

## Experience Overview

### GEOTECHNICAL ENGINEERING

- Mr. Ryczywolski served as project manager for hundreds of geotechnical investigations throughout western Canada over the last 15 years.
- Mr. Ryczywolski provided geotechnical consulting services for a wide range of construction projects including residential, commercial, industrial, institutional, high-rise, infrastructure, and oil and gas developments. He is the geotechnical engineer on record for many of these projects.
- Extensive experience interpreting geotechnical test data and writing geotechnical reports, letters, and memos.
- Completed a wide variety of slope stability assessments, which included slope inspections, instrumentation, and software analysis.
- Designed numerous modular block retaining walls and reinforced earth slopes using hand calculations and software analysis.
- Completed a wide variety of private sewage treatment system assessments for rural residential developments.
- Extensive soil sampling experience throughout Alberta and British Columbia. Experienced in various geotechnical drilling methodologies, including solid/hollow stem auger, Becker hammer, direct push, sonic, ODEX, and air/mud rotary. Experienced in bedrock coring and classification.
- Experienced in foundation inspections such as soils bearing inspections and pile monitoring at construction sites.
- Assessed a wide range of geotechnical engineering issues at sites, including poor soil conditions, excessive groundwater, slope failure, foundation failure, retaining wall failure, settlement, and cracking.
- Familiar with geotechnical laboratory testing including sieve, hydrometer, Atterberg limits, density, unconfined compression, consolidation, triaxial, direct shear, and permeability.

### MATERIALS ENGINEERING

- Mr. Ryczywolski oversaw the materials testing programs for a wide range of construction projects throughout western Canada over the last 15 years.
- Assessed a wide range of materials engineering issues at sites, such as concrete cracking, curling and efflorescence, and asphalt rutting, raveling and alligator cracking.
- Performed compaction, concrete, and asphalt testing at construction sites.
- Familiar with materials laboratory testing including Proctor, CBR, concrete strength, and Marshall stability/flow.

## Registrations

- Association of Professional Engineers and Geoscientists of Alberta (APEGA)
- Engineers and Geoscientists of British Columbia (EGBC)
- Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS)
- Calgary Geotechnical Society (CGS)

## Employment Record

- Feb 2017 – Present | Lone Pine Geotechnical Ltd. | Principal Geotechnical Engineer
- Feb 2013 – Feb 2017 | Parkland Geotechnical Consulting Ltd. | Geotechnical Engineer, Manager
- May 2012 – Feb 2013 | McIntosh Lalani Engineering Ltd. | Geotechnical Engineer
- Apr 2011 – May 2012 | McIntosh Lalani Engineering Ltd. | Geotechnical Engineer-In-Training
- Mar 2007 – Mar 2011 | Parkland Geotechnical Consulting Ltd. | Geotechnical Engineer-In-Training
- May 2006 – Sep 2006 | Global Engineering and Testing Ltd. | Field and Laboratory Technician

## Education

**2002 - 2006 | UNIVERSITY OF CALGARY | B.SC. IN CIVIL ENGINEERING**

## Selected Project Experience

### **BUILDINGS**

- Aspen Woods Elementary School, Calgary, Alberta – geotechnical investigation, slope stability assessment, materials testing supervision
- Canadian Tire Store, Cochrane, Alberta – geotechnical investigation, materials testing supervision
- 56 Story Office Tower, Calgary, Alberta – geotechnical investigation
- Saint Teresa of Calcutta Elementary School, Lethbridge, Alberta – geotechnical investigation, materials testing supervision
- 8 Story Condominium Building, Calgary, Alberta – geotechnical investigation
- Candlewood Suites, Calgary, Alberta – geotechnical investigation, materials testing supervision
- Commercial Retail Building, Calgary, Alberta – geotechnical investigation
- University of Calgary Red and Gold Gym Renovations and Building Addition, Calgary, Alberta – geotechnical investigation
- Frank McCool Arena Addition, Calgary, Alberta – geotechnical investigation, materials testing supervision
- Pow Wow Shelter Roof Expansion, Tsuu T'ina Nation 145, Alberta – geotechnical investigation
- Fire Hall and County Office Building, Nordegg, Alberta – geotechnical investigation
- Gas Station and Convenience Store, Bragg Creek, Alberta – geotechnical investigation, materials testing supervision
- 25 Unit Apartment Building, Banff, Alberta – geotechnical investigation
- Holy Family Academy Expansion, Brooks, Alberta – geotechnical investigation, materials testing supervision
- Frontier Industrial Fabrication Warehouse, Rocky View County, Alberta – geotechnical investigation
- Multi-Bay Industrial Building, Fort McMurray, Alberta – geotechnical investigation
- Recreation Centre, Innisfail, Alberta – geotechnical investigation, materials testing supervision
- Car and Truck Wash, North Battleford, Saskatchewan – geotechnical investigation
- Buffalo Lake Residence, Stettler County, Alberta – geotechnical investigation

### **LAND DEVELOPMENT**

- Sage Hill Common Commercial Subdivision, Calgary, Alberta – geotechnical investigation
- Multifamily Townhouse Buildings, Chestermere, Alberta – geotechnical investigation, soils bearing inspections, materials testing supervision
- Auburn Bay Multifamily Apartment Buildings, Calgary, Alberta – geotechnical investigation, materials testing supervision
- Eight Outdoor Skate Parks, Calgary, Alberta – geotechnical investigations

- Kingsview Market Commercial Subdivision, Airdrie, Alberta – geotechnical investigation
- Silverado Residential Subdivision, Calgary, Alberta – geotechnical investigation
- Saprae Creek Residential Subdivisions, Fort McMurray, Alberta – geotechnical investigation, slope stability assessment, PSTS assessment
- 35 Acre Rural Residential Subdivision, MD of Foothills, Alberta – geotechnical investigation, slope stability assessment, PSTS assessment
- 114 Acre Industrial Business Park, Penhold, Alberta – geotechnical investigation
- 18 Acre Residential Subdivision, Rocky View County, Alberta – geotechnical investigation, slope stability assessment, PSTS assessment
- Private Cabin Development, Paintearth County, Alberta – geotechnical investigation, slope stability assessment, PSTS assessment

## **OIL AND GAS**

- Lake Newell Battery Expansion, Newell County, Alberta – geotechnical investigation
- Tide Lake Tank Farm, Newell County, Alberta – geotechnical investigation
- Two Battery Expansions, Cypress County, Alberta – geotechnical investigations
- Sour Water Injection Facility, RM of Winslow, Saskatchewan – geotechnical investigation
- Gas Plant, Near Fort St. John, British Columbia – geotechnical review, supplementary geotechnical investigation
- Compressor Station Expansion, Clearwater County, Alberta – geotechnical investigation
- Gas Plant Communication Tower, Ponoka County, Alberta – geotechnical review
- Pembina Plant Site Expansion, Alberta – geotechnical investigation

## **INFRASTRUCTURE**

- North Highway Connector Project, Red Deer, Alberta – geotechnical investigation, slope stability assessment
- Trenchless Sanitary Sewer Crossing, Didsbury, Alberta – geotechnical investigation
- HDD Sanitary Servicing, Summer Village of Birchcliff, Alberta – geotechnical investigation
- Trenchless Conduit Crossing Below Stoney Trail, Calgary, Alberta – geotechnical investigation
- Reservoir and Pump House, Carstairs, Alberta – geotechnical investigation
- Lift Station Structure, Sylvan Lake, Alberta – geotechnical investigation
- Maskepetoon Park Infrastructure Upgrades, Red Deer, Alberta – geotechnical investigation
- Gaetz Lake Sanctuary Bird Viewing Blind, Red Deer, Alberta – geotechnical investigation
- Raven River Bridge Replacement (BF70148), Red Deer County, Alberta – geotechnical investigation, slope stability assessment
- Lake Chaparral Pedestrian Bridge Enhancement, Calgary, Alberta – geotechnical investigation
- Sunnybrook South Pedestrian Bridge, Red Deer, Alberta – geotechnical investigation
- RCMP Communication Towers, Various Locations, British Columbia – geotechnical investigations
- Hiking Trail Bridge Replacement (BF78217), Kananaskis Country, Alberta – geotechnical review
- Medicine River Bridge Replacement (BF8622), Red Deer County, Alberta – geotechnical investigation, slope stability assessment
- Range Road 30 Reconstruction, Red Deer County, Alberta – geotechnical investigation, slope stability assessment
- Sanitary and Storm Line Replacements, Didsbury, Alberta – geotechnical investigation
- Infrastructure Upgrades, Alix, Alberta – geotechnical investigation, materials testing supervision
- Infrastructure Upgrades, Sylvan Lake, Alberta – geotechnical investigation, materials testing supervision
- 39 Street Reconstruction, Camrose, Alberta – geotechnical investigation

## **SLOPES**

- Spruce Drive Slope Rehabilitation, Red Deer, Alberta – slope failure assessment, remedial design, construction supervision
- 185 Acre Residential Subdivision, Rocky View County, Alberta – slope stability assessment
- 7 Avenue Refinement, Invermere, British Columbia – slope stability assessment, analysis, design, construction supervision
- 1 Street NE Reconfiguration, Calgary, Alberta – slope stability assessment, construction supervision
- HDD Conduit Crossing Through Slope, Calgary, Alberta – slope stability assessment
- Buffalo Sands Residential Subdivision, Stettler County, Alberta – slope stability assessment
- Royal Oaks Condominium Slope Review, Red Deer, Alberta – slope failure assessment

## **REINFORCED EARTH SLOPES**

- 17 Avenue SE Geogrid Reinforced Road Embankment, Calgary, Alberta – analysis, design
- River Heights Geogrid Reinforced Slope, Cochrane, Alberta – analysis, design, construction supervision
- Geogrid Reinforced Slope, Exshaw, Alberta – analysis, design, construction supervision
- Shell Place Geogrid Reinforced Slope, Fort McMurray, Alberta – analysis, design

## **RETAINING WALLS**

- Mahogany Lake Perimeter Retaining Wall, Calgary, Alberta – analysis, global stability assessment, construction supervision
- Cougar Ridge Gabion Basket Wall, Calgary, Alberta – analysis, design, construction supervision
- Seton Lock Block Retaining Wall, Calgary, Alberta – analysis, design, construction supervision
- Cranston MagnumStone Retaining Wall, Calgary, Alberta – analysis, design
- Southpointe Junction Allan Block Retaining Walls, Red Deer, Alberta – analysis, design, construction supervision
- Tuscany Sandstone Retaining Wall, Calgary, Alberta – failure assessment, failure monitoring