



## Appendix 4C – Flow Report



**Design Settings**

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	30	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	20.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.300	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	✓

**Simulation Settings**

Rainfall Methodology	FSR	Drain Down Time (mins)	240
FSR Region	England and Wales	Additional Storage (m <sup>3</sup> /ha)	20.0
M5-60 (mm)	20.000	Check Discharge Rate(s)	✓
Ratio-R	0.300	1 year (l/s)	0.9
Summer CV	0.750	30 year (l/s)	2.4
Winter CV	0.840	100 year (l/s)	2.9
Analysis Speed	Normal	Check Discharge Volume	✓
Skip Steady State	x	100 year +40% 360 minute (m <sup>3</sup> )	79

**Storm Durations**

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
30	0	0	0
100	40	0	0

**Pre-development Discharge Rate**

Site Makeup	Greenfield	Growth Factor 30 year	1.98
Greenfield Method	IH124	Growth Factor 100 year	2.42
Positively Drained Area (ha)	0.147	Betterment (%)	0
SAAR (mm)	1105	QBar	1.2
Soil Index	4	Q 1 year (l/s)	0.9
SPR	0.47	Q 30 year (l/s)	2.4
Region	8	Q 100 year (l/s)	2.9
Growth Factor 1 year	0.78		

**Pre-development Discharge Volume**

Site Makeup	Greenfield	Return Period (years)	100
Greenfield Method	FSR/FEH	Climate Change (%)	40
Positively Drained Area (ha)	0.147	Storm Duration (mins)	360
Soil Index	4	Betterment (%)	0
SPR	0.47	PR	0.548
CWI	125.263	Runoff Volume (m <sup>3</sup> )	79