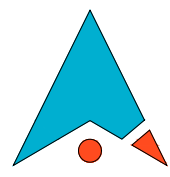


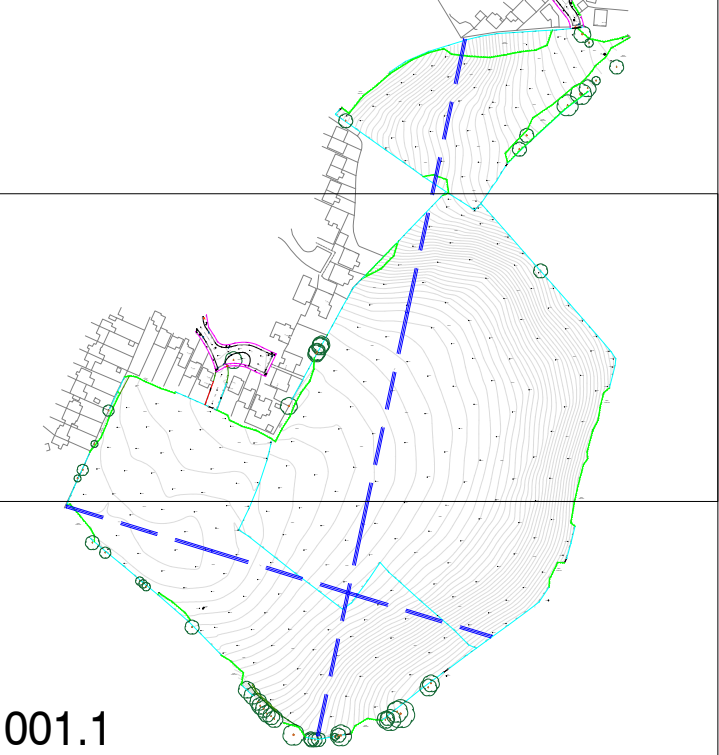
APPENDIX A - Topographical Survey



- GENERAL NOTES
- The contractor is to check and verify all buildings and site dimensions and levels, including existing sewer invert levels, before works start on site. The contractor is to comply in all aspects with the current building legislation, British Standards, building regulations etc.
 - Positions of existing services/statutory undertakers apparatus adjacent to or crossing proposed excavations are to be checked by the contractor prior to starting work. Utility locations shown are to be verified by the contractor prior to commencement of work.
 - This drawing is to be read in conjunction with and checked against all other drawings, engineering details, specifications and any structural, geotechnical or other specialist document provided.
 - Any anomaly or contradictions between any of the above is to be reported immediately to Corner Point Surveys Ltd.
 - This survey has been undertaken to OS National Grid & Datum (OSTN15) with a calculated local scale factor for this location.

LEGEND		
BUILDING	DR	DR
CANOPY	CPY	DROP KERB
DOORLINE	DRL	EARTH ROD
DOWNPIPE	DP	ELECTRICITY BOX
EAVES	EV	FIRE HYDRANT
GUTTER	GLT	FOOTPATH
RIDGE	RG	GAS VALVE
ROOF LINE	RPL	GULLY
VENT PIPE	VP	HIGH VOLTAGE OVERHEAD
WINDOW LINE	WOL	INSPECTION CHAMBER
BOUNDARIES	AS	KERB BUTT
BRICK SHED	BSH	KERB OUTLET
BRICK WALL	BRW	LOW VOLTAGE OVERHEAD
CHAIN LINK FENCE	CLF	MANHOLE
CLOSE BOARD FENCE	CBF	REFLECTOR POST
CONCRETE PANEL	CPF	ROAD BIN
CORRUGATED IRON	CIF	SLOT DRAIN
GARDEN WALL	GW	TACTILE PAVING
GATE	GT	TELECOM POST
GRAVED HEADWALL	GHW	TRAFFIC LIGHT
HEADWALL	HW	WATER METER
HOARDING / HEAS	HF	STRUCTURE
INTERNAL WALL	IW	COLUMN
PALISADE FENCE	PF	CONCRETE PUNTH
PARTITION WALL	PW	CONTAINER
POST & RAIL FENCE	PRF	ST
POST & WIRE FENCE	PWF	ST
RETAINING WALL	RW	ST
STONE WALL	SW	ST
GENERAL		
TOPOGRAPHY	RB	APPROXIMATE
BANK BASE	BB	RED LEVEL
BANK TOP	BT	CONTROL STATION
CLUSTER TREE	CT	CONTROL STATION
HEDGE	HE	DIAMETER
TREE	TR	EAVES LEVEL
TRUNK DIA / SPREAD	X.X / X	FRESH FLOOR LEVEL
VEGETATION	VEG	HEIGHT
WATERCOURSE	WC	INVERT LEVEL
FLUMINATE	FL	SOFT LEVEL
ACD DRAIN	ADR	SPOT LEVEL
BOLLARD	BD	UNABLE TO LIFT
BT MANHOLE	BT	UNABLE TO SURVEY
CABLE TV	CTV	WATER LEVEL

001.2



001.1

CONTROL STATIONS		
STN1	387004.585	143870.802
STN2	386988.414	143904.999
STN3	387251.867	144111.161
STN4	387235.902	144142.522

Rev	Date	Description	By
1	11/11/23	Issue for construction	ACV

Dimensions to be verified on site.
This drawing should not be scaled. Use figures
Dimensions only.
Any discrepancies should be referred to the Engineer
prior to work being put in hand.
This drawing is copyright.



Corner Point Surveys Limited
Countryside House, Village Way
Greenhead Business Park
Greenhead, Wigan, Lancashire, WN6 9AA
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www.cornerpointsurveys.co.uk

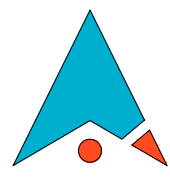
RUBIX LAND LIMITED

ASHLEY COOMBE, WARMINSTER

TOPOGRAPHICAL SURVEY
SHEET 1 / 2

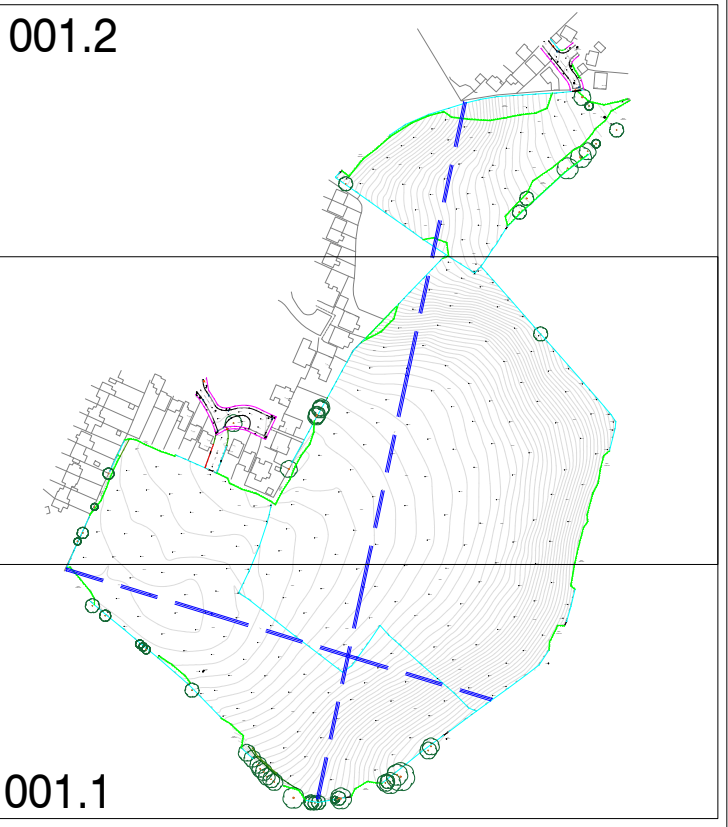
Information

Surveyed by	Processed by	Checked by	Date	Scale & Unit
JPW	JPW	ACV	NOV23	1:500
Project No		Drawing No		Revision
S23122		001.1		0



- GENERAL NOTES
- The contractor is to check and verify all buildings and site dimensions and levels, including existing sewer invert levels, before works start on site. The contractor is to comply in all aspects with the current building legislation, British Standards, building regulations etc.
 - Positions of existing services/statutory undertakers apparatus adjacent to or crossing proposed excavations are to be checked by the contractor prior to starting work. Utility locations shown are to be verified by the contractor prior to commencement of work.
 - This drawing is to be read in conjunction with and checked against all other drawings, engineering details, specifications and any structural, geotechnical or other specialist document provided.
 - Any anomaly or contradictions between any of the above is to be reported immediately to Corner Point Surveys Ltd.
 - This survey has been undertaken to OS National Grid & Datum (OSTN15) with a calculated local scale factor for this location.

LEGEND		
BUILDING	DR	DR
CANOPY	CPY	DROP KERB
DOORLINE	DRL	EARTH ROD
DOWNPIPE	DP	ELECTRICITY BOX
EAVES	EV	FIRE HYDRANT
GUTTER	GUT	FOOTPATH
RIDGE	RG	GAS VALVE
ROOF LINE	RPL	GULLY
VENT PIPE	VP	HIGH VOLTAGE OVERHEAD
WINDOW LINE	WOL	INSPECTION CHAMBER
BOUNDARIES	AB	KERB OUTLET
BRICK SHED	BSH	LOW VOLTAGE OVERHEAD
BRICK WALL	BRW	MANHOLE
CHAIN LINK FENCE	CLF	REFLECTOR POST
CLOSE BOARD FENCE	CBF	ROAD SIGN
CONCRETE PANEL	CPF	SLOT DRAIN
CORRUGATED IRON	CIF	STOP TAP
DAISY WALL	DW	TACTILE PAVING
GATE	GW	TELECOM POST
GRAVEL HEADWALL	GHW	TRAFFIC LIGHT
HEADWALL	HW	WATER METER
HOARDING / HEAS	HF	STRUCTURE
INTERNAL WALL	IW	COLUMN
PALISADE FENCE	PF	CONCRETE PUNTH
PARTITION WALL	PW	CONTAINER
POST & RAIL FENCE	PRF	CONTAINER
POST & WIRE FENCE	PWF	CONTAINER
RETAINING WALL	RW	STEPS
STONE WALL	SW	GENERAL
TOPOGRAPHY	BB	APPROXIMATE
BANK BASE	BB	RED LEVEL
BANK TOP	BT	CONTROL STATION
CLUSTER TREE	CT	CONTROL LEVEL
HEDGE	HE	DIAMETER
TREE	TR	EAVES LEVEL
TRUNK DIA / SPREAD	X.X / X	FRESH FLOOR LEVEL
VEGETATION	VEG	HEIGHT
WATERCOURSE	WC	INVERT LEVEL
FLUMINATURE	FL	SOFTY LEVEL
ACD DRAIN	ADR	SPOT LEVEL
BOLLARD	BD	UNABLE TO LIFT
BT MANHOLE	BT	UNABLE TO SURVEY
CABLE TV	CTV	WATER LEVEL



CONTROL STATIONS			
STN1	887004.585	143870.802	140.545
STN2	886988.414	143904.899	140.813
STN3	887251.867	144111.161	114.214
STN4	887285.902	144142.822	116.119

Rev	Date	Description	By
1		Dimensions to be verified on site. This drawing should not be scaled. Use figures dimensions only. Any discrepancies should be referred to the Engineer prior to work being put in hand. This drawing is copyright.	



RUBIX LAND LIMITED

ASHLEY COOMBE, WARMINSTER

TOPOGRAPHICAL SURVEY
SHEET 2 / 2

INFORMATION

Surveyed by	Processed by	Checked by	Date	Scale & Unit
JPW	JPW	ACV	NOV23	1:500
Project No		Drawing No		Revision
S23122		001.2		0

APPENDIX B - Proposed Site Layout



House Types										
Name	Rooms	Occupancy	Storey Height	No. Units	Internal Area	Total Internal Area	Parking			
					sqft	sqft	Residents	Garage	Visitors	Total
Red Line Area (Areas)				13.68						
Open Market										
Yew	2B	4P	2	18	856.38	15,415	2		0.2	40
Cherry	3B	5P	2	17	1001.00	17,017	2		0.2	37
Pine	3B	4P	2	4	910.60	3,642	2		0.2	9
Cedar	3B	6P	2	9	1116.20	10,046	2		0.2	20
Oak	4B	6P	2	4	1192.60	4,770	3	4	0.2	13
Spruce	4B	7P	2.5	2	1528.40	3,057	3	2	0.2	6
Total				54	53,947			6		125
Affordable (30%)				23						
Bramley	2B	4P	2	11	861.10	9,472	2		0.2	24
Williams	3B	5P	2	12	1016.11	12,193	2		0.2	26
Total				23	21,665					
Total				77	75,613					

	Acres	Hectares
Coverage		
Gross Site Area	13.68	5.54
POS	7.93	3.21
Infrastructure	0.15	0.06
Net Site Developable Area	5.60	2.27
Dwellings Per Net Coverage	14	
Coverage	13,503	

Land Off Ashely Combe Warminster

Illustrative Layout

Project Number	RL102	
Location	Warminster	
Client	Rubix Land	
Drawing Number:		Revision:
120		C
Date:	Drawn By:	Paper:
10/25	AW	A1
N Scale: 1:1000 01020305070m		

This plan is provided as an illustration only, without the benefit of full due diligence. No reliance should be placed on the accuracy of this plan.

APPENDIX C – Greenfield Runoff & Surface Water Network Calculations

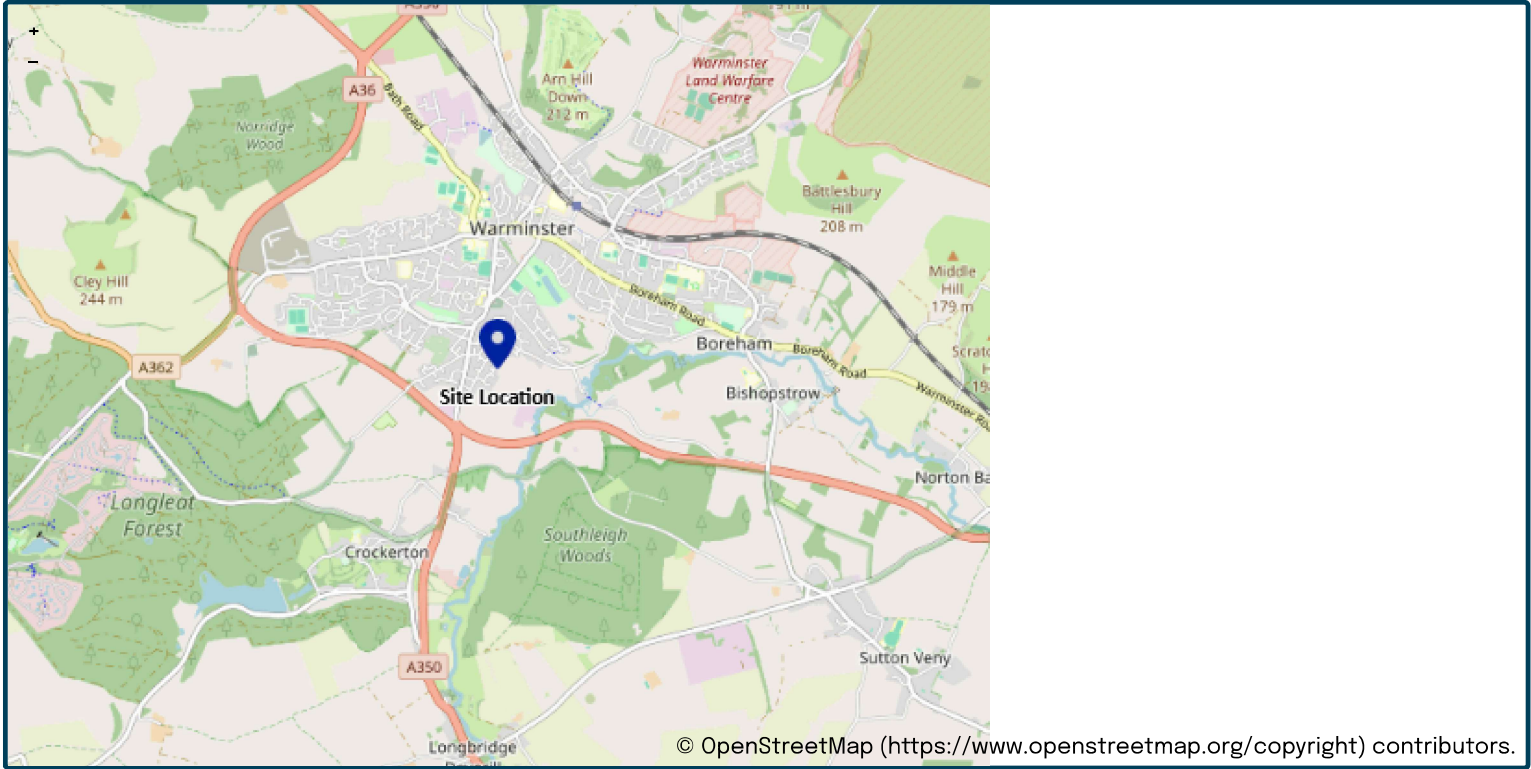
This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance “Rainfall runoff management for developments”, SC030219 (2013), the SuDS Manual C753 (CIRIA, 2015) and the non-statutory standards for SuDS (Defra, 2015).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

Project details

Date	10/06/2025
Calculated by	
Reference	
Model version	2.0.1

Location

Site name	Ashley Coobme
Site location	Warminster



Site easting	387104
Site northing	143835

Site details

Total site area (ha)	1.1750	ha
----------------------	-------------------------------------	----

Greenfield runoff

Method

Method	FEH statistical
--------	-----------------

FEH statistical

	<u>My value</u>		<u>Map value</u>
SAAR (mm)	871	mm	871
BFIHOST	0.67		
QMed-QBar conversion	1.136		1.136
QMed (l/s)	3.16	l/s	
QBar (FEH statistical) (l/s)	3.6	l/s	

Growth curve factors

	<u>My value</u>		<u>Map value</u>
Hydrological region	7		7
1 year growth factor	0.85		
2 year growth factor	0.88		
10 year growth factor	1.62		
30 year growth factor	2.3		
100 year growth factor	3.19		
200 year growth factor	3.74		

Results

Method	FEH statistical	
Flow rate 1 year (l/s)	3.1	l/s
Flow rate 2 year (l/s)	3.2	l/s
Flow rate 10 years (l/s)	5.8	l/s
Flow rate 30 years (l/s)	8.3	l/s
Flow rate 100 years (l/s)	11.5	l/s
Flow rate 200 years (l/s)	13.4	l/s

Disclaimer

This report was produced using the Greenfield runoff rate estimation tool (2.0.1) developed by HR Wallingford and available at [uksuds.com](https://www.uksuds.com) (<https://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 [uksuds.com/terms-conditions](https://www.uksuds.com/terms-conditions) (<https://www.uksuds.com/terms-conditions>). The outputs from this tool have been used to estimate 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, Centre for Ecology and Hydrology, Wallingford Hydrosolutions or any other organisation for the use of these data in the design or operational characteristics of any drainage scheme.

Project: RL 102 Ashley Coombe Warminster	Date: 13/03/2024			
	Designed by: JDJA	Checked by: MR	Approved By: MR	
	Report Details: Type: Junctions Storm Phase: Phase			
Company Address: OG Consulting Engineers				

Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape	Diameter (m)
S1	Manhole	386923.555	143758.175	142.431	1.425	141.006	Circular	1.200
S2	Manhole	386930.840	143768.086	142.500	1.576	140.924	Circular	1.200
S3	Manhole	386954.613	143819.653	141.621	1.500	140.121	Circular	1.200
S4	Manhole	386979.889	143808.378	141.298	1.575	139.723	Circular	1.350
S5	Manhole	387008.215	143793.815	141.558	2.048	139.510	Circular	1.350
S6	Manhole	387030.354	143784.413	141.442	2.329	139.112	Circular	1.350
S11	Manhole	387054.290	143774.905	140.945	2.004	138.941	Circular	1.350
S12	Manhole	387066.909	143800.858	140.668	1.934	138.735	Circular	1.350
S13	Manhole	387080.939	143826.650	140.015	1.650	138.365	Circular	1.350
S14	Manhole	387106.562	143874.341	138.500	1.650	136.850	Circular	1.350
S15	Manhole	387122.412	143866.408	138.327	1.706	136.621	Circular	1.350
S16	Manhole	387137.091	143890.977	137.428	1.650	135.778	Circular	1.350
S17	Manhole	387151.493	143921.280	135.123	1.650	133.473	Circular	1.350
S18	Manhole	387170.719	143983.559	122.500	1.650	120.850	Circular	1.350
S19	Manhole	387219.034	144048.937	117.817	1.650	116.167	Circular	1.350
S20	Manhole	387280.005	144092.555	113.633	1.650	111.983	Circular	1.350
S21	Manhole	387279.781	144102.040	113.381	1.650	111.731	Circular	1.350
S7	Manhole	386947.221	143737.740	142.499	1.425	141.074	Circular	1.200
S8	Manhole	386973.738	143711.701	141.927	1.425	140.502	Circular	1.200
S9	Manhole	386989.047	143701.928	141.379	1.425	139.954	Circular	1.200
S10	Manhole	387007.202	143730.633	142.034	2.381	139.653	Circular	1.200

Name	Lock
S1	None
S2	None
S3	None
S4	None
S5	None
S6	None
S11	None
S12	None
S13	None
S14	None
S15	None
S16	None
S17	None
S18	None
S19	None
S20	None
S21	None
S7	None
S8	None
S9	None
S10	None

Project: RL 102 Ashley Coombe Warminster	Date: 13/03/2024			
	Designed by: JDJA	Checked by: MR	Approved By: MR	
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address: OG Consulting Engineers			

 **Pond**

Type : Pond

Dimensions			
Exceedance Level (m)		135.885	
Depth (m)		1.500	
Base Level (m)		134.385	
Freeboard (mm)		600	
Initial Depth (m)		0.000	
Porosity (%)		100	
Average Slope (1:X)		3.805	
Total Volume (m³)		885.542	
Depth (m)		Area (m²)	Volume (m³)
0.000		800.000	0.000
1.500		1474.509	1680.303

Advanced	
Perimeter	Circular
Length (m)	69.649
Friction Scheme	Manning's n
n	0.025

Project:
RL 102
Ashley Coombe
Warminster

Report Details:
Type: Connections
Storm Phase: Phase

Date:
13/03/2024

Designed by:
JDJA

Checked by:
MR

Approved By:
MR

Company Address:
OG Consulting Engineers



Name	Length (m)	Connection Type	Slope (1:X)	Manning's n	Colebrook-White Roughness (mm)	Diameter / Base Width (mm)	Upstream Cover Level (m)	Upstream Invert Level (m)
S1.000	12.301	Pipe	150.000		0.6	225	142.431	141.006
S1.001	56.783	Pipe	77.952		0.6	225	142.500	140.924
S1.002	27.676	Pipe	85.669		0.6	300	141.621	140.121
S1.003	31.851	Pipe	150.000		0.6	375	141.298	139.723
S1.004	24.053	Pipe	74.479		0.6	375	141.558	139.510
S1.005	25.756	Pipe	150.000		0.6	450	141.442	139.112
S1.006	28.858	Pipe	140.000		0.6	450	140.945	138.941
S1.007	29.360	Pipe	79.517		0.6	450	140.668	138.735
S1.008	54.138	Pipe	35.725		0.6	450	140.015	138.365
S1.009	17.724	Pipe	77.253		0.6	450	138.500	136.850
S1.010	28.620	Pipe	33.966		0.6	450	138.327	136.621
S1.011	6.563	Pipe	4.713		0.6	450	137.428	135.778
S1.013	65.179	Pipe	5.164		0.6	150	135.123	133.473
S1.014	81.293	Pipe	17.359		0.6	150	122.500	120.850
S1.015	74.966	Pipe	17.917		0.6	150	117.817	116.167
S1.016	9.488	Pipe	37.675		0.6	150	113.633	111.983
S1.012	13.012	Pipe	14.253		0.6	450	136.312	134.385
S2.000	37.164	Pipe	65.030		0.6	225	142.499	141.074
S2.001	18.162	Pipe	33.142		0.6	225	141.927	140.502
S2.002	33.965	Pipe	150.000		0.6	225	141.379	139.954
S2.003	58.551	Pipe	150.000		0.6	300	142.034	139.653

Name	Downstream Cover Level (m)	Downstream Invert Level (m)	Part Family	Lock	Flow Restriction (L/s)
S1.000	142.500	140.924		None	
S1.001	141.621	140.196		None	
S1.002	141.298	139.798		None	
S1.003	141.558	139.510		None	
S1.004	141.442	139.187		None	
S1.005	140.945	138.941		None	
S1.006	140.668	138.735		None	
S1.007	140.015	138.365		None	
S1.008	138.500	136.850		None	
S1.009	138.327	136.621		None	
S1.010	137.428	135.778		None	
S1.011	137.160	134.385		None	
S1.013	122.500	120.850		None	3.6
S1.014	117.817	116.167		None	
S1.015	113.633	111.983		None	
S1.016	113.381	111.731		None	
S1.012	135.123	133.473		None	
S2.000	141.927	140.502		None	
S2.001	141.379	139.954		None	
S2.002	142.034	139.728		None	
S2.003	141.442	139.262		None	

Project: RL 102 Ashley Coombe Warminster	Date: 13/03/2024			
	Designed by: JDJA	Checked by: MR	Approved By: MR	
Report Details: Type: Inflow Summary Storm Phase: Phase	Company Address: OG Consulting Engineers			

Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
Catchment Area	S1		Time of Concentration	0.055	100	0	100	0.055
Catchment Area (1)	S14		Time of Concentration	0.058	100	0	100	0.058
Catchment Area (2)	S4		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (3)	S3		Time of Concentration	0.014	100	0	100	0.014
Catchment Area (4)	S3		Time of Concentration	0.008	100	0	100	0.008
Catchment Area (5)	S5		Time of Concentration	0.008	100	0	100	0.008
Catchment Area (6)	S5		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (7)	S8		Time of Concentration	0.007	100	0	100	0.007
Catchment Area (8)	S15		Time of Concentration	0.006	100	0	100	0.006
Catchment Area (9)	S14		Time of Concentration	0.007	100	0	100	0.007
Catchment Area (10)	S14		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (11)	S13		Time of Concentration	0.003	100	0	100	0.003
Catchment Area (12)	S13		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (13)	S13		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (14)	S13		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (15)	S12		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (16)	S12		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (17)	S12		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (18)	S10		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (19)	S10		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (20)	S10		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (21)	S11		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (22)	S11		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (23)	S3		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (24)	S2		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (25)	S3		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (26)	S2		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (27)	S1		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (28)	S1		Time of Concentration	0.003	100	0	100	0.003
Catchment Area (29)	S1		Time of Concentration	0.002	100	0	100	0.002

Project: RL 102 Ashley Coombe Warminster	Date: 13/03/2024			
	Designed by: JDJA	Checked by: MR	Approved By: MR	
	Report Details: Type: Inflow Summary Storm Phase: Phase			
Company Address: OG Consulting Engineers				

Catchment Area (30)	S7		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (31)	S7		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (32)	S7		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (33)	S8		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (34)	S8		Time of Concentration	0.001	100	0	100	0.001
Catchment Area (35)	S6		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (36)	S6		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (37)	S6		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (38)	S3		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (39)	S2		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (40)	S3		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (41)	S4		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (42)	S5		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (43)	S12		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (44)	S12		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (45)	S12		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (46)	S14		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (47)	S14		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (48)	S10		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (49)	S10		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (50)	S4		Time of Concentration	0.003	100	0	100	0.003
Catchment Area (51)	S4		Time of Concentration	0.003	100	0	100	0.003
Catchment Area (52)	S15		Time of Concentration	0.003	100	0	100	0.003
Catchment Area (53)	S15		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (54)	S3		Time of Concentration	0.011	100	10	110	0.012
Catchment Area (55)	S4		Time of Concentration	0.011	100	10	110	0.012
Catchment Area (56)	S14		Time of Concentration	0.007	100	10	110	0.007
Catchment Area (57)	S14		Time of Concentration	0.007	100	10	110	0.007
Catchment Area (58)	S14		Time of Concentration	0.011	100	10	110	0.012
Catchment Area (59)	S14		Time of Concentration	0.011	100	10	110	0.012
Catchment Area (60)	S13		Time of Concentration	0.011	100	10	110	0.012
Catchment Area (61)	S15		Time of Concentration	0.007	100	10	110	0.008

Project: RL 102 Ashley Coombe Warminster	Date: 13/03/2024			
	Designed by: JDJA	Checked by: MR	Approved By: MR	
	Report Details: Type: Inflow Summary Storm Phase: Phase			
Company Address: OG Consulting Engineers				

Catchment Area (62)	S15		Time of Concentration	0.007	100	10	110	0.008
Catchment Area (63)	S15		Time of Concentration	0.007	100	10	110	0.008
Catchment Area (64)	S11		Time of Concentration	0.011	100	10	110	0.012
Catchment Area (65)	S11		Time of Concentration	0.011	100	10	110	0.012
Catchment Area (66)	S3		Time of Concentration	0.017	100	10	110	0.018
Catchment Area (67)	S2		Time of Concentration	0.010	100	10	110	0.011
Catchment Area (68)	S2		Time of Concentration	0.016	100	10	110	0.018
Catchment Area (69)	S3		Time of Concentration	0.007	100	10	110	0.007
Catchment Area (70)	S3		Time of Concentration	0.010	100	10	110	0.011
Catchment Area (71)	S3		Time of Concentration	0.011	100	10	110	0.012
Catchment Area (72)	S2		Time of Concentration	0.007	100	10	110	0.007
Catchment Area (73)	S1		Time of Concentration	0.011	100	10	110	0.012
Catchment Area (74)	S7		Time of Concentration	0.010	100	10	110	0.011
Catchment Area (75)	S7		Time of Concentration	0.011	100	10	110	0.012
Catchment Area (76)	S7		Time of Concentration	0.007	100	10	110	0.007
Catchment Area (77)	S8		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (78)	S8		Time of Concentration	0.007	100	10	110	0.008
Catchment Area (79)	S8		Time of Concentration	0.007	100	10	110	0.008
Catchment Area (80)	S5		Time of Concentration	0.021	100	10	110	0.023
Catchment Area (81)	S6		Time of Concentration	0.011	100	10	110	0.012
Catchment Area (82)	S6		Time of Concentration	0.011	100	10	110	0.012
Catchment Area (83)	S6		Time of Concentration	0.007	100	10	110	0.007
Catchment Area (84)	S5		Time of Concentration	0.016	100	10	110	0.017
Catchment Area (85)	S12		Time of Concentration	0.007	100	10	110	0.007
Catchment Area (86)	S12		Time of Concentration	0.021	100	10	110	0.023
Catchment Area (87)	S13		Time of Concentration	0.011	100	10	110	0.012
Catchment Area (88)	S13		Time of Concentration	0.016	100	10	110	0.018
Catchment Area (89)	S11		Time of Concentration	0.011	100	10	110	0.012
Catchment Area (90)	S10		Time of Concentration	0.011	100	10	110	0.012
Catchment Area (91)	S10		Time of Concentration	0.011	100	10	110	0.012
Catchment Area (92)	S10		Time of Concentration	0.007	100	10	110	0.007
Catchment Area (93)	S12		Time of Concentration	0.011	100	10	110	0.012

Project: RL 102 Ashley Coombe Warminster	Date: 13/03/2024			
	Designed by: JDJA	Checked by: MR	Approved By: MR	
Report Details: Type: Inflow Summary Storm Phase: Phase	Company Address: OG Consulting Engineers			

Catchment Area (94)	S13		Time of Concentration	0.011	100	10	110	0.012
Catchment Area (95)	S13		Time of Concentration	0.003	100	0	100	0.003
Catchment Area (96)	S14		Time of Concentration	0.007	100	10	110	0.008
Catchment Area (97)	S9		Time of Concentration	0.007	100	10	110	0.007
Catchment Area (98)	S7		Time of Concentration	0.040	100	0	100	0.040
Catchment Area (99)	S6		Time of Concentration	0.032	100	0	100	0.032
Catchment Area (100)	S11		Time of Concentration	0.032	100	0	100	0.032
Catchment Area (101)	S15		Time of Concentration	0.032	100	0	100	0.032
Catchment Area (102)	S3		Time of Concentration	0.050	100	0	100	0.050
Catchment Area (103)	S4		Time of Concentration	0.040	100	0	100	0.040
Catchment Area (104)	S5		Time of Concentration	0.024	100	0	100	0.024
Catchment Area (105)	S5		Time of Concentration	0.021	100	0	100	0.021
Catchment Area (106)	S11		Time of Concentration	0.053	100	0	100	0.053
Catchment Area (107)	S12		Time of Concentration	0.024	100	0	100	0.024
Catchment Area (108)	S13		Time of Concentration	0.029	100	0	100	0.029
TOTAL		0.0		1.135				1.179

Project: RL 102 Ashley Coombe Warminster	Date: 13/03/2024			
	Designed by: JDJA	Checked by: MR	Approved By: MR	
Report Title: Rainfall Analysis Criteria	Company Address: OG Consulting Engineers			

Runoff Type	Dynamic
Output Interval (mins)	5
Time Step	Reduced
Urban Creep	Use Catchment Values
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Rainfall	
FEH	Type: FEH
Site Location	GB 387041 143798 ST 87041 43798
Rainfall Version	2022
Summer	☒
Winter	☒

Return Period	
Return Period (years)	Increase Rainfall (%)
100.0	45.000

Storm Durations	
Duration (mins)	Run Time (mins)
15	30
30	60
60	120
120	240
180	360
240	480
360	720
480	960
600	1200
720	1440
960	1920
1440	2880
2160	4320
2880	5760
4320	8640
5760	11520
7200	14400
8640	17280
10080	20160

Project:
RL 102
Ashley Coombe
Warminster

Report Details:
Type: Junctions Summary
Storm Phase: Phase

Date:
13/03/2024

Designed by:
JDJA

Checked by:
MR

Approved By:
MR

Company Address:
OG Consulting Engineers





FEH: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Outflow

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S1	FEH: 100 years: +45 %: 15 mins: Summer	142.431	141.006	141.311	0.305	42.4	0.345	0.000	32.3	18.376	Surcharged
S2	FEH: 100 years: +45 %: 30 mins: Winter	142.500	140.924	141.084	0.160	49.6	0.181	0.000	49.5	45.758	OK
S3	FEH: 100 years: +45 %: 15 mins: Winter	141.621	140.121	140.976	0.855	133.4	0.967	0.000	120.2	73.247	Surcharged
S4	FEH: 100 years: +45 %: 15 mins: Winter	141.298	139.723	140.588	0.865	159.2	1.238	0.000	144.2	91.529	Surcharged
S5	FEH: 100 years: +45 %: 15 mins: Winter	141.558	139.510	140.385	0.874	204.6	1.251	0.000	190.9	119.269	Surcharged
S6	FEH: 100 years: +45 %: 15 mins: Winter	141.442	139.112	140.085	0.973	302.8	1.392	0.000	291.3	185.594	Surcharged
S11	FEH: 100 years: +45 %: 15 mins: Winter	140.945	138.941	139.785	0.844	369.0	1.208	0.000	356.7	221.454	Surcharged
S12	FEH: 100 years: +45 %: 15 mins: Winter	140.668	138.735	139.319	0.584	409.3	0.836	0.000	380.9	245.671	Surcharged
S13	FEH: 100 years: +45 %: 15 mins: Winter	140.015	138.365	138.695	0.329	442.4	0.471	0.000	424.5	273.892	OK
S14	FEH: 100 years: +45 %: 15 mins: Winter	138.500	136.850	137.760	0.910	494.9	1.302	0.000	490.0	306.430	Surcharged
S15	FEH: 100 years: +45 %: 15 mins: Winter	138.327	136.621	137.131	0.511	531.5	0.731	0.000	524.9	325.500	Surcharged
S16	FEH: 100 years: +45 %: 15 mins: Winter	137.428	135.778	136.028	0.250	524.9	0.357	0.000	520.2	325.489	OK
S17	FEH: 100 years: +45 %: 15 mins: Summer	135.123	133.473	134.712	1.240	39.2	1.774	0.000	3.6	5.624	Surcharged
S18	FEH: 100 years: +45 %: 30 mins: Winter	122.500	120.850	120.880	0.030	3.6	0.043	0.000	3.7	10.088	OK
S19	FEH: 100 years: +45 %: 15 mins: Summer	117.817	116.167	116.197	0.030	3.6	0.042	0.000	3.6	3.899	OK
S20	FEH: 100 years: +45 %: 30 mins: Summer	113.633	111.983	112.020	0.037	3.6	0.053	0.000	3.6	9.498	OK
S21	FEH: 100 years: +45 %: 30 mins: Summer	113.381	111.731	111.767	0.036	3.6	0.000	0.000	3.6	9.498	OK
S7	FEH: 100 years: +45 %: 15 mins: Winter	142.499	141.074	141.220	0.146	46.2	0.165	0.000	45.5	21.231	OK
S8	FEH: 100 years: +45 %: 15 mins: Summer	141.927	140.502	140.637	0.134	60.1	0.152	0.000	55.8	26.608	OK
S9	FEH: 100 years: +45 %: 15 mins: Summer	141.379	139.954	140.461	0.506	59.9	0.573	0.000	48.4	28.317	Surcharged
S10	FEH: 100 years: +45 %: 15 mins: Winter	142.034	139.653	140.314	0.661	73.9	0.748	0.000	71.2	45.648	Surcharged

Project: RL 102 Ashley Coombe Warminster	Date: 13/03/2024			
	Designed by: JDJA	Checked by: MR	Approved By: MR	
	Report Details: Type: Stormwater Controls Summary Storm Phase: Phase			
Company Address: OG Consulting Engineers				



FEH: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Avg. Depth

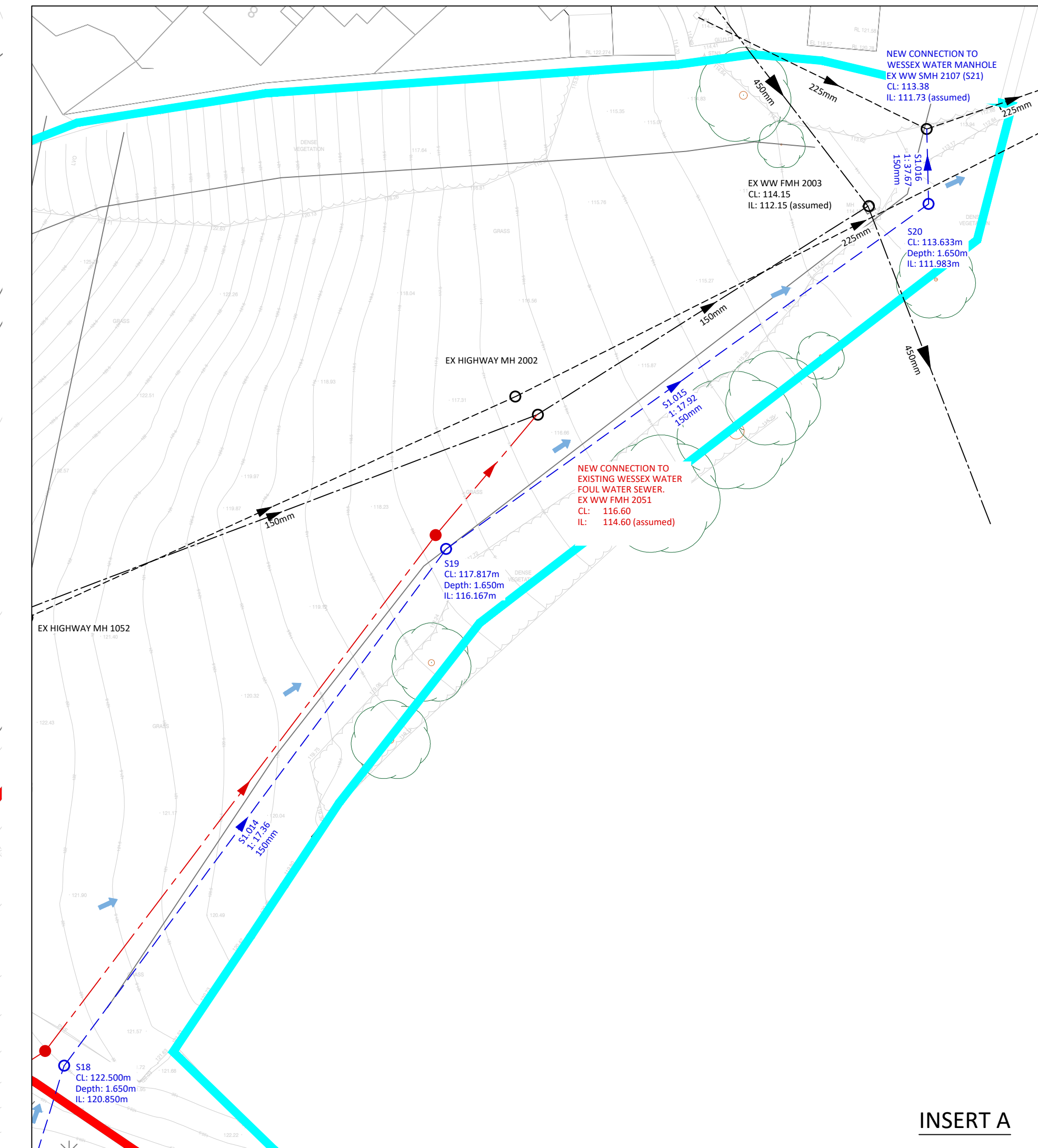
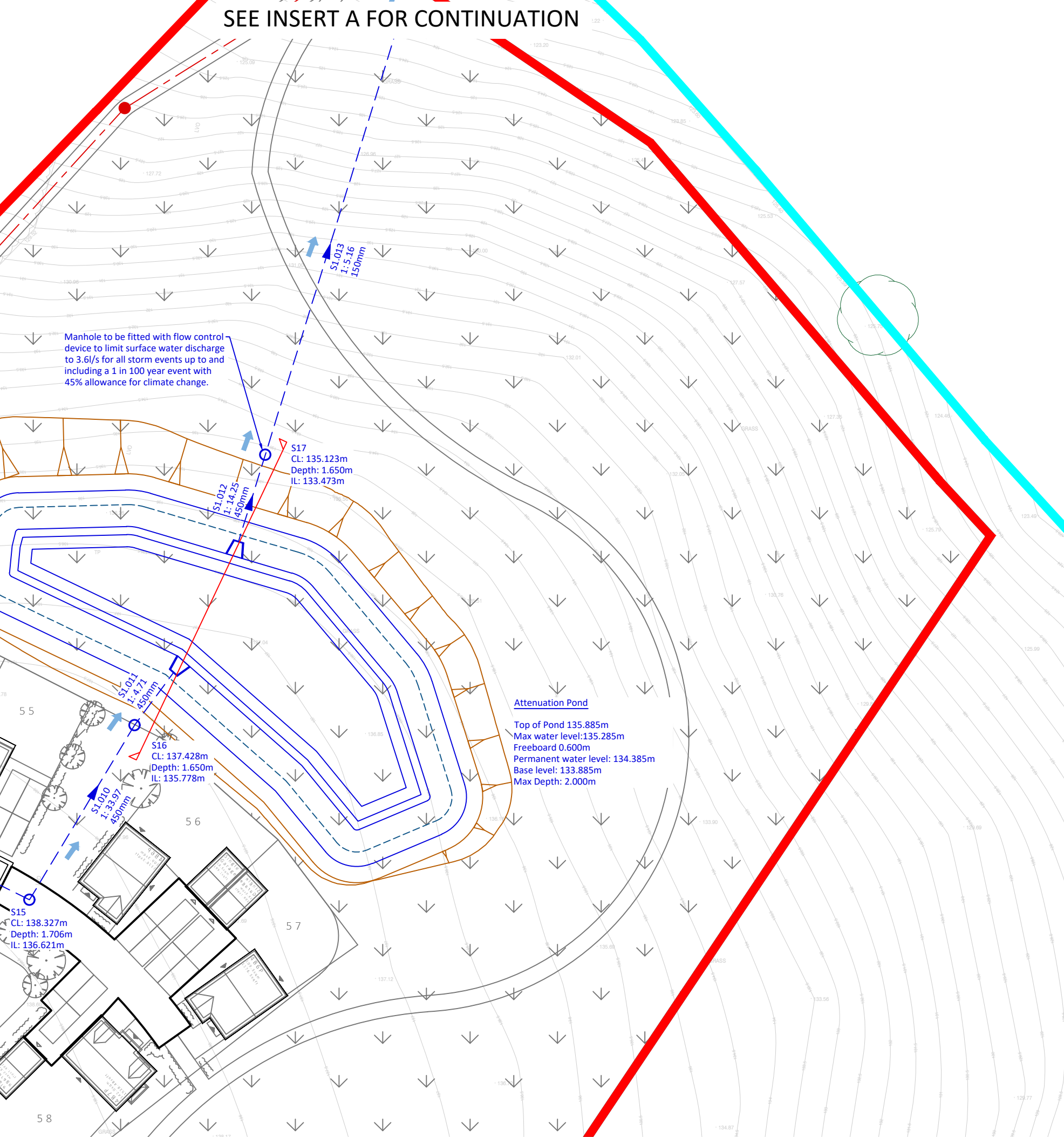
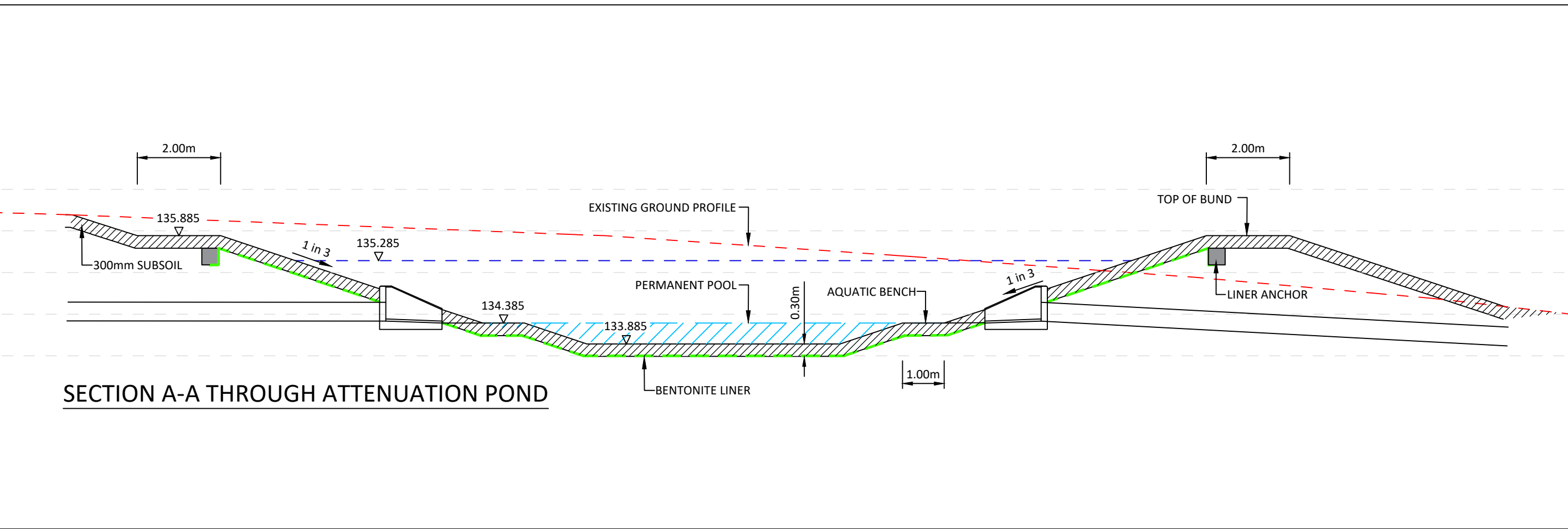
Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)
Pond	FEH: 100 years: +45 %: 1440 mins: Winter	135.278	135.278	0.893	0.893	38.9	877.291	0.000	0.000	22.7	615.922	557	0.932

Project: RL 102 Ashley Coombe Warminster	Date: 13/03/2024			
	Designed by: JDJA	Checked by: MR	Approved By: MR	
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address: OG Consulting Engineers			

Status

OK

APPENDIX D – Proposed Drainage Strategy



SURFACE WATER DESIGN NOTES

It is understood that ground conditions are unsuitable for infiltration drainage techniques. Therefore, it is proposed to drain surface water runoff to the existing surface water sewer to the south west of the site.

The site's greenfield runoff rate (QBAR) for the site has been calculated using the FEH method as 3.6l/s based on an impermeable area of 1.134ha.

Before discharging surface runoff to the surface water sewer, flows will be restricted to as close to the sites equivalent greenfield runoff rate as practical. Discharges will be limited using a vortex flow control device, with excess flows stored and attenuated onsite within the attenuation pond for all return periods up to and including a 1 in 100 year design event with 45% allowance for climate change.

The CIRIA C753 SuDS Manual 2015 sets out requirements for delivering appropriate levels of treatment to surface water runoff using SuDS. The table below identifies the pollution hazard indices for the relevant uses on the site and the water quality treatment provided, using the Simple Index Method.

Pollution Index	Total Suspended Solids	Metals	Hydrocarbon
Required Indices (Residential estates)	0.5	0.4	0.4
Mitigation index (Pond)	0.7	0.7	0.5

DRAINAGE LEGEND

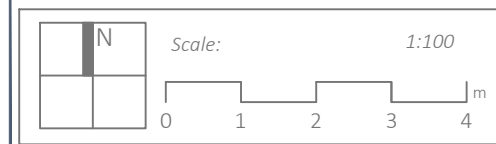
- S19
CL: 30.099
IL: 28.374
- 150mm 1/100
- Surface water manhole
- Surface water sewer
- Site Boundary
- Proposed bank and gradient
- Existing level
- Foul water manhole
- 150mm 1/100
- Foul water sewer
- Existing Highway Boundary
- Flood exceedance route
- Existing Surface Water Sewer
- Existing Foul Water Sewer

P1	PRELIMINARY ISSUE	JA	30.10.25
REV	Comment	By	Date

Ashley Coombe,
Warminster

Drainage Strategy

Project Number	RL102
Status	Planning
Client	Rubix Land
Drawing Number:	Revision:
500	P1
Drawn By:	Checked By:
JA	MR
Date:	Paper:
18/09/2025	A1



Feasibility | Planning Support |
Drainage Design | Flood Risk
Assessments | Highways
Design | Earthworks Modelling
info@oggrp.co.uk
www.oggrp.co.uk



APPENDIX E - Drainage Maintenance and Management Plan

Drainage Maintenance & Management Plan

Land off Ashley Coombe, Warminster
Prepared On behalf of Rubix Land Limited

November 2025

DOCUMENT HISTORY

Revision	Description	Date
A	Initial Issue	25/11/25

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2. MANAGEMENT & MAINTENANCE PLAN	3

1. INTRODUCTION

- 1.1 This report has been prepared by OG Consulting Engineers, on behalf of Rubix Land Limited to provide details of the operation and maintenance requirements for the drainage system identified on the Drainage Layout drawing (ref: RL102/500).
- 1.2 On occupation of the development, this maintenance and management plan should be incorporated into the sites "*Operation and Maintenance Manual*" with the as-built drainage system operated and maintained in accordance with the requirements set out in the following section of this report to prevent a reduction in the performance of the drainage system over the lifetime of the development.
- 1.3 The Site Manager should ensure that the Maintenance Contractor tasked with carrying out any maintenance works provides a risk assessment and method statement that adopts best practice health and safety policies for maintenance personnel throughout the duration of any maintenance works. Measures may include:
 - Ensure the use of safe systems of work and procedures are followed.
 - Certificated operatives only to be used for all confined space entry.
 - Ensure appropriate ppe is worn at all times including the use of safety goggles, ear defenders and other relevant equipment when using high pressure jetting.
 - Do not work in weather conditions where flooding or surging is likely.
 - Erect barriers where appropriate and provide adequate lighting.
 - No operations to be carried out by operatives working alone.
 - Time maintenance to not conflict with other on-site activities.
 - Method statement to be prepared and approved prior to entry into confined space.

2. MANAGEMENT & MAINTENANCE PLAN

- 2.1 On occupation of the development, it is recommended that each element of the as-built drainage system is maintained in accordance with the regime set out in the tables below.

Table 1: Below Ground Drainage System - Operation and Maintenance Requirements

Maintenance schedule	Required action	Frequency
Regular maintenance	Remove all litter and debris from external hard landscaped areas and adjacent landscaping, which may pose a risk to the performance of the system.	Monthly.
	Remove build-up of sediment / silt in catch-pits and dispose of oils / petrol residues using safe standard practices.	As required.
	Stabilise and mow adjacent landscaped areas and remove weeds.	
Remedial actions	Repair or rehabilitate inlet and outlets to ensure they are in good condition and operating as designed.	As required.
	Remediate any landscaping, which has raised to within 50mm of the level of adjacent hard landscaping.	
Monitoring	Check of all inlets / outlets for blockages or evidence of physical damage with any necessary remedial action or clearance carried out if required.	On a monthly basis for the first 3 months of operation, thereafter every 6 months & following severe rainfall events.
	Inspect all surfaces for ponding, or silt accumulation. Record areas where water is ponding for more than 48 hours and carry out any remedial work deemed necessary.	After severe storms.

Table 2: Wet Pond - Operation and Maintenance Requirements

Maintenance schedule	Required action	Frequency
Regular maintenance	Litter and debris removal.	Monthly.
	Grass cutting for spillways and access routes.	Monthly (during growing season), or as required.
	Grass cutting of meadow grass in and around basin.	Every 6 months (spring - before nesting season, and autumn).
	Inspect vegetation to pond edge and remove nuisance plants (for first 3 years).	Monthly (at start, then as required).
	Hand cut submerged and emergent aquatic plants (at minimum of 0.1 m above pond base; include max 25% of pond surface).	Annually.
	Remove 25% of bank vegetation from waters edge to a minimum of 1 m above water level.	
	Tidy all dead growth before start of growing season.	
	Remove sediment from forebay.	1–5 years, or as required.
	Remove sediment from one quadrant of the main body of ponds without sediment forebays.	2–10 years.
Occasional Maintenance	Remove sediment from the main body of big ponds when pool volume is reduced by 20%.	>25 years (usually).
Remedial actions	Repair of erosion or other damage.	As required.
	Aerate pond when signs of eutrophication are detected.	
	Realignment of rip-rap or other damage.	
	Repair/rehabilitation of inlets, outlets and overflows.	
Monitoring	Inspect structures for evidence of poor operation.	Monthly/after severe storms.
	Inspect banksides, structures, pipework etc for evidence of physical damage.	Monthly/after severe storms.
	Inspect water body for signs of eutrophication.	Monthly (May–October).
	Inspect silt accumulation rates and establish appropriate removal; frequencies.	Every 6 months.
	Check penstocks and other mechanical devices.	

Table 3: Flow Control Chamber - Operation and Maintenance Requirements

Maintenance schedule	Required action	Frequency
Regular maintenance	Cleaning off the flow control device of any debris/ sediment	As required
Remedial Actions	Flow control device repairs.	As required
	Repair of erosion damage, or damage to chamber.	
Monitoring	Inspection of the chamber for debris and sediment build up.	Monthly for first 3 months, thereafter, every 6 months and following severe storm events.

