

The One

Toronto, Ontario, Canada.



Transforming Toronto's skyline!

Located in thriving downtown Toronto, The One, a new multi-utility skyscraper 306 m tall, will swagger over the skyline as the tallest building in Canada when completed. With spectacular ambiance and unmatched views, The One will provide seven levels of retail and restaurants, a 175-room hotel, and sixty residential floors culminating in multi-level penthouses.

Subsurface stratigraphy starts with interlayered sand, silt, and clay. Caissons will support the mega-columns of The One in the underlying shale with some limestone. Loadtest assisted Clark Construction Management Inc. and Anchor Shoring & Caissons Limited in constructing the 43-meter long, 1.5-meter diameter test caisson with a 1.4-meter diameter rock socket. Loadtest provided an O-cell® assembly at the bottom of the 6.8-meter long rock socket. Loadtest also installed five levels of strain gages to evaluate the mobilized side resistance distribution.

Eleven days after concrete placement, Loadtest returned to conduct the O-cell® test. The goal of the load test was to provide side shear and unit end bearing values for the rock socket. Load beneath the O-cell® was applied to a reduced bearing area (1.07 m diameter) in order to concentrate the load into a smaller area and prove higher end bearing values. By doing so, Loadtest were able to prove 3 times the unit end bearing used in the initial design, which allowed the client to realize a significant savings.

Project Info	
Owners:	Mizrahi Developments
Architect:	Core Architects, Fosters & Partners
General Contractors:	Clark Construction Management Inc.
Geotechnical Consultants	Terraprobe Consulting Engineers
Drilling Contractor:	Anchor Shoring & Caissons Ltd.
Project Cost:	\$1 billion
Completion Date:	December 2022

Services Provided
■ 1 Single Level O-Cell® Load Test.
■ Load Test Program Design

