

PERCOLATION REPORT

LOCATION:

Spring Street, Ramsbottom

CLIENT:

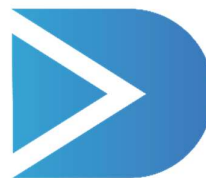
PPY Design Ltd

DOCUMENT REF:

26879-PR-001

DATE:

18/09/2026



DART
ENGINEERS LTD
CIVIL AND STRUCTURAL
ENGINEERING

CONTENTS & AMENDMENT HISTORY

1.0 TESTING REPORT 3

Revision	Description	Date	Author	Checked
A	First Issue	Sept 2026	O Mountain	A Dyson

TESTING REPORT

1.0 TESTING REPORT

The Percolation Testing was carried out on site on 18th September 2026 to establish if infiltration methods were going to be a suitable solution for draining the site.

1 Trial Hole was formed with the following dimensions;

Test Pit 1 1500mm x 1400mm x 1500mm deep

The water level drop was monitored and recorded (see test sheets attached).

TEST PIT 1:

For Test 1 (Test Pit 1), water was filled to a depth of 590mm, the water level dropped 590mm after 50 minutes of testing.

For Test 2 (Test Pit 1), water was filled to a depth of 595mm, the water level dropped 595mm after 1 hour 5 minutes of testing.

For Test 3 (Test Pit 1), water was filled to a depth of 600mm, the water level dropped 600mm after 1 hour 20 minutes of testing.

Calculation sheet 1 shows that the infiltration rates are high enough and do satisfy BRE 365 requirements. Therefore, Infiltration methods of drainage will be viable for this site and strategy.

APPENDICES

Appendix A – Percolation Test Sheet

METHOD (from BRE Digest 365)

- Excavate a soakage trial pit to the required depth (typically 1.0m - 2.0m deep) using minimum width (0.3m) and length (1.0m). Carefully trim sides and bottom.
- Carefully measure size of pit and note sizes below.
- Fill soakage hole briskly with water (from bowser) to at least three quarters full. Being careful not to wash away the sides. (Note: a 0.3m wide, 1m long, 1.5m deep trench needs at least 350 litres (80 gallons) of water)
- Place straight edge over top of soakage pit and measure (dip) to the top of the water.
- Record time versus dips in table below. Dip every 5 minutes for the first hour and every hour until pit is one quarter full. Repeat test 3 times in total on the same or consecutive days.

DETAILS

Site Location	Spring Street, Ramsbottom
Date of Test	18/90/2026
Weather Conditions	Dry – Autumn
Engineer Name	Ollie Mountain

SIZE OF PIT 1

Length	Width	Depth
1.50m	1.40m	1.50m

Test 1 RESULTS

Time (mins)	Dip (mm)	Time (mins)	Dip (mm)
0	590		
5	531		
10	472		
15	413		
20	354		
25	295		
30	236		
35	177		
40	118		
45	59		
50	0		

Date: 18th September 2026
Ref: 26879/PR/001

Appendix A

Percolation Test Sheet Pit 1

Test 2

RESULTS

Time (mins)	Dip (mm)	Time (mins)	Dip (mm)
0	495		
5	457		
10	419		
15	381		
20	343		
25	305		
30	267		
35	229		
40	190		
45	152		
50	114		
55	76		
60	38		
65	0		

Test 3

RESULTS

Time (mins)	Dip (mm)	Time (mins)	Dip (mm)
0	600	70	75
5	563	75	38
10	525	80	0
15	488		
20	450		
25	413		
30	375		
35	338		
40	300		
45	263		
50	225		
55	188		
60	150		
65	113		

Date: 18th September 2026
Ref: 26879/PR/001

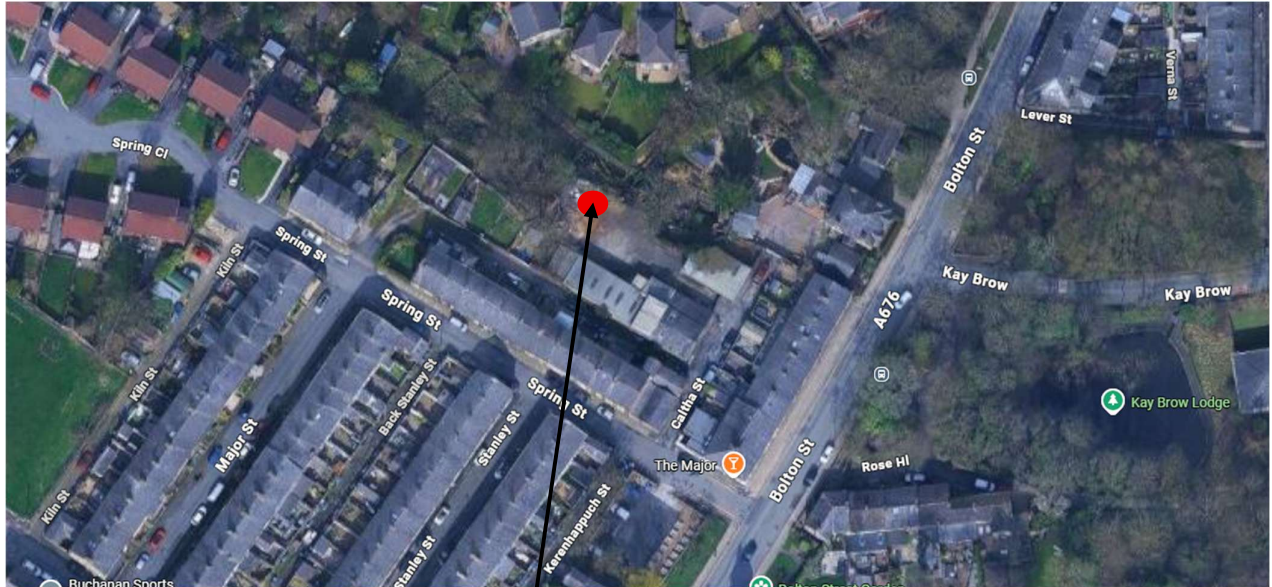
Appendix A

Trial Pit 1



Date: 18th September 2026
Ref: 26879/PR/001

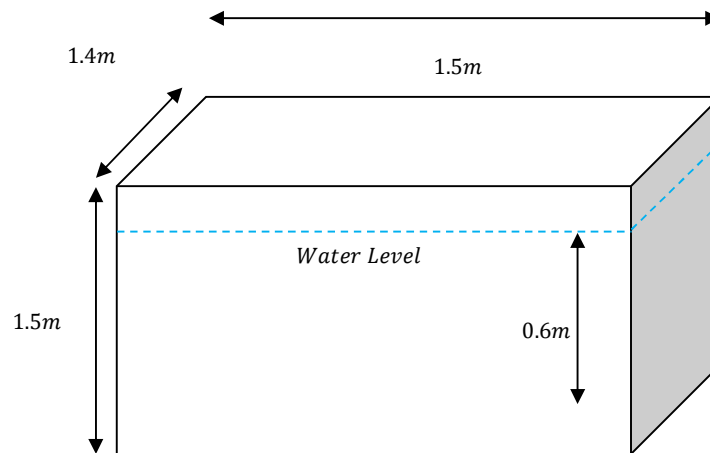
Trial Pit 1 Location



Trial Pit 1 was
formed here.

 E: andy@dart-engineers.com E: rob@dart-engineers.com m: 07725 481902	Project				Job Ref.	
	Spring Street, Ramsbottom				26879	
	Section				Sheet no./rev.	
	Calc. by	Date	Chk'd by	Date	App'd by	Date
	OM	18/09/26	AD	18/09/26		
					A	

Test 3,
Test Pit 1)



Soil Infiltration rate(ms^{-1}): $\frac{V_{(P75-25)}}{t_{(P75-25)} \times a_{(P50)}}$

V = Effective storage volume between 75 – 25%

$a_{(P50)}$ = Surface area of the pit (50% effective depth) + box area

$t_{(P75-25)}$ = Time for water to fall from 75 – 25%

$$V_{(p75-25)} = (0.6 \times 0.5) \times 1.5 \times 1.4 = 0.630m^3$$

$$a_{(p50)} = 1.5 \times 1.4 + 2((0.6 \times 0.5) \times 1.5) + 2((0.6 \times 0.5) \times 1.4) = 3.84m^2$$

$$t_{(p75-25)} = 4800s$$

Soil Infiltration rate (m/s):

$$\frac{0.630}{4800 \times 3.84} = 3.417 \times 10^{-5}m/s$$

Soil Infiltration rate (m/hr):

$$3.417 \times 10^{-5} \times 3600 = 0.123 m/hr$$