

Site Level & Drainage Statement

The Orchards, Blazegate, Gedney, Spalding, Lincolnshire

Appendix E

Greenfield Run-off Rates

Calculated by:	Richard Martin
Site name:	The Orchards
Site location:	The Orchards, Blazegate, Gedney, Spalding, Lincolnshire

This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance "Rainfall runoff management for developments", SC030219 (2013), the SuDS Manual C753 (Ciria, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Site Details

Latitude:	52.79958° N
Longitude:	0.10332° E
Reference:	2031332889
Date:	Oct 03 2024 13:58

Runoff estimation approach

FEH Statistical

Site characteristics

Total site area (ha):	0.105
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Methodology

Q _{MED} estimation method:	Calculate from BFI and SAAR
BFI and SPR method:	Specify BFI manually
HOST class:	N/A
BFI / BFIHOST:	0.68
Q _{MED} (l/s):	
Q _{BAR} / Q _{MED} factor:	1.12

Hydrological characteristics

	Default	Edited
SAAR (mm):	580	580
Hydrological region:	5	5
Growth curve factor 1 year:	0.87	0.87
Growth curve factor 30 years:	2.45	2.45
Growth curve factor 100 years:	3.56	3.56
Growth curve factor 200 years:	4.21	4.21

Notes

(1) Is $Q_{BAR} < 2.0$ l/s/ha?

When Q_{BAR} is < 2.0 l/s/ha then limiting discharge rates are set at 2.0 l/s/ha.

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consent for discharge is usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set where the blockage risk is addressed by using appropriate drainage elements.

(3) Is $SPR/SPRHOST \leq 0.3$?

Where groundwater levels are low enough the use of soakaways to avoid discharge offsite would normally be preferred for disposal of surface water runoff.

Greenfield runoff rates

	Default	Edited
Q_{BAR} (l/s):		0.1
1 in 1 year (l/s):		0.09
1 in 30 years (l/s):		0.25
1 in 100 year (l/s):		0.37
1 in 200 years (l/s):		0.44

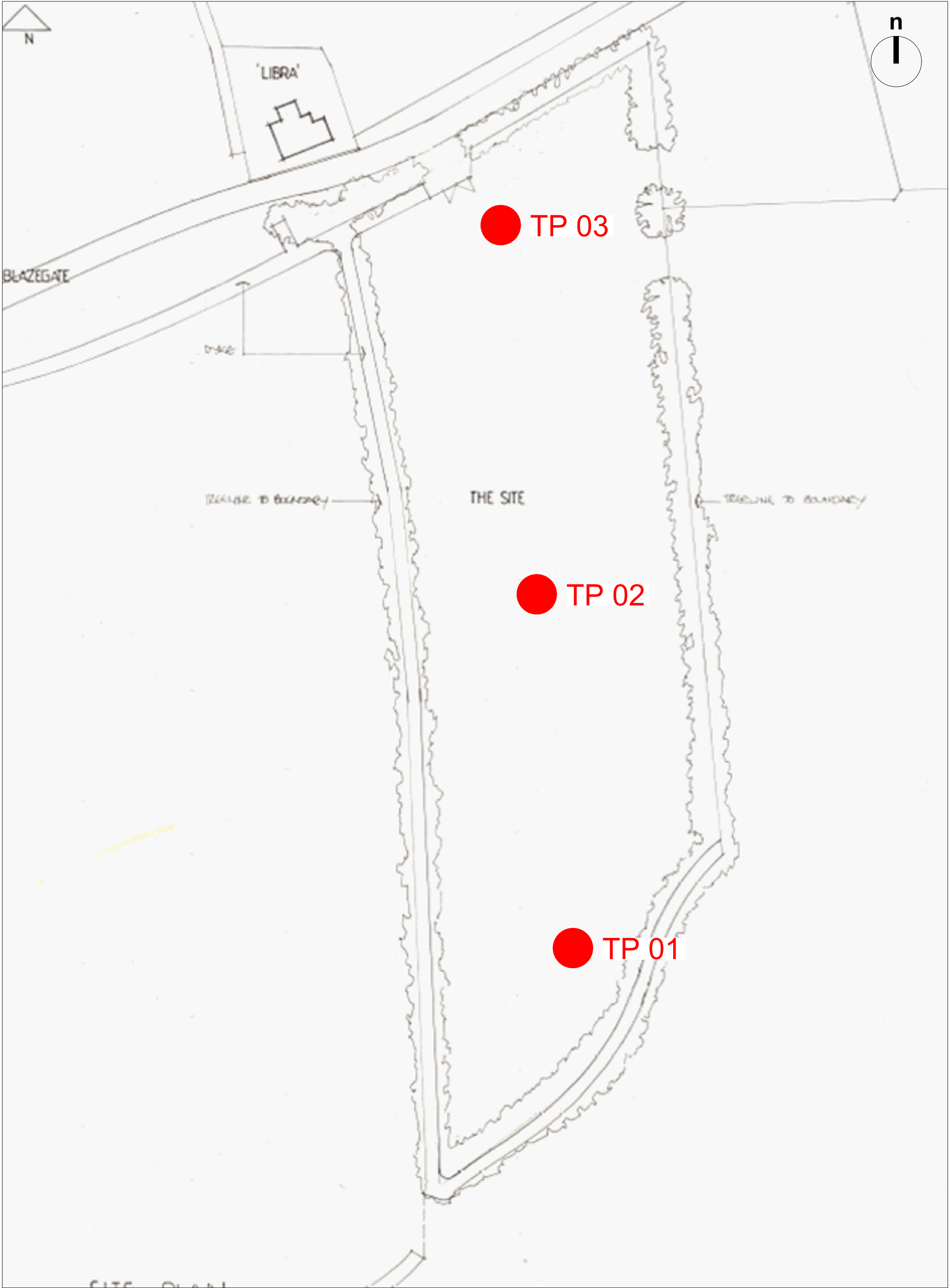
This report was produced using the greenfield runoff tool developed by HR Wallingford and available at www.uksuds.com. The use of this tool is subject to the UK SuDS terms and conditions and licence agreement , which can both be found at www.uksuds.com/terms-and-conditions.htm. The outputs from this tool are estimates of greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, CEH, Hydrosolutions or any other organisation for the use of this data in the design or operational characteristics of any drainage scheme.

Site Level & Drainage Statement

The Orchards, Blazegate, Gedney, Spalding, Lincolnshire

Appendix F

BRE 365 Percolation Test Location Plan



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P1	09/09/24	First Issue	RSM	RSM
Rev.	Date	Description	Drawn	Chk'd



client: MR JOHN ROONEY

project: LAND AT THE ORCHARDS, BLAZEGATE, GEDNEY, SPALDING, LINC

dwg title: PERCOLATION TEST LOCATION PLAN

discipline	CIVIL ENGINEERING		drawn RSM	chk'd RSM	date: SEP 2024	scale @ A3 N.T.S
project no. BLI.2024.65	dwg no. SK 100	rev. P1	status. INFORMATION			

BLI Consulting Engineers Ltd
7 Melton Drive
Norwich
Norfolk
NR8 6TT
T: 07918 725 983
richard.martin@bli-consulting.co.uk

Site Level & Drainage Statement

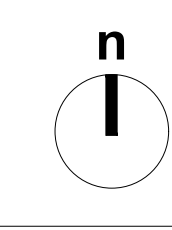
The Orchards, Blazegate, Gedney, Spalding, Lincolnshire

Appendix G

Proposed Surface & Foul Water Drainage Layout/Strategy

DESIGN NOTES

1. Refer to BLI Consulting Engineers Ltd Drawing No. BLI.2024.65-PL-01 for full construction notes.
2. Refer to BLI Consulting Engineers Ltd Drawing No. BLI.2024.65-PL-04 for Manhole & Attenuation Tank Schedules.



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client: MR JOHN ROONEY
project: THE ORCHARDS, BLAZEGATE, GEDNEY, SPALDING, LINCOLNSHIRE
dwg title: **SURFACE & FOUL WATER DRAINAGE LAYOUT (SHHET 1 OF 2)**
discipline: CIVIL ENGINEERING
project no. **BLI.2024.65**
dwg no. **PL 03**
drawn: RSM
chk'd: RSM
date: SEP 2024
scale @ A1: 1:200
rev. P1
status: COMMENT & APPROVAL

BLI Consulting Engineers Ltd
7 Melton Drive
Norwich
Norfolk
NR8 6TT
T: 07918 725 983
richard.martin@bli-consulting.co.uk

P1	19/09/24	First Issue	RSM	RSM
Rev.	Date	Description	Drawn	Chk'd

DESIGN NOTES

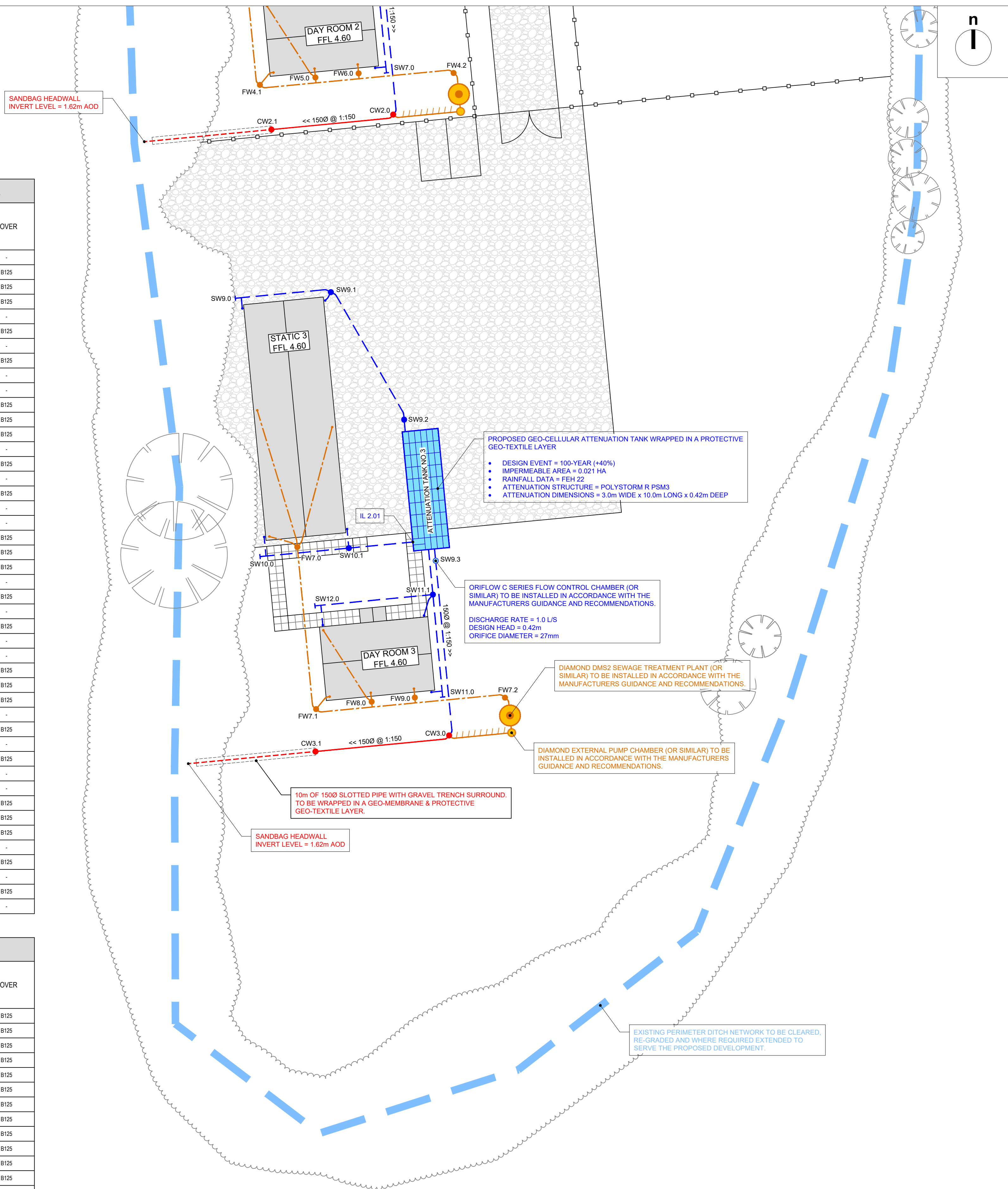
1. Refer to BLI Consulting Engineers Ltd Drawing No. BLI.2024.65-PL-01 for full construction notes.

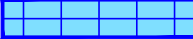
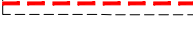
PRIVATE STORM WATER DRAINAGE SCHEDULE					
REF:	APPROX COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH	TYPE	COVER
SW1.0	2.95	2.50	0.450	Rodding Eye	-
SW1.1	3.00	2.41	0.590	3150 Shallow Inspection Chamber	B125
SW1.2	3.03	2.24	0.790	4500 Universal Inspection Chamber	B125
SW1.3	3.05	1.87	1.180	Flow Control Chamber	B125
SW2.0	2.92	2.20	0.720	Rodding Eye	-
SW2.1	2.97	2.10	0.870	4500 Universal Inspection Chamber	B125
SW3.0	3.04	2.54	0.500	Rodding Eye	-
SW3.1	3.04	2.27	0.770	4500 Universal Inspection Chamber	B125
SW4.0	2.97	2.47	0.500	Rodding Eye	-
SW5.0	2.93	2.48	0.450	Rodding Eye	-
SW5.1	2.99	2.39	0.600	3150 Shallow Inspection Chamber	B125
SW5.2	3.03	2.24	0.790	4500 Universal Inspection Chamber	B125
SW5.3	3.03	1.87	1.160	Flow Control Chamber	B125
SW6.0	2.91	2.15	0.760	Rodding Eye	-
SW6.1	2.97	2.07	0.900	4500 Universal Inspection Chamber	B125
SW7.0	3.03	2.53	0.500	Rodding Eye	-
SW7.1	3.03	2.30	0.730	4500 Universal Inspection Chamber	B125
SW8.0	2.94	2.49	0.450	Rodding Eye	-
SW9.0	2.91	2.46	0.450	Rodding Eye	-
SW9.1	2.97	2.37	0.600	3150 Shallow Inspection Chamber	B125
SW9.2	3.02	2.24	0.780	4500 Universal Inspection Chamber	B125
SW9.3	3.03	1.87	1.160	Flow Control Chamber	B125
SW10.0	2.91	2.15	0.760	Rodding Eye	-
SW10.1	2.96	2.07	0.890	4500 Universal Inspection Chamber	B125
SW11.0	3.13	2.63	0.500	Rodding Eye	-
SW11.1	3.07	2.30	0.770	4500 Universal Inspection Chamber	B125
SW12.0	3.00	2.50	0.500	Rodding Eye	-
SW13.0	2.94	2.49	0.450	Rodding Eye	-
SW13.1	3.00	2.40	0.600	3150 Shallow Inspection Chamber	B125
SW13.2	3.04	2.24	0.800	4500 Universal Inspection Chamber	B125
SW13.3	3.04	1.87	1.170	Flow Control Chamber	B125
SW14.0	2.92	2.15	0.770	Rodding Eye	-
SW14.1	2.97	2.07	0.900	4500 Universal Inspection Chamber	B125
SW15.0	3.04	2.54	0.500	Rodding Eye	-
SW15.1	3.04	2.30	0.740	4500 Universal Inspection Chamber	B125
SW16.0	2.95	2.50	0.450	Rodding Eye	-
SW17.0	2.92	2.47	0.450	Rodding Eye	-
SW17.1	2.96	2.38	0.580	3150 Shallow Inspection Chamber	B125
SW17.2	3.01	2.24	0.770	4500 Universal Inspection Chamber	B125
SW17.3	3.04	1.87	1.170	Flow Control Chamber	B125
SW18.0	2.92	2.19	0.730	Rodding Eye	-
SW18.1	2.98	2.09	0.890	4500 Universal Inspection Chamber	B125
SW19.0	3.04	2.54	0.500	Rodding Eye	-
SW19.1	3.04	2.27	0.770	4500 Universal Inspection Chamber	B125
SW20.0	2.97	2.47	0.500	Rodding Eye	-

PRIVATE FOUL WATER DRAINAGE SCHEDULE					
REF:	APPROX COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH	TYPE	COVER
FW1.0	2.95	2.35	0.600	3150 Shallow Inspection Chamber	B125
FW1.1	2.96	2.18	0.780	4500 Universal Inspection Chamber	B125
FW1.2	3.09	1.97	1.120	4500 Universal Inspection Chamber	B125
FW2.0	3.00	2.40	0.600	3150 Shallow Inspection Chamber	B125
FW3.0	3.03	2.43	0.600	3150 Shallow Inspection Chamber	B125
FW4.0	2.92	2.34	0.580	3150 Shallow Inspection Chamber	B125
FW4.1	2.92	2.17	0.750	4500 Universal Inspection Chamber	B125
FW4.2	3.09	1.96	1.130	4500 Universal Inspection Chamber	B125
FW5.0	2.97	2.37	0.600	3150 Shallow Inspection Chamber	B125
FW6.0	3.00	2.40	0.600	3150 Shallow Inspection Chamber	B125
FW7.0	2.93	2.35	0.580	3150 Shallow Inspection Chamber	B125
FW7.1	3.05	2.17	0.880	4500 Universal Inspection Chamber	B125
FW7.2	3.17	1.97	1.200	5000 Non-Entry Inspection Chamber	B125
FW8.0	3.09	2.49	0.600	3150 Shallow Inspection Chamber	B125
FW9.0	3.12	2.52	0.600	3150 Shallow Inspection Chamber	B125
FW10.0	2.93	2.35	0.580	3150 Shallow Inspection Chamber	B125
FW10.1	2.94	2.17	0.770	4500 Universal Inspection Chamber	B125
FW10.2	3.08	1.97	1.110	4500 Universal Inspection Chamber	B125
FW11.0	2.99	2.39	0.600	3150 Shallow Inspection Chamber	B125
FW12.0	3.02	2.42	0.600	3150 Shallow Inspection Chamber	B125
FW13.0	2.96	2.36	0.600	3150 Shallow Inspection Chamber	B125
FW13.1	2.96	2.19	0.770	4500 Universal Inspection Chamber	B125
FW13.2	3.09	1.99	1.100	4500 Universal Inspection Chamber	B125
FW14.0	3.00	2.40	0.600	3150 Shallow Inspection Chamber	B125
FW15.0	3.03	2.43	0.600	3150 Shallow Inspection Chamber	B125

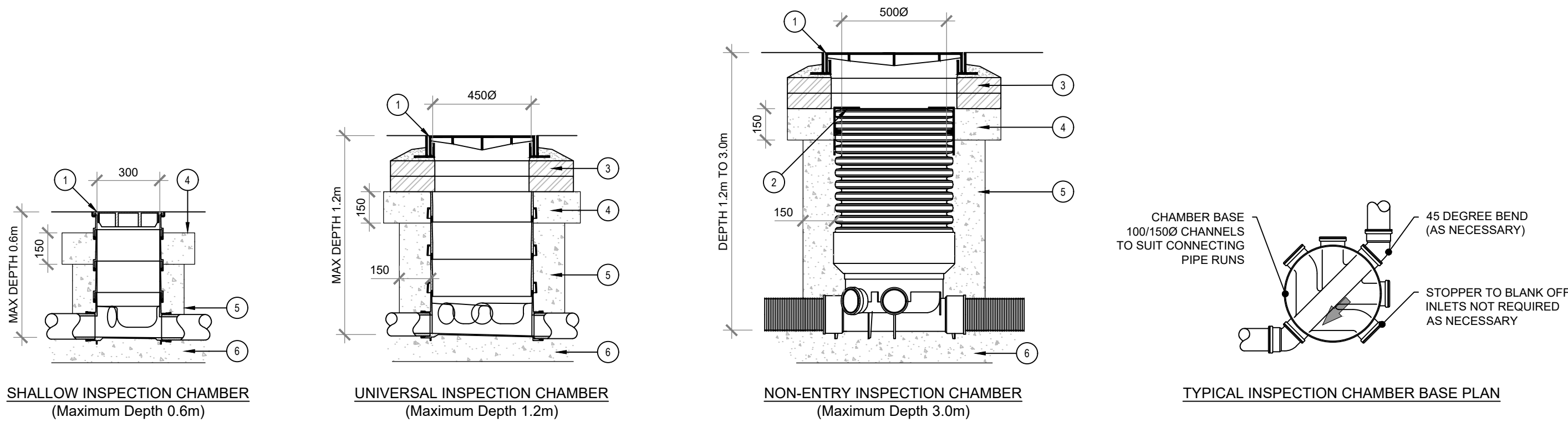
PRIVATE COMBINED WATER DRAINAGE SCHEDULE					
REF:	APPROX COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH	TYPE	COVER
CW1.0	3.04	1.77	1.270	5000 Non-Entry Inspection Chamber	B125
CW1.1	2.95	1.70	1.250	5000 Non-Entry Inspection Chamber	B125
CW2.0	3.04	1.77	1.270	5000 Non-Entry Inspection Chamber	B125
CW2.1	2.95	1.70	1.250	5000 Non-Entry Inspection Chamber	B125
CW3.0	3.14	1.77	1.370	5000 Non-Entry Inspection Chamber	B125
CW3.1	3.06	1.69	1.370	5000 Non-Entry Inspection Chamber	B125
CW4.0	3.05	1.77	1.280	5000 Non-Entry Inspection Chamber	B125
CW4.1	2.95	1.70	1.250	5000 Non-Entry Inspection Chamber	B125
CW5.0	3.04	1.77	1.270	5000 Non-Entry Inspection Chamber	B125
CW5.1	2.96	1.70	1.260	5000 Non-Entry Inspection Chamber	B125

ATTENUATION SCHEDULE											
ATTENUATION TANK REFERENCE	CRATE SPECIFICATION	NO. OF CRATE LAYERS	CRATE DESIGN DEPTH	CRATE DESIGN WIDTH	CRATE DESIGN LENGTH	TOTAL NO. OF CRATES	CRATE BASE LEVEL	TOP OF CRATE LEVEL	MINIMUM GROUND LEVEL	MINIMUM COVER TO CRATE	INCOMING PIPE INVERT LEVEL
NO. 1	POLYSTORM XTRA (PSMS)	2	0.42m	3.0m	10.0m	120	1.90m AOD	2.32m AOD	3.02m AOD	0.7m	2.22m AOD
NO. 2	POLYSTORM XTRA (PSMS)	2	0.42m	3.0m	10.0m	120	1.90m AOD	2.32m AOD	3.02m AOD	0.7m	2.22m AOD
NO. 3	POLYSTORM XTRA (PSMS)	2	0.42m	3.0m	10.0m	120	1.90m AOD	2.32m AOD	3.02m AOD	0.7m	2.22m AOD
NO. 4	POLYSTORM XTRA (PSMS)	2	0.42m	3.0m	10.0m	120	1.90m AOD	2.32m AOD	3.02m AOD	0.7m	2.22m AOD
NO. 5	POLYSTORM XTRA (PSMS)	3	0.42m	3.0m	10.0m	120	1.90m AOD	2.32m AOD	3.02m AOD	0.7m	2.22m AOD

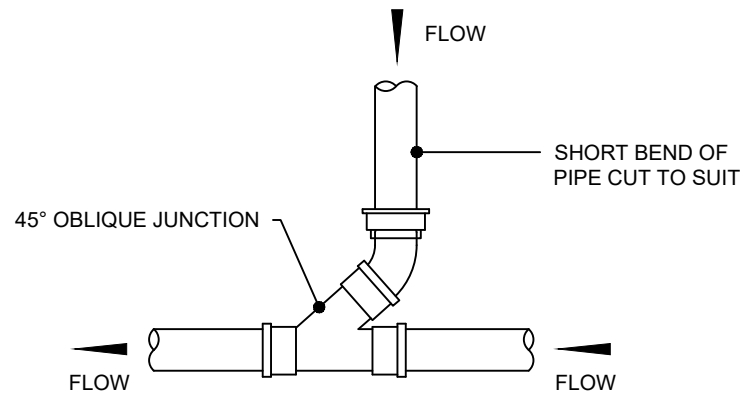
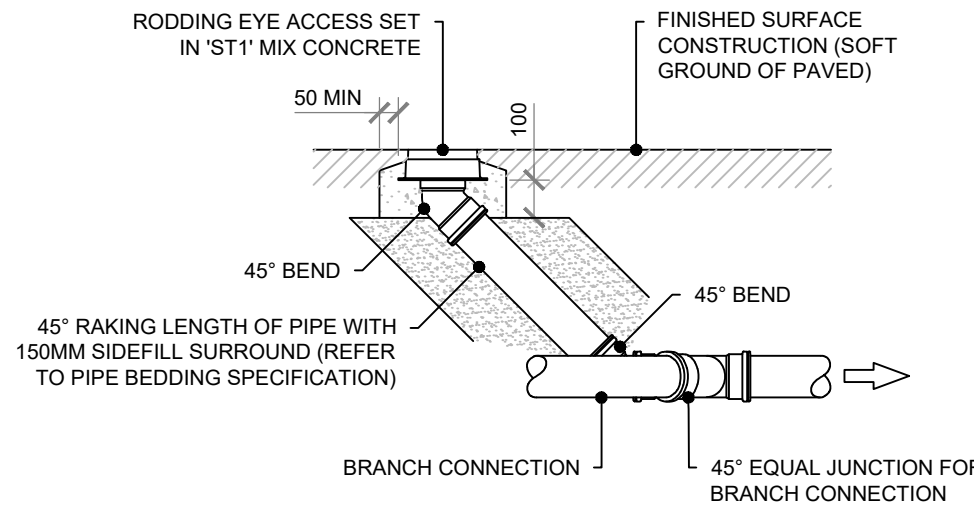
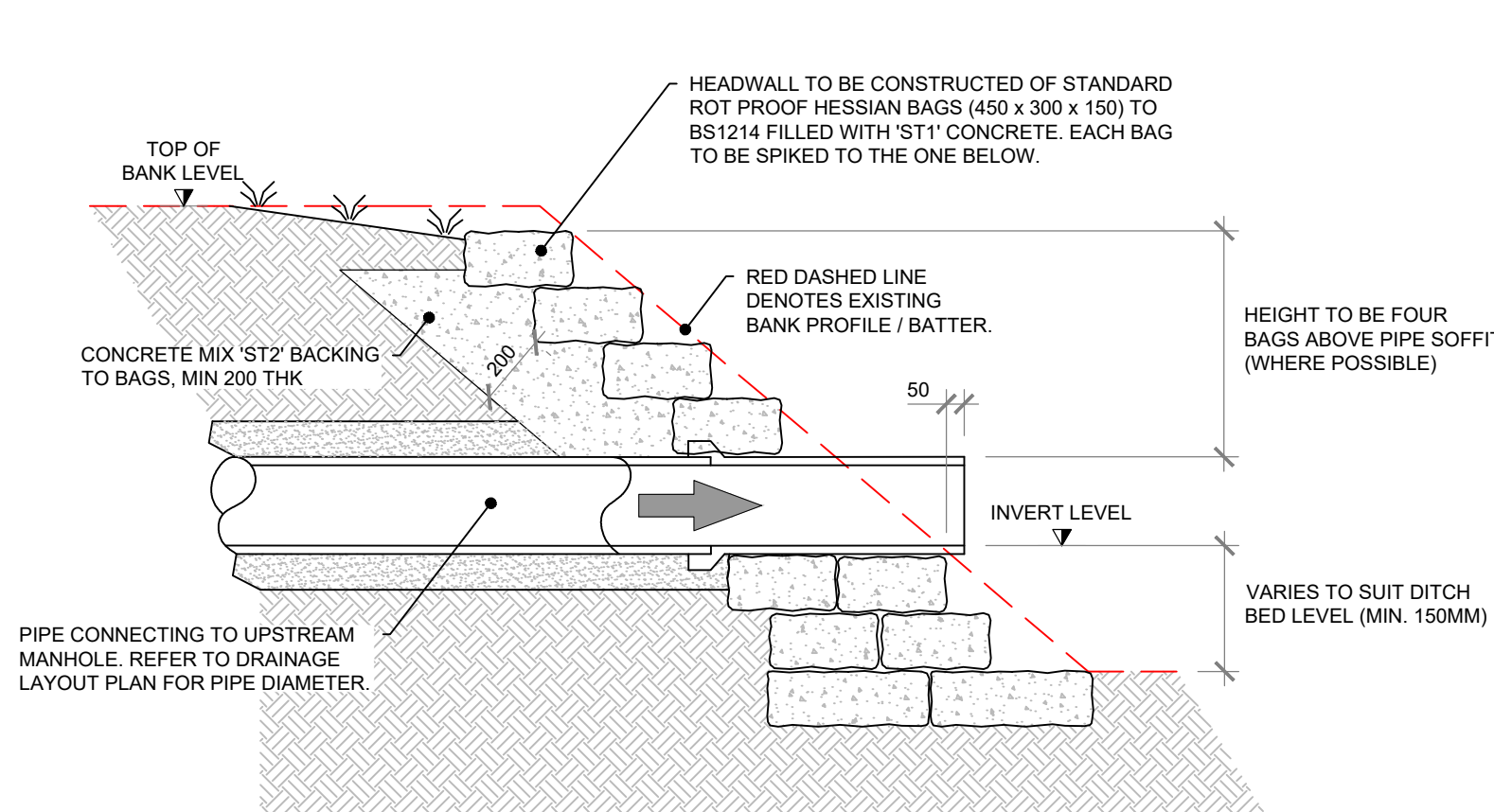
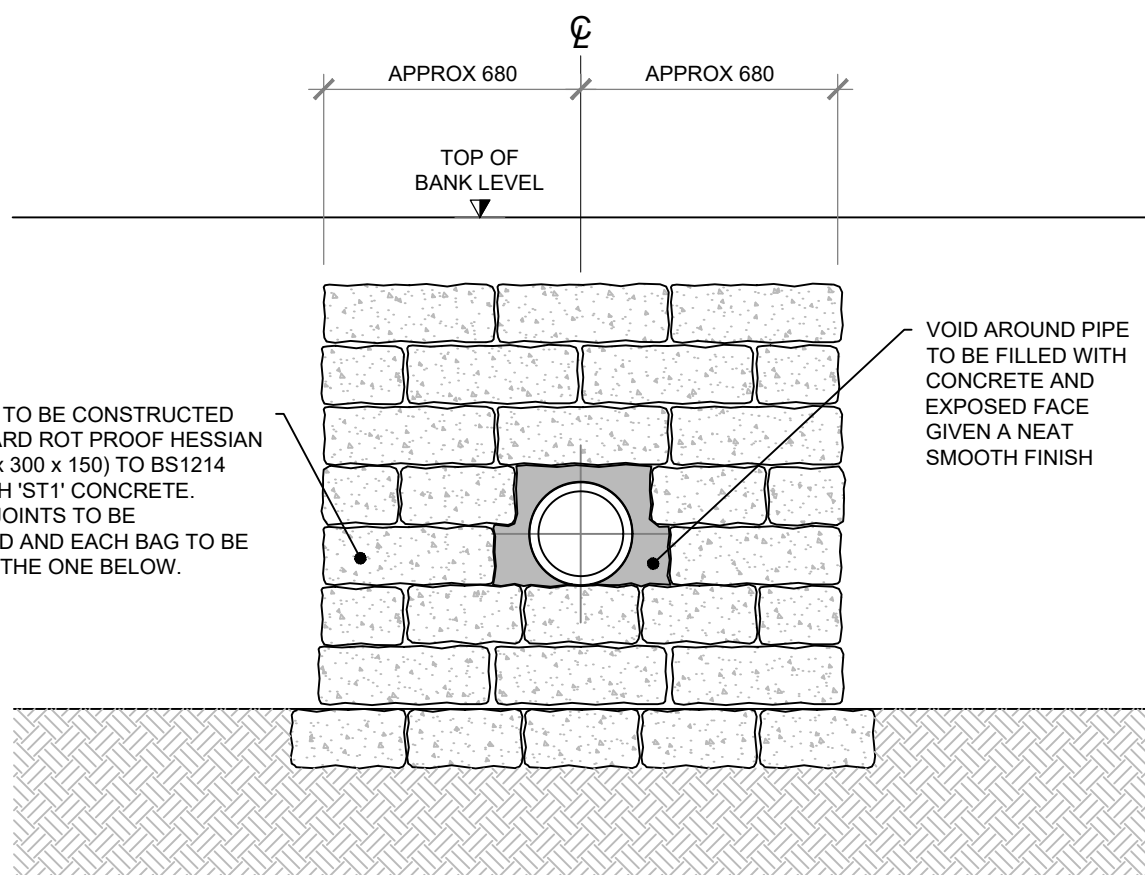


	PROPOSED FOUL WATER OUTLET
	PROPOSED PRIVATE FOUL WATER DRAINAGE NETWORK
	PROPOSED PRIVATE FOUL WATER RISING MAIN
	PROPOSED PRIVATE FOUL WATER INSPECTION CHAMBER
	PROPOSED PRIVATE FOUL WATER SEWAGE TREATMENT PLANT (DIAMOND OR SIMILAR)
	PROPOSED PRIVATE FOUL WATER PUMPING CHAMBER (OR BUILT-IN TO TREATMENT PLANT)
	PROPOSED RAIN WATER PIPE
	PROPOSED PRIVATE SURFACE WATER DRAINAGE NETWORK
	PROPOSED PRIVATE SURFACE WATER RODDING EYE
	PROPOSED PRIVATE SURFACE WATER INSPECTION CHAMBER
	PROPOSED PRIVATE SURFACE WATER FLOW CONTROL CHAMBER (FLOW RESTRICTION = 1.0 L/S)
	PROPOSED GEO-CELLULAR ATTENUATION TANK (DESIGN STORAGE = 100-YEAR (+40%) EVENT)
	PROPOSED PRIVATE COMBINED WATER DRAINAGE NETWORK
	PROPOSED COMBINED WATER OUTFALL (10m OF 1500 SLOTTED PIPE WITH GRAVEL SURROUND)
	PROPOSED PRIVATE SURFACE WATER DRAINAGE NETWORK
	PRIVATE ROAD & DRIVEWAYS COMPRISING OF PERMEABLE GRAVEL CONSTRUCTION

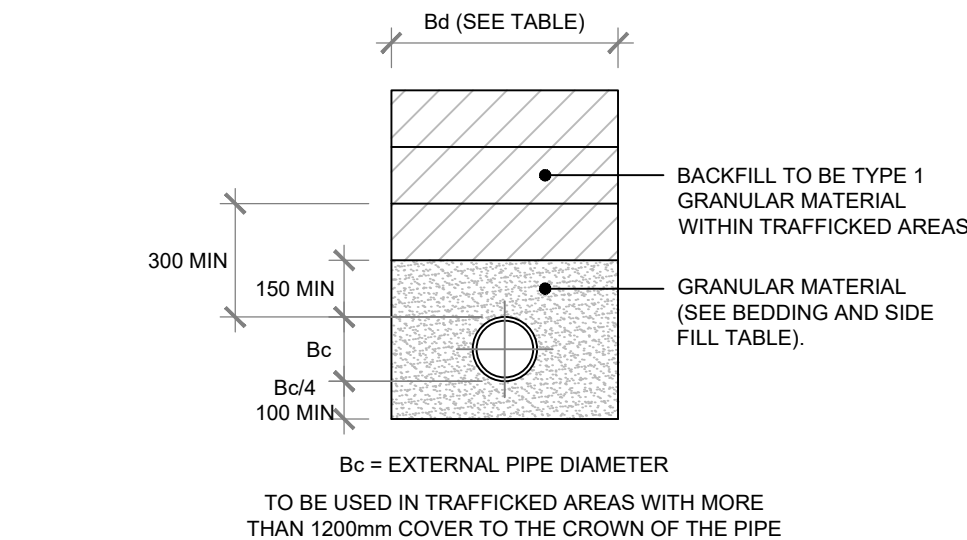
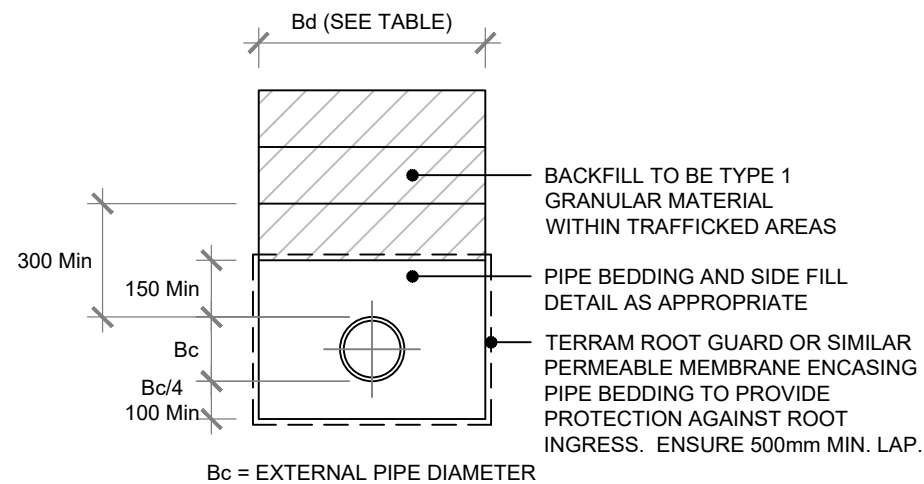
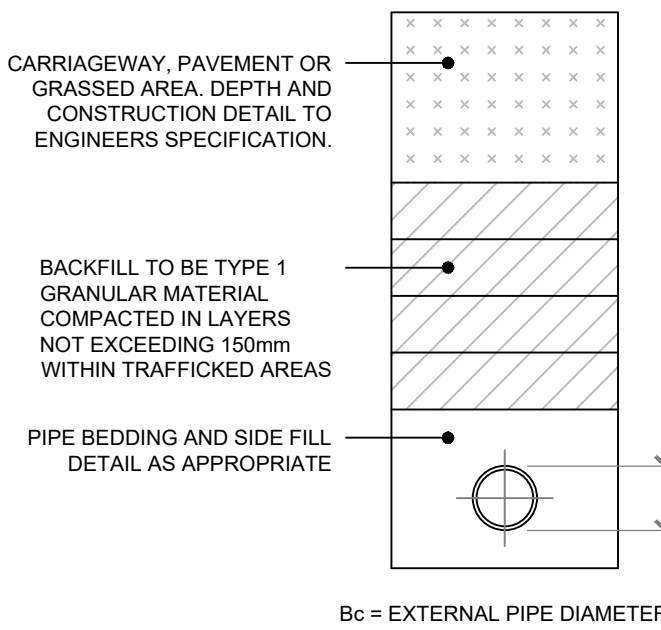
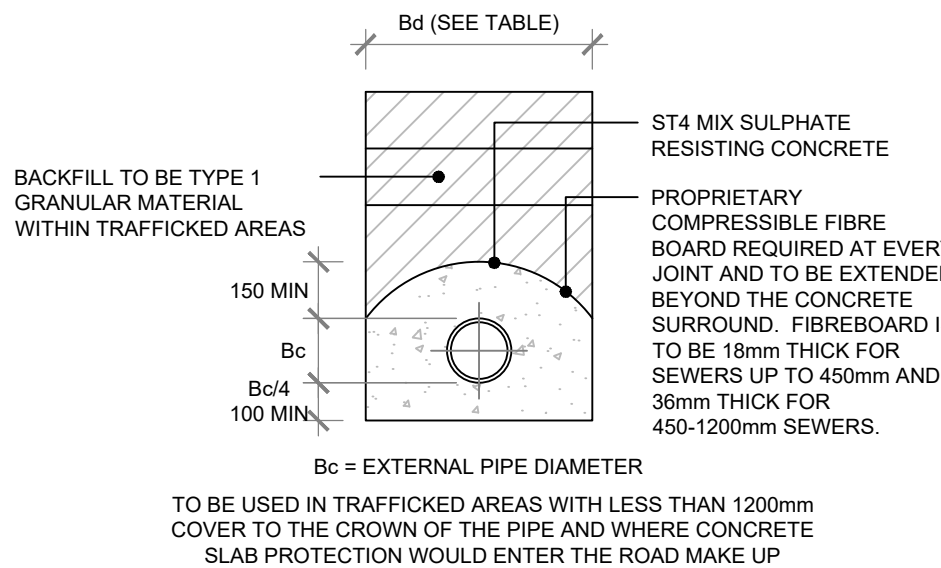
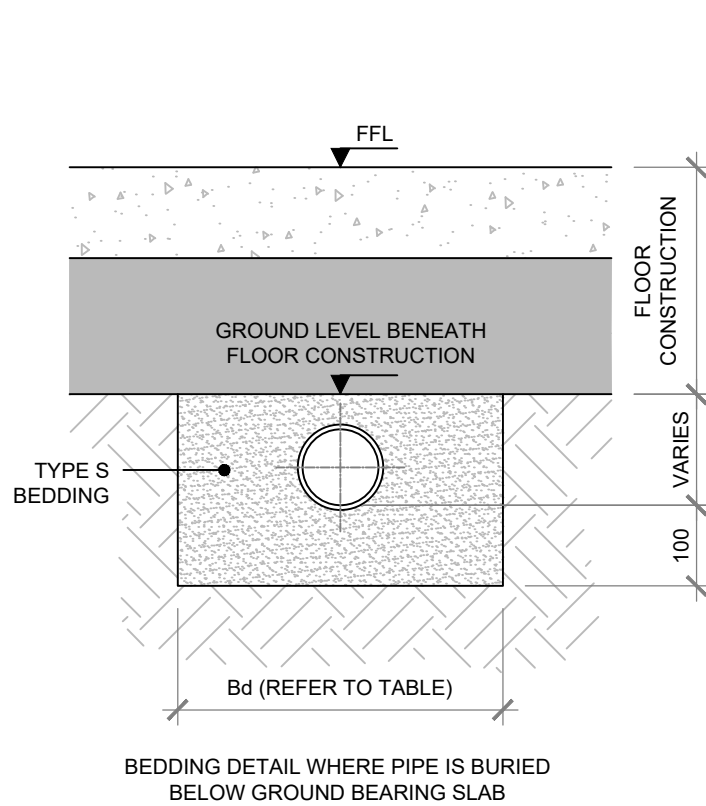
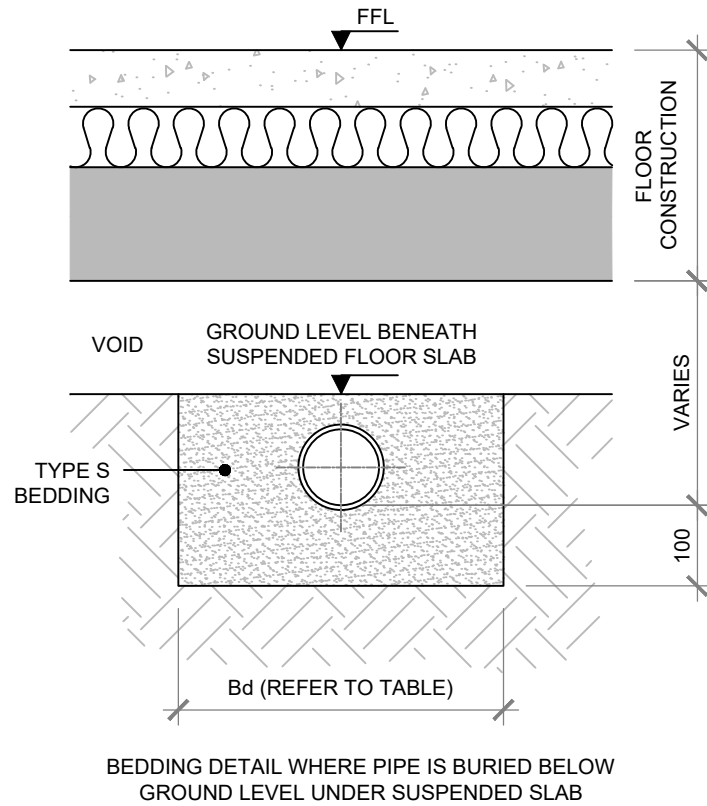
- COVER & FRAME TO BS EN 124 GRADE B125 UNLESS STATE OTHERWISE.
 - FOR DEPTHS GREATER THAN 1.2m, USE RESTRICTOR CAP WITH 350mm OPENING AND SEALING RING
 - TWO COURSES OF ENGINEERING BRICKWORK TO BE USED IN TRAFFICKED AREAS.
 - 150mm DEEP ST2 CONCRETE COLLAR TO MANHOLE COVER AND FRAME TO BE USED IN TRAFFICKED AREAS. WIDTH OF CONCRETE COLLAR VARIES DEPENDING ON COVER INSTALLATION.
 - 150mm ST2 CONCRETE SURROUND IN VEHICULAR AREAS, GRANULAR SURROUND ELSEWHERE.
 - 150mm ST2 CONCRETE BED SURROUND IN VEHICULAR AREAS, GRANULAR SURROUND ELSEWHERE.
- REFER TO MANUFACTURERS (WAVN OSMO OR SIMILAR) INSTALLATION GUIDANCE FOR THE FULL RANGE OF CONSTRUCTION DETAILS, PARTS SPECIFICATIONS AND COVER OPTIONS.



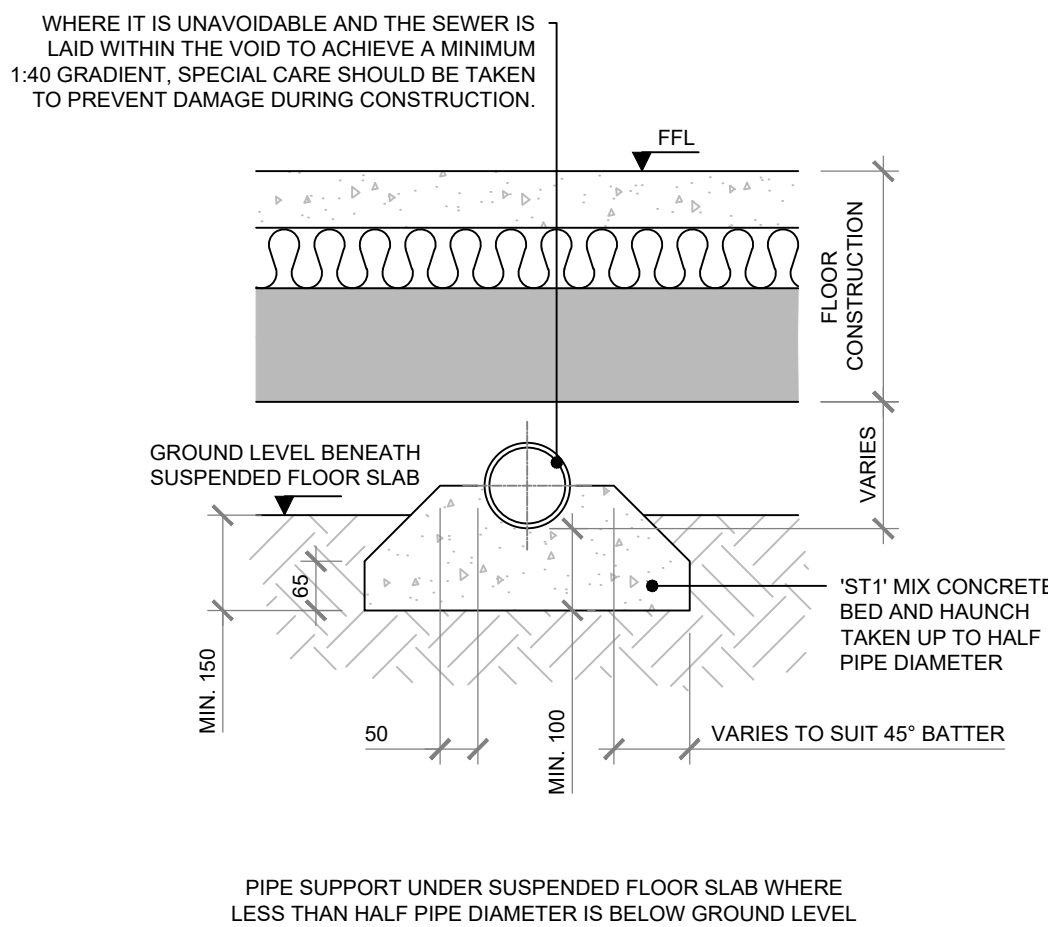
TYPICAL DETAILS FOR INSPECTION CHAMBERS
SCALE NTS



TYPICAL SAND BAG HEADWALL
SCALE 1:20



PIPE BEDDING DETAILS BELOW FLOOR CONSTRUCTION
SCALE 1:10



PIPE DIA (mm)	ALTERNATIVE AGGREGATE SIZES (mm)	
	SINGLE-SIZED	GRADED
100	10	-
150	10 or 14	14 to 5
225 - 300	10, 14 or 20	14 to 5 or 20 to 5
375 - 525	14 or 20	14 to 5 or 20 to 5
>525	14, 20 or 40	14 to 5, 20 to 5 or 40 to 5

GRANULAR PIPE BEDDING AND SIDE FILL MATERIAL SHALL CONSIST OF AGGREGATES FROM NATURAL SOURCES OR SINTERED PULVERIZED-FUEL ASH COMPLYING WITH THE RELEVANT PROVISIONS OF BS 882 AND BS 3787, PART 2 RESPECTIVELY, SIZED IN ACCORDANCE WITH THE TABLE ABOVE.

TYPE S BEDDING AND SIDE FILL TABLE

PIPE DIA (mm)	TRENCH WIDTH Bd(mm) MAX. MEASURE 300mm ABOVE PIPE SOFFIT
100	550
150	600
225	700
300	750
375	1050
450	1150
525	1200
600	1350
675	1450
750	1500
825	1600
900	1900
1000	2000

TRENCH WIDTH TABLE

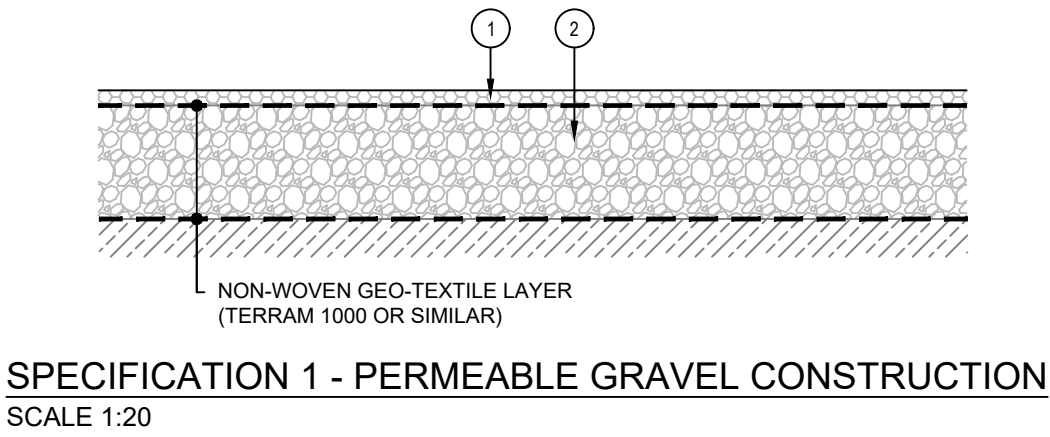
PRIVATE PIPE BEDDING SPECIFICATION
SCALE 1:20

DESIGN NOTES

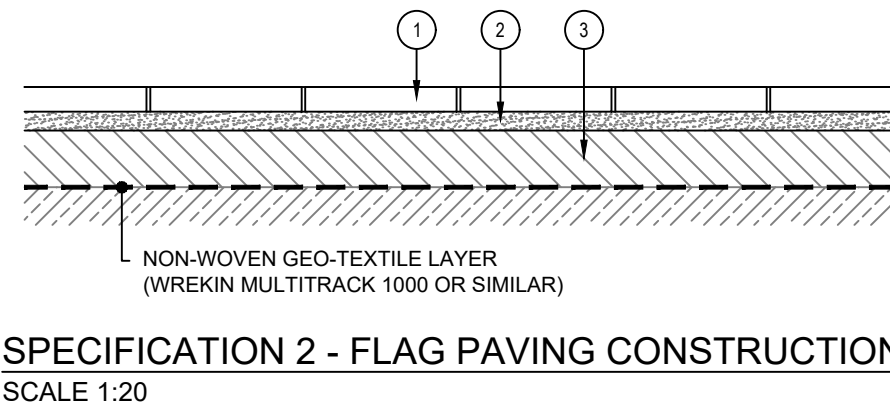
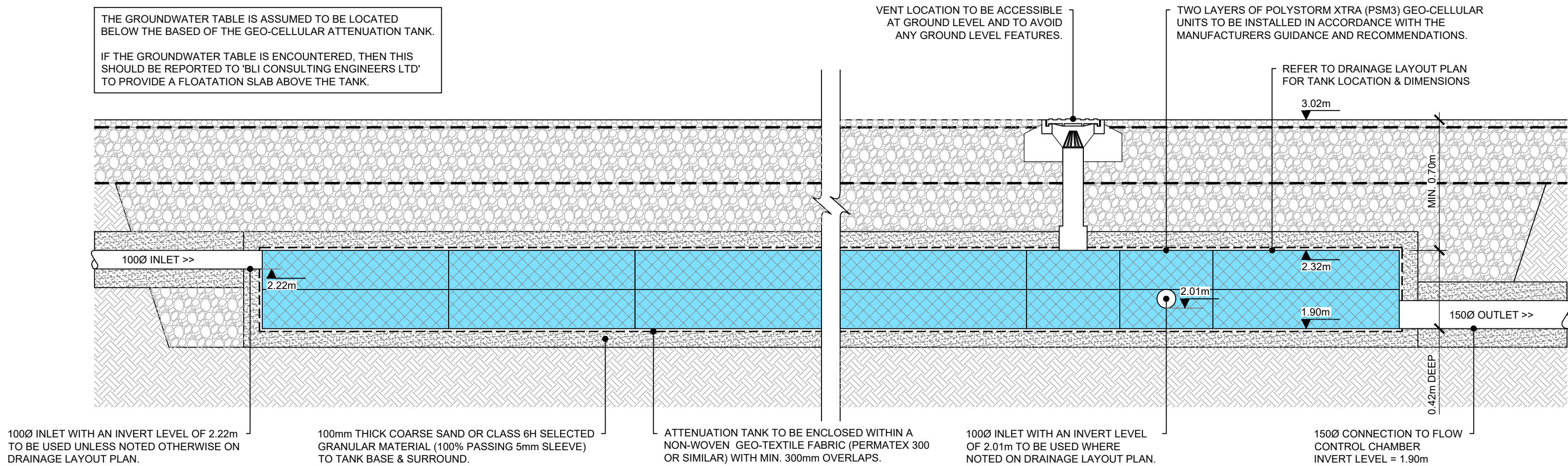
- Refer to BLI Consulting Engineers Ltd Drawing No. BLI.2024.65-PL-01 for full Design Notes.

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Rev.	Date	Description	Drawn	Chk'd

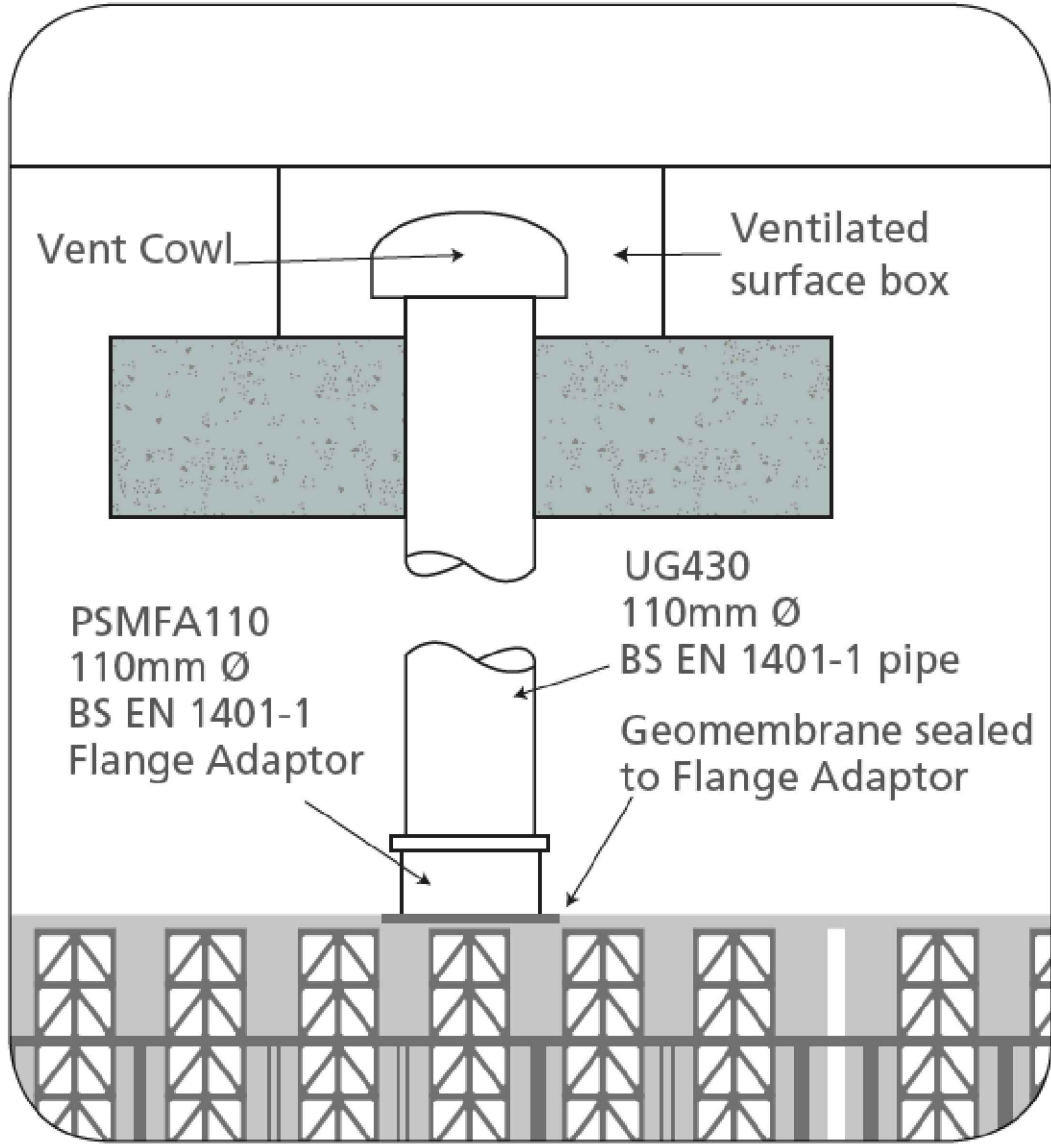
SPECIFICATION 1 - PERMEABLE GRAVEL CONSTRUCTION			
	LAYER	SPECIFICATION	COMPACTED THICKNESS (mm)
PRIVATE ROAD & DRIVEWAYS	1	<u>SURFACE COURSE</u> 20mm NOMINAL SIZE SHARP ANGULAR NATURAL GRAVEL	40
	2	<u>SUB-BASE</u> SUB-BASE COMPRISING OF COURSE GRADED AGGREGATE (4/20) TO BS7533-13:2009, LAID AND COMPACTED OVER A PERMEABLE NON-WOVEN GEO-TEXTILE LAYER (TO BASE AND SIDES). THE FORMATION SHALL BE TREATED WITH A GRANULAR WEED KILLER OF THE PRE-EMERGENT TYPE.	300 (Subject to onsite CBR testing)
	GENERAL FILL	EXTEND SUB-BASE MATERIAL AS REQUIRED.	AS REQUIRED



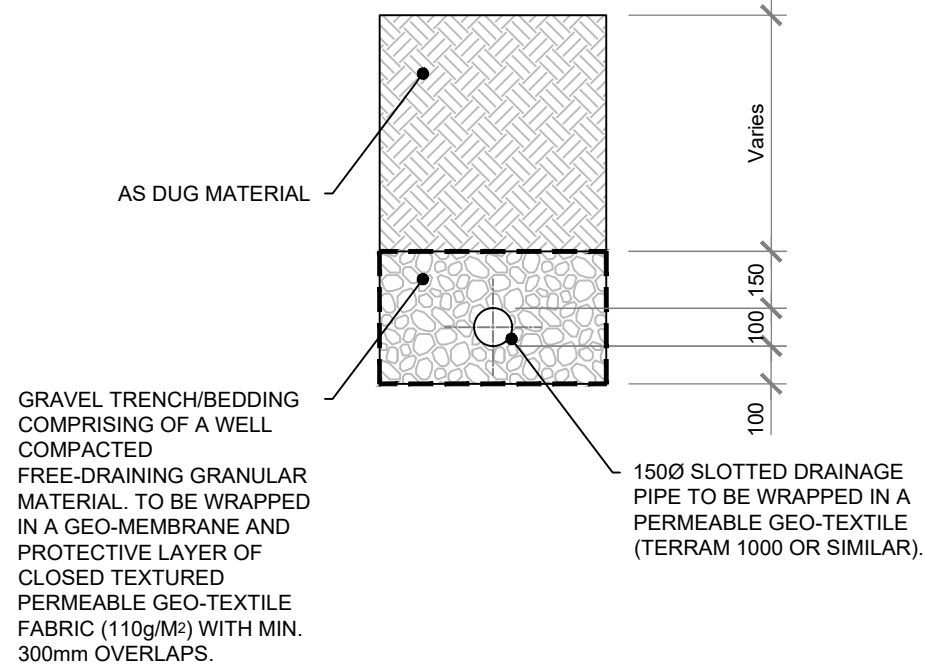
SPECIFICATION 2 - FLAG PAVING CONSTRUCTION			
	LAYER	SPECIFICATION	COMPACTED THICKNESS (mm)
PATIO AREAS & PATHWAYS	1	<u>SURFACE COURSE</u> PAVING SLABS, NARROW JOINTS (2.5mm WIDE) TO BE GROUTED WITH A 1:3 LIME-CEMENT MORTAR. WIDE JOINTS (5-10mm WIDE) TO BE FILLED WITH A 1:4 CEMENT:SAND MORTAR OR SUITABLE ALTERNATIVE. SLAB TYPE AND COLOUR TO BE AGREED WITH ARCHITECT.	MIN. 35
	2	<u>LAYING COURSE</u> PAVING SLABS FULLY BEDDED ON 1:4 CEMENT:/SAND MORTAR OR A SUITABLE ALTERNATIVE.	MIN. 25
	3	<u>SUB-BASE</u> GRANULAR SUB-BASE TYPE 1 TO BE CERTIFIED AS NON-FROST SUSCEPTIBLE AND SPREAD EVENLY OVER A NON-WOVEN GEOTEXTILE FILTER MEMBRANE ON TRIMMED FORMATION IN LAYERS NOT EXCEEDING 150mm COMPACTED THICKNESS. COMPACTION TO SPECIFICATION FOR HIGHWAY WORKS, CLAUSE 802 TO ACHIEVE A MINIMUM CBR VALUE OF 20%.	100
GENERAL FILL		CLASS 1 GRANULAR FILL MATERIAL TO SPECIFICATION FOR HIGHWAY WORKS, TABLE 6/1 AND CLAUSE 613. COMPACTED IN LAYERS IN ACCORDANCE WITH SPECIFICATION FOR HIGHWAY WORKS TABLE 6/4.	AS REQUIRED



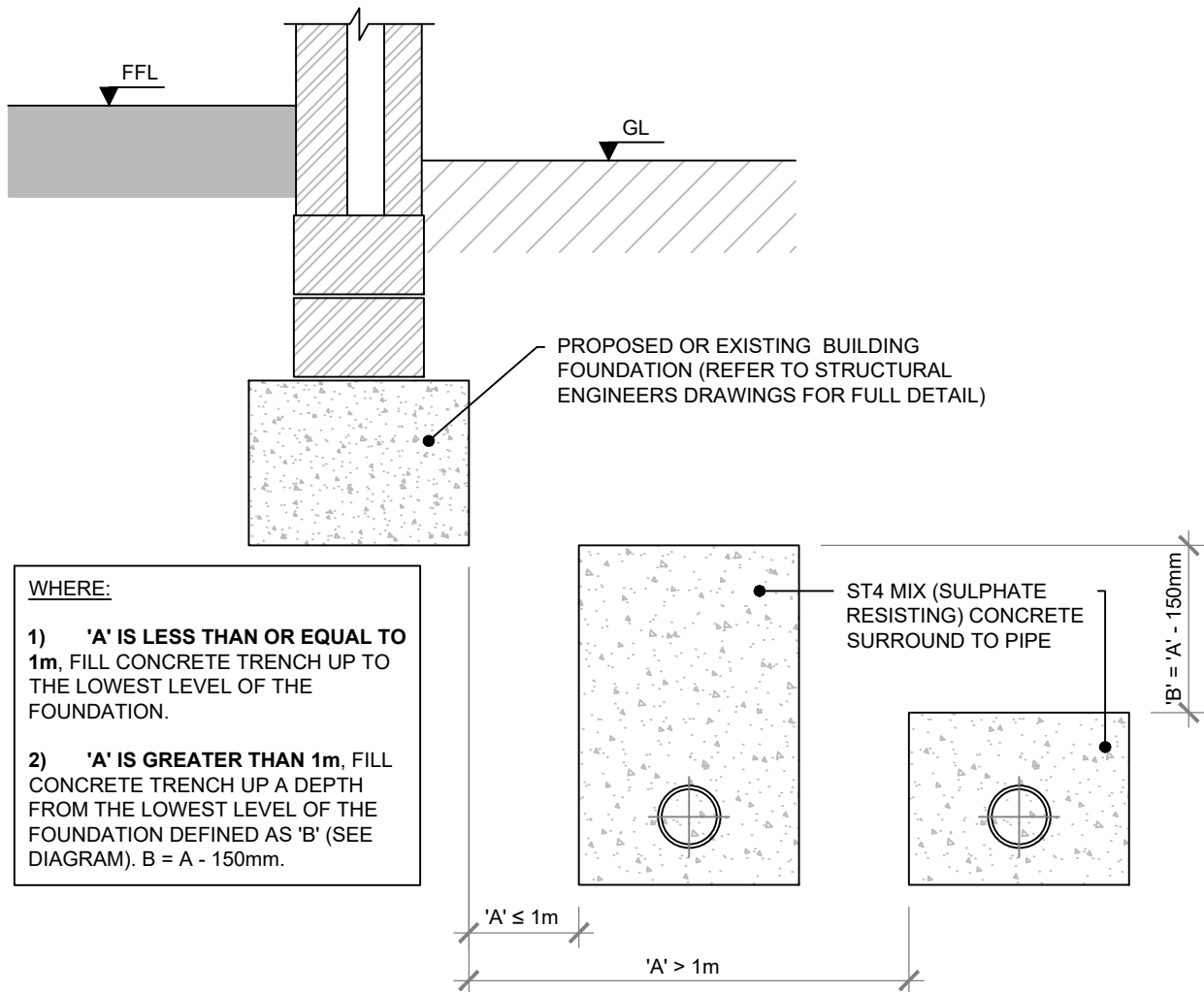
PRIVATE ATTENUATION TANK - TYPICAL SECTION DETAIL
SCALE 1:20



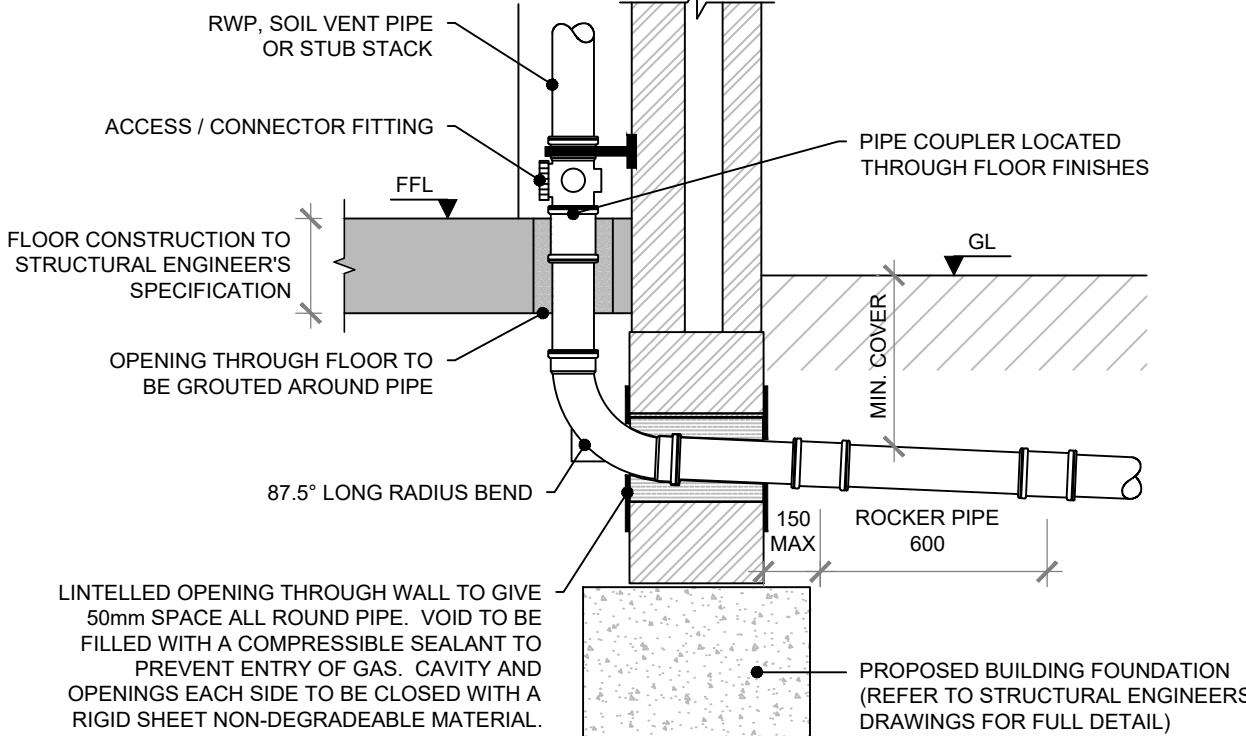
TYPICAL POLYSTORM VENT DETAIL
SCALE NTS



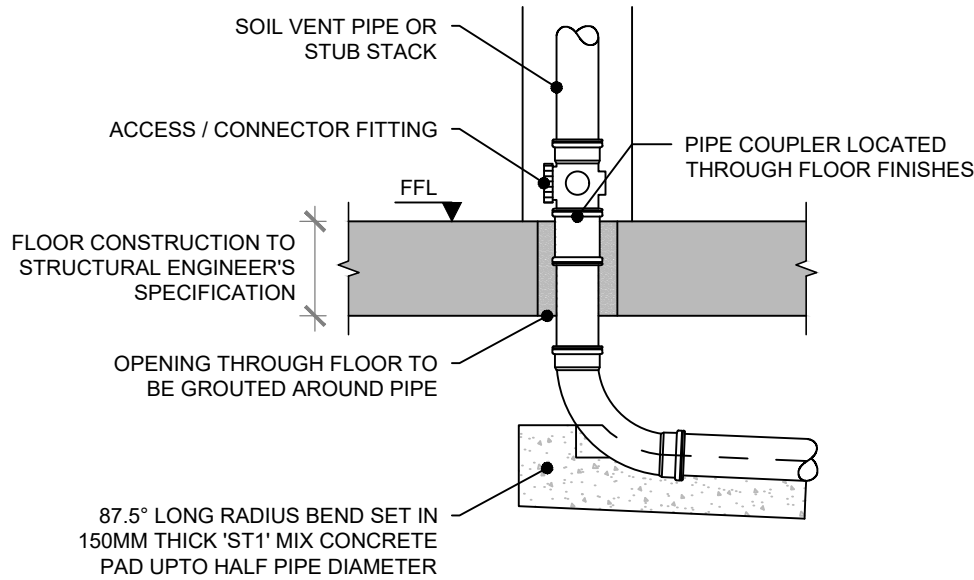
GRAVEL TRENCH DETAIL - DITCH OUTFALL PIPE
SCALE 1:20



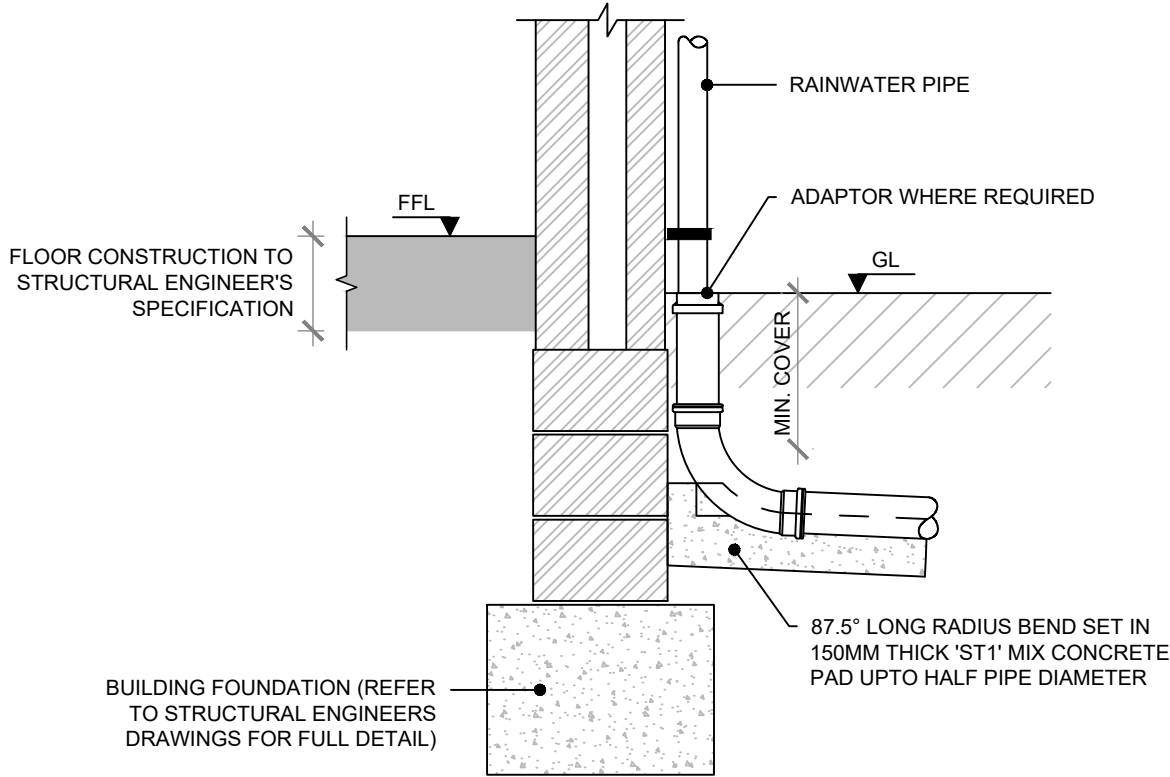
PIPE PROTECTION IN CLOSE PROXIMITY TO FOUNDATIONS
SCALE 1:20



TYPICAL INTERNAL RAINWATER PIPE & SOIL VENT PIPE CONNECTION
SCALE 1:20



TYPICAL CONNECTION TO INTERNAL SOIL VENT PIPE
SCALE 1:20



TYPICAL CONNECTION TO EXTERNAL RAINWATER PIPE
SCALE 1:20

Site Level & Drainage Statement

The Orchards, Blazegate, Gedney, Spalding, Lincolnshire

Appendix H

Flow Control Chamber (Oriflo)

MODEL: **OFCC450**

Flow Control Chamber for use with 110/160mm EN 1401 & 150/225mm twinwall pipework

OVERVIEW

The ORIFLO OFCC450 is classed as a protected orifice plate - flow control chamber. Designed to support SuDS management and the sewer infrastructure, as part of a designed attenuation system, helping prevent flooding by controlling the flow into the main sewer.

APPLICATION

Designed to be installed downstream of larger attenuation systems, ie. tank and oversized pipe systems, forming the final part of the SuDS chain.

DESCRIPTION

450 diameter, single piece - factory built units, delivered to site ready to install. Integrally there is a unique SILTBLOK filter and debris barrier. The barrier protects the orifice plate from blockage, as well as protecting the downstream watercourse. All units feature an impact resistant, twinwall body, with a choice of inlet pipe diameters from 110mm EN 1401 to 225mm twinwall. The standard outlet pipe is 150mm twinwall, which has a removable orifice plate fitted internally, however other pipework sizes are available using supplied adaptors -110/160mm EN 1401 & 225mm twinwall. Further inlets are available on request and with a choice of positions from 120° to 240° (As shown in plan view below). The number of extra inlets will be dependant on size of pipe and orientation.

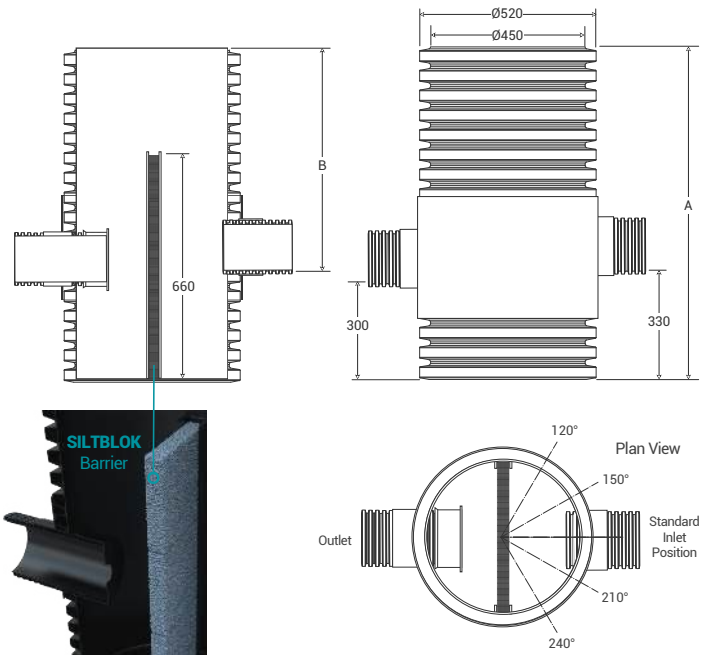
COMPLIANCE

- Design & Construction Guidance - April 2020. Section C7.12 - Flow Control Device
- Building Regulations - Part H1
- New DCG (Design and Construction Guidance) states; In Adoptable applications, this type of flow control device, is designed with a minimum 50mm orifice diameter

Orifice plates can be changed easily if different orifice size is required

FEATURES & BENEFITS

- Single piece unit delivered ready to install, reducing installation time and costs
- Robust, chemical resistant- twinwall body
- Offers significant onsite savings against PCC and other traditional construction methods, as they need no construction or wet trades
- Eliminates wastage associated with in-situ construction
- Various pipework options available
- Available in three depths
- Unique SILTBLOK filter and debris barrier - manufactured from 100% recycled plastic
- Removable Orifice Plate
- Orifice Plate can be changed easily and extremely cost effectively, should the hydraulics and flow rates change due to future development
- Optional - Circular or Square Access Cover, which has a 350mm diameter restricted access to comply with DCG (Design and Construction Guidance)
- Access shafts can be trimmed to suit required invert
- Can be installed in granular backfill
- 60 year Design Life
- Manufactured in the UK

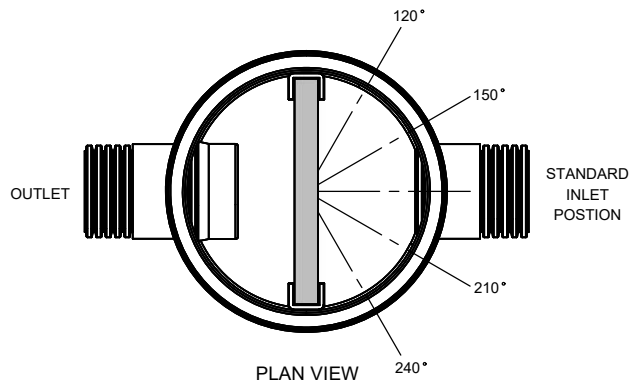
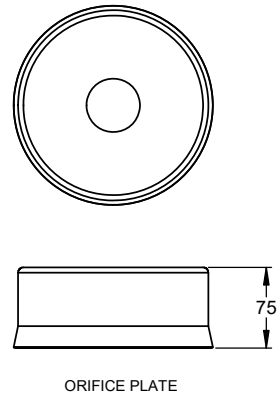
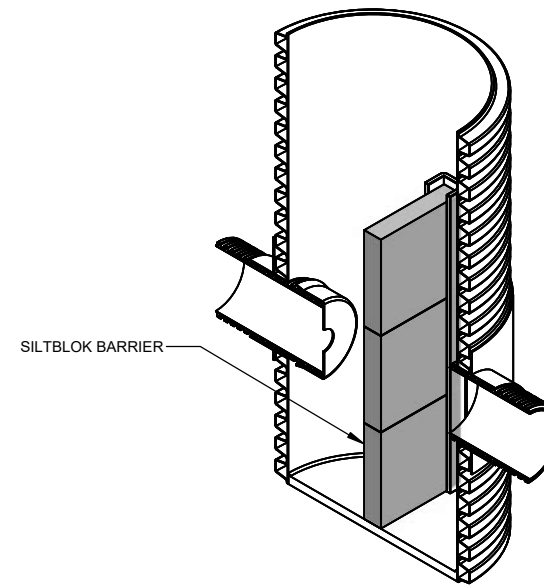
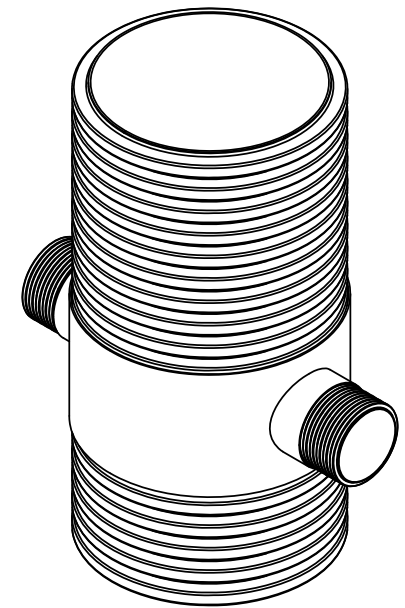
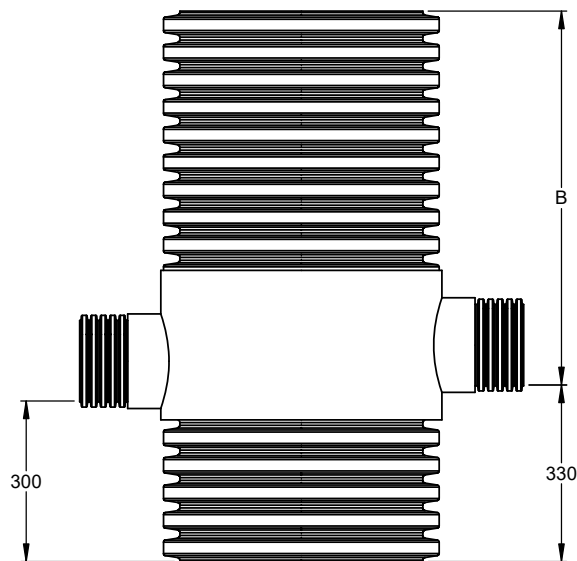
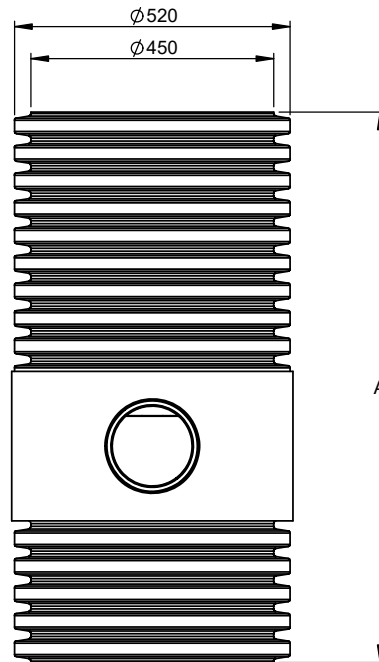
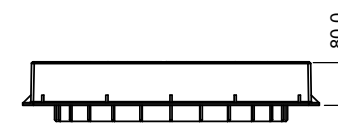
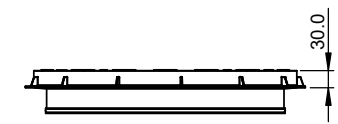
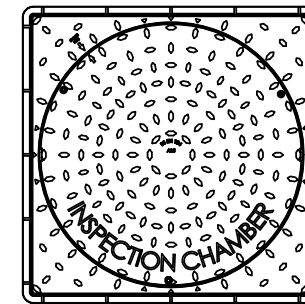
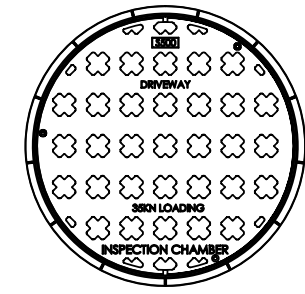


Product Code	Standard Outlet Ø mm	Outlet pipework options Ø mm	Inlet pipe Options Ø mm	Depth A mm	Inlet Invert B mm	Approx. Weight kg
OFCC450/1	150 twinwall	110/160 EN 1401 225 twinwall	110/160 EN 1401 150/225 twinwall	1030	700	20
OFCC450/1.5	150 twinwall	110/160 EN 1401 225 twinwall	110/160 EN 1401 150/225 twinwall	1545	1215	25
OFCC450/2*	150 twinwall	110/160 EN 1401 225 twinwall	110/160 EN 1401 150/225 twinwall	1957	1627	30

Please Note: The orifice plates in OFCC450/2 suffixed * can be removed but not if restricted access cap or cover is fitted



.. To calculate the specific orifice diameter from a prescribed restricted flow rate, you can use the flow rate calculator on our website: www.turtleenviro.co.uk/oriflo



ACCESS COVER OPTIONS

PRODUCT CODE	OUTLET PIPEWORK Ø mm	OPTIONAL INLETS Ø mm	OVERALL DEPTH A mm	INVERT INLET B mm	APPROX. WEIGHT KG
OFCC450/1	110 - 225	110 - 225	1030	700	20
OFCC450/1.5	110 - 225	110 - 225	1545	1215	25
OFCC450/2	110 - 225	110 - 225	1957	1627	30



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DRAWN BY A.T	CONTRACT			
DRAWN DATE 10/05/2021				
APPROVED BY D.A	PRODUCT DESCRIPTION C SERIES - ORIFLO OFCC450			
APPROVED DATE 10/05/2021				
APPROVED DATE 10/05/2021	SCALE: 1:10	SHEET/SIZE	A3	REV: A

Appendix I

Surface Water Design Calculations

Contents

Pages 1 – 4	Attenuation Tank - 2-Year (+40%) Simulation Results & Model Details
Pages 5 – 8	Attenuation Tank - 30-Year (+40%) Simulation Results & Model Details
Pages 9 – 12	Attenuation Tank - 100-Year (+40%) Simulation Results & Model Details

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Causeway	Source Control 2020.1.3	

Summary of Results for 2 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m³)	Status
15 min Summer	1.065	0.065	0.3	1.9	O K
30 min Summer	1.079	0.079	0.4	2.2	O K
60 min Summer	1.086	0.086	0.4	2.4	O K
120 min Summer	1.104	0.104	0.5	3.0	O K
180 min Summer	1.108	0.108	0.5	3.1	O K
240 min Summer	1.107	0.107	0.5	3.1	O K
360 min Summer	1.101	0.101	0.5	2.9	O K
480 min Summer	1.093	0.093	0.4	2.6	O K
600 min Summer	1.085	0.085	0.4	2.4	O K
720 min Summer	1.078	0.078	0.4	2.2	O K
960 min Summer	1.066	0.066	0.3	1.9	O K
1440 min Summer	1.051	0.051	0.3	1.5	O K
2160 min Summer	1.039	0.039	0.2	1.1	O K
2880 min Summer	1.034	0.034	0.2	1.0	O K
4320 min Summer	1.029	0.029	0.2	0.8	O K
5760 min Summer	1.025	0.025	0.1	0.7	O K
15 min Winter	1.073	0.073	0.4	2.1	O K
30 min Winter	1.089	0.089	0.4	2.5	O K
60 min Winter	1.097	0.097	0.4	2.8	O K
120 min Winter	1.115	0.115	0.5	3.3	O K
180 min Winter	1.118	0.118	0.5	3.4	O K
240 min Winter	1.115	0.115	0.5	3.3	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	51.917	0.0	2.0	17
30 min Summer	33.479	0.0	2.6	31
60 min Summer	20.499	0.0	3.2	50
120 min Summer	14.228	0.0	4.5	84
180 min Summer	11.052	0.0	5.2	118
240 min Summer	9.100	0.0	5.7	154
360 min Summer	6.783	0.0	6.4	220
480 min Summer	5.435	0.0	6.8	284
600 min Summer	4.552	0.0	7.1	348
720 min Summer	3.930	0.0	7.4	410
960 min Summer	3.110	0.0	7.8	530
1440 min Summer	2.226	0.0	8.4	768
2160 min Summer	1.602	0.0	9.1	1124
2880 min Summer	1.277	0.0	9.6	1472
4320 min Summer	0.942	0.0	10.7	2204
5760 min Summer	0.769	0.0	11.6	2936
15 min Winter	51.917	0.0	2.3	17
30 min Winter	33.479	0.0	2.9	31
60 min Winter	20.499	0.0	3.6	56
120 min Winter	14.228	0.0	5.0	90
180 min Winter	11.052	0.0	5.8	128
240 min Winter	9.100	0.0	6.4	164

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Summary of Results for 2 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m³)	Status
360 min Winter	1.104	0.104	0.5	3.0	O K
480 min Winter	1.092	0.092	0.4	2.6	O K
600 min Winter	1.081	0.081	0.4	2.3	O K
720 min Winter	1.072	0.072	0.4	2.1	O K
960 min Winter	1.058	0.058	0.3	1.7	O K
1440 min Winter	1.042	0.042	0.3	1.2	O K
2160 min Winter	1.033	0.033	0.2	0.9	O K
2880 min Winter	1.029	0.029	0.2	0.8	O K
4320 min Winter	1.024	0.024	0.1	0.7	O K
5760 min Winter	1.021	0.021	0.1	0.6	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
360 min Winter	6.783	0.0	7.2	234
480 min Winter	5.435	0.0	7.6	302
600 min Winter	4.552	0.0	8.0	366
720 min Winter	3.930	0.0	8.3	428
960 min Winter	3.110	0.0	8.8	550
1440 min Winter	2.226	0.0	9.4	780
2160 min Winter	1.602	0.0	10.2	1124
2880 min Winter	1.277	0.0	10.8	1472
4320 min Winter	0.942	0.0	11.9	2244
5760 min Winter	0.769	0.0	13.0	2984

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Causeway	Source Control 2020.1.3	

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	2	Cv (Summer)	0.750
FEH Rainfall Version	2013	Cv (Winter)	0.840
Site Location	GB 541899 324499 TF 41899 24499	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	5760
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.021

Time (mins)	Area
From: To:	(ha)

0	4	0.021
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Model Details

Storage is Online Cover Level (m) 1.420

Tank or Pond Structure

Invert Level (m) 1.000

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	28.5	0.420	28.5

Orifice Outflow Control

Diameter (m) 0.027 Discharge Coefficient 0.600 Invert Level (m) 1.000

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Causeway	Source Control 2020.1.3	

Summary of Results for 30 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m³)	Status
15 min Summer	1.177	0.177	0.6	5.0	O K
30 min Summer	1.221	0.221	0.7	6.3	O K
60 min Summer	1.251	0.251	0.7	7.2	O K
120 min Summer	1.264	0.264	0.8	7.5	O K
180 min Summer	1.263	0.263	0.8	7.5	O K
240 min Summer	1.258	0.258	0.8	7.3	O K
360 min Summer	1.241	0.241	0.7	6.9	O K
480 min Summer	1.223	0.223	0.7	6.3	O K
600 min Summer	1.205	0.205	0.7	5.9	O K
720 min Summer	1.190	0.190	0.6	5.4	O K
960 min Summer	1.163	0.163	0.6	4.7	O K
1440 min Summer	1.125	0.125	0.5	3.6	O K
2160 min Summer	1.090	0.090	0.4	2.6	O K
2880 min Summer	1.070	0.070	0.4	2.0	O K
4320 min Summer	1.048	0.048	0.3	1.4	O K
5760 min Summer	1.038	0.038	0.2	1.1	O K
15 min Winter	1.199	0.199	0.7	5.7	O K
30 min Winter	1.249	0.249	0.7	7.1	O K
60 min Winter	1.285	0.285	0.8	8.1	O K
120 min Winter	1.298	0.298	0.8	8.5	O K
180 min Winter	1.295	0.295	0.8	8.4	O K
240 min Winter	1.286	0.286	0.8	8.1	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	137.312	0.0	5.4	18
30 min Summer	89.740	0.0	7.0	32
60 min Summer	55.776	0.0	8.8	60
120 min Summer	33.768	0.0	10.6	94
180 min Summer	24.859	0.0	11.7	126
240 min Summer	19.898	0.0	12.5	160
360 min Summer	14.422	0.0	13.6	230
480 min Summer	11.415	0.0	14.4	296
600 min Summer	9.498	0.0	14.9	362
720 min Summer	8.161	0.0	15.4	426
960 min Summer	6.410	0.0	16.1	552
1440 min Summer	4.542	0.0	17.1	796
2160 min Summer	3.209	0.0	18.2	1152
2880 min Summer	2.511	0.0	19.0	1504
4320 min Summer	1.783	0.0	20.2	2208
5760 min Summer	1.406	0.0	21.3	2936
15 min Winter	137.312	0.0	6.0	18
30 min Winter	89.740	0.0	7.9	32
60 min Winter	55.776	0.0	9.8	60
120 min Winter	33.768	0.0	11.9	98
180 min Winter	24.859	0.0	13.1	136
240 min Winter	19.898	0.0	14.0	174

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Summary of Results for 30 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m³)	Status
360 min Winter	1.260	0.260	0.8	7.4	O K
480 min Winter	1.234	0.234	0.7	6.7	O K
600 min Winter	1.210	0.210	0.7	6.0	O K
720 min Winter	1.188	0.188	0.6	5.4	O K
960 min Winter	1.154	0.154	0.6	4.4	O K
1440 min Winter	1.108	0.108	0.5	3.1	O K
2160 min Winter	1.071	0.071	0.4	2.0	O K
2880 min Winter	1.052	0.052	0.3	1.5	O K
4320 min Winter	1.036	0.036	0.2	1.0	O K
5760 min Winter	1.031	0.031	0.2	0.9	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
360 min Winter	14.422	0.0	15.2	248
480 min Winter	11.415	0.0	16.1	318
600 min Winter	9.498	0.0	16.7	386
720 min Winter	8.161	0.0	17.3	450
960 min Winter	6.410	0.0	18.1	578
1440 min Winter	4.542	0.0	19.2	824
2160 min Winter	3.209	0.0	20.4	1188
2880 min Winter	2.511	0.0	21.2	1528
4320 min Winter	1.783	0.0	22.6	2180
5760 min Winter	1.406	0.0	23.8	2936

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Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	30	Cv (Summer)	0.750
FEH Rainfall Version	2013	Cv (Winter)	0.840
Site Location	GB 541899 324499 TF 41899 24499	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	5760
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.021

Time (mins)	Area
From: To:	(ha)

0	4	0.021
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Causeway	Source Control 2020.1.3	

Model Details

Storage is Online Cover Level (m) 1.420

Tank or Pond Structure

Invert Level (m) 1.000

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	28.5	0.420	28.5

Orifice Outflow Control

Diameter (m) 0.027 Discharge Coefficient 0.600 Invert Level (m) 1.000

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Causeway	Source Control 2020.1.3	

Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m³)	Status
15 min Summer	1.232	0.232	0.7	6.6	O K
30 min Summer	1.293	0.293	0.8	8.3	O K
60 min Summer	1.340	0.340	0.9	9.7	O K
120 min Summer	1.350	0.350	0.9	10.0	O K
180 min Summer	1.349	0.349	0.9	9.9	O K
240 min Summer	1.343	0.343	0.9	9.8	O K
360 min Summer	1.325	0.325	0.8	9.3	O K
480 min Summer	1.306	0.306	0.8	8.7	O K
600 min Summer	1.287	0.287	0.8	8.2	O K
720 min Summer	1.269	0.269	0.8	7.7	O K
960 min Summer	1.237	0.237	0.7	6.8	O K
1440 min Summer	1.187	0.187	0.6	5.3	O K
2160 min Summer	1.137	0.137	0.5	3.9	O K
2880 min Summer	1.105	0.105	0.5	3.0	O K
4320 min Summer	1.069	0.069	0.4	2.0	O K
5760 min Summer	1.051	0.051	0.3	1.4	O K
15 min Winter	1.261	0.261	0.8	7.4	O K
30 min Winter	1.330	0.330	0.9	9.4	O K
60 min Winter	1.385	0.385	0.9	11.0	O K
120 min Winter	1.397	0.397	0.9	11.3	O K
180 min Winter	1.393	0.393	0.9	11.2	O K
240 min Winter	1.383	0.383	0.9	10.9	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	179.032	0.0	7.0	18
30 min Summer	117.544	0.0	9.2	32
60 min Summer	73.822	0.0	11.6	60
120 min Summer	43.701	0.0	13.7	98
180 min Summer	31.971	0.0	15.1	130
240 min Summer	25.568	0.0	16.1	164
360 min Summer	18.632	0.0	17.6	232
480 min Summer	14.861	0.0	18.7	300
600 min Summer	12.452	0.0	19.6	368
720 min Summer	10.766	0.0	20.3	434
960 min Summer	8.541	0.0	21.5	560
1440 min Summer	6.115	0.0	23.1	808
2160 min Summer	4.329	0.0	24.5	1168
2880 min Summer	3.371	0.0	25.5	1528
4320 min Summer	2.352	0.0	26.6	2248
5760 min Summer	1.822	0.0	27.5	2944
15 min Winter	179.032	0.0	7.9	18
30 min Winter	117.544	0.0	10.3	32
60 min Winter	73.822	0.0	13.0	60
120 min Winter	43.701	0.0	15.4	110
180 min Winter	31.971	0.0	16.9	138
240 min Winter	25.568	0.0	18.0	176

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File M100+CC_Attenuation Design_Rev...	Checked by RSM	
Causeway	Source Control 2020.1.3	

Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m³)	Status
360 min Winter	1.356	0.356	0.9	10.1	O K
480 min Winter	1.326	0.326	0.9	9.3	O K
600 min Winter	1.299	0.299	0.8	8.5	O K
720 min Winter	1.273	0.273	0.8	7.8	O K
960 min Winter	1.230	0.230	0.7	6.6	O K
1440 min Winter	1.168	0.168	0.6	4.8	O K
2160 min Winter	1.111	0.111	0.5	3.2	O K
2880 min Winter	1.079	0.079	0.4	2.3	O K
4320 min Winter	1.048	0.048	0.3	1.4	O K
5760 min Winter	1.037	0.037	0.2	1.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
360 min Winter	18.632	0.0	19.7	252
480 min Winter	14.861	0.0	20.9	324
600 min Winter	12.452	0.0	21.9	392
720 min Winter	10.766	0.0	22.8	460
960 min Winter	8.541	0.0	24.1	590
1440 min Winter	6.115	0.0	25.9	838
2160 min Winter	4.329	0.0	27.5	1208
2880 min Winter	3.371	0.0	28.5	1556
4320 min Winter	2.352	0.0	29.8	2248
5760 min Winter	1.822	0.0	30.8	2936

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Norwich Norfolk .	The Orchards, Blazegate Gedney, Spalding Lincolnshire	
Date 19/09/2024	Designed by RSM	
File M100+CC_Attenuation Design_Rev...	Checked by RSM	
Causeway	Source Control 2020.1.3	

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.750
FEH Rainfall Version	2013	Cv (Winter)	0.840
Site Location	GB 541899 324499 TF 41899 24499	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	5760
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.021

Time (mins)		Area
From:	To:	(ha)
0	4	0.021

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Norwich Norfolk .	The Orchards, Blazegate Gedney, Spalding Lincolnshire	
Date 19/09/2024 File M100+CC_Attenuation Design_Rev...	Designed by RSM Checked by RSM	
Causeway	Source Control 2020.1.3	

Model Details

Storage is Online Cover Level (m) 1.420

Tank or Pond Structure

Invert Level (m) 1.000

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	28.5	0.420	28.5

Orifice Outflow Control

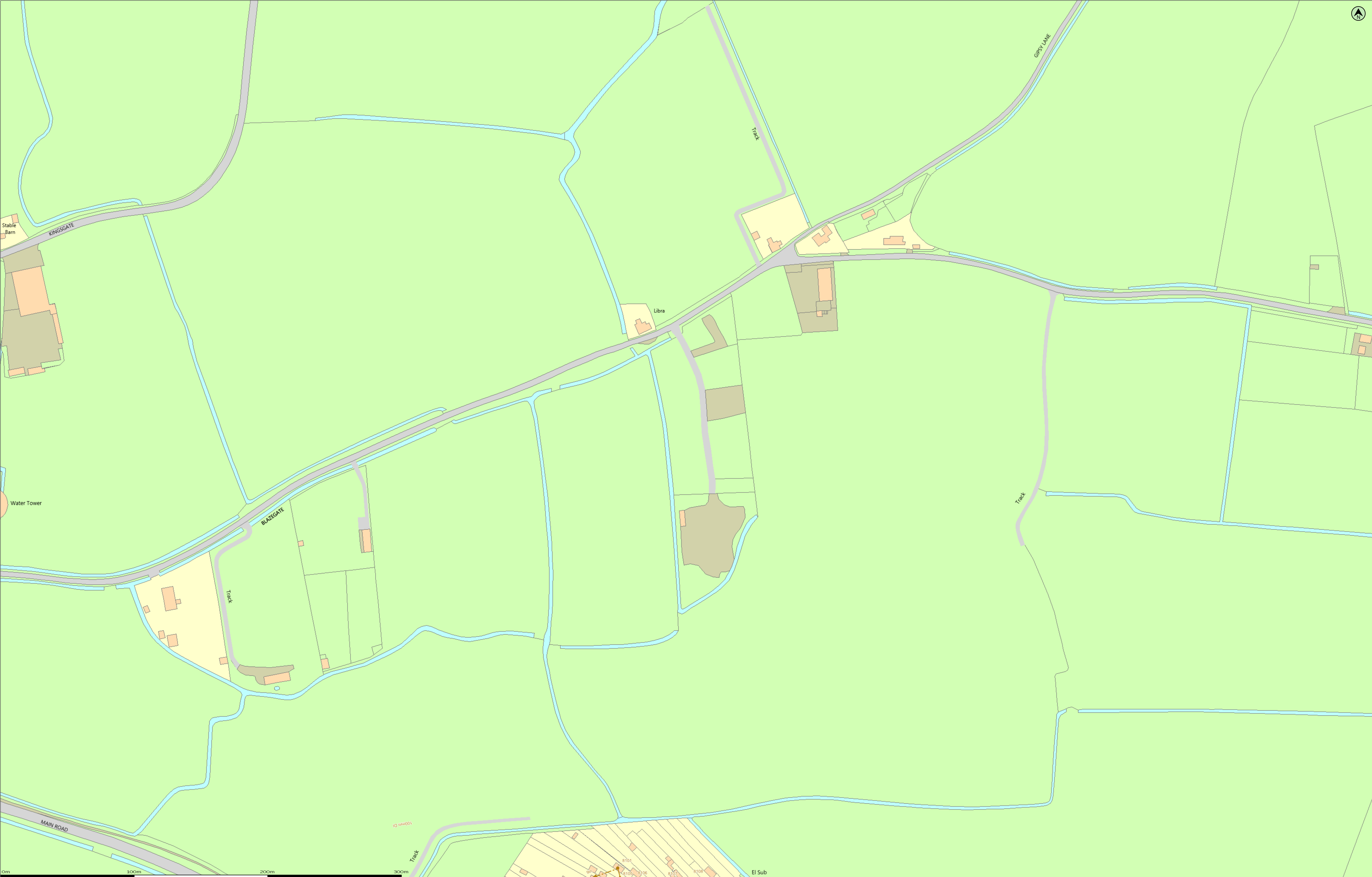
Diameter (m) 0.027 Discharge Coefficient 0.600 Invert Level (m) 1.000

Site Level & Drainage Statement

The Orchards, Blazegate, Gedney, Spalding, Lincolnshire

Appendix J

Anglian Water Asset Map



This plan is provided by Anglian Water pursuant to its obligations under the Water Industry Act 1991, sections 198 or 199. It must be used in conjunction with any search results attached. The information on this plan is based on data currently recorded but position must be regarded as approximate. Service pipes, private sewers and drains are generally not shown. Users of this map are strongly advised to commission their own survey of the area shown on the plan before carrying out any works. The actual position of all apparatus MUST be established by trial holes. No liability whatsoever, including liability for negligence, is accepted by Anglian Water for any error or inaccuracy or omission, including the failure to accurately record, or record at all, the location of any water main, discharge pipe, sewer or disposal main or any item of apparatus. This information is valid for the date printed. This plan is produced by Anglian Water Services Limited (c) Crown copyright and database rights 2024 Ordnance Survey 100022432. This map is to be used for the purposes of viewing the location of Anglian Water plant only. Any other uses of the map data or further copies is not permitted. This notice is not intended to exclude or restrict liability for death or personal injury resulting from negligence.

Foul Sewer	— — — — —	Outfall*
Surface Sewer	— — — — —	
Combined Sewer	— — — — —	
Final Effluent	— — — — —	Inlet*
Rising Main*	— — — — —	
Private Sewer*	— — — — —	Manhole*
Decommissioned Sewer*	— — — — —	

⊕ Sewage Treatment Works

⊖ Public Pumping Station

● Decommissioned Pumping Station

(Colour denotes effluent type)

rmartin.civils@gmail.com
BLAZEGATE

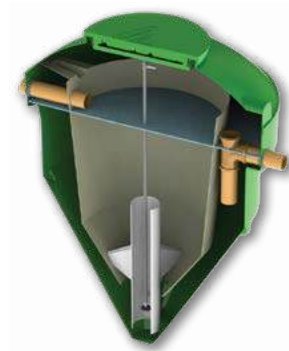


Site Level & Drainage Statement

The Orchards, Blazegate, Gedney, Spalding, Lincolnshire

Appendix K

Diamond DMS Brochure (Sewage Treatment Plants)



DIAMOND

SIMPLE, RELIABLE & DISCREET

Compact wastewater treatment plant



25
YEAR

WARRANTY

Our Diamond Range

Environmentally compliant

Our Diamond (formerly WPL Diamond) small packaged wastewater treatment range is suitable for domestic and commercial properties in all ground conditions where mains drainage is unavailable.

British design and build

Our patented Diamond not only gives you the highest quality process on the market, but also provides you with a discreet, efficient and cost-effective solution for the longevity of the plant. This is achieved through our continued commitment to improve product design, development and manufacturing processes; backed by our commitment to engineering excellence.

Trusted network

Our trusted network of independent experts can offer professional advice on project specifications, compliance and guidelines; whilst providing installation, service and maintenance.





Our Promise



Low maintenance and long-term value:

- **25 years tank warranty -**
and 2 years warranty on the blowers (housed in the kiosk)*.
- **Longer emptying cycles (up to 3 years desludge) -**
due to our highly efficient aeration process which breaks down organic matter at a reduced sludge growth rate.
- **No internal electrical or mechanical moving parts -**
inside the tank, offering minimal maintenance compared to other processes on the market which are prone to breaking down.



Compliant - meeting standards and codes of practice:

- **Discharge -**
of final effluent into a drainage field or watercourse.
- **Fully tested, accredited and certified -**
under European Standard BS EN12566-3 2014 approval which allows a CE mark.
- **Meets consent standards -**
of 20mg/L BOD; 30mg/L SS; 20mg/L NH₄ as a minimum.
- **Part H2 UK -**
of building regulations.
- **Designed using the British Water Code of Practice Flows and Loads -**
to ensure that the tank is correctly sized.
- **Additional published test results:***
 - total 'P' mean average removal 52%, mean concentration 3.8mg/L
 - total 'N' mean average removal 52.2%, mean concentration 25mg/L

*The above figures are taken from the Diamond EN 12566-3 test report covering 38 weeks in PIA GmbH, a European accredited test facility



Discreet

- **Our plant is odourless -**
so you won't even know it's there!*
- **Flushest lids to the ground -**
creating perfect integration in to the landscape.
- **Compact in design -**
keeps the excavation to a minimum and installation simple.
- **Range of invert depths -**
for complicated sites, allowing more discharge options.

*subject to correct installation, consistent influent conditions and regular plant maintenance as per the manufacturers' instructions

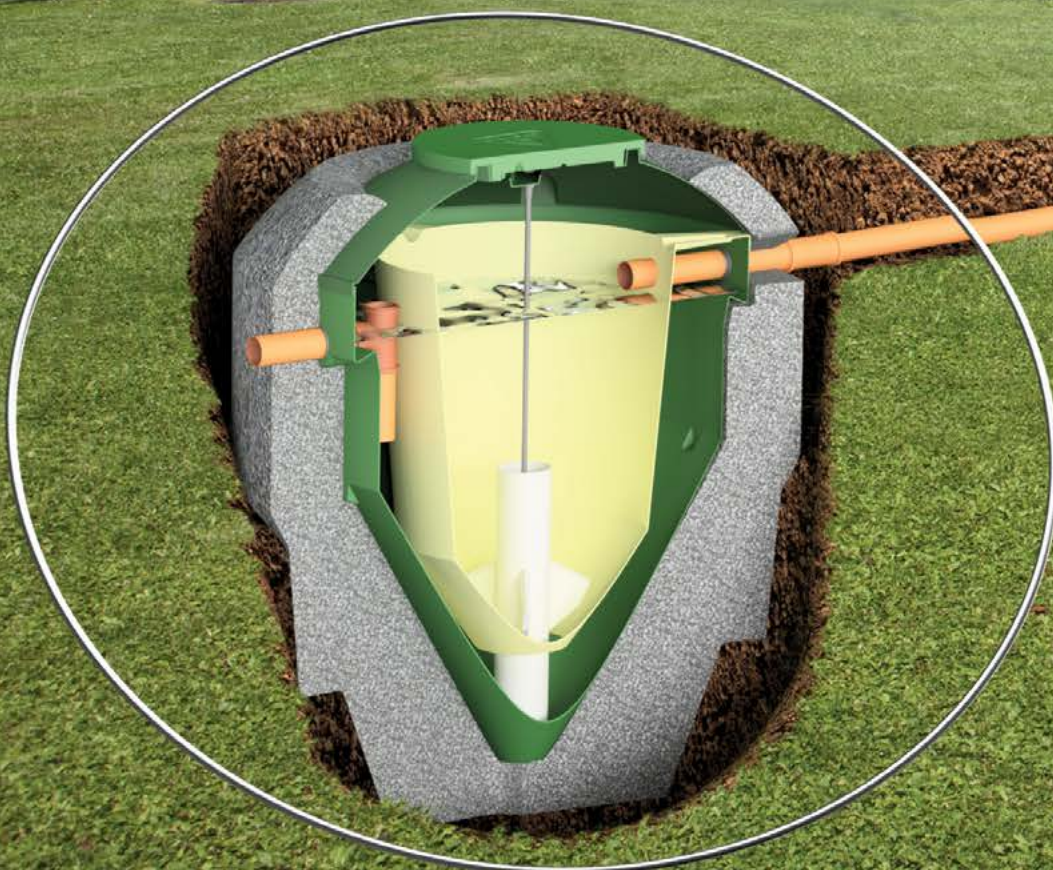
Planning

Please ensure all necessary permissions have been granted and due consideration has been given to:

- Planning permission, building regulations, and other regulating or interested parties.
- Sizing of the plant is in line with the British Water Flows and Loads codes of practice.

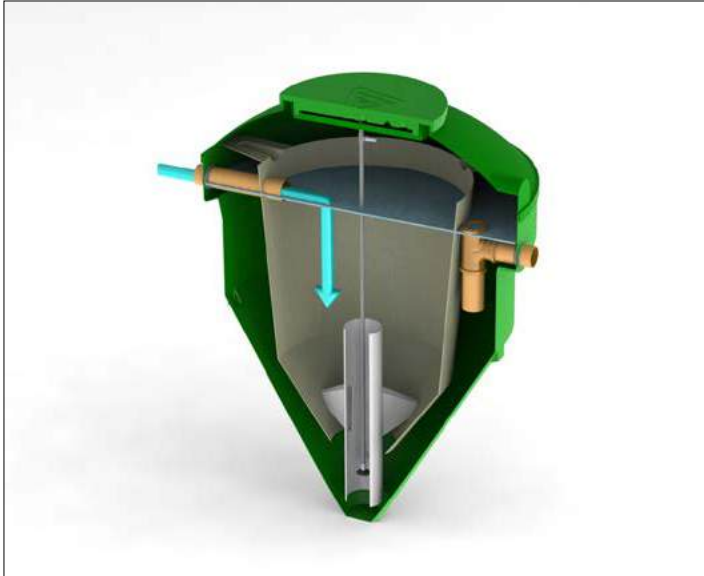
Discharging to a watercourse

If your septic tank is discharging to a watercourse for example a river or a stream, you now need to consider an alternative option such as a package treatment plant, which treats sewage to a higher standard. Please visit your local environmental protection agency such as the Environment Agency (England), Natural Resources Wales requirements or SEPA (Scotland) for guidance.



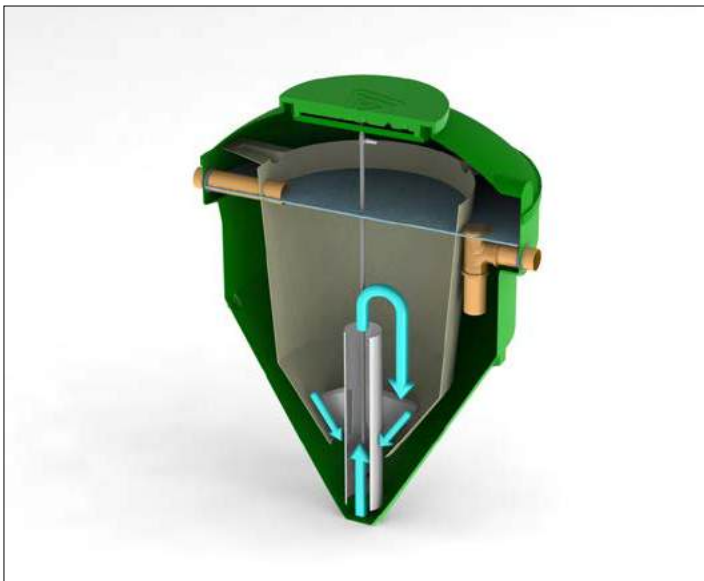
Diamond illustration not to scale

Simple and reliable operation

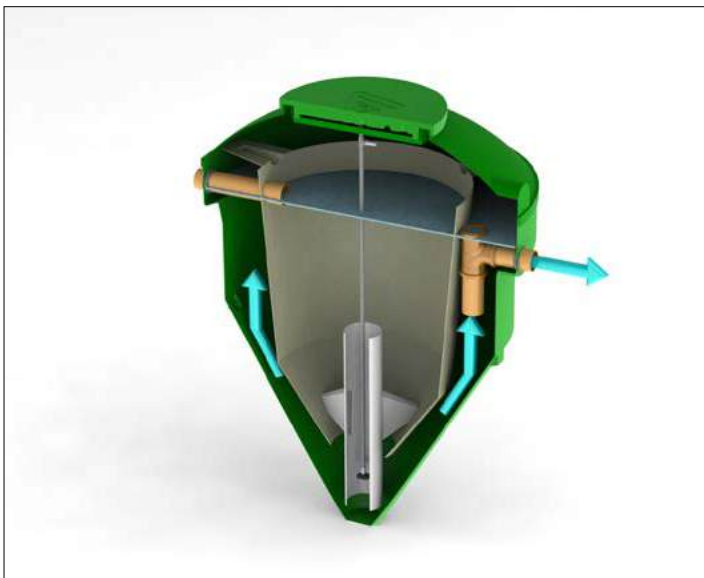


- 1:** The wastewater flows into the main tank and enters directly into the bio-chamber.

The bio-chamber is a zone where the solids circulate continuously; this is achieved by air rather than mechanical or electrical parts inside the tank.



- 2:** The draft tube enables the solids to be drawn back up into the central aeration chamber and re-circulated through the treatment process.



- 3:** The treated liquid then exits through the dip pipe and is discharged safely in to the environment, meeting the required consent standard.

Watch how the process works:

[How the Diamond compact wastewater treatment plant works](#)

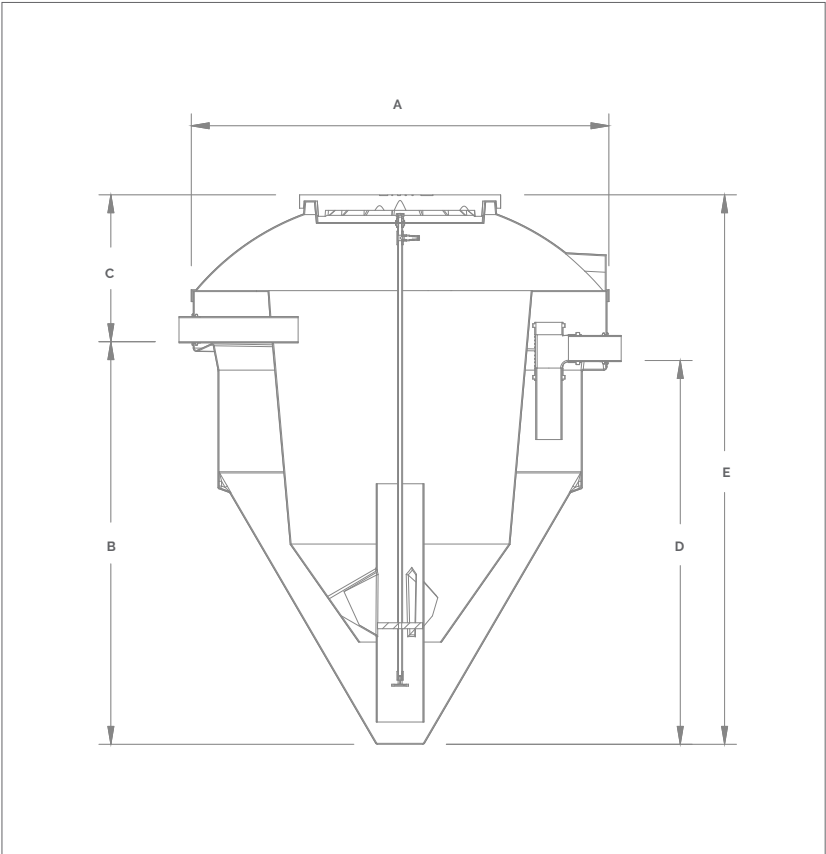
DMS range

Our reliable DMS range caters for properties housing 1 up to 20 people. Typical uses include domestic homes and small commercial businesses such as farm shops, B&Bs and glamping sites.

The standard tank models come supplied with a weather proof kiosk and low air pressure alarm beacon and blower inside.

Model	Population	Max Outside Diameter	Height to Inlet	Inlet Invert Depth	Height to Outlet	Max Height/ In Ground Depth	Weight Empty	Total Capacity
		(A)	(B)	(C)	(D)	(E)	(KG)	(L)
DMS2	1-6	1740	1700	630	1610	2330	155	2270
DMS3	5-11	1960	1830	760	1730	2590	192	3030
DMS4	10-15	1990	2000	780	1930	2780	210	3975
DMS5	14-20	1990	2000	780	1930	2780	210	3975

- Dimensions above shown in mm
- Deeper inverts can be accommodated with our range of standard invert extensions.
- Indicative technical drawing only



Model	Blower type	Blower consumption (kW)	Kiosk consumption (kW)
DMS2	JDK80C	0.050	0.060
DMS3	JDK100C	0.075	0.080
DMS4	JDK150C	0.115	0.120
DMS5	JDK200C	0.180	0.190

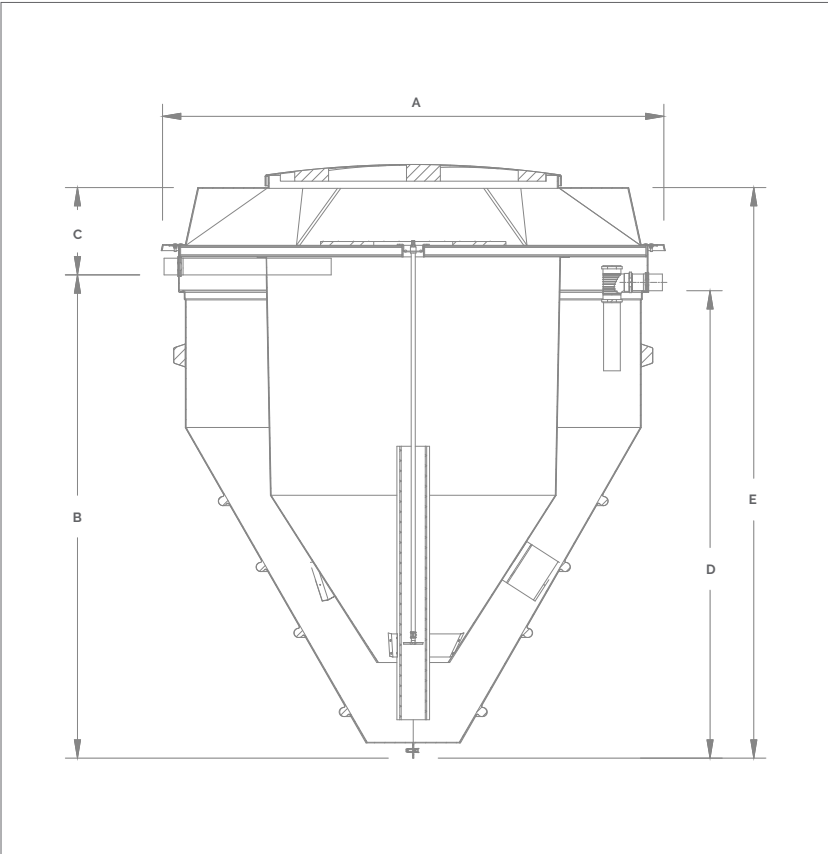
DMC range

Our robust DMC range caters for properties housing from 21 up to 55 people. Typical uses include domestic homes, small rural communities and small commercial businesses such as industrial units, campsites and country estates.

The standard tank models come supplied with a blower housed in a weatherproof kiosk and a separate small consumer unit.

Model	Population	Max Outside Diameter	Height to Inlet	Inlet Invert Depth	Height to Outlet	Max Height/ In Ground Depth	Weight Empty	Total Capacity
		(A)	(B)	(C)	(D)	(E)	(KG)	(L)
DMC6	21-27	3300	2780	570	2680	3350	380	9056
DMC7	28-35	3300	2780	570	2680	3350	380	9056
DMC8	36-45	3300	3140	580	3040	3750	460	15038
DMC9	46-55	3300	3140	580	3040	3750	460	15038

- Dimensions above shown in mm
- Deeper inverts can be accommodated with our range of standard invert extensions
- Indicative technical drawing only



DMC kiosk power consumption				
Model	Blower Type	Power per blower (kW)	Min Power Consumption (kW)	Max Power Consumption (kW)
DMC6	3D19T-050-0.37	0.37	0.27	0.37
DMC7	3D19T-050-0.55	0.55	0.37	0.55
DMC8	3D19T-050-0.55	0.55	0.37	0.55
DMC9	3D19T-050-0.55	0.55	0.37	0.55

External pumping chamber (EPC)

The EPC has been developed to provide a means of delivery for treated effluent where the existing terrain and invert levels of the pipework prevent normal gravitational discharge.

The unit delivers up to 100litres/minute of effluent.
The EPC can also be used as a sample chamber.

Additional parts

Depending on site conditions, models may be supplied with an invert extension, sample chamber or external pumping chamber (EPC).

Reliable and environmentally compliant

Our process performance is tested, certified and guaranteed subject to consistent influent conditions and regular plant maintenance as per the manufacturer's instructions. The PIA performance certificate is available for download at:

wcs-group.co.uk/environmental-engineering-diamond

We're here to help!

For more information, please chat to our friendly team.

Find us online at: wcs-group.co.uk/environmental-engineering-diamond

Call us on: **+44 (0) 23 9224 2600**

Or email: **info@wcs-group.co.uk**



So flexible

Designed to treat flows from between 1 and 55 people, our Diamond range is ideal for small rural business that are off mains drainage, such as glamping and camp sites, country estates, farm shops, B&Bs and garden centres, as well as individual homeowners. Our systems are known for their quality and reliability, giving you reassurance your environmental requirements are taken care of.





OUR ROOTS

WPL (which is now a part of WCS Environmental Engineering) has been at the forefront of wastewater treatment technology for over 30 years, with international experience of technical design, quality of manufacture and supply of environmental wastewater solutions. Our high level of expertise means that we offer all of our customers, from the individual homeowner to large municipal communities and industrial markets, robust wastewater treatment process solutions that are environmentally compliant.

**WCS Environmental
Engineering Ltd**

Unit 1 Aston Road
Waterlooville
Hampshire
PO7 7UX
United Kingdom

Tel: +44 (0)23 9224 2600
Email: info@wcs-group.co.uk
Web: [wcs-group.co.uk/
environmental-engineering-diamond](https://wcs-group.co.uk/environmental-engineering-diamond)

Disclaimer

WCS Environmental Engineering has a policy of continual product development and the above information may be subject to change without notice. Errors and omissions excepted. Technical drawings are indicative only. WCS Environmental Engineering Ltd is a portfolio company of Marlowe PLC.

Independent expert: