



SafeGround

SafeGround is the service and utility detection and mapping arm of RSK's geophysics team.

We use the latest electromagnetic location (EML) and ground penetrating radar (GPR) techniques to accurately map buried services and significantly reduce the risk of a service strikes.

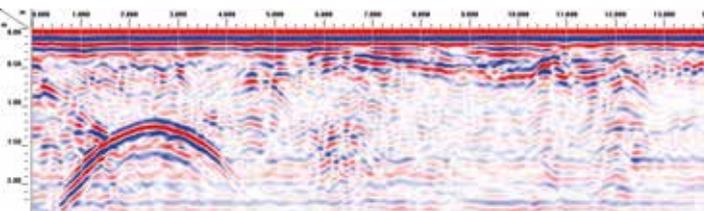
SafeGround provides tools to prevent or minimise potentially costly incidents on site and to ensure pre-site work health and safety measures are managed effectively.

A wide range of products is available to suit your needs, from simple on-site borehole location clearances to combined topographical and full utility surveys with CAD drawings and associated interpretative reports.

All our surveying is undertaken, in accordance with specifications from the Royal Institute of Chartered Surveyors, HSG47 and PAS128, by qualified geophysicists and surveyors. Survey designs and interpretative results and reports are signed off by senior chartered staff.



Using GPR to detect buried services and obstructions



GPR data showing buried fuel tank

Services offered:



Topographical surveys

- Topographical surveys in 2D and 3D
- Levelling
- Elevations and measured building surveys
- OS datum/GPS or coordinate system as required
- CAD drawings



QL-D type, desk-based utilities report

Reviews of statutory service records and other site-specific data compiled into a report

A CAD plan can be produced at additional cost to show all statutory services on single drawing.



SafeGround service clearance

On-site survey to clear discrete locations for intrusive works.*

Using GPR, EML and coverlifting and tracing, all detected services are marked out in paint. Typically between 10 and 15 locations in a day.



PAS128 GPR utility survey

EML and cover lifting with recorded GPR data collected across entire site as access allows. GPR post-processed to give greatest possible coverage and detail of sub-surface features. Results presented on a plan in CAD and PDF formats to produce a Survey Type B to B2P quality level.



Unexploded ordnance (UXO) clearance

Downhole UXO clearance services by trained geophysicists, utilising in-borehole magnetometers.

Readings are taken at intervals during drilling activity to minimise risk of encountering ferrous objects.



UXO survey

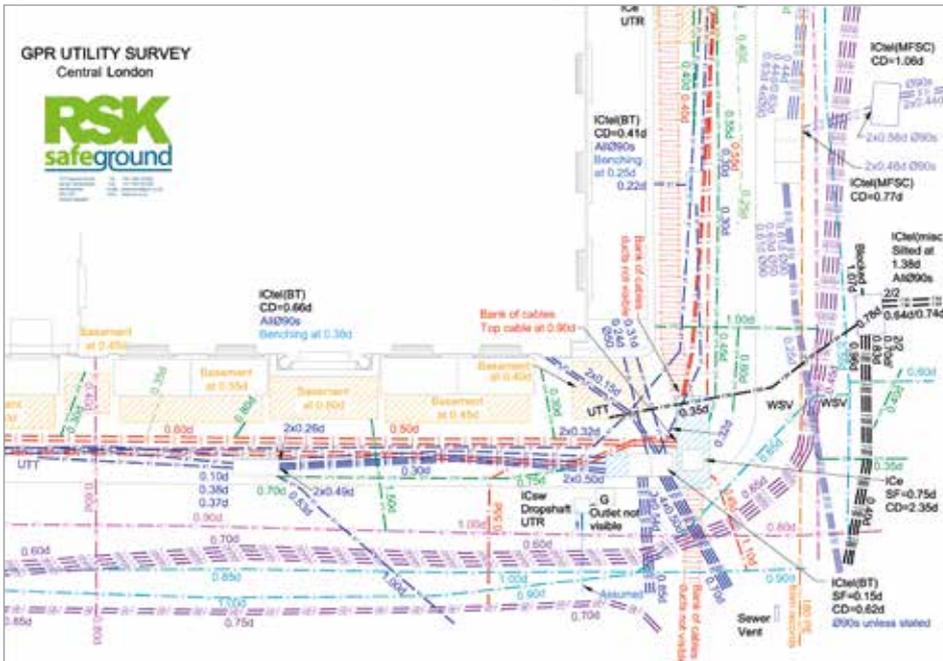
Surface geophysical surveys to detect potential shallow UXO, utilising non-intrusive geophysical techniques such as GPR, electromagnetics and magnetics. Data can also be interpreted for buried obstructions, services and archaeology thus avoiding the costs of additional surveys.

*PAS128 is the new publicly available specification from the British Standards Institution for underground utility detection, verification and location, and describes the different levels of survey, their merits and limitations. Our utility tracing services are compiled with reference to PAS128. Our recommendations are based on our expertise in geophysics, and our understanding of the budget and the client's attitude to risk. Reference to PAS128 and its nationally recognised standards should allow you to be clear on the scope of the survey and ensure that the level of detail provided will be sufficient for your needs.

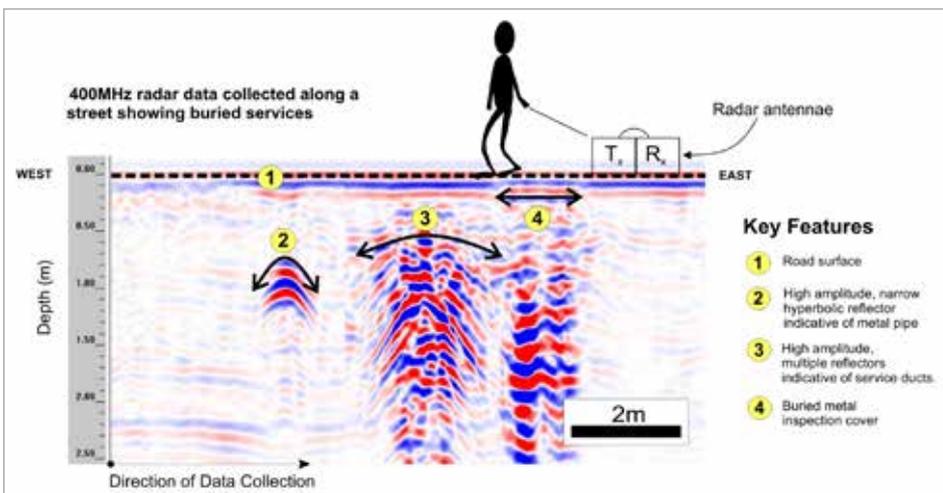
PAS 128 Quality Levels (QL)

Each detected utility will be designated a Quality Level (QL) to indicate the quality, accuracy and confidence of its position and depth. The table (opposite) indicates the quality/accuracy levels of a typical Type B Survey.

Type B Survey: Accuracy levels	
QL	Expected accuracy zone
QL B1	+/- 0.15 m
QL B2	+/- 0.250 m
QL B3	+/- 0.500 m



Example survey CAD drawing to PAS128 specifications



Example GPR



For further information, visit us at www.safe-ground.co.uk and www.environmental-geophysics.co.uk or contact:

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RSK Group plc has achieved certification to the ISO 9001, ISO 14001 and OHSAS 18001 standards for quality, environmental and health and safety management.