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# SOAKAWAY DESIGN

## TO BRE 365

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*48 Templeroan Way  
Dublin.*

*Date: 17<sup>th</sup> November 2021*

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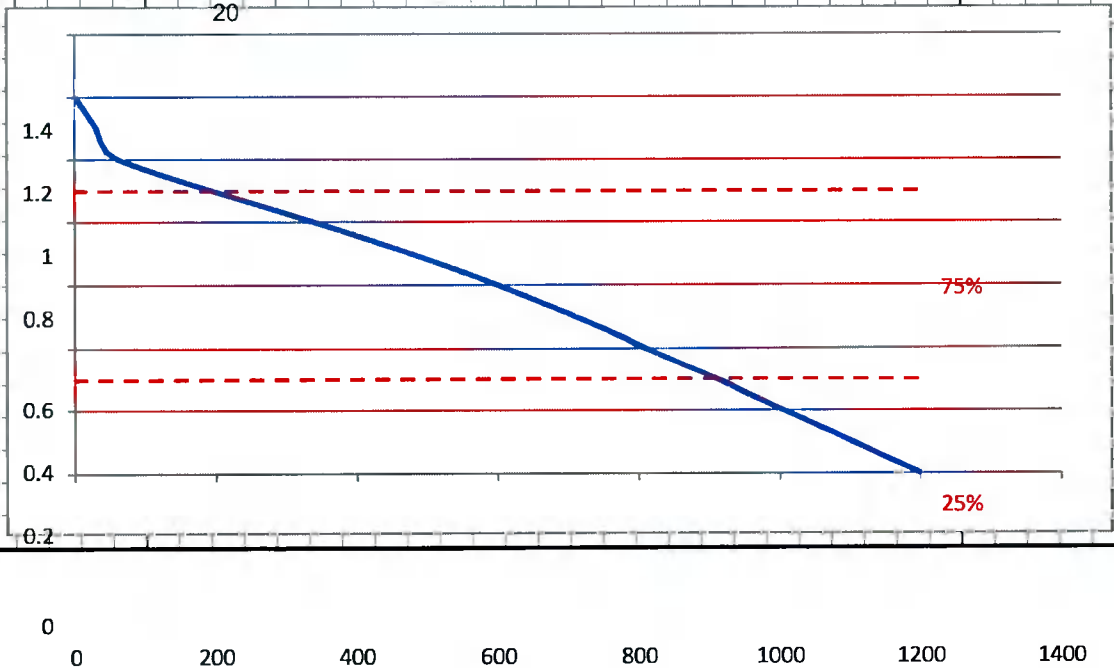
ONCE Consultant Engineers	<b>Project:</b>	48 Temploan Way	<b>By:</b> TON
	<b>Calculation:</b>	Soakaway Design	
		Infiltration Rate	<b>Approved:</b>
	<b>Sheet Number:</b>	1 <b>Date:</b>	17/11/2021

**Infiltration Test (BRE 365)**

**Trial Pit Details**

Total Pit Depth	1.2 m
Total Pit Length	0.7 m
Total Pit Width	0.7 m

Test Results		
	Time (Mins)	Water Level (From Base)
1	0	1.20
2	30	1.10
3	60	1.00
4	600	0.60
5	1200	0.00
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		



0

0 200 400 600 800 1000 1200 1400

ONCE Consultant Engineers	<b>Project:</b>	48 Templeroan Way	<b>By:</b>
	<b>Calculation</b>	Soakaway Design	
	<b>Sheet Number:</b>	2	<b>Date:</b>
			<b>Approved:</b>

	<b>Results</b>	
	Time to reach 75% depth:	195.0 mins
	Time to reach 25% depth:	900.0 mins
	Soil Infiltration Rate:	<u>3.20293E-06</u> m/s
		0.011530542 m/hr
The soil was a clay with gravel having good / medium infiltration		

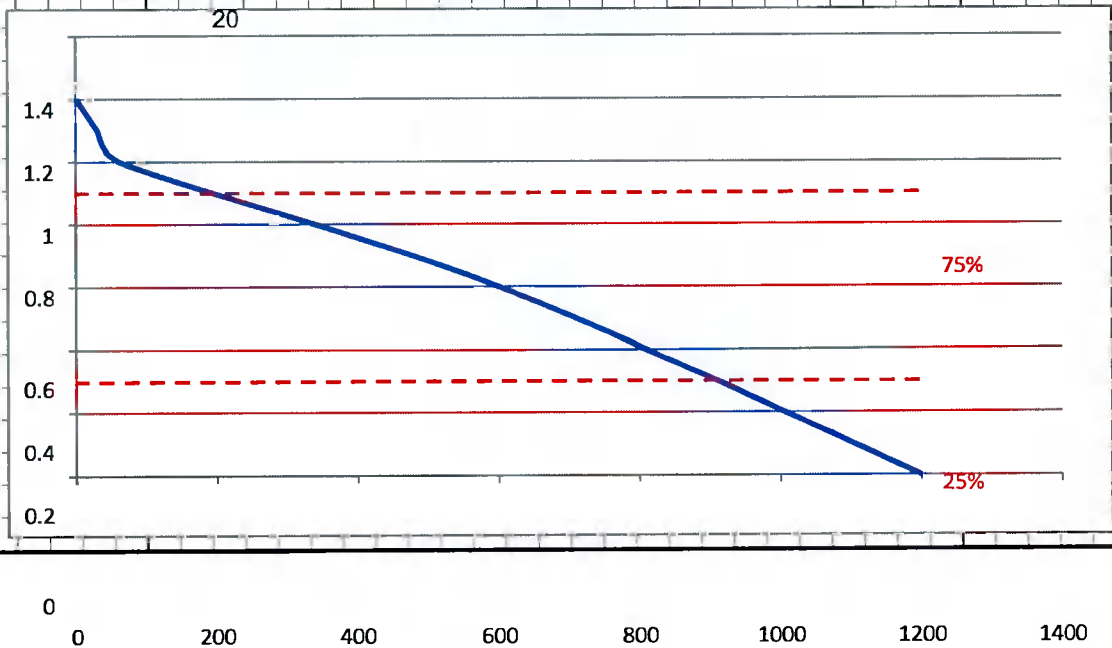
ONCE Consultant Engineers	<b>Project:</b>	48 Tempieroan Way	<b>By:</b>
	<b>Calculation:</b>	Soakaway Design	
		Infiltration Rate	<b>Approved:</b>
	<b>Sheet Number:</b>	1	<b>Date:</b>

**Infiltration Test (BRE 365)**

**Trial Pit Details**

Total Pit Depth	1.2 m
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Test Results	
Time (Mins)	Water Level (From Base)
1	0 1.20
2	30 1.10
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4	600 0.60
5	1200 0.00
6	
7	
8	
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ONCE Consultant Engineers	<b>Project:</b>	48 Templeroan Way	<b>By:</b>
	<b>Calculation:</b>	Soakaway Design	
	<b>Sheet Number:</b>	2	<b>Date:</b>
			<b>Approved:</b>
	<b>Results</b>		
	Time to reach 75% depth:	195.0 mins	
	Time to reach 25% depth:	900.0 mins	
	Soil Infiltration Rate:	<b>3.20293E-06</b> m/s	
		0.011530542 m/hr	
The soil was a clay with gravel having good / medium infiltration			

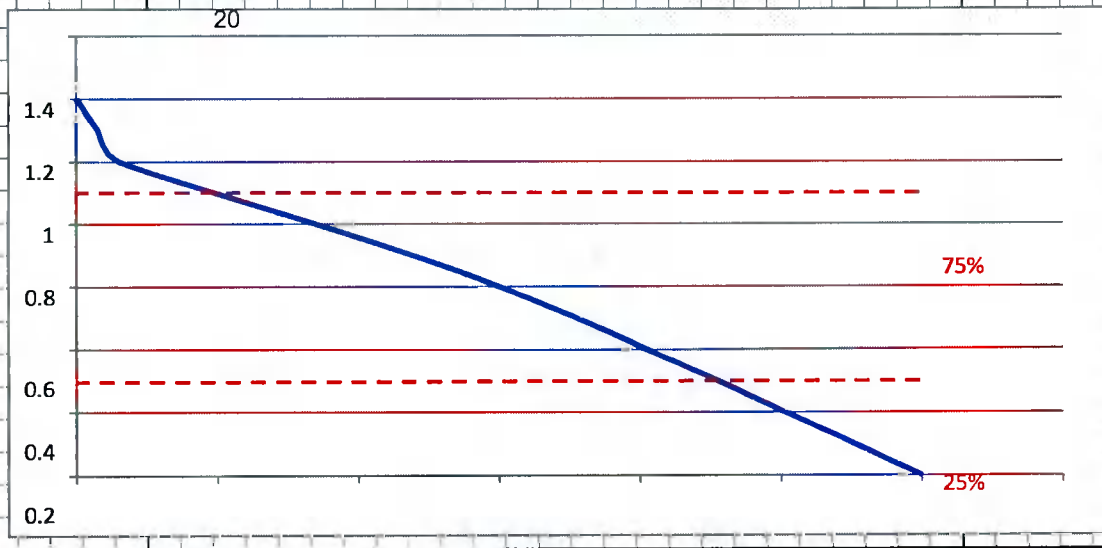
ONCE Consultant Engineers	<b>Project:</b>	48 Tempieroan Way	<b>ton</b>
	<b>Calculation:</b>	Soakaway Design	
		Infiltration Rate	<b>Approved:</b>
	<b>Sheet Number:</b>	1 <b>Date:</b>	17/11/2021

**Infiltration Test (BRE 365)**

**Trial Pit Details**

Total Pit Depth	1.2 m
Total Pit Length	0.9 m
Total Pit Width	0.8 m

Test Results		
Time (Mins)	Water Level (From Base)	
1	0	1.20
2	30	1.10
3	60	1.00
4	600	0.60
5	1200	0.00
6		
7		
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17		
18		



0  
0 200 400 600 800 1000 1200 1400

ONCE Consultant Engineers	Project:	48 Templeroan Way	By:
	Calculation:	Soakaway Design	Approved:
	Sheet Number:	2	Date:

**Results**

Time to reach 75% depth: 195.0 mins

Time to reach 25% depth: 900.0 mins

Soil Infiltration Rate: **3.5461E-06** m/s

0.012765957 m/hr

The soil was a clay with gravel having good / medium infiltration



ONCE Consult	<b>Project:</b>	48 Templeroan Way	<b>By:</b> TON
	<b>Calculation:</b>	Soakaway Design	
	Wallingford Procedure Rainfall		<b>Approved:</b>
<b>Sheet Number:</b>	1	<b>Date:</b>	

Catchment Details			
Catchment Area	67	m <sup>2</sup>	
Location	Scotland & N Ireland		
City/Town	Other		
M5-60	-	Override-	19
r Ratio	-	Override-	0.4
Runoff Coefficient			95 %

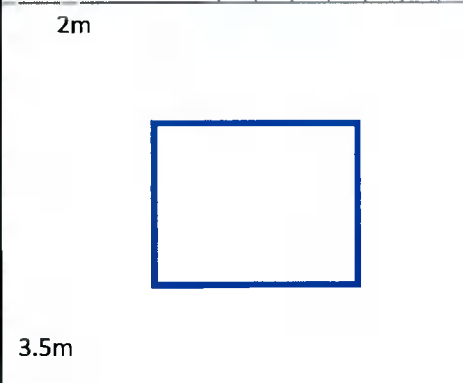
Design Storm Details		
Return Period	1	years
Climate Change Allowance	1.4	

Ground Information		
Infiltration Rate	0.0128	m/hr
Factor of Safety	2	

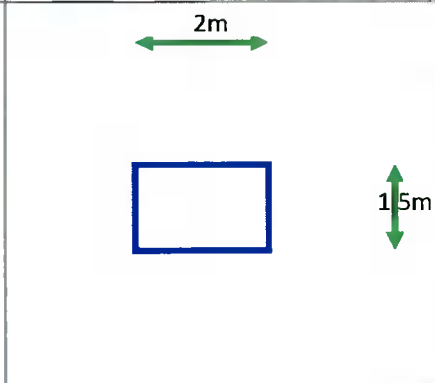
3.55E-06 m/s

Soakaway Design		
Soakaway Shape	Rectangular Trench/Pit	
Number of Soakaways	1	
Length	3.50	m
Width	2.00	m
Effective Depth	1.50	m
Backfill Porosity	95	%
Additional Outflow (If Any)	0	l/s
Base Infiltration Factor	0	

**Soakaway Plan**

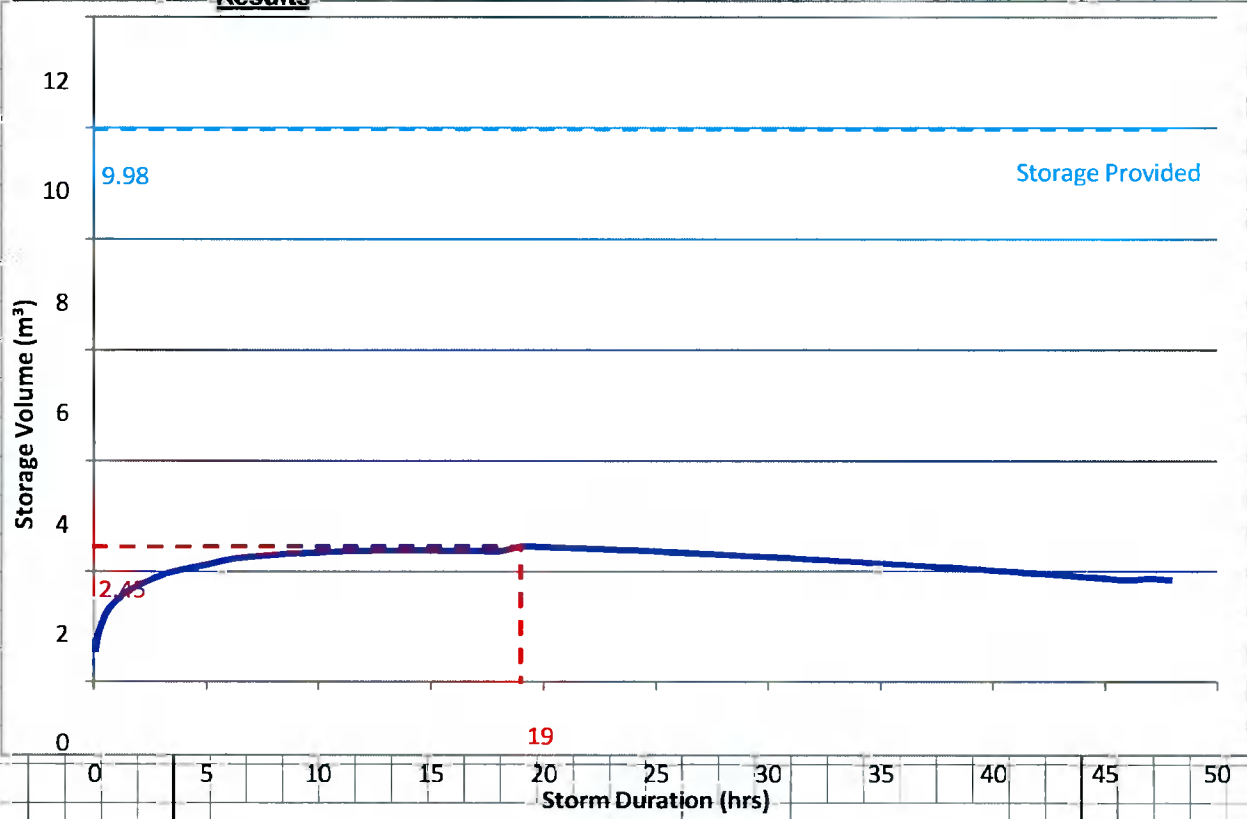


**Soakaway Cross Section**



ONCE Consultant Engineers	Project:			By:
	Calculation:	Soakaway Design		Approved:
	Sheet Number:	1	Date:	

**Results**



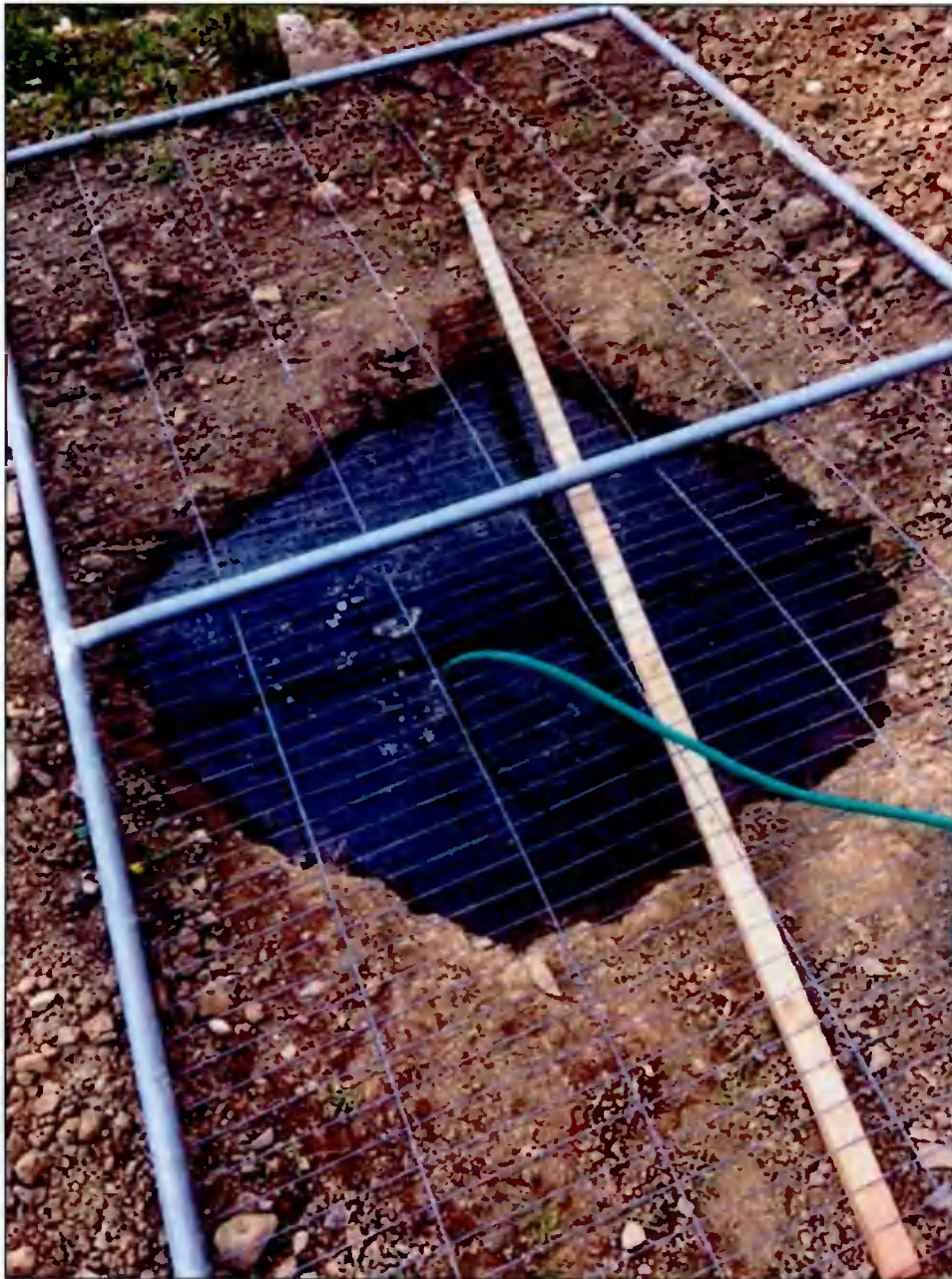
Maximum Storage Volume Required: **2.45** m<sup>3</sup> (19hr Storm)  
 Storage Volume Provided: **9.98** m<sup>3</sup>  
 Time of Emptying: **23.3** Hours

Acceptable  
 Acceptable

3.0 Photos



*Figure 1, Dimensions of Trail Hole: 1.2x0.8x0.8*



*Figure 2 Full fill of hole*



*Figure 3 Empty to 200mm from base*

