



EFCO's Complete Forming Package Doubles Blackfalds' Water Storage

Blackfalds, Alberta, Canada

Doubling a Community's Water Storage, From Footing to Roof

The Town of Blackfalds, Alberta, is building a new underground reservoir for its drinking water. The project doubles the town's water storage and adds backup supply for both Blackfalds and the nearby Aspelund Industrial Park. It is a large underground tank. Crews pour it in place, bury it, and then fill it — a structure most residents will never see but will rely on every day. Because it holds drinking water, the interior must be smooth. Grooves and ridges trap algae and sediment, so the finished concrete needs clean, flat surfaces throughout.



The Town of Blackfalds doubles its drinking water storage with a new underground reservoir that also provides backup supply for the nearby Aspelund Industrial Park.



A Single-Source Partner for Every Pour

Caveman Contracting Inc., led on-site by Sean Pringle, often builds water-retaining structures like this one. Working under general contractor Timcon Construction Ltd., the company took an approach it doesn't use on every job: a complete, single-source package. Every concrete element ran on EFCO equipment. EFCO LITE® formed the walls and columns. EFCO DECK® and E-Z DECK® formed and shored the slab. PLATE GIRDER® and Combination Bias Corners® (CBC) squared up the corners, and Heavy-Duty Pipe Braces completed the wall system.

The choice came down to finish and speed. EFCO LITE® has a steel face, so it leaves a smooth surface straight off the form. That meant the crew would not have to come back and patch joint lines inside the reservoir, a real advantage on a tight schedule.



Walls Built for a Finish That Lasts

The walls set the pace for the whole job. They stand 13 ft 2 in. (4,025 mm) tall and 1 ft 4 in. (400 mm) thick. The crew formed them using EFCO LITE® steel-faced panels rated for 1,200 PSF (57.6 kPa) of concrete pressure.

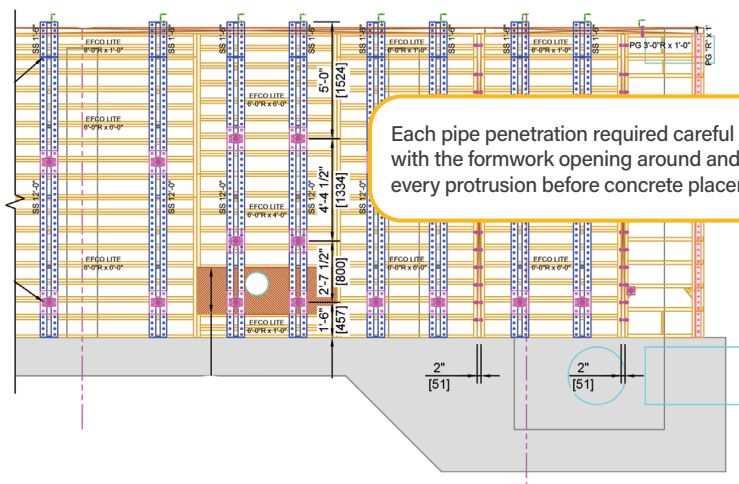
The pipe protrusions took the most planning. Wherever a pipe runs through the wall, the formwork has to open around it and seal tight, so each penetration had to be located and boxed out before the pour. The hooked reinforcing bars at the top of the wall called for the same care. Once the slab is poured, they lock the wall and slab together. EFCO plans the formwork around the hook bars so they stay clear during the wall pour. Instead of forming past the bars, the crew built the walls about two panels high, 12 ft tall (3.7 m), stopping just below the bars. That kept the projecting steel clear and the form line clean.

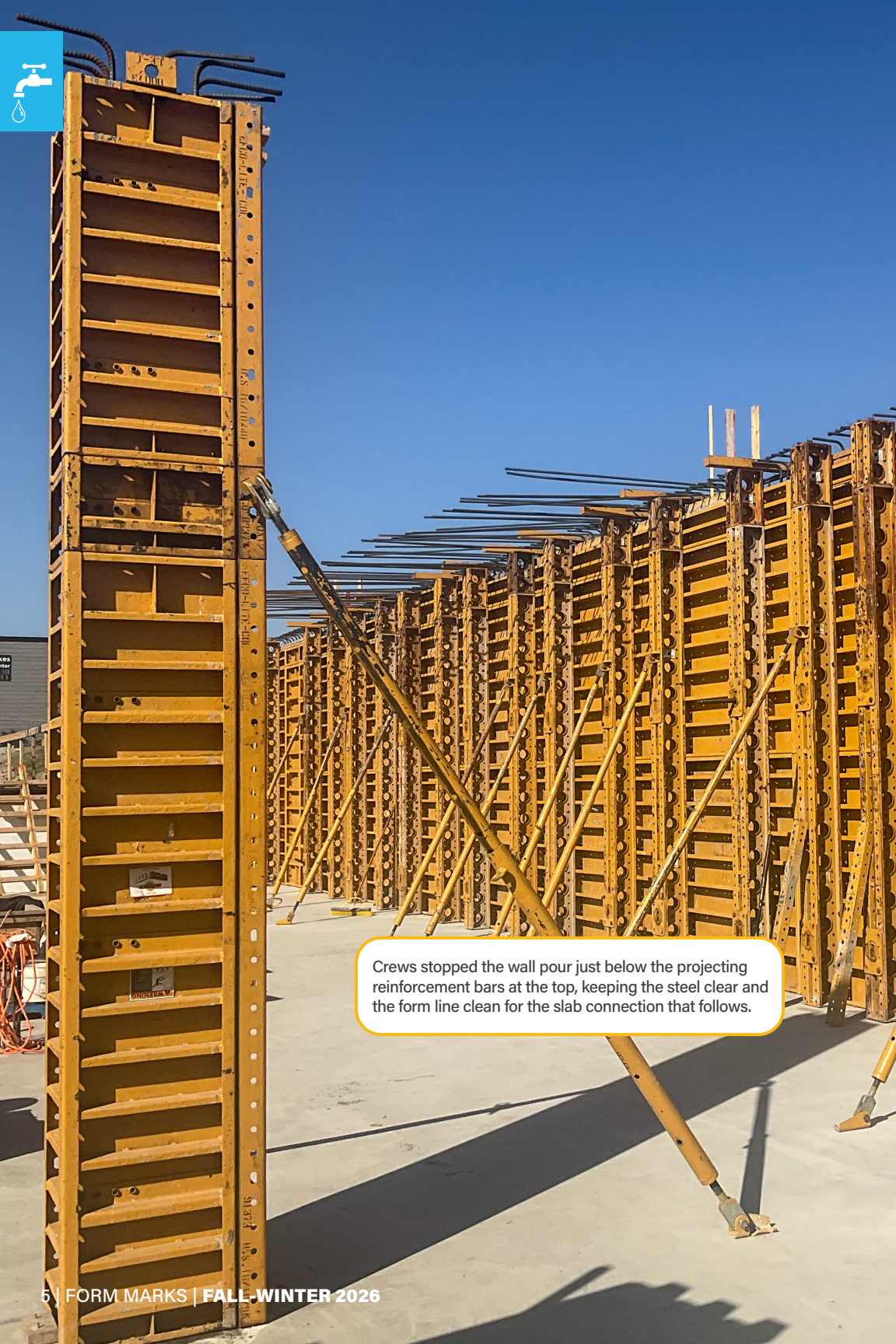
SUPER STUD® soldiers and she-bolt ties carried the form pressure, and Heavy-Duty Pipe Braces held everything plumb. The finish keeps paying off after the forms come down. A smooth wall straight off the steel means no patch-and-grind pass afterward, the single biggest labor and schedule saving on a structure like this.

Columns and a Slab That Work as One System

Inside the footprint, 45 columns carry the roof of the buried tank. Each column is 400 x 400 mm (16 in. square) and stands 12 ft 4 in. (3,775 mm) tall, formed in high-strength EFCO LITE® column panels rated for 2,000 PSF (96 kPa) and finished with a fishtail chamfer.

The slab above is where two EFCO systems worked together. EFCO DECK® formed the 250 mm (9 7/8 in.) structural slab across the reservoir. At each column, the slab thickens to 500 mm (about 1 ft 8 in.). This thicker section, called a drop capital, carries the roof load down into the column.





Crews stopped the wall pour just below the projecting reinforcement bars at the top, keeping the steel clear and the form line clean for the slab connection that follows.

The crew shored those thicker zones in steps. They set E-Z DECK® around the columns. They topped the E-Z DECK® posts with EFCO DECK® drop heads. Then they ran EFCO DECK® primaries and secondaries above. The mix paired the reach and load capacity of one system with the fast cycling of another. EFCO modeled the whole layout in Revit first, so the crew could see how the pieces fit before anything shipped.

Scale, Speed, and Lowest In-Place Concrete Cost

The size of the slab pour shows why coordination mattered. The reservoir covers about 22,500 sq ft (2,090 m²). That is larger than the 10,000-to-15,000 sq ft most crews pour at once, and EFCO supplied enough deck and shoring to hold the entire footprint at once. That let the crew place the slab in just two large pours, 1,044 m³ (about 1,365 cu yd) of concrete, delivered by 18 trucks, rather than breaking it into many smaller ones. Fewer, larger pours meant fewer days on the schedule, and that speed feeds directly into the Lowest in-Place Concrete Cost (LIPCC). Field service kept the work moving, and the job ran smoothly.

Why Caveman Contracting Chose EFCO

For Caveman Contracting, the Blackfalds reservoir came down to building it right the first time. A drinking-water tank needs a clean interior finish, and EFCO LITE® delivered that straight off the panel, with no patching cycle to add later. Pairing EFCO DECK®, E-Z DECK®, and E-BEAM® over the drop capitals solved the shoring with a single coordinated system rather than a patchwork of parts. And because every forming component for the walls, columns, and slab came from EFCO, the contractor had a single accountable source for both engineering and delivery. On a project with a short timeline and no room for rework, that mix of finish, support, and single-source reliability is what delivers the Lowest in-Place Concrete Cost. It is why Caveman ran a complete EFCO package from footing to roof.

EFCO EQUIPMENT

EFCO DECK®, EZ-DECK®, PLATE GIRDER®,
EFCO LITE®, SUPER STUD®

EFCO FORMWORK SPECIALISTS - AIRDRIE

Jeff Dergousoff Territory Manager
Chris Manson Engineer
Rob Cottam Field Service

CAVEMAN CONTRACTING INC.

Sean Pringle Owner
Timcon Construction Ltd. General Contractor

