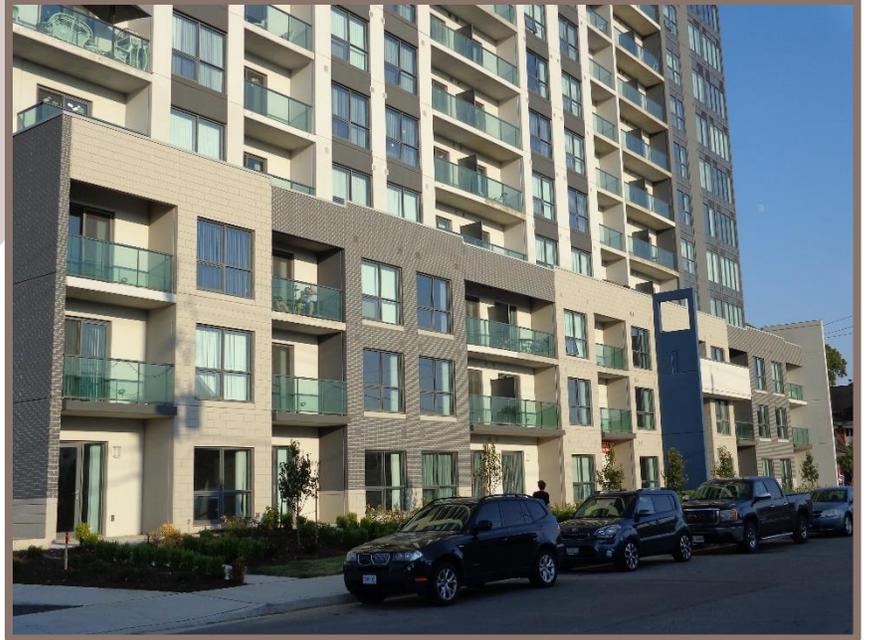


# MID TO HIGH RISE RESIDENTIAL Precast

## 400 LYLE STREET



## PROJECT CREDITS

### OWNER

Medallion Corporation

### ARCHITECT OF RECORD

HGA Architecture

### ENGINEER OF RECORD

HGS Limited

### GENERAL CONTRACTOR

Medallion Corporation

### MATERIAL SUPPLIER

Stubbe's Precast

### ADDITIONAL PARTICIPANTS

- EMCAD Consulting Engineers
- Sika Canada Inc.
- Stantec Consulting Ltd.

## PROJECT FACTS

**LOCATION** London, Ontario

**BUILDING AREA** 287,715 sf

**CONSTRUCTION START** March 2016

**OCCUPANCY** Summer 2018

### GENERAL DIMENSIONS

- Parking Garage: 250' x 121'
- Floors 10-21: 159'-0" x 77'-0"
- Span Length: 40'-0"
- Building Height: 70.1m
- Stories: 21
- 67,000 sf of 6" cladding precast wall panels
- 41,600 sf of 8" loadbearing precast wall panels
- 125,600 sf of 10" loadbearing precast sandwich panels
- 309,400 sf of 10" & 12" hollow core floors, spanning up to 41'-0"
- 17,200 square feet of precast balconies and solid precast floor slabs
- 5,000 sf of precast landings with 51 precast stairs
- 962 linear feet of precast columns and precast beams





King and Lyle Apartments is a 21-storey total precast apartment building consisting of (298) one, two & three bedroom units ranging from 350 to 1400 square feet. The 3-storey podium effectively uses precast panels with brick and block form liners to create an approachable street scape. The Buildings facade steps back at the 3<sup>rd</sup> floor as well as the 10<sup>th</sup> floor.

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 exterior precast walls, interior solid walls, precast beams and columns.

The balconies on the building were designed to optimize both the tenant's views and the building's functionality. Each unit has access to a private balcony. Supported by precast wing walls, the balconies provide continuous bearing for a simple slab design. In order to ensure resident comfort, a thermal break has been provided between each balcony slab and the hollow core slabs to reduce any temperature transfer between floor systems.

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. King and Lyle Apartments stands out aesthetically and demonstrates the wide range of finishes available to architects when designing precast structures.

The City requested a 3-storey high podium that looks like town houses using different colours and materials. Knowing that we are using all PC panels, the design implemented different liner products to mimic different façade treatments of individual town houses.

The upper tower was recessed back to allow the front podium to stay as a human scale component. This was done to avoid having a 21-storey tower beside pedestrian walkways.

At the west and south sides where the building faces walkways, the intent was to increase the interaction between residents and pedestrians on the walkways. This was done by having low height projecting balconies at the south side and walkout patios at the west side.

The most prominent feature of the design was the southwest corner. This is facing the intersection of King and Lyle streets. Since this is traffic light intersection, the intent was to attract the vision of the street users to the building.

Long clear spans, superior sound and fire ratings while providing a quick build schedule and a range of integrated architectural finishes made precast concrete a clear and easy choice for this project.

