

CASE STUDY

The Old Orchard

Ground Investigation & Factual Reporting



Project Overview

Metro Consultancy & Design delivered a ground investigation at The Old Orchard, DA1 3QU to establish factual subsurface information for subsequent engineering assessment and design.

The field investigation comprised two exploratory locations, window sampling, in-situ Standard Penetration Testing (SPT), disturbed soil sampling, groundwater observations and detailed logging of the strata encountered.

Project	The Old Orchard - Ground Investigation
Location	The Old Orchard, DA1 3QU
Services	Window sampling, SPT testing, soil sampling, groundwater observations and factual reporting
Investigation Date	13 September 2026
Status	Completed

Scope of Investigation

The works included two exploratory boreholes, initial hand excavation to approximately 1.20 m below ground level, window sampling below this depth, SPT testing at selected intervals, recovery of disturbed samples, strata logging, groundwater observations and preparation of factual records.

BH1 was advanced to 6.40 m below ground level and BH2 to 5.60 m below ground level, with refusal recorded at both locations.



Window sampling rig positioned at the exploratory location

Ground Conditions

The investigation recorded approximately 0.70 m of turf, topsoil and made ground at both locations. The made ground comprised compact gravelly fill containing brick rubble. This was underlain predominantly by orange-yellow to light-brown fine sand.

The sand generally increased in density with depth, progressing from loose to medium dense and dense material, with very dense sand recorded at the second exploratory location.

Standard Penetration Testing

SPT testing was undertaken at selected depths to provide a factual record of penetration resistance. The recorded resistance generally increased with depth.

BH1: N=8 at 1.20 m increasing to N=44 at 6.00 m.

BH2: N=9 at 1.20 m increasing to N=48 at 4.00 m, with N=59 for 300 mm recorded at 5.00 m.



Groundwater Observations

Both exploratory holes were recorded as dry and open on completion, with no groundwater level recorded during the investigation. These observations represent the conditions at the time of the works and may vary seasonally.

Site Investigation Delivery

The compact window sampling rig allowed the exploratory works to be undertaken from the existing site access road while maintaining a controlled working area. Samples were recovered during advancement of the exploratory holes and retained for logging and assessment.



Window sampling operations at The Old Orchard



Site investigation rig and sample trays during the works

Investigation Outcome

The completed investigation provided a detailed factual record of the subsurface conditions at the site.

Made ground was recorded to approximately 0.70 m, underlain predominantly by granular soils with increasing penetration resistance and density with depth.

The findings, borehole records, SPT results, groundwater observations and photographic records were compiled into a Factual Ground Investigation Report to provide a factual basis for subsequent engineering assessment and design.



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