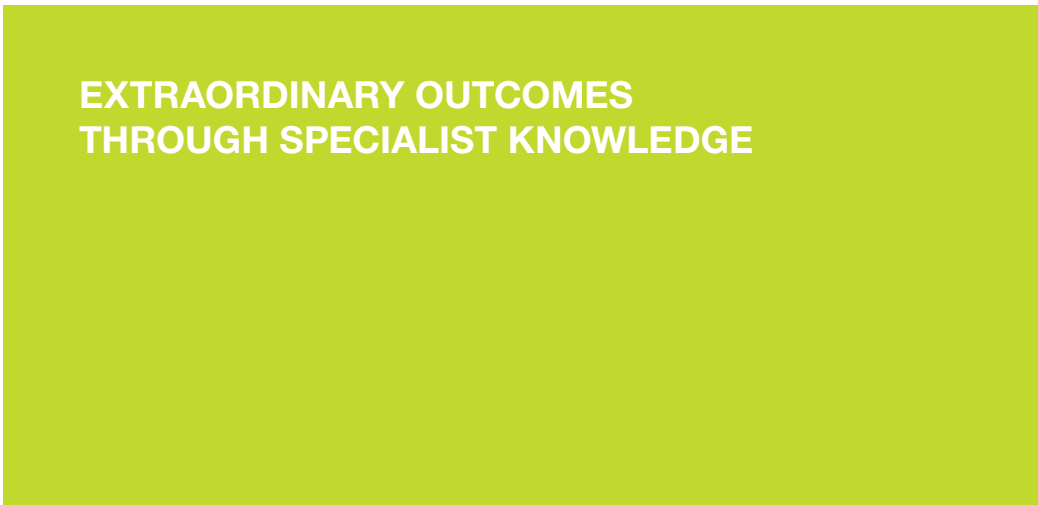


**EXTRAORDINARY OUTCOMES
THROUGH SPECIALIST KNOWLEDGE**



Coffey Geotechnics
is a Coffey International
Limited company and
part of a multi-specialist
organisation that is
connected to a global
network of specialists
beyond ground
engineering.

Coffey specialist businesses include:

- Coffey Commercial Advisory
- Coffey Environments
- Coffey Information
- Coffey International Development
- Coffey Mining
- Coffey Projects
- Coffey Rail



SPECIALIST KNOWLEDGE REDUCING YOUR RISK

Coffey Geotechnics is an engineering consulting firm, specializing in geotechnical engineering, specialized transportation and pipeline services, environmental soil and groundwater engineering, environmental permitting, workplace health & safety, mining services, dam safety reviews, concrete technology and building sciences, as well as a full range of geotechnical and materials testing services.

Specialist knowledge during the early phases of a project from the planning and site investigation stage right through to design, construction, inspection and maintenance can ensure success – whether it's a high-rise building, low rise land development, a road or a tunnel.

As consultants, we strive to better understand our client's risks and constraints to help manage the increasing complexity of today's environment with:

- increased cost, time and safety pressures
- the urbanization of cities on marginal, difficult and poor land or in environmentally sensitive areas and
- the demand for taller, deeper and more complicated projects.

Our people are dedicated to pushing the boundaries of professional knowledge to combine cost-effective solutions with technical excellence.

TAP INTO A NETWORK OF SPECIALISTS

Coffey Geotechnics is part of a multi-specialist company with over 4,500 people working in more than 80 countries around the globe.

Coffey has offices throughout the Americas, Oceania, Africa, Asia and Europe. Through the Coffey network, we have a strong presence in Canada, Washington DC, Los Angeles and Brazil. We work together to share our knowledge on a diverse range of ground and groundwater conditions to provide a customised solution for each project.

Several of our senior staff are leaders in their field and are not only engaged on projects but actively promote a culture of technical excellence.



OUR SERVICES

At Coffey Geotechnics, we're proud of our ability to provide a high level of technical excellence that enables us to create timely and cost-effective solutions suited to local and site conditions. We deliver reliable data, relevant analyses and innovative design to manage and reduce our clients' risks.

GEOTECHNICAL ENGINEERING

Site investigation

We develop comprehensive ground models starting with the collection of data through desktop studies and geological assessments. This work is supplemented by site investigations that include, in situ testing, groundwater modelling and sample collection for laboratory testing, as needed.

Geotechnical Report

Our specialists interpret the site investigation results to provide relevant advice and tailored solutions that address engineering and construction and the impacts that these activities will have on a site.

Analysis

Our specialists use a range of analytical techniques to identify the specific geotechnical design requirements and specifications required. Where needed, we develop new methods or modify existing analytical methods to improve the quality of the solutions we develop for our clients.

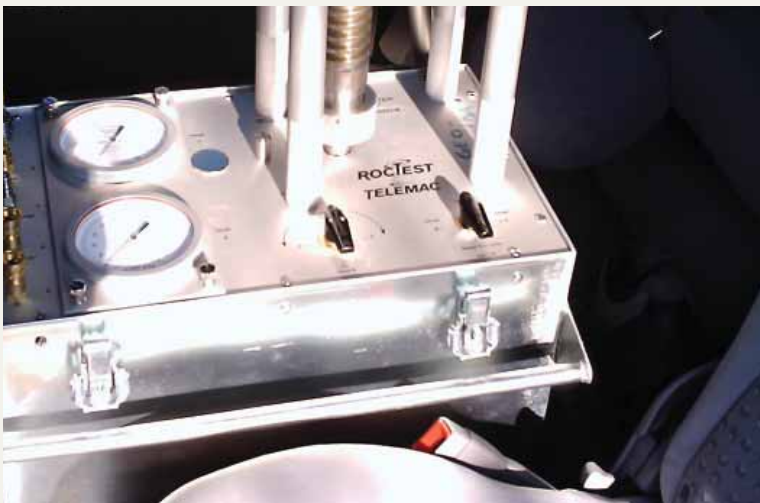
Design

Geotechnical design needs to consider the properties of the ground and the impact infrastructure will have on the surface and sub-surface. Our specialists provide design services for infrastructure projects, oil and gas projects, and building developments. Some of our geotechnical design specialty areas include: foundations; slopes and slope stabilization; roads; pavements; dams and reservoirs; marine and near shore structures; tunnels and underground infrastructure; and quarries and landfills.

ENVIRONMENTAL SOIL AND GROUNDWATER ENGINEERING

We have extensive experience in environmental science and engineering consulting, providing a broad range of services that includes Phase 1 and Phase 2 Environmental Site Assessments; detailed subsurface site characterization; site remediation planning and management; risk assessment; supervision of underground storage tank removals; and asbestos and hazardous materials management.

Our groundwater engineering services address both groundwater quantity management and groundwater quality issues. Our firm specializes in characterizing site conditions for projects related to groundwater contamination, (e.g. site assessments and risk assessments) as well as site specific testing to evaluate groundwater conditions, well yields, aquifer conditions, threats to groundwater resources and potential impacts related to changes in water balance.



ENVIRONMENTAL PERMITTING

Coffey has extensive in-house knowledge of environmental compliance issues, expertise in agency liaison coupled with leading edge design in mitigation and compensation strategies that allow Coffey to be successful at obtaining project permits and approvals from federal, provincial and local level regulatory agencies. The ability to identify the permits required and the critical path items early on in the life of the project tend to allow clients to successfully plan and execute complex projects with multiple requirements.

WORK PLACE HEALTH & SAFETY

Coffey recognises that fostering a proactive workplace health and safety culture is partly driven by both regulation and community standards and expectations – but also good management practice. In today's society, one of the highest priorities must be the health and safety of all individuals. This element is critical to the success of an organisation. Staff want to work for companies that care about their well-being; clients want to be assured that they are dealing with companies that undertake all their operations in a manner that safeguards people and property. This means setting health and safety goals that are best practice.

Coffey workplace health and safety group specialises in providing innovative solutions to anticipate, recognize, evaluate and control chemical, physical and biological hazards in the workplace and help to limit the exposure to risk.

Services provided include:

- airborne contaminant monitoring (dust, chemical and biological)
- occupational hygiene assessments
- asbestos and hazardous materials surveys and management
- OHS legislation compliance auditing
- confined space entry testing and entry oversight
- OHS management systems auditing, development and implementation
- expert witness litigation
- policy and procedure design and implementation
- health and safety awareness training
- risk assessment and management
- indoor air quality and microbial contamination evaluations and investigations
- safety management system development
- noise and vibration measurement and control
- safety plan development and implementation
- medical surveillance provider liaison
- ventilation evaluation
- industrial chemical process risk evaluation
- water quality monitoring and testing



“People do things that affect the ground – digging tunnels, building dams and constructing property. The trick is knowing what will happen. You can’t always see the ground with perfect vision, so we strive to develop robust solutions that work, even when there is an element of uncertainty.”

Professor Harry Poulos, Council of Senior Principals





SERVICING INFRASTRUCTURE, OIL & GAS, AND BUILDING DEVELOPMENT SECTORS

Our experts provide specialist services for a range of **infrastructure projects**, including roads, rail, bridges, marinas and ports, dams, pipelines, nearshore structures such as seawalls, and underground works such as tunnels. To do this, we draw on knowledge from our specialists in:

- unstable ground conditions
- contaminated land
- terrain evaluation
- route selection and alignment
- pavements
- foundations and piles
- slopes and retaining structures
- deep foundations
- rail embankments
- excavations
- groundwater
- dewatering and drainage
- geophysics
- laboratory testing
- mine subsidence risk
- geomorphology.

We also work in the **building and land development sector** which include high-rise structures, commercial properties and residential properties. These projects require specialist knowledge in areas such as basements, foundations, piling and subdivisions as well as inspection and testing methods, building science and construction advice.

Our area of expertise in the **oil & gas sector** includes air photo interpretation/engineering terrain analysis for linear projects, pipeline routing, stream crossing and horizontal directional drill feasibility studies, terrain/geological and geotechnical input to environmental impact assessments, granular materials search and management studies, and engineering geological aspects of projects in Arctic Canada, stability studies and stream crossing designs for pipelines, access roads and wellsites.



OUR SERVICES

INSPECTION & TESTING

Qualified inspection, and advanced field and laboratory testing

The value of construction projects increases when the quality of construction processes is enhanced through detailed inspection and testing services.

We use a comprehensive range of field and laboratory testing procedures to evaluate and control the quality of construction materials in accordance with established codes and standards.

In place and off site testing and monitoring methods are used for: noise and vibration monitoring; compaction; testing and control; concrete, asphalt and building materials integrity testing.

Concrete technology

Our services in concrete technology range from evaluation of deterioration and damage to buildings, parking and highway structures to complete materials design, specification, control and quality assurance on new construction projects. We conduct focused research assignments to respond to challenging projects for our private and public sector clients.

Building science

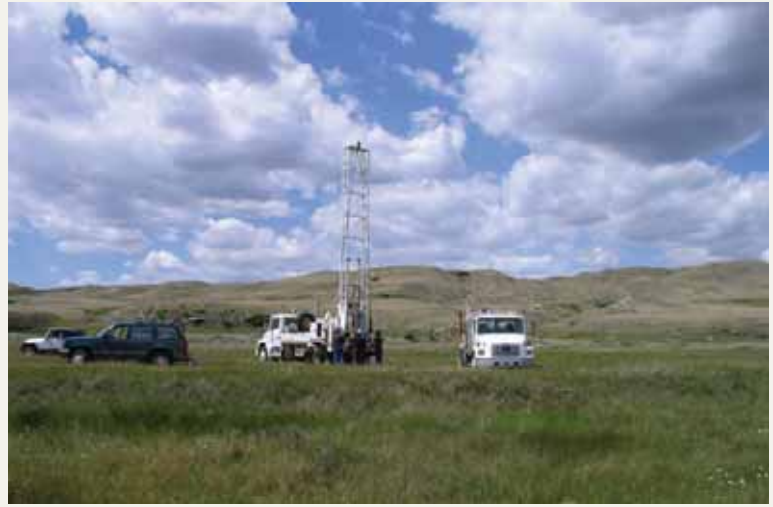
Evaluation, investigation, and testing programs provide valuable information to developers, architects, building owners, property managers and component manufacturers.

Our building science staff review, inspect, and evaluate the design, construction, and performance of old and new buildings; analyze the integrity of building, roof, wall and window systems; and identify problems caused by moisture, wind, temperature and pollutants.

Construction advice

Comprehensive construction supervision and monitoring, with ongoing quality compliance testing, helps to reduce risk. It also enables a design to be modified if it does not meet performance expectations, as ground conditions can be unpredictable.

Our specialist staff provide a full range of construction monitoring services, including construction specification compliance testing; quality assurance; RMCAO concrete plant inspections; non-destructive testing, including surface absorption testing; in situ materials evaluation; reinforced concrete corrosion surveys; LOK testing; and tensile bond strength of concrete and overlays.





Our network of specialists deliver extraordinary outcomes through specialist knowledge. This ensures you receive local knowledge and expertise, to deal with challenging ground and environmental conditions, as well as the inspection and testing of new and existing structures.



OUR CLIENTS

A selection of our clients include:

- Cadillac Fairview
- Cimarron Engineering
- City of Calgary
- City of Toronto
- Concord Adex
- DEC
- Delcan Corporation
- Devon Canada Corporation
- DM Wills Associates
- Empire Communities
- EOG Resources Canada
- Goldcorp
- Haldimand County
- Home Depot
- IBI Group
- Infrastructure Ontario
- Ministry of Transportation Ontario
- Monarch Corporation
- Ontario Realty Corporation
- Region of Peel
- Storm Exploration
- Toronto Transit Commission
- TransCanada Pipe Lines
- University of Toronto
- Vanbots Construction

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Discover more about Coffey

Coffey International Limited is a global professional services consultancy focusing on both physical and social infrastructure. We are listed on the Australian Securities Exchange (ASX:COF) and have been operating for over 50 years.



O.R. Tambo International Airport upgrade – Johannesburg, South Africa



Melbourne's Docklands – Australia's largest construction project

Specialist services from concept to completion

We use specialist knowledge to deliver extraordinary outcomes for our clients across the full lifecycle of a project, from concept to completion.

- Coffey Geotechnics
- Coffey Environments
- Coffey Information
- Coffey Mining
- Coffey Rail
- Coffey International Development
- Coffey Projects

A world of experience

We have over 3,000 people helping clients on projects in more than 80 countries, with permanent offices throughout the Americas, Africa, Asia Pacific, Europe and the Middle East. All of our people have one thing in common: a passion to solve emerging challenges to improve the lives of communities.

Visit coffey.com today and find out more about our specialist services



Supporting the Government of Iraq's efforts to rebuild its public management system