

ARCHITECTURAL MERIT Precast

ROYAL CONNAUGHT



PROJECT CREDITS

OWNER

Royal Connaught Inc.

ARCHITECT OF RECORD

KNYMH Inc.

ENGINEER OF RECORD

Hallex Engineering Ltd.

GENERAL CONTRACTOR

Spallacci Group

MATERIAL SUPPLIER

Stubbe's Precast

ADDITIONAL PARTICIPANTS

- Sika Canada Inc.

PROJECT FACTS

LOCATION Hamilton, Ontario

COMPLETION DATE April 2017

PROJECT TYPE 14-Storey Residential Apartment Building Addition & Renovation

SIZE & GENERAL DIMENSIONS

- 2,649m² building area, 30,216m² gross floor area
- Overall dimensions: 64.3m x 40.7m
- Dimensions of Addition: 47.7m x 25.1m
- Building height is 54.4m

PRECAST PRODUCTS USED

- 79,300 square feet of loadbearing precast wall panels
- 2,400 square feet of 6" precast cladding wall panels
- 4,600 square feet of loadbearing and non-loadbearing insulated precast sandwich panels
- 108,000 square feet of 10" & 12" hollow core floors, spanning up to 12.0m.
- 6,800 square feet of precast balconies and solid precast floor slabs
- 1,350 square feet of precast landings with 30 precast stairs
- 830 linear feet of precast columns and precast beams





PROJECT DESCRIPTION

The Royal Connaught is a transformation of the historic Royal Connaught Hotel into new, fully renovated condominium suites. It is a perfect blend of rich history with modern lifestyle in the heart of Hamilton.

While much of Phase 1 and 2 of the project is a renovation of the existing 11 storey building, it also consisted of removing a 3-storey brick building to be replaced with a 14 storey total precast tower, and adding a 2 storey steel and precast structure on top of the existing building. The existing building consists of 176 suites while the addition of the total precast tower and penthouse levels provided an additional 56 suites. The future proposed phases include 3 additional towers ranging in height from 21 to 36 storeys.



A key area for the success of this project was to maintain the existing 3 storey limestone façade along John Street. To do so, each piece of the façade was carefully dismantled and numbered in order to be re-assembled once the total precast structure was erected. The precast supporting structure was then coordinated to have recesses at the window locations, allowing window spandrel panels to be installed and the detailed pieces and arches to return into the recess. This diligent coordination allowed the historical façade to be maintained and provide a seamless transition from the renovation to new construction. The remainder of the precast finishes were meticulously chosen to complement the existing structure including the colours and the form liner patterns.

Total Precast structures provide all the benefits of concrete such as structural integrity and durability, while providing added quality, reduced site time, and ease of construction. The building's structural system consists of insulated and solid exterior precast walls, interior solid walls, precast beams and columns. One entire typical level (5,100 square feet of precast floors & 3,800 square feet of precast walls) was erected in 4 working days. This timeline allowed the contractor to follow behind closely with the finishing trades.

Using a Total Precast approach placed the responsibility and accuracy of meeting design specifications with one contractor making what would be the coordination of structural trades simple and seamless, as well as requiring only one source to create the complete exterior wall and structural system. This also avoided any confusion between the scopes of various structural trades and helped with the coordination of MEP penetrations and the existing structure. The Royal Connaught stands out aesthetically for both its historical features and new construction in an area of Hamilton that is being revitalized by a number of projects.

