



Argyle Highlands Apartments

Regina, Saskatchewan, Canada

Keller overcomes site constraints and obstructions to install deep foundations for an apartment building in Regina.



The project

A deep foundations solution was required to facilitate the construction of a four-story residential building in East Regina. Ground conditions consisted of silty soils and sands, with groundwater encountered at approximately 13 ft (4.0 m) below grade.

The structural engineer of record determined that CFA (auger cast) piles were the optimum technique for piling in sloughing soils. CFA piles eliminated the need for sleeving, a requirement of many other piling methods, in the existing conditions. By eliminating that need, the owner realized time and cost savings.

The proposed footprint had a confined area of 158 ft (48 m) by 183 ft (55 m) and required a 4 ft (1 m) excavation to achieve the working grade. Due to the site constraints, Keller's team closely coordinated with the developer and others to ensure that piling was sequenced to finish at the egress point.

Keller installed 93 CFA piles ranging in depth from 20 ft (6 m) to 56 ft (17 m). Keller hit boulders on three piles that the CFA rig couldn't drill through. A truck-mounted drill rig with coring attachments was brought out to core through the boulders to complete those piles.

The project was completed on schedule and within budget.

Project facts

Owner(s)

Argyle Development Group

Keller business unit(s)

Keller

Main contractor(s)

Argyle Development Group

Engineer(s)

Ground Engineering

Solutions

Deep foundations

Markets

Residential

Techniques

CFA (auger cast) / ACIP piles

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