



CIBC SQUARE

Toronto, Ontario, Canada

Price: 1.5 Billion (CAD) (South Tower)

Project Scope: Engineering Professional Services for Physical Security

Size: 1.6 million square feet

Project Start: 2015

Project Completion: Ongoing

Client Reference:

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Project: CIBC Square is an iconic development in Toronto's Union Station Heritage Conservation District, featuring two towers: a 49-storey south tower and a 50-storey north tower, totaling 2.9 million square feet of office space. Highlights for the south tower include a multi-storey office lobby on Bay Street and three levels of below-grade parking. The podium houses a new Metrolinx GO Bus Terminal, enhancing the city's transit hub. Phase 2 adds a 50-storey office tower with 1.5 million square feet of space, which is connected to Phase 1 by an elevated public park. Public realm improvements include pedestrian bridges to Union Station and Backstage Condominiums, and a renovated laneway between Yonge and Bay Streets.

Assignment: Provide blast hardening recommendations to the structural engineering consultant and co-ordinate with the owners and other consultant teams on the project (architectural, mechanical, electrical, etc.). Possible threats may occur outside the building, in the underground parking or in the bus terminal podium due to a vehicle-borne improvised explosive device (VBIED), or in the office tower due to a person-borne improvised explosive device (PBIED).

Responsibilities: Developed and co-ordinated the protective design process through non-linear, dynamic analysis for blast loading. Analysis for close in and near-contact detonations, as well as those for explosions in confined spaces involved complex computational fluid dynamics (CFD) numerical simulations. Participated in team co-ordination meetings and presented blast hardening solutions and recommendations to the consulting team, owners and stakeholders.