

BULLETIN #24:

Highway Monitoring and Management Technologies



LINK427 is proud to be building a modern, technologically advanced highway in partnership with the Ontario Ministry of Transportation (MTO). This bulletin will explain just some of the many features of COMPASS, the Advanced Traffic Management System used by MTO on its highways throughout the province, including the expanded Highway 427 once it opens.

What is COMPASS?

COMPASS is the brand name of the system that MTO uses to help facilitate safe travel on its highways across Ontario. COMPASS is made up of a tightly integrated network of advanced traffic monitoring and management technologies, centrally coordinated 24/7 by MTO's Central Region COMPASS Transportation Management Centre (CRCTMC) in Toronto, Ontario.

Did You Know?

The first generation of COMPASS was installed along the Queen Elizabeth Way (QEW) in Mississauga in 1975!

Variable Message Signs

Variable message signs are large electronic screens mounted on the side of or on gantries over the highway. As their name suggests, the text and icons displayed on the variable message signs can be changed in real-time (either by automated software or human operators in the CRCTMC) to communicate many types of important information to motorists.

- Travel times
- Congestion levels
- Upcoming exits
- Construction zones ahead
- Road incidents ahead
- Hazardous weather conditions
- Safe driving tips
- Amber alerts

The variable message signs currently in service on provincial highways feature full colour matrix displays, allowing for more flexibility in displaying a wider variety of information than the previous models, which are called changeable message signs.



A variable message sign above the southbound collector lanes of Highway 427 near Burnhamthorpe Road in Toronto, showing travel times.



A CCTV camera mounted on a pole at the Highway 427 & Burnhamthorpe Road interchange in Toronto.

Closed-Circuit Television Cameras

Closed-circuit television (CCTV) cameras play another important role in the COMPASS system. They are mounted on tall poles along the highway. Their primary purpose is to help operators in the CRCTMC visually understand what is happening on the highway and visualize current congestion levels. They can tilt, pan, rotate, and zoom the camera to get a better view. Images and video from CCTV cameras also help traffic reporters explain current traffic conditions to viewers.

CCTV poles will be installed along the Highway 427 Expansion at multiple locations both at and between interchanges.

Did You Know?

You can view live images from CCTV cameras across Ontario's highways on the interactive map at 511on.ca.

What is the Highway 427 Expansion Project?

The Highway 427 Expansion project will extend the highway 6.6 km, from Highway 7 to Major Mackenzie Drive and widen the existing highway to 8 lanes between Finch Avenue and Highway 7.

Who is LINK427?

LINK427 is the consortium selected by the Ministry of Transportation (MTO) and Infrastructure Ontario (IO) to design, build, finance, and maintain the Highway 427 widening and extension.

Des renseignements sont disponibles en français en composant 1-888-595-3152.