



## Method Statement      Dynamic Probing

The lightweight Geotool rig will be delivered to site by a four-wheel drive vehicle and trailer. It is wheel mounted and is powered by an on board engine.

Crews will hold valid CSCS cards and be provided with written instructions prior to the start of work.

Proposed probing locations will require a firm and level working space of at least 2m x 3m and minimum headroom of 2.4m.

Exploratory locations will be set out with reference to utility information and drawings/plans, access and egress routes, as well as other hazards such as obstacles, soft, uneven or sloping ground etc; maintaining safe distances from any overhead cables, lifting covers where required to check underground runs and CAT scanning each position in the presence of the crew.

If required, any surface concrete/other hard cover will be broken out to a suitable size and an inspection pit excavated by hand to a minimum depth of 1.2mbgl, with continuous scanning as the pit is deepened.

The rig will then be manoeuvred into position and erected in a safe manner.

The test is based on BS EN ISO 22476 and is used to determine the resistance of soils and soft rocks to the dynamic penetration of a cone. The equipment consists of a 90 degree cone which may be sacrificial or retained for recovery, a series of extension or driving rods, a torque wrench and a driving device (the rig). A hammer (on the rig) of a given mass and given height of fall is used to drive the cone into the ground at a rate of between 15 and 30 blow per minute.

In the DPSH-B test, a 63.5kg weight is dropped 750mm, and in the DPH test, a 50kg weight is dropped 500mm. The penetration resistance is defined as the number of blows required to drive the cone over a defined distance. A continuous record is provided with respect to depth but no samples are recovered. One metre long extension rods with graduations marked every 100mm along their length are added as the cone is driven deeper. Probing will be continued until a given depth or blow count has been achieved

On completion of testing, the rods will be removed through use of an external ram, holes filled where required (usually with sand) and surfaces reinstated where specified

### Risk Scoring and Assessment

Health, Safety and Environmental Risk is measured using a 5 x 5 matrix to obtain a result that, after control measures have been applied is scored as: Low (Proceed with care), Medium (If no alternative, proceed with care), High (Do not proceed, seek alternative).

		Severity					
		1	2	3	4	5	
		No Injury or Impact	Minor Injury or Impact	Reportable Injury or Impact	Serious Injury or Impact	Fatality, Disability or Major Impact	
Likelihood	Unlikely or Rare	1	1 LOW	2 LOW	3 LOW	4 LOW	5 LOW
	Remote possibility	2	2 LOW	4 LOW	6 LOW	8 MED	10 MED
	Possibly occur	3	3 LOW	6 LOW	9 MED	12 MED	15 MED
	Probably occur	4	4 LOW	8 LOW	12 MED	16 HIGH	20 HIGH
	Certain to occur	5	5 LOW	10 MED	15 HIGH	20 HIGH	25 HIGH

Hazard/Risk	Type	Affected	Control Measures	Score	Residual Risk
Operating equipment	H&S	Oprs	Trained and competent operators only.	2 x 3	Low
Contact with underground or overhead services	H&S	Oprs	Review positions with reference to utility plans and maintain safe distances. CAT scan each position prior to breaking ground.	1 x 5	Low
Entrapment - damage to hands and fingers	H&S	Oprs	Keep hands/ fingers clear of all moving parts. Fixed guard.	2 x 3	Low
Internal works (if required)	H&S	Oprs	Ensure adequate ventilation, access, egress and lighting. Fire extinguishers to be kept next to rig.	2 x 4	Med
Lifting and Handling injuries	H&S	Oprs	Adopt good lifting and manual handling practices; use available aids.	2 x 3	Low
Noise	H&S/Env	Oprs/Env	Noise a maximum of 90dB within 2m. Operators to wear ear defenders. Use warning signs if required.	2 x 2	Low