

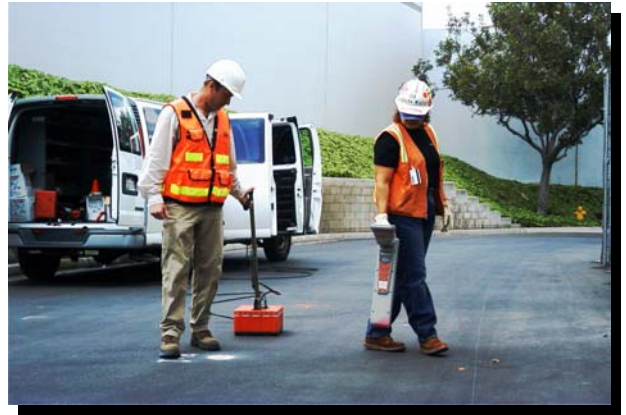
# UTILITY CLEARANCE AND MAPPING USING ELECTROMAGNETIC METHODS



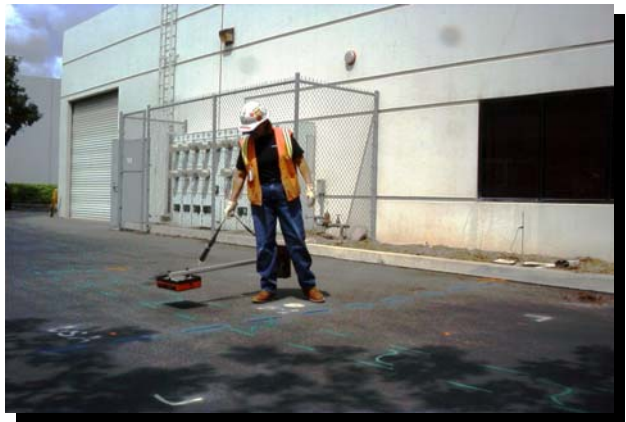
In complex urban settings GEOVision commonly uses electromagnetic (EM) utility locating techniques to clear proposed boring, trenching and excavation locations.

## GEOVision area clearance procedures:

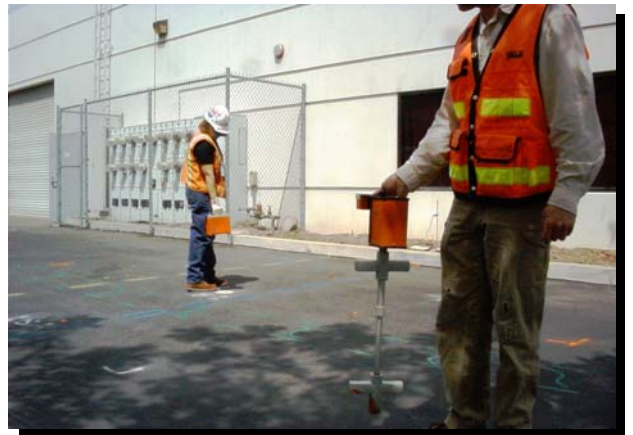
1. Visually inspect area for manholes, valve boxes etc as well as review available utility plans
2. Each identified utility will be traced out using EM utility locating instruments (RD-4000, Ditchwitch 950, Metrotech 810)
3. Scan the area in passive 50/60 HZ and radio modes to locate active electrical lines and other lines carrying a passive radio signal.
4. Screen the area using Fisher TW-6 to identify abandoned conduits
5. Screen the area using Schonstead GA-72Cd to identify buried metal debris
6. Conduct perpendicular GPR traverses through the area to detect non-metallic lines (GSSI SIR10B, 2000, or 3000)
7. Hold EM utility locator transmitter at various locations in area and circle at about a 40-foot radius with the receiver
8. Mark all identified lines on the ground in color code established by American Public Works Association and map site.



Ground Penetrating Radar and 50/60HZ



Scanning the Area with the Fisher TW6



Spinning The Boring With The Metrotech

