crls

concrete radar & location services

Underground search solutions for construction

reinforcement power cables storm water pipes gas mains underground

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What we can bring to your building project

CRLS are a specialist location service provider catering to the building and construction industry. We use ground and concrete penetrating radar (GPR) systems to produce meaningful data about the location and size of building components, power and other services.

Developed by the world's leading manufacturer and with the capability of multi-antenna scanning, our equipment is considered vastly superior to any other brand on the market today.

Unlike other service providers, our trained technicians hold current building industry qualifications and have a thorough understanding of construction methods and requirements.

They have also received rigorous and ongoing manufacturer backed training, which means that they have a full understanding of the capabilities of our equipment and can perform a quick and accurate service, saving your project time and money.

Benefits of radar over x-ray

We only need to access one side of the structure to be scanned.

X-ray equipment operators need access to both sides of a structure because the transmitter and receiver components need to be opposed to each other. Radar equipment houses both these components in one unit and relies on the reflection of radio waves to produce an image.

X-ray is potentially harmful and requires a site to be evacuated.

X-ray is damaging to the human body, so exclusion zones around the area being tested are necessary. This means part or all of the building site will need to be evacuated while the equipment is in use. The energy emitted from our radar units is many times lower than a mobile phone. So there is no need for a site to be evacuated, nor is there is any risk of exposure to those on site.

X-ray can be time consuming and costly to large projects.

X-ray can only produce one image on each exposure. Therefore investigating large areas mean the transmitter and receiver need to be constantly repositioned, making the exercise very time consuming and costly. Radar can scan large areas in one or more scrolling images, producing a vertical sectional view of the test area much like a hospital MRI. These images can then be placed together to form a virtual 3D model.

Our services

Concrete inspection and scanning

CRLS uses equipment developed by the world's leading ground and concrete penetrating radar manufacturer to locate and trace almost anything within concrete slabs and walls.

Our technicians have a range of antennas on hand, including the high definition 2600 MHz antenna, which was developed specifically for situations involving closely spaced reinforcement, conduit or small voids within concrete.

We can:

- Locate reinforcement and pre-tensioned tendons in walls and floors.
- Locate conduit, PVC pipes and voids within concrete walls and slabs up to one metre in depth.
- Detect concrete inconsistencies such as voids, cracks, honeycombing and others.
- Locate targets directly under slabs or behind walls.
- Verify slab thickness.
- Verify areas safe for cutting and core holes.
- Precisely locate penetration exit points to avoid thickenings and beams.
- Measure concrete cover and reinforcement size.
- Offer a service that is cheaper, safer and quicker than x-ray.
- Provide all customers with reports as a value added service.

Power and cable location

This service offers the project owner enormous peace of mind by greatly reducing the risk of injury and repair costs on jobs where cutting or drilling is required.

CRLS uses the latest model Ridgid Line Locator and Transmitter to induce, detect and trace any power cables within floors, walls or underground. This particular unit allows us to locate data and telephone cables, as well as measuring their depth with unsurpassed speed and accuracy.

Using direct or induction method scanning, we can also locate and trace non-electrified metallic services within slabs or underground.

Service location

CRLS has the capability to locate almost anything to a depth of 4 metres. Using our low frequency shielded antenna, we can immediately locate and mark buried services.

Whether it be metallic gas pipelines, terracotta or concrete sewers and storm water pipes, pvc water mains, phone line, fibre optic or data cables, or any buried target, our technicians can locate them quickly and accurately.

Our array of antennas even allow us to locate geological targets, such as changes in subsoil consistency and composition for environmental surveys or mining purposes.

As a value added service, we provide all our clients with reports on every job.

Services offered

- Location and marking of reinforcement.
- Scanning of concrete slabs to measure floor and wall thickness.
- Detection and locating of concrete imperfections such as cracks, voids and other inconsistencies.
- Void or delamination detection.
- Imaging and detection of power cables and conduit.
- Precise location of exit points for cutting and core holing.
- Detection of depth and location of underground essential services, eg, water, storm water and sewer pipes (including PVC, terracotta and metallic), telephone and electrical cables, gas mains and tree roots.
- Location of changes in subsurface density, eg, the bedrock horizon, underground objects and other engineering applications such as underground tanks.
- Written reports at no extra charge.

Call now – 1300 323 987
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