

Central Traffic Computer

The majority of the over 740 signalized intersections within the City of Mississauga are connected to a central computerized traffic control system and operate in what is termed "semi-actuated control" with pre-determined timing plans. Semi-actuated control operates the signals with the green indication being displayed on the major street until a vehicle or pedestrian is detected on the side street. The pre-determined timing plans primarily consist of the following periods:

- Morning peak period
- Daytime off peak period
- Evening peak period
- Evening off peak period
- Weekend and holiday peak period.

During the evening off peak period and during weekends and holidays, the signal timing implemented is typically the same as found within the daytime off peak period.

The primary operating philosophies of the central computerized traffic control system is to progress traffic and reduce the overall delay experienced by users of the entire road network. Consideration of balancing delay on both the major roadway as well as vehicles waiting on the minor streets accessing the major road is based on vehicle volume.

Benefits of a Central Traffic Computer System:

- Synchronization is provided between intersections; reducing vehicle delay, travel time and fuel consumption/emissions.
- Timing plans can be changed (including turning left-turn arrows on and off) based on time of day to meet changing traffic patterns.
- Intersections can be monitored/trouble shot from a central site.
- Events at signalized intersections can be logged (i.e. timing change, power loss) on a 24-hour basis. This information can be used to highlight intersections with chronic problems and also as reference for legal inquiries (i.e. traffic accidents).

How Does the Central Traffic Computer System Work?

The Traffic Control System provides monitors all the traffic signals in the City on a second-by-second basis via leased Bell Canada wired circuit lines or the City's private Ethernet network. The system is in operation 24 hours a day, 7 days a week, and is operated and monitored by the City's traffic staff.