



STORM WATER NETWORK DESIGN

PROJECT TITLE: SUSSEX BUSINESS CENTRE BARNHAM - 100 year check
STATUS: PLAN SYSTEM: S1.000 -S1.002

Sheet 1859
1 OF

1. Storm Water & pipe variables

Temp (C):	15	M5-60(mm):	20	Te (mins):	5	Design MD:	M100
Ks (mm):	0.6	Cv:	0.75	Min V:	0.6	Max V:	1.8
r value:	0.42	Cr:	1.30	Flat R I:	0	Min slope:	0

2. Glossary of terms:

Te - Time of entry	Ks - Roughness value	MD - Design storm year	Z2 - Factor which alters the MD-DmQ _{FB} - Full bore discharge D _{PROP} - Proportional depth of flow
Tf - Time of flow	CSA - Cross sectional area	Z1 - Factor which alters the M5-D60 Q _{ACT} - Actual flow	V _{FB} - Full bore velocity Area _{CUM} - Cumulative contributing area
Tc - Time of concentration	Cv - Routing coefficient	R I - Flat rate of rainfall	Q _{PROP} - Proportional discharge V _{ACT} - Actual velocity for Q _{ACT}

Pipe ref	Length	US IL	DS IL		Area _{CONT}	ks	Prel Dia	Pipe CSA	Pipe V _{FB}	Pipe Q _{FB}	Coeff part full pipe	Tf	Tc	Z1	M5:dmin	Z2	MD-Dmin	Rainfall	Area _{CUM}	Q _{ACT}	Q _{PROP}	D _{PROP}	V _{ACT}	Final Dia
	(m)	(m)	(m)	(1: xx)	(sq.m)	(mm)	(mm)	(sq.m)	(m/s)	(lit/s)		(mins)	(mins)	(factor)	(mm)	(factor)	(mm)	(mm/hr)	(sq.m)	(lit/sec)		(D _{FLOW/ D})	(m/s)	(mm)
S1.000	25.00	10.800	10.550	100.0	348	0.6	150	0.0177	1.02	17.99	79	0.41	5.41	0.38	7.6	1.79	13.60	90.5	348	8.53	0.474	0.45	0.97	150
S1.001	10.00	10.550	10.450	100.0	0	0.6	150	0.0177	1.02	17.99	79	0.16	5.57	0.38	7.6	1.79	13.60	87.9	348	8.28	0.460	0.45	0.97	150
S2.000	10.00	10.450	10.100	28.6	196	0.6	225	0.0398	2.47	98.22	155	0.07	5.07	0.38	7.6	1.79	13.60	96.6	544	14.24	0.145	0.24	1.70	225

Notes

1. Manhole chambers must have a fall across the channel to mitigate deposition of solids. Select this in cell D14
2. Flow data uses colebrook white formulae
3. Design data is chosen between BS EN 752 or SFA 7th Edition for Residential loads