

SPECIALTY CONCRETE APPLICATIONS

GUARDIAN UNDER-RUN PROTECTION SYSTEM

Toronto, Ontario



PROJECT CREDITS

OWNER

HNR Properties Limited

ARCHITECT OF RECORD

Diamond Schmitt Architects

ENGINEER OF RECORD

Jablonsky, Ast and Partners

GENERAL CONTRACTOR

Tucker HiRise Construction Inc.

MATERIAL SUPPLIERS

- Innocon Inc.
- Lafarge Canada Inc.

PROJECT FACTS

HNR Dundas Square Project

42-Storey Condominium and Rental Property

LOCATION

Toronto, Ontario

CONCRETE VOLUME

Approximately 21,000 m³

HEIGHT 39 floors (122.5 m)

RESIDENTIAL UNITS 362

PARKING SPACES 70

TOTAL GROSS FLOOR AREA 30,980 m²

TOTAL RESIDENTIAL SPACE 21,800 m²

TOTAL OFFICE SPACE
8,150 m²

TOTAL RETAIL SPACE
230 m²





Providing Construction Solutions that Build Better Cities and Communities

Anticipation that Ontario's population will double by 2031 has resulted in intense urban development across the province. The density of construction projects in congested urban centres has, in turn, created significant challenges for materials suppliers to ensure the safe and efficient delivery of construction materials to project sites. High numbers of pedestrians and cyclists in urban environments increases the risk of collisions between these vulnerable road users and large commercial vehicles, including ready mix concrete trucks.

The HNR Dundas Square project consists of a 42-storey condominium and rental property, located at 21 Dundas Square in downtown Toronto, Ontario. Dundas Square is located along the southern boundary of Yonge-Dundas Square, often considered one of the busiest intersections in Canada, with approx. 21,000 residents living in the immediate area, and over 850,000 citizens entering the square daily. Considering the density of pedestrians and cyclists entering this area on a daily basis, Innocon Inc. acknowledged the challenges in ensuring efficient delivery of concrete to the project, to meet customer requirements while at the same time ensuring public safety. To reduce the risk of vehicle-cyclist collisions, Innocon Inc. and Lafarge Canada Inc. collaborated to develop a truck side guard innovation designed to prevent cyclists from falling under the wheels of ready mix concrete trucks in the event of an on-road collision.

The Guardian Under-Run Protection System, designed by Innocon Fleet Manager Andy Ludwik, consists of a thick nylon panel that sits between the dual rear drive tires on both sides of the ready mix truck. The panel is paired with steel tubing that runs under the chute carriage and side fill tank, from the second steer tire to the first drive tire. Together, the panel and tubing act as a barrier to prevent cyclists and/or pedestrians from falling under the wheels of the truck in the event of a collision. Many cyclist fatalities have occurred when cyclists were positioned along the passenger-side of a commercial vehicle attempting to complete a right-hand turn. In this position, the cyclist is often unaware of the inten-

tions of the driver and similarly, the driver is unable to detect the cyclist in the truck's blind spot.

A majority of the Innocon trucks delivering concrete to the HNR Dundas Square project are now equipped with the Guardian Under-Run Protection System, increasing the overall safety of concrete deliveries.

Response from customers, industry partners, cycling advocacy groups, and the general public on this innovation has been extremely positive. The Guardian Under-Run Protection System was also featured in a news segment aired by CBC News Toronto in May 2015.

The innovation is part of a larger "Cycling Safety Strategy", launched in 2015 by Lafarge Canada Inc. and Innocon Inc., to reduce the impact of concrete delivery on the communities in which they operate. Innocon has been an integral part of this initiative, providing its expertise in truck engineering and maintenance, to improve the safety of large commercial vehicles, and in turn, the safety of all road users.

Innocon Inc., a joint venture between LafargeHolcim and Italcementi, operates 8 ready mix concrete plants in the Greater Toronto Area. With 300 employees, Innocon has developed a strong reputation during its history based on a consistent focus on the highest levels of quality and service for its customers across the Greater Toronto Area.

Lafarge Canada Inc., a member of LafargeHolcim, is Canada's largest provider of solutions to the construction and development industry. With more than 6,000 employees across Canada, its mission is to provide construction solutions that build better cities and communities. The cities where Canadians live, work and raise their families along with the infrastructure that supports their communities such as roads, bridges, transportation links, water, and waste management benefit from the solutions provided by Lafarge.

