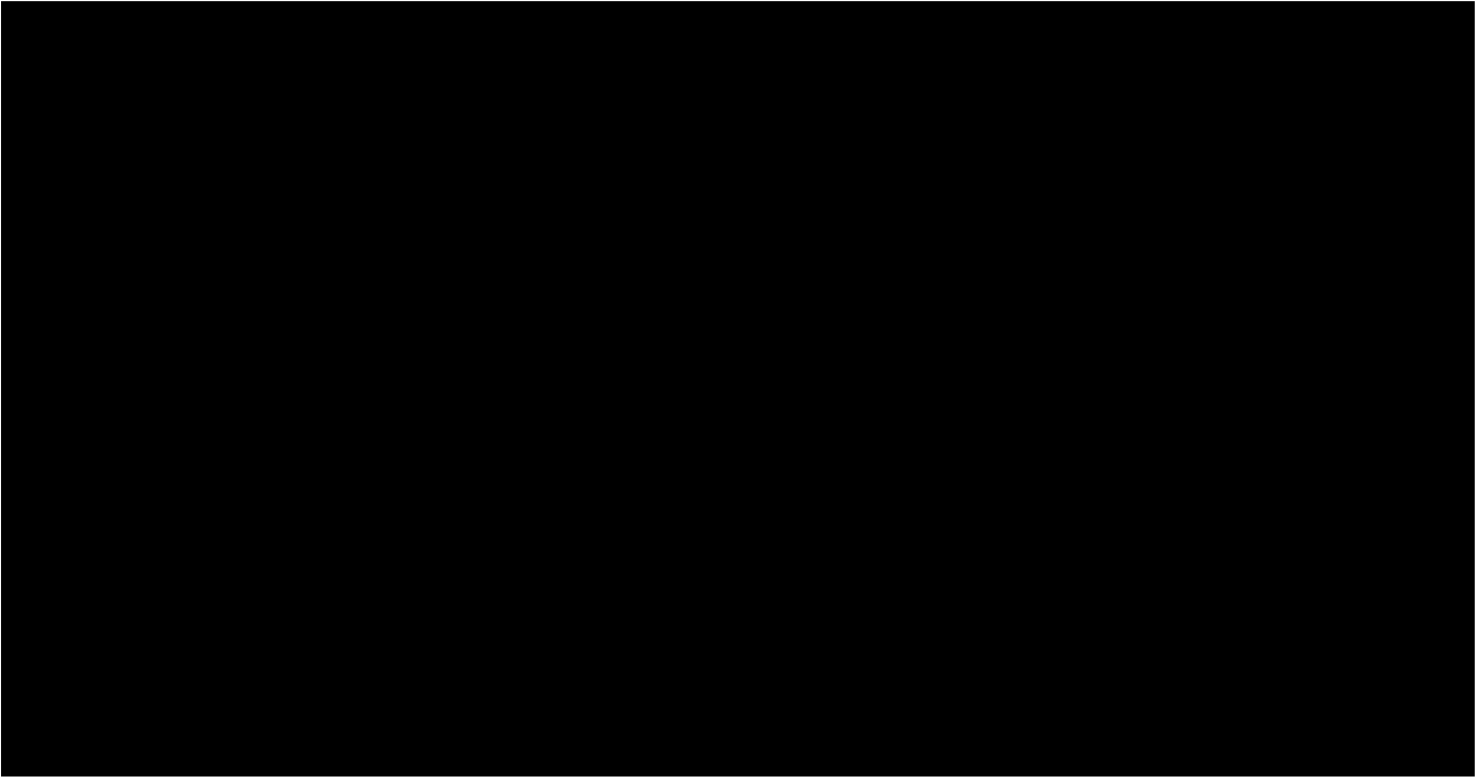




From: Mark Jones
Sent: 14 February 2018 11:32
To: Planning.Responses
Subject: FW: M/136/17/HH

Hi Can the email below be put online

Thanks

Mark

From: Paul Cann
Sent: 09 February 2018 15:57
To: 'Robert Clark'; 'David.druce'
Cc: 'Charlotte Elkington'; [REDACTED] Mark Jones
Subject: RE: M/136/17/HH

Hi Bob

I spoke to Mr Druce earlier with regards to the current application and its impending determination.

I can confirm that the surface water drainage proposals are acceptable based upon the enclosed drawings.

I have copied in the planning officer for his information.

Mark -- We have previously requested a planning condition to cover the surface water drainage, however, assuming it's not too late, is it possible to remove the need for the condition on the proviso that the surface water drainage is constructed in accordance with the enclosed plans.

Regards

Paul Cann
Senior Engineer (Drainage & Coastal)

Paul Cann | Senior Engineer (Drainage & Coastal), Engineering Services, Arun District Council | Location: First Floor, Arun Civic Centre, Maltravers Road, Littlehampton, BN17 5LF
Internal: 37819 | External: +44 (0) 1903 737819 | Fax: +44 (0) 1903 716019 | E-mail: Paul.Cann@arun.gov.uk
Arun is Working in Partnership with Chichester District Council
Visit Arun's web site at <http://www.arun.gov.uk/> and www.chichester.gov.uk
♻️♻️Save the environment - think before you print.

-----Original Message-----

From: Robert Clark [REDACTED]
Sent: 08 February 2018 14:59
To: 'David.druce'
Cc: Paul Cann; 'Charlotte Elkington'; [REDACTED]
Subject: RE: M/136/17/HH

Dear David

I attach plans and calcs for your proposal, which I hope you will find satisfactory

Kind regards
Bob

-----Original Message-----

From: [REDACTED]
Sent: 04 February 2018 18:50
To: [REDACTED]
bryan [REDACTED]
Subject: M/136/17/HH

Good morning,

I am writing on behalf of my parents, Mr and Mrs Druce. Like us they are having an extension - a planning application has already been submitted (M/136/17/HH). The decision date is 15th February. They have instructed Rob Clarke Associates to carry out the design and testing already; they are aware that Surface Water Monitoring is likely to be a Condition against their application.

Could the results and design be put forward to planning before the decision date to avoid them having to submit a Notice of Discharge?

Kind regards,
Charlotte Elkington

Sent from my iPhone

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Willow Cottage Herne Lane Rustington BN16 3EE	14 West Drive Middleton Rear geocellular soakaway	
Date 8.2.18 File Rear soakaway.SRCX	Designed by RTFC Checked by	
Micro Drainage	Source Control 2016.1	

Summary of Results for 100 year Return Period (+30%)

Half Drain Time : 80 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	3.686	0.236	0.5	2.7	O K
30 min Summer	3.747	0.297	0.5	3.4	O K
60 min Summer	3.787	0.337	0.5	3.8	O K
120 min Summer	3.797	0.347	0.5	4.0	O K
180 min Summer	3.787	0.337	0.5	3.8	O K
240 min Summer	3.771	0.321	0.5	3.7	O K
360 min Summer	3.736	0.286	0.5	3.3	O K
480 min Summer	3.704	0.254	0.5	2.9	O K
600 min Summer	3.674	0.224	0.5	2.6	O K
720 min Summer	3.647	0.197	0.5	2.2	O K
960 min Summer	3.600	0.150	0.4	1.7	O K
1440 min Summer	3.535	0.085	0.4	1.0	O K
2160 min Summer	3.498	0.048	0.4	0.5	O K
2880 min Summer	3.489	0.039	0.3	0.4	O K
4320 min Summer	3.478	0.028	0.2	0.3	O K
5760 min Summer	3.473	0.023	0.2	0.3	O K
7200 min Summer	3.469	0.019	0.2	0.2	O K
8640 min Summer	3.466	0.016	0.1	0.2	O K
10080 min Summer	3.465	0.015	0.1	0.2	O K
15 min Winter	3.716	0.266	0.5	3.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	115.731	0.0	17
30 min Summer	77.804	0.0	31
60 min Summer	49.937	0.0	56
120 min Summer	30.956	0.0	88
180 min Summer	23.058	0.0	124
240 min Summer	18.577	0.0	158
360 min Summer	13.656	0.0	226
480 min Summer	10.974	0.0	292
600 min Summer	9.254	0.0	356
720 min Summer	8.046	0.0	420
960 min Summer	6.447	0.0	540
1440 min Summer	4.709	0.0	768
2160 min Summer	3.432	0.0	1100
2880 min Summer	2.739	0.0	1468
4320 min Summer	1.989	0.0	2200
5760 min Summer	1.583	0.0	2928
7200 min Summer	1.325	0.0	3672
8640 min Summer	1.147	0.0	4400
10080 min Summer	1.015	0.0	5048
15 min Winter	115.731	0.0	17

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Micro Drainage	Source Control 2016.1	

Summary of Results for 100 year Return Period (+30%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	3.789	0.339	0.5	3.9	0 K
60 min Winter	3.839	0.389	0.6	4.4	0 K
120 min Winter	3.849	0.399	0.6	4.5	0 K
180 min Winter	3.833	0.383	0.5	4.4	0 K
240 min Winter	3.807	0.357	0.5	4.1	0 K
360 min Winter	3.754	0.304	0.5	3.5	0 K
480 min Winter	3.705	0.255	0.5	2.9	0 K
600 min Winter	3.661	0.211	0.5	2.4	0 K
720 min Winter	3.622	0.172	0.5	2.0	0 K
960 min Winter	3.559	0.109	0.4	1.2	0 K
1440 min Winter	3.498	0.048	0.4	0.5	0 K
2160 min Winter	3.485	0.035	0.3	0.4	0 K
2880 min Winter	3.478	0.028	0.2	0.3	0 K
4320 min Winter	3.471	0.021	0.2	0.2	0 K
5760 min Winter	3.466	0.016	0.1	0.2	0 K
7200 min Winter	3.464	0.014	0.1	0.2	0 K
8640 min Winter	3.462	0.012	0.1	0.1	0 K
10080 min Winter	3.461	0.011	0.1	0.1	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
30 min Winter	77.804	0.0	31
60 min Winter	49.937	0.0	58
120 min Winter	30.956	0.0	94
180 min Winter	23.058	0.0	134
240 min Winter	18.577	0.0	172
360 min Winter	13.656	0.0	244
480 min Winter	10.974	0.0	312
600 min Winter	9.254	0.0	378
720 min Winter	8.046	0.0	442
960 min Winter	6.447	0.0	558
1440 min Winter	4.709	0.0	748
2160 min Winter	3.432	0.0	1100
2880 min Winter	2.739	0.0	1460
4320 min Winter	1.989	0.0	2196
5760 min Winter	1.583	0.0	2936
7200 min Winter	1.325	0.0	3648
8640 min Winter	1.147	0.0	4408
10080 min Winter	1.015	0.0	5208

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Micro Drainage Source Control 2016.1		

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.000	Shortest Storm (mins)	15
Ratio R	0.350	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+30

Time Area Diagram

Total Area (ha) 0.014

Time (mins)	Area (ha)
From: 0	To: 4 0.014

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Model Details

Storage is Online Cover Level (m) 4.150

Cellular Storage Structure

Invert Level (m)	3.450
Infiltration Coefficient Base (m/hr)	0.17078
Infiltration Coefficient Side (m/hr)	0.17078
Safety Factor	1.5
Porosity	0.95

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	12.0	12.0	0.500	0.0	17.6
0.400	12.0	17.6			

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