



Bird and Stuart Olson

SIMSA



bird

Agenda



Bird and Stuart Olson



Company Overview



Past and Current Projects



Procurement Needs



Wrap Up



←
**#OurBest
BuildYet**
→

We are redefining Canadian construction.

TOP 5
CONSTRUCTION
& MAINTENANCE
COMPANY

100
YEARS IN THE
MAKING




5000 STRONG


FULL
LIFECYCLE


BALANCED
C&M


DIVERSIFIED
CRAFT



Integrated Bird and Stuart Olson Structure



Industrial Construction

Industrial Maintenance



Civil Infrastructure

Heavy Civil



Buildings East

Building West

Our Industrial Markets and Services



Oil & Gas



Petrochemical



Mining



Renewable Energy



Nuclear



Environmental



Utilities

Together, Bird and Stuart Olson are **leaders in fully integrated service offerings** for the complete lifecycle.



Construction



Buildings



Fabrication



Civil



Heavy Civil



Infrastructure & Hydroelectric



Maintenance & Turnarounds



Mechanical



Electrical & Instrumentation



Technical Services



Powerline



Insulation & Cladding



Innovative Trenching Solutions

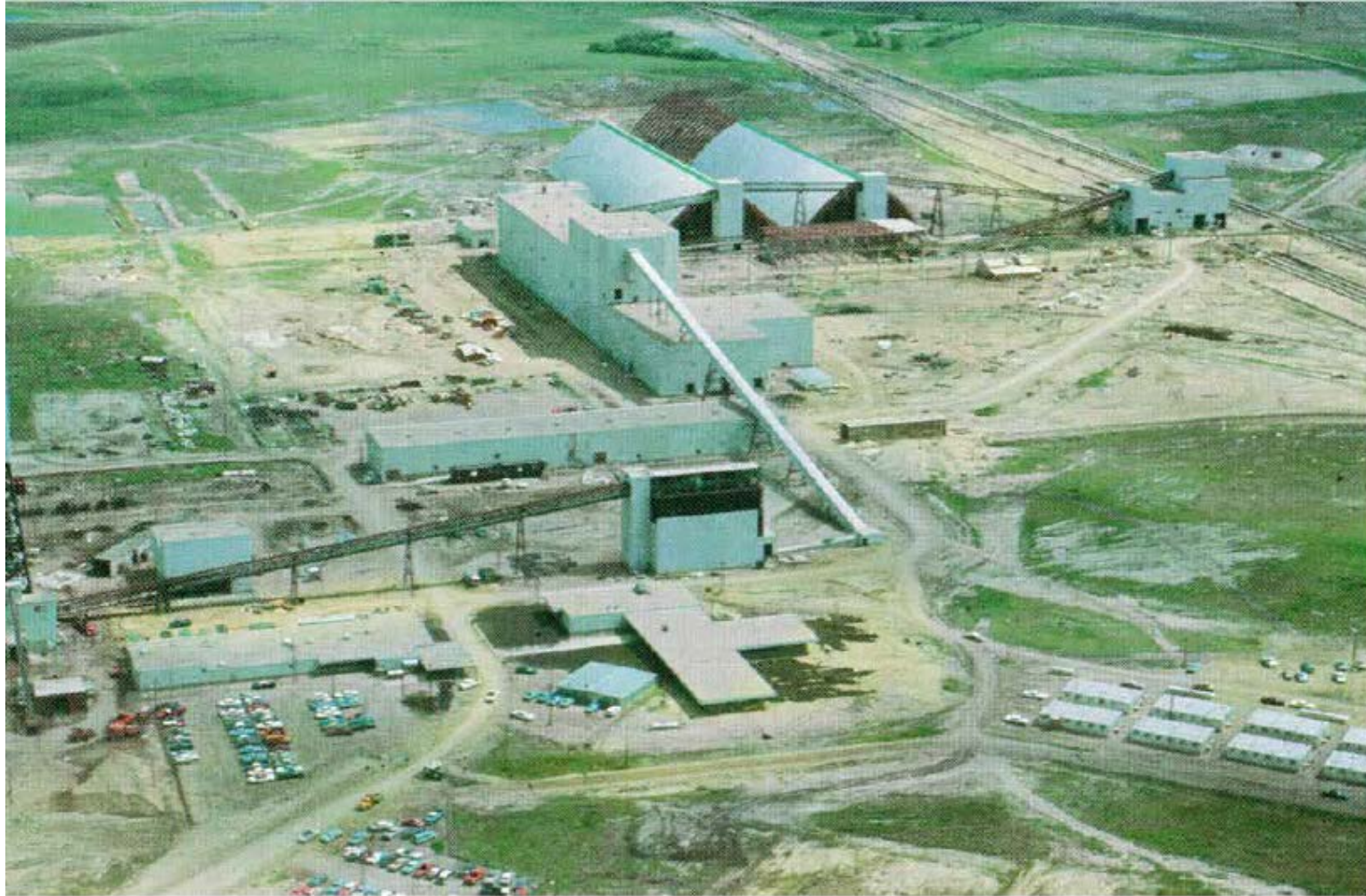


Experience Working in Saskatchewan

- Bird and Stuart Olson has completed over **\$1 Billion** worth of work in the province of Saskatchewan



Bird was founded in Moosejaw, SK in 1920

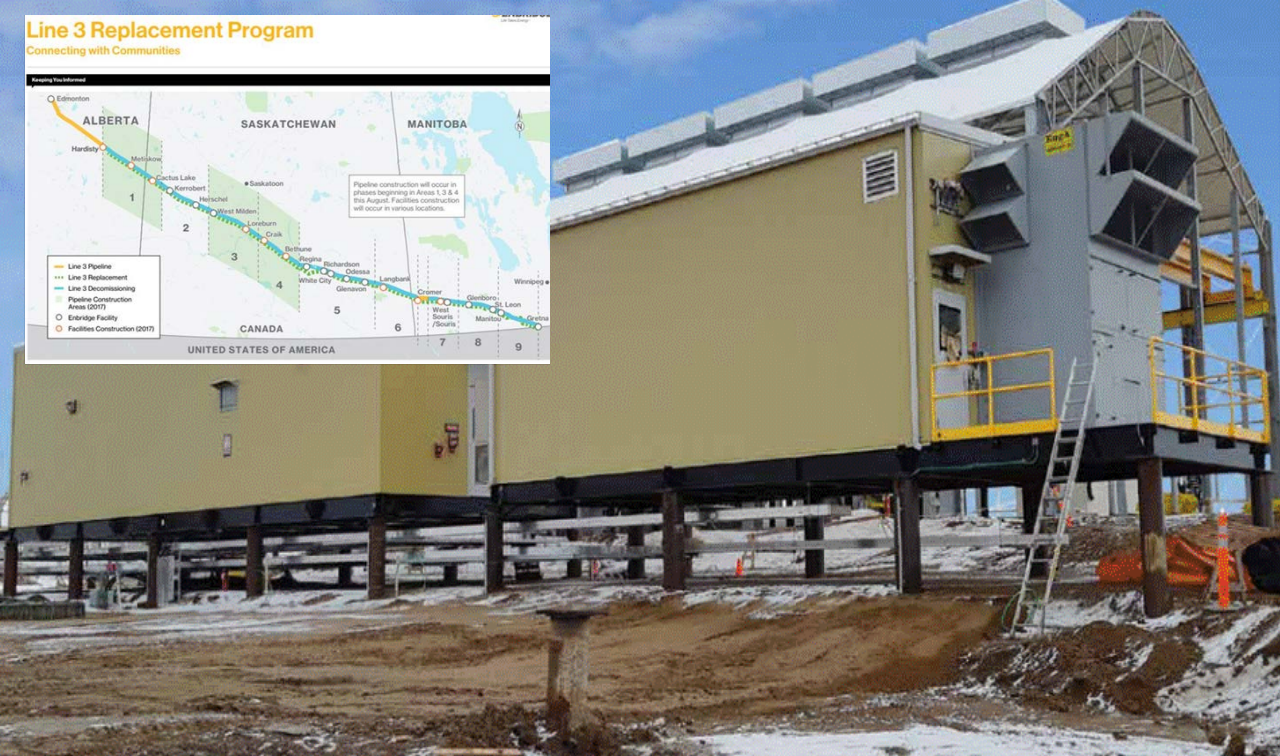


ALWINSAL POTASH MINE

Lanigan, Saskatchewan

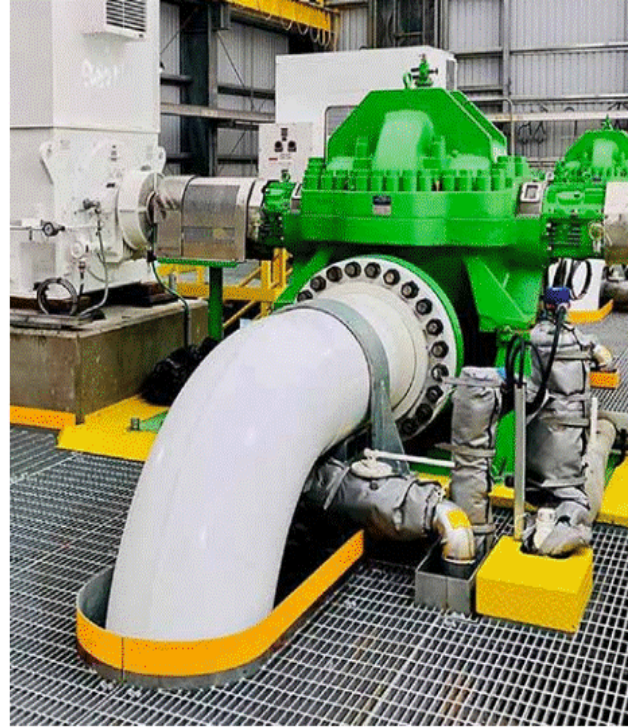
This was one of the first highly specialized industrial projects undertaken by the new Industrial and Special Projects Division. For this major plant expansion, Bird Construction had a \$7.5-million contract covering all site preparation, grading, drainage, and all civil engineering construction work for the new \$50-million mine for Alwinsal Potash of Canada.

Almost all major work was contracted on a unit price basis, a time-saving arrangement that allowed construction to proceed concurrently with design. The mine officially opened in October 1968. Bird returned more than ten years later in 1980 to slip-form construct a new head frame structure at the mine.



Following the principles of respect, understanding, and transparency, all parties were able to agree on a common plan. A framework for engagement was utilized by the project team and guided meaningful engagement and relationship development with the communities.

Overall, Bird achieved 20 per cent Indigenous employment on the Enbridge Line 3 project, including 42 Indigenous direct hires by Bird and 31 Indigenous direct hires by subcontractors. There was 25 per cent sub-contracting spend on Indigenous-owned businesses, including eight Indigenous service partnerships and four Indigenous subcontractor partnerships. Further engagement was achieved by supporting cultural events, school field trips, and sponsorship of elder events. By the end of the project, ongoing relationships were established with eight communities.



ENBRIDGE LINE 3 REPLACEMENT PROGRAM

Glenavon, Langbank, Saskatchewan
Cromer, West Souris, Glenboro, St. Leon and Gretna, Manitoba

The Enbridge Line 3 Replacement Program was the largest project in Enbridge history and involved the replacement of Line 3 between Hardisty, Alberta and Superior, Wisconsin. It spanned over 1,070 kilometres on the Canadian side alone and required the construction of new pump stations and associated infrastructure.

Bird was awarded the contract to construct seven pump stations in Saskatchewan and Manitoba. This included fabrication, civil, structural, mechanical, and electric works, as well as large and small bore piping, pump installation, pipe supports, structural steel platforms, cable tray supports, and cable and instrument installation.

Bird's engagement with Indigenous communities to meet internal goals and client expectations with respect to investment, employment, and business development during this project was indicative of Bird's general approach to Indigenous relations. Throughout the procurement process, Bird reached out to over 145 Indigenous communities and organizations to discuss sub-contracting and employment opportunities. Relationships were built with Carry the Kettle First Nation, Birdtail Sioux First Nation, Peguis First Nation, White Bear First Nation, Swan Lake First Nation, Ochapowace First Nation, Manitoba Métis Federation, as well as the Nations represented by the Saskatoon Tribal Council.





ETHANE STORAGE CAVERNS

Burstall, Saskatchewan

Bird was awarded the contract for the construction of the washing infrastructure for two new ethane caverns near Burstall, Saskatchewan, each with a storage capacity of 500,000 barrels. As part of the washing process, water was pumped from the South Saskatchewan river, up a hill, and into the wash water building. This water was then pumped underground through the drill casing where it mixed with the natural underground salt to form a brine mixture. Water was continuously pumped underground to erode the cavern formations, which would later store ethane gas. All of the washing infrastructure was constructed by Bird and after commissioning the washing phase took over a year to form the caverns. Later, once the production phase began, the brine in the cavern was replaced with ethane gas, with brine being pumped back in to maintain the equilibrium as the stored gas was removed.

Bird's scope of work for the surface facilities and major components included a wash water pumping station, brine disposal pumping station, cavern and disposal wellheads, river water intake and settling

tanks, instrument air compressor building, and two motor control centre buildings. This phase of the project also included concrete foundations, mechanical piping, setting owner supplied equipment, and electrical components.

This was the first project undertaken for this major industrial client, and late in the first phase Bird was awarded an additional contract for a significant earthworks program to complete underground piping, roads, and site works. Following the success of the Wash Phase construction, Bird worked with the client's subsurface engineering group and two separately contracted engineering groups for the above ground works, which included the brine disposal ponds and gas processing facility. Working with these groups and the client, Bird established a risk-sharing contracting strategy that enabled Bird to make constructability recommendations that reduced additional costs, increased efficiency, and capped the risk for all parties.

The Production Phase scope included a major fabrication package completed by BFL, Bird's fabrication shop in Nisku, Alberta. The fabrication components included several fully constructed process modules that were assembled on site by the field team. Bird self-performed all mechanical scopes to connect the pre-fabricated modules, as well as the installation of several pieces of large owner-supplied equipment, including molecular sieve vessels and a flare stack. The piling, concrete foundations and earthworks, and site mechanical, structural, and electrical works were all completed by Bird. The injection facilities included an ethane injection pumping and brine system (storage ponds, brine degassing, and pumping), as well as utilities (flare system, instrument air, and nitrogen supply). The retrieval facilities included a molecular sieve dehydration system complete with regeneration. All divisions within the Bird Edmonton district office were involved in this project that concluded in 2018.



Process modules under construction at Bird's fabrication shop in Nisku, Alberta.

It was discovered that rattlesnakes had taken up residence in the desert-like conditions at the Saskatchewan worksite. To maintain safety, the Bird crew instituted a "Kick it before you pick it" rule, giving pipes and other materials a firm nudge before touching to encourage the critters to skedaddle.



K2 Mine Sites: Esterhazy

Scope

- Asbestos Abatement
- Steel Decking
- Structural Steel
- Roofing
- Blasting and Painting
- Scaffolding

The Esterhazy K2 Phase 3 and 4 Thickeners Roof repair

- Demolition of 29,000 ft² of asbestos roof deck.
- Installation of 29,000 ft² of new steel deck and torch down roof system.
- Refurbishment of 14 roof trusses inclusive of weld repair, blasting and recoating.
- Replacement of approximately 80 roof purlins and refurbishment of remainder.
- Installation of 2 new roof vents
- Installation of new roof drains and corresponding piping.

K2 XLR Roof Replacement

- Demolition 2400 ft² of asbestos roof deck.
- Installation of 2400 ft² of new steel deck and EPDM roofing system.
- Refurbishment of 1 roof truss including the replacement of 40ft of top flange, blasting and recoating of truss.
- Replacement of approximately 19 roof purlins, bracing and one strut.
- Installation of roof vent
- Installation of new roof drains and corresponding piping.
- Installation of protection deck/ work platform

■ 2018 – 2019

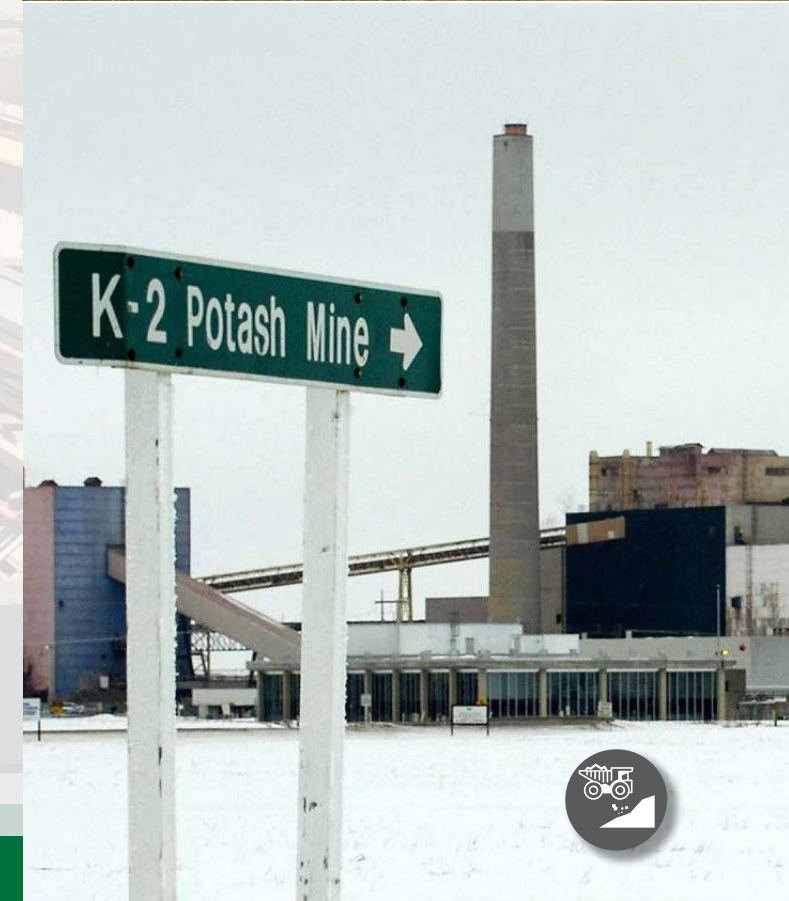
■ 40+ Employees

■ Esterhazy, SK

■ 9000+ Hours (Annual)

■ \$5+ Million (Annual)

■ RIF = 0.0



SASKATCHEWAN JOINT USE SCHOOLS PROJECT

Regina, Saskatoon, Martensville, and Warman, Saskatchewan

In 2013, the Premier of Saskatchewan announced that 18 new schools would be built on nine joint use sites in the high-growth communities of Regina, Saskatoon, Martensville, and Warman. The new publicly-owned infrastructure was essential to meet the rapid growth in student enrolment in Saskatchewan. The decision to construct joint use facilities, which are typically shared between Catholic and public school divisions, was based on the need to lower short- and long-term maintenance costs, as well as promote stronger partnerships between school divisions. The central shared spaces included multi-purpose rooms such as gymnasiums, community resource centres, and child-care centres.

The Saskatchewan Joint Use Schools Project 1 and 2 would be the largest concurrent build of new schools in the province's history. A P3 model was chosen for the complex project to ensure on-time and on-budget delivery and promote innovation, creativity, and efficiency.

The P3 was between SaskBuilds and the Joint Use Mutual Partnership (JUMP), a consortium led by Concert Infrastructure Ltd. The consortium designed, built, financed, and maintained the bundle of 18 schools on nine sites. The design and construction took two years, and then a 30-year maintenance period commenced. Bird Capital provided the financing, together with Concert Infrastructure Ltd. The construction was delivered by Bird Construction with consortium partner Wright Construction Western Inc.

The almost \$400-million project was split into two bundles: The first bundle covered six schools on three sites in Regina; the second bundle included eight schools on four sites in Saskatoon, two schools on one site in Martensville, and two schools on one site in Warman. The new facilities accommodated 11,100 students from kindergarten to grade eight who resided under the purview of the Public and Separate Saskatchewan School Divisions in Regina and Saskatoon



and the Prairie Spirit School Division, which draws students from 28 communities around Saskatoon including three First Nations and eight Hutterite communities.

The state-of-the-art educational facilities were based on three prototypical models designed by GEC Architecture. Each design was then modified to meet the specific needs and approaches of the particular school, maximizing flexibility without sacrificing efficiency. The key design element was to promote collaboration through interconnected learning spaces, making the most of the advantages offered by the joint use sites.

All the schools met LEED® Silver requirements. Among the environmental efficiencies instituted were large windows that allowed more natural daylight and created bright learning spaces, automated lighting systems, high-efficiency water fixtures and landscape designs

that reduced water consumption, and multiple recycling points throughout each school. An interesting feature on this project was the launch of nine 24/7 webcams that enabled people to view the real-time construction progress being made on all the sites.

Bird Construction had previously demonstrated the ability to successfully execute complex multi-site P3 projects, including the Ontario Provincial Police Modernization Project and the Alberta Schools Alternative Procurement Project. This endeavour once again affirmed the company's exceptional skill in meeting the particular challenges of bundled P3 infrastructure projects. The project was completed on time for the new school year in September 2017.

Current Projects

Milestone Potash Phase 1

Regina, Saskatchewan

CLIENT
Western Potash

CONTRACT TYPE
Lump Sum

CONSTRUCTION VALUE
\$32,000,000

PROJECT DURATION
2019 - 2022

 MINING INFRASTRUCTURE

 SELF-PERFORM

 CIVIL

 ELECTRICAL &
INSTRUMENTATION

The Milestone Phase 1 Project is a potash solution mining pilot plant in southern Saskatchewan located approximately 8 kilometres north of the Hamlet of Riceton. The expected mine plant capacity is 146,000 metric tonnes per year of granular potash. The scope of the project includes the well field, processing plant, crystallization pond, storage and loadout facilities, and supporting infrastructure. The team is responsible for all trades to construct the process facilities, including commissioning of all systems.

The civil scope involves clearing and grubbing, constructing temporary erosion and sediment control structures, excavation and site work, as well as construction and installation of dykes, ponds, geosynthetics, manhole and catch basins, and cathodic protection design. It also includes pipe installation, pipe testing, site drainage, and surface drainage. All installed piping materials have been carefully chosen to mitigate against corrosion due to the process fluids. This vast piping program also includes the installation of an 8 kilometre line from an offsite water well to site to support the mining process. The concrete scope of work involves the formwork for all foundations, piers, walls, curbs, beams, columns, slab on grade and suspended slabs.

The electrical scope of work includes the construction of a 25kV service line that delivers power to site through 25kV:5kV and 5kV:600V transformers. Two E-Houses then distribute this power to all associated loads through various switchgear and MCC's. There is approximately 15 kilometres of power cable to install and an additional 13 kilometres for the instrument and control system.



Current Projects



- Wastewater Treatment Facility
- Lloydminster, SK
- Integrated Project Delivery



Future Saskatchewan Opportunities

Total Tracking Opportunities

- Bird Industrial is tracking over **\$980** million worth of opportunities in the following sectors:
 - Mining
 - Power
 - Environmental
- Bird Commercial is tracking over **\$770** million worth of opportunities within the next 18 months in the following sectors:
 - Commercial
 - Institutional
 - Health Care
 - Recreation/Culture

Procurement Needs

- **Vendors**

- metal suppliers
- insulation
- Distribution equipment
- hydrovac
- metal fabricators
- HVAC

- **Sub-contractors**

- paint & sandblasting
- civil (exceptions)
- crane services
- cleaning
- site services

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