

Edmonton Arena

Edmonton, Alberta, Canada

Owner

City of Edmonton
The Katz Group

Architect

360 Architecture

Associate Architects

Dialog
Manica Architecture
ATB

Structural Engineers

Thornton Tomasetti
Dialog

Mechanical Engineers

ME Engineers

Completion Date

2016

Construction Cost

\$450 million

Total Area

Main Event Center: 729,000 sf
Associated Facilities: 310,000 sf

Seating Capacity

Hockey: 18,400
Events: 20,000



Images courtesy 360 Architecture

Thornton Tomasetti is providing structural design and building skin services for an 18,500-seat ice hockey arena that will be the new home of the National Hockey League's Edmonton Oilers. Once completed, it will replace the Oiler's current home, Rexall Place. The new arena will be a major entertainment center and attraction for the province.

Located on a 16-acres site in Edmonton's downtown area, the arena complex will include ice surface that can be used as event space and support facilities such as an additional community ice rink, pedestrian bridge, above-grade parking and an office building. The community rink also serves as Oilers practice space and can be used for smaller local events.

Finding a structural solution that met the needs of the project's unique geometry was a major challenge. Design elements that needed to be accommodated included large un-braced column lengths, transfers of major column lines, large irregularly shaped slab openings and a long-span roof. The building will sit on belled caissons with cast-in-place concrete lower levels and a steel-framed superstructure at the upper levels. A 40-meter enclosed bridge spanning over 104th Avenue will link the site of a future development to the south where it lands on slide bearings. The bridge's mostly glass façade rises more than 20 meters above the deck creating an expansive winter garden.

