



Westcliff Properties

Saskatoon, Saskatchewan, Canada

Keller designs and installs 183 CFA (auger cast) piles for new residential development in Saskatoon.



The project

A new residential development in Saskatoon required a deep foundation solution to support a multi-story building and tower crane. Subsurface conditions consisted of clay and silt, with stiff to very stiff till extending to approximately 50.8 ft (15.5 m), underlain by hard till or very dense gravel. Groundwater was encountered at 20 ft to 23 ft (6 to 7 m) below grade.

Keller designed and installed CFA (auger cast) piles tailored to the challenging ground conditions and structural load requirements. Based on the geotechnical report and Keller's previous experience in the region, the maximum practical pile depth was 70.5 ft (21.5m). Penetrating beyond this depth would require larger rigs and segmental casing, which would significantly increase the costs to the owner. Keller successfully conducted a full static load test on a sacrificial pile to confirm the design assumptions.

Despite a tight schedule, Keller delivered a cost-effective solution on time, meeting project requirements and reinforcing our commitment to quality.

Project facts

Owner(s)

Westcliff Properties

Keller business unit(s)

Keller

Main contractor(s)

Wright Construction Western Inc.

Engineer(s)

P.Machibroda Engineering Ltd
Keller

Solutions

Deep foundations

Markets

Residential

Techniques

CFA (auger cast) / ACIP piles

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