

SIGNIFICANT PROJECT EXPERIENCE – ULI BIKING ROUTE



#1 East Bayfront Water's Edge Promenade – Dock Wall Reinforcing, Boardwalk & Parliament Wave Deck | Toronto | Under Construction (Boardwalk and the Wavedeck not yet under construction)

Architect: DTAH and West 8
Owner: City of Toronto
Project Cost: \$90M
Project Size: 220,000m²

Halsall provided structural engineering services for this waterfront redevelopment project. The East Bayfront water's edge promenade stretches almost 700m between the southernmost edge of Sherbourne Street and into Parliament Street slip and finishes with a large 4000m² WaveDeck at the north end of the slip. The project integrates three main purposes – reinforcement of the existing dock wall, creation of a storm water settlement vessel, and creation of a water's edge landscape features, boardwalk and WaveDeck – into one structural solution. The proposed water's edge boardwalk structure is a rectangular-shaped reinforced concrete pipeline placed adjacent to the existing dock wall, anchored for lateral stability and then topped with a timber deck. The Parliament promenade and WaveDeck is approximately 100 metres from the mouth of the slip, it branches in two directions to form the north and south end of a large 3500m² tank that extends the width of the slip. The Parliament WaveDeck rises over this area and forms a large area for pedestrian occupancy.



#2 Toronto Police Services - 51 Division | Toronto, ON | 2004

Project Cost: \$20M
Project Size: 2.5acres

This project made use of a 2.5 acre brownfield site and historical gas purification plant constructed in 1898. The expansion and addition of this building proposed many design and site challenges. Halsall worked closely with the construction team to ensure this historical building was not compromised. This project was awarded the "2001 Canadian Architect Award of Merit".



#3 Pan Am Athletes Village | Toronto, ON | 2015

Contractor: EllisDon Corporation
Owner: City of Toronto
Project Cost: \$514M
Project Size: 10,810m²

Halsall provided structural design services, LEED facilitation, energy modeling and cladding engineering for the new state of the art facility. This project will transform a former 80-acre industrial site into the Athletes' Village for the Pan Am games. During the Games, the village will accommodate approximately 8,500 athletes and officials – three times the population of the 2010 Vancouver Olympic Winter Games. After the games, the village will become a vibrant and sustainable



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community for nearly 4,000 people. The new facility will include George Brown's College first ever student residences for 500 students (16,258m²), affordable housing, condominiums and a YMCA.



#4 Mount Sinai Hospital Addition | Toronto | 2011

Architect: HDR, Inc.
Owner: Mount Sinai Hospital
Project Cost: \$60M Expansion, \$50M Fit Out
Project Size: 74,320m²
Procurement: Stipulated Sum Contract

Halsall provided structural engineering services for the expansion and fit-out for the 6-storey addition to the existing hospital. In order to permit the addition to take place, the entire facility had to be notified to comply with current earthquake design criteria. This was accomplished by adding some new shear walls. However the locations for these walls were limited, so existing core walls had to be reinforced. An innovative system of post tension cables to reinforce the core was developed essentially anchoring the walls to the bedrock below the basement of the building.



#5 Spadina Pedestrian Bridge – Central Waterfront District | Toronto | 2009

Architect: DTAH and West 8
Owner: City of Toronto
Project Cost: \$4.4M
Project Size: 480m²

Halsall provided structural engineering services for the Spadina Bridge, which is one of a family of five bridges which together create a 1.6 km continuous water's edge walkway from Portland Slip to York Slip. The Spadina Bridge spans 60 metres across the Spadina Slip south of the current Inner Harbor dockwall line. It is constructed of Western Yellow Cedar glulam structural timbers with a hardwood deck surface. The bridge has a curved form which will allow small craft to enter and exit the slip which will remain a navigable waterway. It is lined by a wood handrail and baluster with integrated LED lighting along its length. The bridges are just one part of Waterfront Toronto's award-winning design for the central waterfront. Awards include: Canadian Society of Landscape Architects, Regional Merit Award, 2010; RAIC National Urban Design Awards, Certificate of Merit, 2010; Design Exchange Awards, Bronze Medal, 2010; Canadian Society of Landscape Architects, National Merit Award, 2009; American Society of Landscape Architects, Honour Award - General Design, 2009; Toronto Urban Design Awards, Award of Excellence - Small Open Spaces, 2009; Ontario General Contractors Association, Winner - Industrial, 2009; WoodWORKS! Canadian Wood Council, Jury's Choice Award, 2009; Brit Insu.



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#6 Queens Quay Revitalization Project, Phase I Central Waterfront | Toronto | 2011-2012

Architect: West 8 + DTAH Joint Venture
Constructor: Eastern Construction
Owner: Waterfront Toronto
Project Cost: \$60M
Project Size: 4 km



Halsall provided structural engineering services for the redevelopment of Queens Quay along 4 km of the shore of Lake Ontario in downtown Toronto. The services included the design of landscape components, street light and traffic pole foundation as well as additions and renovations to Peters Slip Bridge.



#7 Rees Pedestrian Bridge – Central Waterfront District | Toronto | 2009

Architect: DTAH and West 8
Owner: City of Toronto
Project Cost: \$6M
Project Size: 480m²

Halsall provided structural engineering services for the Rees WaveDeck, which is the third in a series of four urban docks for Waterfront Toronto. This Wavedeck is uniquely Canadian and a fantastic new addition to Toronto's waterfront. Built in less than 10 months, the Rees WaveDeck is an urban dock that is both a piece of art and a flexible gathering space. The form allows people to interpret the space in many different ways: the amphitheater-like steps can be used as a passive sitting place, or as an active learning space for summer camps or the nearby sailing school. A portion of the toe rail at the centre of the deck is removable to accommodate boarding of small boats from the Wavedeck. The two 15m backless benches act as an elegant barrier to the water while also providing seating for users of the space. The wavedecks are just one part of Waterfront Toronto's award-winning design for the central waterfront. Awards include: Canadian Society of Landscape Architects, Regional Merit Award, 2010; RAIC National Urban Design Awards, Certificate of Merit, 2010; Design Exchange Awards, Bronze Medal, 2010; Canadian Society of Landscape Architects, National Merit Award, 2009; American Society of Landscape Architects, Honour Award - General Design, 2009; Toronto Urban Design Awards, Award of Excellence - Small Open Spaces, 2009; Ontario General Contractors Association, Winner - Industrial, 2009; WoodWORKS! Canadian Wood Council, Jury's Choice Award, 2009; Brit Insu.



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#8 Simcoe Pedestrian Bridge – Central Waterfront District | Toronto | 2010

Architect: DTAH and West 8
Owner: City of Toronto
Project Cost: \$6M
Project Size: 650m²

Halsall provided structural engineering services for The Simcoe WaveDeck, one of four uniquely Canadian wavedecks built on Toronto's waterfront. Located at the water's edge, the wooden wavedeck features an informal public amphitheatre-style space with impressive curves that soar as high as 2.6m above the lake. Providing access to Lake Ontario is a key priority for Waterfront Toronto. Built in less than eight months, the Simcoe WaveDeck joins the Spadina WaveDeck. The wavedecks are just one part of Waterfront Toronto's award-winning design for the central waterfront. Awards include: Canadian Society of Landscape Architects, Regional Merit Award, 2010; RAIC National Urban Design Awards, Certificate of Merit, 2010; Design Exchange Awards, Bronze Medal, 2010; Canadian Society of Landscape Architects, National Merit Award, 2009; American Society of Landscape Architects, Honour Award - General Design, 2009; Toronto Urban Design Awards, Award of Excellence - Small Open Spaces, 2009; Ontario General Contractors Association, Winner - Industrial, 2009; WoodWORKS! Canadian Wood Council, Jury's Choice Award, 2009; Brit Insu.



#9 York Quay Revitalization – Toronto Underground Parkade | Toronto | 2012

Owner: Waterfront Toronto
Project cost: \$8M
Project Size: 1,500 m²

Halsall provided structural and civil engineering services to Michael Van Valkenburg Associates. The project consists of 3 levels of underground parking structure, submerged under 18 meters of water. The structure is designed to receive future development on top of the roof slab. The civil scope involved site servicing, storm water management study and utilities. The new 300 car garage replaced existing surface parking lot, allowing the grounds to transform into public realm overlooking Lake Ontario.



#10 Jarvis Slip Sugar Beach | Toronto | 2009

Owner: City of Toronto
Project Cost: \$4M
Project Size: 1 acre redevelopment

Halsall provided structural consulting services for this new \$4M, 1-acre urban redevelopment designed to create a public promenade, plaza and sand beach. Upon completion this project will be the signature public space in the new East Bayfront redevelopment. Claude Cormier Architects/Paysagistes won the design competition by introducing colorful, candy-like concepts inspired by the nearby Redpath Sugar Refinery located just west of the site. Local materials were selected for



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this project including giant slabs of Canadian granite, as well as native trees and sand that were incorporated into the design. Halsall provided structural input for various elements including grass burms, benches, bike racks, water fountains, tree rings, permanent umbrellas, rock foundations a water fountain and an underground mechanical vault.

