Scheme Rothes
Site Estate Track 4 3

Rational Method Calculation *Invert OS Ref.* **Estate track 4**

Catchement Area	4	ha.	Runoff coeficient .1,.2 or.3	0.2
Level Difference from Source to Invert	40	m.		
Length of Longest Channel	400	m.		

1. Slope	0.10	
2. Find constant K	1264.91	
3. Find Time of Concentration	4.77	minutes
4. Find Rainfall Intensity	93.61	mm/hr
5. Find Discharge	0.21	cusecs

Check Size using Talbot Formla

					Area	
Flat absorbent terrain	0.125	0.696812859	287	mm. dia.	0.065	m²
Hilly rolling terrain	0.25	1.393625717	406	mm. dia.	0.129	m²
	0.3	1.672350861	445	mm. dia.		
Mountainous terrain	0.5	2.787251435	574	mm. dia.	0.259	m²

The estat track serves a catchment area of 4ha which requires a water way area of 0.129m2,
25 no 300mm dia culverts to be installed providing an waterway area of 1.36m2 . Well in excess of that required