



Report: PDL-AIR-16-06

Region of Waterloo

Planning Development and Legislative Services

Region of Waterloo International Airport

To: Chair Tom Galloway and Members of the Planning and Works Committee

Date: November 1, 2016 **File Code:** L04-20

Subject: Airport Master Plan Update

Recommendation:

For Information

Summary:

Airports around the world rely on Master Plans to help guide their growth decisions, as airport infrastructure takes time to plan, construct and commission. The Region of Waterloo International Airport commenced an update to the 2000 Master Plan in 2012. The Master Plan has now progressed to the point of developing draft recommendations, which will be presented at a Public Consultation Centre (PCC) on November 10, 2016. Attached to this report is a copy of the information that will be presented at the November 10, 2016 PCC.

The recommendation from staff and the Master Plan Steering Committee is to prepare the airport for growth relying on a series of "triggers" which are based primarily on the number of passengers using the airport. It is expected that passenger volumes at the Region of Waterloo International Airport and at other regional airports in Southern Ontario will increase as Toronto Pearson International Airport becomes increasingly constrained. A recent study commissioned by the Greater Toronto Airports Authority (GTAA) estimated that Pearson Airport will reach its capacity limit by approximately the mid-2030s, and that demand could exceed airport capacity by about 20 million passengers by 2043.

The Region of Waterloo International Airport is well positioned geographically and from a governance perspective to capture some of this growth and play a larger role in the system of airports, reaping major economic benefits for our community.

The strategy proposed in the Airport Master Plan is to provide just-in-time delivery of airport infrastructure, and try to match the expansion of infrastructure with the timeline of when airlines and passengers will make decisions to relocate from Pearson.

Report:

At the end of 2012, the Region of Waterloo retained an aviation consulting firm, MMM Group Limited (currently WSP Canada Inc.) to develop a new Airport Master Plan ('Master Plan'). The Master Plan is intended to provide guidance for future development of the Region of Waterloo International Airport (YKF) which is owned and operated by the Region of Waterloo. The last Master Plan for YKF was completed in April of 2000 and set the stage to build the airport we have today.

In December 2012, the Region of Waterloo initiated the development of a new YKF Master Plan, establishing a Project Team consisting of Council and staff representatives from the Region of Waterloo, the Cities of Cambridge, Kitchener and Waterloo, the Township of Woolwich, and the Grand River Conservation Authority. As part of the initial process, stakeholder meetings were completed (including area businesses, aviation associations, and airlines), and two public consultation sessions were held in an effort to obtain input from the community on future options for YKF over the next 20 years.

In late 2014, Regional Council provided interim direction to staff to: optimize the existing capacity of YKF; attract new air service; build out the YKF Business Park; protect for future growth; increase community awareness about noise mitigation measures; and develop YKF in conjunction with the adjacent East Side Employment Lands. Staff have made some progress on these initiatives, and are continuing with this mandate.

In 2015, Regional Council received new information from the KPMG Region of Waterloo Service Review, and the Greater Toronto Airports Authority released a study entitled "Growth, Connectivity, Capacity – The Future of a Key Regional Asset" which identified that by the mid-2030s Southern Ontario's airports, including Toronto Pearson International Airport (TPIA) will start to approach a capacity milestone, and upwards of 20 Million passengers could ultimately go unserved. The GTAA has actively worked with all airports in Southern Ontario to help solve this capacity issue. In late 2015, Regional Council recommended the final completion of the YKF Master Plan (as part of the recommendation from the KPMG Service Review) and adopted the following recommendation:

“That the Regional Municipality of Waterloo direct staff to complete the Airport Master Plan and associated Business Plan by the end of 2016, which would include recommendations regarding increasing revenue, managing operational and capital expenses and a net levy target for airport management to budget against to control operating and capital expenditures.”

This triggered a renewed phase of the Airport Master Plan which would combine all data from the earlier work, and include new input from the second phase to produce the ultimate direction for the Airport moving forward. Council recommended an updated Steering Committee be established to guide the completion of the draft YKF Master Plan and the creation of a Business Plan. The Steering Committee includes: the Chair of the Planning and Works Committee; the Chair of the Administration and Finance Committee; the Regional Council representative to the Aeronautical Noise Advisory Committee; and a local Council representative from the Cities of Cambridge, Kitchener, and Waterloo, and the Township of Woolwich. The Steering Committee was chaired by the Commissioner of Planning, Development, and Legislative Services (until his departure) and also includes the Commissioner of Transportation and Environmental Services, the Commissioner of Corporate Services/Chief Financial Officer, the Director of Corporate Communications, and the General Manager of the airport. Additional staff from the Region of Waterloo and the Area Municipalities serve as resources to the Steering Committee.

The Steering Committee has also consulted with the YKF Business Advisory Council and the Waterloo Region Economic Development Corporation. A third Public Consultation Centre was held on May 25, 2016 to update the status of the Master Plan, and the fourth (and Final) Public Consultation Centre is now scheduled for November 10, 2016. Following the Public Consultation Centre, staff will consider all of the input received, and will incorporate it into the final Airport Master Plan and associated Airport Business Plan which will be presented to Council in early 2017.

The purpose of this Master Plan is to guide the future of YKF over the next 20 years. This Master Plan includes elements that address the following:

- Identify and evaluate a range of development triggers that will inform and guide growth opportunities for the Airport.
- Stakeholder consultation and additional Public Information Centres.
- Develop a comprehensive development plan that is flexible and will allow for rapid changes in both demand and opportunities available within the next 10-20 years.
- Commercial Carrier Service – Explore opportunities to respond to growing desire to provide air carrier service at YKF and anticipate future community needs.

- Development of the Airport Business Park and East Side Employment Lands – Further examine the creation of employment opportunities through the development of leased lands for aviation and aerospace related industrial and commercial undertakings on the adjacent East Side Lands.
- Business Plan – Develop an associated Business Plan to link the Master Plan with an efficient and effective financial plan, and address the recommendations from the KPMG Service Review.
- Support for Business – To ensure current and future demand from area businesses are being met, identify opportunities to align the future of YKF with future needs of emerging sectors in Waterloo Region; and
- Changes in the Aviation Industry – The ever-changing nature of the aviation industry will affect the future growth of YKF. Currently, Toronto Pearson International Airport is reviewing its existing capacity and future growth demands. As part of that review, neighbouring airports, including YKF, are being considered as potential options for “spill-over” service.

According to a study commissioned by the GTAA, “by 2043, a staggering 90 million people will be looking to travel through southern Ontario by air; yet the capacity across the region’s airports is estimated to be around 65-70 million passengers per year. With no plan in place to increase the region’s air travel capacity, that is a gap of more than 20 million passengers by 2043.” An opportunity is now available which could see an “integrated multi-airport system for southern Ontario” that could help offload capacity from Toronto Pearson to other airports in the region in a complementary fashion. The Region of Waterloo International Airport is one of three facilities that could, over the planning period of the next 20 years, play a major role to meeting aviation demands in the Greater Toronto Area for scheduled passenger service. The others being Hamilton and Pickering, should the federal government plan to build an airport there.

This is a new dynamic that has been reviewed and considered as part of this Master Plan. It is challenging to “Master Plan” for this type of scenario without carefully factoring in both YKF and ultimately GTAA’s growth strategies such that they can potentially align with the development options put forward.

This Master Plan is intended to be an action-oriented, working document that identifies the future development of the Airport in a practical, fiscally responsible, environmentally-sustainable, ‘just-in-time’ manner. Development triggers will be outlined and implemented to allow YKF the ability to grow if and when the current and future demands dictate. Subsequent phases of development will only be implemented when measured criteria are met and growth at the Airport is warranted. As each pre-determined criteria (or “trigger”) is reached, the Airport will seek Regional Council approval before proceeding with the next phase of development.

The “triggers” are based on passenger volumes at the Airport. As each “trigger” is reached, the Region would decide whether to proceed with the next phase of Airport planning and development. Although the triggers are based on measured passenger volumes at YKF, passenger volumes at YKF may be influenced by Pearson Airport reaching or exceeding its capacity limits. Monitoring the activity and capacity at Pearson may provide an indication of if and when certain triggers may be reached at YKF. In this way, the Master Plan prepares the Airport for future growth and development, but does not commit to such development in advance of demonstrated increase in demand.

Development Opportunities

The ultimate goal of this proposed Master Plan is to optimize the use of the existing infrastructure and to prepare for airport expansion if and when passenger volumes increase. Given the current ability to expand services at the airport without significant capital expansion, this would allow the airport to continue to add service and passengers and increase revenue in the short term, prior to investing in the next phases of development. It is imperative that the Airport be prepared for future growth with a plan that would allow subsequent phases of development to be implemented quickly once passenger numbers reach certain thresholds. There are many dynamics in play (i.e. low cost carriers, reliever to Toronto Pearson, etc.) that could drastically alter the landscape at YKF and the Airport should be prepared to quickly accommodate this likely growth if and when it occurs.

A very similar recent example can be found at Billy Bishop Toronto City Centre Airport where a new Airline (Porter Airlines) launched service in 2006 and passenger traffic has increased from 68,000 Annual Passengers in 2005 to over 2,500,000 Annual Passengers less than 10 years later. After Porter launched in 2006, passenger volumes increased to the point that airport operations became self-sufficient by 2010. This growth was all completed with many constraints in play including limited runway lengths, access to the Island, tripartite agreement governing usage and noise limits, and significant political objection.

The following sections will outline the Development Triggers that will be put in place to allow the Region of Waterloo International Airport to grow at a rate that is responsive to potential increase in scheduled service and related passenger volumes.

Development of Trigger Points

The Region of Waterloo International Airport staff, along with members of the Steering Committee, are engaged with GTAA on a regular basis to better understand the needs of Toronto Pearson International Airport related to future relief of air traffic.

Development of our airport will be influenced by the actual growth in passenger traffic experienced over the 20-year planning period of this Master Plan. The trigger point elements are based on passenger numbers of scheduled service (for example 250,000, 500,000, 1,000,000 annual passengers) as well as improvements to existing and future infrastructure supporting safety, utility and efficiency.

It is important to note that timing of these triggers are estimates only. Ultimately, the airport expansion to support future air and passenger traffic should be predicated by future demand.

This approach will provide the Region of Waterloo International Airport with an advantage of having development plans in hand when a certain level of service has been achieved. This allows the airport the opportunity to plan ahead accordingly to secure potential future land area expansion, size and geographical direction of growth. The same is applicable to protect and maintain existing and future airspace from potential obstacles. These efforts will be coordinated with local community planners, city planners, surface transportation planners and decision makers to better facilitate a unified approach to the chosen development strategy.

Trigger Points Summary

Trigger No. 1 – Upon Approval of Master Plan (2017)

ACTION

- Commence Zoning Process for Runway 14-32 Extension.
- Initiate Zoning Study for 3rd Runway.
- Environmental Assessment for Runway 32 End Extension.
- Review of Federal, Provincial and Other Sources of Funding to Support Short-term Capital Projects.
- Design Runway 14-32 for Precision Approach.
- Commence Concept/Design of Terminal Expansion to 500,000 Passengers.
- Continue to Develop Existing Serviced Lands on Airport Property Based on Demand (Apron VII Extension).
- Assess Need to Purchase Additional Land for Future Development.
- Commence Master Land Use and Servicing Plan for Airport.

Trigger No. 2 – YKF Hits 250,000 Passengers**ACTION**

- Purchase Land Identified as Required (i.e. for Future Vehicle Parking).
- Construct Runway 14-32 Extension (Including Taxiway Extensions and Approach Lighting).
- Design Runway 08-26 Extension to 8737 Feet (including Associated Taxiways and Approach Lighting).
- Review Shantz Station Road Reconfiguration Options.
- Design Runway/Taxiway/Apron Clearances and Widths to Accommodate AGN-IV Aircraft.
- Design and Construct Apron 'II' Expansion.
- Construct New Terminal Building Expansion (up to 500,000 Passengers) including Associated Apron Expansion.
- Design New Terminal Building Expansion (including Associated Apron Expansion) to Accommodate 1,000,000 Passengers.
- Increase Available Surface Parking.
- Reassess Feasibility of Expanding Existing Terminal Building vs. Relocating Terminal Building to New Site.
- Continue to Develop Existing Serviced Lands on Airport Property Based on Demand.
- Fountain Street Utility Relocations.

Trigger No. 3 – YKF Hits 500,000 Passengers**ACTION**

- Purchase Land Identified as Required (i.e. for Future Landside Development).
- Construct Approved Shantz Station Road Reconfiguration (Based on 2-Lane Road Realignment Around Runway 26 Extension).
- Construct Partial Taxiway 'B'.
- Construct Runway 08-26 Extension to 8737 Feet (including Associated Taxiways and Approach Lighting).
- Widen Existing Taxiways to Accommodate AGN-IV Aircraft.

ACTION

- Construct New Terminal Expansion (up to 1,000,000 Passengers).
- Begin Negotiations with Existing Tenants in Vicinity of Terminal Expansion for Future Relocation.
- Design New Terminal Building Expansion (including Associated Apron Expansion) to Accommodate 2,000,000 Passengers (in 2 – 500,000 Passenger increments).
- Design New Landside Configuration (Roads and Parking).
- Continue to Develop Existing Serviced Lands on Airport Property Based on Demand (Southeast Development – New Taxiway, Road and Utilities).

Trigger No. 4 – YKF Hits 1,000,000 Passengers**ACTION**

- Review Additional Land Acquisition Requirements.
- Relocate Existing Tenants Within Terminal Expansion Footprint.
- Construct New Terminal Building Expansion and Associated Apron to Accommodate Additional 500,000 Passengers.
- Construct New Landside Configuration (Roads and Parking).
- Design New Parking Structure.
- Commence Negotiations with Tenant for Relocation to New Facility.
- Design New South Terminal Building Expansion and Associated Apron (Additional 500,000 Passengers).
- Develop Newly Purchased Lands Based on Demand (Southwest Development – Road and Utilities).

Trigger No. 5 – YKF Hits 1,500,000 Passengers**ACTION**

- Construct New South Terminal Building Expansion and Associated Apron (Additional 500,000 Passengers – 2,000,000 Total Passengers).
- Construct New Parking Structure.
- Construct New Terminal Building Expansion and Associated Apron (Additional 500,000 Passengers – 2,500,000 Total Passengers).

Corporate Strategic Plan:

The Airport Master Plan aligns with the 2015-2018 Corporate Strategic Plan objective to plan for and provide the infrastructure and services necessary to create the foundation for economic success under Strategic Focus Area 1, Thriving Economy.

Financial Implications:

A 20 year financial forecast has been prepared which is based on projected revenue, expenses and debt service costs incorporating each Trigger Point for various capital funding scenarios to determine the tax levy impact and cost to the average household. At each Trigger Point there are increased passenger volumes which generate more revenue and generally results in a cost to the average household that on average is not higher than the existing tax levy impact. Additional analysis will be presented in the Airport Master Plan and associated Business Plan. As previously noted in this report, the Region would decide whether to proceed with the next phase of Airport planning and development as each Trigger Point is reached.

Other Department Consultations/Concurrence:

This report was prepared with input from Corporate Services staff (Finance and Facilities Management) and Economic Development staff.

Attachments:

November 10, 2016 Public Consultation Centre Display Boards.

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Approved By: Debra Arnold, Acting Commissioner of Planning, Development and Legislative Services