



MasterDrain
Foul 8.45

Civil Engineering Services

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By PJS	Checked	Reviewed

Project **Kimberdale Wokingham**

Title **Drainage field calculations**

Percolation Test Data

Trial holes excavated 300mm square as stipulated in Approved Documents Part H
Holes filled to top, and allowed to drain.
Holes refilled and water allowed to drain. Time taken to drain between 75%
and 25% full noted as per Regulation requirements

Trial hole	No.1	No.2	No.3
Initial depth (mm) 75%	225	225	225
Final depth (mm) 25%	75	75	75
Initial time (sec)	0	0	0
Final time (sec)	4440	4800	5040
Ave. time (sec) for 1mm fall	30	32	34
Percolation value	30	32	34

Average Percolation value (V_p) = 31.73

Occupancy of building based on 8 persons for 12 months of the year.

Area of drainage required:-

$$\begin{aligned} \text{Area} &= \text{Occupancy} \times V_p \times 0.25 \\ \text{Area} &= 8 \times 31.7 \times 0.25 \\ \text{Area} &= 63.47\text{m}^2 \end{aligned}$$

$$\begin{aligned} \text{Septic tank size} &= (180 \times \text{occupancy}) + 2000 \\ &= 180 \times 8 + 2000 \\ &= 3440 \text{ litres} \end{aligned}$$

Comments/Departures from Specified Procedures:

Approved Document H (2001) states that the percolation value should be between 12 and 100