

Soakaway Design

Job No.:

**7 Webb
Close**

Job Name:

Pagham**Half roof per soakaway**Area **100** m2Run off Coeff **1** m2**100** m2**100 year return period + 40% CC**

Storm duration (Min.)

T

N

r

R5	0.03242 m	5	0.083333333	0.1	0.023154
R10	0.04017 m	10	0.166666667	0.1	0.028694
R15	0.04546 m	15	0.25	0.1	0.032473
R30	0.05603 m	30	0.5	0.1	0.040022
R60	0.06888 m	60	1	0.1	0.0492
R120	0.08450 m	120	2	0.1	0.060356
R240	0.10348 m	240	4	0.1	0.073917
R360	0.11643 m	360	6	0.1	0.083168
R600	0.13500 m	600	10	0.1	0.096432
R1440	0.17376 m	1440	24	0.1	0.124113

Inflow to attenuation system

I5	3.242 m3
I10	4.017 m3
I15	4.546 m3
I30	5.603 m3
I60	6.888 m3
I120	8.450 m3
I240	10.348 m3
I360	11.643 m3
I600	13.500 m3
I1440	17.376 m3

Soil infiltration rate from on site percolation testing
300x300 pit, 9.33 mins to drop 150mm
Vp **3.732**
f **8.93E-05**

Outflow from Tank

f **8.93E-05** m3/s

(Estimated to be confirmed by site investigation report)

Soakaway dims:

Area **100** m**1** mThickness **0.15** m (below invert depth of inlet pipe)As50 **50** (Half base area as BRE365)Void ratio **30** %

Outflow from Tank:

O5	1.34 m3
O10	2.68 m3
O15	4.02 m3
O30	8.04 m3
O60	16.08 m3
O120	32.15 m3
O240	64.31 m3
O360	96.46 m3
O600	160.77 m3
O1440	385.85 m3

Storage required:

S5	1.90 m3
S10	1.34 m3
S15	0.53 m3
S30	-2.44 m3
S60	-9.19 m3
S120	-23.70 m3
S240	-53.96 m3
S360	-84.82 m3
S600	-147.27 m3
S1440	-368.48 m3

Time to drain:

ts50	0.06 hours
ts50	0.04 hours
ts50	0.02 hours
ts50	-0.08 hours
ts50	-0.29 hours
ts50	-0.74 hours
ts50	-1.68 hours
ts50	-2.64 hours
ts50	-4.58 hours
ts50	-11.46 hours

Storage provided **4.5** m3Critical storm = **S5**Storage required = **1.90**Time to discharge= **0.06** Hours (Should be less than 24 hours)**Soakaway size proposed is satisfactory**