

STORM WATER - EXISTING SITE RUN-OFFS

(Using guidance from BRE 365)

Job No.: 393579
Job Name: Yachthaven

Total site Area		28569	m2	2.86	Hec
Surface	Area (m2)	Run-off coeff	Eff Area (m2)		
Upper access road	612	0.50	306	Gravel	
Tarmac top road	147	1.00	147	Tarmac	
Lower access road	851	0.50	425.5	Gravel	
Boat yard gravel	2450	0.50	1225	Gravel	
Boat yard concrete	701	1.00	701	Concrete hardstanding	
Building roofs	585.5	1.00	585.5	Roofs	
Remainder grass and soft	23222.5	0.00	0	Permeable surface	

Document A

1 in 100 year event + 30% climate change

Eff Area 3390 m2

100 year return period + climate change

			Storm duration (Min.)	T	N	r	Climate allowance 30%
R5	0.03010	m	5	0.08 hrs	0.083333	0.1	0.023154
R10	0.03730	m	10	0.17 hrs	0.166667	0.1	0.028694
R15	0.04221	m	15	0.25 hrs	0.25	0.1	0.032473
R30	0.05203	m	30	0.50 hrs	0.5	0.1	0.040022
R60	0.06396	m	60	1.00 hrs	1	0.1	0.0492
R120	0.07846	m	120	2.00 hrs	2	0.1	0.060356
R240	0.09609	m	240	4.00 hrs	4	0.1	0.073917
R360	0.10812	m	360	6.00 hrs	6	0.1	0.083168

Run-off from site during 6 Hour event

Volume of total run-off

I360 366.520 m3

Flow in Ltrs / second during event

Flow 16.969 L/s

Therefore total run off

366.5 m3 OR 16.969 L/s

1 in 1 year event

Eff Area 3390 m2

1 year return period + climate change

			Storm duration (Min.)	T	N	r	Climate allowance 30%
R5	0.01416	m	5	0.08 hrs	0.083333	1	0.010892
R10	0.01792	m	10	0.17 hrs	0.166667	1	0.013788
R15	0.02049	m	15	0.25 hrs	0.25	1	0.015764
R30	0.02562	m	30	0.50 hrs	0.5	1	0.01971
R60	0.03186	m	60	1.00 hrs	1	1	0.024508
R120	0.03944	m	120	2.00 hrs	2	1	0.03034
R240	0.04866	m	240	4.00 hrs	4	1	0.037429
R360	0.05494	m	360	6.00 hrs	6	1	0.042265

Run-off from site during 6 Hour event

Volume of total run-off

I360 186.263 m3

Flow in Ltrs / second during event

Flow 8.623 L/s

Therefore total run off

186.3 m3 OR 8.623 L/s