

### Architectural

- Surface facilities
  - Offices
  - Warehouses
  - Shops/garages
  - Compressor houses
  - Security buildings
  - Core logging buildings
  - Refuge stations
- Roof replacements
- Office/building renovations
- Facade replacements
- Ontario building code reviews

### Civil

- Site plans
- Road network design, including haul roads
- Site traffic planning
- Condition assessments
- Pumping stations
- Site process water and storage tanks
- Stormwater management
- Grading, backfill, culverts and ditching
- Buried infrastructure and underground services
- Tailings infrastructure

### Electrical/Instrumentation

- Process controls
- Power system analysis
  - Short circuit studies
  - Protective device evaluations and coordination studies
  - Arc flash studies
- Power distribution
- Switchrooms
- Grounding
- Fire alarm systems
- Energy management
- Communications systems
- Substations
- Overhead utility lines
- Backup power (UPS, generators)
- Lighting
- Cabinet design

- Functional descriptions
- PLC/DCS programming
- Underground systems
  - Leaky feeder
  - Central blasting
  - Telephone
  - Video
  - Fibre
  - Shaft cables

### Mechanical

- Slurry pumping
- Process piping
- Heating and power plants
- Cogeneration and renewable energy
- Tanks and vessels
- Cooling towers, boilers, etc.
- Belt and screw conveyors
- Chutes and bins
- Equipment specifications
- Building HVAC systems
- Dust collection
- Plumbing and fire protection

### Mining

- Maintenance engineering
- Hoisting plants, including headframes
- Shaft maintenance modifications
- Underground and surface material handling
- Systems (crushing, conveying, and screening)
- Loading pockets
- Mine wastewater treatment
- Ore pass modifications
- Ventilation
- Dewatering
- Mine longitudinals

### Project Management

- Project conceptualization
- Business case development
- Multidisciplinary detailed design
- FEL studies and engineering reports

- Post-issued for construction (PIFC) services
  - Tender assistance
  - Shop drawing review
  - Construction support
  - Commissioning plans, checklists, and field support
  - General conformance reviews
  - As-constructed drawings
- Estimating
- Scope, time, and cost management
- Quality assurance
- Nontraditional project delivery

### Structural

- Condition assessments
- Equipment access platforms
- Bridge design
- Cranes and lifting devices
- Conveyor galleries
- Building structural modifications
- Equipment support structures
- Concrete vessels, retaining walls, etc.
- Foundation design
- Demolition plans
- Concrete dam

### Water/Wastewater Treatment

- Background studies and investigations
- Condition assessments
- Optimization studies
- Environmental assessments and master plans
- Hydraulic stress testing and modeling (water and sewer)
- Capital and operating costs
- Conceptual and detailed design for upgrades and greenfield facilities
- Potable and process water supply and treatment systems

Mining & Mineral Processing Infrastructure

# Service Offerings

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Architecture  
Civil Engineering  
Electrical Engineering  
Energy Systems Engineering  
Environmental Engineering  
Mechanical Engineering  
Planning  
Project Management  
Structural Engineering

## Talk to us today

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