Job Title			Date
Hardwick House, Eastbourne			Aug 2023
Item	Revision	Job No.	Report No.
Drainage Note	В	E8731	RE003



## Introduction

This note has been produced for Beford Park Developments by Stephen Wilson Partnership (SWP). The aim of the note is to summarise the outstanding information required raised by East Sussex County Council (ESCC) as the LLFA.

# **Condition 4**

ESCC comments are as follows:

"Condition 4 relates to the detailed design of the surface water drainage system. Whilst detailed drawings have been provided, it was requested as part of the Condition to provide hydraulic calculations. It is noted that these are referenced within the covering email but these do not appear to have been submitted to ourselves as LLFA. We request that the applicant provides hydraulic calculations which correlate with the proposed drawings and is inclusive of hydraulic connectivity of the network. Additionally, evidence that the additional phase of the development has been considered within the network design should be provided."

The drainage calculations proving that the proposed drainage layout is suitable was missed from the planning portal. Please find the calculations as an appendix to this note.

The additional concern raise by ESCC was that the proposed drainage system has considered the additional phase of the development. We can confirm that the proposed drainage system has been designed to accommodate additional phase of the development. The additional phase area has been treated as 100% impermeable for the sake of these calculations.

Additional comments were received following submission of revision A of this note. They are as follows:

"Condition 4 relates to the detailed design of the surface water drainage system. Hydraulic calculations have been provided but impermeable area stated within the document is not consistent. We request the applicant provides a catchment plan shown the impermeable are which is entering the network at which manhole to clarify the design and enable a clear cross-reference between the drawing and calculations."

Following the comments, a drainage catchment area plan has been produced. This can be found in Appendix 2. This shows the impermeable areas being collected by each manhole as shown in the proposed drainage layout.

The error in the hydraulic calculations has been corrected and updated.

## **Condition 5**

ESCC comments are as follows:

"Condition 5 relates to the management and maintenance of the proposed drainage network and, whilst the measures proposed are acceptable the document fails to satisfy part (a) and part (b) of the Condition as it is not made clear who is responsible for undertaking the activities. We request that the applicant provides clear indication of the parties responsible for the maintenance of the drainage system in an updated Management and Maintenance Plan."

ESCC request the applicant provides the details of the parties responsible for the maintenance of the

drainage system.

The onsite drainage will remain private and solely under the ownership of Bedford Park Developments. They will be responsible for the upkeep and maintenance of the existing and proposed drainage on site. A copy of the latest drainage and maintenance plan has been provided to them. The details of Bedford Park Developments are as follows:

Bedford Park Developments Chalk House Vineyard Ditchling East Sussex BN6 8XB

ben@bedfordparkdevelopments.co.uk

+44 (0) 7393 765 846

Prepared E	Зу	Seen By	Date
Craig Sear Civil Engin		James Maddin Civil Engineers	15-08-2023
Copies to	Ben Ellis (Bedford Park D	)evelopments)	

Appendix 1 – Drainage Calculations

Appendix 2 – Drainage Catchment Area



Title Ha	rdwick House, Eastbourne	Job No:	E8731
Description : Sur	rface Water Calculations	By:	CRS
		Date:	Aug-23
		Sheet No:	1

#### Design Data

M5-60(mm) = 19.600

Ratio R = 0.351

Design Criteria

Design Storm = 100Yr + 45% Climate Change

Discharge Point = Existing private combined drainage

Discharge Rate = 50%+ betterment on existing flows

Total Impermeable Area =  $410m^2$ 

#### <u>Results</u>

Please refer to attached sheets

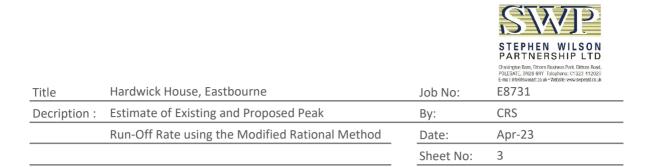


			E-mail: intoReswaeast.co.uk + Website: www.swpeast.co.uk
Title	Hardwick House, Eastbourne	Job No:	E8731
Decription :	Estimate of Existing and Proposed Peak	By:	CRS
	Run-Off Rate using the Modified Rational Method	Date:	Apr-23
		Sheet No:	2

## Existing Site

Pre-Developed Site: Estimate Surface Water Run-Off Using the Modified Rational Method

Existing Impermeable Area =410 M2Average Rate of Rainfall						
Average Rate of Rainfall						
2 Year 15 Minute Event (M2-15D) = 37.583 mm/hr (i)						
30 Year 15 Minute Event (M30-15D) = 71.211 mm/hr (i)						
100 Year 15 Minute Event (M100-15D) = 92.206 mm/hr (i)						
Average Rainfall Values from FSR Data taken from the MicroDrainage Software						
Peak Rate of Run-Off $(Q_p)$						
$Q_P = C \cdot A_P \cdot i$ Where $C = C_V \cdot C_R$						
$C_V = 0.75$ (Volumetric Co-efficient) $C_R = 1.3$ (Routing Co-efficient)						
Q <sub>P2</sub> = 4.173 l/s						
Q <sub>P30</sub> = 7.907 l/s						
Q <sub>P100</sub> = 10.239 l/s						



Total Impermeable Area =410 M2Adjust Average Rainfall for Climate Change in Accordance with the Requirements of the NPPF Technical Guidance, +45% with FSR DataM2-15D +40% =54.495 mm/hr (i)M30-15D +40% =103.256 mm/hr (i)
Technical Guidance, +45% with FSR Data M2-15D +40% = 54.495 mm/hr (i)
M30-15D $\pm 40\% = 103.256 \text{ mm/br}(i)$
M100 - 15D +40% = 133.699 mm/hr (i)
Proposed Peak Rate of Run-Off $(Q_p)$
Q <sub>P2</sub> = 6.051 l/s
Q <sub>P30</sub> = 11.466 l/s
Q <sub>P100</sub> = 14.846 l/s

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E8731	
Hardwick House	
Eastbourne	Mirro
Designed by CRS	Drainage
Checked by	Diamage
Network 2020.1.3	
	Hardwick House Eastbourne Designed by CRS Checked by

### Time Area Diagram for Storm

Time	Area	Time	Area
(mins)	(ha)	(mins)	(ha)
0-4	0.032	4-8	0.009

Total Area Contributing (ha) = 0.041

Total Pipe Volume  $(m^3) = 0.462$ 

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Checked by	Diamage
Network 2020.1.3	
	Hardwick House Eastbourne Designed by CRS Checked by

### STORM SEWER DESIGN by the Modified Rational Method

### Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Ba Flow		k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
1.000 1.001	2.962 12.259		2.8 79.1	0.004 0.005	6.00 0.00			0.600 0.600	0		Pipe/Conduit Pipe/Conduit	<del>8</del> 8
2.000	2.090	0.025	83.6	0.015	6.00		0.0	0.600	0	150	Pipe/Conduit	ð
1.002	0.500	0.005	100.0	0.000	0.00		0.0	0.600	0	150	Pipe/Conduit	ð
3.000	13.400	0.340	39.4	0.003	6.00		0.0	0.600	0	100	Pipe/Conduit	8
1.003 1.004 1.005	0.650 3.584 6.600		43.3 55.1 50.8	0.014 0.000 0.000	0.00 0.00 0.00		0.0	0.600 0.600 0.600	0 0 0	150	Pipe/Conduit Pipe/Conduit Pipe/Conduit	ð

#### Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)		Add Flow (l/s)	Vel (m/s)	Cap (1/s)	Flow (1/s)
1.000 1.001	50.00 50.00		5.770 4.720	0.004 0.009	0.0	0.0	0.0	4.64 0.87	36.4 6.8	0.5 1.2
2.000	50.00	6.03	4.590	0.015	0.0	0.0	0.0	1.10	19.4	2.0
1.002	50.00	6.25	4.565	0.024	0.0	0.0	0.0	1.00	17.8	3.2
3.000	50.00	6.18	5.200	0.003	0.0	0.0	0.0	1.23	9.7	0.4
1.003 1.004 1.005	50.00 50.00 50.00	6.31	4.560 4.545 4.480	0.041 0.041 0.041	0.0 0.0 0.0	0.0 0.0 0.0	0.0 0.0 0.0	1.53 1.36 1.42	27.1 24.0 25.0	5.6 5.6 5.6

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99 South Street	E8731	
Eastbourne, East Sussex	Hardwick House	
BN21 4LU	Eastbourne	Micro
Date 15/08/2023 12:26	Designed by CRS	Drainage
File E8731 Surface Water Calcs.MDX	Checked by	
XP Solutions	Network 2020.1.3	

	Manhole Schedules for Storm											
MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	PN	Pipe Out Invert Level (m)	Diameter (mm)	PN	Pipes In Invert Level (m)	Diameter (mm)	Backdrop (mm)	
RE1	6.370	0.600	Open Manhole	100	1.000	5.770	100					
S1	5.320	0.600	Open Manhole	450	1.001	4.720	100	1.000	4.720	100		
Phase 2	5.900	1.310	Open Manhole	1200	2.000	4.590	150					
S2	5.820	1.255	Open Manhole	600 x 450	1.002	4.565	150	1.001	4.565	100		
								2.000	4.565	150		
RE2	5.900	0.700	Open Manhole	100	3.000	5.200	100					
TANK	5.600	1.040	Junction		1.003	4.560	150	1.002	4.560	150		
								3.000	4.860	100	250	
S3	5.600	1.055	Open Manhole	600 x 450	1.004	4.545	150	1.003	4.545	150		
IC7	5.610	1.130	Open Manhole	600 x 450	1.005	4.480	150	1.004	4.480	150		
IC2	5.870	1.520	Open Manhole	1200 x 600		OUTFALL		1.005	4.350	150		

No coordinates have been specified, layout information cannot be produced.

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99 South Street	E8731	
Eastbourne, East Sussex	Hardwick House	
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### PIPELINE SCHEDULES for Storm

## Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.000 1.001	0	100 100	RE1 S1	6.370 5.320	5.770 4.720		Open Manhole Open Manhole	100 450
2.000	0	150	Phase 2	5.900	4.590	1.160	Open Manhole	1200
1.002	0	150	S2	5.820	4.565	1.105	Open Manhole	600 x 450
3.000	0	100	RE2	5.900	5.200	0.600	Open Manhole	100
1.003 1.004 1.005	0 0 0	150 150 150	TANK S3 IC7	5.600 5.600 5.610	4.560 4.545 4.480		Junction Open Manhole Open Manhole	600 x 450 600 x 450

#### Downstream Manhole

PN	Length (m)	Slope (1:X)		C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., (mm)	L*W
1.000 1.001	2.962 12.259	2.8 79.1	S1 S2	5.320 5.820	4.720 4.565		Open Manhole Open Manhole	600 x	450 450
2.000	2.090	83.6	S2	5.820	4.565	1.105	Open Manhole	600 x	450
1.002	0.500	100.0	TANK	5.600	4.560	0.890	Junction		
3.000	13.400	39.4	TANK	5.600	4.860	0.640	Junction		
1.003 1.004 1.005	0.650 3.584 6.600	43.3 55.1 50.8	S3 IC7 IC2	5.600 5.610 5.870	4.545 4.480 4.350	0.980	Open Manhole Open Manhole Open Manhole		450

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ile E8731 Su	urface Wa	ter Cal	. Checked	d by			Drainag
P Solutions			Network	x 2020.1.3			
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		01111	ne control	s for Sto	<u>L III</u>		
Hydro-E	Brake® Opt	timum Man	hole: S3,	DS/PN: 1.	004, Volu	ume (m³)	: 0.3
		U	nit Referenc	ce MD-SHE-00	94-3000-01	50-3000	
			sign Head (m			0.150	
		Desi	gn Flow (l/s Flush-Flo		Cal	3.0 culated	
				, ve Minimise			
			Applicatio			Surface	
			ump Availabl			Yes	
			Diameter (mm ert Level (m			94 4.545	
	Minimum Our		Diameter (m			4.545	
		-	Diameter (mm			1200	
		Control	Points	Head (m)	Flow (l/s)		
	Des	ign Point	(Calculated) Flush-Flo		3.0 3.0		
			Kick-Flo		2.9		
The hydrologi Hydro-Brake®	.cal calcul	ations hav		e – 1 on the Hea			
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BN21 4LU	Eastbourne	Micro
Date 15/08/2023 12:53	Designed by CRS	Drainage
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XP Solutions	Network 2020.1.3	
	rage Structures for Storm « Manhole: TANK, DS/PN: 1.003	
	Cellular Storage	
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0.000 26.0 0.400 26.0	26.0 38.0 0.401 0.0	38.0
	<u>Cellular Storage</u>	
	Invert Level (m) 4.560 Safety Fact icient Base (m/hr) 0.00000 Porosi	
	icient Side (m/hr) 0.00000 nf. Area (m²) Depth (m) Area (m²) Inf.	Area (m²)
0.000 3.5	3.5 0.401 0.0	7.1
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PN         N           1.000         1.001           2.000         Pha           1.002         3.000	S/MH ame s RE1 15 S1 15 ase 2 30 S2 30 RE2 15 TANK 30	Duration(s) n Period(s) Climate Cha Retu Storm Peri Summer Summer Summer Summer Summer Summer Summer	Inerti ofile(s) (mins) 1 (years) ange (%) ern Climat od Change 2 +0 2	a Status 5, 30, 60, 120, • First (X) • Surcharge % % 100/15 Summer % 30/15 Summer % % 30/15 Summer	240, 360, First (Y) Flood	480, 960, 1 2, 30, 0, 0, First (Z) (	ON ON ON 440 100 45 <b>Wat</b> <b>Overflow</b> Act. (m 5.7 4.7 4.6 4.6 5.2	<b>ve</b> n) 781 755 655 654
PN         N           1.000         1.001           2.000         Pha           1.002         3.000           1.003         1.003	S/MH ame s RE1 15 S1 15 ase 2 30 S2 30 RE2 15 TANK 30 S3 30	Duration(s) n Period(s) Climate Cha Retu Storm Peri Summer Summer Summer Summer Summer Summer Summer Summer	Inerti ofile(s) (mins) 1 (years) ange (%) mrn Climat od Change 2 +0 2 +0 2 +0 2 +0 2 +0 2 +0 2 +0 2 +0	a Status 5, 30, 60, 120, • First (X) • Surcharge % 100/15 Summer % 30/15 Summer % % 30/15 Summer % 30/15 Summer %	240, 360, First (Y) Flood	480, 960, 1 2, 30, 0, 0, First (Z) (	ON ON ON Atter 440 100 45 <b>Wat</b> <b>Overflow</b> <b>Lev</b> Act. (m 5.7 4.7 4.6 4.6 5.2 4.6 4.6	ve: n) 78: 75: 65: 65: 65: 65: 65: 65:
PN         N           1.000         1.001           2.000         Pha           1.002         3.000           1.003         1.003	S/MH ame s RE1 15 S1 15 ase 2 30 S2 30 RE2 15 TANK 30 S3 30	Duration(s) n Period(s) Climate Cha Retu Storm Peri Summer Summer Summer Summer Summer Summer	Inerti ofile(s) (mins) 1 (years) ange (%) rn Climat od Change 2 +0 2 +0 2 +0 2 +0 2 +0 2 +0 2 +0 2 +0	a Status 5, 30, 60, 120, • First (X) • Surcharge % 100/15 Summer % 30/15 Summer % % 30/15 Summer % 30/15 Summer %	240, 360, First (Y) Flood	480, 960, 1 2, 30, 0, 0, First (Z) (	ON ON ON Atter 440 100 45 <b>Wat</b> <b>Overflow</b> <b>Lev</b> Act. (m 5.7 4.7 4.6 4.6 5.2 4.6 4.6	ve: n) 78: 75: 65: 65: 65: 65: 65: 65:
<b>PN N</b> 1.000 1.001 2.000 Pha 1.002	S/MH RE1 15 S1 15 ase 2 30 RE2 15 TANK 30 S3 30 IC7 60	Duration(s) n Period(s) Climate Cha Retu Storm Peri Summer Summer Summer Summer Summer Summer Summer Summer Summer Summer Summer	Inerti ofile(s) (mins) 1 (years) ange (%) rn Climat od Change 2 +0 2 +	a Status 5, 30, 60, 120, • First (X) • Surcharge % 100/15 Summer % 30/15 Summer % % 30/15 Summer % 30/15 Summer %	240, 360, First (Y) Flood Half Drain	480, 960, 1 2, 30, 0, 0, First (Z) ( Overflow	ON ON ON Atter 440 100 45 <b>Wat</b> <b>Overflow</b> <b>Lev</b> Act. (m 5.7 4.7 4.6 4.6 5.2 4.6 4.6	vel
PN         N           1.000         1.001           2.000         Pha           1.002         Pha           1.003         1.003           1.004         Pha	S/MH ame s RE1 15 S1 15 ase 2 30 S2 30 RE2 15 TANK 30 S3 30	Duration(s) n Period(s) Climate Cha Retu Storm Peri Summer Summer Summer Summer Summer Summer Summer Summer Summer	Inerti ofile(s) (mins) 1 (years) ange (%) rn Climat od Change 2 +0 2 +	a Status 5, 30, 60, 120, e First (X) e Surcharge % 100/15 Summer % 30/15 Summer % 30/15 Summer % 30/15 Summer %	240, 360, First (Y) Flood Half Drain	480, 960, 1 2, 30, 0, 0, First (Z) ( Overflow Pipe Flow	ON ON ON Ater 440 100 45 <b>Wat</b> <b>Dverflow</b> Act. (m 5.7 4.7 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6	<b>ve</b> ] 781 755 655 654 216 654 673
PN         N           1.000         1.001           2.000         Pha           1.002         3.000           1.003         1.003           1.005         PN	S/MH RE1 15 S1 15 ase 2 30 RE2 15 TANK 30 S3 30 IC7 60 US/MH Name	Duration(s) n Period(s) Climate Cha Retu Storm Peri Summer Summer Summer Summer Summer Summer Summer Summer Summer Mumer Mumer Mumer Mumer Mumer	Inerti ofile(s) (mins) 1 (years) ange (%) ern Climat od Change 2 +0 2	a Status 5, 30, 60, 120, e First (X) s Surcharge % 100/15 Summer % 30/15 Summer % 30/15 Summer % 30/15 Summer % Flow / Overflow Cap. (1/s)	240, 360, First (Y) Flood Half Drain Time	<pre>480, 960, 1</pre>	ON ON ON Ater 440 100 45 <b>Wat</b> <b>Overflow Lev</b> Act. (m 5.7 4.7 4.6 4.6 5.2 4.6 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 5.2 4.6 5.2 4.6 5.2 4.6 5.2 4.6 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2	<b>ve</b> 78 75 65 65 21 65 65 67
PN         N           1.000         1.001           2.000         Pha           1.002         3.000           1.003         1.003           1.005         PN           1.005         1.000	S/MH ame : RE1 15 S1 15 ase 2 30 S2 30 RE2 15 TANK 30 S3 30 IC7 60 US/MH Name RE1	Duration(s) n Period(s) Climate Cha Retu Storm Peri Summer Sumer Summer	Inerti ofile(s) (mins) 1 (years) ange (%) ern Climat od Change 2 +0 2	a Status 5, 30, 60, 120, e First (X) s Surcharge % 100/15 Summer % 30/15 Summer % 30/15 Summer % 30/15 Summer % Flow / Overflow Cap. (1/s) 0.03	240, 360, First (Y) Flood Half Drain Time	<pre>480, 960, 1</pre>	ON ON ON Ater 440 100 45 <b>Wat</b> <b>Overflow Lev</b> Act. (m 5.7 4.7 4.6 4.6 5.2 4.6 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 5.2 4.6 5.2 4.6 5.2 4.6 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2	<b>ve</b> 78 75 65 65 21 65 65 67
PN         N           1.000         1.001           2.000         Pha           1.002         3.000           1.003         1.003           1.005         PN           1.005         1.000	S/MH RE1 15 S1 15 ase 2 30 S2 30 RE2 15 TANK 30 S3 30 IC7 60 US/MH Name RE1 S1	Duration(s) n Period(s) Climate Cha Retu Storm Peri Summer Sumer Summer	Inerti ofile(s) (mins) 1 (years) ange (%) ern Climat od Change 2 +0 2	a Status 5, 30, 60, 120, e First (X) s Surcharge % 100/15 Summer % 30/15 Summer % 30/15 Summer % 30/15 Summer % Flow / Overflow Cap. (1/s) 0.03 0.26	240, 360, First (Y) Flood Half Drain Time	<pre>480, 960, 1</pre>	ON ON ON N Atter 440 100 45 <b>Wat</b> <b>Dverflow Lev</b> Act. (m 5.7 4.7 4.6 4.6 5.2 4.6 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 5.2 4.6 5.2 4.6 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2	<b>ve</b> ] 781 755 655 654 216 654 673
PN         N           1.000         1.001           2.000         Pha           1.002         3.000           1.003         1.003           1.005         PN           1.005         1.000           1.001         2.000	S/MH RE1 15 S1 15 ase 2 30 RE2 15 TANK 30 S3 30 IC7 60 US/MH Name RE1 S1 Phase 2	Duration(s) n Period(s) Climate Cha Retu Storm Peri Summer Summe	Inerti ofile(s) (mins) 1 (years) ange (%) ern Climat od Change 2 +0 2	a Status 5, 30, 60, 120, e First (X) s Surcharge % 100/15 Summer % 30/15 Summer % 30/15 Summer % Solver flow Cap. (1/s) 0.03 0.26 0.25	240, 360, First (Y) Flood Half Drain Time	<pre>480, 960, 1</pre>	ON ON ON Ater 440 100 45 <b>Wat</b> <b>Dverflow Lev</b> Act. (m 5.7 4.7 4.6 4.6 5.2 4.6 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 5.2 4.6 5.2 4.6 5.2 4.6 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2	<b>ve</b> ] 781 755 655 654 216 654 673
PN         N           1.000         1.001           2.000         Pha           1.002         3.000           1.003         1.003           1.005         PN           1.000         1.001	S/MH ame : RE1 15 S1 15 ase 2 30 RE2 15 TANK 30 S3 30 IC7 60 US/MH Name RE1 S1 Phase 2 S2	Duration(s) n Period(s) Climate Cha Retu Storm Peri Summer Summe	Inerti ofile(s) (mins) 1 (years) ange (%) ern Climat od Change 2 +0 2	a Status 5, 30, 60, 120, e First (X) s Surcharge % 100/15 Summer % 30/15 Summer % 30/15 Summer % 30/15 Summer % Flow / Overflow Cap. (1/s) 0.03 0.26	240, 360, First (Y) Flood Half Drain Time	<pre>480, 960, 1</pre>	ON ON ON N Atter 440 100 45 <b>Wat</b> <b>Dverflow Lev</b> Act. (m 5.7 4.7 4.6 4.6 5.2 4.6 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 4.6 5.2 4.6 5.2 4.6 5.2 4.6 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2 5.2	ve: n) 78: 75: 65: 65: 21: 65: 65: 65: 65:

Stephen Wilson Partnership Ltd		Page 11
99 South Street	E8731	
Eastbourne, East Sussex	Hardwick House	
BN21 4LU	Eastbourne	Mirro
Date 15/08/2023 12:53	Designed by CRS	Drainage
File E8731 Surface Water Cal	Checked by	Drainacje
XP Solutions	Network 2020.1.3	

2 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Surcharged Depth (m)			Overflow (1/s)	Half Drain Time (mins)	Flow	Status	Level Exceeded
1.003 1.004 1.005	TANK S3 IC7	-0.056 -0.022 -0.113	0.000 0.000 0.000	0.27 0.18 0.14		18	3.0 2.8 2.9	OK* OK OK	

99 South Str	ON Partne	rship Ltd				Page 12
			E8731			
Eastbourne,		- II	Hardwick	House		
BN21 4LU	East Suss	52				
			Eastbour	-		Micro
Date 15/08/2			Designed	1		Drainage
File E8731 S	urface Wa	cer Cal	Checked	by		Drainacje
XP Solutions			Network	2020.1.3		
<u>30 year Retu</u>	ırn Period	Summary c	of Critica for Sto		y Maximum Lev	rel (Rank 1)
Manhole H	Hot S Hot Start Headloss Coe ewage per he Number of 3 Number o:	tion Factor tart (mins) Level (mm) ff (Global) ctare (l/s) Input Hydrog f Online Con	0 0 0.500 Flow 0.000 raphs 0 Num trols 1 Num	itional Flow MADD Factor I per Person pe ber of Storage ber of Time/An	- % of Total Fl * 10m³/ha Stora nlet Coeffiecie r Day (l/per/da e Structures 1 cea Diagrams 0	ge 2.000 ent 0.800
	Number of		trols 0 Num etic Rainfa		ime Controls 0	
		all Model	gland and W	FSR Rationales Cv (Summe .600 Cv (Winte	er) 1.000	
Ма	rgin for Fl	D	Timestep 2 TS Status	.5 Second Inc		(L) NC
			VD Status ia Status			NC
Re	turn Period		15, 30, 60,		Summer and Winte ), 480, 960, 144 2, 30, 10 0, 0, 4	40 00
						10
US/MH	1	Return Clima	te First	(X) First (	Y) First (Z) Ov	Water
US/MH PN Name		Return Clima Period Chang				Water
PN Name		Period Chang				Water erflow Level Act. (m)
<b>PN Name</b> 1.000 RE1	Storm 1	<b>Period Chang</b> 30 +	ge Surcha	rge Flood		Water erflow Level Act. (m) 5.784
PN         Name           1.000         RE1           1.001         S1           2.000         Phase 2	Storm 15 15 Summer 15 Summer 60 Summer	<b>Period Chang</b> 30 + 30 + 30 +	ge         Surcha           0%         0%           0%         100/15 S           0%         30/30 S	rge Flood ummer ummer		Water Perflow Level Act. (m) 5.784 4.775 4.767
PN         Name           1.000         RE1           1.001         S1           2.000         Phase 2           1.002         S2	Storm 2 15 Summer 15 Summer 60 Summer 60 Summer	Period         Change           30         +           30         +           30         +           30         +           30         +	Surcha           0%           0%           100/15 s           0%           30/30 s           0%           30/15 s	rge Flood ummer ummer		Water Perflow Level Act. (m) 5.784 4.775 4.767 4.766
PN         Name           1.000         RE1           1.001         S1           2.000         Phase 2           1.002         S2           3.000         RE2	Storm 2 15 Summer 15 Summer 60 Summer 15 Summer	Period         Change           30         +           30         +           30         +           30         +           30         +           30         +           30         +	ge         Surcha           0%	rge Flood ummer ummer ummer		Water Perflow Level Act. (m) 5.784 4.775 4.767 4.766 5.223
PN         Name           1.000         RE1           1.001         S1           2.000         Phase 2           1.002         S2           3.000         RE2           1.003         TANK	Storm 2 15 Summer 15 Summer 60 Summer 60 Summer	Period         Change           30         +           30         +           30         +           30         +           30         +           30         +           30         +           30         +           30         +	Surcha           0%           0%           100/15 s           0%           30/30 s           0%           30/15 s	rge Flood ummer ummer ummer		Water Perflow Level Act. (m) 5.784 4.775 4.767 4.766 5.223 4.765
PN         Name           1.000         RE1           1.001         S1           2.000         Phase 2           1.002         S2           3.000         RE2           1.003         TANK           1.004         S3	Storm 2 15 Summer 15 Summer 60 Summer 15 Summer 60 Summer	Period         Change           30         +           30         +           30         +           30         +           30         +           30         +           30         +           30         +           30         +           30         +           30         +           30         +	ge         Surcha           0%         100/15 s           0%         30/30 s           0%         30/15 s           0%         30/15 s	rge Flood ummer ummer ummer		Water Perflow Level Act. (m) 5.784 4.775 4.767 4.766 5.223 4.765 4.765 4.795
PN         Name           1.000         RE1           1.001         S1           2.000         Phase 2           1.002         S2           3.000         RE2           1.003         TANK           1.004         S3	Storm 2 15 Summer 15 Summer 60 Summer 15 Summer 60 Summer 30 Winter	Period         Change           30         +           30         +           30         +           30         +           30         +           30         +           30         +           30         +           30         +           30         +           30         +           30         +           30         +           30         +           30         +           4         Flooded           Volume         Fl	ge         Surcha           0%         100/15 s           0%         30/30 s           0%         30/15 s           0%         30/15 s           0%         30/15 s           0%         30/15 s	rge Flood	Overflow	Water Perflow Level Act. (m) 5.784 4.775 4.767 4.766 5.223 4.765 4.795 4.521 Level
PN         Name           1.000         RE1           1.001         S1           2.000         Phase 2           1.002         S2           3.000         RE2           1.003         TANK           1.004         S3           1.005         IC7           US/MH           PN         Name	Storm 1 Summer Summer Summer Summer Summer Summer Summer (m)	Period Chang 30 + 30 + <b>Solution</b> 4 Flooded Volume Fl (m <sup>3</sup> ) C	ge         Surcha           0%         100/15 S           0%         30/30 S           0%         30/15 S           0%         30/15 S           0%         30/15 W	rge Flood	Overflow Pipe Flow (l/s) Status	Water Perflow Level Act. (m) 5.784 4.775 4.767 4.766 5.223 4.765 4.795 4.521 Level Exceeded
PN         Name           1.000         RE1           1.001         S1           2.000         Phase 2           1.002         S2           3.000         RE2           1.003         TANK           1.004         S3           1.005         IC7           US/MH           PN         Name           1.000         RE1	Storm 1 15 Summer 15 Summer 60 Summer 15 Summer 60 Summer 30 Winter 60 Summer 8 Surcharged Depth (m)	Period         Change           30         +      <	ge         Surcha           0%         100/15 S           0%         30/30 S           0%         30/15 S           0%         30/15 S           0%         30/15 W	rge Flood	Overflow Pipe Flow (1/s) Status 1.5	Water Perflow Level Act. (m) 5.784 4.775 4.767 4.766 5.223 4.765 4.795 4.521 Level Exceeded OK
PN         Name           1.000         RE1           1.001         S1           2.000         Phase 2           1.002         S2           3.000         RE2           1.003         TANK           1.004         S3           1.005         IC7           US/MH           PN         Name           1.000         RE1           1.001         S1	Storm 1 15 Summer 15 Summer 60 Summer 15 Summer 15 Summer 30 Winter 60 Summer 30 Winter 60 Summer 15 Summer 16 Summer 17 Summer 18 Summer 19 Summer 10	Period         Change           30         +           30         -      <	ge         Surcha           0%         100/15 S           0%         30/30 S           0%         30/15 S           0%         30/15 S           0%         30/15 W           0%         0	rge Flood	Overflow Pipe Flow (1/s) Status 1.5 3.7	Water Perflow Level Act. (m) 5.784 4.775 4.767 4.766 5.223 4.765 4.795 4.521 Level Exceeded
PN         Name           1.000         RE1           1.001         S1           2.000         Phase 2           1.002         S2           3.000         RE2           1.003         TANK           1.004         S3           1.005         IC7           US/MH           PN         Name           1.000         RE1           1.001         S1           2.000         Phase 2	Storm         Stor	Period         Change           30         +           30         -      <	ge         Surcha           0%         100/15 S           0%         30/30 S           0%         30/15 S           0%         30/15 S           0%         30/15 W           0%         30/15 W	rge Flood	Overflow Pipe Flow (1/s) Status 1.5 3.7 3.8 SURCHAR	Water Perflow Level Act. (m) 5.784 4.775 4.767 4.766 5.223 4.765 4.795 4.521 Level Exceeded OK OK OK
PN         Name           1.000         RE1           1.001         S1           2.000         Phase 2           1.002         S2           3.000         RE2           1.003         TANK           1.004         S3           1.005         IC7           US/MH           PN         Name           1.000         RE1           1.001         S1	Storm     Storm       15     Summer       15     Summer       60     Summer       60     Summer       15     Summer       60     Summer       30     Winter       60     Summer       30     Winter       60     Summer       9     Depth       (m)     -0.086       1     -0.086       2     0.027       2     0.027	Period Chang 30 + 30 +	ge         Surcha           0%         100/15 S           0%         30/30 S           0%         30/15 S           0%         30/15 S           0%         30/15 W           0%         0	rge Flood	Overflow Pipe Flow (1/s) Status 1.5 3.7	Water Perflow Level Act. (m) 5.784 4.775 4.767 4.766 5.223 4.765 4.795 4.521 Level Exceeded OK OK OK

Stephen Wilson Partnership Ltd		Page 13
99 South Street	E8731	
Eastbourne, East Sussex	Hardwick House	
BN21 4LU	Eastbourne	Micro
Date 15/08/2023 12:53	Designed by CRS	Drainage
File E8731 Surface Water Cal	Checked by	Diamage
XP Solutions	Network 2020.1.3	•

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Surcharged Depth (m)		Flow / Cap.	Overflow (1/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
1.003	TANK	0.055	0.000	0.32		30	3.5	SURCHARGED*	
1.004	S3	0.100	0.000	0.21			3.4	SURCHARGED	
1.005	IC7	-0.109	0.000	0.16			3.4	OK	

SLEDDED WILS	son Partner	ship Ltc	-					Page	<u> </u>
99 South Sti				3731					
		v		ardwick Hou	20				
Eastbourne,	East Susse	X			se				
BN21 4LU				astbourne				– Mic	
Date 15/08/2				esigned by	CRS				inage
File E8731 S	Surface Wat	er Cal	Cł	necked by					linage
XP Solutions	5		Ne	etwork 2020	.1.3				
<u>100 year R</u>	eturn Peric	od Summa:	1)	<u>Critical I</u> for Storm		oy Maz	kimum l	Level	(Rank
	Hot St Hot Start	tart (mins Level (mm Ef (Global	or 1.0 s) n) _) 0.5	00 Additior 0 MADI 0 00 Flow per H	nal Flow - D Factor * In	10m³/ let Co	ha Stora effiecie	age 2. ent 0.	000 800
	Number of	Online Co	ontrol	ns 0 Number o .s 1 Number o .s 0 Number o	f Time/Are	ea Diag	grams O		
		ll Model		nd and Wales	Ratio	c) 1.00	00		
Ma	argin for Flo						150		
			DTS S DVD S	mestep 2.5 Se Status Status Status	cond Incre	ement (		ed) ON ON ON	
Re	Duration turn Period(	Ine Profile(s (s) (mins	DTS S DVD S rtia S ) ) 15,	Status Status	Su	ummer a 480,	und Wint	ON ON ON er 40 00	
US/MH	Duration eturn Period( Climate	Ine Profile(s (s) (mins s) (years Change (% eturn Clin	DTS \$ DVD \$ Ttia \$ ) 15, ) mate	Status Status 30, 60, 120, First (X)	Su 240, 360, First (Y)	ummer a 480, 2 First	und Wint 960, 14 2, 30, 1 0, 0, t (Z) Or	ON ON ON er 40 00 45 verflor	v Level
US/MH PN Name	Duration eturn Period( Climate Ra Storm Pa	Ine Profile(s (s) (mins s) (years Change (% eturn Clin eriod Cha	DTS S DVD S rtia S ) ) 15, ) mate	Status Status Status 30, 60, 120,	Su 240, 360,	ummer a 480, 2 First	und Wint 960, 14 2, 30, 1 0, 0,	ON ON ON er 40 00 45	w Leve (m)
US/MH PN Name 1.000 RE1	Duration eturn Period( Climate R Storm P 15 Summer	Ine Profile(s (s) (mins s) (years Change (% eturn Clin eriod Cha 100	DTS S DVD S rtia S ) ) 15, ) mate ange +45%	Status Status 30, 60, 120, First (X) Surcharge	Su 240, 360, First (Y) Flood	ummer a 480, 2 First	und Wint 960, 14 2, 30, 1 0, 0, t (Z) Or	ON ON ON er 40 00 45 verflor	<b>(m)</b>
US/MH PN Name 1.000 RE1 1.001 S1	Duration eturn Period( Climate R Storm P 15 Summer 60 Summer	Ine Profile(s (s) (mins s) (years Change (% eturn Clin eriod Cha 100 100	DTS S DVD S rtia S ) ) 15, ) mate ange +45%	Status Status 30, 60, 120, First (X) Surcharge	Su 240, 360, First (Y) Flood	ummer a 480, 2 First	und Wint 960, 14 2, 30, 1 0, 0, t (Z) Or	ON ON ON er 40 00 45 verflor	V Leve (m) 5.79 5.21
US/MH PN Name 1.000 RE1 1.001 S1 2.000 Phase 2	Duration eturn Period( Climate R Storm P 15 Summer 60 Summer	Ine Profile(s (s) (mins s) (years Change (% eturn Clin eriod Cha 100 100	DTS S DVD S rtia S ) ) 15, ) mate ange +45%	Status Status 30, 60, 120, First (X) Surcharge	Su 240, 360, First (Y) Flood	ummer a 480, 2 First	und Wint 960, 14 2, 30, 1 0, 0, t (Z) Or	ON ON ON er 40 00 45 verflor	Leve (m) 5.79 5.21 5.20
US/MH PN Name 1.000 RE1 1.001 S1 2.000 Phase 2 1.002 S2	Duration eturn Period( Climate <b>R</b> <b>Storm P</b> 15 Summer 60 Summer 60 Summer	Ine Profile(s (s) (mins s) (years Change (% eturn Clin eriod Cha 100 100 100	DTS S DVD S rtia S ) 15, ) ) mate ange +45% +45%	Status Status Status 30, 60, 120, First (X) Surcharge 100/15 Summer 30/30 Summer	Su 240, 360, First (Y) Flood	ummer a 480, 2 First	und Wint 960, 14 2, 30, 1 0, 0, t (Z) Or	ON ON ON er 40 00 45 verflor	Level (m) 5.79 5.21 5.20 5.20
US/MH PN Name 1.000 RE1 1.001 S1 2.000 Phase 2 1.002 S2 3.000 RE2 1.003 TANK	Duration eturn Period( Climate <b>R</b> Storm P 15 Summer 60 Summer 60 Summer 15 Summer 60 Summer 60 Summer	Ine Profile(s (s) (mins s) (years Change (% eturn Clin eriod Cha 100 100 100 100 100	DTS S DVD S rtia S ) 15, ) ) mate ange +45% +45% +45% +45%	Status Status Status 30, 60, 120, First (X) Surcharge 100/15 Summer 30/15 Summer 30/15 Summer	Su 240, 360, First (Y) Flood	ummer a 480, 2 First	und Wint 960, 14 2, 30, 1 0, 0, t (Z) Or	ON ON ON er 40 00 45 verflor	<pre>v Level (m) 5.79 5.21 5.20 5.20 5.20 5.23</pre>
US/MH PN Name 1.000 RE1 1.001 S1 2.000 Phase 2 1.002 S2 3.000 RE2 1.003 TANK 1.004 S3	Duration eturn Period( Climate <b>R</b> <b>Storm P</b> 15 Summer 60 Summer 60 Summer 15 Summer 60 Summer 60 Summer 60 Summer	Ine Profile(s (s) (mins s) (years Change (% eturn Clin eriod Cha 100 100 100 100 100 100 100	DTS S DVD S rtia S ) 15, ) ) mate 445% +45% +45% +45% +45% +45% +45%	Status Status Status 30, 60, 120, First (X) Surcharge 100/15 Summer 30/30 Summer 30/15 Summer	Su 240, 360, First (Y) Flood	ummer a 480, 2 First	und Wint 960, 14 2, 30, 1 0, 0, t (Z) Or	ON ON ON er 40 00 45 verflor	V Leve (m) 5.79 5.21 5.20 5.20 5.23 5.20 5.20 5.20 5.20 5.20
US/MH PN Name 1.000 RE1 1.001 S1 2.000 Phase 2 1.002 S2 3.000 RE2 1.003 TANK 1.004 S3	Duration eturn Period( Climate <b>R</b> Storm P 15 Summer 60 Summer 60 Summer 15 Summer 60 Summer 60 Summer	Ine Profile(s (s) (mins s) (years Change (% eturn Clin eriod Cha 100 100 100 100 100 100 100	DTS S DVD S rtia S ) 15, ) ) mate ange +45% +45% +45% +45% +45% +45%	Status Status Status 30, 60, 120, First (X) Surcharge 100/15 Summer 30/15 Summer 30/15 Summer	Su 240, 360, First (Y) Flood	ummer a 480, 2 First	und Wint 960, 14 2, 30, 1 0, 0, t (Z) Or	ON ON ON er 40 00 45 verflor	V Leve (m) 5.79 5.21 5.20 5.20 5.23 5.20 5.20 5.20 5.20 5.20
US/MH PN Name 1.000 RE1 1.001 S1 2.000 Phase 2 1.002 S2 3.000 RE2 1.003 TANK 1.004 S3	Duration eturn Period( Climate <b>R</b> <b>Storm P</b> 15 Summer 60 Summer 60 Summer 15 Summer 60 Summer 60 Summer 60 Summer	Ine Profile(s (s) (mins s) (years Change (% eturn Clin eriod Cha 100 100 100 100 100 100 100	DTS S DVD S rtia S ) 15, ) ) mate 445% +45% +45% +45% +45% +45% +45%	Status Status Status 30, 60, 120, First (X) Surcharge 100/15 Summer 30/15 Summer 30/15 Summer	Su 240, 360, First (Y) Flood	ummer a 480, 2 First	und Wint 960, 14 2, 30, 1 0, 0, t (Z) Or	ON ON ON er 40 00 45 verflor	<pre>v Leve: (m) 5.79 5.21 5.20 5.20 5.23 5.20 5.20 5.20 5.20 5.20</pre>
US/MH PN Name 1.000 RE1 1.001 S1 2.000 Phase 2 1.002 S2 3.000 RE2 1.003 TANK 1.004 S3 1.005 IC7	Duration eturn Period ( Climate <b>R</b> Storm P 15 Summer 60 Summer 60 Summer 15 Sunmer 60 Summer 60 Summer 60 Summer 60 Summer	Ine Profile(s (s) (mins s) (years Change (% eturn Clin eriod Cha 100 100 100 100 100 100 100 100 50 100	DTS S DVD S rtia S ) 15, ) ) mate +45% +45% +45% +45% +45% +45% +45% +45%	Status Status Status 30, 60, 120, First (X) Surcharge 100/15 Summer 30/15 Summer 30/15 Summer 30/15 Winter Ha	Su 240, 360, First (Y) Flood	ummer a 480, 2 First Over	und Wint 960, 14 2, 30, 1 0, 0, t (Z) Or	ON ON ON er 40 00 45 verflor	<ul> <li>Level (m)</li> <li>5.791</li> <li>5.211</li> <li>5.201</li> <li>5.202</li> <li>5.203</li> <li>5.203</li> <li>5.203</li> <li>5.203</li> <li>4.534</li> </ul>
US/MH PN Name 1.000 RE1 1.001 S1 2.000 Phase 2 1.002 S2 3.000 RE2 1.003 TANK 1.004 S3 1.005 IC7 US/MH	Duration eturn Period ( Climate <b>R</b> <b>Storm P</b> 15 Summer 60 Summer 60 Summer 60 Summer 60 Summer 60 Summer 60 Summer 60 Summer 60 Summer	Ine Profile(s (s) (mins s) (years Change (% eturn Clin eriod Cha 100 100 100 100 100 100 100 100 100 10	DTS S DVD S rtia S ) ) 15, ) ) mate +45% +45% +45% +45% +45% +45% +45% +45%	Status Status Status 30, 60, 120, First (X) Surcharge 100/15 Summer 30/15 Summer 30/15 Summer 30/15 Summer 30/15 Winter Ha ' Overflow	Su 240, 360, First (Y) Flood	ummer a 480, 2 First Over Pipe Flow	und Wint 960, 14 2, 30, 1 0, 0, t (Z) Or flow	ON ON ON er 40 00 45 Verflor Act.	Level (m) 5.791 5.201 5.202 5.203 5.203 5.203 5.203 5.203 4.534 Level
US/MH PN Name 1.000 RE1 1.001 S1 2.000 Phase 2 1.002 S2 3.000 RE2 1.003 TANK 1.004 S3 1.005 IC7	Duration eturn Period ( Climate <b>R</b> Storm P 15 Summer 60 Summer 60 Summer 15 Sunmer 60 Summer 60 Summer 60 Summer 60 Summer	Ine Profile(s (s) (mins s) (years Change (% eturn Clin eriod Cha 100 100 100 100 100 100 100 100 50 100	DTS S DVD S rtia S ) 15, ) ) mate +45% +45% +45% +45% +45% +45% +45% +45%	Status Status Status 30, 60, 120, First (X) Surcharge 100/15 Summer 30/15 Summer 30/15 Summer 30/15 Winter Ha	Su 240, 360, First (Y) Flood	ummer a 480, 2 First Over	und Wint 960, 14 2, 30, 1 0, 0, t (Z) Or	ON ON ON er 40 00 45 Verflor Act.	<ul> <li>Level (m)</li> <li>5.79:</li> <li>5.21:</li> <li>5.20:</li> <li>5.20:</li> <li>5.20:</li> <li>5.20:</li> <li>5.20:</li> <li>4.53:</li> </ul>
US/MH PN Name 1.000 RE1 1.001 S1 2.000 Phase 2 1.002 S2 3.000 RE2 1.003 TANK 1.004 S3 1.005 IC7 US/MH	Duration eturn Period ( Climate <b>R</b> <b>Storm P</b> 15 Summer 60 Summer	Ine Profile(s (s) (mins s) (years Change (% eturn Clin eriod Cha 100 100 100 100 100 100 100 100 100 10	DTS S DVD S rtia S ) ) 15, ) ) mate +45% +45% +45% +45% +45% +45% +45% +45%	Status Status Status 30, 60, 120, First (X) Surcharge 100/15 Summer 30/15 Summer 30/15 Summer 30/15 Winter Ha Overflow (1/s)	Su 240, 360, First (Y) Flood	ummer a 480, 2 First Over Pipe Flow	und Wint 960, 14 2, 30, 1 0, 0, t (Z) Or flow	ON ON ON er 40 00 45 Verflor Act.	<pre>v Level (m) 5.79 5.20 5.20 5.20 5.20 5.20 5.20 4.53 </pre>
US/MH PN Name 1.000 RE1 1.001 S1 2.000 Phase 2 1.002 S2 3.000 RE2 1.003 TANK 1.004 S3 1.005 IC7 US/MH PN Name 1.000 RE	Duration eturn Period ( Climate <b>R</b> <b>Storm P</b> 15 Summer 60 Summer	Ine Profile(s (s) (mins s) (years Change (% eturn Clin eriod Cha 100 100 100 100 100 100 100 100 100 10	DTS S DVD S rtia S ) 15, ) ) mate 445% +45% +45% +45% +45% +45% +45% +45%	Status Status Status 30, 60, 120, First (X) Surcharge 100/15 Summer 30/15 Summer 30/15 Summer 30/15 Winter Ha Overflow (1/s)	Su 240, 360, First (Y) Flood	ummer a 480, 2 First Over Pipe Flow (1/s)	und Wint 960, 14 2, 30, 1 0, 0, t (Z) Or flow	ON ON ON er 40 00 45 Verflor Act.	<ul> <li>Level</li> <li>(m)</li> <li>5.79</li> <li>5.21</li> <li>5.20</li> <li>5.20</li> <li>5.20</li> <li>5.20</li> <li>5.20</li> <li>5.20</li> <li>4.53</li> <li>Level</li> </ul>
US/MH PN Name 1.000 RE1 1.001 S1 2.000 Phase 2 1.002 S2 3.000 RE2 1.003 TANK 1.004 S3 1.005 IC7 US/MH PN Name 1.000 RE	Duration eturn Period ( Climate <b>R</b> <b>Storm P</b> 15 Summer 60 Summer	Ine Profile(s (s) (mins s) (years Change (% eturn Clin eriod Cha 100 100 100 100 100 100 100 10	DTS S DVD S rtia S ) 15, ) ) 15, ) ) mate ange +45% +45% +45% +45% +45% +45% +45% +45%	Status Status Status 30, 60, 120, First (X) Surcharge 100/15 Summer 30/15 Summer 30/15 Summer 30/15 Winter Ha Overflow (1/s)	Su 240, 360, First (Y) Flood	<pre>ummer a 480, 2 First Over Pipe Flow (1/s) 2.7</pre>	und Wint 960, 14 2, 30, 1 0, 0, t (Z) Or flow	ON ON ON er 40 00 45 Verflor Act.	(m) 5.791 5.217 5.207 5.204 5.203 5.203 5.201 4.534
US/MH PN Name 1.000 RE1 1.001 S1 2.000 Phase 2 1.002 S2 3.000 RE2 1.003 TANK 1.004 S3 1.005 IC7 US/MH PN Name 1.000 RE 1.000 RE 1.001 S 2.000 Phase	Duration eturn Period ( Climate <b>Storm P</b> 15 Summer 60 Summer 60 Summer 60 Summer 60 Summer 60 Summer 60 Summer 60 Summer 60 Summer 15 Summer 60 Summer 70 S	Ine Profile(s (s) (mins s) (years Change (% eturn Clin eriod Cha 100 100 100 100 100 100 100 10	DTS S DVD S rtia S ) 15, ) ) mate ange +45% +45% +45% +45% +45% +45% +45% +45%	Status Status Status 30, 60, 120, First (X) Surcharge 100/15 Summer 30/15 Summer 30/15 Summer 30/15 Winter Ha Overflow (1/s)	Su 240, 360, First (Y) Flood	<pre>ummer a  480,  2  First Over Pipe Flow (1/s)  2.7  4.6</pre>	<pre>und Wint 960, 14 2, 30, 1 0, 0, t (Z) Ou flow flow Statu FLOOD H</pre>	ON ON ON er 40 00 45 Verflor Act.	<ul> <li>Level</li> <li>(m)</li> <li>5.791</li> <li>5.217</li> <li>5.207</li> <li>5.204</li> <li>5.203</li> <li>5.203</li> <li>5.201</li> <li>4.534</li> </ul>

Stephen Wilson Partnership Ltd				
99 South Street	E8731			
Eastbourne, East Sussex	Hardwick House			
BN21 4LU	Eastbourne	Mirro		
Date 15/08/2023 12:53	Designed by CRS	Drainage		
File E8731 Surface Water Cal	Checked by	Drainacje		
XP Solutions	Network 2020.1.3			

100 year Return Period Summary of Critical Results by Maximum Level (Rank <u>1) for Storm</u>

PN	US/MH Name	Surcharged Depth (m)		Flow / Cap.	Overflow (1/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
1.003	TANK	0.493	0.000	0.55		43	5.9	SURCHARGED*	
1.004	S3	0.506	0.000	0.37			5.9	SURCHARGED	
1.005	IC7	-0.096	0.000	0.28			5.9	OK	



SCALE

$\frown$	Drav	wing Legend	OTES:	
	Drainag	e Catchment Areas	This drawing is to be read in cor other SWP drawings, and with a	ll relevant
		Phase 2 development area	architect's and engineer's drawi and any discrepancies found are	
		Drainage Catchment Area. Size and manhole as noted.	immediately to the engineer. No dimensions are to be scaled	from this drawing.
	Dr	ainage Layout	unless noted otherwise all dime millimeters and all levels are in	nsions are in
		Existing Surface Water Drainage	datum. All dimensions to be checked or	a site All details and
		Existing Surface Water Drainage to be removed	dimensions relating to sub-cont be checked and agreed betweer	ractors work must
		Proposed Surface Water Drainage	or supplier and the general cont	tractor.
	<b></b>	Type D inspection chamber Flexible Construction	<ul> <li>The electronic information from not be guaranteed as dimensior figured dimensions must be use</li> </ul>	hally drawn exact.
		Type D inspection chamber Rigid Construction	detailing. swp logos and compar be removed from copies if infor	ny information must
	RE	Rodding Eye	The main contractor is responsi	ble for the design of
		Geocellular attenuation tank	all temporary works, and is also safe maintenance and stability o at all times.	
	RWPo RWPö	Rainwater downpipe location. * denotes discharge to gully	The main contractor is responsi	ble for all
	□BG	Bottle Gully	occurrences of ground water du construction period.	ring the
	CHL	Channel Drain	Any information given regarding underground services is given in	
	СР	Catchpit	consultation with the relevant a accuracy is not certain. The mai	uthority, however n contractor is
	НВ	Hydrobrake by Hydro International	responsible for checking all info to work commencing and taking attention whilst undertaking the	g due care and
			The contractor must comply wit	
			legislation relating to health & s	
			<ul> <li>All products specified shall be in accordance with the manufactu recommendations and instruction</li> </ul>	rers
			discrepancies between that info details on any swp drawings, the	ormation and the
			instructions must be used.	
			Dranaged Foul Drainage	not obourn for
			Proposed Foul Drainage clarity.	not snown for
			REQUEST A COLOURED	
			THIS STAMP IS NOT	<sup>-</sup> RED
FOF	R INFOR	MATION ONLY		
			P1     15.08.2023     PRELIMINARY ISSUE       V.     DATE     DESCRIPTION	
CLIENT	DFORD PAR	RK DEVELOPMENTS		
ARCHITECT	GARRICK	ARCHITECTS		
JOB TITLE			<b>PA</b> A	J
6 HAF		JSE, HARDWICK ROAD RNE, BN21 4NY	STEPHEN WI	
DRAWING TITLE			PARTNERSHI Chalvington Barn, Dittons Business Pa	
	JRAINAGE C	ATCHMENT PLAN	POLEGATE, BN26 6HY Telephone: E-mail: info@swpeast.co.uk • Website: w	01323 412020
	DATE	DRAWN		

DRAIN	AGE CATCHMEN	IT PLAN	POLEGATE, BN26 6HY Telephone: 01323 412020 E-mail: info@swpeast.co.uk • Website: www.swpeast.co.uk			
	AUGUST 2023	DRAWN CRS		DRAWING No. 202	<sup>REV.</sup> P1	
1-100	ENG. CRS	CHECKED DG	E8731			