Humber River Hospital







Humber River Hospital is one of Canada's largest regional acute care hospitals, serving a catchment area of more than 850,000 people in the northwest GTA.

Affiliated with the University of Toronto, the hospital is home to Ontario's first Centre of Excellence for laparoscopic bariatric surgery; Canada's first home nocturnal dialysis program and a major cancer program.

The new, fully digital hospital project provides, both in-patient and out-patient care, including cancer, cardiac and critical care, emergency services, dialysis, bariatric surgical services, women's and children services, diabetes and mental health programs.



Location Toronto, Ontario, Canada	Client Humber River Hospital	Value (NPV) C\$1.75 billion
Consortium Plenary Healthcare Part- nerships	Plenary Americas' role Project sponsor Developer Equity investor Financial arranger	Builder PCL Constructors Canada
Architect HDR Architecture Associates, Inc	Services Johnson Controls	Financial close date September 2011
Completion date June 2015	Contract terms 33.5 years, DBFM	Awards Innovation Award, 2017 Canada Green Building Council Toronto LEED® Gold Certified Best Global Healthcare Project, 2016 Engineering News Record Gold Infrastructure Award, 2015 CCPPP Best Healthcare Project, 2013 North America World Finance Best Accommodation Project, 2013 Partnership Awards Top 100 Projects, 2012 & 2013 ReNew Canada Silver Project Finance Award, 2012 CCPPP

The project encompassed a 14-storey tower, a separate central utility plant and 2,000 parking spaces in two parking structures and some surface parking. The new 1.7 million



ft2 facility will operate 656 beds in 2015/2016, with capacity to expand to 722 beds by 2025/2026.

In addition to the construction of the new facility, key risks associated with the maintenance responsibility of the hospital over the 30-year service period were transferred to Plenary Healthcare Partnerships.



Design features

First fully digital hospital

The hospital's vision for Information, Communication and Automation Technology had a strong impact on the design of the Facility by influencing a New Model of Care, as well as the management and operation of the facility. The Information, Communication and Automation Technology strategy directly supports Humber River Regional Hospital's key project objectives:

- · Achieve a fully digital and paper light hospital
- Integrate all aspects of the hospital into a seamless and efficient operation
- · Leverage technology wherever possible to improve efficiency, reliability and safety
- Simplify information flow and access to care providers and patients and community partners
- Provide simple access to system and information.



Green design

Green design is realized by maximizing daylighting opportunities, orienting the building to minimize heat gain, using sustainable materials and high-performance building systems, and incorporating green roofs on 50% of the roofs throughout the campus. The facility adheres to the Leadership in Energy and Environmental Design (LEED®) rating system guidelines and has achieved LEED® Gold certification.



In addition to being digital, the hospital incorporates lean and "green" sustainable design principles. The lean approach to planning emphasizes the use of on-stage/off-stage areas inside the facility, as well as consistent floor layouts, standardized rooms and clinics, and centralized support spaces.

Innovations

As financial arranger, Plenary continues to innovate and achieve great value by leveraging attractive bond market pricing through the use of all bond financing solutions. This project incorporated a short bond, paid out at substantial completion, as well as a long amortizing bond and a long bullet bond.

The combination of short and long bonds is an innovation that is unique to Plenary deals in the Canadian PPP market and indeed, the bullet bond structure is a Canadian PPP market first that has yet to be matched in Canada (or globally, to the best of our knowledge).

Combining the amortizing bond with the bullet bond helped produce the lowest average long-term PPP bond coupons since the financial crisis with 100% of the savings being passed through to the Client.

Through the financing of this project, savings of approximately C\$50 million were achieved for the hospital; first, the bullet bond structure reduced long-term debt costs for the project; and second, the spread and base rate movement between bid stage and financial close generated significant savings.

Local economic impacts



The project helped to provide economic stimulus by creating and supporting thousands of jobs. Labour was largely drawn from the Greater Toronto Area. At the peak of construction, it was estimated that 1200 workers were on site daily.