

# GEA SITE INVESTIGATION FACTSHEET

## No 2: Window Sampling and Dynamic Probing



Window sampling is a robust and cost-effective method of drilling boreholes to depths of typically up to about 6 m in clay soils.

The sampler consists of a specially constructed and strengthened metal sample tube, with side windows, of diameters ranging from 80mm to 40mm. The sample tubes come in lengths of 1.00m and 2.00m and are driven into the ground by a pneumatic kango hammer using a small portable compressor unit, or by petrol or electrical hammer.

The use of electrical equipment means that sampling can be carried out safely inside buildings and the equipment can be operated in a headroom of as little as 2.2 m. The equipment is self-contained, requires a small working area and causes minimal disturbance to surfacings.



The work is carried out under the supervision of one of our qualified geotechnical engineers; a continuous sample of soil is obtained for inspection and small disturbed samples can be recovered for subsequent laboratory testing. The continuous core means that the method is particularly suited to assessing the depth of desiccation in clay soils, particularly in association with pocket penetrometer testing.

In addition, 38mm undisturbed samples can be recovered from the borehole for subsequent laboratory shear strength tests.

On a typical day on site we would complete five or six boreholes to a depth of about 5 m to 6 m.



We often carry out window sampling in association with dynamic probing, which uses lightweight manoeuvrable drilling units to carry out semi-quantitative testing of soil strength. Depending on the type of soil and its strength, probing can be carried out to a depth of about 10 m.

As window sampling does not penetrate granular soils dynamic probing is particularly suited to proving the thickness of an underlying granular deposit at the base of a window sampling borehole. It is also useful in its own right for probing for loose zones, solution features, filled ground and so on.

For further information on this or any of our wide range of ground investigation solutions please contact one of our three offices.

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