy and/or prolonged rainfall indicative monitoring locations M1 to M4 as shown on **Appendix C**.
- Monitoring Location M1: Monitor the condition of surface water at the drainage ditch located on the southeast boundary.
 - Monitoring Location M2: Monitor the condition of any surface water and/or silt entering the drainage ditch (northern are from the middle of the site).
 - Monitoring Location M3: Monitor the condition of surface water at the drainage ditch located on the north.
 - Monitoring Location M4: Monitor the condition of surface water at the drainage ditch located on the northeast boundary.
- 9.5 Inspection of all gullies and manholes to monitor the discharge entering surface water system (if applicable) using the gulley inspection form within **Appendix G**.
- 9.6 Maintenance, cleaning and replacement of gully protection, and all silt entrapment materials (whichever are utilised) as required.
- 9.7 Keeping a photographic log and written record of monitoring using the site inspection form within **Appendix E**, which will assist in documenting any changes on site and identifying any changes needed to the protection systems as the development progresses.

- 9.8 All records will be reviewed on a quarterly/as required basis, additionally, advice can be obtained by the site team at any time from the appointed environmental consultant

10 EMERGENCY / ADDITIONAL MEASURES

- 10.1 The Silt management Plan (SMP) and the checklist will be reviewed by site observations and updated when required to reflect changes to site conditions and operations.
- 10.2 All records will be reviewed on a monthly basis, additionally, advice can be obtained by the site team at any time from the appointed environmental consultant.
- 10.3 To enable a prompt response to changing site conditions, it is advisable to ensure a supply of straw bales/silt fencing/silt matting is readily available to implement emergency measures.

11 REFERENCES

- LP2361 Site 13, Baldock, Phase I Desk Study Site Reconnaissance & Phase II Site Investigation Report_29-01-2021 (Leap Environmental)
- LP2721 Site 13, Baldock, Surface Water Drainage Inspection, issued rev1_30-09-2021 (Leap Environmental)
- LP3506/GWA/1 Site 13, Baldock, Groundwater Flooding Risk Assessment Issue 1_11-10-2023 (Leap Environmental)
- RR-ISS-XX-XX-RP-C-3010 P09 Flood Risk Assessment_24-11-2023 (Iesis)
- RR-ISS-XX-XX-RP-C-0001 P08 Drainage Strategy report_20-12-2023 (Iesis)
- CMP_Baldock East (Site 13)_Rev 6 Construction Management Plan (CMP) (Rock Townsend)

APPENDICES

APPENDIX A - SITE LOCATION PLAN

APPENDIX B - SITE DEVELOPMENT PLAN

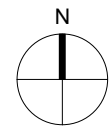
APPENDIX C - SILT MANAGEMENT PLAN

APPENDIX D - INSTALLATION EXAMPLES

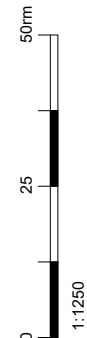
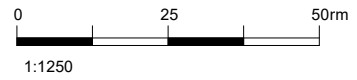
APPENDIX E - EXAMPLE MANUFACTURERS PRODUCTS SHEETS

APPENDIX F - GULLY INSPECTION FORM

APPENDIX A SITE LOCATION PLAN



Site Boundary



PR01 29,10,20 Submitted for PREAPP

REVISION DATE/DRAWN

PROJECT Royston Road (Site 13)	
Baldock	
DWG TITLE Location Plan	
DATE OCT 20	DRAWN HG
SCALE 1 : 1250	@ A3 CHECK
STATUS PLANNING	
RT JOB NO. RT20072	REVISION PR01
DRAWING NO. ROR-RTA-XX-00-DR-A-0001	

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APPENDIX B SITE DEVELOPMENT PLAN

KEY:

- Site Boundary
- Existing Buildings
- Proposed Buildings
- Car spaces
- Existing Trees
- Proposed Trees
- Retained footbridge

TENURE

- Affordable Rent
- Market Sale



Proposed Site Plan
1 : 500

C02	05/03/26	CONSTRUCTION ISSUE - Maintenance way leave and water course positions updated	FL
C01	21/01/26	CONSTRUCTION ISSUE - Plot 19 fence moved in line with site border	FL
PR02	03/12/25	Island extended 500mm into site, trees moved to right of island & bollards added	FL
PR01	09/09/25	Issue for information	FL
PL14	11/12/23	Substation changed to GRP	GD
PL13	14/11/23	Landscape updated to NE corner of the site	GD
PL12	15/09/23	Updated house types and position for plots 1-9, 11-13. Minor adjustments to gardens of plots 32-34. Water course reshaped to LLFA's recommendations, maintenance area along boundary added. Issued for planning	GD
PL11	10/12/21	Issued for Planning	CS
PL10	09/11/21	Issued for comment	CS
PL09	28/10/21	Issued for comment	CS
PL08	11/08/21	Issued for comment	CS
PL07	06/08/21	Issued for comment	CS
PL06	30/07/21	Issued for comment	CS
PL05	27/07/21	Substation location amended, Access to substation	CS
PL04	14/06/21	Cycle Path corrected	CS
PL03	11/06/21	Updated landscape	CS
PL02	08/06/21	Updated key	CC
PL01	28/05/21	Issued for Planning	CS
REVISIONS			DATE/DRAWN

Rock Townsend

PROJECT	Royston Road (Site 13)		
	Baldock		
	Proposed		
DRAWING TITLE	Site Plan		
DATE	May 21		DRAWN DC
	SCALE 1 : 500 @ A1		CHECK
STATUS PLANNING			
RT JOB NO. RT20072		REVISION C02	
DRAWING NO. RR-RTA-XX-XX-DR-A-00100			

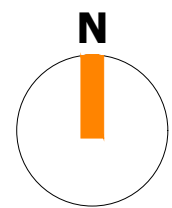
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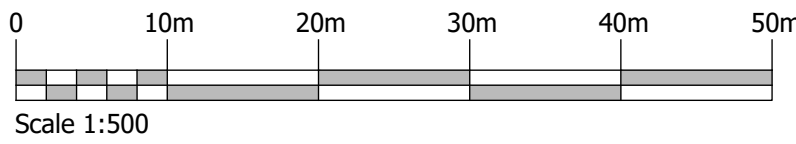
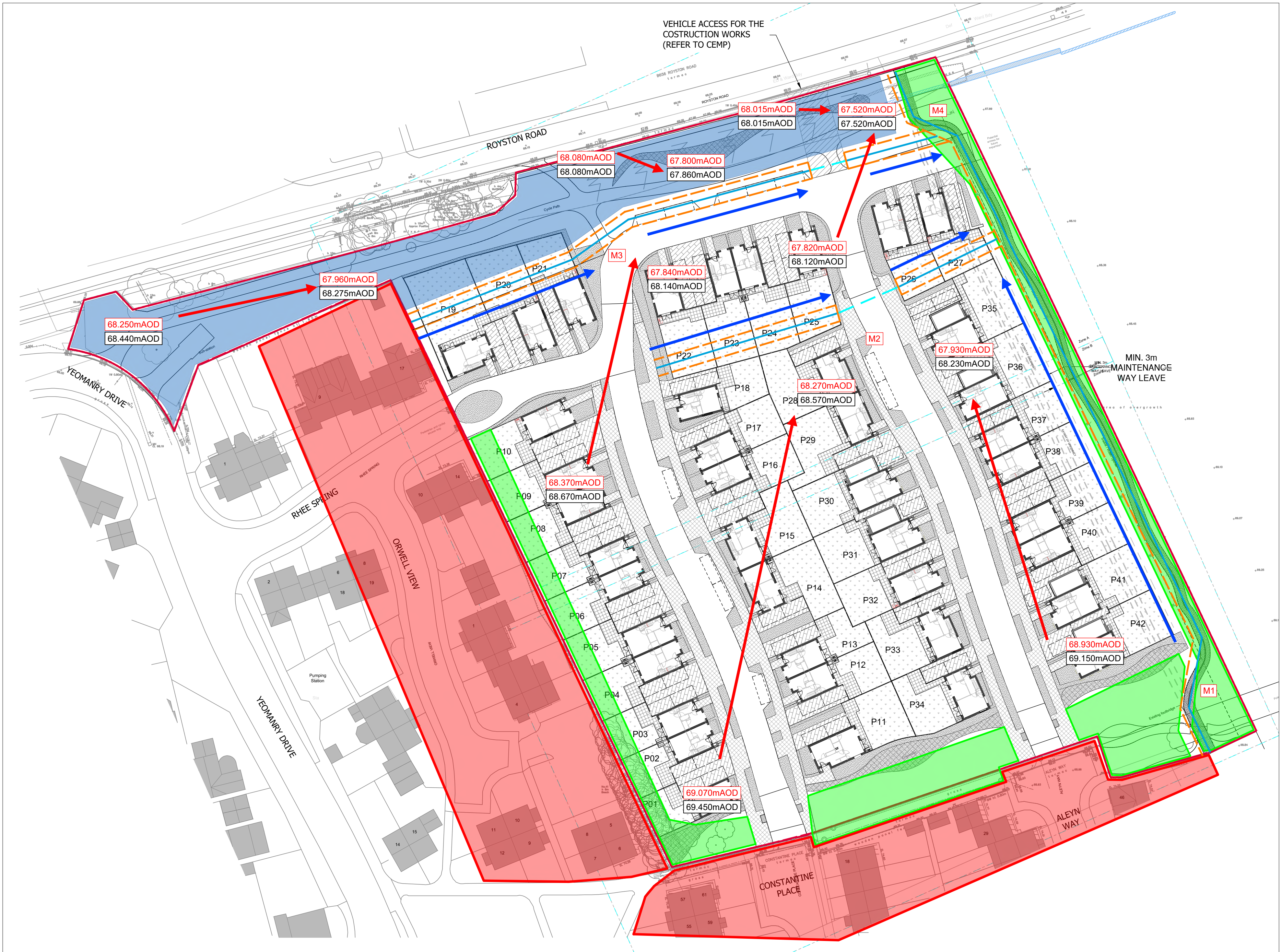
Rock Townsend

APPENDIX C SILT MANAGEMENT PLAN



NOTES:

1. TOPOGRAPHICAL SURVEY PROVIDED BY TERRAIN SURVEYS DATED SEPTEMBER 2020, (DRAWING NUMBER TS20-331-1).
2. PROPOSED - SETTING-OUT SITE PLAN - HARD LANDSCAPE, ZONES A&B PROVIDED BY ARCHITECTS ROCK TOWNSEND, DRAWING NUMBERS: RR-RTA-A-XX-DR-A-00356 AND, RR-RTA-B-XX-DR-A-00357, REVISIONS C01. DATED 21/01/2026.



P04	12.03.26	RJ/GW	ISSUED FOR PLANNING
P03	04.03.26	RJ/GW	ISSUED FOR PLANNING
P02	18.02.26	RJ/GW	ISSUED FOR PLANNING
P01	26.10.25	DG/GW	ISSUED FOR PLANNING
REV	DATE	DRAWN/CHK	REVISION INFO

STATUS: **PLANNING**

CLIENT: **CHALKEDENE DEVELOPMENTS LTD**

PROJECT: **ROYSTON ROAD (SITE 13)
BALDOCK
SG7 6TD**

DRAWING TITLE: **SILT MANAGEMENT AND
MONITORING PLAN**

JOB NUMBER:	SCALE AT A1:	REV. STATUS:
SE1877	1:500	S2
DRAWING NUMBER:	REVISION:	
RR-ISS-XX-XX-DR-C-3750	P04	

APPENDIX D INSTALLATION EXAMPLES



Example of installation of silt fencing and retention of a vegetated buffer zone



Example of silt matting to intercept run-off



Example of installation of silt fencing with straw bales at a headwall within a swale

APPENDIX E EXAMPLE MANUFACTURERS PRODUCTS SHEETS

GULLEY PROTECTION

Forest Drainage Products Ltd
The Gully Guard

Installation Guide



1. Lever open Gully Grid.
Gully Guard is designed to fit all size Gully's.



2. Hold Handles at top of the Gully Guard, work beads to top and insert base into Gully pot.



3. Lower the Gully Guard into the Pot. The beads will fall freely into the size void within the pot.



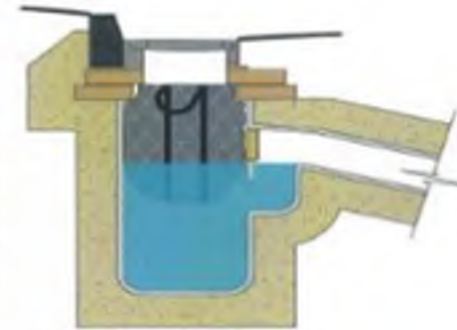
4. Tuck the holding handles to the side of the Gully Guard.



5. Close Gully Grid.

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putest pending no. 2472690



Gully Grating and Frame	Slopper
Kerb Stone	Water
Brickwork	Gully Guard
Gully Wall	Gully Guard Straps
Concrete Base	

Life Expectancy and Disposal of Gully Guard

Forest Drainage Products Limited (the "Company") at this stage cannot quantify the life expectancy of the Gully Guard (the "Product"). We have undertaken field trials for 18 months of which the Product is still performing to all expectations. The Company would expect, with correct management, the Product to last in excess of 24 months.

The Company would recommend that an inspection procedure be put in place for the product by the organisation on a 3-4 months basis depending on site conditions.

Maintenance would simply involve the removal of the Product and power hose off in a bund to contain and manage silt and any contaminants prior to reinsertion back into the gully pot.

Without prior knowledge of the type and concentration of the contaminants that each Gully Guard has been subjected to, the Company cannot advise on appropriate disposal. The Company advises that an environmental risk assessment is conducted on an individual case-by-case basis to fully evaluate the nature of contaminants. In order to determine the appropriate method of disposal the Company would recommend that you follow your organisation's environmental waste disposal policy.

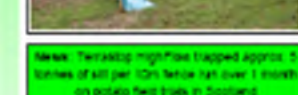
Forest Drainage Products Limited (the "Company")



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Hy-Tex Terrastop™ Silt Fences for Stormwater Run-Off Control



Many construction, forestry and farming activities result in disturbed or bare ground that is vulnerable to weather erosion. The silt laden run-off, plus site debris and other pollutants, often contaminates surrounding land, watercourses, lakes and drains - resulting in significant environmental diffuse pollution and potentially costly fines.

However, due to the on-going nature of such work, it is generally not possible to protect exposed surfaces until the project is complete. So stormwater from such sites represents a major non-point source of diffuse water pollution in the UK.

Solution: Hy-Tex Terrastop™ Premium and HighFlow silt fences, offer a proven, practical, economic and effective method to reduce stormwater run-off pollution from such locations. They are special, high quality, permeable, technical filter fabrics, that can be installed as an entrenched vertical barrier fence, and are designed to intercept and detain run-off - trapping harmful silt through settlement and filtration before it leaves the site.

Performance: The benefits of silt fences are increasingly becoming recognised in Britain: The Environment Agency (SEPA) Pollution Prevention Guidelines (PPGs) now recommend the use of silt fences to reduce silt transport from exposed ground and stock piles; and research at The James Hutton Institute, using Terrastop silt fencing, demonstrated that even after post-harvest contour grubbing of potato fields an estimated 80 tonnes of soil containing 60-70 kg phosphate-P contaminants was trapped from a 17ha field (Dr Andy Vinten).

While in other countries where silt fences have been used extensively for many years, their proven performance (intercepting up to 80% of suspended solids (Pomeroy et al. 1990)) has made them a standard Best Management Practice on a diverse range of projects.

From this in-depth research, and practical experience, Hy-Tex Terrastop™ Premium and HighFlow were developed to exceed the highest standards, with many unique features for ease of use, reliability and effective results.

Key Features: General purpose non-woven and woven geotextiles are unsuitable for silt fence use as they clog, overtop and inadequately filter sediment due to poor hydraulic properties (typically less than 15 l/min/sec) and often fail: tearing and fraying (as they are too weak to withstand the forces of stormwater/silt build-up without costly additional wire support fences) or becoming brittle quickly (due to lack of UV protection). Terrastop™ Premium and HighFlow are manufactured specifically as silt fences so have high tensile and burst strengths, premium UV stabilisation, woven structures with tear resistant non-fraying reinforced edges, that are durable and self supporting between fixing posts for reliability, as well as having a visually pleasing subtle green colour.

The CE Mark certified Terrastop Premium also has a special fibrous wet yarn, combined with a high quality weave, to enhance filtration, maintain flow and minimise clogging.

Installation Aids: Silt fences also often fail through poor installation or aftercare, therefore Terrastop™ Premium incorporates pre-marked lines for burial depth and maximum silt accumulation level to ensure correct set-up and maintenance; as well as a top ribbon strip to simplify post attachment and tensioning.

Specification	Terrastop™ Premium (W130E)	Terrastop™ HighFlow
Tensile Strength	22kN/m	22kN/m
Puncture Resistance (CBR)	3.500N	3.700N
Permeability	85 l/min/sec	150 l/min/sec
Opening Size	200µm	220µm
Weight	200gsm	145gsm
Material	100% thick, green/black, 400kly UV stabilised, polypropylene, tear resistant non-fraying edges.	50% thick, green/black, 400kly UV stabilised, polypropylene, tear resistant non-fraying edges.
Rip Size	0.75 x 100m	1.00 x 100m
Other Key Features:	Patented wet yarn, burial depth and maximum silt accumulation marker lines, top tying-off and tensioning ribbon.	

Basic grade also available for less stringent applications

Hy-Tex Terrastop™ Silt Fences for Stormwater Run-Off Control

Installation Guidelines

SCOPE

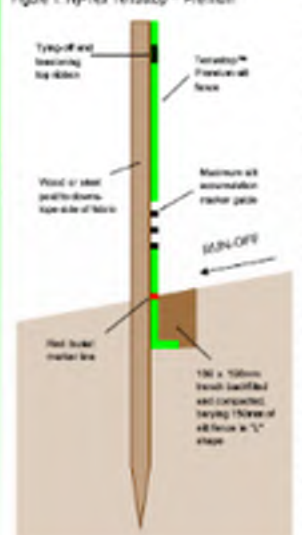
1. This practice covers common installation requirements for temporary silt fence applications.
2. This practice is applicable to the use of silt fences as vertical permeable membranes designed to remove suspended soil from overland, non-concentrated water flow. The function of a temporary silt fence is to trap and allow settlement of soil particles from sediment-laden water and to filter particles from water permeating through the fabric. The purpose is to greatly limit the transport of eroded soil from the construction site by water runoff.

3. The practices presented herein are intended to ensure good workmanship and quality and are not necessarily adequate for all purposes in view of the wide variety of possible sediments and performance objectives.
4. The standard does not purport to address all safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate health and safety practices and determine the applicability of regulatory limitations prior to use.

CONDITIONS WHERE PRACTICE APPLIES

1. Below disturbed areas where erosion would occur in the form of sheet and rill erosion, and where ponded runoff will not cause damage.
2. Where the size of the drainage area is no more than 0.30 hectares per 100.00m of silt fence length, the maximum slope length behind the barrier is 32.80m, and the maximum gradient behind the barrier is 30 percent (3:1).
3. In minor ditches or ditch lines where the maximum contributing drainage area is no greater than 0.30 hectares.
4. Under no circumstances should silt fences be constructed in live streams or in creeks or ditch lines where flows are likely to exceed 0.30m/s.

Figure 1: Hy-Tex Terrastop™ Premium



5. Silt fence should not be used in areas where rock or hard surfaces prevent the full and uniform depth anchoring of the fabric.

DESIGN CRITERIA

1. An effort should be made to locate silt fence at least 1.80 to 2.00m beyond the base or disturbed slopes with grades greater than 1%.
2. Properly supported silt fence when spans 0.60 metres above the existing grade fence to provide more effective sediment control (higher fences are vulnerable to excessive wind resistance or may rebound volumes of water sufficient to cause failure of the structure).
3. A minimum 150mm of distance should be embedded.
4. Maximum post spacing shall be 1.50m.

CONTROLLING MATERIAL SPECIFICATIONS

1. The material used for temporary silt fence shall be Hy-Tex Terrastop™ Premium or similar approved, with CE Mark certification for EN13253 erosion control works and conforming to the following specification requirements:

Grp. tensile strength (ASTM D4532) minimum 22kN/m; 0.05kN wet; water permeability (ASTM D571) 100 l/min; minimum 0.015 mm; opening size (EN ISO 12596) maximum 200µm; Composition: 400kly UV stabilised woven polypropylene with split top warp and twisted flow wet yarn, burial depth 100mm; silt accumulation marker lines, top tying-off and tensioning ribbon, tear resistant non-fraying edges and 0.75m fabric width.

2. The contractor shall provide to the engineer all certifications required by the controlling material specification.

3. Silt fence materials shall be subject to sampling and testing in accordance with, and to verify compliance with, the controlling material specification.

4. All posts shall be a minimum length of 1.20m, have sufficient strength to resist damage during installation and to support the applied loads due to material build up behind the silt fence.

Note 1: Generally, for wooden posts the cross section must be minimum 30 x 30mm for hardwood and 50 x 50mm for softwood, while steel posts (standard "U", "T" or "L" section) must be a minimum weight of 2kg/m.

INSTALLATION

1. Silt fence sections should be continuous and transverse to the flow. The silt fence should follow the contour of the site as closely as possible. Place the fence such that the water channel runoff around the end of the fence, extending onto upslope enough to allow water to pond behind the fence (See Figure 2).
2. A bench shall be excavated approximately 100mm wide and 100mm deep on the upslope side of the proposed silt fence location.
3. Bury bottom 150mm of silt fence (To top of RED MARKER LINE on Terrastop™ Premium) in a "U" configuration in the trench so that no flow can pass under the silt fence. Backfill the bench and compact the soil over the geotextile so that the compacted soil completely fills the bench.
4. Compaction prior to installing posts is generally recommended. Compact the backfill immediately next to the silt fence geotextile. Compact the upslope side first and then the downslope side. The soil adjacent to the buried silt fence geotextile shall be compacted to achieve no less than 90% of its original in situ strength, unless otherwise specified.

Note 2: Poor compaction is one of the main causes of silt fence failure. Installed posts may interfere with compaction by large equipment adjacent to the silt fence. Compaction is commonly accomplished with the front wheel of a tractor, and roller or other device, as well as with manual tamping or other manual means, being care not to damage the silt fence.

5. When joints are unavoidable, the fabric shall be spread together only at a support post, with a min. 300mm overlap, and securely sealed so that there are no gaps, voids, or other loss of integrity of the barrier, likely by wrapping the overlap around the post.

6. Place the posts tight to the downslope side of the silt fence at 1.50m spacing. Drive posts a minimum of 500mm into the ground. Bury depth to 500mm if fence is placed on a slope of 3:1 or greater.

Note 3: Where 500mm depth is impossible to attain, posts should be adequately secured/braced to stop overturning of the fence due to sediment loading.

7. Fasten the fabric fabric securely and taut to the upslope side of the post using top ribbon (see Figure 3), alternative ties threaded through the silt fence, or 30mm long extra wide head galvanised coat nails (The fabric shall not be stapled to existing trees). Where required, tighten top edge of fabric by looping top ribbon over posts, and drive nails posts to maintain fence tension and stability (See Figure 3).

Note 4: If a silt fence is to be constructed across a ditch or in a pond, the fence design must be sufficient to absorb winds, the plan configuration shall resemble an arc or horseshoe with the wind oriented upslope, and post spacing a maximum of 1.00m.

MAINTENANCE

1. The contractor shall inspect all temporary silt fences immediately after each rainfall, and at least daily during prolonged rainfall. The contractor shall immediately correct any deficiencies.
2. The contractor shall also make a daily review of the location of all fences. In areas where construction activities have altered the natural contour and drainage runoff to ensure that the silt fences are properly located for effectiveness. Where deficiencies exist, as determined by the engineer, additional silt fence shall be installed as directed by the engineer.
3. Repair damaged or otherwise ineffective silt fences or replace promptly.

4. Remove erosion sediment deposits when the accumulation reaches one third the height of the exposed fence (Top of BROWN WET-WEARABLE MARKER BAND on Terrastop™ Premium), or install a second silt fence as directed by the engineer.
5. The silt fence shall remain in place until the engineer directs it be removed. Upon removal the contractor shall remove and dispose of any excess sediment accumulations, clear the area to give it a pleasing appearance, and vegetate all bare areas in accordance with contract requirements.

6. Removed silt fence may be used at other locations provided the geotextile and other material requirements continue to be met to the satisfaction of the engineer.

Figure 2: Silt Fence Placement

Alignment marked "U" or "L" shows where water & sediment pond behind each silt fence.

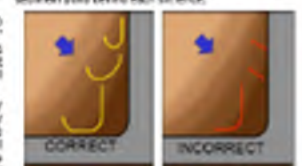


Figure 3: Ribbon attachment to post



Disclaimer: All information is provided in good faith, but without warranty. Use does not form part of any contract, or assumed contract, with the Buyer/Owner. Further conditions apply, details available on request.

Hy-Tex Sedimat™ Sediment Entrapment Mats



International
Erosion Control
Association
Award Winner



Hy-Tex Sedimat™ Sediment Entrapment Mats



Waterway Sedimentation: Downstream sedimentation of waterways is a significant problem common to a wide range of in-stream activities, and forces site run-off.

Civil engineering projects, drainage works, ditch maintenance, temporary ponds and flood alleviation schemes can all release large pulses of sediment which drift downstream.

Impact on Waterways: Sediments can reduce, or destabilise, channel cross-sections, interfere with drainage, block culvert, and upset natural or desalinated hydrology.

Impact on the Environment: Sediments can smother fish spawning areas, choke out aquatic insects, reduce pool volumes, and harm aquatic vegetation.

The Solution: Sedimat™, a patented product, is a simple, yet effective, mat designed to trap harmful disturbed sediment by promoting settlement.

Sedimats™ are flat 1.20 x 3.00m pads, which are fixed on the stream bed immediately downstream of the area to be disturbed.

They are constructed from layers of biodegradable materials, secured to wooden stays to help maintain their form in the current and facilitate removal.

Trap Harmful Disturbed Sediment: During in-stream activities, disturbed sediment is pushed along the stream bed by the current until it reaches the mats. Sediment then filters down through the mat layers and is trapped inside.

Each Sedimat™ is capable of trapping in excess of 250kg of sediment, because they lay flat on the bed the mats are not affected by the current and do not cause back up of water.

Easy to Handle, Install and Remove: The mats are packaged individually in rolls which are simple to store, handle and transport.

They are secured flat on the stream bed, with either stones or driven-in stakes. Placed immediately downstream of the area to be disturbed, arranged in sufficient numbers to cover the stream bed just before work begins.

Provide Useful Bank Stabilisation: When the mats are full, or construction activities complete, they can easily be removed either by rolling them into a machinery bucket or dragging them onto the bank.

The fully biodegradable, sediment laden mats can then be unrolled, fixed to the embankment and seeded to provide instant bank stabilisation, a rich seedbed for vegetation restoration, and avoid disposal problems.

Field Trials: Sedimats™ were developed by fisheries biologists at the New York State Electric and Gas Corporation, and put through an extensive set of field trials under the review of the New York State environmental and transport agencies.

These trials were conducted in a wide variety of streams across the State, from tiny, slow running rivulets less than 1.50m wide to swift and turbulent streams more than 24.00m across.

Regardless of conditions, the result was the same. Sediment mats effectively trapped large volumes of sediment, on average more than 80% of the amount disturbed.

In a State noted for stringent environmental protection standards, Sedimats™ are now fully approved and in some situations are mandatory.

In 1996 Sedimats™ won an International Erosion Control Association award.

Since their introduction into Britain they have gained wide acceptance by environmental consultants, and are now extensively used by the Environment Agency and many contractors on a variety of waterway related projects.

Please consult installation guidelines for further assistance.

FURTHER INFORMATION, AND A VIDEO DVD, AVAILABLE ON REQUEST

Sedimat™ technology is protected throughout Europe under patent no. 83114 343.3-1255.

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Dirtbags

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- DIRTBAGS IN SETTLEMENT TANKS
- DIRTBAGS
- COMING UP...

WATCH OUR VIDEO

IMAGE GALLERY

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DIRTBAGS



The standard size of the Dirtbag is 1.5m² giving a filtration area of 4.5m² allowing a flow rate well in excess of 4000 litres or the pumping capacity of a 2" pump.

The Dirtbag can be used in various applications in its raw form, as the shape & size of the bag can be determined by the end user and as Dirtbags are manufactured in the UK we can make them any shape or size to suit your exact site requirements.

Unlike other sediment control units the Dirtbags are NOT RELIANT on pumping speeds or settlement times and the bags will help retain solids from your pumped water.

The Dirtbag is filled with a standard 10" elasticated collar which will fit around any size delivery hose or connector and you simply pump the water into the Dirtbag, the water runs through the bag which catches the solids in the water.

Dirtbag in its traditional 'newspaper' form:



Click on image to enlarge

Dirtbags are available in 100, 200 & 500 micron filter sizes and will retain solids dependent on the filter size of Dirtbag used.

How It Works

The image below shows the Dirtbag laid on the ground whilst water is being pumped through it. This is an easy solution if your site conditions show for site water to run away and find its own course.

The solids are retained in the Dirtbag which allows the water to flow away.



Click on image to enlarge

Once the Dirtbag has filled with solids and the Dirtbag no longer allows adequate water flow (i.e. slowed flow), it is simply disposed of in accordance with your on site waste disposal guidelines and another Dirtbag is used.

"Simple"

Utility Bag

The Utility bag was purpose made for small mobile street works and its simplicity has proved to be very popular with street works and utility contractors.

The Utility bag is simply laid at the kerb side, before the road gully and trench water is pumped through it which catches the solids before reaching the drainage system.

The bag can be turned inside out and re-used and is easily stored in the gang's vehicles or PPC kits until needed again.

The Utility bag measures 1m x 200mm and its 10" elasticated collar means it will accept any size delivery hose.



"Dirtbags are manufactured and distributed in the UK so we can make any size bags to suit your exact requirements"

DIRTBAGS KEY ADVANTAGES:

Simple & Easy to use, light & compact for easy storage, bag can be made to any shape or size with 100, 200 or 500 micron filter sizes, 24 hour delivery if required, indefinite shelf life, no cleaning up required just dispose of the bag once its full, simple order and delivery process, 50 micron Dirtbags are available for certain applications on request

"The Dirtbag does not rely on pumping speeds or settlement times"

Dirtbags Settlement control the easy way **0113 253 3150**
info@dirtbags.co.uk

Dirtbox

HOME
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 email: info@dirtbags.co.uk

DIRTBOX

After various trials and feedback from our customers we have designed and built

The 'Dirtbox'

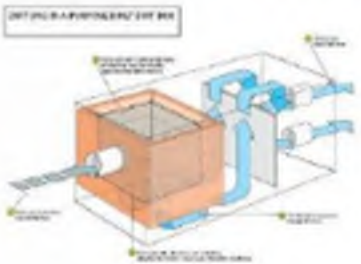
which is a purpose built tank that houses the Dirtbag and allows a much easier, safer and more controlled environment for collecting solids through the water transfer process.

For this application the Dirtbags are cut, shaped and measured for giving an even bigger effective surface area than the standard Dirtbag.

The Dirtbox comprises of:

- An outer tank with 1 No. 12" inlet and 2 No. 12" outlets with one blanking cap. The two outlets are situated at different heights to suit different applications and can both be used if working at high currents.
- The tank measures only 1400L x 1200W x 1200H meaning it is smaller than a 1400 gallon settlement tank and takes up less room on your site.
- The inlet & outlet connectors are industry standard sewer fittings.
- Removable portable inner tank that holds the Dirtbag and is lifted out ensuring the safe & easy change and disposal of the Dirtbag.
- Automatic buffer plate which can be inserted to create a settlement area and catch any additional smaller silt particles if required, or removed to create an instant water flow to the outlets.

The image below shows the Dirtbox being used inside the custom built Dirtbox:



Click on image to enlarge

The Dirtbox will handle flow rates up to 250m³ per hour (1000 gallons per minute) which basically equates to a 4" pump working at full capacity.

Once the Dirtbox is full and not accepting water at the desired flow rate then simply lift out the inner tank, remove the Dirtbag and dispose as per site waste policies, insert a new Dirtbag and carry on pumping.

The Dirtbox contains all solids down to at least the size of the Dirtbag (100, 250 or 500 microns) and is easily disposed of with no mess and no cleaning up is required.

No manual lifting required as the inner tank and the Dirtbag have lifting eyes for mechanical lifting.

"The Dirtbox is available for sale or hire and really is the ideal site solution for using a Dirtbag"

Siltbuster Ltd > Products > Settlement Units > Siltbuster FB50

Siltbuster FB50

The Siltbuster FB50 Settlement Unit is the flat bottomed version of the very popular Siltbuster FB60 Settlement Unit. As the unit needs to be taken off-line for emptying this unit is most typically used for applications where water is intermittently pumped.

To provide effective recovery of suspended particles the Siltbuster FB50 Settlement Unit is normally operated at flow rates of up to 10m³/hr. However, when treating rapidly settling solids or when operated in conjunction with a Siltbuster Chemical Dosing System the flow rate can be increased up to the hydraulic capacity of the unit (100 m³/hr).

Typically this unit is used in conjunction with a 4" to 6" pump dependent on flow rate. However if greater volumes are required multiple units can be easily connected in parallel to increase operating capacity.



Three FB50's in Parallel
 Siltbuster FB50 on Site
 Siltbuster FB50 Cut Away

Siltbuster FB50 Settlement Unit

Separation Method	Lamella Plates (Gravity)
Height	1.9 m
Length	3.7 m
Width	1.45 m
Dry Weight	1,300 kg
Materials	Suspended Particulates
Settlement Area	50 m ²
Inlet / Outlet Size	4" F Bore / 4" F Bore
Operating Range	1 to 50 m ³ /hr

Typical Applications Include:

- General Construction Sites
- Ground Water
- Tweaking
- Open Excavations

To find out more about our FB50 or other settlement units call us on 01600 772266 to discuss your requirements or simply [Contact Us](#)

APPENDIX F GULLY INSPECTION FORM

GULLEY INSPECTION CHECKLIST

SITE:

Date	Gully no	Fit for purpose (yes/no)	(if no: action required, clean / replace?)	Comment	Signature

Gully Inspection Form

Name of person undertaking inspection:

Date:

Current weather conditions:

Description	Comments	Action	Initial
1) What is the current condition of the gully protection measures within the completed / un-adopted areas of the site? <i>Note any gullies requiring maintenance measures</i>			
2) What is the current condition of the gully protection measures within the active areas of the site? <i>Note any gullies requiring maintenance measures</i>			
3) Are site roads clean and relatively free of mud? Is the frequency of visits by the road sweeper adequate? <i>Consider whether additional visits should be scheduled.</i>			
4) Are there currently unsurfaced areas being trafficked which may be causing silt to enter the site drainage or stream? <i>Note if additional measures are required to reduce the run-off from those unsurfaced areas.</i>			

5) Are control measures in place to prevent silt run-off from unsurfaced areas and soil stockpiles? <i>Note if the control measures are adequate and whether the increased runoff requires an increase in the frequency of inspection of any control measures.</i>			
6) What is the current water condition of the water bodies / watercourses (including balancing ponds / swales)? <i>Note any discolouration of the water or obvious sign of sediment within the water</i>			
7) Is there any dewatering of excavations taking place on site? <i>Note what activities are taking part and their location.</i> <i>Note any control measures in place.</i>			
Notes and actions to be taken:			

Completed by	Name	Signature	Date
Site Manager			

Gully Inspection Form