# MCMURRAY CONCRETE CUTTING & CORING







#### YOUR LOCAL LEADER IN CONCRETE SERVICES

Quick Response Times. Certified in Safety. Tools for Every Job.

McMurray Concrete Cutting & Coring specializes in a variety of concrete services to get your job done efficiently. We use the highest quality equipment and latest technology to bring you a variety of services in the concrete cutting, coring and scanning industry.

Slab/Wall Sawing | Coring | GPR Scanning | Concrete Crack Analysis | Demolition | Removal



### **HILTI CERTIFIED TECHNICIANS**

Our concrete experts are HILTI Detection System certified technicians. HILTI detection tools, such as the PS-1000, is used for non-destructive structural analysis. We are able to measure concrete cover and rebar size while detecting hidden objects before drilling, sawing or cutting. Our GPR scanner allows us to take a look into what is below the surface, without potentially compromising your project.

## **CONCRETE SERVICES**



#### **CONCRETE SLAB CUTTING**

We offer concrete cutting services for all types and sizes of projects, performed by our skilled operators using special saws with diamond impregnated blades. Services include slab cutting, wall sawing, and flat sawing. Our machines can cut up to 10 inches in depth, and any length.



#### **CONCRETE CORING**

McMurray Concrete Cutting & Coring specializes in core drilling services, anywhere, at any time. With our quick response time, we are able to complete your core, and keep your project on schedule. In addition, we offer GPR scanning services to ensure there are no conduits or rebar in the way. Coring inside - No problem. Our HILTI Water Management System allows us to core without making a mess.



Sewer Drain / Tie-ins | HVAC | Electrical / Cable Openings | Anchor Holes | Floor Drains | Aggregate Analysis

#### CONCRETE GPR SCANNING

Concrete Scanning (GPR 3-D imaging) is a technology used to detect metallic and non-metallic objects in real time, allowing us to drill, cut or core on site without delays. GPR scanning allows us to map the network on the surface of your structure before we core or cut. This procedure adds another step of safety to your project, while preventing accidents and work stoppages.



#### **INTERIOR SERVICES**

McMurray Concrete Cutting & Coring specializes in interior concrete services. Included on all projects is our service of our HILTI water and dust management systems, making sure your job site is free of any water or dust during the process. Safety and cleanliness is our priority.



## CONCRETE CRACK ANALYSIS





#### **EXPERTS IN CONCRETE CRACK ANALYSIS**

Assess. Document. Report. Re-Evaluate.

McMurray Concrete Cutting & Coring is the leader in northern Alberta for Concrete Crack Analysis.

Normal in concrete, surface cracks are the most commonly seen kind of defects in concrete structures and slabs.

As concrete cracking can develop at different stages of the settling process (before or after hardening, shrinkage/expansion), the cracks should be monitored regularly to make sure the width/depth of the crack does not get progressively worse over time.

#### **CRACK ANALYSIS**

It is important to be proactive about cracks, as these areas can allow aggressive agents (i.e. chloride ion) to penetrate below the surface, eventually causing corrosion. Evaluating the depth of cracks, confirms if surface cracking is well propagated into concrete and if the cracks are getting wider or deeper over time.

#### **METHOD OF MEASURING - ULTRASONIC PULSE VELOCITY**

Ultrasonic Pulse Velocity (UPV) is an effective non-destructive testing method for quality control of concrete materials. Using transducer technology, UPV has been widely accepted in testing concrete materials. Ultrasonic testing of concrete is an effective way for quality assessment and uniformity, and crack depth estimation. UPV is used for estimating the depth of surface cracks. With specialized equipment, each transducers is placed on one side of the crack, for a given distance and the distance between transducers is changed in the same trajectory.

#### **REPORTING**

McMurray Concrete Cutting & Coring takes concrete crack analysis seriously. It is our goal to come out to the site of the concrete crack, perform our testing and provide a report analyzing and documenting the crack(s) on that specific date. We recommend that testing be completed on a regular basis (dependent on the environment of the concrete), and re-analyzed to see if the cracks are increasing in size over time.

## CRACK ANALYSIS TECHNOLOGY



#### **PROCEQ PUNDIT® PL-200**

McMurray Concrete Cutting & Coring performs all concrete crack analysis procedures with the Proceq PUNDIT® PL-200, the new benchmark in technology for UPV testing.

Our team is specialized in using this device and trained in writing reports on the findings of the concrete crack analysis.

Using transmissions, the transducers are placed on two sides of the concrete for scanning. Through the traducers, we are able to provide comprehensive measurements and reports in regards to line scans, pulse velocity, comprehensive strengths, crack depth and surface velocity.

The Proceq hand held touch screen allows us to have control over the measurement procedure in real time, directly on-site, with the ability log data, store scans an off load for future reports.

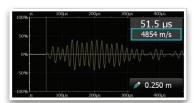
#### **COMPREHENSIVE MEASUREMENT MODES**

#### **Line Scans**



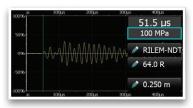
Assesses the concrete uniformity and detects cracks as well as other defects. The measured pulse velocities are displayed as a line.

#### Pulse Velocity



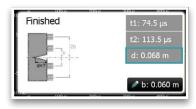
Calculates the pulse velocity of the material under test.

#### **Compressive Strength**



Determines the compressive strength using Ultrasonic Pulse Velocity correlation, or by using SONREB.

#### **Crack Depth**



Determines the depth of perpendicular cracks according to BS 1881.

#### **Surface Velocity**



Determines surface velocity according to BS 1881.

**Transmission Time:** Measures the transmission time.

**Distance:** Calculates the distance between the transducers