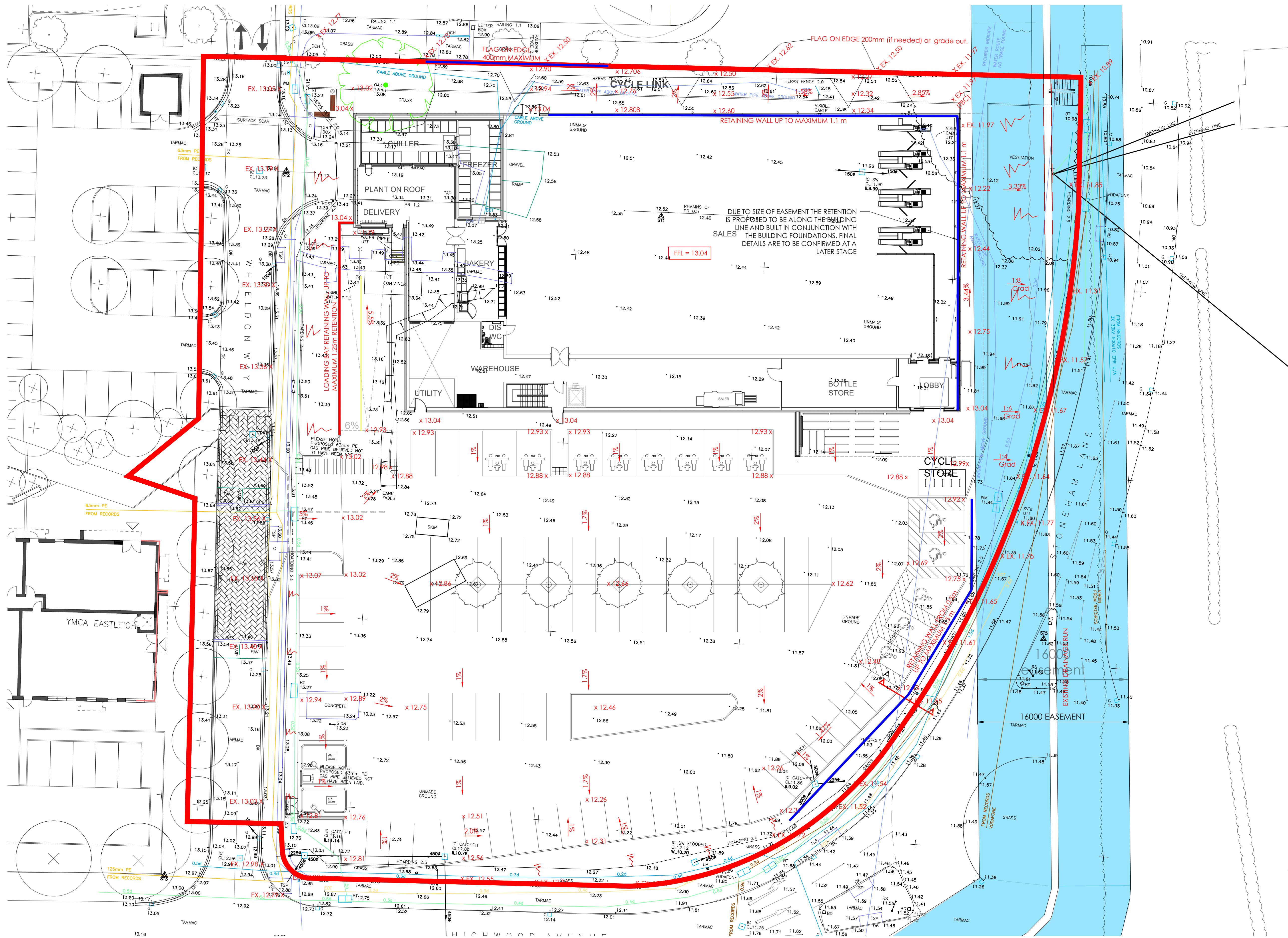


APPENDIX H: Proposed Lidl Drainage Strategy Drawing

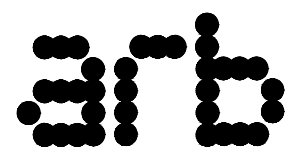
APPENDIX I: Proposed Store Levels



13.16
PROPOSED SITE LEVELS
1:200

x 48.85 PROPOSED DESIGN LEVEL
x EX. 48.85 EXISTING TOPOGRAPHICAL SURVEY LEVEL

RIBA
Chartered Practice



Architects
Registration
Board



DIMENSIONS TO BE CONFIRMED ON SITE PRIOR TO START OF WORKS AND ODA TO BE INFORMED OF DISCREPANCIES IMMEDIATELY. NO DIMENSIONS TO BE SCALED FROM THIS DRAWING.
ALL MATERIALS AND WORKS ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE LATEST REVISION OF THE APPROPRIATE BRITISH STANDARDS OR EURO CODE. PLANNING APPROVAL, CURRENT BUILDING REGULATIONS AND CODES OF PRACTICE.
PARTY WALL ACT - NOTICES UNDER THE PARTY WALL ACT ARE TO BE SERVED BY THE PROPERTY OWNER OR APPOINTED THIRD PARTY BY PROPERTY OWNER, HEALTH AND SAFETY - CDM 2015 REGULATIONS APPLY TO ALL CONSTRUCTION WORKS TO BE CARRIED OUT AND APPLY TO DESIGNERS, CONTRACTORS AND THE CLIENT, AS SUCH ALL PARTIES HAVE DUTIES UNDER THESE REGULATIONS.

Notes



B UPDATED LEVELS/RETENTION REAR, SIDE OF STORE 13.07.22 FT KOH
A UPDATED LEVELS/RETENTION AROUND EASEMENT 31.08.21 KOH RL
Rev Description Date Rev by Chk by

Revisions

Client
LIDL GREAT BRITAIN LTD.
Foxes Park, Brownhill Way, Nursling, Hampshire,
SO16 0AW
Project
STONEHAM LANE,
SOUTHAMPTON
PROPOSED SITE LEVELS

Project No:
20276_ODA_00_XX_DR_S_02_700

Purpose of Issue
PLANNING

Scale @ A1
1:200

Drawn
KO'H

Checked
RL

Revision
B

Date
JUNE 2021

DO NOT USE FOR CONSTRUCTION



One Design Architects Ltd, Unit 5 Mercury Quays, Ashley Lane, Shipley,
West Yorkshire, BD17 7DB
Tel: 01274 591188
www.onedesignarchitects.com mail@onedesignarchitects.com
Registered in England & Wales No: 08355643

Structural and Civil Engineering

APPENDIX J: Windes Calculations_Infiltration Tank

Mayer Brown Limited		Page 4																		
Lion House Oriental Road Woking, GU22 8AR	Lidl Store, Stoneham Lane Southampton Infiltration Tank Calculations																			
Date 19/05/2022 File Infiltration Tank 22051...	Designed by TC Checked by SF																			
Innovyze		Source Control 2016.1.1																		
<u>Model Details</u> Storage is Online Cover Level (m) 12.500 <u>Cellular Storage Structure</u> Invert Level (m) 10.000 Safety Factor 2.0 Infiltration Coefficient Base (m/hr) 3.20560 Porosity 0.95 Infiltration Coefficient Side (m/hr) 3.20560 <table border="1"> <thead> <tr> <th>Depth (m)</th> <th>Area (m²)</th> <th>Inf. Area (m²)</th> <th>Depth (m)</th> <th>Area (m²)</th> <th>Inf. Area (m²)</th> </tr> </thead> <tbody> <tr> <td>0.000</td> <td>84.0</td> <td>84.0</td> <td>1.501</td> <td>0.0</td> <td>159.0</td> </tr> <tr> <td>1.500</td> <td>84.0</td> <td>159.0</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)	0.000	84.0	84.0	1.501	0.0	159.0	1.500	84.0	159.0			
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©1982-2016 XP Solutions																				

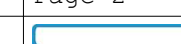
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Summer</td><td>10.021</td><td>0.021</td><td>16.4</td><td>1.7</td><td>O K</td></tr><tr><td>600 min Summer</td><td>10.018</td><td>0.018</td><td>14.1</td><td>1.4</td><td>O K</td></tr><tr><td>720 min Summer</td><td>10.016</td><td>0.016</td><td>12.1</td><td>1.3</td><td>O K</td></tr><tr><td>960 min Summer</td><td>10.013</td><td>0.013</td><td>10.2</td><td>1.0</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>10.010</td><td>0.010</td><td>7.5</td><td>0.8</td><td>O K</td></tr><tr><td>15 min Winter</td><td>10.208</td><td>0.208</td><td>42.0</td><td>16.6</td><td>O K</td></tr><tr><td>30 min Winter</td><td>10.171</td><td>0.171</td><td>41.2</td><td>13.7</td><td>O K</td></tr><tr><td>60 min Winter</td><td>10.080</td><td>0.080</td><td>39.2</td><td>6.4</td><td>O K</td></tr><tr><td>120 min Winter</td><td>10.039</td><td>0.039</td><td>30.2</td><td>3.2</td><td>O K</td></tr><tr><td>180 min Winter</td><td>10.030</td><td>0.030</td><td>23.3</td><td>2.4</td><td>O K</td></tr><tr><td>240 min Winter</td><td>10.025</td><td>0.025</td><td>19.1</td><td>2.0</td><td>O K</td></tr><tr><td>360 min Winter</td><td>10.019</td><td>0.019</td><td>14.4</td><td>1.5</td><td>O K</td></tr><tr><td>480 min Winter</td><td>10.015</td><td>0.015</td><td>11.7</td><td>1.2</td><td>O K</td></tr></tbody></table> <table><thead><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Time-Peak (mins)</th></tr></thead><tbody><tr><td>15 min Summer</td><td>35.969</td><td>0.0</td><td>12</td></tr><tr><td>30 min Summer</td><td>23.501</td><td>0.0</td><td>20</td></tr><tr><td>60 min Summer</td><td>14.863</td><td>0.0</td><td>36</td></tr><tr><td>120 min Summer</td><td>9.597</td><td>0.0</td><td>64</td></tr><tr><td>180 min Summer</td><td>7.299</td><td>0.0</td><td>94</td></tr><tr><td>240 min Summer</td><td>5.981</td><td>0.0</td><td>124</td></tr><tr><td>360 min Summer</td><td>4.497</td><td>0.0</td><td>184</td></tr><tr><td>480 min Summer</td><td>3.664</td><td>0.0</td><td>244</td></tr><tr><td>600 min Summer</td><td>3.124</td><td>0.0</td><td>306</td></tr><tr><td>720 min Summer</td><td>2.743</td><td>0.0</td><td>366</td></tr><tr><td>960 min Summer</td><td>2.236</td><td>0.0</td><td>488</td></tr><tr><td>1440 min Summer</td><td>1.684</td><td>0.0</td><td>716</td></tr><tr><td>15 min Winter</td><td>35.969</td><td>0.0</td><td>13</td></tr><tr><td>30 min Winter</td><td>23.501</td><td>0.0</td><td>21</td></tr><tr><td>60 min Winter</td><td>14.863</td><td>0.0</td><td>36</td></tr><tr><td>120 min Winter</td><td>9.597</td><td>0.0</td><td>64</td></tr><tr><td>180 min Winter</td><td>7.299</td><td>0.0</td><td>94</td></tr><tr><td>240 min Winter</td><td>5.981</td><td>0.0</td><td>124</td></tr><tr><td>360 min Winter</td><td>4.497</td><td>0.0</td><td>182</td></tr><tr><td>480 min Winter</td><td>3.664</td><td>0.0</td><td>244</td></tr></tbody></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	10.183	0.183	41.5	14.6	O K	30 min Summer	10.169	0.169	41.2	13.5	O K	60 min Summer	10.113	0.113	39.9	9.0	O K	120 min Summer	10.052	0.052	38.6	4.1	O K	180 min Summer	10.040	0.040	31.0	3.2	O K	240 min Summer	10.034	0.034	26.0	2.7	O K	360 min Summer	10.026	0.026	19.8	2.1	O K	480 min Summer	10.021	0.021	16.4	1.7	O K	600 min Summer	10.018	0.018	14.1	1.4	O K	720 min Summer	10.016	0.016	12.1	1.3	O K	960 min Summer	10.013	0.013	10.2	1.0	O K	1440 min Summer	10.010	0.010	7.5	0.8	O K	15 min Winter	10.208	0.208	42.0	16.6	O K	30 min Winter	10.171	0.171	41.2	13.7	O K	60 min Winter	10.080	0.080	39.2	6.4	O K	120 min Winter	10.039	0.039	30.2	3.2	O K	180 min Winter	10.030	0.030	23.3	2.4	O K	240 min Winter	10.025	0.025	19.1	2.0	O K	360 min Winter	10.019	0.019	14.4	1.5	O K	480 min Winter	10.015	0.015	11.7	1.2	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	35.969	0.0	12	30 min Summer	23.501	0.0	20	60 min Summer	14.863	0.0	36	120 min Summer	9.597	0.0	64	180 min Summer	7.299	0.0	94	240 min 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Mayer Brown Limited			Page 2																																																			
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Innovyze		Source Control 2016.1.1			
Summary of Results for 100 year Return Period (+40%)					
Half Drain Time : 17 minutes.					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	11.168	1.168	63.4	93.2	O K
30 min Summer	11.301	1.301	66.4	103.8	O K
60 min Summer	11.295	1.295	66.2	103.4	O K
120 min Summer	10.985	0.985	59.3	78.6	O K
180 min Summer	10.746	0.746	54.0	59.5	O K
240 min Summer	10.559	0.559	49.8	44.6	O K
360 min Summer	10.300	0.300	44.1	24.0	O K
480 min Summer	10.141	0.141	40.5	11.3	O K
600 min Summer	10.060	0.060	38.7	4.8	O K
720 min Summer	10.045	0.045	34.9	3.6	O K
960 min Summer	10.036	0.036	27.9	2.9	O K
1440 min Summer	10.027	0.027	20.6	2.1	O K
15 min Winter	11.348	1.348	67.4	107.6	O K
30 min Winter	11.616	1.616	70.8	119.8	O K
60 min Winter	11.451	1.451	69.7	115.8	O K
120 min Winter	11.000	1.000	59.7	79.8	O K
180 min Winter	10.671	0.671	52.3	53.5	O K
240 min Winter	10.427	0.427	46.9	34.1	O K
360 min Winter	10.119	0.119	40.0	9.5	O K
480 min Winter	10.045	0.045	34.9	3.6	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
15 min Summer	134.400	0.0	15		
30 min Summer	89.880	0.0	23		
60 min Summer	57.680	0.0	40		
120 min Summer	32.900	0.0	74		
180 min Summer	23.674	0.0	106		
240 min Summer	18.760	0.0	136		
360 min Summer	13.557	0.0	196		
480 min Summer	10.775	0.0	254		
600 min Summer	9.026	0.0	308		
720 min Summer	7.817	0.0	364		
960 min Summer	6.246	0.0	482		
1440 min Summer	4.562	0.0	730		
15 min Winter	134.400	0.0	15		
30 min Winter	89.880	0.0	25		
60 min Winter	57.680	0.0	44		
120 min Winter	32.900	0.0	78		
180 min Winter	23.674	0.0	112		
240 min Winter	18.760	0.0	142		
360 min Winter	13.557	0.0	198		
480 min Winter	10.775	0.0	242		
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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
600 min Winter	10.038	0.038	29.1	3.0	O K
720 min Winter	10.033	0.033	25.2	2.6	O K
960 min Winter	10.026	0.026	20.2	2.1	O K
1440 min Winter	10.019	0.019	14.8	1.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
600 min Winter	9.026	0.0	306
720 min Winter	7.817	0.0	364
960 min Winter	6.246	0.0	486
1440 min Winter	4.562	0.0	712

APPENDIX K: Bypass Separator

SEPARATORS

A RANGE OF FUEL/OIL SEPARATORS
FOR PEACE OF MIND



60 YEARS OF
Expertise &
Innovation
1955-2015

Bypass NSB RANGE

APPLICATION

Bypass separators are used when it is considered an acceptable risk not to provide full treatment, for very high flows, and are used, for example, where the risk of a large spillage and heavy rainfall occurring at the same time is small, e.g.

- Surface car parks.
- Roadways.
- Lightly contaminated commercial areas.

PERFORMANCE

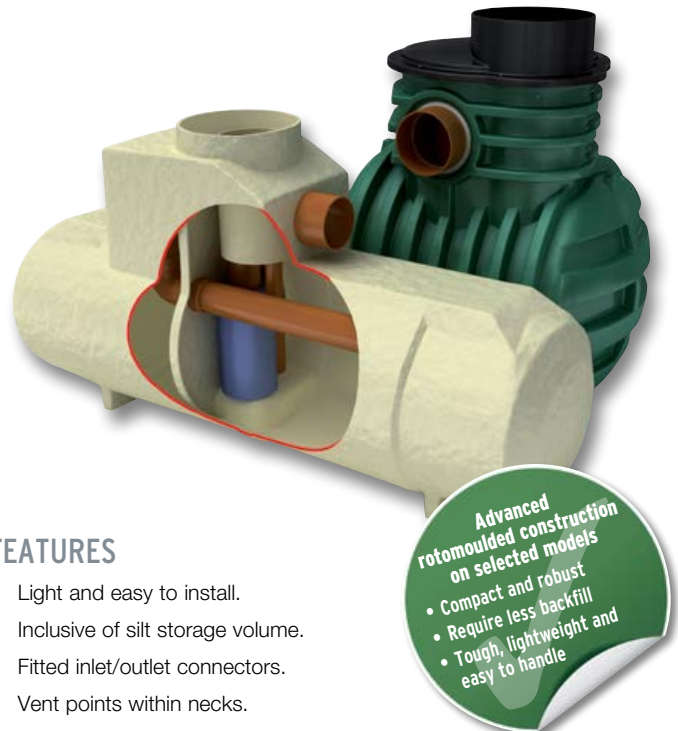
Klargester were one of the first UK manufacturers to have separators tested to EN 858-1. Klargester have now added the NSB bypass range to their portfolio of certified and tested models. The NSB number denotes the maximum flow at which the separator treats liquids. The British Standards Institute (BSI) tested the required range of Kingspan Klargester Bypass separators and certified their performance in relation to their flow and process performance assessing the effluent qualities to the requirements of EN 858-1. Klargester bypass separator designs follow the parameters determined during the testing of the required range of bypass separators.

Each bypass separator design includes the necessary volume requirements for:

- Oil separation capacity.
- Oil storage volume.
- Silt storage capacity.
- Coalescer.

The unit is designed to treat 10% of peak flow. The calculated drainage areas served by each separator are indicated according to the formula given by PPG3 $NSB = 0.0018A(m^2)$. Flows generated by higher rainfall rates will pass through part of the separator and bypass the main separation chamber.

Class I separators are designed to achieve a concentration of 5mg/litre of oil under standard test conditions.



FEATURES

- Light and easy to install.
- Inclusive of silt storage volume.
- Fitted inlet/outlet connectors.
- Vent points within necks.
- Oil alarm system available (required by EN 858-1 and PPG3).
- Extension access shafts for deep inverts.
- Maintenance from ground level.
- GRP or rotomoulded construction (subject to model).

To specify a nominal size bypass separator, the following information is needed:-

- The calculated flow rate for the drainage area served. Our designs are based on the assumption that any interconnecting pipework fitted elsewhere on site does not impede flow into or out of the separator and that the flow is not pumped.
- The drain invert inlet depth.
- Pipework type, size and orientation.

SIZES AND SPECIFICATIONS

UNIT NOMINAL SIZE	FLOW (l/s)	PEAK FLOW RATE (l/s)	DRAINAGE AREA (m ²)	STORAGE CAPACITY (litres)		UNIT LENGTH (mm)	UNIT DIA. (mm)	ACCESS SHAFT DIA. (mm)	BASE TO INLET INVERT (mm)	BASE TO OUTLET INVERT	STANDARD FALL ACROSS (mm)	MIN. INLET INVERT (mm)	STANDARD PIPEWORK DIA.
NSBP003	3	30	1670	300	45	1700	1350	600	1420	1320	100	500	160
NSBP004	4.5	45	2500	450	60	1700	1350	600	1420	1320	100	500	160
NSBP006	6	60	3335	600	90	1700	1350	600	1420	1320	100	500	160
NSBE010	10	100	5560	1000	150	2069	1220	750	1450	1350	100	700	315
NSBE015	15	150	8335	1500	225	2947	1220	750	1450	1350	100	700	315
NSBE020	20	200	11111	2000	300	3893	1220	750	1450	1350	100	700	375
NSBE025	25	250	13890	2500	375	3575	1420	750	1680	1580	100	700	375
NSBE030	30	300	16670	3000	450	4265	1420	750	1680	1580	100	700	450
NSBE040	40	400	22222	4000	600	3230	1920	600	2185	2035	150	1000	500
NSBE050	50	500	27778	5000	750	3960	1920	600	2185	2035	150	1000	600
NSBE075	75	750	41667	7500	1125	5841	1920	600	2235	2035	200	950	675
NSBE100	100	1000	55556	10000	1500	7661	1920	600	2235	2035	200	950	750
NSBE125	125	1250	69444	12500	1875	9548	1920	600	2235	2035	200	950	750

■ Rotomoulded chamber construction ■ GRP chamber construction * Some units have more than one access shaft – diameter of largest shown.

PROFESSIONAL INSTALLERS

Kingspan Klargester Accredited Installers

Experience shows that correct installation is a prerequisite for the long-lasting and successful operation of any wastewater treatment product. This is why using an installer with the experience and expertise to install your product is highly recommended.



Services include :

- Site survey to establish ground conditions and soil types
- Advice on system design and product selection
- Assistance on gaining environmental consents and building approvals
- Tank and drainage system installation
- Connection to discharge point and electrical networks
- Waste emptying and disposal

Discover more about the Accredited Installers and locate your local expert online.

www.kingspanenviro.com/klargester



CARE & MAINTENANCE

Kingspan Environmental Services

Who better to look after your treatment plant than the people who designed and built it?



Kingspan Environmental have a dedicated service division providing maintenance for wastewater products.

Factory trained engineers are available for site visits as part of a planned maintenance contract or on a one-off call out basis.

To find out more about protecting your investment and ensuring peace of mind, call us on:

0844 846 0500

or visit us online:

www.kingspanenvservice.com



COMMERCIAL WASTEWATER SOLUTIONS

- **BIODISC® & ENVIROSAFE**
HIGH PERFORMANCE SEWAGE TREATMENT SYSTEMS
- PACKAGE PUMP STATIONS
- **PUMPSTOR24** PUMPING SYSTEMS
- OIL/WATER SEPARATORS
- BELOW GROUND STORAGE TANKS
- GREASE & SILT TRAPS

RAINWATER SOLUTIONS

- BELOW GROUND RAINWATER HARVESTING SYSTEMS
- ABOVE GROUND RAINWATER HARVESTING SYSTEMS

Klargester

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Visit our website www.kingspanenviro.com/klargester



In keeping with Company policy of continuing research and development and in order to offer our clients the most advanced products, Kingspan Environmental reserves the right to alter specifications and drawings without prior notice.

APPENDIX L: Geolight Proprietary Infiltration Tank

SDS

Water
Infrastructure
Systems

INNOVATORS IN
WATER TECHNOLOGY

SDS GEOLight®

Stormwater Management System



SDS GEOLight® is an ultra lightweight honeycombed modular structure, made from recycled PVC, that provides an underground storage facility for the application of stormwater attenuation or infiltration.

SDS
Water
Infrastructure
Systems

Stormwater Management

The Environment Agency is keen to promote the wider use of sustainable drainage systems, which reduce the impact of surface water runoff. There are two main ways of storing surface water for stormwater management:

- Stormwater attenuation tanks
- Soakaway infiltration systems

Stormwater Attenuation Systems

This consists of underground water storage facilities that hold excess water during periods of peak rainfall.

The stored water is gradually released in a controlled manner into the surface water drainage system or directly into watercourses, reducing the risk of upstream and downstream flooding.

Soakaway Infiltration Systems

Soakaways are designed to store surface water runoff until it can be gradually absorbed by the surrounding ground.

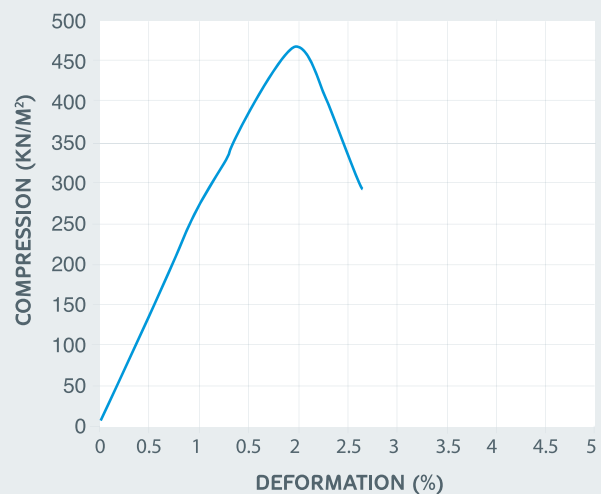
SDS GEOLight® – an efficient and economic solution for stormwater management.

SDS GEOLight® Attenuation

SDS GEOLight® has been specifically designed to form underground water storage reservoirs in stormwater management schemes. Its honeycombed structure gives it certain unique characteristics that make it ideal for this purpose:

- The high void rate (95%) of GEOLight® means that the maximum volume of water is stored in the minimum volume of storage unit.
- High compressive strength. GEOLight® is available in two strengths as standard: 200 and 400kN/m². Note: Higher compressive strengths available from 600 to 1000 kN/m². The graph on the right shows the results of a compression test, where samples of GEOLight® 400 were compressed at the rate of 1mm per minute. The deformation at 400kN/m² is about 1.6%.

RESULTS OF COMPRESSION TEST ON SDS GEOLIGHT® 400



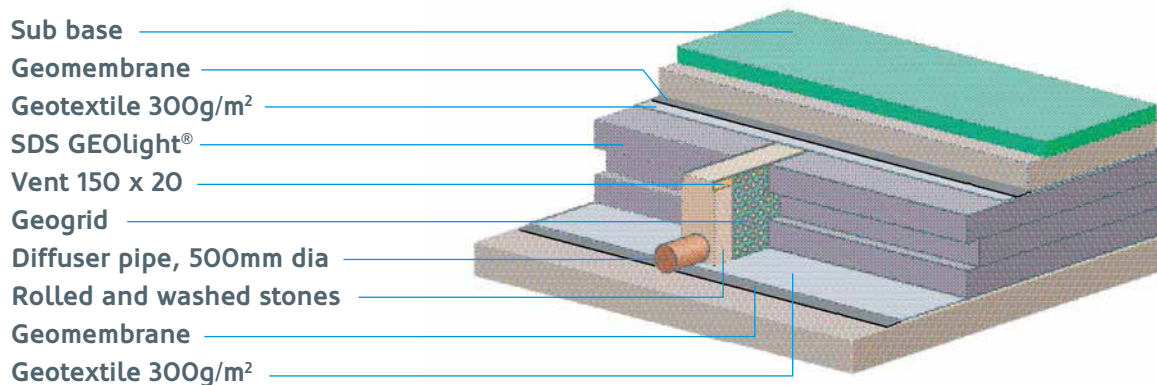
The GEOLight® Stormwater Attenuation System consists of two manholes (inspection chambers) connected by a length of perforated distribution pipe which feeds the stormwater storage reservoirs on either side formed from GEOLight®.

The distribution pipe is normally from 225mm up to 500mm diameter, generally covered in a trench that is filled with draining material such as 15/25 clean graded stone, free from fines.

The reservoirs and distribution pipe are wrapped in a waterproof membrane, such as butyl, to prevent seepage of water into the surrounding ground. The top of each GEOLight® reservoir has a vent which is connected back to the upstream manhole.

A geotextile or 10mm mesh geogrid is laid between the distribution pipe and GEOLight® to prevent the GEOLight® units being clogged by the draining materials.

SDS GEOLight® Attenuation



How does it work?

- 1. In normal conditions, water enters a back drop manhole. This is the upstream manhole and any silt or sediment will collect in the bottom of the chamber. The water then flows along the distribution pipe into the downstream manhole. The upstream pipework is sized to cope with normal flow conditions. The distribution pipe and attenuation tank are sized to cope with storm conditions. The outflow pipe is sized to cope with the permissible discharge.
- 2. In storm conditions the flow restrictor (vortex flow control or orifice plate) in the downstream manhole limits the amount of water flowing out of the manhole. This causes the water level in the distribution pipe to rise and water to spill into the GEOLight® reservoirs on either side. As the water level rises in the reservoirs, air is forced out of the high level vents into the upstream manhole.

- 3. Once the storm has passed, the water level in the GEOLight® reservoirs gradually falls as water passes through the flow restrictor in the downstream manhole. The vents now allow air to return into the GEOLight® reservoirs. Gradually the reservoirs empty. The flow restrictor prevents excess surges of flood water to pass downstream and uses the storage reservoirs to store the water for the period of the storm.

Calculating the storage capacity

The storage capacity of the GEOLight® reservoirs is determined by the maximum outflow permitted, (set by the water company or Environment Agency), the impermeable area of the site and the rainfall return period – normally 1 in 30 years, but again can be dictated by the water company. A full design service, including calculations, can be supplied via a third party consultant.

Please contact SDS for details.

Other uses

The water storage ability of SDS GEOLight® lends itself to a number of other uses:

- Water recycling combines with irrigation systems – this is increasingly popular: GEOLight® is used to retain stormwater which is then pumped as required to a network of standpipes for irrigation.
- Drainage channels – the natural permeability of GEOLight® lends itself for use as an underground drainage channel that collects and drains away groundwater.
- Pollution control – improved water runoff quality. When used in combination with oil / petrol separators, GEOLight® can replenish groundwater without the risk of contamination from oil, chemicals or suspended solids.
- To form lightweight embankments (slope stabilisation) – GEOLight® can be used to quickly form the base of embankments that only weigh a fraction of earth embankments.

Stormwater Attenuation System

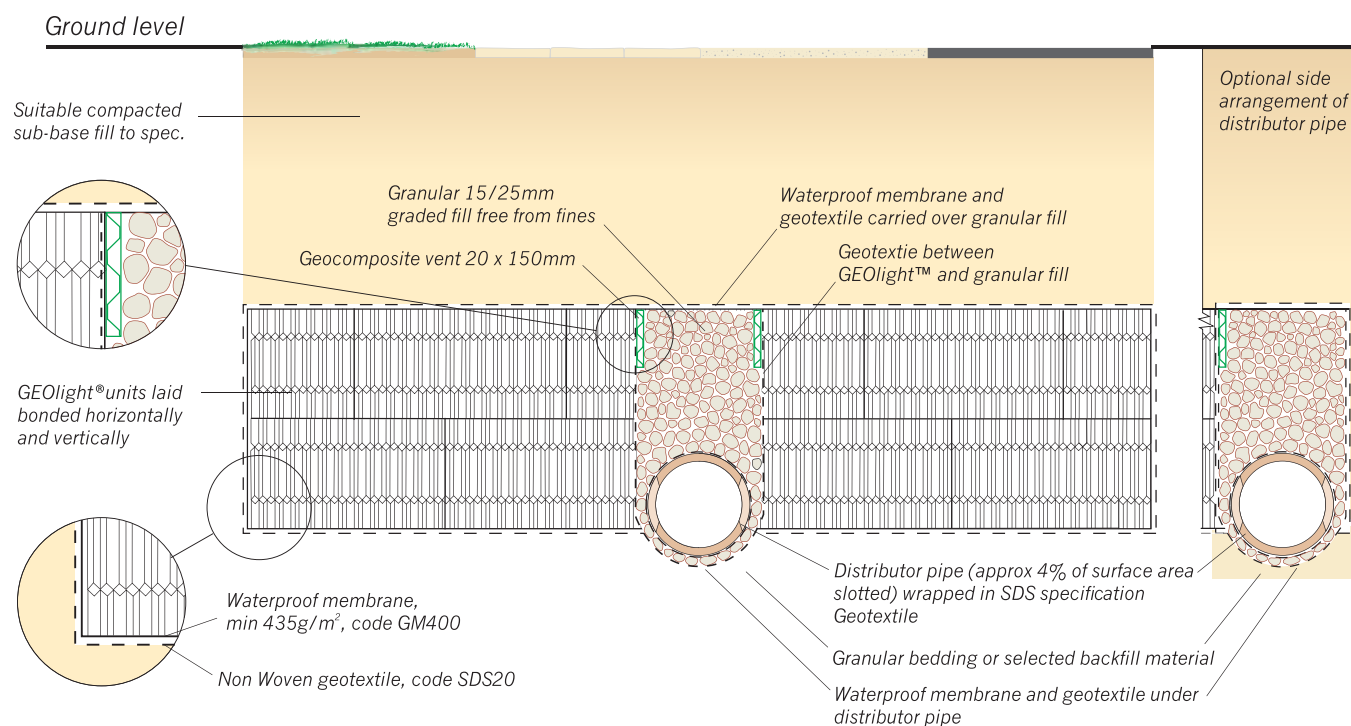
Design Details

The details on these two pages illustrate the construction of a typical SDS GEOLight® Stormwater Attenuation System. The length and height of the GEOLight® reservoirs is determined by the quantity of water to be stored.

The layout of each scheme is specifically designed to suit the characteristics and limitation of the site. Typically the distributor pipe would be arranged in the centre of the reservoir, but can alternatively be placed at the side where topographical constraints dictate.

The high performance waterproof membrane should be sealed continuously to encapsulate the GEOLight® reservoirs, distributor pipe and granular fill. It is protected by a heavyweight needle punched, non woven geotextile. To help with maintenance a high flow geotextile is placed between the granular fill and GEOLight® attenuation units to prevent silt and particles being washed into the reservoir. GEOLight® can be used under a range of surfaces e.g. grass, porous paving, standard paving block, tarmac and concrete.

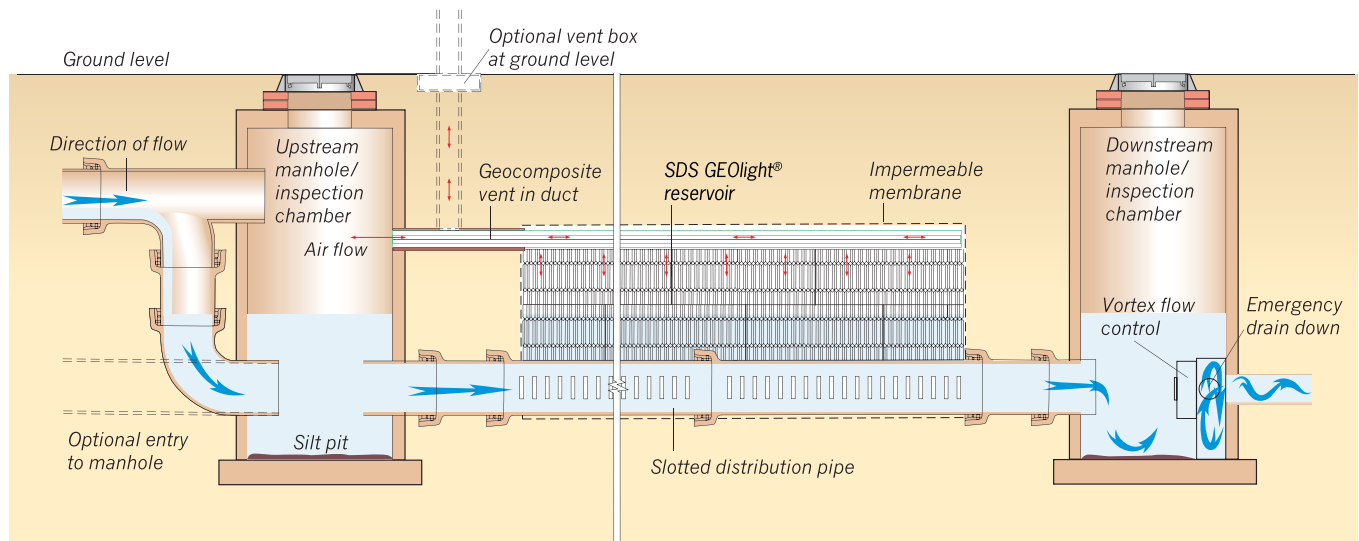
Cross Section



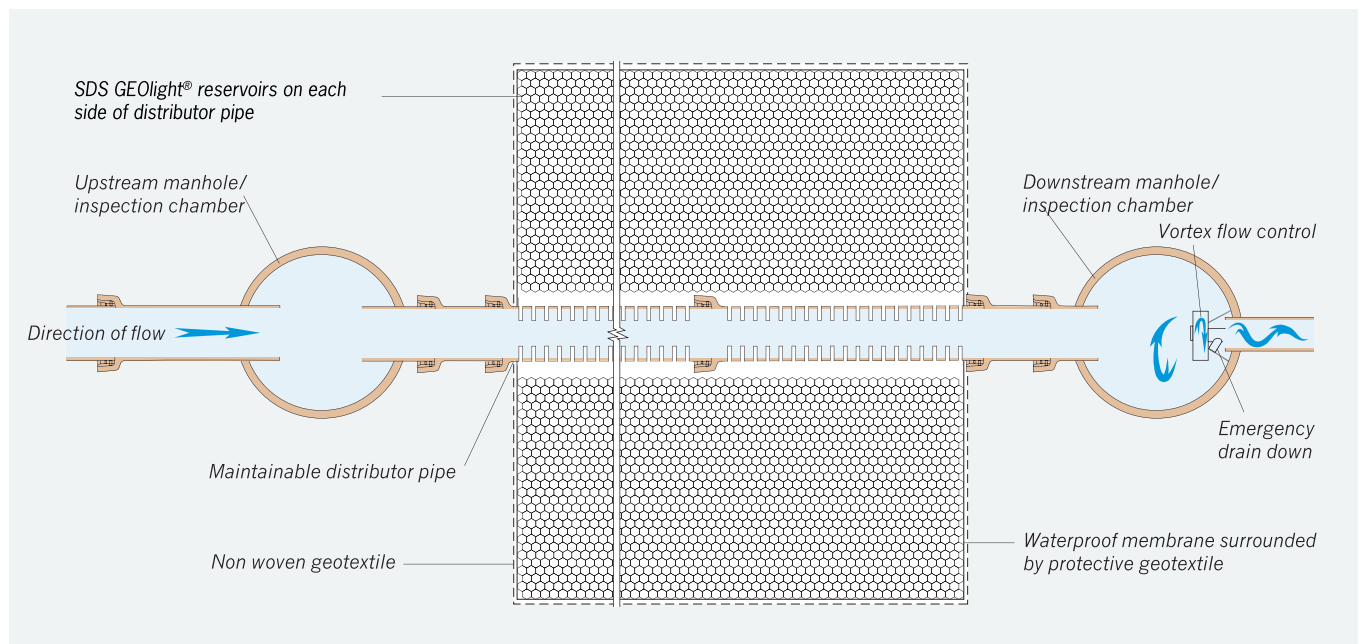
Stormwater Attenuation System

Design Details

Long Section



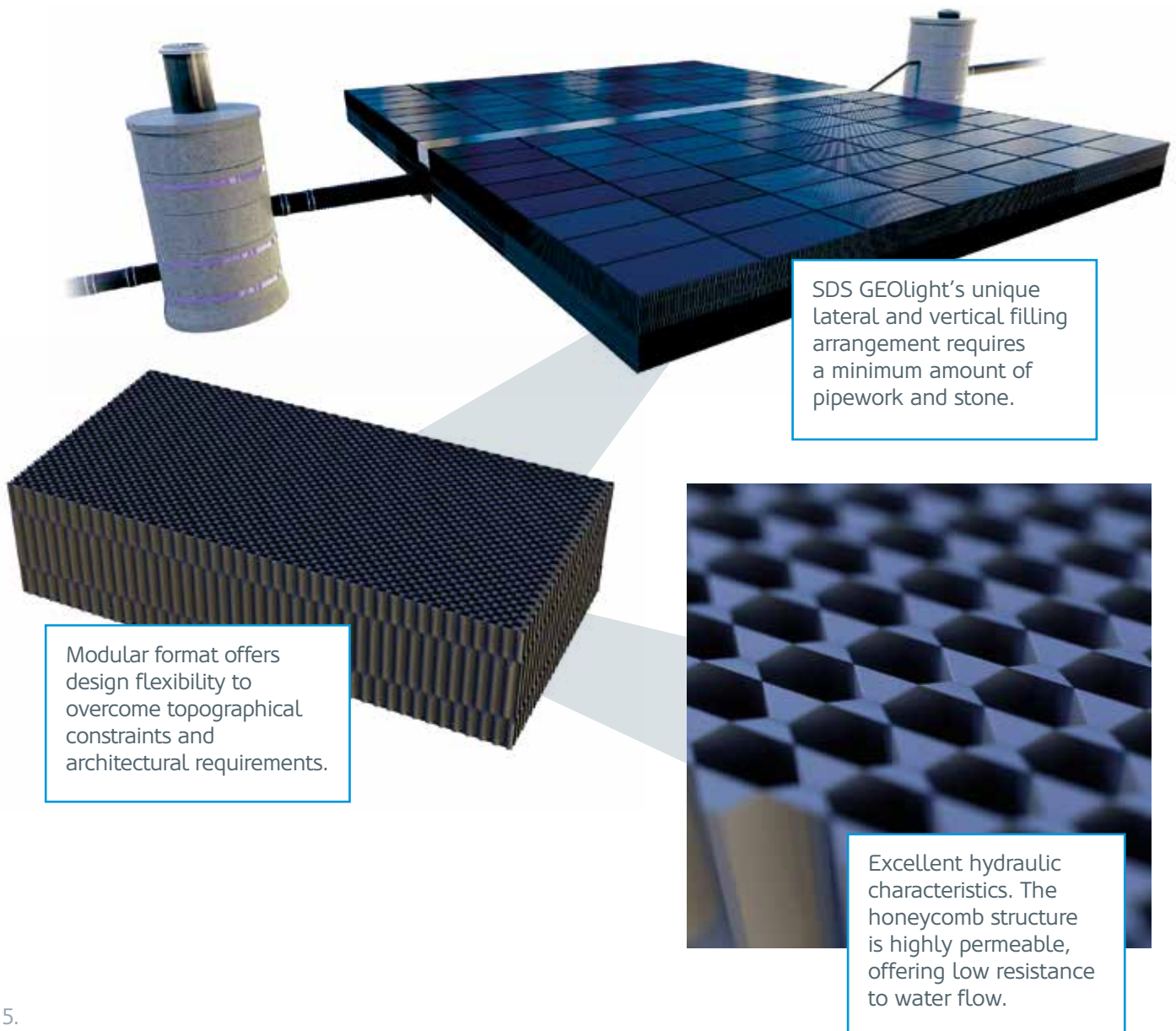
Plan



Benefits

- High compressive strength – can be located under all roads, car parks and amenity area surfaces.
- Reduced excavation costs – the very high void rate (95%) minimises the required volume of earthworks.
- Speed of installation – 1000m³ reservoir, completed in one week.
- Light and easy to handle.
- Depth of tank invert reduced by using patented lateral supply.
- Simplified distribution pipe network, easy maintenance – dispensing with costly and complicated pipework configurations.
- Greatly reduces the risk of flooding when used as stormwater storage.
- Can also be used for water recycling and combining with irrigation systems.
- Can virtually eliminate pollution when used in combination with specialist petrol / oil separators.
- Design service available, including calculations.

GEOLight® block



COSHH and Handling Information

1. COMPOSITION/INFORMATION ON INGREDIENTS:

Hazardous ingredients:

None as finished goods or products.

Types of materials:

Polyvinyl chloride (PVC)
MEK

2. HAZARDS IDENTIFICATION

Nature of hazard:

There are no health risks from the products during normal use. The products may contain various pigment colours and stabilisers that may be toxic. The chemicals are, however, bound within the product material and not easily extracted.

3. FIRST-AID MEASURES

Eye contact:

Plastic materials may cause physical irritation in the eyes. Wash out with large amounts of water. If irritation persists, seek medical advice.

Skin contact:

Not applicable.

Inhalation:

Not applicable.

Ingestion:

Not expected to have any toxic effects.

4. FIRE-FIGHTING MEASURES

Extinguishing media:

On small fires use any hand-held extinguisher type.
On large fires use water.

Fire and explosion hazards:

Melting plastics may flow and spread in a large fire.
Products of fire will be thick black toxic smoke.

Material characteristics:

PVC products will burn in the presence of a flame but are classed as self-extinguishing.

Protective equipment:

Wear self-contained breathing apparatus and protective clothing.

5. HANDLING AND STORAGE

Handling:

There are no hazards associated with the finished products. However, when cutting SDS GEOLight®, we recommend that the correct tools are used e.g. Handsaw or Alligator saw. When cutting, dust may be created; avoid inhaling these dusts. Take care of heat build-up within materials during cutting etc. The pallets of SDS GEOLight® units should be placed on level ground and should not be stacked on site. The maximum weight of the pallet of SDS GEOLight® units as delivered to site is 650kg (700kg on one copy), including packaging. Machines used to lift the pallet should be able to lift this weight safely. Loose individual units should not be stored more than three units high. SDS GEOLight® units are lightweight ranging from 23kg to 55kg and can be easily handled – one or two person lift.

Storage:

SDS GEOLight® units will resist the effects of UV light for up to six months; however, prolonged storage in direct sunlight should be avoided. SDS GEOLight® units should not be stored near to any fuel storage areas or any other solvents. SDS GEOLight® units are very robust and resistant to damage during normal handling; however, they should be secured in areas where impacts from vehicles or construction plant will be avoided.

Material characteristics:

PVC products will burn in the presence of a flame but are classed as self-extinguishing.

Protective equipment:

Wear self-contained breathing apparatus and protective clothing.

6. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory protection:

Not required under normal conditions of use. Where cutting etc. creates dust, wear a disposable half-mask to the standard FFP2S.

Hand protection:

Wear impervious strong gloves to prevent cuts to the hands while handling, cutting etc.

Eye protection:

Wear safety glasses when cutting etc.

Skin protection:

Wear overalls.

7. SITE HAZARDS

Other hazards for consideration:

Working in excavations and trenches – SDS GEOLight® may be designed with a shallow invert for infiltration (soakaway) or attenuation (storage) system. This negates the need for deep excavations or trenches, excavation near services e.g. gas, electricity or contaminated soil areas. N.B. All risk assessments should be undertaken by the main contractor for forklift, access to and working in excavations and trench support.

8. STABILITY AND REACTIVITY

Decomposition products:

Major thermal decomposition products are oxides of carbon. Relevant differences are (in addition): PVC may produce amounts of Hydrogen Chloride.

Stability:

These materials are stable at temperatures up to normal operating limits (moulding parameters).

9. ECOLOGICAL INFORMATION

Biodegradability:

Plastic products are not readily biodegradable but are not detrimental to terrestrial wildlife.

Aquatic toxicity:

Non-toxic to marine life.

10. DISPOSAL CONSIDERATIONS

Method:

The preferred method of disposal is collection and recycling. Plastics can safely be placed with regular industrial or household wastes where recycling is not available.

11. OTHER INFORMATION

As the handling, storage, use and disposal of the product are beyond our control SDS disclaims all liability for loss, damage, injury or expense in any way connected with such activities and further makes no warranties, expressed or implied, as to the suitability of the product for any particular use.

The preferred method of disposal is collection and recycling. Plastics can safely be placed with regular industrial or household wastes where recycling is not available.

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E info@sdslimited.com



sdslimited.com

APPENDIX M: Lidl Typical Site Drainage Details

APPENIDX N - PUSH Flood Review

FLOOD INFORMATION

LIDL STORE, STONEHAM LANE, EASTLEIGH

Images obtained from PUSH Website (The Partnership for Urban South Hampshire)

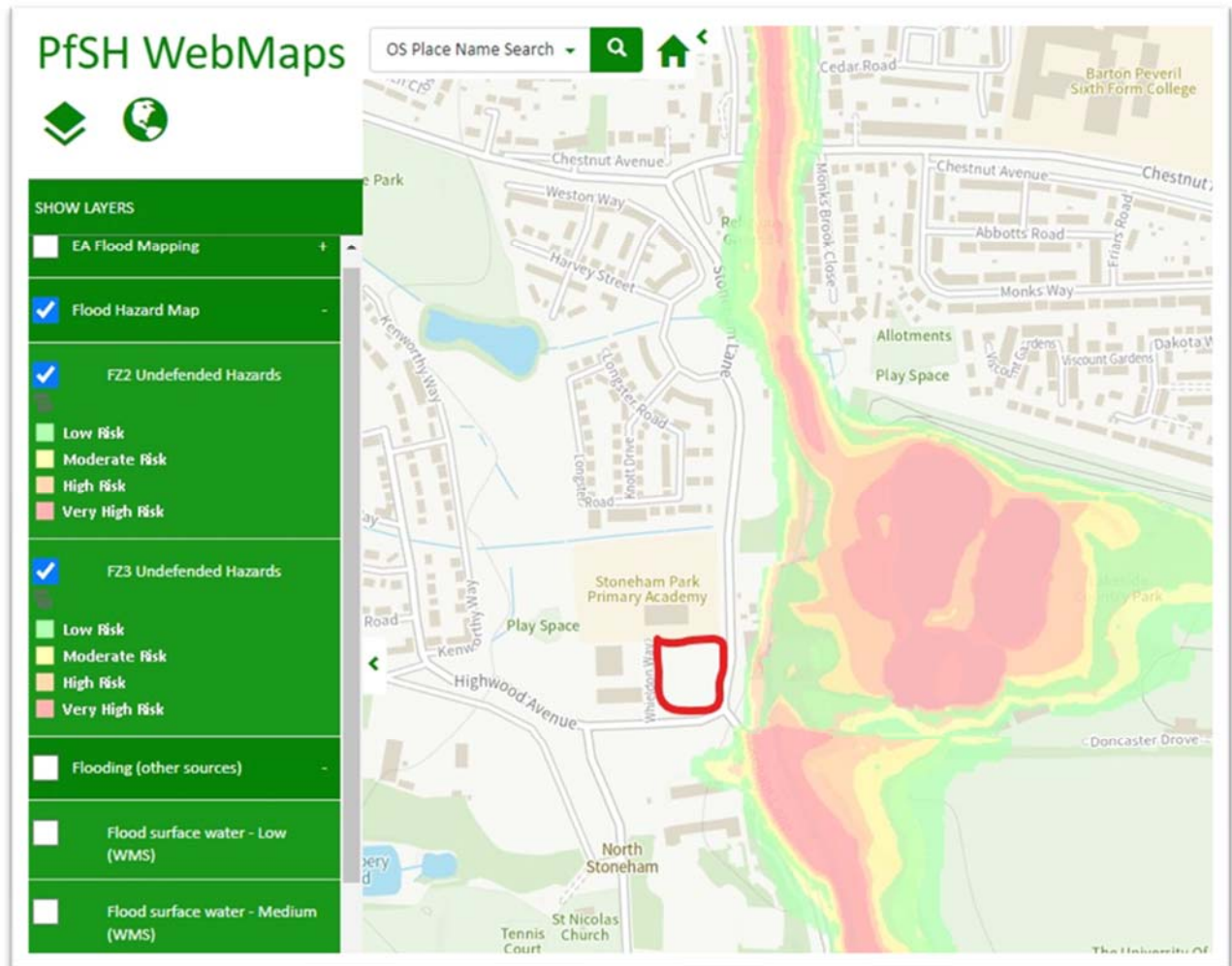


FIGURE 1: FLUVIAL FLOOD RISK: LOW RISK FLOOD ZONE 1

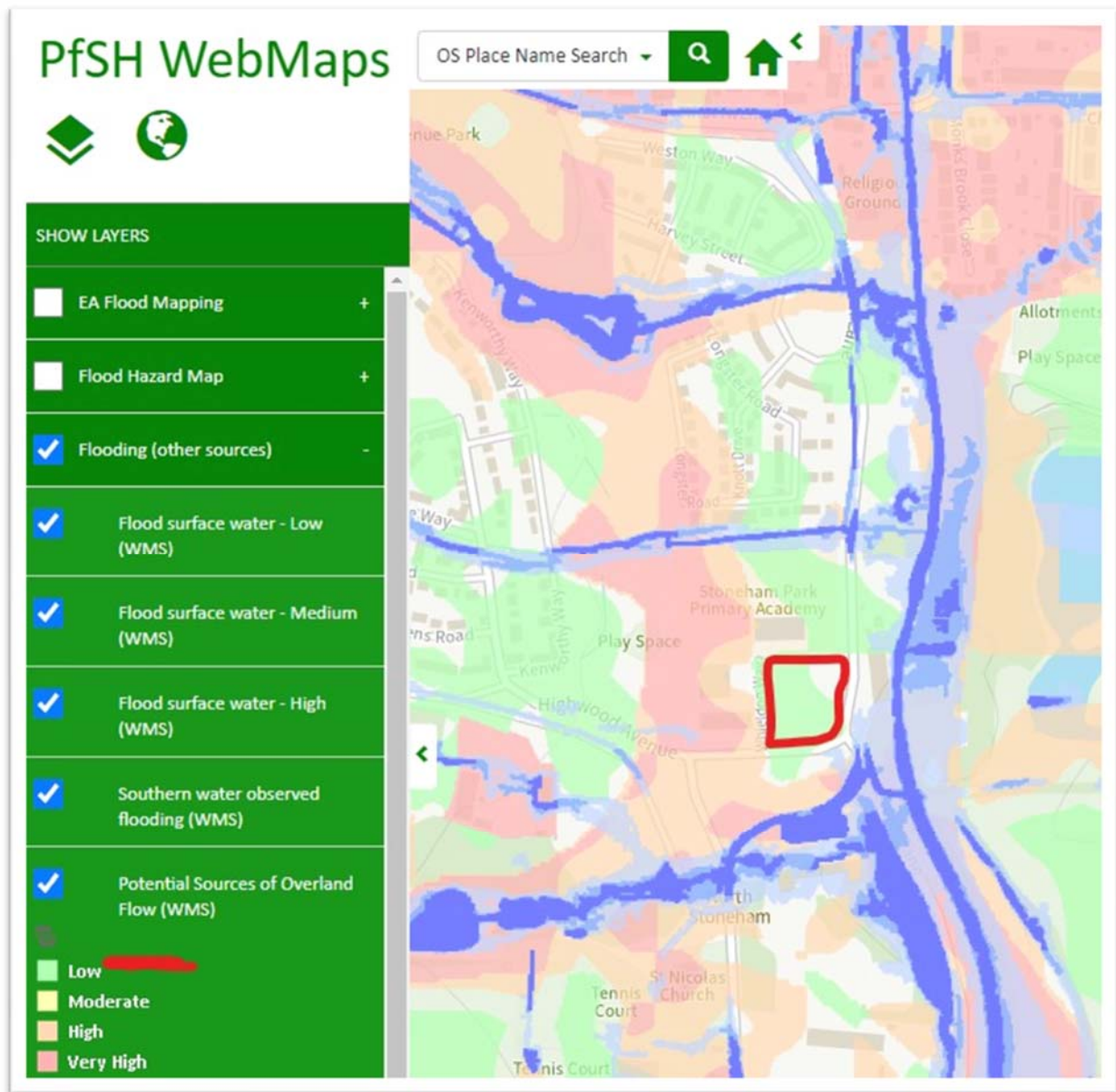


FIGURE 2: PLUVIAL AND OTHER SOURCES OF FLOOD RISK: LOW FLOOD RISK

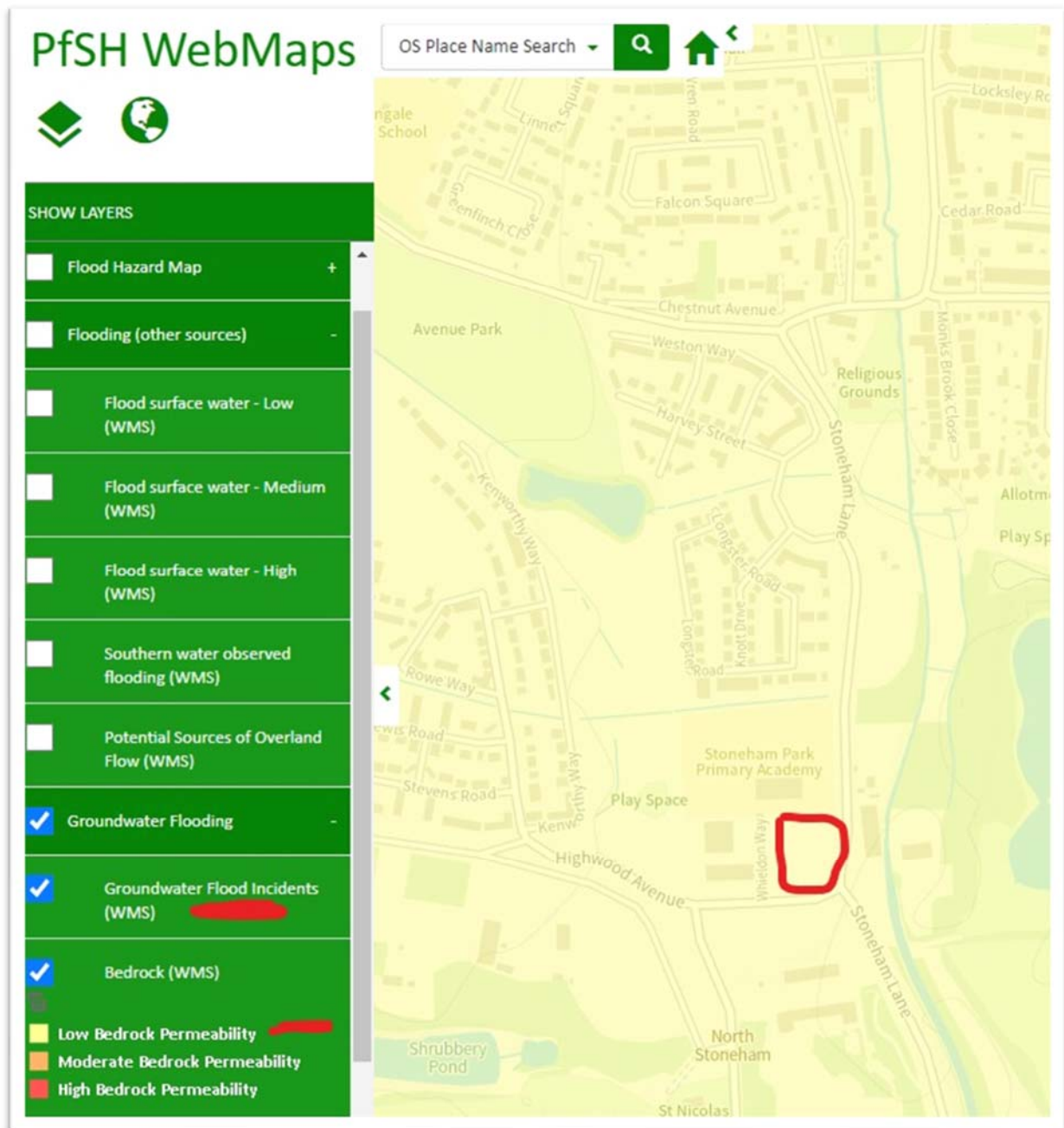


FIGURE 3: GROUNDWATER FLOODING: LOW BEDROCK PERMABILITY AND NO FLOOD INCIDENTS

