



**REGION OF WATERLOO
INTERNATIONAL AIRPORT**

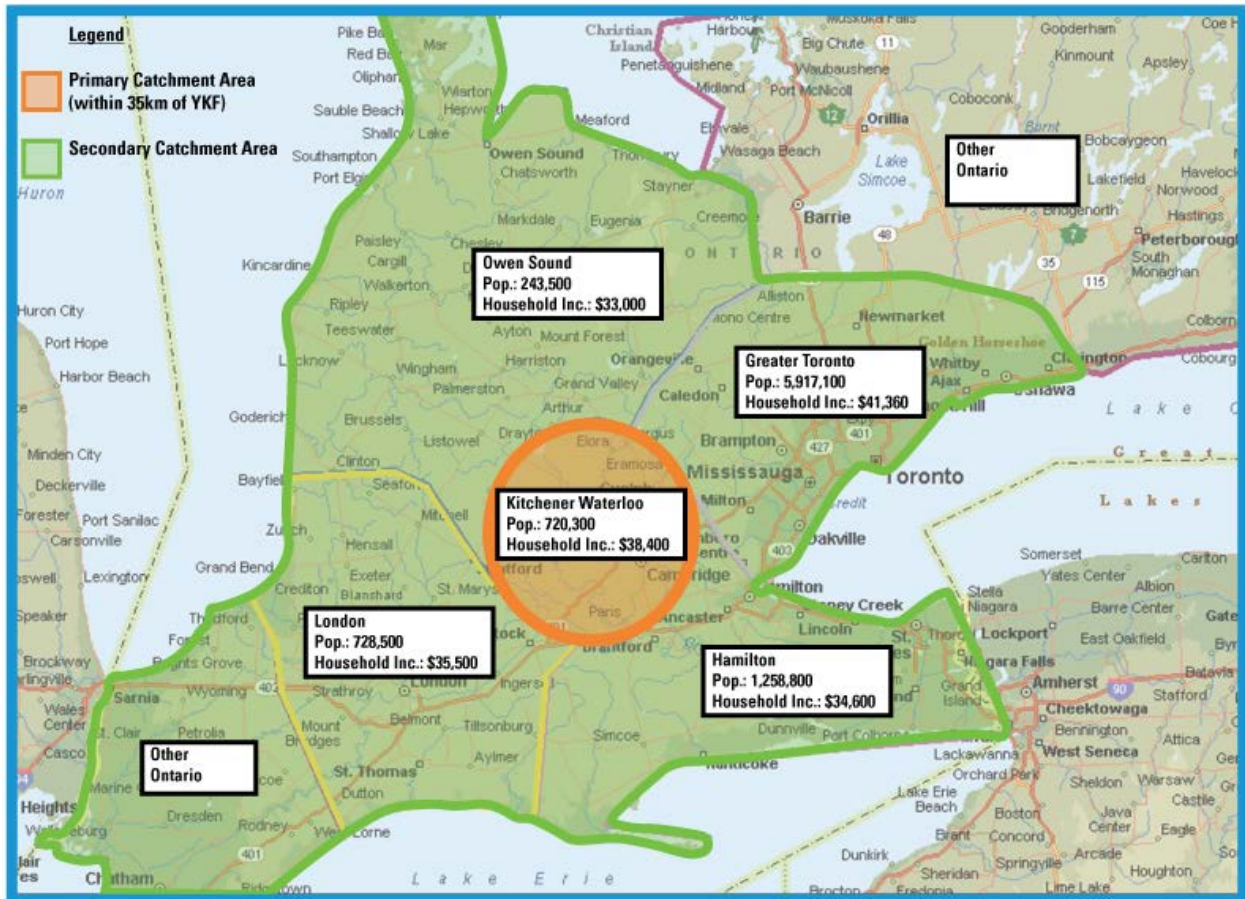
**AIRPORT MASTER PLAN
EXECUTIVE SUMMARY | MARCH 2017**

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EXECUTIVE SUMMARY

The Region of Waterloo International Airport (YKF) Master Plan presents a vision and strategy to make the most of the Airport's existing assets to support improved air service, customer experience and business development over the next 20 years. The Airport sits on approximately 1,000 acres of land in southern Woolwich Township, and is directly across the Grand River from Kitchener. Over decades of investment, the Airport has built outstanding infrastructure (runway, terminal and operations facilities). This infrastructure supports a vibrant aviation cluster with one of Canada's busiest flight training schools, a number of rotorcraft businesses, as well as charter, maintenance and service operations. It has also helped the airport attract limited scheduled service to this community and the 35 kilometre catchment area of 730,000 people. However, this only comprises about 5 percent of the 2,500,000 passengers that are generated from the catchment area, with the remaining flying from Toronto Pearson International Airport (TPIA) and other neighbouring airports. In 2015, the Region of Waterloo International Airport's net economic impact on the regional economy was an estimated \$90 million.

Figure 1 | YKF Catchment Area Map



CONTEXT

The demand for air travel in southern Ontario has been increasing dramatically. TPIA has been growing at approximately 8 percent or 2,500,000 passengers annually. This continued growth in demand will result in TPIA reaching its capacity limit of 70,000,000 passengers by the mid-2030s. Beyond that timeframe, there will be an increasing gap in the demand for air services and the capacity of southern Ontario airports to accommodate them.

Conditions are also changing in the Canadian aviation industry. In November 2016, the Government of Canada announced its intention to eventually increase the foreign ownership limits for all Canadian airlines. In advance of this legislative change and in order to give new low-cost carriers access to a larger capital market to support the launch of services, the Government of Canada granted immediate exemptions to the rule for two new start-up carriers, Canada Jetlines and Enerjet. The intent of this policy change was to increase the level of competition in the Canadian airline business, improving services and reducing costs for customers. YKF is a desirable regional airport for this new class of low-cost carrier, given its proximity to a significant, affluent and underserved market.

While its proximity to TPIA has been a challenge for YKF, it has at least one significant advantage over other airports in southern Ontario: YKF is 2.5 km from the Kitchener GO Transit line in the Metrolinx transit system, the same line that TPIA is located on and serviced through the UP Express rail service. TPIA is strongly advocating for a multi-modal hub fed by rail transit to help optimize the entire customer experience as it develops into a global airport. In the long run, this will further support rail transit service expansion to Waterloo Region and position YKF as the logical reliever airport to TPIA.

However, this all depends on the launch of a new carrier(s) at the Region of Waterloo International Airport.

PROCESS

This Plan replaces the 2000 Master Plan that has guided development of the Airport for 17 years. A Steering Committee made up of Regional and Area Municipal Councillors, as well as the Grand River Conservation Authority (GRCA) and senior Region of Waterloo as well as Area Municipal staff led the process over the past four years. WSP Canada Inc. (formerly MMM Group's Aviation Team) provided technical support. YKF engaged the community extensively through two public consultation sessions, an online survey, paid advertising and face-to-face promotion at business and community-facing events. Hundreds of citizens and stakeholders were consulted and many provided written feedback, which was compiled on the Engage Region of Waterloo online platform. YKF considered all feedback in development of this Master Plan. The Plan has been developed in tandem with the Master Environmental Servicing Plan (MESP) for the East Side Lands in north Cambridge and the settlement of outstanding land use policies in the current Regional Official Plan (ROP).

DEVELOPMENT PRINCIPLES

Waterloo Region and surrounding communities need convenient access to affordable aviation and airline services. As one of Canada's most innovative and successful urban regions, Waterloo Region depends on efficient connectivity to national and global economies. YKF's catchment area is an exporting region, driven by creative, capital intensive companies that sell into and pull talent and product from diverse markets. The region's residents travel extensively, both for business and recreation. They currently rely on costly air services located at the other end of an unreliable highway system. The community has demonstrated its

interest in local air service through the success of both the current WestJet service to Calgary and former American Airlines service to Chicago, both of which have been well used by local customers. Passengers who have flown through YKF are passionate about the experience – its speed, efficiency, comfort and cost. However, they have a strong desire for better, cheaper and more frequent service to more destinations.

The challenge is to position YKF to succeed by leveraging its existing assets rather than building additional infrastructure on a speculative basis. YKF will require new infrastructure (runway and terminal capacity) to achieve its potential, however this investment should be made in response to clear signals from the customers, air carriers and the provincial and federal Governments that additional services will be required. This Plan advocates that the Region of Waterloo carefully manage its risk by staging development in response to predetermined trigger points that correspond with the capacity limits of the current air terminal building. As capacity limits are reached, check-in, security and holding areas will become congested and customer experience will deteriorate. These development stages are described below in more detail.

The approach of this Master Plan will:

- ▶ Equip YKF to accommodate the passengers generated within its primary catchment area;
- ▶ Help attract and retain aviation companies to serve the local market;
- ▶ Position YKF as an essential reliever to increasing demand at TPIA;
- ▶ Help the Region of Waterloo manage risk associated with significant capital investments to support improved air service; and
- ▶ Help YKF attract and support a vibrant aeronautics cluster within the airport campus and associated Aviation Business Park.

Traditionally, airport master plans have based their development scenarios and related capital programs on a forecast of incremental growth in passengers and aircraft movements. This forecast is much easier to model for airports that have well established scheduled services to multiple destinations. It is very difficult for an airport like YKF that has little scheduled service and is located close to a major international airport like TPIA.

This Master Plan's approach is to manage risk for YKF and the Region of Waterloo, while positioning the airport to move quickly to support expanded air service if the opportunity presents itself. Each stage in the implementation of the Master Plan is initiated once the airport has achieved a specific level of passenger activity. Meeting these targets provides confidence that YKF will achieve the growth projections of the next stage. In this way, the Master Plan presents a flexible strategy that responds to changing market conditions.

DEVELOPMENT STAGES AND TRIGGERS

YKF's Master Plan anticipates five stages of development leading to the ultimate capacity for 2,500,000 passengers with a diverse airline schedule of destinations. These stages and the corresponding triggers that initiate them are described below.

STAGE I – PLANNING FOR GROWTH

Development Trigger – Council Approval of Master Plan

Regional Council approval of the Master Plan will trigger a number of studies that are necessary to expand airport capacity if required. This planning work will help protect YKF for immediate and future growth scenarios. The planning work will include:

- ▶ Investigate funding partnership opportunities with Federal and Provincial government partners;
- ▶ Begin conceptual, detailed design and environmental assessment for both Runways 08-26 and 14-32 extensions and the airport terminal building expansion to accommodate up to 500,000 passengers;
- ▶ Initiate Federal Aeronautical Zoning Studies for both the existing runways and a potential third runway;
- ▶ Assess land requirements and review environmental constraints for each development stage;
- ▶ Analyze long-term air terminal building location options; and
- ▶ Review opportunities for rail transit connectivity between the future Breslau GO Transit station, the Kitchener GO Transit line and Toronto Pearson International Airport.

STAGE II – SECONDARY RUNWAY EXTENSION AND EXISTING TERMINAL EXPANSION

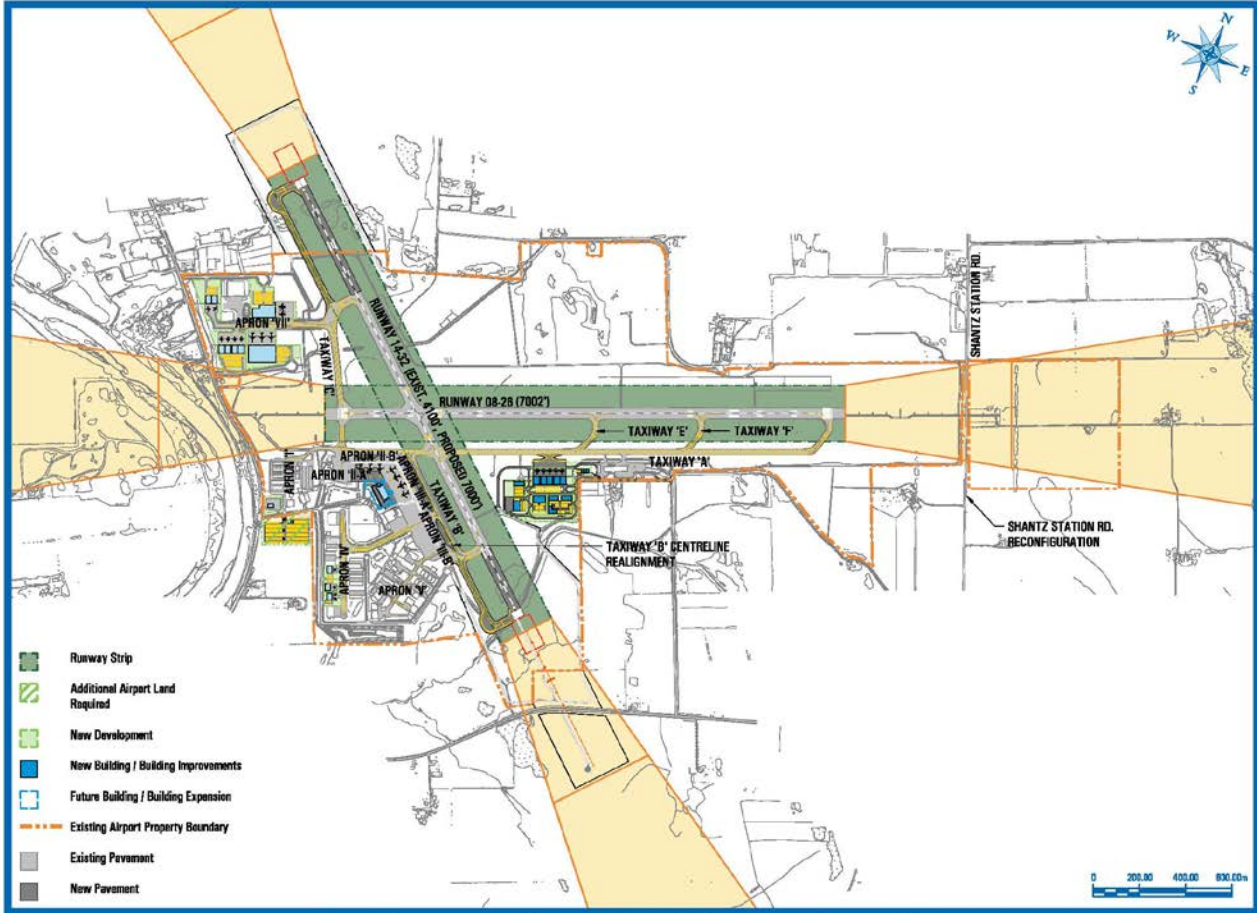
Development Trigger – YKF hits 250,000 annual passengers (approximately 4 Boeing 737 flights daily)

Once YKF achieves scheduled airline service to support 250,000 passengers annually, the airport terminal building will begin to experience periodic congestion and customer experience will deteriorate. It becomes clear that new airline service to YKF is succeeding. At this level of passenger activity, increasing revenues justify the expansion of facilities to support higher levels of activity. Additional runway capacity provided by an extension to Runway 14-32 is necessary as a precision landing alternative to Runway 08-26 in strong crosswind conditions.

Stage II projects include:

- ▶ Tendering and construction of Runway 14-32 extension;
- ▶ Tendering and construction of terminal building expansion for up to 500,000 passengers;
- ▶ Detailed design extension to Runway 08-26 including associated taxiways and lighting;
- ▶ Review options for Shantz Station Road reconfiguration;
- ▶ Expansion of existing serviced industrial lands on airport property; and
- ▶ Initiate planning and design for terminal building expansion for up to 1,000,000 passengers.

Figure 2 | Development Stage No. 2 Airport Site Plan



STAGE III – PRIMARY RUNWAY EXTENSION AND TERMINAL EXPANSION

Development Trigger – YKF Hits 500,000 annual passengers

Increased service by now-established air carriers has gained traction in the primary catchment area. It becomes clear that the convenience and cost associated with flying from YKF gives it a competitive advantage. As congestion grows inside the existing terminal, it becomes necessary to add sufficient space to serve up to 1,000,000 passengers annually. At this level, carriers require larger aircraft and longer runways. Even though air traffic is increasing, the extension of Runway 08-26 will shift the noise contour to the east, moderating the impact on residential areas in Kitchener. Design of the final stages of terminal building expansion to 2,000,000 passengers must also be completed in this stage.

Stage III projects include:

- ▶ Construction of Shantz Station Road configuration;
- ▶ Construction of the extension of the primary Runway 08-26 to approximately 8,737 feet;
- ▶ Construction of terminal building expansion for 1,000,000 annual passengers on the existing or new terminal location; and
- ▶ Design of terminal building for up to 2,000,000 annual passengers.

STAGES IV & V – TERMINAL EXPANSION TO 2,500,000 ANNUAL PASSENGERS

Development Trigger – YKF hits 1,000,000 passengers (approximately 11 Boeing 737 flights daily)

At this point in the evolution of airline service to Waterloo Region, it is clear that YKF has become a strategic piece of transportation infrastructure connecting the regional economy to North America and beyond. The airport terminal building now must be able to serve up to 2,500,000 passengers, approximately the number generated by its primary catchment area in 2012. This volume of passengers begins to justify the integration of the airport into the regional and intercity rail transit system. This stage is likely to coincide with the expansion of two way all day GO Train service to Waterloo Region from Toronto. A direct rail connection between TPIA and YKF becomes possible. Development of the full terminal capacity of YKF would be completed in several stages through the extension of gates at the passenger concourse.

FINANCIAL IMPLICATIONS

Financing for the implementation of each development stage assumes that 50 percent of capital costs will be funded from non-property tax sources. Such recoveries could be in the form of provincial or federal government partnerships and/or regional development charges. At each development trigger, the forecast cost per household is at or below the current cost of \$23 for the airport. YKF will use the current per household cost for the airport as a maximum budget target for future growth outlined in the Master Plan. However, the timing of long-term borrowing and the level of partner investment could bring the cost per household to slightly above the current levels.

CONCLUSION

The Region of Waterloo International Airport has the potential to play a critical role in connecting one of Canada's most dynamic regional economies with the world. It has significant infrastructure to support a limited expansion of scheduled service now and, importantly, room to expand. This Master Plan outlines the path forward, should the opportunity to increase airline service present itself. The proposed approach is; however, conservative in that it does not commit the Region of Waterloo to invest further in new capital works until it is clear that such investment is justified by increased scheduled passenger service. If air service increases, then this Plan will position the Region to move quickly to capture the opportunity and support expanding airlines with well-conceived infrastructure.