

Drainage outfall calculations for 20 Woodford Park

Description	No.Units	l/D/ Unit	l/d	l/s
4 No dwellings with 4 persons per dwelling	16	225.00	3,600.00	0.04
Dry weather flow (DWF)= Design Flow (6x DWF)			3,600.00 21,600	0.04 0.25
APPLY COLEBROOK- WHITE FORMULA				
(from above) Q =	0.25	l/s		
Assumed self cleansing velocity	0.75	m/s		
k _s (pipe) =	0.6	mm		
Kinematic Viscosity @ 15 deg C	0.00000141	m ² /s		
Gravitational acceleration g=	9.81	m ² /s		
Selected pipe diameter	150	Mm	0.15	m
Selected gradient (1 in)	150	Ratio	0.0666	Gradient
Pipe area =	17,672	mm ²	0.0177	M ²
Z=(2gDS)greater then (0.5)			0.1401	m/s
Q=	14.373	l/s	0.014	m ³ /s
V=			0.813	m/s

Use a 150mm Diameter UPVC pipe