PERCOLATION REPORT

LOCATION:
St Andrew Roads, Huddersfield

CLIENT:
Arrow Self Drive

DOCUMENT REF:
24466-FP-001

DATE:
5th December 2024

DART ENGINEERS LTD
CIVIL AND STRUCTURAL ENGINEERING

CONTENTS & AMENDMENT HISTORY

Revision	Description	Date	Author	Checked
A	First Issue	Dec 2024	J Sellers	A Dyson

1.0 TESTING REPORT

The Percolation Testing was carried out on site on 5th December 2024 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 500mm x 1200mm x 1300mm 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 800mm, the water level dropped 160mm after 2 hours of testing.

Calculation sheet 1 shows that the infiltration rates are not high enough and do not satisfy BRE 365 requirements. Therefore, Infiltration methods of drainage will not be viable for this site and strategy.

APPENDICES

Appendix A – Percolation Test Sheet
METHOD (from BRE Digest 365)

- Excavate a soakage trail 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	**St Andrews Road, Huddersfield**
Date of Test	**05/12/24**
Weather Conditions	**Dry – Autumn**
Engineer Name	**James Sellers**

SIZE OF PIT 1

Length	Width	Depth
1.20m	0.50m	1.30m

Test 1
RESULTS

Time (mins)	Dip (mm)	Time (mins)	Dip (mm)
0	500	70	660
5	530	80	660
10	545	90	660
15	560	100	660
20	575	110	660
25	590	120	660
30	600		
35	610		
40	620		
45	630		
50	640		
55	650		
60	660		

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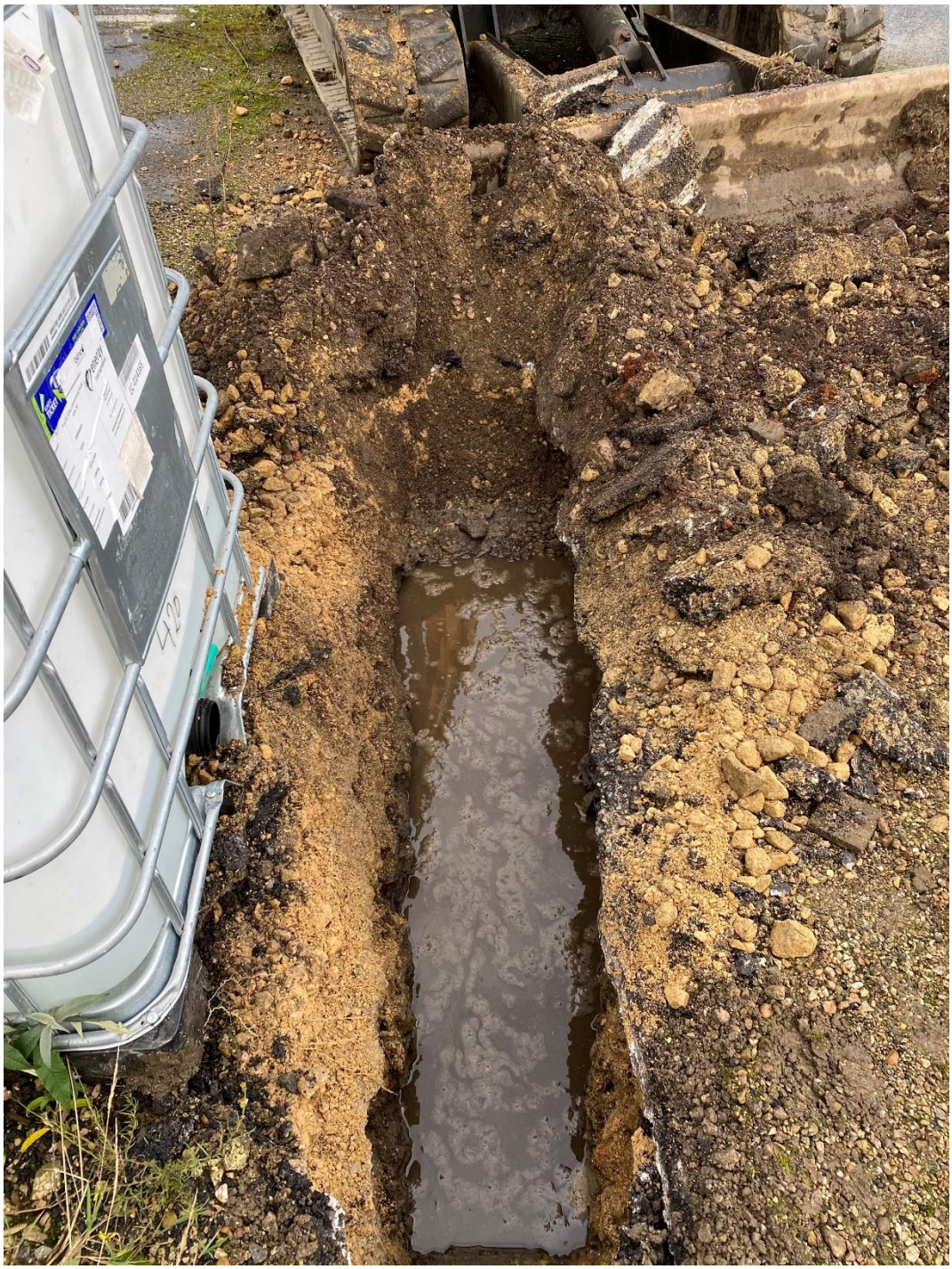
Appendix B
Percolation photograph



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