



concrete radar & location services

Case Study

For the installation of
an ATM on a suspended slab.

Many building managers and owners are now insisting that installers do not drill or cut through any of their essential structures. There is also the potential risk to safety from hidden electrical conduit within the slabs. To counteract this, the installer is able to have the area of interest scanned using ground penetrating radar, in conjunction with radio location to identify and locate these targets of interest.

An ATM was to be installed on the mezzanine level. Data and power were to be sourced from below so a secondary area was scanned for the penetration. CRLS was able to determine the slab contained two layers of mesh as well as a conduit possibly containing a PT cable and an electrical chase on the underside of the slab. This is shown in the diagram. All our results with the radar unit containing electrical activity were verified using radio detection both within and outside the test area. The installer was able locate his desired drill holes for the bolts securing the ATM. All penetrations cleared the top and bottom mesh except for one which was directly above the conduit which possible contained a PT cable.

CRLS, with access to the bottom of the slab, was able to calibrate our machinery to determine the depth of the top of the conduit to an accuracy of +/-2mm. This meant that the installer was able to confidently drill his desired minimum depth without the risk of damaging the conduit.

CRLS approaches each job with the mindset that a test area contains all variations of targets and we must disprove their existence. All results from one machine must, where possible, be verified and confirmed with other equipment. This way any particular area is only declared safe for cutting or drilling when all evidence is evaluated and compared.

