

5 New Houses at site of former Bryn Garage

SURFACE WATER DISPOSAL

			Effective Drained Area							
Roof drainage	330.00		330.00							
Paving			438.00							
			768.00							
Test hole at soakaway										
Rock and Clay - no soakaway possible										
	LENGTH	WIDTH	TIME	Time to fall	mm fall		Surface Area	volume (m3)	secs	
Test times - secs										
1		0.00	0.00	24 hrs	0 mins	0 mm	0.00	0.00	0.00	0.00
					Average		0.00	0.00	0.00	
Soil Infiltration Rate										
	0	0.00000000 m3 / m2 /sec								
	0 x 0									

FROM BRE 365

From Map r x 100 - 36 for 5 year return period
Calculate rainfall for 10 year return period

Z1

Z 2

10 year return
period
M10-Dmin
Wallingford
growth curve

100 year return
period
Wallingford
growth curve

r = 0.30

M5-Dmin
20mm x Z1

1.42
mm

2.18

mins

5 0.34
10 0.49
15 0.59
30 0.77

6.80
9.80
11.80
15.40

1.20
1.22
1.23
1.24

8.16
11.96
14.51
19.10

12.53
18.35
22.28
29.32

,/2

1 1
2 1.25
4 1.57
6 1.78
10 2.12
24 2.84

20.00
25.00
31.40
35.60
42.40
56.80

1.24
1.24
1.22
1.21
1.19
1.17

24.80
31.00
38.31
43.08
50.46
66.46

38.07
47.59
58.81
66.13
77.46
102.02

Soakaway

Outflow @ 0.00000000 m3 / m2 /sec

av Width 0.00

Depth below c 0.00

av Length 0.00

Volume 0.00 m3

Surface area 0.00 m2

		Allow for Climate Change				Net Storage Required		Maintain flow out of attenuation at max rate of 5 litres / sec	
Average inflow		40%				Pecollation Net inflow		Outfal at 5 litres/sec	Net Storage Required
mins	m2	mm	mm	m3	litres /sec	m3	m3	m3	m3
5	768.00	12.53	17.54	13.47	44.90	0.00	13.47	1.500	11.969
10	768.00	18.35	25.70	19.74	32.89	0.00	19.74	3.000	16.735
15	768.00	22.28	31.19	23.96	26.62	0.00	23.96	4.500	19.458
30	768.00	29.32	41.04	31.52	17.51	0.00	31.52	9.000	22.521
1	768.00	38.07	53.30	40.94	11.37	0.00	40.94	18.000	22.936
2	768.00	47.59	66.63	51.17	7.11	0.00	51.17	36.000	15.170
4	768.00	58.81	82.34	63.23	4.39	0.00	63.23	72.000	-8.767
6	768.00	66.13	92.58	71.10	3.29	0.00	71.10	108.000	-36.896
10	768.00	77.46	108.44	83.29	2.31	0.00	83.29	180.000	-96.714
24	768.00	102.02	142.83	109.70	1.27	0.00	109.70	432.000	-322.304
								1050 DIA	0.87
								LENGTH	26.48
								/2	13.24 m of twin pipework
								OK	

Check orifice in 5 mm stainless steel

See Suds manual eq 28.1

Orifice flow rate = $C_d \sqrt{\frac{2A_e h}{g}}$ Coeficient of discharge 0.6 (material is thinner than orifice diameter)
Area of orifice
Head of water = max dia of attenuation pipewoerk = 1.05 m
9.81

Try
Q = $0.6 \times \sqrt{\frac{2 \times 0.001809557 \times 1.05}{9.81}}$
0.005 m3/sec
4.928 litres/sec
OK