Method Statement **Dynamic Cone CBR Test**

The dynamic cone CBR test uses light portable equipment and is used to provide a continuous record of the penetration resistance of each layer in the ground for a depth of a meter from the surface. The penetration resistance provided a measure from which the CBR value is calculated using a formulae published by the Transport Research Laboratory.

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.

The test is carried out with hand-held equipment; a 22 mm diameter 60° cone is driven into the ground to a depth of up to one metre by a 9.09 kg weight, freely falling over 500 mm. The number of blows is recorded for each successive 50mm penetration increment, and a plot of the cumulative number of blows versus depth penetrated is drawn.

On completion, test areas will be left tidy, with 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
	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**
Likelihood	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 2	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 4	Low
Access and Stability	H&S	Oprs	Keep level, avoid any uneven ground.	2 x 2	Low
Entrapment - damage to hands and fingers	H&S	Oprs	Wear gloves, keep hands/ fingers clear of all moving parts.	2 x 2	Low
Lifting & Handling injuries	H&S	Oprs	Adopt good lifting and manual handling practices	2 x 2	Low