



Phase 2 – Community Impacts

How runways are configured to manage traffic

Below are three ways that runways are configured as a system to maximize efficiency based on traffic levels:

- **Land one, depart one** - one runway is used for arrivals, and another for departures. The main arrival runway can also be used for surplus departures when arrival traffic is low, and the main departure runway can be used for surplus arrival traffic when departure traffic is low. This operation is used under low traffic levels such as throughout the pandemic.
- **Dual configuration (East/West only)** - two parallel runways are used simultaneously, with each runway handling a mix of arrivals and departures.
- **Triple configuration (East/West only)** - is when all three of the East/West runways are in use, with one runway being used to alternate between arrivals and departures, and the remaining two being used exclusively for arrivals or departures.
- A **Dual** or **Triple** configuration is used under high traffic levels such as prior to the pandemic (2019).

Traffic is nearing 2019 levels. Historically the airport would have used a Dual or Triple configuration to manage this level of traffic. Given the temporary closure of Toronto Pearson's second busiest East/West runway, Runway 06L/24R, runways must be configured differently to handle this volume.

During the 2022 Runway Rehabilitation project the runways are configured as described below:

- **East/West** – a land one, depart one configuration is used with a **main** runway used for arrivals and a **main** runway used for departures. The main arrival runway may be used as a secondary departure runway in periods of higher departure traffic; similarly, a main departure runway may be used as a secondary arrival runway in periods of higher arrival traffic than departure traffic. This secondary traffic is called offloads.
 - During the Runway Rehabilitation, the airport will be operating in a land one, depart one in a traffic level scenario that would usually call for dualling or tripling.
 - Because of this, offloads may be more frequent, and residents affected by the 'main' runways can expect more traffic and may feel like more traffic compared to how it might have felt in 2019.
- **North/South** – at times, depending on temporary restrictions on the airfield during different phases of the runway rehabilitation, the North/South configuration will be able to handle a higher rate of traffic than a land one, depart one East/West configuration. Should the traffic volume be too high for to accommodate on the two East/West runways, a North/South configuration will be used (Runways 15L & 15R or Runways 33L & 33R). This means that residents affected by North/South runway operations can expect more traffic.

The following maps detail the possible configuration for this phase, including the expected main and secondary runways.

Northeast Arrivals Runway 23, Departures Runway 05

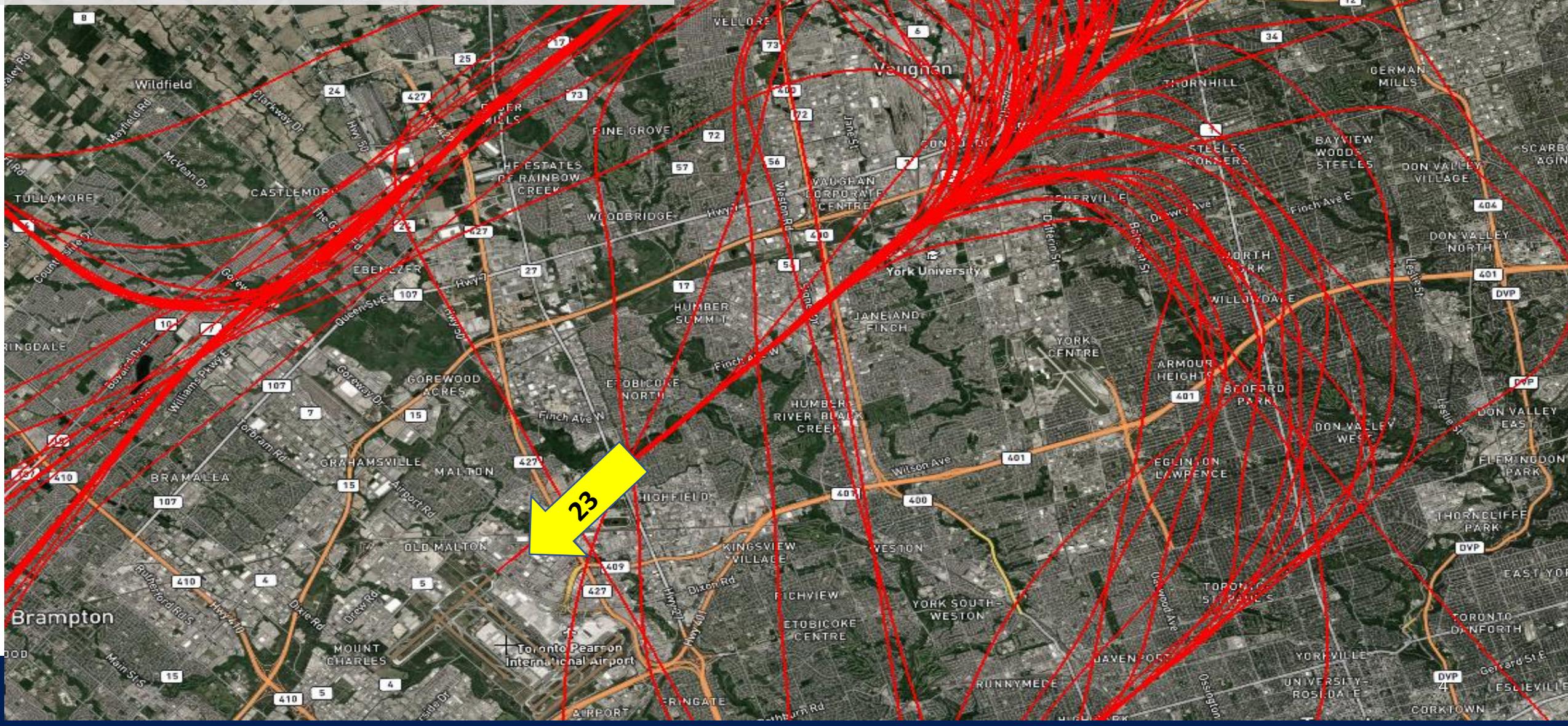
Communities impacted:

Rexdale, North York (north), Maple/Vaughan, Richmond Hill, Thornhill

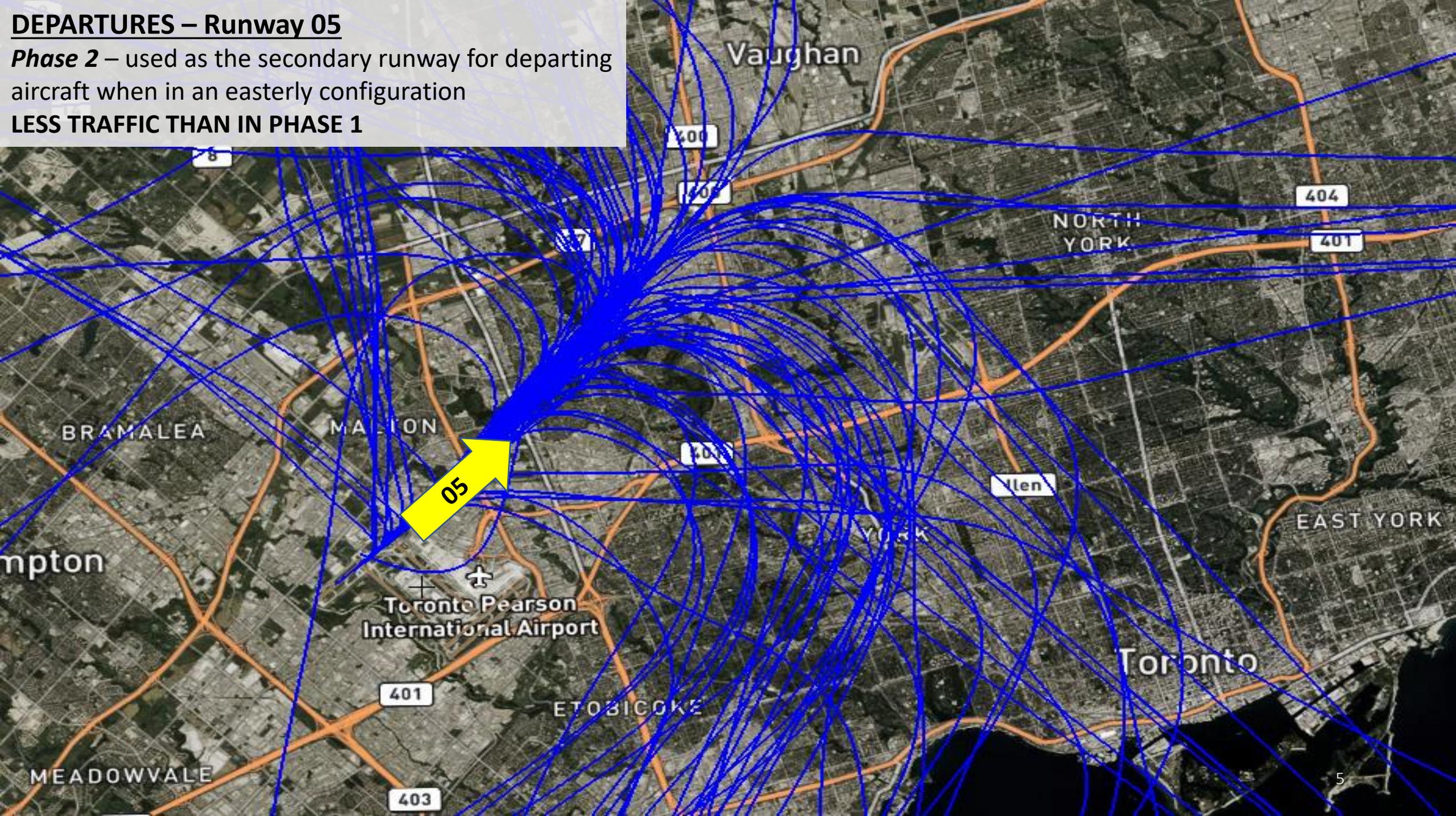
ARRIVALS – Runway 23

Phase 2 – used as the secondary runway for arriving aircraft when in a westerly configuration

LESS TRAFFIC THAN IN PHASE 1



DEPARTURES – Runway 05
Phase 2 – used as the secondary runway for departing aircraft when in an easterly configuration
LESS TRAFFIC THAN IN PHASE 1



Southeast

Arrivals Runway 24L/R

Departures Runway 06L/R

Communities impacted:

Midtown Toronto, North York, Weston, Etobicoke

ARRIVALS – Runways 24L/24R
All Phases – Runway 24R unavailable for arrivals
Phase 2 – used as the main runway for arriving aircraft when in a westerly configuration.
SIGNIFICANTLY MORE TRAFFIC THAN IN PHASE 1

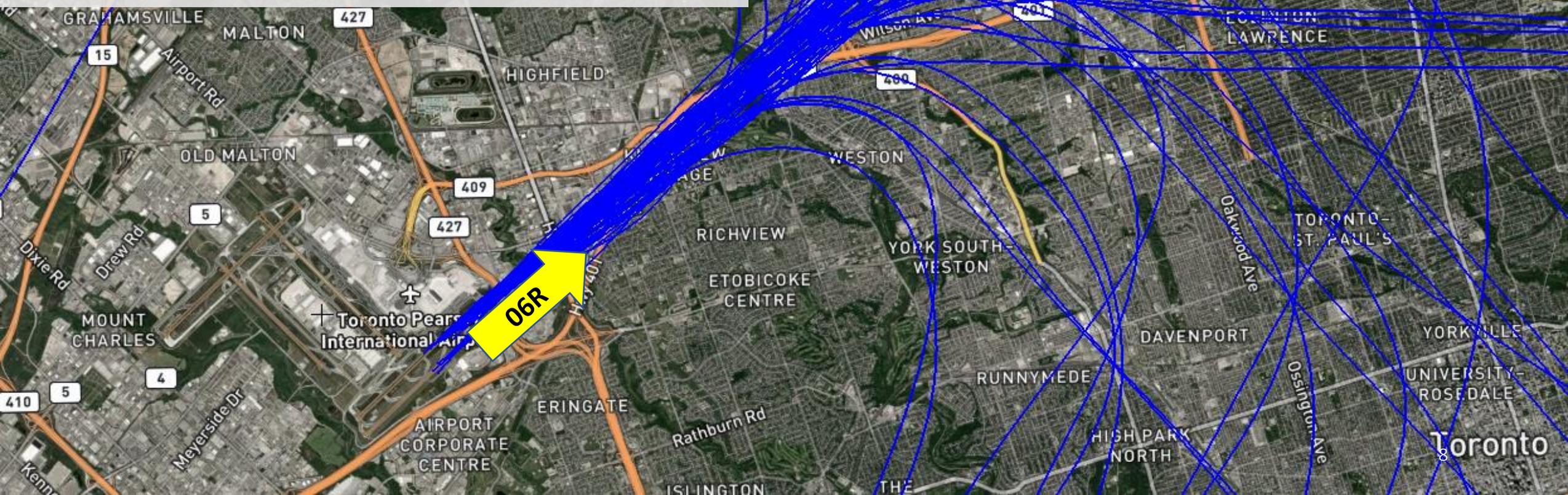


DEPARTURES – Runways 06L/06R

All Phases – Runway 06L unavailable for departures.

Phase 2– Runway 06R will be used as the main runway for departing aircraft when in an easterly configuration
SIGNIFICANTLY MORE TRAFFIC THAN IN PHASE 1

Note that typically Runway 06L is used for departures rather than 06R. The flightpath for departures on Runway 06R is slightly further south than the flightpath for 06L, thus closer to residential areas



Northwest

Arrivals Runway 05

Departures Runway 23

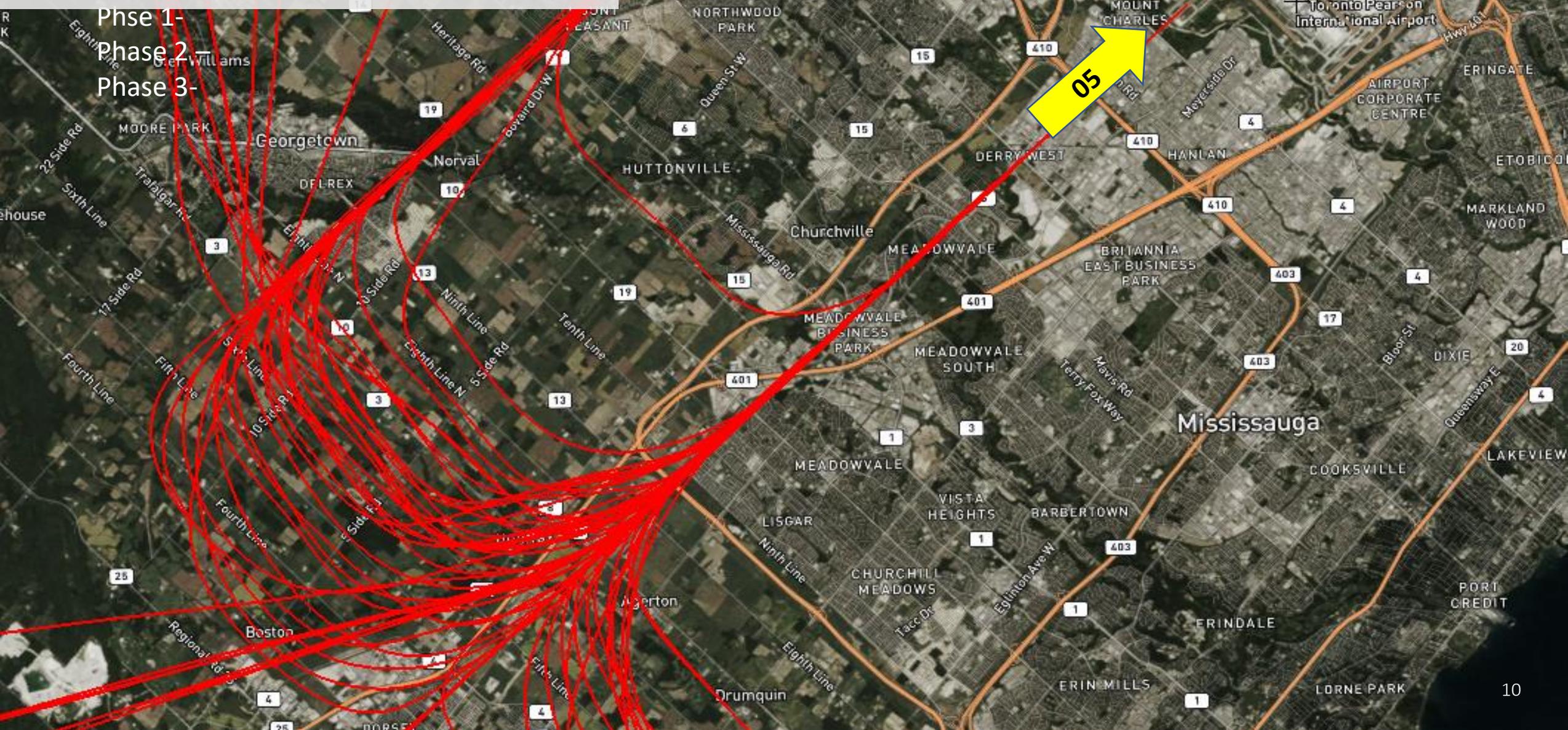
Communities impacted:

Brampton, Georgetown, Milton, Meadowvale, Streetsville

ARRIVALS – Runway 05

Phase 2 – used as the main runway for arriving aircraft when in an easterly configuration

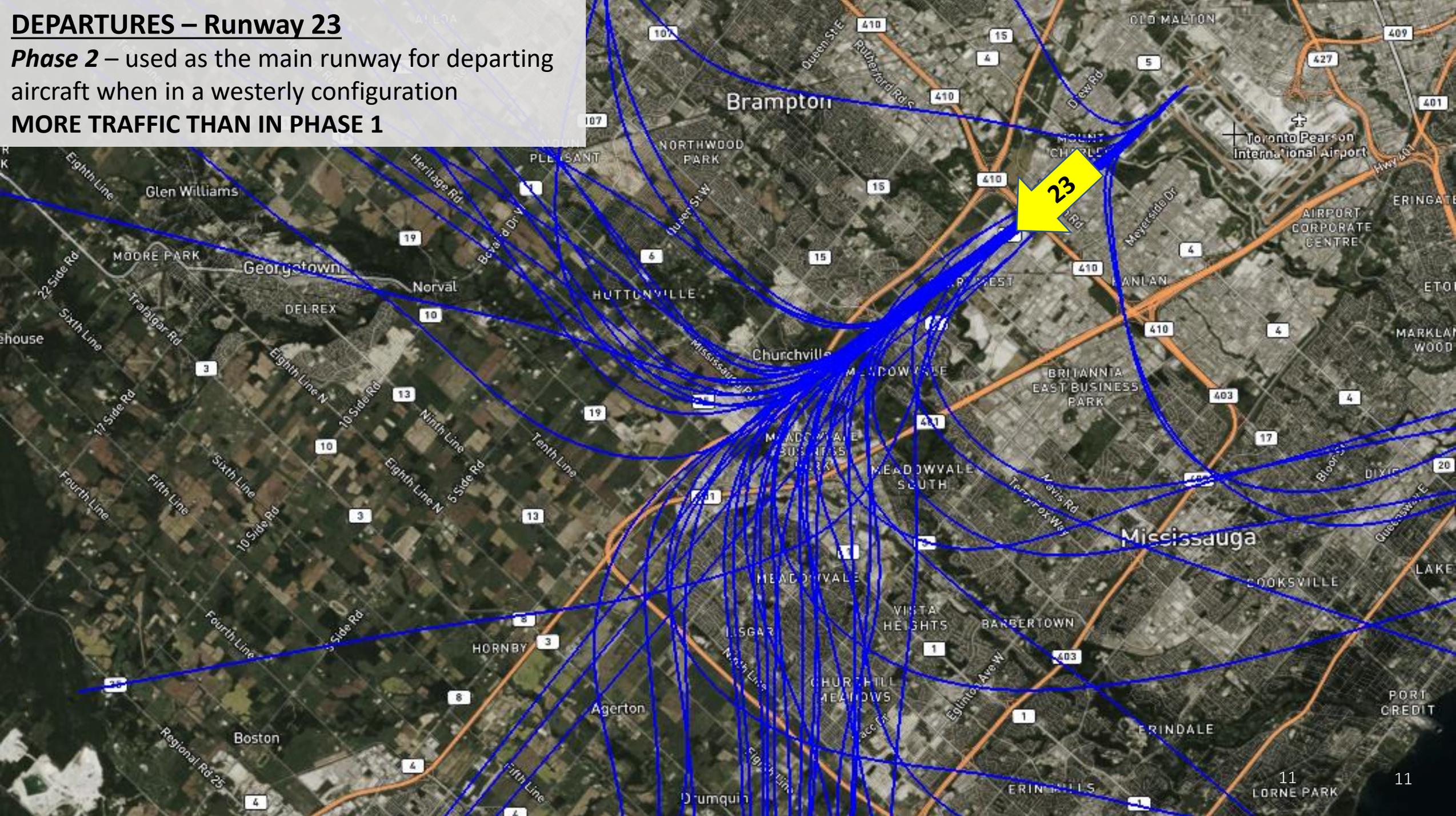
MORE TRAFFIC THAN IN PHASE 1



DEPARTURES – Runway 23

Phase 2 – used as the main runway for departing aircraft when in a westerly configuration

MORE TRAFFIC THAN IN PHASE 1



Southwest

Arrivals Runway 06L/R

Departures Runway 24L/R

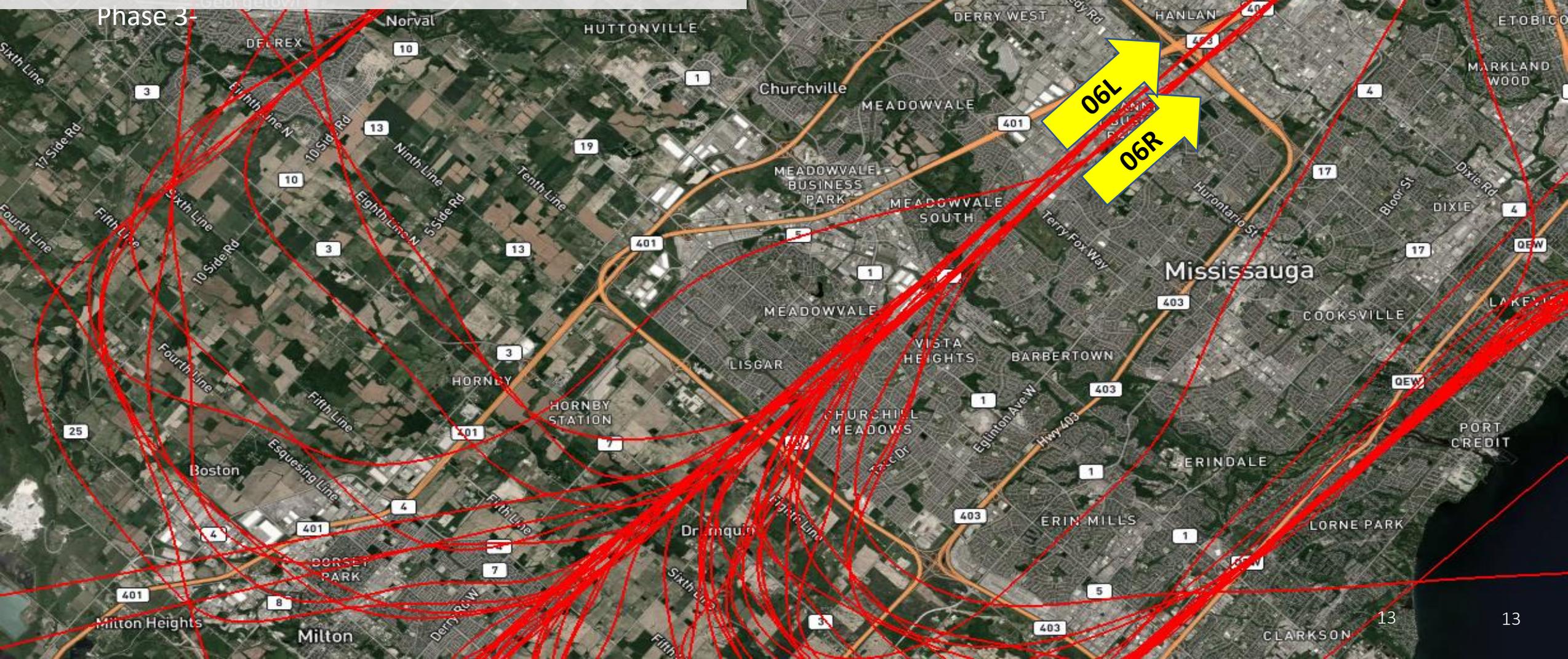
Communities impacted:

Meadowvale, Erin Mills, Streetsville, Clarkson, Port Credit, Oakville

ARRIVALS – Runways 06L/06R

All Phases – Runway 06L unavailable for arrivals

Phase 2 – Runway 06R used as the secondary runway for arriving aircraft when in an easterly configuration. **EXPECT LESS TRAFFIC THAN IN PHASE 1**



DEPARTURES – 24L/24R

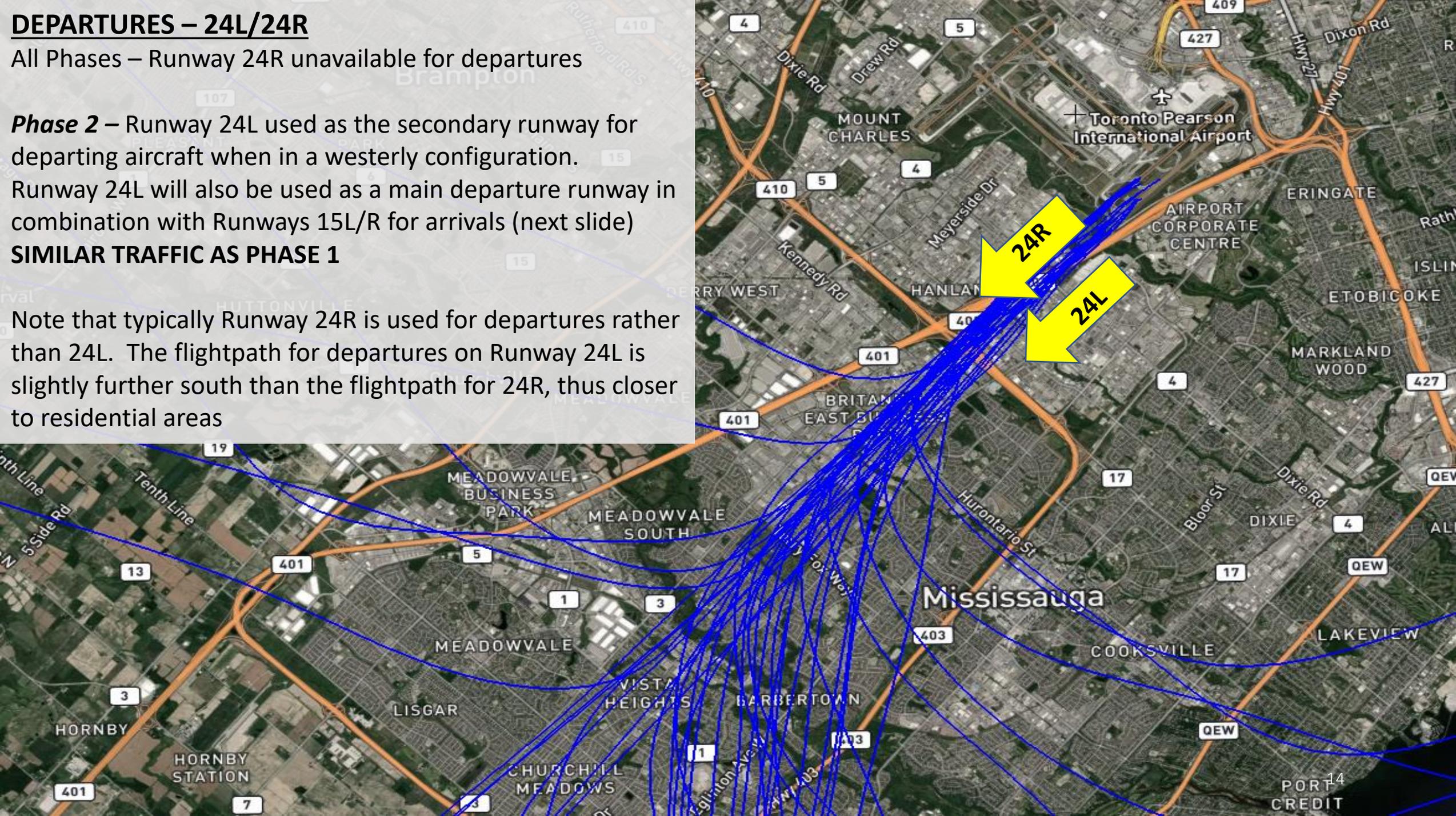
All Phases – Runway 24R unavailable for departures

Phase 2 – Runway 24L used as the secondary runway for departing aircraft when in a westerly configuration.

Runway 24L will also be used as a main departure runway in combination with Runways 15L/R for arrivals (next slide)

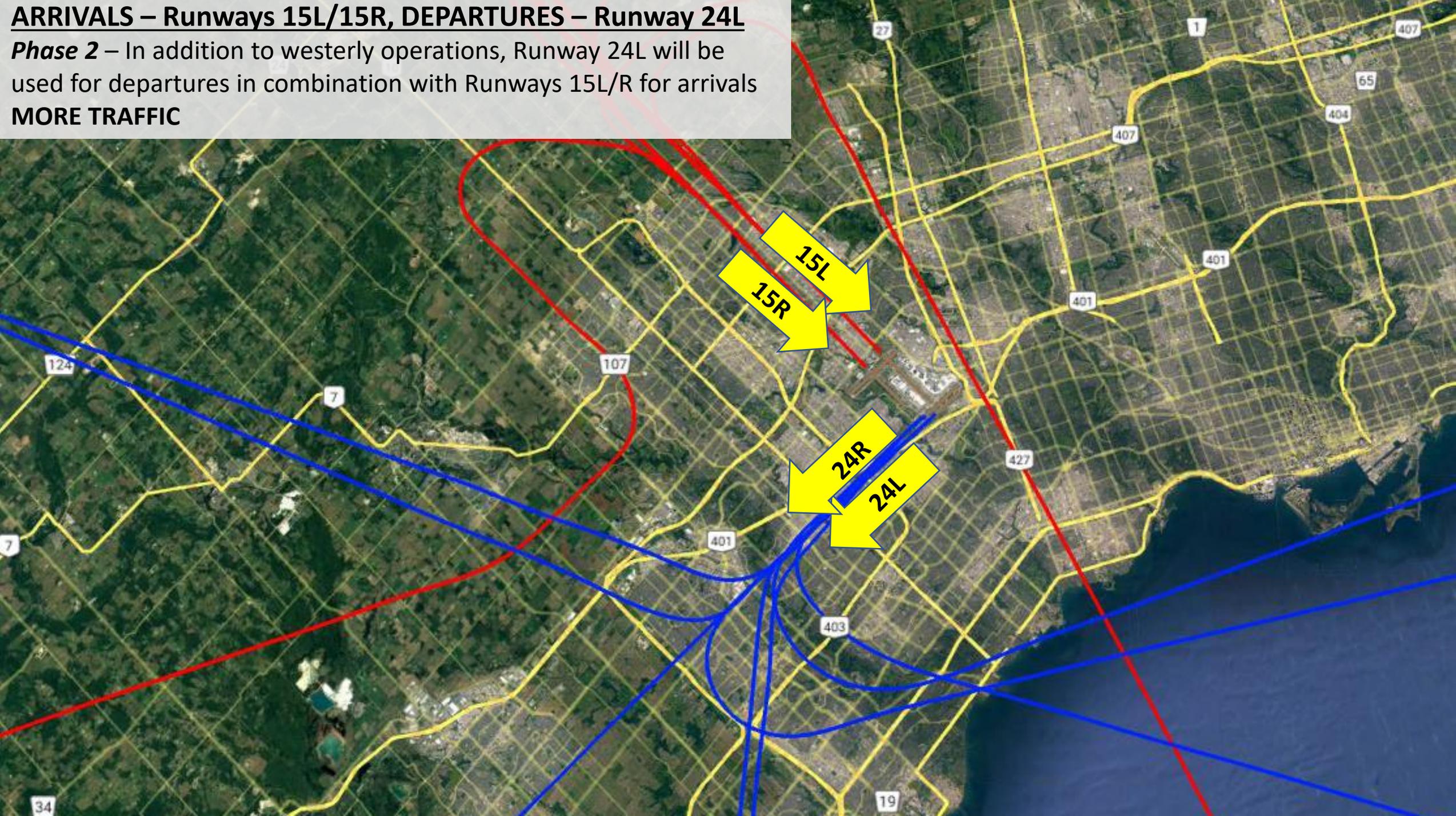
SIMILAR TRAFFIC AS PHASE 1

Note that typically Runway 24R is used for departures rather than 24L. The flightpath for departures on Runway 24L is slightly further south than the flightpath for 24R, thus closer to residential areas



ARRIVALS – Runways 15L/15R, DEPARTURES – Runway 24L

Phase 2 – In addition to westerly operations, Runway 24L will be used for departures in combination with Runways 15L/R for arrivals
MORE TRAFFIC



North

Arrivals Runway 15L/R

Departures Runway 33L/R

Communities impacted:

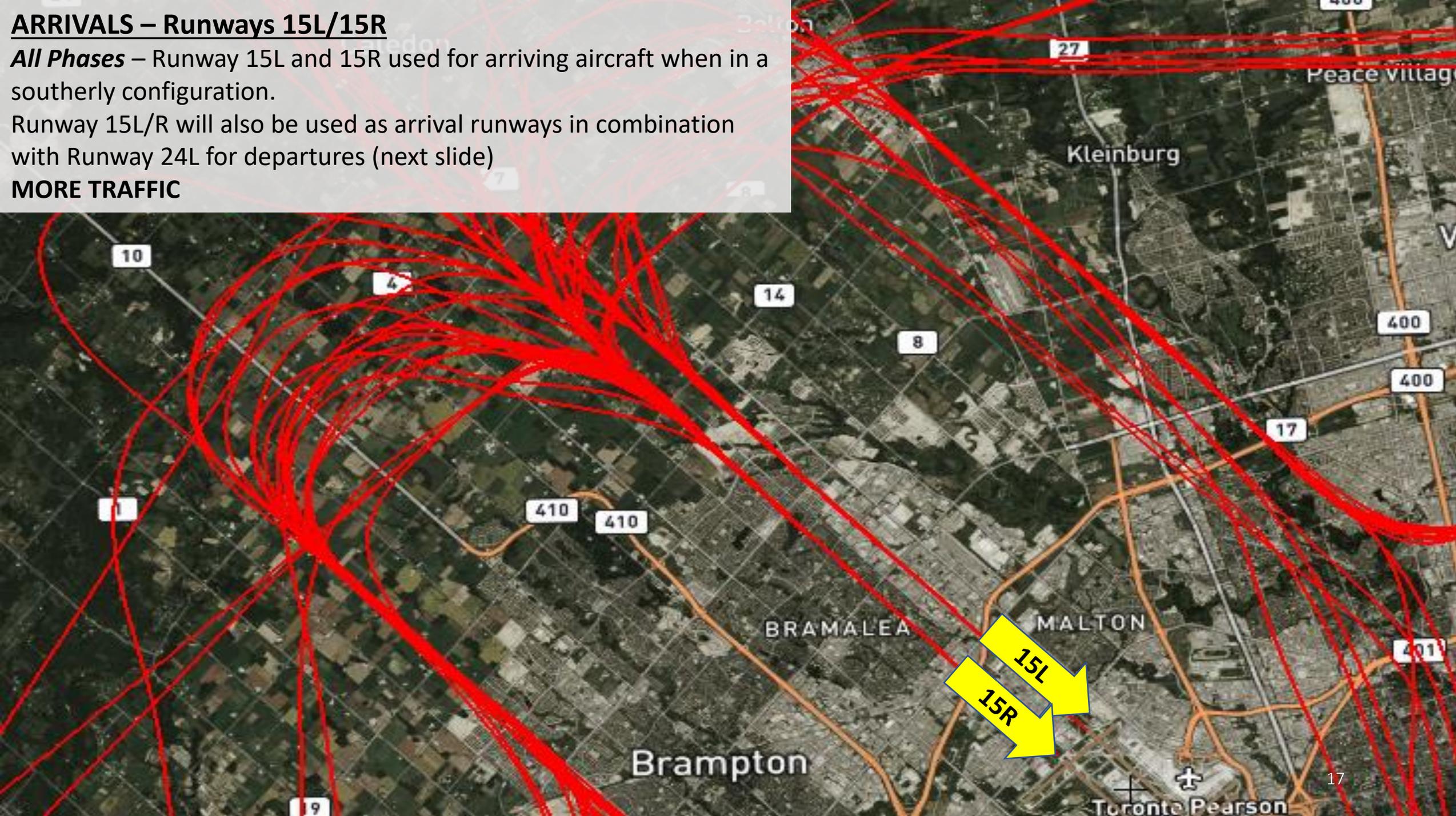
Brampton, Malton

ARRIVALS – Runways 15L/15R

All Phases – Runway 15L and 15R used for arriving aircraft when in a southerly configuration.

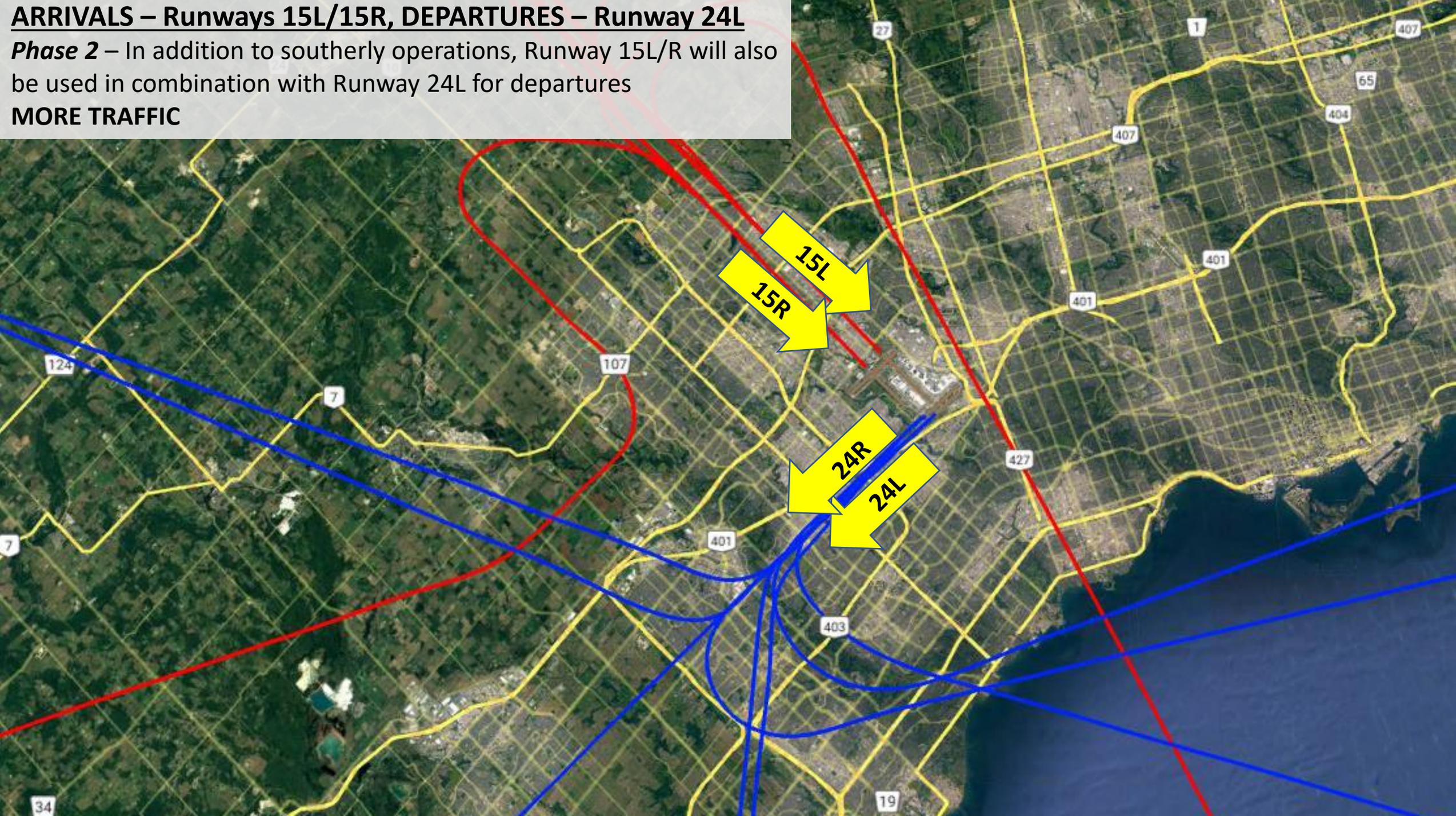
Runway 15L/R will also be used as arrival runways in combination with Runway 24L for departures (next slide)

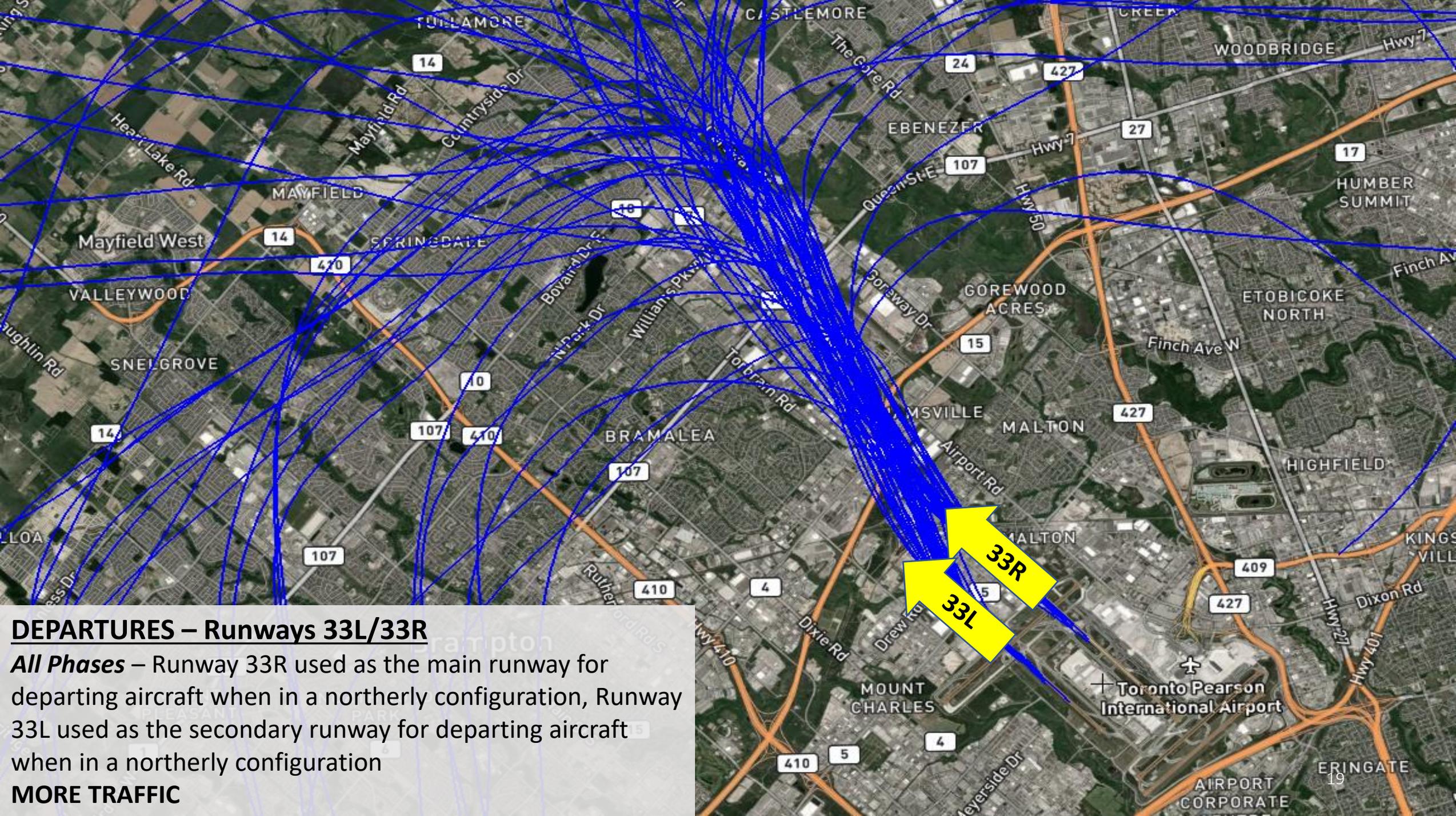
MORE TRAFFIC



ARRIVALS – Runways 15L/15R, DEPARTURES – Runway 24L

Phase 2 – In addition to southerly operations, Runway 15L/R will also be used in combination with Runway 24L for departures
MORE TRAFFIC





DEPARTURES – Runways 33L/33R
All Phases – Runway 33R used as the main runway for departing aircraft when in a northerly configuration, Runway 33L used as the secondary runway for departing aircraft when in a northerly configuration
MORE TRAFFIC

South

Arrivals Runway 33L/R

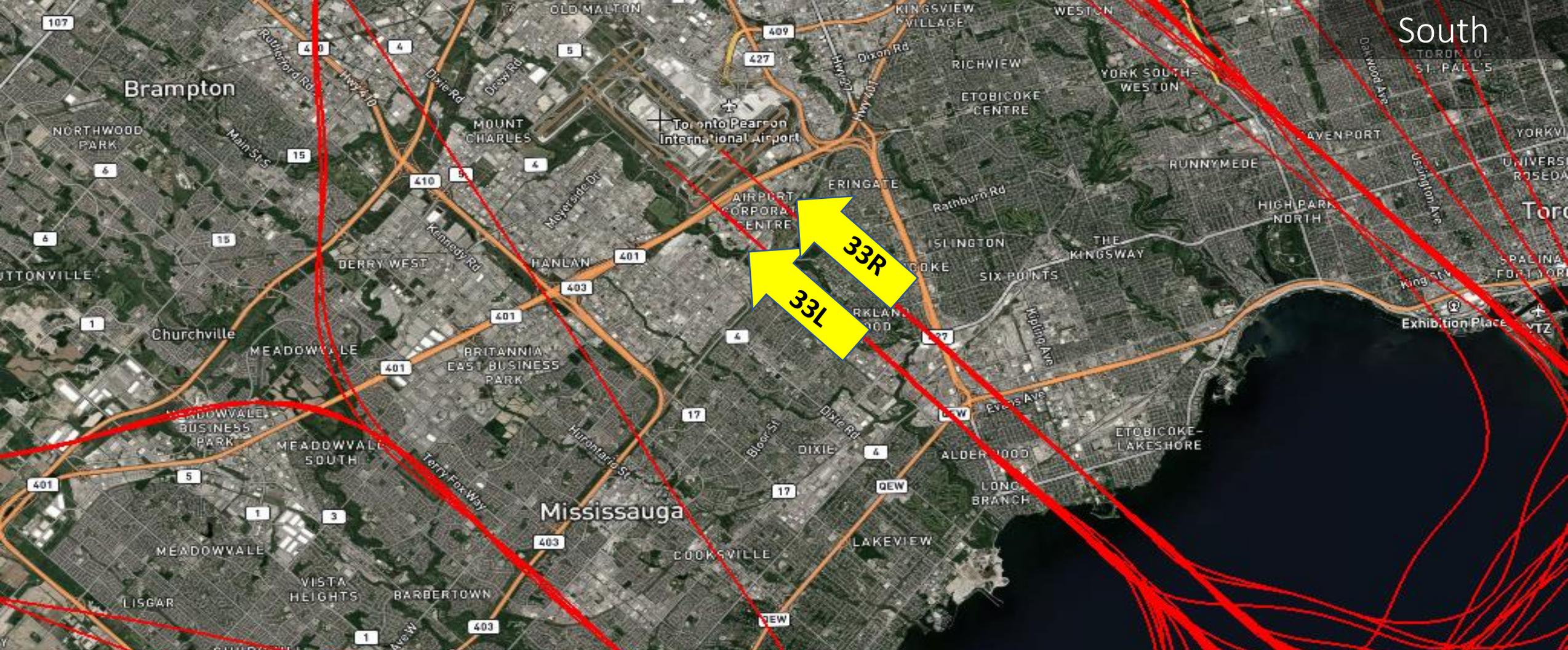
Departures Runway 15L/R

Communities impacted:

Etobicoke-Lakeshore, Alderwood, Long Branch, Markland Wood,
Rockwood



DEPARTURES – Runways 15L/15R
All Phases – Runway 15R used as the main runway for departing aircraft when in a southerly configuration and Runway 15L used as the secondary runway for departing aircraft when in a southerly configuration
MORE TRAFFIC



South

33R
33L

ARRIVALS – Runways 33L/3R
All Phases – Runway 33L used as the main runway for arriving aircraft when in a northerly configuration and Runway 33R used as the secondary runway for arriving aircraft when in a northerly configuration.
MORE TRAFFIC