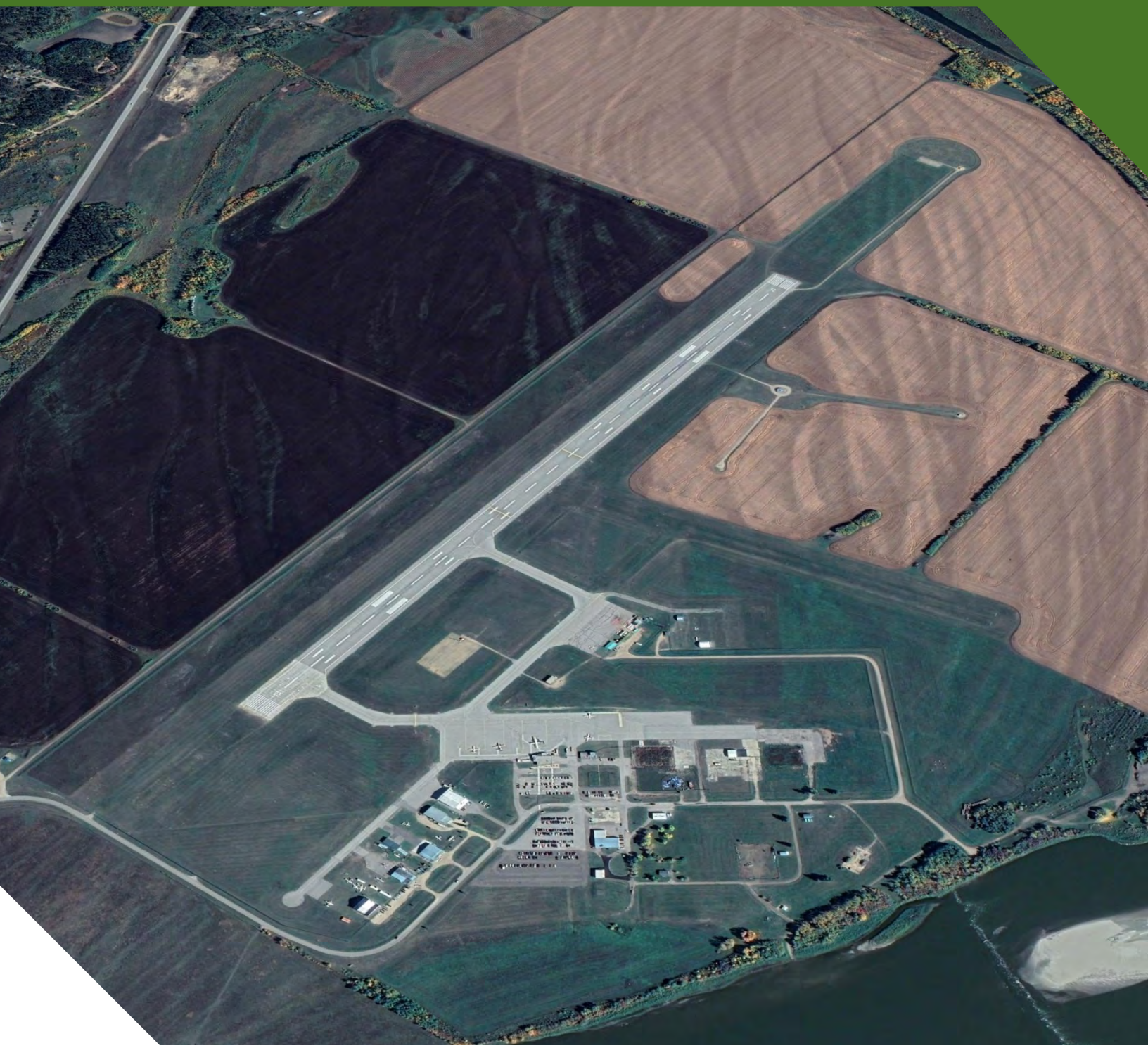
PRINCE ALBERT AIRPORT
STRATEGIC MASTER PLAN

Final Report – February 18, 2021



HM AERO AVIATION CONSULTING

AVIA • NG AIRPORT CONSULTANTS

ypa Prince Albert Airport

Prince Albert Airport

AIRPORT STRATEGIC MASTER PLAN

Final Report

City of Prince Albert
Public Works Department
1084 Central Avenue
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February 18, 2021

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Executive Summary

Master Plan Overview

Prince Albert Airport is owned and operated by the City of Prince Albert. HM Aero Aviation Consulting and its subconsultant, Avia NG Airport Consultants, was retained by the City to prepare an Airport Strategic Master Plan. The Master Plan is a key document that will help the City make fiscally responsible and informed decisions regarding the future of the facility over the following planning horizons: Short-Term – 2021-2025; Medium-Term – 2026-2030; and Long-Term – 2031-2040.

A comprehensive stakeholder consultation program was performed to inform the preparation of the Master Plan, which included an online survey and stakeholder interviews. A total of 307 respondents completed the online survey that was available in August and September 2020. A total of 31 stakeholder interviews were completed with individuals from 22 organizations, such as: the City of Prince Albert, tenants of Prince Albert Airport, aircraft operators, major regional employers, and industry associations.

Airport Overview

The City of Prince Albert has owned and operated Prince Albert Airport since 1997, with City Council serving as the facility's governance body. Additionally, an Airport Advisory Committee was established in 2019 to provide recommendations to Council. The facility is operated as a department of the City under the oversight of an Airport Manager, with four Airport Maintenance Staff responsible for completing daily operational and maintenance duties.

Prince Albert Airport is a certified airport and is required to be operated in compliance with Part III of the Canadian Aviation Regulations, which impose a range of requirements such as maintaining an Airport Operations Manual, Safety Management System, Emergency Response Plan, Wildlife Management Plan, Winter Maintenance Plan, and ensuring the compliance of all physical infrastructure and the obstacle environment with TP312 – Aerodrome Standards and Recommended Practices.

Prince Albert Airport is generally performing well financially when compared to similar facilities in Canada, with operating revenues exceeding operating expenses between 2016 and 2019. However, during the same period, the Airport has experienced an average annual increase in operating expenses of approximately 4% and an annual decrease in revenue of 7%. In addition, the City is responsible for the capital expenses associated with maintaining, repairing, and replacing the infrastructure of Prince Albert Airport. A significant infrastructure deficit must be addressed at Prince Albert Airport, which is partly a result of the historic deferral of required upgrades and rehabilitation projects. From 2015 to 2020, an annual average of approximately $278,000 was required in interfund transactions to finance the recapitalization of the Airport's assets. To offset the expenses of maintaining the Airport's capital assets, the City has been successful in pursuing grants through the federal Airports Capital Assistance Program and provincial Community Airport Partnership Program.

The Airport's proposed Vision Statement is as follows:

Prince Albert Airport will be a local and regional transportation and aviation services asset by innovating, fostering partnerships, and achieving financial sustainability. The Airport will be recognized as a critical resource in the region's economic success.

Airport Activity

Given Prince Albert's location near the geographic centre of Saskatchewan, the Airport is commonly referred to as the "Gateway to the North." The geography of Prince Albert has enabled it to function as a gateway from the southern portion of the province to First Nation communities, municipalities, and resource extraction sites in the Northern Saskatchewan Administrative District. The Airport's catchment area population, based on the Saskatchewan Health Coverage Report, is estimated at 53,925 people as of 2019.

Prince Albert Airport supports the following on-site businesses and tenants:

- West Wind Aviation
- Transwest Air
- Good Spirit Air Service
- Snowbird Aviation Services
- Northern Shield Helicopters
- Heli-Lift International
- Royal Canadian Mounted Police
- Saskatchewan Public Safety Agency
- NAV CANADA
- Environment and Climate Change Canada
- Prince Albert Shopper
- Private Tenants

Transwest Air provides scheduled passenger services between Prince Albert and Saskatoon, La Ronge, Fond du Lac, Points North, Stony Rapids, Uranium City, and Wollaston Lake. West Wind Aviation offers charter passenger services from Prince Albert Airport to resource extraction sites in northern Saskatchewan, supporting companies such as Cameco, Orano, and SSR. Both carriers also use Prince Albert Airport to support the movement of air cargo to northern communities and resource extraction sites. Given the availability of flight options and airlines, as well as the ease of accessing Saskatoon from Prince Albert via road, a significant number of local travellers elect to use Saskatoon International Airport and not Prince Albert Airport.

The Airport has experienced a decrease in aircraft activity from a maximum of approximately 31,000 landings, take-offs, and touch-and-go's (movements) in 1997 to 13,000 movements in 2018 and 2019. Air carriers were responsible for an average of 83% of annual movements between 2010 and 2019. An estimated 65,000 passengers used the Airport in 2013 before decreasing to approximately 35,000 passengers in 2018 and 2019. This is primarily the result of air carrier mergers and acquisitions and declines in charter passenger activity due to reduced activities at northern resource extraction sites. For example, Cameco's market decline has led to the reduction from weekly to biweekly staff rotations, decreasing activity at Prince Albert Airport.

Growth Opportunities and Business Development

Development and growth opportunities have been identified to increase the social and economic benefits of Prince Albert Airport as well as its financial sustainability through the stimulation of operating revenues. Opportunities carried forward in the Master Plan include:

- The absorption of development lots for new hangars (medium potential);
- The establishment of a locally based or satellite Flight Training Unit (medium potential);
- The development of new aviation service businesses, such as a Fixed Base Operator (medium potential);
- Non-aviation industrial and highway-oriented commercial growth within the Green Industrial Park northwest of the Airport (medium potential);

- The commencement of service between Prince Albert and a hub airport, such as Calgary International Airport (low potential);
- The use of surplus groundside Airport land for non-aviation commercial and industrial development (low potential); and
- The development of a utility-scale photovoltaic power generation facility on surplus airside and groundside lands (low potential).

The development of a new float plane base was not carried forward given the challenges in analyzing the potential scale and benefits of floatplane operations, potential changes to the regulatory environment for water aerodromes and airports, and the need to secure private-sector involvement in such a facility. The potential for Canada Border Services Agency screening was also assessed; the distance of Prince Albert from Saskatoon International Airport's existing Canada Border Services Agency facility indicates that services would not be provided per the Agency's Air Services Policy Framework.

A comprehensive business development strategy has been prepared to pursue the opportunities identified above. For each development and growth opportunity, a preliminary strategy has been established, which includes:

1. An overarching goal;
2. The prerequisite capital investments that must be completed;
3. Organizations that can support the attainment of the business development goal, including the Airport Manager, Planning and Development Services Department, Prince Albert Regional Economic Development Alliance, Prince Albert and District Chamber of Commerce, nearby municipalities, and industry associations;
4. Key messaging to be communicated to target audiences; and
5. Potential marketing and business development methods.

Forecast Activity Levels

Forecasts have been prepared to estimate the change in aircraft movements and passenger activity at Prince Albert Airport and to support analyses of future demand for infrastructure, operational needs, and the Airport's financial standing. Traffic at Prince Albert Airport can be highly cyclical given the linkages that exist with charters supporting the resource extraction sector. The extent and timing of activity peaks and troughs is not easily forecast given the uncertainty of the resource extraction market. Therefore, deviation from the Master Plan forecasts can reasonably be expected across the Master Plan horizon.

Total aircraft movements are forecast to increase from an estimated 10,000 movements in 2020 to approximately 18,000 in 2040. This represents a gradual recovery that nears the activity levels experienced from 2006 to 2016, prior to the significant decrease experienced from 2017 to 2020 due to reduced charter activity, air carrier changes, and COVID-19. Modest annual growth rates of between 1% and 2% are applied depending on the specific changes anticipated across different categories of aircraft operators.

With respect to passenger activity, the forecast assumes that passenger volumes return to 2019 levels in 2024, consistent with recent COVID-19 recovery forecasts. In subsequent years, scheduled and charter passenger activity levels are forecast to increase by 1% and 2%, respectively, based on potential population changes in the Northern Saskatchewan Administrative District and increased activity at northern resource extraction operations. Accordingly, the Master Plan assumes that passenger activity at Prince Albert Airport will increase from 35,000 passengers in 2019 to 45,000 passengers in 2040.

Understanding that air cargo processed through Prince Albert is primarily destined to the communities of the Northern Saskatchewan Administrative District, the air cargo forecast assumes that throughput increases by 1.25% annually after 2022, consistent with the average annual population change in the Northern Saskatchewan Administrative District and accounting for moderate demand stimulated because of e-commerce. Air cargo throughput is forecast to increase from an estimated 969,000 lbs in 2020 to 1,023,000 lbs in 2040.

Recommended Airport Development Plan

Recommended developments for the airside system in the short-term planning horizon include: repairs to the Runway 08 threshold; the rehabilitation of Aprons I and II; the expansion of Apron II; the installation of an aircraft lighting control system and new guidance signs; and the rehabilitation of the airfield lighting and electrical systems. In the medium and long-term, priorities include the rehabilitation of Taxiways A, B, C, and D; the extension and reconfiguration of Taxiways C and F; the rehabilitation of Runway 08-26 and implementation of Runway End Safety Areas; and the decommissioning of Runway 16-34 to support other airside priorities.

With respect to the groundside system, priorities across the Master Plan's 20-year horizon include implementing improved groundside signage; rehabilitating the Airport Road, Terminal Building Road, public parking lot, and corporate parking lot; and paving the long-term designated parking lot. Both the Terminal Building Road and public parking lot will require reconfiguration to support the recommended development of a new terminal building.

Further expansion and improvements to utilities and servicing is a significant prerequisite to the development of new lots at the Airport. It is recommended that the utility and servicing network undergo a systematic series of short-term improvements, including infield airside drainage enhancements; the installation of fibreoptic internet servicing; a new potable watermain crossing the North Saskatchewan River and upgrades to the existing Airport Road watermain; and extend potable water and sanitary sewer services to unserviced development lots along Airport Road.

To support airside development, a phased approach to the absorption of new leasehold lots is recommended to make the most efficient use of existing infrastructure, prior to requiring the expansion of utilities, services, taxiways, and groundside roads. A total of 11 new lots have been identified in the Recommended Airport Development Plan, with land reserved in the future through the Recommended Land Use Plan for additional lots if required by demand. It should be noted that numerous constraints must be addressed prior to new development at the Airport, including:

- The resolution of Flight Service Station line of sight issues;
- The reconstruction and expansion of Apron II; and
- The extension of potable water and sanitary sewer services and upgrades to internet services.

Recommended Terminal Building Development Plan

The terminal building's functionality and space requirements were assessed using guidelines published by Transport Canada and the International Air Transport Association. Numerous operational deficiencies of the terminal building limit the ability of Prince Albert Airport to support both current and forecast passenger and cargo activity levels. The lack of residual capacity in the terminal building commonly leads to periods of crowding during flight delays, and the expansion potential of the current building is limited by constraints in all directions and by its capacity to support the weight of additional cargo loads.

Further, the lack of residual space precludes the opportunity to implement passenger screening facilities required to support secured air carrier flights to a major hub airport.

A new 1,330 m^2 terminal building is recommended in the medium-term horizon of the Master Plan. While the development of a new terminal building is assigned to the medium-term planning horizon, this phasing has been recommended to provide adequate time for the City to allocate capital resources to the project. The terminal building is deficient in its capacity to support current operations – if funding opportunities exist to advance the timing of the terminal building development project, it is recommended that they be pursued.

The new terminal building is recommended to be located northwest of the existing structure, with the conceptual design including provisions for future expansions to the building envelope. The terminal building has been appropriately sized to support secure scheduled air services within its proposed footprint, using a conceptual design that would enable a secure holdroom to be sequestered on an as-needed basis. Opportunities for additional functions, such as a new NAV CANADA Flight Service Station or administrative space for the City, can also be considered during the future design process.

Operational Improvements

Both the Airport Manager and Airport Maintenance Staff possess a unique set of skills in addressing the regulatory obligations of the facility and ensuring that the airfield is maintained in a safe and usable manner. As a municipally owned and operated facility, opportunities may exist for the improved cross-utilization of other City departments and divisions based on their varying areas of expertise in the operation of Prince Albert Airport. A fulsome municipal services review with respect to the Airport is recommended in the short-term to identify such opportunities, including the consideration of the roles of the Public Works, Planning and Development Services, Financial Services, Corporate Services, and Community Services Departments.

From an Airport staffing perspective, several deficiencies were identified including the unfilled position of the Safety Management System Manager, whose role is currently fulfilled by the Airport Manager, as well as the lack of redundancy in the Airport Manager position. The recommendation is made to establish an additional Full-Time Equivalent position within the Airport division to reduce the duties and workload of the Airport Manager position, introduce redundancy, and allow for the planned or unplanned absence of the Airport Manager without the requirement for involvement by the Manager of Engineering Services.

Additionally, effective communication between the Airport and the public helps to educate the public on the value of the Airport, gather valuable opinions, and relay relevant information to Airport users. Consultations identified that communications from the City represent an opportunity for bi-directional improvement: from the Airport to the public and from the public to the Airport. Recommendations in this area include the increased use of the Airport webpage and City social media feeds for ongoing communications and the development of an online fillable feedback form.

Financial Management and Outlook

Establishing and maintaining an appropriate rates and fees structure is a critical factor in limiting annual operating deficits. It is important that fee structures are developed to be fair and transparent; competitive; and practical in accounting for the costs associated with operating the facility. A balance must be found in ensuring that rates are fair and competitive while also not disincentivizing activity at the Airport; future changes in the rates and fees of Prince Albert Airport should consider the concept of price elasticity – Airport users will have varying levels of willingness or ability to pay for the services rendered at the Airport.

Generally, decreased demand for Prince Albert Airport may be expected as the costs incurred in operating at the facility increase, and users consider alternate facilities. A review of Prince Albert Airport's landing fees, parking fees, Passenger Facility Fees, and land lease rates versus those of six comparator airports was undertaken by the project team to inform revisions by the City for the period of 2021 to 2025. Key recommendations include:

- Modest increases to landing fees and the implementation of an annual registration fee for locally based general aviation aircraft;
- Removing the City's seasonal aircraft parking rates in favour of a year-round rate;
- An increase of the Passenger Facility Fee tied to inflation at its next scheduled review in 2022; and
- Decreasing serviced and unserviced airside land lease rates to stimulate new development, and empowering City Staff to negotiate groundside lease rates on an as-required basis.

The projected pro forma financial statement anticipates a consistent increase in operating revenues over the Master Plan horizon, while operating expenditures remain relatively constant. In 2021, it is anticipated that an operating deficit of approximately $141,000 may be incurred, with a net deficit $955,000 as a result of recommended capital projects. The Airport is forecast to realize a modest operating surplus of approximately $29,000 in 2022, increasing in subsequent years to approximately $580,000 in 2040 based on the assumption that the City is successful in attaining the business development opportunities noted previously, while also limited operating expenditure increases. However, these surpluses will be insufficient to fund the capital projects recommended throughout the Master Plan, and net deficits of between $7,000 (2023) and $8,117,000 (2027) may be realized in the short and medium-term planning horizons.

Master Plan Implementation

The adoption of the Strategic Master Plan by City Council establishes the recommended direction that will guide the future of Prince Albert Airport. It is recommended that the City strive to follow the recommendations of the Master Plan where practical and feasible, especially with respect to asset lifecycle renewal and rehabilitation projects. Deferring projects beyond their recommended implementation timeline has the potential to rapidly increase the Airport's infrastructure deficit, while also limiting the City's ability to achieve the goals established for the Airport, such as growth and business development.

The implementation of the Master Plan by the City and the success of Prince Albert Airport may be affected by risks in the future. An important element of risk management is the appropriate framing of expectations – issues should be expected over the course of the Master Plan's implementation by nature of the variability that categorizes the aviation industry. Overcoming an issue requires resilience and commitment among decision-makers with a focus on practical solutions. Examples of risks with high probabilities of occurrence include annual fluctuations in Airport activity levels, the deferral of recommended capital projects, and continued passenger leakage to competitor airports.

Quantifiable Key Performance Indicators have been identified to assist in tracking the progress of Prince Albert Airport over time. It is recommended that the Strategic Master Plan be reviewed and updated in 2030 (or earlier and at the discretion of the City) to evaluate the City's success in implementing the current plan, identify new capital and operational needs that have emerged, and account for contextual changes.

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1 INTRODUCTION

Prince Albert Airport is owned and operated by the City of Prince Albert. HM Aero Aviation Consulting and its subconsultant, Avia NG Airport Consultants, was retained by the City to prepare an Airport Strategic Master Plan. The Master Plan is a key document that will help the City make fiscally responsible and informed decisions as to the future of the facility over the next 20 years.

The Master Plan is structured across three planning horizons:

1. Short-Term – 2021-2025;
2. Medium-Term – 2026-2030; and
3. Long-Term – 2031-2040.

Master Plan Objectives

In alignment with the City of Prince Albert Strategic Plan, the objectives of the Master Plan are to:

- Identify and engage key stakeholders;
- Analyze the regional context to identify situational factors influencing the Airport;
- Prepare a comprehensive profile of the Airport's operations, infrastructure, and activity;
- Consider opportunities for development and revenue generation to increase its socioeconomic contribution to the region and financial sustainability;
- Forecast future activity levels;
- Provide a strategic analysis of the Airport and identify its strengths, weaknesses, opportunities, and threats;
- Make recommendations on corporate strategy, infrastructure investments, and organizational processes to set the Airport on a path to success;
- Identify a realistic and feasible framework for the implementation, monitoring, and amendment of the Master Plan; and
- Ensure the continued safety and efficiency of the Airport's operations.

2 CONTEXT REVIEW

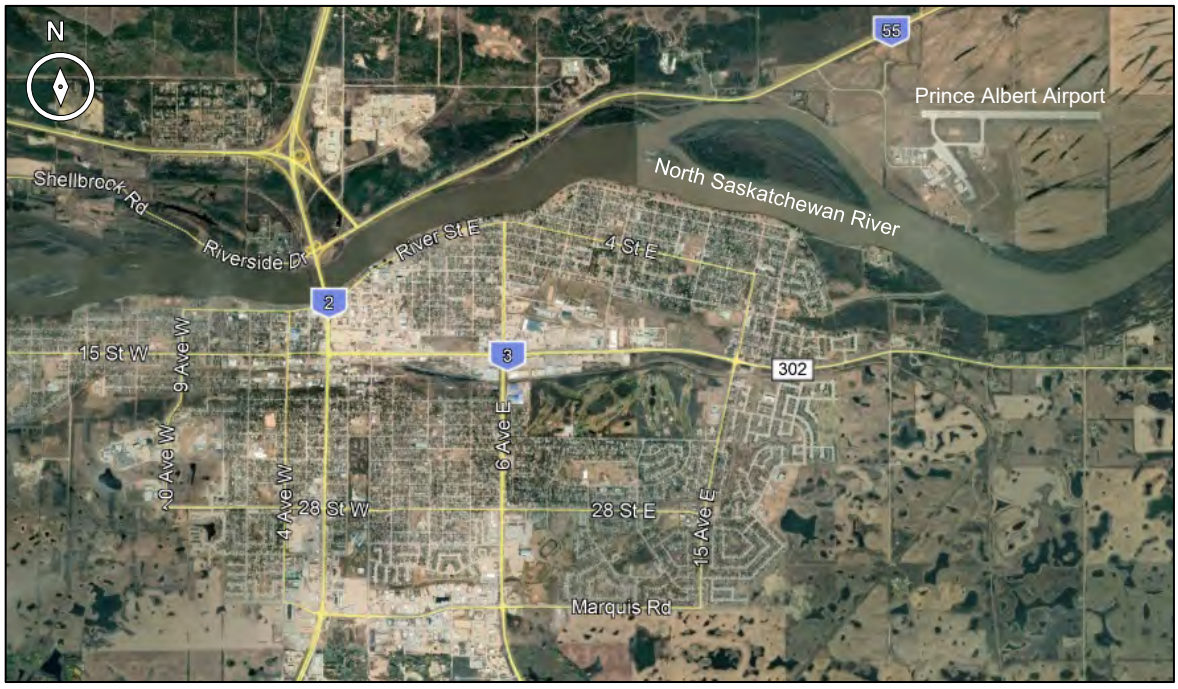
2.1 Geography

2.1.1 Municipal Context

Prince Albert Airport is located within the municipal boundary of the City of Prince Albert, at a driving distance of approximately 7 km from downtown Prince Albert as shown in Figure 2.1. The Airport is located immediately north of the North Saskatchewan River at an approximate elevation of 428 m (1,405 ft.) Above Sea Level (ASL).

The proximity of the Airport to the North Saskatchewan River and its setting within the river's valley leads to periods of fog in the morning during the fall and spring months. At times, this can sufficiently reduce visibility to result in flight cancellations or diversions. The facility is distanced from residential neighbourhoods and sensitive land uses, limiting noise disturbances and complaints.

Figure 2.1 – Municipal Context Map (Google Earth)



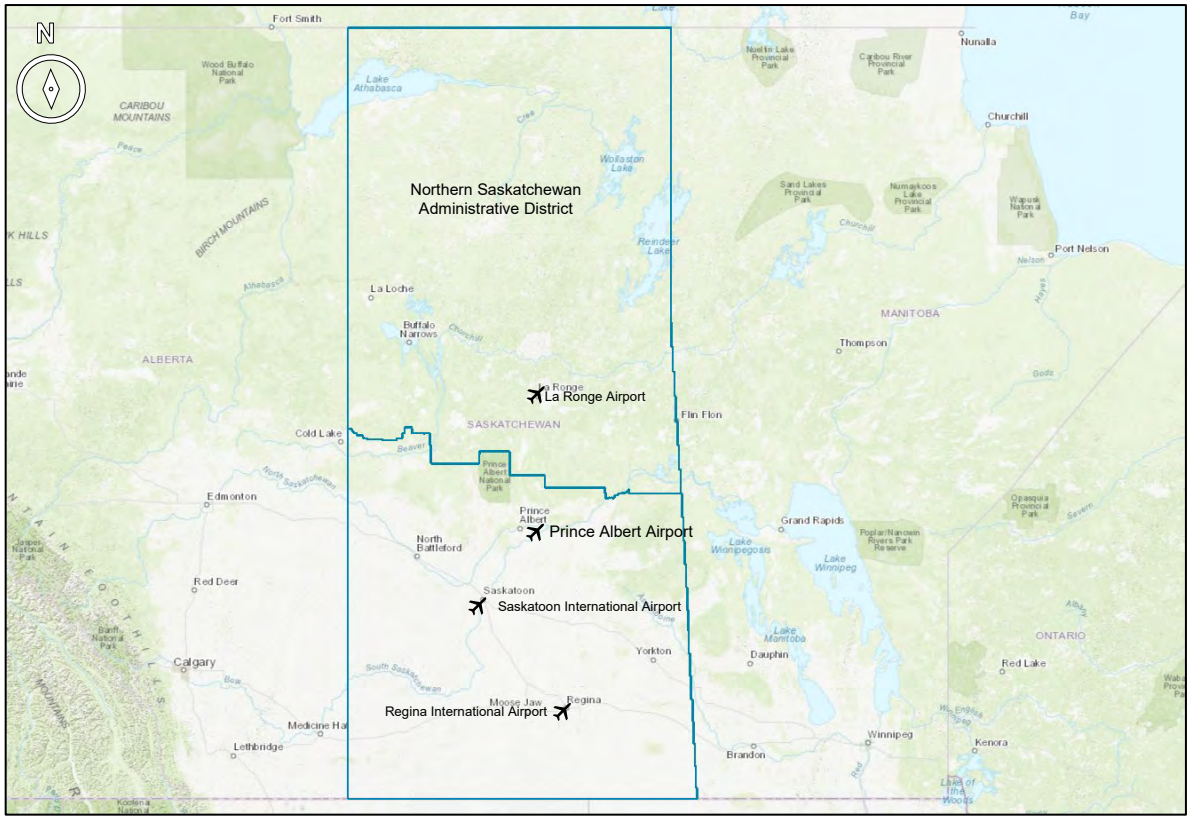
2.1.2 Provincial Context

The Airport is located near the approximate geographic centre of Saskatchewan, as shown in Figure 2.2. Considering Prince Albert's location in the provincial context, the community and Airport are commonly referred to as the "Gateway to the North." The ten largest urban centres of Saskatchewan, such as Saskatoon, Regina, and Moose Jaw, and most of the province's population is located south of Prince Albert.

The Northern Saskatchewan Administration District is comprised of the northern half of the province and begins approximately 100 km north of Prince Albert. This area had a population of approximately 37,000 in 2016 located throughout small municipalities and First Nation communities, or 3% of the total population of Saskatchewan. Many of these communities lack year-round access by road and are significant driving distances from southern Saskatchewan.

Therefore, the geography of Prince Albert has enabled it to function as a gateway from the southern portion of the province to northern First Nation communities, municipalities, and resource extraction sites. The implications in terms of air service demand will be considered further in this Master Plan.

Figure 2.2 – Provincial Context Map (Province of Saskatchewan)



2.2 Catchment Area

The catchment area of Prince Albert Airport is the geographic zone within which the facility may attract users. Prince Albert Airport's catchment area is approximated based on the populations of the following nearby cities, towns, and regional municipalities (RMs), as shown in Figure 2.3:

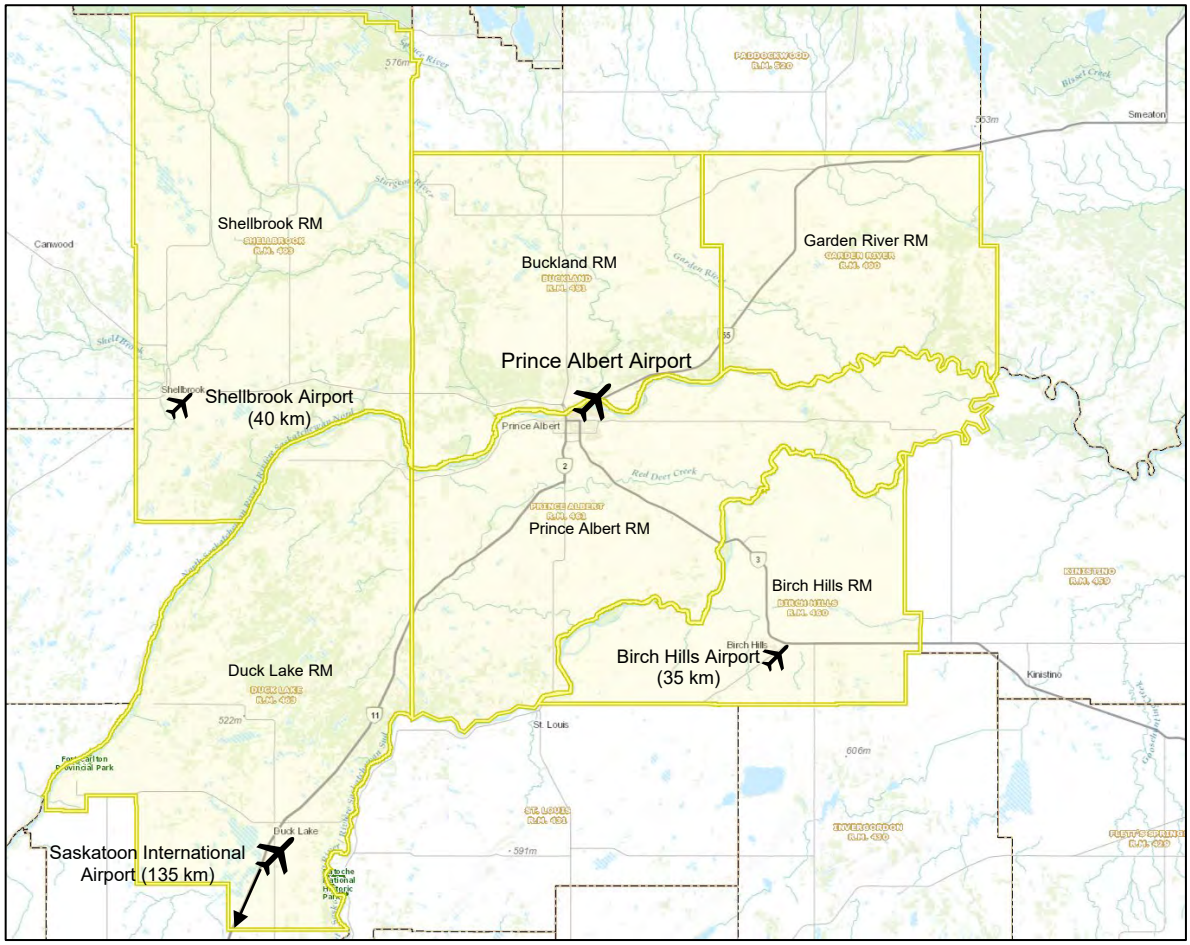
- City of Prince Albert;
- Town of Shellbrook;
- Town of Birch Hills;
- RM of Shellbrook;
- RM of Buckland;
- RM of Garden River;
- RM of Prince Albert;
- RM of Duck Lake; and
- RM of Birch Hills.

The catchment area population in 2016, based on Statistics Canada census data, was approximately 49,000 people, a 1.5% increase from the 2011 population of 48,600. While the catchment area growth rate is significantly lower than the 6.3% population increase experienced in Saskatchewan during the same period, Prince Albert, as the third largest city in Saskatchewan, represents a considerable catchment area for aviation services.

The Saskatchewan Health Coverage Report can also be used to estimate the size of the catchment area, although this is noted not to be a population census. Based on this database, the catchment area is estimated at 53,925 people as of 2019.

The Airport's catchment area as defined herein is an approximation and does not account for variability in traveller and user decision-making, as well as the availability and proximity of alternative facilities. Nearby competitor airports may draw users from within Prince Albert Airport's catchment area based on the roles served (e.g., nearby general aviation airports), while Prince Albert's catchment area may extend beyond the municipalities noted above based on a strategic role served (e.g., resource extraction charter flights). Competitor airports to Prince Albert will be considered later in the Master Plan.

Figure 2.3 – Catchment Area Map



2.3 Economic Context

Demand for air services at Prince Albert Airport can be partially contextualized by the strength of the regional and provincial economy. Prince Albert's economy has undergone several periods of evolution in its history and is now diversified to include government services, tourism, forestry, agriculture, and resource extraction.

Government and Service Centre

The role of Prince Albert as a regional service centre is demonstrated in the 2016 Statistics Canada National Occupational Classification dataset for the municipality. As shown in Table 2.1, the proportion of workers engaged in three sectors in Prince Albert exceeds the proportion of workers in the same sector at the provincial level:

- Sales and service occupations;
- Education, law, social, community, and government services; and
- Healthcare.

Research, consultations, and analysis indicates that Prince Albert's strength in these three sectors is partly due to its role as a gateway to the communities in northern Saskatchewan. Travellers transiting from communities that lack these services fly to Prince Albert and engage in activities such as healthcare appointments and retail / grocery shopping before returning to their community. Accordingly, Prince Albert's role as a regional service centre is supported by demand from northern communities and facilitated by air carrier services from Prince Albert Airport. As such, the Airport is an economic catalyst for the region.

Table 2.1 – Prince Albert National Occupational Classification Data

Occupational Classes	Prince Albert	Saskatchewan	Difference
Sales and service	28%	22%	6%
Education, law, social, community, and government services	19%	11%	8%
Trades, transport and equipment operators, and related occupations	14%	17%	-3%
Business, finance, and administration	13%	14%	-1%
Healthcare	9%	7%	2%
Management	8%	14%	-6%
Natural and applied sciences	3%	5%	-2%
Natural resources, agriculture, and related production	2%	5%	-3%
Manufacturing and utilities	3%	3%	0%
Art, culture, recreation, and sport	1%	2%	-1%

Resource Extraction

The natural resources, agriculture, and related production sector is a source of major economic activity within the province, employing 5% of the provincial workforce in 2016 (Table 2.1) and comprising 26% of Saskatchewan's Gross Domestic Product (GDP) in 2019. Uranium extraction and processing is a significant component of the provincial resource extraction sector, with Cameco Corporation and Orano Canada being the two corporations that produce all of Canada's uranium.

As noted above, charter passenger air services at Prince Albert Airport facilitate the movement of employees to northern resource extraction and processing sites on a rotational basis, such as Cigar Lake and Key Lake. The resource extraction sector also supports commercial helicopter operators based at the Airport, including Northern Shield Helicopters and Heli-Lift International. Based on the interdependency of Prince Albert Airport to uranium extraction and production, activity has historically fluctuated with changes in the commodity market and operational decisions by Cameco and Orano.

In addition to the extraction and processing of uranium, diamond and gold exploration is also an important part of the provincial economy. The approved Star – Orion South diamond project 60 km east of Prince Albert may result in additional activity in the region, and the Silver Standard Resources Seabee Gold operation 125 km northeast of La Ronge is primarily supported by air access.

Regional Economic Development and Prospects

The future economic prospects of the City of Prince Albert will influence activity levels at the Airport, as well as potential development at the facility. The Prince Albert Regional Economic Development Alliance (PAREDA) was established in 2019 to pursue economic development that will increase opportunities for the people that live and work in the region. Although PAREDA is still in its infancy and its mandate is evolving, it is important that Prince Albert Airport be integrated as a tool to facilitate regional socioeconomic development and marketed as such.

The recent opening of the University of Saskatchewan Prince Albert campus introduces new programs locally in study areas such as agriculture, education, nursing, and dentistry and may further increase the role of the community as a regional service centre – potentially attracting students from northern communities. The March 2020 decision by the provincial government to expand Victoria Hospital will increase the total number of beds to 242 from 173 and enhance the services provided, improving the role of Prince Albert in the regional and northern healthcare system. The planned City recreation complex and private-sector entertainment district will also enhance the regional draw of Prince Albert. Each development may increase the connection of Prince Albert to northern communities, further stimulating passenger air service demand at the Airport.

As noted previously, the use of Prince Albert Airport for air carrier services in support of resource extraction operations is tied to market fluctuations, investment and operational decisions, and overall trends in the commodity sectors. While increased demand and production may result in additional passengers and air carriers using the facility, decreased demand can lead to abrupt reductions in revenues.

2.4 Intercommunity Transportation

2.4.1 Road Network

Prince Albert is accessible by road via Highways 2, 3, 11, 55, and 302. Highway 2 connects Prince Albert to Moose Jaw in the south, Highway 3 connects to Birch Hills and Melfort to the southeast, and Highway 11 connects to Saskatoon to the southwest. The highway network is important for the movement of freight and travellers into and out of the community, with driving distances to key destinations outlined in Table 2.2. The twinning of Highway 11 between Saskatoon and Prince Albert was completed in 2013 to reduce travel times and improve safety.

The expansiveness and quality of the road network serving Prince Albert allows personal vehicles to compete with scheduled passenger air services to Saskatoon, resulting in the majority of business and leisure travellers originating from Prince Albert and destined to Saskatoon (and vice versa) to select travelling by road over air. Stakeholder consultations identified that passengers travelling from out of province by air are likely to fly to Saskatoon and then travel by car to Prince Albert, especially if their stay is multiple days. Conversely, travel times and / or a lack of all-year road access to many communities in northern Saskatchewan results in air transportation being the preferred mode of travel between these communities and Prince Albert.

Table 2.2 – Driving Distances and Times

Community	Driving Distance	Driving Time (Approximate)
Saskatoon, SK	140 km	1h 30m
North Battleford, SK	210 km	2h 10m
La Ronge, SK	240 km	2h 20m
Lloydminster, AB/SK	320 km	3h 20m
Regina, SK	360 km	3h 50m
Edmonton, AB	570 km	5h 50m

Freight to Prince Albert is primarily moved by truck, which is generally more cost-effective for transporting goods compared to air cargo. The highway network enables timely connections to warehouse and distribution facilities in Saskatoon and Regina, and therefore serves as a strong competitor to air cargo services. The transportation of freight to communities north of Prince Albert is achieved by both air and road.

2.4.2 Rail Network

The Carlton Trail Railway (CTRW) operates from Saskatoon to Prince Albert, utilizing 165 km of former Canadian National Railway (CN) track (Speers Subdivision). CTRW serves the forest products industry transporting lumber from the Prince Albert area to destinations across North America. CTRW also purchased the Birch Hills-Fenton-Prince Albert branch line from CN in 2001.

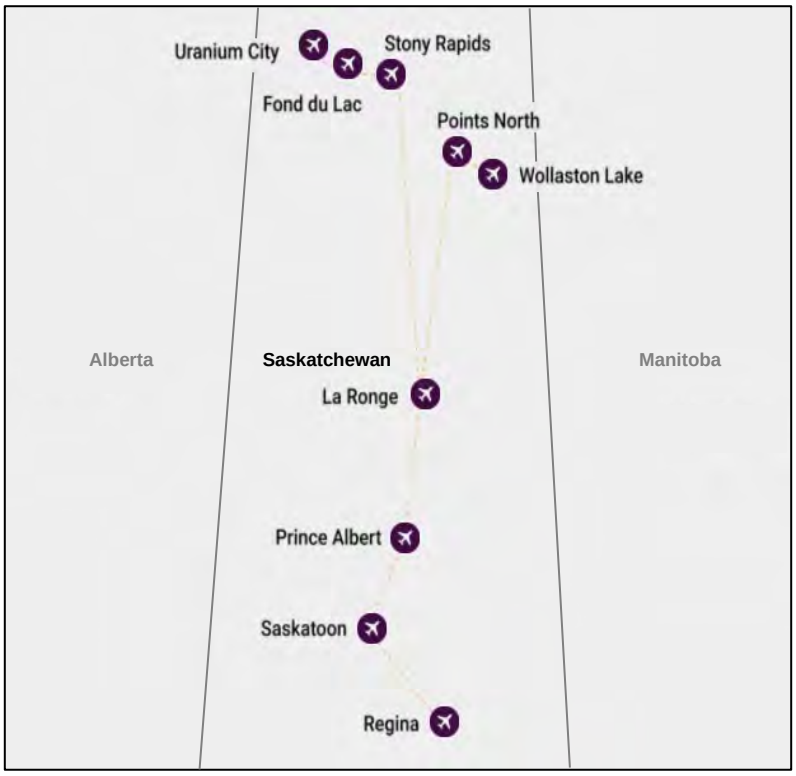
Prince Albert does not receive passenger rail service by VIA Rail. The nearest VIA Rail station is located approximately 1h30m driving time from Saskatoon. The Saskatoon VIA Rail service is part of the Great Western Way route between Toronto and Vancouver.

2.4.3 Scheduled Passenger Air Services

Transwest Air is the sole provider of scheduled passenger air services to and from Prince Albert. Based on Transwest Air's summer 2020 schedule, Prince Albert receives direct and indirect (multi-stop) service to Saskatoon, La Ronge, Fond du Lac, Points North, Stony Rapids, Uranium City, and Wollaston Lake (Figure 2.4). This schedule is understood to be a reduced service offering due to COVID-19 travel restrictions. Each destination is served between three and five times per week, with all flights offered on weekdays. Transwest Air services are operated using 18-seat Beechcraft 1900D and 34-seat Saab 340B aircraft.

Prince Albert previously received scheduled passenger service from both Transwest Air and West Wind Aviation. However, following the acquisition of Transwest Air by West Wind Aviation in 2016, scheduled passenger service was reduced to Transwest Air operations alone. In January 2021, it was announced that Transwest Air and West Wind Aviation will further consolidate their operations and Air Operator Certificates under the new brand "Rise Air". Transwest Air and West Wind Aviation will continue to be identified separately in this report to differentiate between their scheduled and charter air service offerings.

Figure 2.4 – Summer 2020 Transwest Air Route Network



2.4.4 Charter Passenger Air Services

Prince Albert Airport serves as a connecting hub for resource extraction activities in northern Saskatchewan. Companies such as Cameco, Orano, and SSR operate mining facilities north of Prince Albert and utilize the Airport to transport workers to and from their sites, either as direct flights or with enroute stops. Transwest Air and West Wind Aviation are the two primary providers of charter air services from Prince Albert, with occasional operations by other carriers such as Good Spirit Air Service. These services are typically operated using Beechcraft 1900D, ATR 42, Saab 340, and Beechcraft King Air aircraft.

2.4.5 Air Cargo Services

Prince Albert is located on an extensive road network and dedicated air cargo flights destined to the Airport are infrequent. However, the City's role as a gateway to northern Saskatchewan results in the Airport serving as the point of origin for air cargo bound for northern communities. It is a common practice for northern residents to purchase goods in Prince Albert and then have them shipped to their community. These volumes of cargo regularly exceed the capacity of the scheduled passenger aircraft operated by Transwest Air. Significant quantities of air cargo can accumulate within the cargo storage rooms in the terminal building. When the volume of outbound air cargo shipments exceeds the capacity of the storage rooms, a semi-trailer is used to transport the cargo by road to a more northern airport, such as Points North Landing, where it is then carried by aircraft to its destination. This situation leads to longer shipping times for customers and is noted as a deficiency identified by air carriers.

Transwest Air Saab 340B preparing for departure

2.5 Aviation Industry Analysis

2.5.1 Competitor Airport Review

Demand for aviation services and development at Prince Albert Airport is influenced by several factors, including the availability of nearby airports and the services provided at those facilities. Three airports that compete with Prince Albert Airport in one or more roles have been identified through stakeholder consultations: Saskatoon International Airport, Birch Hills Airport, and Shellbrook Airport. These airports are shown in Figure 2.3 and are described herein.

Saskatoon International Airport

Saskatoon International Airport was the busiest airport in Saskatchewan in 2019 based on passenger activity and is located approximately 1h30m (135 km) from Prince Albert via Highway 11. The Saskatoon Airport Authority's vision is to be Canada's most valued airport experience, and part of its mission is to seamlessly connect Saskatchewan communities to the world. Per the 2020-2024 Strategic Plan, the Airport Authority's strategy includes expanding passenger connections to major hub airports; prioritizing transborder services; and expanding its air cargo, general aviation, and Ultra Low-Cost Carrier market segments.

Prior to the COVID-19 pandemic, numerous airlines served Saskatoon including Air Canada, Delta Airlines, Flair Airlines, Sunwing Airlines, WestJet, and Transwest Air. These airlines operated flights across Canada, the United States, and seasonal sun destinations such as Mexico. Saskatoon is also a significant charter and air cargo hub for the province. Given the availability of flight options and airlines, a significant number of travellers from Prince Albert choose to use Saskatoon International Airport. Based on the online stakeholder survey, approximately 90% of respondents identified Saskatoon as their preferred airport for business and leisure travel.

The proximity and wide ranges of services and destinations offered at Saskatoon International Airport challenges the ability to secure new air services at Prince Albert Airport, as will be described later in this Master Plan.

Birch Hills Airport

Birch Hills Airport is owned by the Town of Birch Hills and is located approximately 30 minutes (35 km) southeast of Prince Albert. The airport is supported by a paved and lit 2,660 ft. runway, a secondary turf crosswind runway, and 100LL fuel is available for sale through a self-serve cardlock system. A total of 16 hangars have been developed at Birch Hills Airport, additional lots are marketed for lease, and numerous general aviation, flight training, and aerial application aircraft are based at the facility.

Based on stakeholder consultations, it is understood that Birch Hills Airport competes with Prince Albert Airport in the attraction of general aviation aircraft, hangars, and related services such as flight training and aerial application. This is partly due to the ease of access to 100LL fuel through the airport's cardlock system, as well as the perception among stakeholders of Birch Hills being a cost competitive alternative to Prince Albert. While general aviation activities at Prince Albert are limited, future efforts to incentivize local and itinerant general aviation traffic and hangar development may be challenged by the availability of Birch Hills Airport. The competitiveness of the Airport rates and fees structure will be reviewed further in this Master Plan. Birch Hills Airport does not compete with Prince Albert Airport in the attraction of passenger and cargo air services and cannot support scheduled passenger services on account of its non-certified status.

Shellbrook Airport

Shellbrook Airport is owned by the Town of Shellbrook and is located approximately 30 minutes (40 km) west of Prince Albert. The infrastructure of Shellbrook Airport is limited to a partially lit 2,640 ft. turf runway – no other services are noted in the Canada Flight Supplement. Like Birch Hills Airport, Shellbrook Airport has attracted the development of eight general aviation aircraft hangars. Shellbrook Airport is located within the Prince Albert Airport catchment area and may capture a portion of the demand for general aviation services in the region. However, Shellbrook Airport does not compete with Prince Albert in other market segments, including passenger and cargo air carrier services.

2.5.2 Regional Air Service Trends

Passenger air services at Prince Albert are provided using turboprop airliners with less than 50 seats, including the Beechcraft 1900D, Saab 340, and ATR 42. The capacity of these aircraft is well-suited for the passenger demand generated at Prince Albert for scheduled and charter airlines. The number of communities served from Prince Albert and the desire for air service frequency make aircraft within the 18 to 50-seat category appropriate for the market. The continued provision of passenger air services in Canada with aircraft in this category comes with challenges including:

- **Fleet Age:** A significant number of 18 to 50-seat airliners are approaching the end of their service lives. The average age of Transwest Air's fleet of Saab 340s is 25.6 years, and their fleet of Beechcraft 1900Ds average 24.5 years. Market research by Bombardier indicates that airlines make long term fleet replacement decisions as their aircraft approach 15 to 20 years in service.
- **Replacement Aircraft:** Complicating the retirement of the 18 to 50-seat airliner category is the lack of suitable, modern replacements. Most aircraft in this category ceased production between 1997 and 2005. This limits the supply of newer aircraft in the used market and creates challenges for finding suitable replacement airframes. The ATR 42-600 is the only aircraft in this class currently in production; however, the capital costs associated with buying factory-new aircraft are often prohibitive for Canadian regional air carriers.

Conversely, there have been recent positive developments in Canada's aviation industry including:

- **New Regional Models:** WestJet has recently invested in a new service model to further explore regional markets in western Canada. WestJet Link flights are operated by Pacific Coastal Airlines through a Capacity Purchase Agreement. In this arrangement, WestJet markets the flights and sells tickets as part of its comprehensive route network, while Pacific Coastal Airlines operates the flight including the provision of the aircraft, crew, and ground staff.
- **New Canadian Competition:** Even in the wake of the COVID-19 pandemic and the significant impact it has had on the passenger airline industry, two new carriers are planning to enter the Canadian Market. Quebec-based Nolinor Aviation announced the launch of its new airline, OWG (Off We Go), in July 2020 that will transport Canadian travellers to southern vacation destinations using Boeing 737-400 aircraft. In September 2020, Pivot Airlines announced that it will offer scheduled passenger services in Ontario utilizing Bombardier CRJ and De Havilland Canada Dash 8 aircraft connecting major centres such as Ottawa and Kitchener/Waterloo.

2.5.3 COVID-19

The COVID-19 pandemic is having significant health and socioeconomic impacts across the country and in Saskatchewan. At the time of this Master Plan's preparation, interprovincial and international travel restrictions have been implemented and public health recommendations made to limit the spread of the virus. Due to the evolving circumstances of the COVID-19 pandemic, the full breadth and depth of its impacts are not fully known.

The City of Prince Albert has implemented an Air Terminal COVID-19 Safety Plan consistent with Transport Canada and International Civil Aviation Organization (ICAO) guidance. This has included the requirement for travellers and staff to wear facial coverings, guidance signs to maintain physical distancing, blocking seats, increased cleaning, and hand sanitizer stations. Physical distancing measures having accentuated existing issues with the size of the terminal building to accommodate peak passenger levels. Further, the costs of implementing COVID-19 risk reduction measures may increase the Airport's annual expenses.

Airport revenues are expected to be negatively impacted by the reduction in aircraft movements and passenger activity due to travel restrictions and the temporary shutdown of northern resource extraction operations. The downturn experienced at Prince Albert Airport is expected to be less severe than that of other Canadian airports given the essential nature of air carrier routes to northern Saskatchewan, including the need to provide continual air cargo services. The role that the Airport plays as a northern gateway has been further demonstrated during the COVID-19 pandemic, as activity has not declined to the degree experienced at other Canadian airports.

2.5.4 Aviation Labour Shortage

Prior to the COVID-19 pandemic in 2020 and widespread staff furloughs and layoffs in the Canadian aviation industry, the limited availability of aviation professionals, including pilots and Aircraft Maintenance Engineers (AMEs) was a significant concern. In 2018, the Canadian Council for Aviation and Aerospace anticipated a shortfall of approximately 3,000 pilots by 2025. While the current condition of the aviation industry will change this outlook in the short to medium-term, the future recovery of the sector is expected to result in the re-emergence of these issues. Flight training and specialized aviation skills education can be a significant opportunity for airports, especially if partnerships are formed with educational institutions.

Terminal building COVID-19 risk reduction measures

2.5.5 Corporate Aviation

Private corporate aircraft are commonly used in Canada by individuals and companies that place a high value on their time. The Canada Business Aviation Association (CBAA) estimates that over 1,900 business aircraft were in operation in Canada as of 2017. Through aircraft ownership, partnerships, ad hoc charters, fractional ownership, and subscription models, corporate aircraft are used to travel to Prince Albert from destinations across North America. Accordingly, Prince Albert Airport represents an asset by enabling access for this market segment.

2.6 Stakeholder Consultations

A comprehensive stakeholder consultation program was performed to inform the preparation of the Master Plan. Two types of stakeholder engagement were employed: an online survey and targeted in-person and teleconference / videoconference interviews. The findings of the stakeholder consultation program are applied throughout the Master Plan and are partially enumerated in the Strengths, Weaknesses, Opportunities, and Threats (SWOT) assessment – while every specific finding is not identified in the Master Plan, all comments received have been analyzed and applied by the project team where appropriate.

Online Survey

An online survey with 10 questions was hosted by HM Aero and advertised by the City through the municipal website and social media platforms. The survey was available for approximately two months, from August 10, 2020 to September 31, 2020. A total of 307 respondents completed the survey:

- 79% of respondents identified as living in the City of Prince Albert;
- 20% of respondents identified as living elsewhere in Saskatchewan; and
- 1% of respondents identified as living elsewhere in Canada or abroad.

Ninety-one percent of respondents identified as being a resident, 6% as a business owner or representative, 2% as an Airport tenant or aircraft operator, and 1% as “other”.

The survey questions and responses are included as Appendix A. The findings of the online survey are integrated through the SWOT assessment in Section 3.

Stakeholder Interviews

Interviews were conducted with individuals and organizations identified by the City and HM Aero as having a significant interest in, or detailed knowledge of, Prince Albert Airport. Qualitative interviews were conducted by videoconference, teleconference, and in-person while respecting public health restrictions related of the COVID-19 pandemic. A total of 31 interviews were completed with individuals from the 22 organizations identified in Table 2.3.

Table 2.3 – Consulted Stakeholder Organizations

Government	
City of Prince Albert	Saskatchewan Ministry of Highways and Infrastructure
Town of La Ronge	
Airport Tenants and Aircraft Operators	
Northern Shield Helicopters	Transwest Air / West Wind Aviation
Snowbird Aviation Services	Royal Canadian Mounted Police
Saskatchewan Public Safety Agency	Saskatchewan Air Ambulance
Environment and Climate Change Canada	NAV CANADA
Shock Trauma Air Rescue Society (STARS)	Mitchinson Flying Service
Econo Lumber	
Major Employers and Industry Associations	
Athabasca Basin Development	Orano Group
Cameco	Prince Albert and District Chamber of Commerce
Saskatchewan Aviation Council (SAC)	Prince Albert Regional Economic Development Alliance (PAREDA)
Canadian Owners and Pilots Association (COPA)	Canadian Business Aviation Association (CBAA)

3 AIRPORT PROFILE

3.1 Regulatory Environment

Prince Albert Airport is a certified airport and is required to be operated in compliance with Part III of the Canadian Aviation Regulations (CARs). Accordingly, Prince Albert Airport is subject to the regulatory oversight of Transport Canada, can be inspected by the organization, and must undergo regular quality assurance audits. The CARs impose a range of requirements on the City of Prince Albert as the airport operator, including the maintaining of an Airport Operations Manual, Safety Management System, Emergency Response Plan, Wildlife Management Plan, Winter Maintenance Plan.

The physical infrastructure and obstacle environment of Prince Albert Airport must also comply with TP312 – Aerodrome Standards and Recommended Practices. TP312 4th Edition was published in 1993 and was superseded by TP312 5th Edition in 2015 (as amended in 2020). The infrastructure of Prince Albert Airport is certified in accordance with TP312 4th Edition. Compliance with TP312 5th Edition will be required with future projects that involve the replacement or improvement of Airport infrastructure. Accordingly, all recommendations of the Strategic Master Plan are compliant with TP312 5th Edition. **It is recommended that a TP312 5th Edition Gap Analysis should be prepared in the short-term planning horizon.**

Operating Prince Albert Airport as a certified facility is required by Transport Canada to support scheduled air carrier services. The duties imposed on the City of Prince Albert are numerous, as daily operations must be compliant with federal regulations as articulated through the Airport Operations Manual. Future regulatory changes for certified airports have the potential to change the municipal level of effort required to maintain compliance, including staffing levels and operating expenses.

3.2 Governance, Administration, and Operation

3.2.1 Governance

The City of Prince Albert has owned and operated Prince Albert Airport since 1997 when ownership was transferred from Transport Canada. City Council is the governance body responsible for the planning, development, and operations of the Airport and approves the annual operational and capital budgets, as well as rates and fees. Additionally, a seven-member Airport Advisory Committee (AAC) was established in 2019 composed of two members of City Council and five members of the aviation community serving two-year terms. The mandate of the AAC is to:

- Review operating and capital budgets, along with Airport rates and fees;
- Work in cooperation with PAREDA by providing advice and recommendations regarding economic and future development at the Airport;
- Provide advice and recommendations to Council; and
- Oversee the implementation of approved policy decisions.

Stakeholder consultations revealed that the current composition of the AAC may not reflect the diversity of aviation activity and business occurring at Prince Albert Airport. Specifically, air carrier and governmental perspectives are not represented on the AAC. Further, the AAC provides advice and recommendations to Council only, and does not have any decision-making authority. **It is recommended that the composition of the Airport Advisory Committee be re-evaluated in the short-term and include representatives from the broader regional aviation sector.**

3.2.2 Operation and Maintenance

The Airport is operated as a department of the City of Prince Albert. The City Manager is the Accountable Executive, and the responsibility for day-to-day operations is assigned to the Airport Manager. Four Airport Maintenance Staff report to the Airport Manager and are responsible for the following duties, among others:

- Airside and groundside snow removal;
- Airside and groundside grass cutting and vegetation control;
- Runway Condition Reports;
- Maintaining airside and groundside electrical assets (i.e., runway edge light fixtures); and
- Road maintenance (i.e., grading of gravel roads).

Except for the maintenance of mobile equipment undertaken at other City facilities, the maintenance of all Airport infrastructure and assets is undertaken by Airport Maintenance Staff or by contractors on an as needed basis.

In addition to overseeing the Airport Maintenance Staff, the Airport Manager has the following responsibilities:

- Demonstrating adherence to Transport Canada's standards for certified airports;
- Maintaining the Airport's Safety Management System and Quality Assurance program;
- Ensuring NAV CANADA publications are current and accurate;
- Emergency response planning and management;
- Land lease and terminal lease management;
- Marketing; and
- Strategic planning for economic development.

The Airport is largely disintegrated from other City departments that specialize in many of the maintenance and operational activities noted above. As examples:

- Airport Maintenance Staff are responsible for groundside grass cutting, a task that does not require the airside operational training of these individuals. It is common at many municipal airports for groundside grass cutting to be undertaken by a parks department.
- Airport Maintenance Staff are responsible for plowing the groundside roads and parking lots. During a winter snowfall event, the primary duty of Airport Maintenance Staff is to clear the airfield surfaces per the Winter Maintenance Plan and complete Runway Condition Reports to support safe and efficient aircraft operations. Traffic and Transportation employees that complete snow clearing elsewhere in the City may be able to assist.

It is recommended that a fulsome municipal services review with respect to the Airport be completed in the short-term. As the Airport is a City asset that is operated by municipal staff, opportunities for improvements may be identified using a holistic approach to municipal resourcing. Ultimately, the priority of the Airport Manager and Airport Maintenance Staff should be addressing the regulatory obligations of the facility before ancillary duties. This topic is discussed further in Section 10.

3.3 Financial Position

3.3.1 Operating Revenues and Expenses

The City is responsible for funding operations and covering any resulting deficits. Financial statements for the Airport Fund were available from 2015 to 2019 as well as the 2020 budget. Current operating revenue streams include:

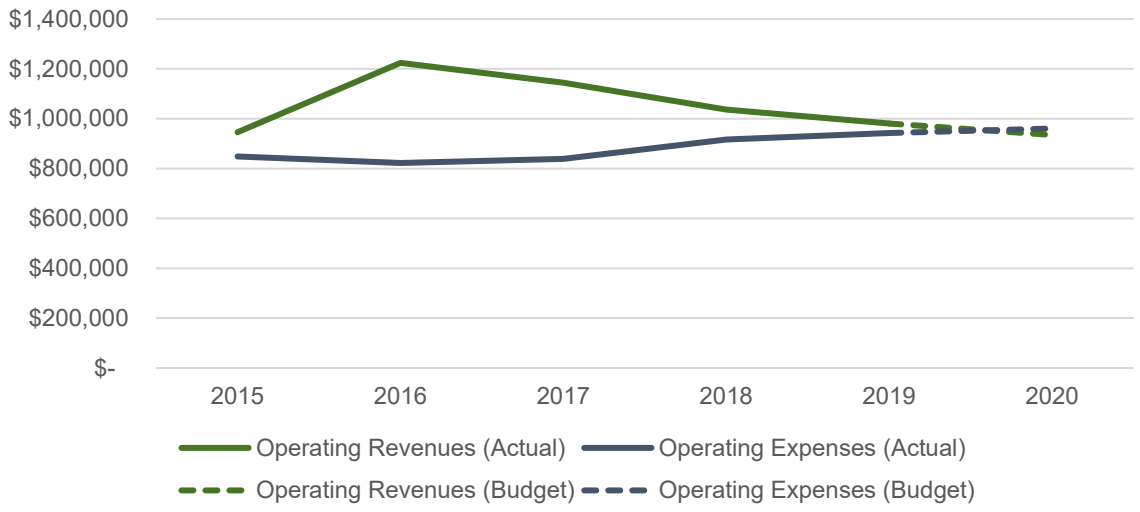
- Aircraft landing and parking fees;
- Vehicle parking fees;
- Passenger Facility Fees;
- Terminal building and development lot leases;
- After-hours Airport Maintenance Staff call-out fees; and
- Agricultural cropping agreements.

The Airport is generally performing well financially when compared to similar facilities in Canada, with operating revenues exceeding operating expenses between 2016 and 2019. However, between 2016 and 2019, the Airport has experienced an average annual increase in operating expenses of 3.5% and an average annual decrease in revenue of 7.1%. Additionally, the budget projects that an operating deficit will be realized in 2020. According to the 2020 budget, there is expected to be a:

- $62,550 decrease in revenue resulting from reduced contract parking;
- $18,000 increase in aircraft landing fees;
- $11,800 increase in salaries, wages, and benefits;
- $8,800 increase in contracted and general services; and
- $38,380 increase in maintenance materials and supplies.

The Airport's annual operating revenues and expenses for 2015 through 2019 and budgeted values for 2020 are presented in Figure 3.1. It is important to note that 2020 budget values were forecast prior to the COVID-19 pandemic, which is expected to result in revenue decreases.

Figure 3.1 – Annual Operating Revenues and Expenses



3.3.2 Capital Expenses

In addition to the operating expenses and revenues described above, the City is responsible for the capital expenses associated with maintaining, repairing, and replacing the infrastructure of Prince Albert Airport. Ongoing maintenance is an important and responsible asset management practice to extend the life cycle of the Airport's facilities. As described in Section 7, a significant infrastructure deficit must be addressed at Prince Albert Airport which is partly a result of the historical deferral of required upgrades and rehabilitation projects. From 2015 to 2020, an annual average of approximately $278,000 was required in interfund transactions to finance asset recapitalization projects. As shown in Table 3.1, the capital expenses associated with the Airport offer a more fulsome view of the financial obligations of maintaining the facility, resulting in net deficits being realized in 2015, 2018, and 2020 (budgeted). Further, significant capital revenue line items were recorded in 2017 and 2019 that obscure the net deficit that would have otherwise been realized in those years.

Table 3.1 – Operating and Net Financial Performance

	2015	2016	2017	2018	2019	2020 (Budget)
Operating Surplus / Deficit	$97,573	$401,576	$305,731	$119,975	$38,029	-$25,970
Capital and Interfund Transactions[1]	-$411,084	-$349,655	$582,319	-$183,117	$120,445	-$258,030
Net Surplus / Deficit	-$313,511	$51,921	$888,050	-$63,142	$158,474	-$284,000

[1] Capital and Interfund Transactions are comprised of amortization, capital revenue, gains or losses on disposal of TCA, and interfund transactions.

To offset the expenses of maintaining the Airport's capital assets, the City has been successful in pursuing grants from the provincial and federal levels of government. Table 3.2 identifies grant funding that has been awarded through the federal Airports Capital Assistance Program (ACAP) and provincial Community Airport Partnership (CAP) Program. In addition, the City has five active ACAP and CAP applications for the 2021 funding year at the time of this report's preparation with a combined value of approximately $3,800,000. City Staff have developed considerable expertise in grant funding pursuits that will be of use when applying for future opportunities.

Table 3.2 - Historical Grant Contribution Agreements

Year	Program	Contribution Agreement	Purpose
2020	CAP	$241,500	• Taxiway F resurfacing • Taxiway B edge lights, drainage improvements, and signage
2019	ACAP	$365,765	• Runway 08-26 end lights and airfield lighting control system
2019	ACAP	$353,400	• New grader
2017	ACAP	$338,000	• New sand storage shed
2017	ACAP	$38,325	• Runway condition reporting system and friction testing equipment
2016	ACAP	$406,900	• New snowblower
2015	ACAP	$245,511	• New sweeper
2012	ACAP	$6,150,000	• Resurfacing of Runway 08-26
2003	ACAP	$2,186,000	• Apron I reconfiguration and expansion • Rehabilitation of Taxiways A, C, D, and part of B

3.4 Airport Businesses and Tenants

Prince Albert Airport supports the following on-site businesses and tenants:

- **West Wind Aviation:** Provides charter passenger air services for northern resource companies. West Wind Aviation leases space in the terminal building.
- **Transwest Air:** Operates scheduled passenger services from Prince Albert to Saskatoon, Regina, La Ronge, Points North, Wollaston Lake, Stony Rapids, Fond du Lac, and Uranium City. Transwest Air leases space in the terminal building, as well as two development lots which are used for maintenance, storage, and other purposes.
- **Good Spirit Air Service:** Provides aircraft charter services to northern communities in support of the provincial judicial system, including the movement of judges and lawyers.
- **Snowbird Aviation Services:** Provides ground support services, including aircraft fuelling, baggage and cargo handling, and de-icing. Services are limited to Transwest Air and West Wind Aviation, with other air carriers handled on an as-requested cost recovery basis.
- **Northern Shield Helicopters:** Provides commercial helicopter services such as personnel transportation, long-lining, fire suppression, environmental research, surveillance, and air ambulance services.
- **Heli-Lift International:** Operates commercial helicopter services such as fire suppression, power line construction, and filming.
- **Royal Canadian Mounted Police (RCMP):** The RCMP Air Services Prince Albert base operates a Pilatus PC-12 for staff and cargo transportation, prisoner transfers, supporting criminal investigations, and other parts of its federal mandate.
- **Saskatchewan Public Safety Agency (SPSA):** SPSA operates a wildfire suppression base at Prince Albert Airport that typically accommodates an air tanker group of two Convair 580s and a Turbo Commander bird-dog aircraft.
- **NAV CANADA:** As Canada's civil air navigation system provider, NAV CANADA operates a Flight Service Station (FSS) at Prince Albert Airport.
- **Environment and Climate Change Canada:** Operates an unmanned weather observation station at the Airport.
- **Prince Albert Shopper:** A local print-media provider.
- **Private Tenants:** One development lot is leased for a private aircraft hangar. Several general aviation aircraft also pay parking fees to the City for the use of Apron III.

SPSA Turbo Commander (foreground) and Convair 580 (background)

3.5 Activity Levels

3.5.1 Aircraft Movements

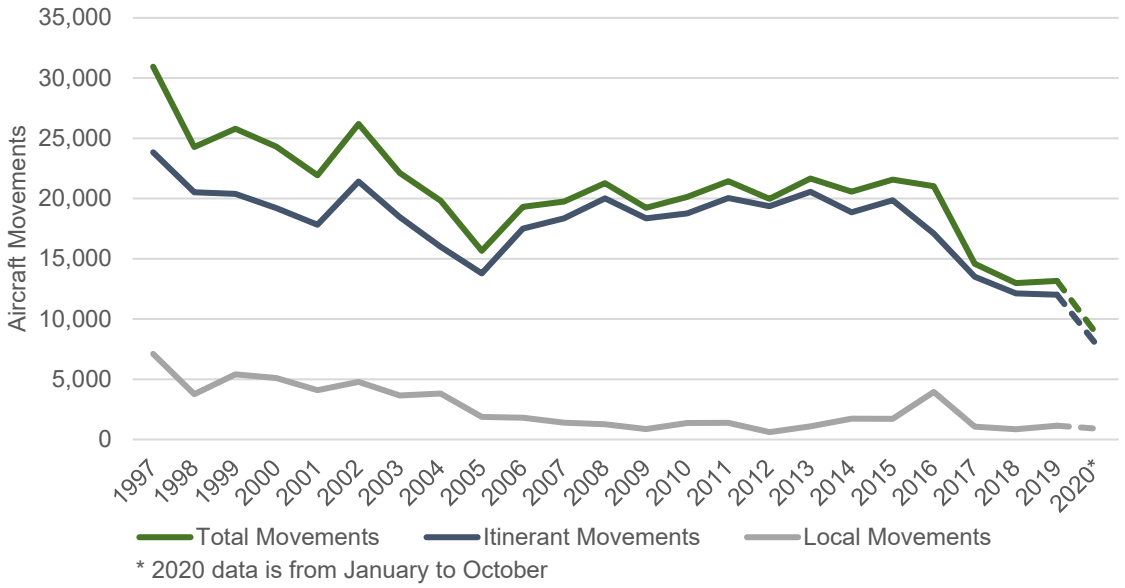
An aircraft movement is defined as a single landing, take-off, or touch-and-go.

Total Movements

The Airport has experienced a decrease in aircraft activity from a maximum of approximately 31,000 movements in 1997 to 13,000 movements in 2018 and 2019, as shown in Figure 3.2. Aircraft movements can be further classified as:

- **Itinerant:** An aircraft departs from or arrives at Prince Albert from another airport; and
- **Local:** An aircraft begins and ends its flight at Prince Albert Airport.

Figure 3.2 – Total Aircraft Movements (1997-2020)

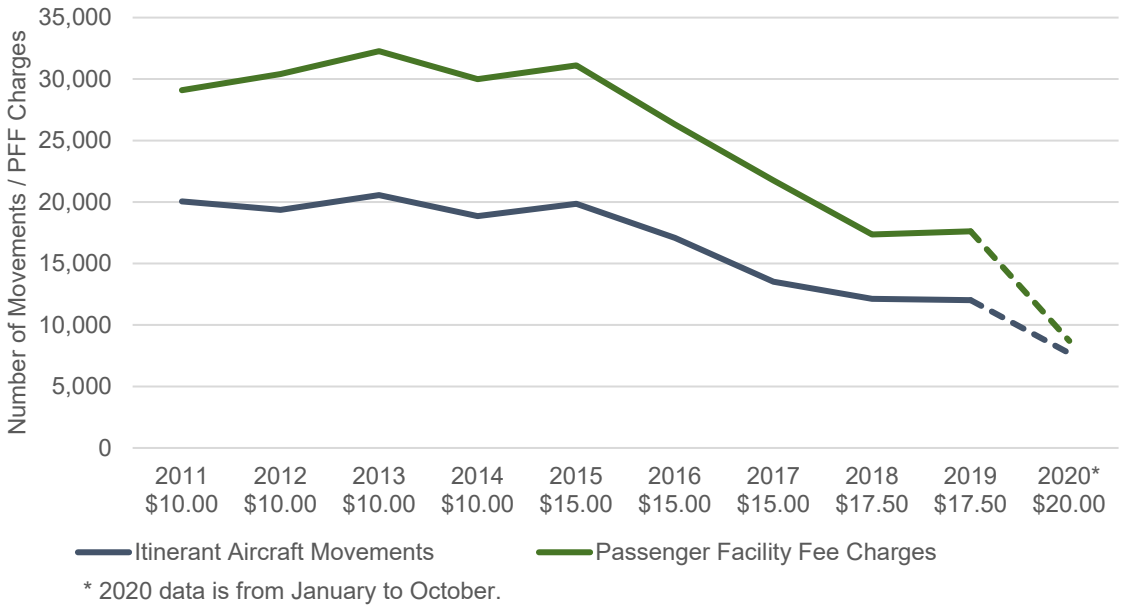


Itinerant Movements

As shown in Figure 3.2, most aircraft movements at the Airport are classified as itinerant, comprising an average of 92% of annual total movements between 2010 and 2019. Itinerant movements have decreased from a maximum of 23,841 in 1997 to 12,019 in 2019, or an average of 2% per year. From 2010 to 2019, this decline has accelerated to an average of 4% per year. Through the analysis of itinerant movements versus Passenger Facility Fee (PFF) charges shown in Figure 3.3, a strong correlation is identified indicating that annual changes in itinerant movements are primarily driven by scheduled and charter air carrier services, the causes for which will be described below.

As will be described in the rates and fees review in Section 10, a degree of price elasticity exists with Airport user fees, including PFFs and aircraft landing fees. As rates increase past a certain threshold, activity may begin to decrease due to the higher operating costs. Air carriers at Prince Albert Airport operate smaller aircraft with higher costs per passenger than mainline services, meaning that they are more sensitive to Airport charges. Passengers can also be more price sensitive and increased PFFs may have traffic reduction (price elasticity) impacts. The historical decline in itinerant aircraft movements cannot be attributed to past increases in the PFF, however, understanding the relationship between itinerant movements and user fees is of critical importance.

Figure 3.3 – Itinerant Aircraft Movements vs. Passenger Facility Fee Charges



Local Movements

Local movements have decreased from 7,106 in 1997 to 1,148 in 2019, or approximately 4% per year. While numerous factors can contribute to this trend, qualitative data specific to Prince Albert was not available to identify explanatory factors. From 2010 to 2019, local movements have ranged from a minimum of approximately 600 in 2012 to a maximum of 3,900 in 2016. An average of approximately 1,500 annual local movements was recorded between 2010 and 2019. The 130% year-over-year increase in local movements in 2016 is attributable to the satellite flight training unit operated by Saskatoon-based Mitchinson Flying Service in the summer of that year.

From a financial perspective, local aircraft movements under 2,500 kg do not generate landing fee revenues for the City. While additional local movements would increase the use of the Airport, revisions to the rates and fee structure would be required to capture revenue from such activities.

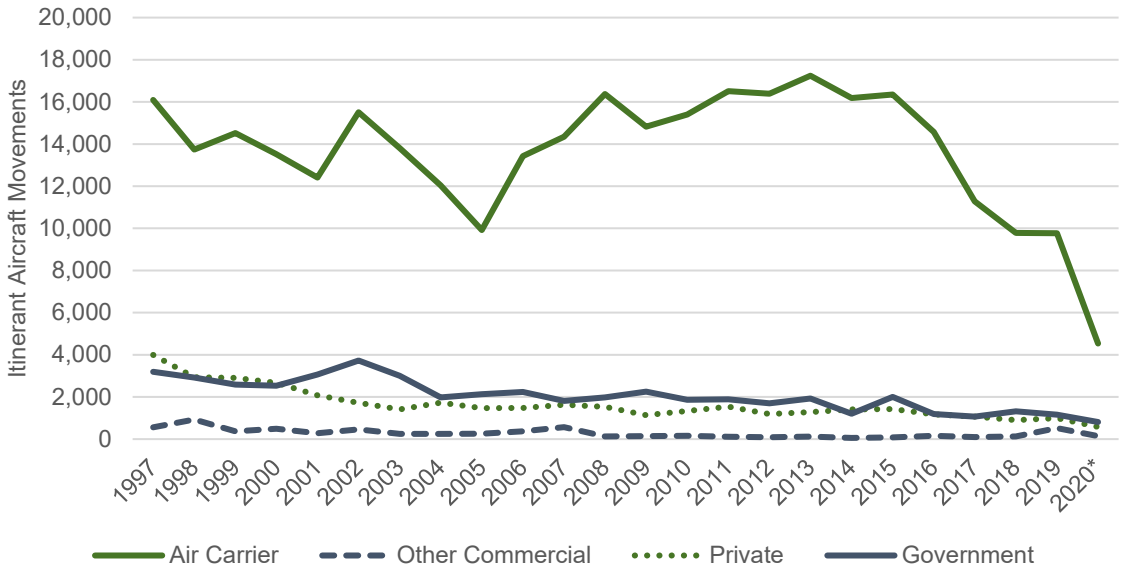
Aircraft Operators

Aircraft movement data can further be classified by the type of operator, including air carriers, other commercial operators, private aircraft, and government agencies. Data by type of operator is available from 1997 to August 2020; historical itinerant aircraft movements by operator type are shown in Table 3.3 and Figure 3.4.

Table 3.3 – Itinerant Aircraft Movements by Operator Type

	Average Annual Proportion of Itinerant Movements (1997-2019)	Average Annual Proportion of Itinerant Movements (2010-2019)
Air Carrier	78%	83%
Other Commercial	1%	1%
Private	9%	7%
Government	12%	9%

Figure 3.4 – Itinerant Aircraft Movement Operators



* 2020 data is from January to August.

Air carriers operate the highest proportion of itinerant movements at Prince Albert Airport, accounting for an average of 83% of annual movements between 2010 and 2019. Based on supplemental data from 2017 to 2020 provided by NAV CANADA, it is understood that Transwest Air and West Wind Aviation are the largest air carriers operating at Prince Albert. Air carrier movements have ranged from approximately 10,000 movements in 2005, 2018, and 2019 to between 16,000 and 17,000 movements in 1997, 2008, and 2011 to 2015.

Other commercial itinerant movements account for flights performed by commercial operators not included in the air carrier category, such as flight training, aerial application, photography, and surveying. Fewer than 1,000 other commercial itinerant movements were recorded on an annual basis at Prince Albert Airport, with an average of approximately 150 annual movements in this category between 2010 and 2019.

Government movements include operations by agencies such as the SPSA, Saskatchewan Air Ambulance, the RCMP, and the Royal Canadian Air Force (RCAF). Itinerant government movements have decreased by an average of 3% per year between 1997 and 2019 and have averaged 1,500 annual movements between 2010 and 2019.

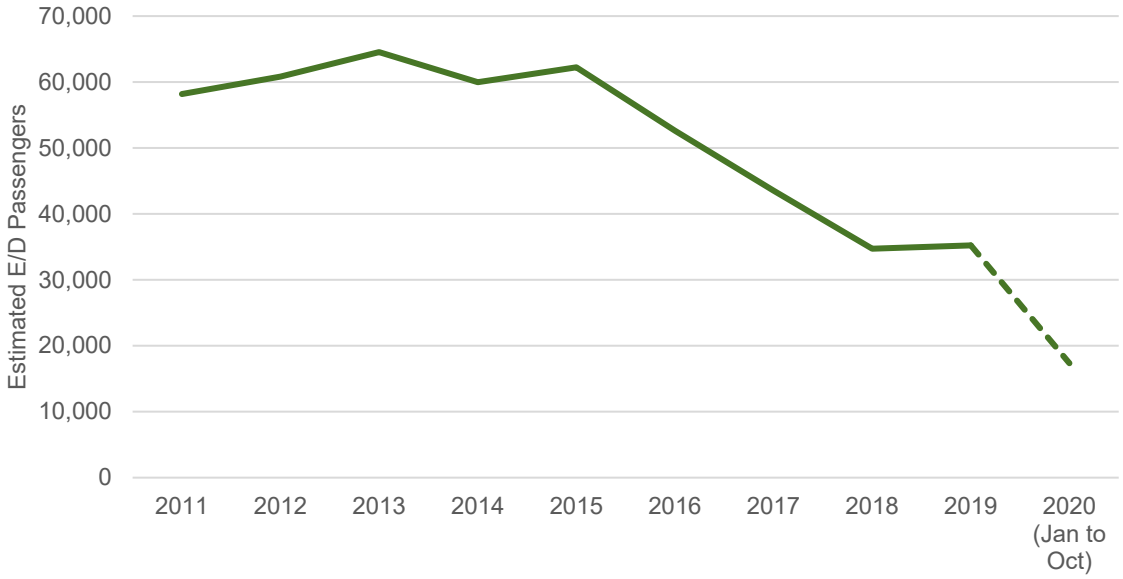
Itinerant private aircraft movements have decreased from approximately 4,000 in 1997 to 1,000 in 2019, or approximately 3% per year. An average of approximately 1,200 annual private itinerant movements was recorded between 2010 and 2019.

3.5.2 Passenger Activity

Passengers departing from Prince Albert Airport on scheduled and charter air carrier services are charged a PFF. As the PFF is levied on departing passengers, doubling the available statistics can be used to estimate the total number of enplaned and deplaned (E/D) passengers. As shown in Figure 3.5, an estimated 65,000 E/D passengers used the Airport in 2013 before decreasing to approximately 35,000 E/D passengers in 2018 and 2019. This represents an average annual decrease of 5% from 2011 to 2019. Among the passenger service developments that occurred in this period are:

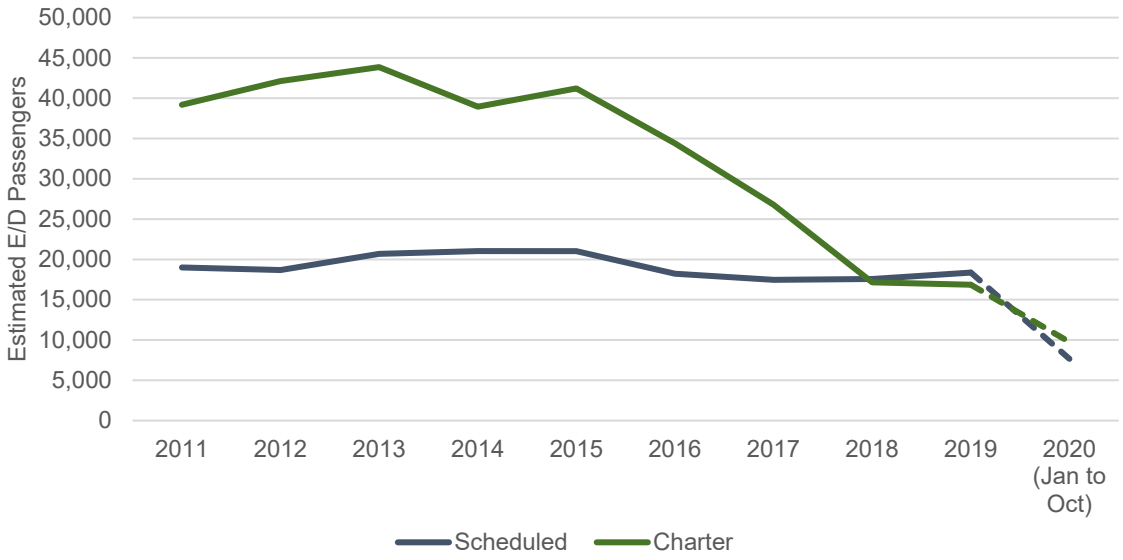
- The integration of Pronto Airways into West Wind Aviation in 2015;
- Declines in charter passenger activity due to reduced activities at northern resource extraction sites;
- The acquisition of Transwest Air by West Wind Aviation in August 2016 and subsequent rationalization of scheduled and charter operations; and
- The temporary suspension of West Wind Aviation's Air Operator Certificate from December 2017 to May 2018.

Figure 3.5 – Historical Estimated Enplaned-Deplaned Passengers



Activity can be further examined in terms of the distribution of scheduled and charter passengers. As shown in Figure 3.6, the majority of E/D passengers using Prince Albert Airport historically have travelled on charter air carrier services; as described previously, this is typically staff rotations to northern resource extraction sites. From 2011 to 2017, an average of 66% of E/D passengers were travelling on charter air carrier services versus 34% on scheduled air carrier services. Scheduled passenger volumes have remained relatively constant across the dataset, ranging between 17,000 and 21,000 E/D passengers per year. The decline in charter passengers has resulted in a more even distribution in activity, with an average of 51% of passengers travelling on scheduled services and 49% on charter services in 2018 and 2019. For example, Cameco's market decline has led to them changing from weekly to biweekly staff rotations, decreasing activity at Prince Albert Airport.

Figure 3.6 – Historical Estimated Enplaned-Deplaned Passengers by Type



PFF data was available to October 2020 at the time of the Master Plan's preparation. Passenger volumes for 2020 have been negatively impacted by COVID-19 and associated travel and public health restrictions. As shown in Table 3.4, passenger traffic declined by a maximum of 77% in April 2020 versus April 2019. While this represents a significant loss in passenger traffic, Prince Albert Airport is faring well compared to airports across Canada that experienced declines of over 90% in the same period. For example, Saskatoon International Airport experienced 98% and 81% passenger activity decreases in April and September 2020, respectively, whereas Prince Albert Airport's activity levels declined by 77% and 39% in the same periods. This is reflective of the diversified and essential nature of Prince Albert Airport's role.

Table 3.4 – COVID-19 Passenger Activity Impact

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Estimated E/D Passengers – 2018	3,178	2,276	2,908	2,632	3,358	2,966	2,454	2,982	2,870	3,614
Estimated E/D Passengers – 2019	2,868	2,278	2,678	2,928	3,452	3,254	2,872	2,824	3,090	3,258
Estimated E/D Passengers – 2020	2,448	2,318	1,838	670	954	1,490	1,710	2,052	1,932	2,000
2019-2020 Change – Prince Albert	-15%	+2%	-31%	-77%	-72%	-54%	-49%	-44%	-39%	-34%
2019-2020 Change – Saskatoon	-3%	-2%	-48%	-98%	-97%	-93%	-85%	-81%	-81%	

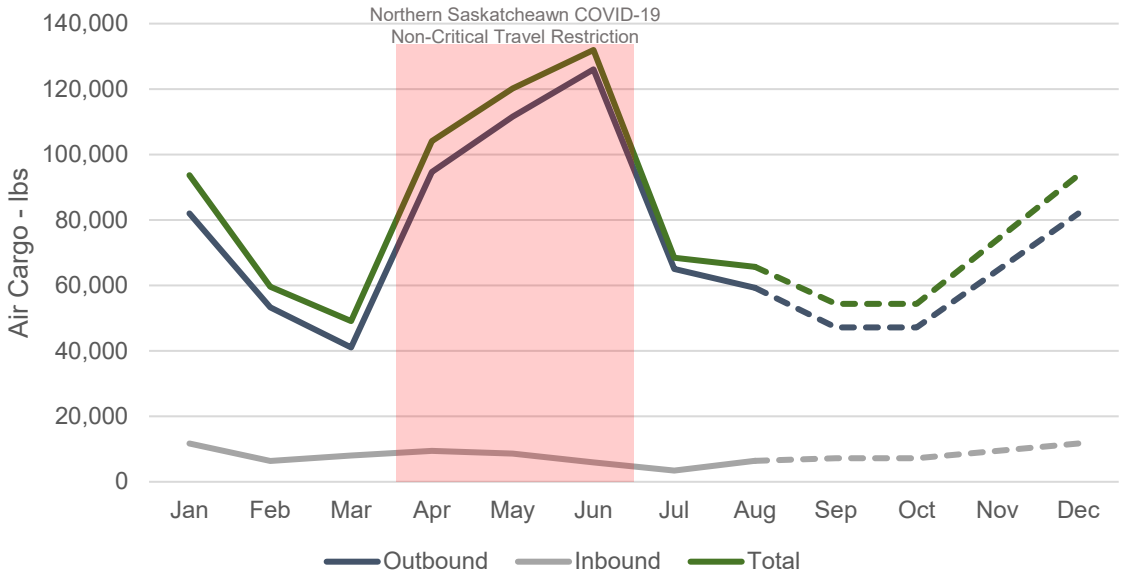
3.5.3 Air Cargo

Air cargo data was made available by Transwest Air for the period of January 2020 to August 2020. From consultations with Transwest Air, it is understood that 2020 was an atypical year for throughput at Prince Albert Airport given the significant increase in outbound air cargo during the COVID-19 pandemic and associated travel restrictions in northern Saskatchewan. The remaining four months of the year (September to December) were estimated by the project team based on an examination of the trends in the dataset and considering the following assumptions:

- Cargo volumes in September and October are an average of the pre-COVID volumes in February and March;
- Throughput in December is the same as January, given the anticipated increase in support of the holiday season; and
- November cargo volumes increase linearly from October to December.

Based on the actual and assumed data for 2020, the total throughput of air cargo at Prince Albert Airport is estimated to be approximately 969,000 pounds. Most air cargo in 2020 originated in Prince Albert for onward transportation to destinations within Transwest Air's network, with 91% of total air cargo being shipped from the Airport and 9% of air cargo received at the Airport. The actual and assumed 2020 air cargo volumes by month are presented in Figure 3.7.

Figure 3.7 – 2020 Air Cargo Volumes (Actual and Assumed)



3.6 Strengths, Weaknesses, Opportunities, and Threats

The Strengths, Weaknesses, Opportunities, and Threats assessment serves as a high-level overview of the Airport's positioning with respect to its current conditions (strengths and weaknesses) and potential future conditions (opportunities and threats).

3.6.1 Strengths

- The facility is well-positioned to sustainably serve as a gateway for passengers and cargo to northern communities and resource extraction operations and supports regional businesses through these roles.
- The Airport is supported by several anchor tenants and users, including Transwest Air, West Wind Aviation, the RCMP, and the provincial wildfire suppression base, and is a significant regional employer.
- Numerous regional social benefits are realized because of the presence of the Airport, including air ambulance operations, wildfire suppression aircraft, law enforcement, and travel from northern communities.
- The Airport is a major employer and economic catalyst in the region.
- The Airport is well-maintained by the City and operated in compliance with Transport Canada's regulatory obligations.
- The City has been successful in obtaining grant funding for several Airport capital projects through the federal Airports Capital Assistance Program and provincial Community Airport Partnership program.
- A full range of aviation services are provided by private businesses and facilitated by the City, including scheduled and charter passenger services, air cargo, aircraft fuelling, and ground handling.
- The COVID-19 pandemic has not impacted the Airport as severely as comparable facilities across Canada due to the diversified nature of the facility's traffic and essential nature of numerous services, such as air cargo.
- Strengths of the regional economy including the size of the catchment area, the community's commitment to economic development, and natural resources.
- There are few nearby incompatible land uses that would constrain or preclude the growth and development of the Airport.
- The Airport is conveniently located approximately 7 km from Prince Albert and has regional access via Highway 2, 3, 11, 55, and 302.
- The Airport's website has been redesigned and rewritten to improve its usability.

3.6.2 Weaknesses

- The current role and the social and economic benefits of the Airport are not well known among the residents of the region and limited marketing efforts have been made to-date to increase awareness.
- There is a general misunderstanding among residents and travellers between the role of the City (the Airport operator) and the air carriers (the service providers). This leads to the City being contacted on matters that are the responsibility of air carriers such as flight delays and arrival information.

- Scheduled air carrier services (e.g., WestJet, Air Canada) appear to be the preferred carriers for residents within the catchment area. These carriers do not serve Prince Albert, causing passenger leakage to Saskatoon and other airports.
- The Airport competes with a wide range of other municipal priorities for funding and resources.
- The terminal building was frequently noted to be inadequate for current activity levels and lacks passenger amenities such as food services.
- Nearby airports, including Saskatoon and Birch Hills, compete with Prince Albert Airport for scheduled, charter, and general aviation services and can offer competitive value propositions. The Airport is not perceived as a viable facility for general aviation operators.
- Formal marketing relationships have not been established with key regional stakeholders such as PAREDA and the Chamber of Commerce.
- Airport availability and maintenance is hindered by fog and challenging winter conditions.
- The governance structure of the Airport, including the Airport Advisory Committee, does not fully represent the range of stakeholders at the facility.
- Full integration with other City departments has not been achieved with select operational tasks (e.g., roadway snow clearing and groundskeeping), and the workload imposed on dedicated Airport Staff is significant given the resources available.
- User and stakeholder perception of an overly high rates, fees, and land lease cost structure.
- The success of the Airport is closely tied to the regional economy which includes the lack of major employers, slow population growth, and resource dependency.

3.6.3 Opportunities

- Improved cooperation with PAREDA, the Chamber of Commerce, and other City departments can be used to promote, market, and develop the Airport more actively.
- Design future Airport infrastructure investments to maximize flexibility to pursue new opportunities, such as a new air carrier.
- Public awareness can be improved through a targeted communications campaign.
- Realistic and attainable development and growth opportunities can be pursued to improve the Airport's financial sustainability and socioeconomic regional impact (see Section 5).
- Selectively consider the opportunities and requirements of pursuing new scheduled passenger air services.
- Grant funding can be secured from both the federal and provincial governments to pursue capital projects.

3.6.4 Threats

- The propensity for residents in the Airport's catchment area to drive to completing airports (passenger leakage) hinders air service development opportunities.
- Airport activity and revenues are closely tied to the strength of the resource extraction sector and related commodity prices that are prone to fluctuations.
- Future operational and physical regulatory obligations imposed because of the facility's certified status can increase capital and operational costs.
- Numerous significant capital and operational projects are required to support the Airport's growth and development, with associated financial implications.
- The full range of impacts to the aviation industry as a result of the COVID-19 pandemic are not yet known and may continue to negatively impact Airport activity.

4 CORPORATE STRATEGY

Defining a corporate strategy for the Airport is critical to understanding the facility's current importance to the City and region as well as being the basis for future decision making. The strategy – consisting of the role, mission, vision, and values statements – should be specific to the Airport while complementing the City of Prince Albert's Five-Year Strategic Plan.

4.1 Role Statement

Defining an airport's role statement is an opportunity to classify current activities and identify which of those activities can be leveraged to improve the economic position of the community and region that the airport serves. Prince Albert Airport currently serves the needs of scheduled and charter air services, as well as commercial and recreational general aviation operators.

To capitalize on the economic capabilities of the Airport, the future role should be to provide:

- A transportation hub for northern Saskatchewan;
- An access point for employment and education opportunities throughout the province;
- A point of entry to the national air transportation system through links with a scheduled passenger air service hub;
- A service centre for critical government air services such as air ambulance, wildfire suppression, and law enforcement;
- A centre for aviation business in central Saskatchewan; and
- A base for private aircraft owners and operators.

4.2 Mission Statement

A Mission Statement is a short description of an organizations purpose for those in the organization as well as the public. The project team has prepared a candidate mission statement:

Prince Albert Airport supports social and economic benefits within central Saskatchewan – connecting people and places and protecting regional assets.

4.3 Vision Statement

A Vision Statement is forward-looking foundational document that defines an organization's ideals and aspirations. The candidate vision statement is:

Prince Albert Airport will be a local and regional transportation and aviation services asset by innovating, fostering partnerships, and achieving financial sustainability. The Airport will be recognized as a critical resource in the region's economic success.

4.4 Values Statement

As an asset of the City, the values of the Airport should align with the Core Values identified in the City's Five-Year Strategic Plan, but with a specific focus on the role, vision, and mission of the Airport.

Entrepreneurial

Facilitate business development and entrepreneurship through the provision of safe, affordable, and capable airport facilities

Partnerships

Utilize airport infrastructure and operational excellence to foster meaningful social and business partnerships in the community and support economic growth in the region

Innovative

Employ effective planning and development to facilitate efficient and safe aviation activity today, while creating an environment that stimulates investment in the Airport and our City for tomorrow

Accountable and Transparent

We will make investment and operations decisions at the Airport based on a clear and defensible rationale

5 DEVELOPMENT AND GROWTH OPPORTUNITIES

Development and growth opportunities have been identified to increase the social and economic benefits of Prince Albert Airport as well as its financial sustainability through the stimulation of revenues, as summarized in Table 5.1 and described below. Strategies for pursuing these opportunities will be discussed in Section 10. As will be described in Sections 7 and 8, a range of infrastructure and operational constraints affect the attainment of these opportunities, such as:

- The lack of residual servicing capacity and unserviced development lots;
- Line of sight issues that limit the height of on-Airport structures;
- Poor quality internet services;
- The capacity and operational capabilities of the terminal building; and
- Development lots that lack access to an apron or taxiway.

Table 5.1 – Development and Growth Opportunities

Aeronautical Opportunities			Non-Aeronautical Opportunities		
Opportunity	**Planning Horizon**	**Likelihood**	**Opportunity**	**Planning Horizon**	**Likelihood**
Air Carrier Services	Medium-Term / Long-Term	Low	Green Industrial Park	Medium-Term	Medium
Private and Rental Hangars	Short-Term	Medium	Commercial, Industrial, and Public Land Uses	Medium-Term	Low
Flight Training	Short-Term	Medium	Photovoltaic Power Generation	Medium-Term / Long-Term	Low
Aviation Service Businesses	Short-Term	Medium			
Float Plane Operations	N/A	Low*			
Canada Border Services Agency Screening	N/A	Low*	* Opportunity not carried forward for further analysis in subsequent sections of the Master Plan		

5.1 Aeronautical Opportunities

5.1.1 Air Carrier Services

A common theme discovered during stakeholder consultations is the desire for new services to a hub airport such as Calgary International Airport by a major airline such as Air Canada or WestJet. As noted previously, Saskatoon International Airport is served by several national airlines including Air Canada and WestJet to destinations such as Calgary International Airport and Toronto Pearson International Airport.

Challenges

The proximity of Prince Albert to Saskatoon International Airport is a strategic disadvantage in the attraction of new scheduled air carrier services. Among the challenges include:

- **Business Case:** An airline must identify an acceptable business case to accept the risk of entering a new market. Specifically, the airline must be assured that a sufficient load factor (passengers per flight) and system-wide yield (revenue per passenger including potential connecting flights) can be attained to justify the route. While the entry of a new airline into Prince Albert may stimulate demand and / or capture latent demand not being met through Saskatoon, flights would have to be priced competitively versus options from Saskatoon, affecting route yield. Further, passengers that now choose to travel from Prince Albert may negatively impact the performance of existing flights from Saskatoon.
- **Driving Propensity:** The propensity for residents and visitors to drive to / from Saskatoon has been demonstrated, with the ease of access improved with the twinning of Highway 11 which was completed in 2013. In normal conditions, the trip can be completed in approximately 1h30m, creating ease of access by personal vehicle to Saskatoon International Airport. Flights from Prince Albert would have to offer a higher convenience and / or value proposition compared to Saskatoon to attract travellers.
- **Station Costs:** The decision for an air carrier to commence service from Prince Albert to a hub airport would typically involve the establishment of a new station, including the hiring of locally based staff, the entry into service contracts with ground handlers, and the purchase of airline-specific equipment such as boarding ramps. Airlines such as Air Canada and WestJet already maintain stations in Saskatoon and duplicating these facilities (albeit at a reduced scale) in Prince Albert would carry a level of inefficiency if demand is currently being met.
- **Terminal Capacity:** The current terminal building has limited space and infrastructure to support a new airline.
- **Pre-Board Screening:** Canadian Air Transport Security Authority (CATSA) screening is not available at Prince Albert Airport, thereby requiring that flights arrive at the hub airport unsecured and that passengers would be screened prior to making their connection. This consideration is discussed further in Section 7.3.11.

An additional challenge in the short to medium-term is the significant negative financial impacts that airlines have experienced due to the ongoing COVID-19 pandemic. Network airlines such as Air Canada and WestJet are facing unprecedented financial challenges amid reduced demand and travel restrictions, thereby heightening the importance of existing and potential future routes demonstrating a strong business case. At the time of this Master Plan's preparation, Air Canada has terminated over 30 regional routes across Canada and ceased service to communities such as Lethbridge and Medicine Hat. While WestJet has maintained service to regional destinations in western Canada through its WestJet Link operation, its new route from Calgary to Dawson Creek that was announced prior to the COVID-19 pandemic has been repeatedly delayed beyond its original start date.

Survey Findings

Key air service findings from the online survey are presented below:

- 79% of respondents identified scheduled passenger services as being a feature of Prince Albert Airport that is important to them;
- 90% of respondents identified Saskatoon International Airport as their most used airport when travelling by air, followed by Prince Albert (9%) and other airports (1%);
- 22% of respondents cited business as being the reason that they generally travel by air, with 78% of respondents identifying travel for personal reasons (e.g., vacations, visiting friends and relatives); and
- 30% of respondents travel by air once per year, 44% two to five times per year, 19% six or more times per year, and 8% do not travel by air.

Survey findings could be partially influenced by response bias, in that respondents with an interest in the Airport are more likely to complete the survey,

Potential Opportunity

Air carrier service from Prince Albert to a hub airport would have significant social and economic benefits to the region and increase the role of Prince Albert Airport, although there are numerous challenges that must be overcome. Securing a new air carrier service to a hub airport is not identified as an opportunity in the short-term planning horizon (2021 to 2025). However, as the country and air travel industry recover from COVID-19 in the medium and long-term planning horizons, conditions may change such that such a service could become viable.

Based on the current conditions of the regional air travel industry in western Canada, it is anticipated that the primary opportunity would be the commencement of WestJet Link service to Calgary International Airport. WestJet Link is the brand used by WestJet for its Capacity Purchase Agreement with Pacific Coastal Airlines to provide regional services across western Canada to destinations such as Medicine Hat, Lethbridge, Lloydminster using 34-seat Saab 340B turboprop airliners. WestJet Link was launched in 2018 to serve destinations without sufficient demand to justify the use of 78-seat De Havilland Canada Dash 8-400s by WestJet Encore.

WestJet Link Saab 340

5.1.2 Private and Rental Hangars

Hangars are used for the storage of aircraft and associated activities such as maintenance and inspections. Hangars can range from simple structures that can accommodate a single general aviation aircraft to larger facilities that support multiple larger aircraft used by air carriers. Stakeholder consultations also identified potential demand for rental hangars. Unlike the absorption of development lots for private aircraft hangars, this scenario considers the ownership of one or more hangars by the City or a private entity. Space can then be sold on a short-term (e.g., overnight, daily, weekly) to longer term (e.g., monthly, yearly) basis according to the specified needs of the aircraft operator. The public ownership of rental hangars by the City of Prince Albert would represent a new revenue source, but must be considered alongside the following:

- Demand, while noted through stakeholder consultations, cannot specifically be quantified at this time;
- The development of rental hangars involves the capital costs of construction, introducing an element of risk if sufficient revenues are not returned on the public investment;
- Existing municipal resources assigned to the Airport may need to be increased as the City becomes an active hangar landlord and operator; and
- The direct ownership and rental of hangars by the City diverges from its corporate strategy of being a tool to facilitate economic activity.

Considering the above, the development of individually or corporately owned hangars, as well as privately owned rental hangars, can be facilitated by the City by providing appropriate leasehold lots at the Airport that are fairly and competitively priced, and adequately supported by utilities and services. The absorption of new development lots for hangars would increase annual leasehold revenues to the City.

5.1.3 Flight Training

The long-term need for professional pilots has generated significant flight training activity across Canada, which is supplemented by individuals pursuing flying as a recreational activity. Flight Training Units (FTUs) are specialized educational institutions that provided ground-based and practical flight training to individuals. The nearest FTUs to Prince Albert are located at Birch Hills Airport and Saskatoon International Airport. A satellite FTU was historically operated at Prince Albert Airport in 2016 by Saskatoon-based Mitchinson Flight Centre.

Prince Albert Airport has a significant number of strengths that are conducive to flight training, including:

- Instrument Flight Procedures that enable Instrument Flight Rules (IFR) training;
- Lighting for nighttime training and lack of nearby land uses that are sensitive to noise and disturbance;
- Proximity to Saskatoon International Airport which enables students to practice flying in controlled airspace; and
- Lack of congestion and availability of nearby practice areas.

A new FTU or a satellite facility of an existing business could diversify the role of Prince Albert Airport and position the facility as a key part of the professional pilot training environment. Such a facility would also support other businesses and tenants through synergistic relationships; an FTU, for example, would represent a reliable source of fuel sales for an on-site provider. FTUs also commonly provide other services typical of regional airports, such as serving as an Aircraft Maintenance Organization (AMO) and Fixed-Base Operator (FBO). Finally, provided an appropriate rates and fees structure is established, revenue can be realized from FTU aircraft movements, as well as land lease payments with the absorption of a development lot.

As FTUs are private businesses and the City's role, as the Airport owner and operator, is to facilitate activity at the facility, the primary steps that can be taken to realize this opportunity are:

- Engaging in dialogue with existing FTUs regarding the possibility of a satellite facility being developed while marketing the Airport's strengths; and
- Ensuring that land lease prices and the aeronautical rates and fees structure are fair and competitive, in that a new FTU is not disincentivized from operating at Prince Albert, but also that the financial realities of operating the Airport are addressed.

5.1.4 Aviation Service Businesses

Aircraft Maintenance Organizations are specialized businesses engaged in routine and ad hoc maintenance on aircraft in compliance with Transport Canada standards. AMOs can range from organizations with one or two employees to major facilities supporting commercial air carriers employing numerous skilled workers. Nearby AMOs are located at Birch Hills Airport and Saskatchewan International Airport. As noted through stakeholder consultations, the presence of an AMO at Prince Albert Airport would improve the services offered to locally based and itinerant aircraft while also improving the facility's economic contribution to the region through the employment of skilled workers.

Fixed Base Operators function as terminals for itinerant aircraft that do not require the processing capabilities of passenger air terminal buildings. FBOs generally provide services to visiting aircraft such as parking, storage, fuel sales, ground handling, and catering. Their facilities are typically comprised of a hangar and apron for the storage and parking of aircraft, as well as multipurpose areas for flight planning, crew rest, and other activities. FBOs can be owned as independent businesses or operated under larger companies (e.g., Skyservice, Signature Aviation), and may be affiliated with fuel retailers. While the City could operate an FBO, this introduces extra costs and operational complexity to the municipality. FBOs are a significant advantage for airports that routinely handle itinerant aircraft, especially corporate and business aviation operators that value the user experience and convenience as opposed to using public terminal buildings.

In line with prior discussions, a role of the City with Prince Albert Airport is to facilitate new and existing businesses at the site. Accordingly, the attraction of an AMO and / or an FBO is contingent on a business identifying a sufficient business case that is willing to make the investment at the Airport. The City can foster an environment that encourages business development by reviewing its lease and municipal tax structure to ensure that rates are cost competitive for prospective operators. Once the requisite conditions for business development are established, proactive marketing can be undertaken.

5.1.5 Floatplane Operations

Floatplanes are commonly used throughout Canada due to the abundance of potential landing locations and the ability to access destinations without aerodromes and / or with limited road access, such as backcountry lodges, hunting, and fishing locations. Floatplanes range from piston single-engine aircraft, such as the four-seat Cessna 182, to larger multi-engine aircraft such as the 19-seat DHC-6 Twin Otter. In the Saskatchewan context, commercial floatplane charter services primarily service the hunting and fishing industry and are provided by:

- **Osprey Wings:** Based approximately 270 km north of Prince Albert at Otter Lake, operating a fleet of DHC Twin Otter, Otter, and Beaver aircraft.
- **Transwest Air:** Floatplane operations are based at the La Ronge Water Aerodrome (211 km north) and include the DHC Beaver, Otter, and Twin Otter, as well as the Cessna 185.

From stakeholder consultations, it is understood that the choice of Osprey Wings and Transwest Air to be based at and in the vicinity of La Ronge is due to the proximity to prime hunting and fishing destinations, as well as the range limitations of their aircraft fleets given limited fuel availability in the region. Charter customers generally travel to La Ronge and Otter Lake by ground or air before flying to their chosen destination with their charter aircraft provider.

While commercial floatplane operations are focussed in the La Ronge area, privately operated floatplanes also require locations to stop and refuel. A review of the Canadian Water Aerodrome Supplement (CWAS) indicates that most water aerodromes are in northern Saskatchewan. The nearest water aerodromes to Prince Albert listed in the CWAS are La Ronge and Otter Lake, with both facilities selling 100LL and Jet-A aircraft fuel. The distance between water aerodromes with fuel facilities can create challenges for aircraft on fixed floats without retractable landing gear.

The number of private floatplane operations in Saskatchewan is not known, although several stakeholders expressed an interest to support such operations in Prince Albert. Limited floatplane operations currently occur on the North Saskatchewan River. No floatplane infrastructure or services are currently available at Prince Albert Airport, although floatplanes occasionally moor on the shoreline. The realization of this opportunity would require, at a minimum, the following actions by the City of Prince Albert:

1. A detailed review of the depth, size, and conditions of the North Saskatchewan River to support floatplane operations;
2. The installation of basic infrastructure such as a dock and improved access to the shoreline of the river; and
3. The registration of the water aerodrome pursuant to CAR 301.

A rock weir was built south of the Airport on the North Saskatchewan River between 1936 and 1937 to raise the water level to support floatplane operations. In subsequent years, spring ice flows have degraded the ability of the weir to raise the water level. Based on consultations with City Staff, the weir currently raises the water level by an estimated 15”.

As described previously, the City is not responsible for the sale of fuel at the Airport; this is completed by several tenants and Snowbird Aviation Services. Therefore, while the City could proactively register and develop a water aerodrome adjacent to Prince Albert Airport, the usability of such a facility would be limited without involvement by a private fuel retailer. Further, a water aerodrome would not generate new revenue for the City as the operator without the implementation of a floatplane rates and fees structure.

An additional consideration is the 2019 Notice of Proposed Amendment (NPA 2019-014) to the CARs published by Transport Canada addressing the certification of water aerodromes. This NPA, when / if adopted, would result in the requirement for the certification of water aerodromes. A water aerodrome on the North Saskatchewan River may require certification under the eligibility criteria of the 2019 NPA in that it would be situated within the built-up area of the City of Prince Albert. If certified, a water aerodrome would have to meet select physical specifications; be under the regulatory jurisdiction of Transport Canada; and require matters such as a defined organizational structure, operational manuals, and response plans. Maintaining a water aerodrome certificate would increase the operational burden imposed on the City of Prince Albert and associated costs.

Given the inability to analyze the potential scale and benefits of floatplane operations, potential changes to the regulatory environment for water aerodromes and airports, and the need to secure private-sector involvement, floatplane operations are not carried forward as an opportunity in the Master Plan.

5.1.6 Canada Border Services Agency Screening

Prince Albert Airport cannot currently support aircraft arriving directly from the United States and other international points of origin as it is not an Airport of Entry (AOE) as designated by the Canada Border Services Agency (CBSA). In Canada, there are three primary classifications for airports:

1. **AOE:** A facility for the clearance of all classes of scheduled and unscheduled aircraft. In Saskatchewan, Regina International Airport and Saskatoon International Airport are the two AOE facilities.
2. **AOE/15:** A facility used solely for general aviation aircraft where the flights are unscheduled, and a maximum of 15 passengers and crew can be accommodated. Scobey Border Station and West Poplar River are the only AOE/15 airports in Saskatchewan.
3. **AOE/CANPASS:** An airport designated for the clearance of Canadian passenger Accelerated Service System (CANPASS) permit holders – a program designed to expedite clearance for frequent, low-risk, pre-approved travellers. Estevan Airport is the only AOE/CANPASS airport in Saskatchewan.

Stakeholder consultations indicate that pursuing AOE/15 or AOE/CANPASS status could improve the level of service provided for locally based and itinerant aircraft operators arriving from the United States. With respect to the latter category, the provision of CBSA services at Prince Albert Airport could be an opportunity to attract aircraft that are travelling northwards to hunting and fishing vacations that seek to bypass Saskatoon and Regina International Airport. However, the scale of this opportunity cannot be quantified at this time.

The CBSA Core Service Request approval process for AOE/15 and AOE/CANPASS services is specified in the Air Services Policy Framework (ASPF). Prince Albert Airport is located farther than 100 km from the CBSA office at Saskatoon International Airport meaning that services generally would not be provided per the ASPF. While this matter can be explored further in consultation with the CBSA Saskatoon office, it is not carried forward as an opportunity in the Master Plan.

5.2 Non-Aeronautical Opportunities

5.2.1 Green Industrial Park

The Green Industrial Park (Figure 5.1) is a 28-acre land assembly owned by the City of Prince Albert north of the Airport, adjacent to Highway 55. The Green Industrial Park was developed to create a business node that supports the function of Prince Albert Airport, and originally was intended to be designed and constructed following Leadership in Energy and Environmental Design (LEED) principles. A preliminary feasibility study also contemplated the use of the site for green energy power generation, such as biomass and geothermal technologies.

The Zoning Bylaw designates the property as M4 – Airport Industrial with the purpose of providing land for a medium to large scale, airport related, commercial and light industrial uses. Examples of permitted uses include offices, restaurants, retail stores, storage facilities, and warehouses.

Figure 5.1 – Green Industrial Park

The Green Industrial Park is serviced (200 mm potable water, 250 mm sanitary sewer), six lots have been subdivided, and the site is zoned for development. However, no lots have been sold. The lots are not contiguous to Prince Albert Airport and are located approximately 500 m northwest of the threshold of Runway 08, beyond the Airport's perimeter (Figure 5.1). The development of the Green Industrial Park for uses requiring airside access is not recommended as:

- Significant capital expenses will be incurred in expanding the Airport boundary and developing a new taxiway;
- The expanded Airport boundary and new taxiway will increase the asset management implications of the City and maintenance costs (e.g., winter maintenance, pavement repairs);
- Existing lots with airside access are available without requiring the above-noted capital projects;
- The current plan of subdivision would need to be revised to provide groundside and airside access and meet the needs of prospective tenants; and
- The inclusion of the Green Industrial Park within the Airport boundary would require the airside lots to be leased as opposed to being sold outright. This is done to ensure that the City can retain control over the operations and development of the Airport, including future uses.

While less travelled than Highways 2 and 11, approximately 2,800 vehicles travel on Highway 55 adjacent to the Green Energy Industrial Park per day based on 2018 data from the Government of Saskatchewan. The Industrial Park has good frontage on Highway 55 and although the highway corridor has experienced limited development, it may be an appropriate location for commercial uses. Businesses such as gas stations, restaurants, rental vehicle providers, hotels, and retail stores can benefit from travellers using Highway 55, as can Airport tenants, passengers, and employees. A restaurant, for example, has been identified through stakeholder consultations as an opportunity to cater to air carrier passengers.

5.2.2 Commercial, Industrial, and Public Land Uses

There is a significant assembly of undeveloped groundside lands in the core area of the Airport that could be developed for commercial and industrial land uses that do not require airside access. The development of these land uses must consider:

- The limitations of current potable water and sanitary sewer services;
- The leasehold structure in place for Airport lands, making the site less competitive than fee simple properties available in Prince Albert and at the Green Industrial Park;
- The investment has already been made to service the Green Industrial Park, which can support commercial and industrial development without upgrades to the Airport utility systems;
- The distance of the Airport from Prince Albert, potential customers and users, and other businesses that have synergies with a prospective groundside tenant; and
- The need to ensure that proposed land uses do not conflict with aircraft operations (e.g., restrictions to visibility from plumes, the attraction of birds and wildlife, etc.).

Examples of commercial and industrial land uses that could realize benefits from locating at Prince Albert Airport include:

- Warehousing;
- Trucking and distribution;
- Large-format retail stores;
- Enclosed and outdoor storage;
- Resource extraction industry support businesses;
- Restaurants; and
- Vehicle sales and servicing.

In addition to the commercial and industrial land uses noted above, it is understood that the Prince Albert Police Service and Prince Albert Fire Department use different parts of the Airport property for recurrent training. The existing use of the Airport by these agencies, large areas of land of groundside land available, and lack of nearby land uses that are sensitive to noise and disturbance could make the Airport an opportune location for an emergency services training centre of excellence. The development of a multi-purpose training centre could represent an opportune year-round use of the Airport, with such a facility potentially meeting the needs of the RCMP, Prince Albert Police Service, Prince Albert Fire Department, Saskatchewan Public Safety Agency, and Department of National Defence, as well as other agencies in the region.

5.2.3 Photovoltaic Power Generation

In 2015, SaskPower announced its plan to reduce emissions by 40% below 2005 levels by 2030 and increase the percentage of renewable electricity to 50% of total generation. In the following years, SaskPower announced its plans to add 60 megawatts (MW) of solar generation capacity in the province by 2021, with recent developments including the Pesâkâstêw (10 MW), Highfield (10 MW), and Foxtail Grove (10 MW) solar projects.

Photovoltaic power generation projects are increasingly being developed at airports across Canada, including Thunder Bay Airport and Windsor Airport. In 2019, Saturn Power announced that Red Deer Regional Airport was being considered as the potential site for a 6 to 14 MW project, and in 2020 Edmonton International Airport announced that Alpin Sun would develop a 120 MW solar farm on-site through its Airport City Solar project.

Based on data from EnergyHub, Saskatchewan is the province with the highest potential to produce solar energy, and Prince Albert Airport is located in an area with the estimated annual photovoltaic potential of 1,200 to 1,300 kilowatt hours (kWh) per Natural Resources Canada. The extensive land assembly of Prince Albert Airport, generally flat topography, and lack of nearby sensitive land uses may position the site as a favourable location for a utility-scale photovoltaic power generation operation. Airport compatibility concerns will restrict select parts of the property and will require coordination with NAV CANADA on their electronic navigation aids to ensure no interference occurs.

The procurement process used by SaskPower for the Highfield and Foxtail Grove projects included the identification of recommended sites, with proponents also having the option of suggesting their own site. Through outreach with SaskPower and Independent Power Producers, the City may be able to position Prince Albert Airport as a preferred location for a photovoltaic power project, representing a stable source of long-term land lease revenues and potentially boost regional employment.

6 DEMAND ASSESSMENT

6.1 Activity Forecasts

Forecasts have been prepared to estimate the change in aircraft movements and passenger activity at Prince Albert Airport, on an annual basis, over the 20-year horizon of the Master Plan. The activity forecasts are used to analyze future demand for infrastructure, operational needs, and the Airport's financial standing in subsequent sections of the Master Plan. While every effort is made to maximize the accuracy of the forecasts prepared herein, forecasting is a forward-looking that is characterized by considerable uncertainty that increases over time. The assumptions and outputs of the forecasts can be changed by external influences such as:

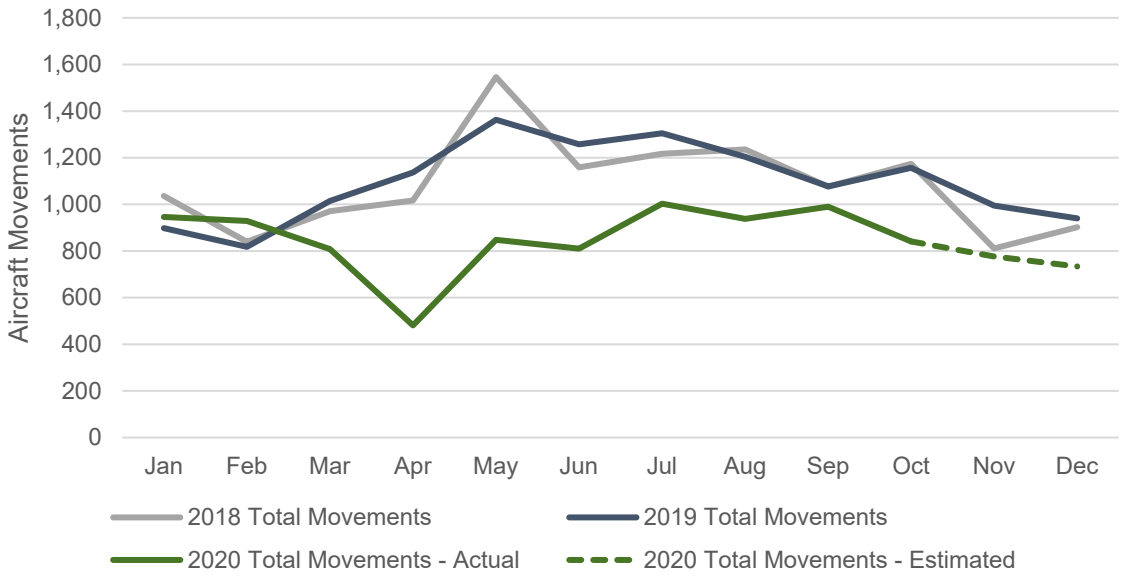
- New Airport businesses and the loss of tenants;
- Air carrier service additions and terminations;
- Regional economic and demographic changes; and
- Changes in the resource extraction sector.

6.1.1 Aircraft Movement Forecast

2020 Assumptions

At the time of the Master Plan's preparation, 2020 aircraft movement data was available for the period of January to October. Accordingly, aircraft movements for November and December assume that local and itinerant movements decrease by 24% and 22%, respectively, from 2019 monthly values based on the trends exhibited experienced in the preceding months. Based on these assumptions, a total of 10,105 aircraft movements are estimated to occur in 2020, which represents a 23% decrease from 2019, as shown in Figure 6.1.

Figure 6.1 – 2020 Assumed Aircraft Movements



Master Plan Forecast

As described in Section 3.5.1, local aircraft movements have declined by approximately 4% per year between 1997 and 2019. The movement forecast assumes that:

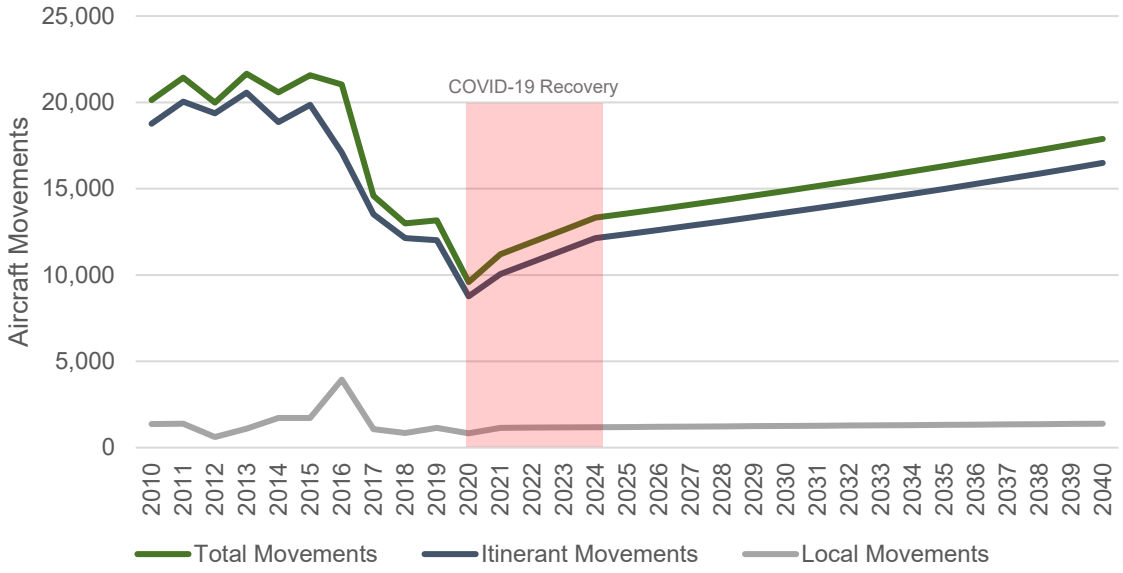
- Local aircraft movements return to 2019 levels in 2021.
- A modest 1% annual increase in local movements is experienced from 2022 to 2040, representing a gradual improvement versus the decline experienced from 1997 to 2019 based on the potential realization of select opportunities such as new aircraft hangars and aviation service businesses.

Itinerant movements are forecast based on the operator category:

- Air carrier activity returns to 2019 levels in 2024, consistent with recent forecasts by the International Air Transportation Association (IATA) on the anticipated recovery of the airline industry from COVID-19. Air carrier movements increase by 2% annually in subsequent years.
- Other commercial movements return to 2019 levels in 2021 and increase by 1% annually in subsequent years, consistent with the modest changes in this category experienced between 2010 and 2018.
- Private movements return to 2019 levels in 2021 and increase by 2% annually thereafter based on the development of new hangars, locally based aircraft, and transient corporate and general aviation aircraft.
- Government movements return to 2019 levels in 2021 and increase by 1.5% annually thereafter, primarily driven by additional RCMP, SPSA, and air ambulance activity.

Based on the foregoing assumptions, total aircraft movements are estimated to increase from an estimated 10,105 movements in 2020 to approximately 18,000 in 2040 as shown in Figure 6.2. This represents a gradual recovery that nears the activity levels experienced from 2006 to 2016, prior to the significant decrease experienced from 2017 to 2020 due to reduced charter activity, air carrier changes, and COVID-19.

Figure 6.2 – Master Plan Aircraft Movements Forecast

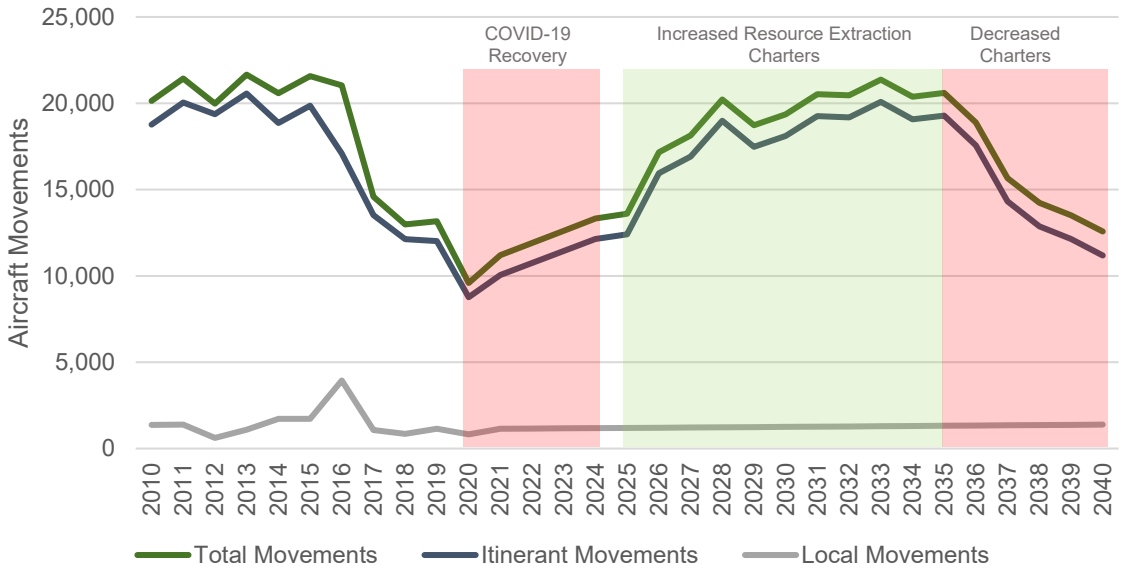


Illustrative Forecast Scenarios

Despite the forecast and supporting assumptions prepared above, it is understood that traffic at Prince Albert Airport can be highly cyclical given the linkages that exist with charters supporting the resource extraction sector. Significant peaks have been experienced in the history of Prince Albert Airport such as 2008 (21,000 movements), 2013 (22,000 movements), and 2015 (22,000 movements) that were subsequently followed by periods of decreased activity. The extent and timing of such peaks and troughs is not easily forecast given the uncertainty of the resource extraction market. Therefore, deviation above and below the forecast aircraft movement levels can reasonably be expected across the Master Plan horizon.

This can be illustrated in Figure 6.3 which considers a hypothetical scenario modelled on trends from 2005 to 2018, in which charter air carrier movements increase significantly in support of northern uranium operations before subsequently decreasing based on less favourable market conditions. The "boom-bust" nature of resource extraction charters and the corresponding effects to the activity levels of Prince Albert Airport introduce a layer of complexity to the Master Plan: while stability is expected in this sector in the short-term planning horizon, planning recommendations must consider the resurgence of historical levels of activity and flexibility must be integrated in the design of key infrastructure assets, such as the terminal building.

Figure 6.3 – Illustrative Aircraft Movements Forecast – Resource Extraction Charters

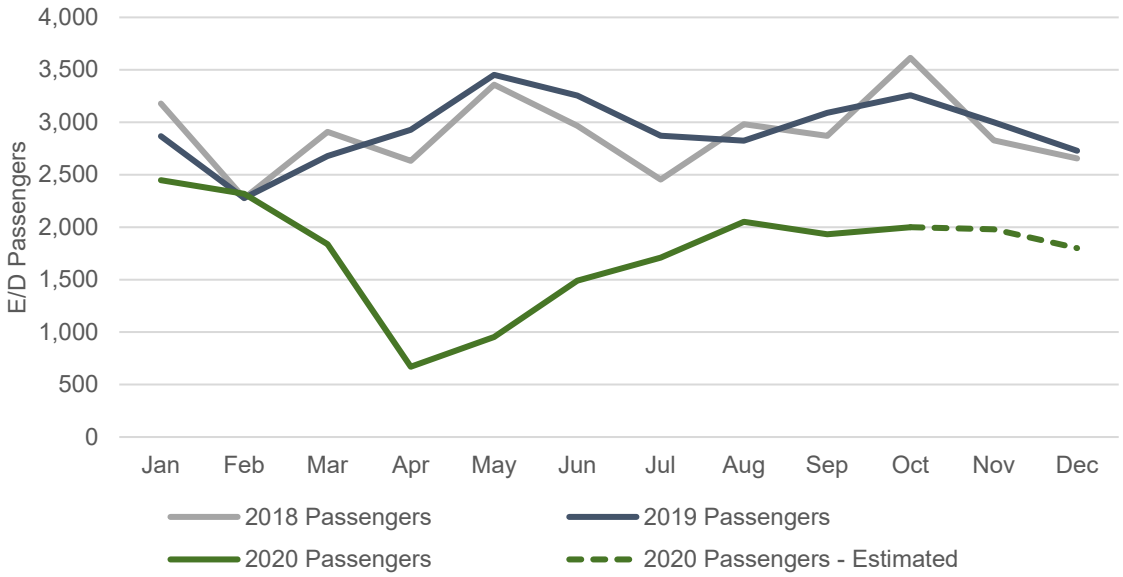


6.1.2 Passenger Activity Forecast

2020 Assumptions

At the time of the Master Plan's preparation, 2020 PFF data was available for the period of January to October. Activity for November and December has been estimated assuming that passenger traffic decreases by 34% compared to 2019 monthly values, based on the declines exhibited in the preceding three months of 2020. Based on this assumption, approximately 21,000 E/D passengers are estimated to use Prince Albert Airport in 2020 – a decrease of 41% from 2019 (35,000 E/D passengers). Figure 6.4 presents the actual and assumed 2020 passenger movements.

Figure 6.4 – 2020 Actual and Assumed Passenger Activity



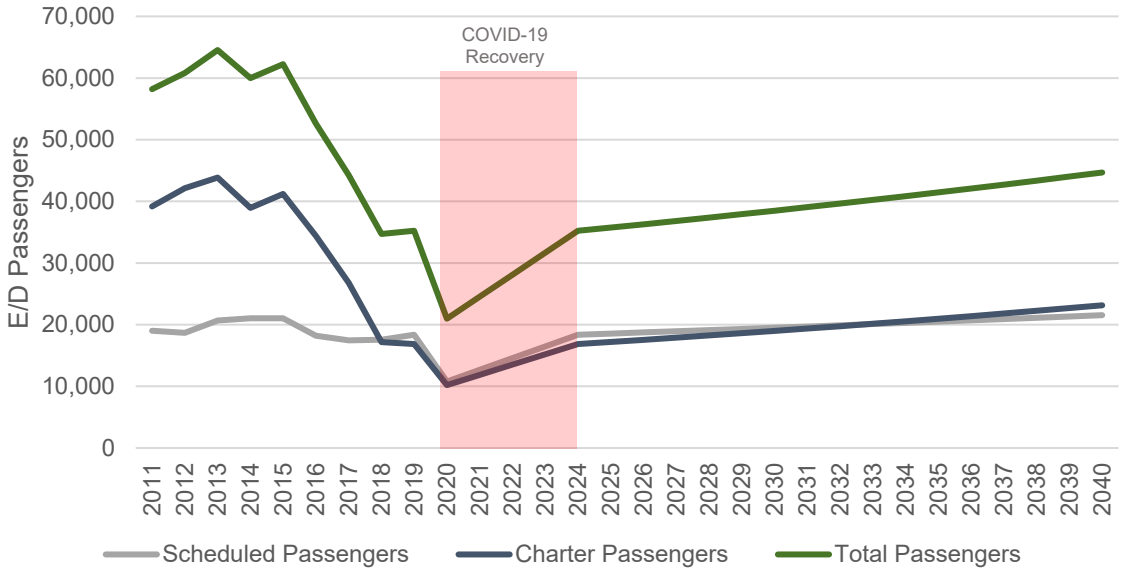
Master Plan Forecast

With respect to scheduled air carrier passenger activity, the Master Plan forecast assumes that:

- Scheduled and charter passenger volumes return to 2019 levels in 2024, consistent with recent COVID-19 recovery forecasts prepared by IATA;
- Scheduled passenger activity levels increase by 1% annually from 2024 to 2040. This growth is primarily tied to potential population changes in the Northern Saskatchewan Administrative District, which experienced an annual growth rate of approximately 1% between 2006 and 2016; and
- Charter passenger activity levels increase by 2% annually from 2024 to 2040, driven by increased activity at northern resource extraction operations because of a gradually improving global market for products such as uranium.

Based on these assumptions, the Master Plan forecast assumes that passenger activity at Prince Albert Airport increases from 35,000 E/D passengers in 2019 to 45,000 passengers in 2040, including approximately 22,000 scheduled passengers and 23,000 charter passengers. This forecast is illustrated in Figure 6.5.

Figure 6.5 – Master Plan Passenger Activity Forecast



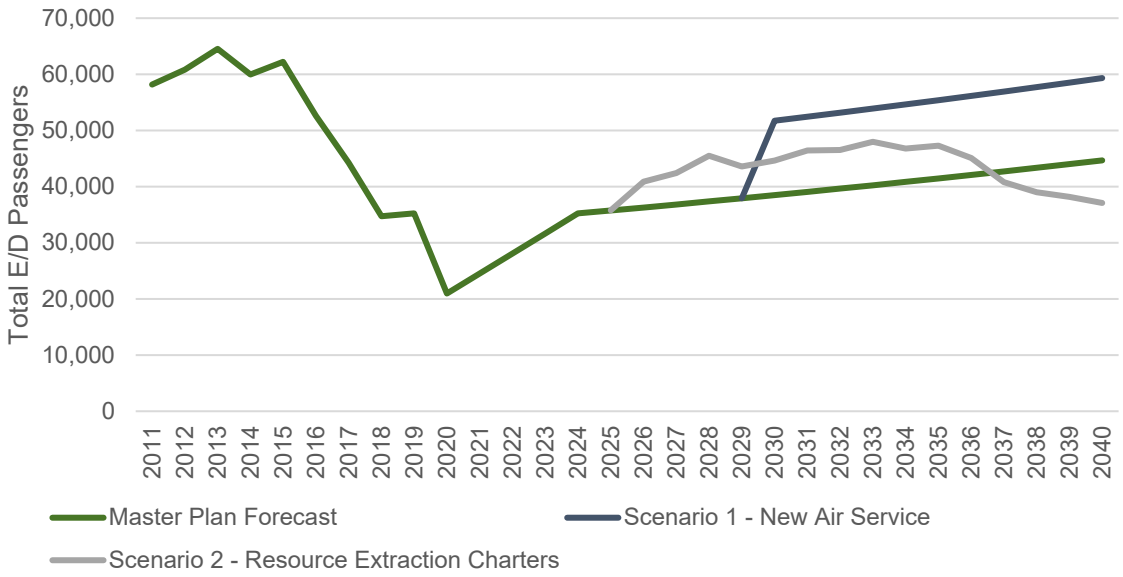
Illustrative Forecast Scenarios

Similar to the illustrative forecast scenarios considered for aircraft movements, events can occur during the Master Plan horizons that could significantly impact passenger activity at Prince Albert Airport. Illustrated in Figure 6.6 are two hypothetical scenarios:

1. **New Air Service:** The commencement of weekday scheduled passenger services to a hub airport (e.g., Calgary) in 2030 using a 34-seat Saab 340B at an assumed load factor of 75%, with route performance improving in subsequent years.
2. **Resource Extraction Charters:** Charter activity in support of northern resource extraction operations undergoes a significant increase and decrease between 2025 and 2040 because of changing market conditions.

As shown in Figure 6.6, the two hypothetical scenarios illustrate how flexibility must be integrated in the recommendations of the Master Plan and in future investments made at Prince Albert Airport. While the Master Plan passenger forecast seeks to describe potential future activity, factors within and beyond the control of the City may necessitate that recommendations are re-evaluated to adapt to changing circumstances. The terminal building functional areas, for example, may need to be sized to accommodate a period of increased resource extraction charter activity. However, the cyclical nature of this traffic may in turn lead to years where the facility is underutilized, and Airport finances are challenged.

Figure 6.6 – Illustrative Passenger Activity Forecasts



6.1.3 Air Cargo Forecast

Analyzing annual trends in air cargo activity at Prince Albert Airport for the purpose of informing forecasts of future throughput was not possible given the lack of data provided prior to 2020. Consultations with air carrier staff at Prince Albert Airport indicate that while 2020 throughput was higher than typical years because of COVID-19, cargo demand is stable and moderately increasing. Understanding that air cargo through Prince Albert is primarily destined to the communities of the Northern Saskatchewan Administrative District, the air cargo forecast assumes that:

- Cargo volumes in 2021 and 2022 decrease from 2020 as the short-term demand increase of COVID-19 dissipates; and
- Cargo throughput increases by 1.25% annually in subsequent years, consistent with the average annual population change in the Northern Saskatchewan Administrative District and accounting for moderate demand stimulated as a result of e-commerce.

The air cargo forecast, presented in Table 6.1, assumes that annual throughput will increase to approximately 1,023,000 lbs in 2040.

Table 6.1 – Air Cargo Forecast

Planning Horizon	Year	Air Cargo
Baseline	2020	969,000 lbs
Short-Term	2025	849,000 lbs
Medium-Term	2030	903,000 lbs
Long-Term	2035	961,400 lbs
	2040	1,023,000 lbs

6.2 Design Aircraft Selection

6.2.1 Current Design Aircraft

The Prince Albert Airport Operations Manual (AOM) declares the design (critical) aircraft for the primary runway (Runway 08-26) as aircraft in the category of the Boeing 737-200. The Boeing 737-200 is classified as Reference Code 3C in TP312 4th Edition and as Aircraft Group Number IIIB in TP312 5th Edition. In service since 1968, over 1,000 737-200s were built. Additional variants of the 737 have been produced with capacities of between 130 passengers (Boeing 737-200) and 230 passengers (Boeing 737 MAX 10). The Boeing 737-200 is in use with several Canadian airlines including Nolinor, Canadian North, and Air Inuit. Charter passenger flights operated by 737-200 aircraft utilize Prince Albert Airport multiple times per year.

The design aircraft for the crosswind turf runway (Runway 16-34) are aircraft in the AGN II category. Examples of AGN II aircraft include the Beechcraft King Air 200, Cessna 208 Caravan, and Pilatus PC-12.

Boeing 737-200 (Nolinor Aviation)

6.2.2 Recommended Design Aircraft

A review by the project team of the aircraft types currently using Prince Albert Airport indicated that the Boeing 737 and other AGN IIIB aircraft are the most restrictive types expected to make regular use of the Airport throughout the Master Plan horizon. While airlines operating at Prince Albert may alter their fleets during this period, the project team does not anticipate any aircraft introduced into service will have greater infrastructure requirements. Consequently, it is recommended that the Boeing 737 remain the design aircraft and that design of primary maneuvering surfaces satisfy AGN IIIB standards as this will ensure all AGN I-IIIB aircraft can be accommodated. The characteristics and respective AGNs of aircraft currently serving Prince Albert and those expected to serve the Airport within the planning horizon are presented in Table 6.2.

Runways 08-26 and 16-34 will continue to be designated Precision/Non-Precision and Non-Instrument, respectively, per the AOM.

Table 6.2 – Select Aircraft Characteristics

Aircraft	Wingspan (m)	Passengers	Aircraft Group Number (AGN)
CURRENT			
Boeing 737	28 - 36	130-230	IIIB
ATR 42	25	44	IIIA
Saab 340B	21	34	II
Beechcraft 1900D	18	19	II
Convair 580	32	N/A	IIIA
POTENTIAL			
Embraer E175	26	76	IIIB
De Havilland Dash 8-400	28	78	IIIA
Dornier 328	21	30	II

7 AIRPORT INFRASTRUCTURE, DEFICIENCIES, AND REQUIREMENTS

The current Site Plan of Prince Albert Airport is presented in Figure 7.1. For each Airport infrastructure element or asset, the current condition, future requirements, and deficiencies are analyzed to guide future development and capital planning.

7.1 Airside System

7.1.1 Runways

Two runways are available at Prince Albert Airport: Runway 08-26 and Runway 16-34. The primary characteristics and reported condition of each runway are shown in Table 7.1.

Table 7.1 – Runway Data

Runway	08-26	16-34
Length	1524 m (5,001 ft.)	762 m (2,501 ft.)
Width	45 m (148 ft.)	30 m (98 ft.)
TP312 4th Ed. Reference Code	RWY 08 3C-P RWY 26 3C-NP	1A-NI
TP312 5th Ed. AGN Equivalent	RWY 08 IIIB-P RWY 26 IIIB-NP	II-NI
Surface	Asphalt / Concrete	Turf
Pavement Load Rating (PLR)	8, 10	N/A
Surface Condition	Fair / Good	Fair
Utilization	99.6%	0.4%
Note: Utilization is calculated using movement data provided by NAV CANADA from January 1, 2017 to August 2, 2020.		

Runway 08-26

Runway 08-26 is the primary runway and was used for 99.6% of movements from January 2017 to August 2020. Runway 08-26 is designated as an AGN IIIB facility in the Airport Operations Manual, supporting regular operations for aircraft sizes up to and including the current design aircraft; the Boeing 737.

Runway 08-26 was rehabilitated in 2012 and was observed to be in fair to good condition as of 2020. The predominant defects observed by the project team were low severity ravelling; low severity longitudinal and transverse cracking; and low to medium severity joint spalling at the Runway 08 threshold. Existing cracks are generally well sealed. **Localized concrete repairs are recommended in the short-term planning horizon, with the full rehabilitation of Runway 08-26 required in the medium-term**.

GREEN INDUSTRIAL PARK

SSALR (EASEMENT)

SSALR

WIND DIRECTION INDICATOR

PERIMETER FENCE

ODALS

ILS LOCALIZER

08

RUNWAY 08-26 (5,000 X 148 ft.) CODE 3-P/NP

26

AIRPORT ROAD

TAXIWAY A

TAXIWAY D

16

ILS GLIDEPATH

RUNWAY 16-34 (2,500 X 100 ft.) CODE 1-NI

WIND DIRECTION INDICATOR

SASKATCHEWAN PUBLIC SAFETY AGENCY

PERIMETER FENCE

PAPI (P2)

TAXIWAY C

TAXIWAY E

TAXIWAY B

TAXIWAY F

LWIS/HWOS

VOR/DME

APRON I

FEC

APRON III

APRON II

VDF

SEE INSET A

AIRPORT ROAD

34

NORTH SASKATCHEWAN RIVER

ECCC WEATHER OBSERVATION STATION

INSET A: CORE AREA

TERMINAL BUILDING

TERMINAL BUILDING ROAD

PUBLIC PARKING

FLIGHT SERVICE STATION (FSS)

LONG-TERM CORPORATE PARKING

LONG-TERM PARKING

FIRE DEPT. STORAGE

SAND SHED

AIRPORT MAINTENANCE BUILDING

PRINCE ALBERT AIRPORT
STRATEGIC MASTER PLAN

FIGURE 7.1 - AIRPORT SITE PLAN

FEBRUARY 2021

0 150 300 Metres

*FOR PLANNING PURPOSES ONLY

The length of Runway 08-26 is generally sufficient for the current aircraft types that make use of the facility, such as the Beechcraft King Air, Saab 340, ATR 42, and Cessna Citation (Table 7.2). Occasional operations by larger aircraft, such as the Boeing 737, have occurred with performance restrictions (e.g., reduced payload and / or fuel). Current aircraft operators did not note the extension of Runway 08-26 as being a requirement to support typical future operations based on their fleet renewal plans. A specific business case or opportunity has not been identified that is contingent on the extension of Runway 08-26. However, the Recommended Land Use Plan will protect the lands to the west and east for the extension of Runway 08-26 if a specific need is identified in the future.

While the extension of Runway 08-26 would permit a wider array of aircraft types to operate at Prince Albert Airport, an equally significant consideration is the maintenance of the City's existing assets. Take-off and landing performance can decrease significantly on contaminated runway surfaces which are common in the winter with the accumulation of snow and ice. Aircraft operations on Runway 08-26 can be maximized by providing adequate resources and staff for winter maintenance and condition reporting. Additionally, extending Runway 08-26 will increase the City's lifecycle asset management obligations, including rehabilitation and annual maintenance costs. Understanding that municipal finances are constrained based on a significant number of competing priorities, the capital costs and benefits of a future runway extension should be carefully considered if an opportunity is identified.

The Pavement Load Rating (PLR) of Runway 08-26 is 8 for the concrete portion of the Runway 08 threshold and 10 for the remainder of the runway. Suitability is determined if the Aircraft Load Rating (ALR) is less than the PLR. Examples of aircraft that can make use of Runway 08-26 include the Beechcraft 1900 (ALR 3), Saab 340 (ALR 4), ATR 42 (ALR 5), Dash 8-400 (ALR 6), and Boeing 737-200 (ALR 9). Therefore, the PLR of Runway 08-26 is generally sufficient for operations by the aircraft types that currently operate at Prince Albert Airport, and those that may utilize the facility within the Master Plan horizon.

Table 7.2 – Advertised Aircraft Performance Data

Aircraft	Take-off Field Length
Beechcraft King Air 250	2,111 ft.
ATR 42-500	3,822 ft.
Saab 340B	4,220 ft.
De Havilland Dash 8-400	4,675 ft.
Cessna Citation Longitude	4,810 ft.
Note: All data based on manufacturer's advertised performance values for operations at Maximum Takeoff Weight, sea level, zero wind, and ICAO Standard Atmosphere.	

Runway End Safety Areas (RESAs) are cleared areas located beyond runway ends intended to reduce the severity of damage to an aircraft overrunning or undershooting the runway. RESAs are not currently declared at Prince Albert Airport. On March 6, 2020, a series of proposed changes to the Canadian Aviation Regulations were announced in the Canada Gazette that will require that airports processing more than 325,000 annual passengers implement 150 m RESAs. Prince Albert Airport is not included within the 325,000-passenger threshold, and therefore, will not be required to implement RESAs under the proposed regulatory amendments. However, the Canada Gazette notes that 150 m RESAs would contain 90% of historical runway excursions, demonstrating a potentially valuable aviation safety case**. In coordination with the rehabilitation of Runway 08-26, the preparation of 150 m RESAs to the west and east of Runway 08-26 is recommended in the medium-term.**

Runway 08 threshold

Runway 16-34

Runway 16-34 is the Airport's secondary runway and is comprised of a turf surface that was observed to be in fair condition by the project team. The runway is not maintained during the winter season.

The length and width of Runway 16-34 is suitable for operations by small general aviation aircraft such as the Cessna 172 and Piper Warrior, although its length and turf surface preclude usage by larger aircraft. Consultations with general aviation stakeholders indicated that the alignment of Runway 16-34 may not be optimized for the local prevailing winds.

The usability of Runway 16-34 could be improved by lengthening, paving, and / or realigning the facility. However, a specific business opportunity or user case was not identified that demonstrates sufficient benefits to justify the costs of pursuing such projects. Runway 16-34 conflicts with the proposed medium-term extension of Taxiway C to the threshold of Runway 26. Given the low utilization of Runway 16-34 and the capacity improvements that would be realized with the extension of Taxiway C, **it is recommended that Runway 16-34 be decommissioned in the medium-term** concurrent with the Taxiway C extension project.

Runway 16-34

7.1.2 Taxiways

The taxiway system facilitates the movement of aircraft and airport vehicles between the aprons and the runways. The specifications and reported conditions of each of the Airport's six taxiways are provided in Table 7.3.

Table 7.3 – Taxiway Data

Taxiway	A	B	C	D	E	F
Width	23 m (148 ft.)	13 m (98 ft.)	23 m (75 ft.	23 m (75 ft.)	23 m (75 ft.	23 m (75 ft.)
TP 312 4th Ed. Reference Code	C	B	C	C	B	A
TP312 5th Ed. AGN Equivalent	IIIB	II	IIIA	IIIA	II	II
Surface	Asphalt	Asphalt	Asphalt	Asphalt	Turf	Asphalt
Pavement Load Rating (PLR)	10	3	6	6	N/A	Unknown
Lighting	Yes	Yes	Yes	Yes	No	No
Condition	Fair	Fair	Fair	Fair	Fair	Very Good

Taxiway A

Taxiway A extends from the threshold of Runway 08 to Taxiway C and Apron I. Taxiway A was last rehabilitated in 2003 through a contribution from the Federal Government under the Airports Capital Assistance Program (ACAP). Taxiway A is adequate to support the design aircraft both in its dimensions and strength. The taxiway pavement was observed to be in fair condition with the predominant defects being low severity ravelling and low severity longitudinal and transverse cracking. Existing cracks on all taxiways were observed to be generally well sealed. **Rehabilitation is recommended in the medium-term planning horizon**.

Taxiway B

Taxiway B extends west from Apron I and serves the RCMP, Transwest Air, and private tenants. Taxiway B was rehabilitated in 2006 and was extended approximately 110 m west to its current length in 2010. The taxiway pavement is in fair condition with the predominant defects being low severity ravelling, low severity longitudinal cracking, and sporadic medium severity transverse cracking with secondary cracking. Taxiway B is adequate to serve the aircraft types that frequently use it and further extension is not recommended within the planning horizon. **The rehabilitation of Taxiway B is recommended in the medium-term planning horizon**.

Taxiway B (left) and Taxiway C (right)

Taxiway C

Taxiway C extends from Taxiway A to Taxiway D parallel to Runway 08-26 and provides airside access to the SPSA private apron. Taxiway C was last rehabilitated in 2003 and was observed to be in fair condition by the project team. The predominant defects were low severity ravelling, low severity longitudinal cracking, and transverse cracking.

The Taxiway C PLR is 6. While this is lower than the ALR of the design aircraft (Boeing 737 ALR ranges from 9.4 to 10.7) it is sufficient for the aircraft types that regularly use Taxiway C including the Convair 580 (Max. ALR 5.5), ATR 42 (Max. ALR 4.9), and Saab 340 (ALR 4.1).

Pavement rehabilitation is recommended within the medium-term planning horizon and is likely to consist of partial or full depth milling and paving. The subsurface drainage system should be investigated and repairs undertaken as required, concurrent with its rehabilitation. The added costs of strengthening Taxiway C to meet the required PLR of the design aircraft should be investigated and considered as part of the medium-term rehabilitation program. The method selected to strengthen the pavement and the associated cost will depend on the results of a geotechnical investigation. As will be described in Section 7.1.4 – Airfield Capacity, **it is recommended that Taxiway C be extended to the Runway 26 threshold in the medium-term** to improve aircraft circulation and airfield capacity.

Taxiway D

Taxiway D extends from Runway 08-26 to Taxiway C at the intersection of Taxiways C, E, and F. Taxiway D was rehabilitated in 2003 and was observed by the project team to be in fair condition, with the primary defects being low severity ravelling and low severity longitudinal and transverse cracking.

The rehabilitation of Taxiway D is recommended within the medium-term planning horizon, including any repairs required to the subsurface drainage system. Like Taxiway C, the additional cost of strengthening Taxiway D to meet the design aircraft PLR should be considered with this project.

Taxiway E

Taxiway E is a turf taxiway connecting Runway 16-34 to the intersection of Taxiways C and D. The surface strength of the taxiway has not been reported. Taxiway E was observed to be in fair condition and rehabilitation is not expected to within the planning horizons of the Master Plan. Taxiway E is expected to be integrated as part of the recommended extension of Taxiway C to the threshold of Runway 26 in the medium-term.

Taxiway D (left) and Taxiway E (right)

Taxiway F

Taxiway F connects Apron III to the intersection of Taxiways C and D. Taxiway F was rehabilitated in 2020 through a contribution from the Saskatchewan Government's Community Airports Partnership (CAP) Program; additional rehabilitation is not anticipated within the Master Plan horizon. The recommended medium-term extension of Taxiway C in the medium-term will require that Taxiway F is realigned to rationalize its intersection with Taxiway C. **It is recommended that Taxiway F be realigned in the medium-term planning horizon**, concurrent with the extension of Taxiway C.

With the potential absorption of development lots at the Airport, **it is recommended that Taxiway F be extended in the long-term planning horizon** to provide airside access to the leasehold lots east of Airport Road. As part of this project, the City may consider whether to light the extended Taxiway F or limit it to daytime use only.

7.1.3 Aprons

Three aircraft parking aprons are maintained by the City of Prince Albert: Aprons I, II, and III. A fourth apron is maintained by the SPSA on their leasehold lot which is not the responsibility of the City. The specifications and reported condition of each apron are provided in Table 7.4.

Table 7.4 – Apron Data

Apron	I	II	III
Dimensions	260 m x 99 m (853 ft. x 325 ft.)	200 m x 60 m (665 ft. x 200 ft.)	80 m x 85 m (262 ft. x 279 ft.
Surface	Asphalt / Concrete	Asphalt	Turf
Pavement Load Rating (PLR)	8, 10	5	N/A
Lighting	Yes	Yes	No
Condition	Good	Fair/Poor	Fair

Apron I

Apron I is the primary apron serving air carriers and itinerant aircraft, located adjacent to the terminal building. There are six designated aircraft parking positions on the west side of the apron. Apron I was rehabilitated in 2003 with federal ACAP funding support. At that time, Apron I was also expanded north to its current configuration.

The predominant defects observed by the project team included low severity ravelling, low severity longitudinal and transverse cracking, and reflective cracking from underlying concrete panel joints. **The rehabilitation of Apron I is recommended in the short-term** to address deterioration of existing cracks, particularly reflective cracking from underlying concrete panel joints. The City recently replaced the existing subsurface drainage system along the north side of Apron I, which was reported to be in good condition.

Aircraft de-icing operations are conducted on the southeast corner of Apron I. The de-icing infrastructure consists of a concrete swale and collection tank for glycol effluent. During de-icing operations, the collection tank is pumped out periodically and transported to a landfill. During the summer months, the tank surcharges with stormwater runoff. The glycol collection system is sufficient for the Airport's needs for the foreseeable future; however, future development may warrant the expansion or relocation of the glycol collection infrastructure.

Air carrier operations on Apron I

Apron II

Apron II is located immediately southeast of Apron I and is used for aircraft parking and provides access to leasehold development lots. Apron II was modified in 2003 with the addition of a pavement fillet at its northern end and in 2010, with the widening of the apron to its present configuration.

The majority of Apron II was observed to be in fair condition, apart from a significant frost heave at its interface with Apron I. The frost heave is considered a maintenance issue due to the seasonal differential movement of the pavement surface and its underlying soils. The south end of Apron II was observed to be in poor condition with widespread Foreign Object Debris (FOD). This portion of Apron II is not in use and has been deemed unserviceable. **It is recommended that Apron II be reconstructed and strengthened in the short-term planning horizon**. Concurrent with its reconstruction, **it is recommended that Apron II be extended in the short-term planning horizon** to provide airside access to the most southern leasehold lots.

Apron II pavement distresses

Apron III

Apron III is a daytime-only turf apron situated at the south end of Taxiway F that serves general aviation aircraft. There are currently several structures on Apron III including two hangars, tie-down cables, and power receptacles. Night operations are not recommended unless the apron is reconfigured; structures removed, lit, or marked; and edge lighting is installed on Taxiway F and Apron III. Apron III has sufficient capacity to support current and potential future general aviation activity levels, and expansion is not recommended within the Master Plan horizon.

Apron III

Private Apron

A private apron adjacent to Taxiway C is maintained by the SPSA on their leased premises. The apron typically accommodates two Convair 580s and a Turbo Commander, although additional aircraft are accommodated during peak periods. Consultations with the Province indicate that the apron may be expanded in the future to increase aircraft parking and loading capacity. The Recommended Land Use Plan reserves space to the west for such an expansion.

7.1.4 Airfield Capacity

Airfield capacity is a quantitative estimate of the number of aircraft take-offs, landings, and touch-and-go's that can safely occur based on the airfield infrastructure and operations of an airport. Capacity is commonly calculated as the maximum number of movements per hour. Prince Albert Airport's hourly movement capacity was estimated using the U.S. Airport Cooperative Research Program Prototype Airfield Capacity Model (PACM). Stakeholder consultations were completed in 2016 in support of the Taxiway C Extension Feasibility Study with West Wind Aviation, Transwest Air, SPSA, the RCMP, and NAV CANADA. Concerns with respect to the capacity of Prince Albert Airport included:

- Arrival and departure delays exceeding 20 minutes during peak periods;
- Incidents where aircraft attempt to depart before the arrival of another aircraft nearing the Airport (i.e., on final approach) to avoid delays incurred while waiting for the arriving aircraft to vacate the runway; and
- Wildfire suppression mission delays, or delays to other aircraft to facilitate the expedited departure of wildfire aircraft.

The capacity analysis considers operations solely on Runway 08-26. The analysis assumes that 30% of movements are small single and twin-engine aircraft (e.g., Pilatus PC-12, Beechcraft King Air), 30% of movements are intermediate twin-engine aircraft (e.g., Cessna Citation 560), and 40% are larger twin-engine turboprop aircraft (e.g., Saab 340, ATR 42). This aircraft mix is typical of the traffic currently operating at Prince Albert Airport. Touch-and-go movements are not modelled in the analysis. Based on these assumptions, the capacity of the airfield in its current configuration is estimated at 27 movements per hour in Visual Flight Rules (VFR) conditions. Variability in actual hourly capacity will be experienced on account of:

- Longer runway occupancy times for aircraft arriving on Runway 08 and departing on Runway 26;
- Aircraft touch-and-go's;
- The need for snow clearing vehicles to exit the runway during winter maintenance; and
- Variability in pilot technique and aircraft speeds.

The extension of Taxiway C to the threshold of Runway 26 would have a positive impact on airfield capacity, resulting in an estimated hourly capacity increase from 27 to 33 movements in VFR operations. These capacity improvements would result from aircraft no longer being required to backtrack to or from the Runway 26 threshold. The primary constraints to the extension of Taxiway C include intersecting a paved taxiway with the turf surface of Runway 16-34 and the setbacks required from the VHF Omnidirectional Range / Distance Measuring Equipment station.

The 2009 Airport Master Plan estimated the capacity of the airfield in Instrument Flight Rules (IFR) conditions to be 8 movements per hour, due to the need for the increased separation of arriving and departing aircraft as a result of not having radar coverage at Prince Albert Airport. While the extension of Taxiway C to Runway 26 would have a positive effect on capacity in IFR operations, the primary limitation to be addressed is radar coverage which would permit decreased aircraft separation distances. The implementation of a Multi-Lateral Wide Area Augmentation System and associated procedural changes by NAV CANADA could increase capacity during IFR conditions to an estimated 16 movements per hour.

While Level of Service improvements and investments by NAV CANADA may not be a short or medium-term priority of the organization given the significant financial challenges of COVID-19, the benefits of such a project should be studied further. **It is recommended that the City initiate consultations with NAV CANADA on the feasibility of improving IFR airfield capacity through radar coverage in the short-term**.

7.1.5 Visual Navigation Aids

Visual navigation aids provide guidance and information to pilots and staff operating at Prince Albert Airport. The Airport is equipped with two illuminated Wind Direction Indicators (WDIs) located south of the Runway 26 threshold and north of the Runway 08 threshold. Both WDIs were observed to be in good condition.

Illuminated mandatory instruction signs are located at the Taxiway A and Taxiway C Runway 08-26 holding positions, with two signs located at each position. A combination of illuminated and retroreflective signs are also located throughout the airfield to provide information and guidance on the runways, taxiways, and aprons. The existing illuminated guidance signs are obsolete fibreoptic technology; fibreoptic signage was removed from Transport Canada's most recent standards document (TP312 5th Edition) as these units are no longer considered an acceptable sign type due to the perceived lack of conspicuity when compared to backlit signs. **It is recommended that all fibreoptic guidance signs be replaced in the short-term** with LED units, in coordination with other airfield lighting and electrical upgrades.

Pavement markings are provided per TP312 4th Edition standards on Runway 08-26; Taxiways A, B, C, and D; and Aprons I and II. The perimeter of Runway 16-34 is delineated by orange conical and triangular markers and Taxiway E is delineated by blue retroreflective markers. The pavement markings and markers were noted to be in good condition and are repainted and repaired regularly as part of the Airport's maintenance program.

Airside guidance sign

7.1.6 Airfield Lighting

The Airport is equipped with various airfield lighting installations to aid in the safe operation of aircraft during nighttime and low visibility conditions. The characteristics of the lighting systems associated with Runway 08-26; Taxiways A, B, C, and D; and Aprons I and II are presented in Tables 7.5, 7.6, and 7.7, respectively.

Table 7.5 – Runway Lighting

RUNWAY	08	26
Edge Lights	High Intensity	High Intensity
Threshold Lights	High Intensity	High Intensity
End Lights	High Intensity	High Intensity
Approach Lights	SSALR[1]	ODALS[2]
Precision Approach Path Indicator (PAPI)	No	Yes – P2

Table 7.6 – Taxiway Lighting

TAXIWAY	A	B	C	D	E	F
Edge Lights	Medium Intensity	Medium Intensity	Medium Intensity	Medium Intensity	No	No
Taxiway/Runway Intersection	Double Blue	N/A	N/A	Double Blue	No	N/A
Taxiway/Taxiway Intersection	No	No	No	Double Blue	No	No
Taxiway/Apron Intersection	Double Amber	Double Amber	Double Amber	No	N/A	No
Markers	No	No	No	No	Yes	Yes

Table 7.7 – Apron Lighting

APRON	I	II	III
Edge Lights	Medium Intensity	Medium Intensity	No
Flood Lighting	Yes	No	No

The Apron I edge lighting was reconfigured in 2003; runway threshold and end lights were upgraded to LED fixtures in 2019; airfield lighting control system was replaced in 2019; and the Taxiway B edge lighting was in the process of being replaced with LED fixtures at the time of the Master Plan's preparation in 2020. Otherwise, the majority of the airfield lighting installations date to 1998. The lighting systems consist of incandescent lamp technology except for the SSALR units that are capacitor discharge lights. The airfield lighting system was observed to be in good condition by the project team but is at or beyond its recommended rated service life. Notable deficiencies include:

[1] SSALR = Simplified Short Approach Lighting System with Runway Alignment Indicator
[2] ODALS = Omni-Directional Approach Lighting System

- Select components of the PAPI light boxes that are rare and are becoming difficult to procure;
- Based on recent megger test results, some of the circuits / airfield series lighting cables (ASLC) are in fair to good condition; however, the taxiway edge lighting, Runway 08 SSALR, Runway 26 ODAL and Runway 26 PAPI circuits are in poor condition; and
- During recent investigations, non-compliances with standards were noted with respect to the location of barrettes 5 and 6 of the Runway 08 SSALR system. This should be corrected upon rehabilitation of the system.

The typical lifespan for airfield electrical equipment is 20 to 25 years depending on the individual component, the environment the equipment is exposed to, and the regularity with which maintenance is performed. Due to the current age of most of the airfield electrical equipment, failures should be expected, and **rehabilitation / replacement is recommended within the short-term planning horizon**. It is recommended that failures be documented and when warranted, an updated ACAP application be prepared and submitted for the rehabilitation of the airfield lighting system.

Additionally, there is no existing Aircraft Radio-Controlled Aerodrome Lighting (ARCAL) infrastructure installed at the Airport as the FSS was historically staffed 24 hours per day and aerodrome lighting systems were controlled by a Flight Service Specialist. Recent reductions to the operational hours of FSS has resulted in the need for an ARCAL system for pilots to activate airfield lighting from their aircraft, outside the operational hours of FSS. **It is recommended that an ARCAL system be installed in the short-term planning horizon**.

Several units of the Runway 08 approach lighting system are located on private property west of the boundary of Prince Albert Airport. An easement is in place for these units in favour of the City. While the historical landownership and easement arrangement has generally been effective, the purchase of all or part of this parcel by the City may be advantageous to ensure that unencumbered access can continue and that conflicting land uses will not be developed in the future. Discussions can be initiated by the City to explore the possibly of acquiring this parcel from the landowner.

Runway 08 SSALR Approach Lighting

7.1.7 Airfield Electrical Systems

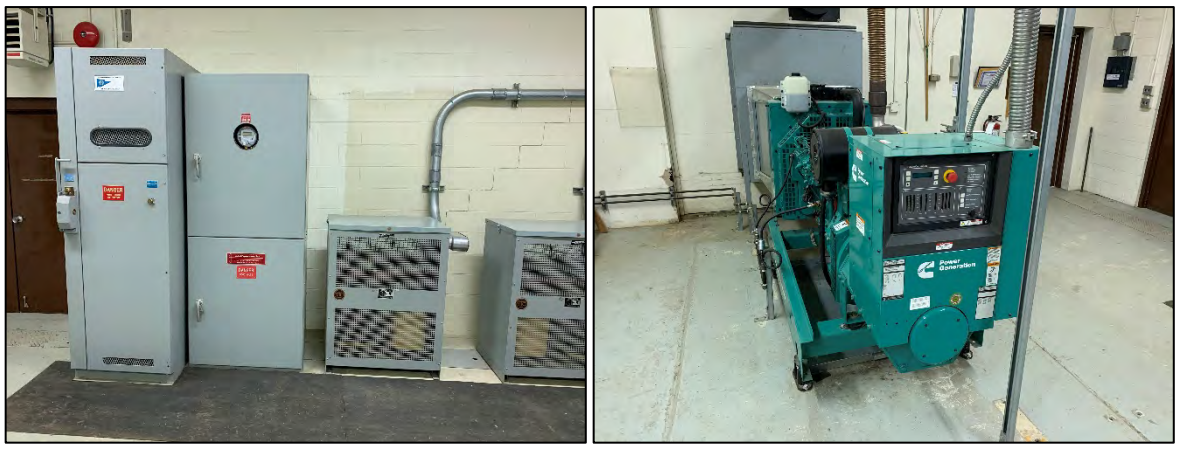
The Field Electric Centre (FEC) is comprised of a concrete block building that was constructed in 1977. The FEC structure is large enough to accommodate future electrical system expansions, is in a satisfactory condition, and rehabilitation is not anticipated within the planning horizons of the Master Plan.

A general description of the airfield electrical system is as follows:

- The main service power into the FEC is a metered 4160 T / 2400 V, 3 phase, 4 wire supply provided by a SaskPower pad mounted transformer;
- The SaskPower transformer is a 225 kVA, 24940 Y / 14400 V, 2 phase, 4 wire transformer manufactured in 1978;
- The main service is converted to 600/347V with a 175kVA, 3 phase dry type step-down transformer installed in the FEC in 2009;
- The 600/347V output of the transformer connects to the normal power terminal of a 600V transfer switch installed in 2009;
- The output of the transfer switch is converted to 4160/2400V through a 175kVA 3 phase dry type step-up transformer installed in the FEC in 2009 which connects to 4160V switchgear;
- The 4160V switchgear distributes power to the constant current regulator lineup, FEC building loads, terminal building essential power, and navigation aids; and
- A 150kW/188kVA 600/347V, 3 phase, 4 wire diesel generator was installed in 2009 that connects to the emergency terminal of the transfer switch.

The main service, distribution equipment, and switchgear were also observed to be in good condition and replacement is not anticipated within the Master Plan horizon. The distribution switchgear will require service maintenance in the short-term such that the switches and other components are properly maintained to mitigate the risk of failure.

The airfield lighting systems are supplied from eight constant current regulators located in the FEC originally installed in 1977. The constant current regulators were rehabilitated in 2008 with digital door upgrades that rehabilitated the control components of the units which are the least reliable parts of the units. The power components of the regulators are now 35 years old which are beyond their rated lifespan and maintenance of these devices is becoming problematic. The existing regulators are powered with 2400V. This medium voltage presents a safety hazard compared to lower voltage equipment such as 347/600V or 120/208V. **The replacement of the constant current regulators with new 600V regulators complete with associated power distribution is recommended in the short-term**, concurrent with the replacement of the airfield lighting.



Airfield electrical infrastructure in the Field Electric Centre

7.2 Airport Support Services

7.2.1 Aircraft Fuel

The City of Prince Albert does not own aviation fuel storage facilities at the Airport, nor does it sell or distribute aviation fuels. Airport tenants are permitted to store aviation fuel on their leased lands for internal use. Snowbird Aviation is the fuel provider for Transwest Air, West Wind Aviation, and itinerant aircraft, offering 100LL (AvGas) and Jet A from its underground tanks and a mobile fuel bowser. Snowbird Aviation is the only tenant permitted to sell fuel at Prince Albert Airport as they are the only holder of a fuel Quality Control program. The fuel tanks operated at the Airport are described below:

Snowbird Aviation

- A 50,000 L 100LL underground tank and a 75,000 L Jet A underground tank located at the southwest edge of Apron II. These tanks are primarily used for refuelling non-Transwest Air / West Wind Aviation aircraft.
- A 77,000 L aboveground Jet A tank adjacent to the terminal building which is used to refuel Transwest Air and West Wind Aviation aircraft and to supply their fuel bowser.

Saskatchewan Public Safety Agency

- One 150,000 L Jet A tank

Royal Canadian Mounted Police

- One 30,000 L Jet A tank

Private Hangar Owner

- One 5,000 L 100LL tank

No issues or concerns have been reported with the tanks described above. No investment in fuel storage and distribution equipment is expected to be required by the City across the Master Plan horizon, as this would be the responsibility of the current and potential future owners / operators. As noted previously, the City is not currently responsible for storing, testing, or dispensing aviation fuel. The City's non-involvement in the sale of fuel is understood to be attributable to the capital and operating expenses of initiating and maintaining fuel services, the lack of residual Airport Staff capacity, and the responsibility that would be borne for fuel quality control. Further, the approach taken by the City with the Airport has been to create an environment where private businesses can provide aviation services (see Section 4.4).

77,000 L Jet-A tank adjacent to the terminal building

7.2.2 Ground Support Services

Ground support services are provided by Snowbird Aviation Services, including the handling of scheduled and charter flights by Transwest Air and West Wind Aviation. Services provided by Snowbird include aircraft marshalling, grooming and detailing, towing, pre-heating, ground power, cargo acceptance and warehousing, fuelling, baggage handling and passenger processing. Type I de-icing fluids are available which are dispensed from a dedicated application truck. Stakeholder consultations identified no deficiencies with the existing ground support services at the Airport; however, select ground handling services by Snowbird Aviation Services are performed only for Transwest Air and West Wind Aviation aircraft.

7.2.3 Electronic Navigation Aids and Instrument Flight Procedures

Electronic Navigation Aids

NAV CANADA maintains the following electronic navigation aids at Prince Albert Airport:

- **Instrument Landing System (ILS):** The ILS is comprised of a localizer located approximately 550 m east of the Runway 26 threshold and a glidepath array located in the infield between Taxiways A and D.
- **VHF Omnidirectional Range (VOR) / Distance Measuring Equipment (DME):** A VOR/DME station is located approximately 650 m east of Taxiway D.
- **Non-Directional Beacons (NDBs):** Two NDBs are located off the Airport property, approximately 7 km west and 8 km east.

While the responsibility for the operation and maintenance of each electronic navigation aid is the responsibility of NAV CANADA, an Airport Procedure Operations Agreement specifies the responsibilities of the City. This includes maintaining cleared areas and limiting obstructions near each aid and ensuring that Airport infrastructure such as fences does not interfere with the proper functioning of each system. Protected areas for each electronic navigation aid will be respected in subsequent development plans. The glidepath array's location and associated protected area south of Runway 08-26 complicates airport maintenance, snow clearing, and aircraft ground maneuvering, and was noted as an operational challenge by the City.

NAV CANADA is completing a navigation aid modernization program that will include transitioning to a satellite-based air navigation system, including GPS-based RNAV (GNSS) Instrument Flight Procedures. As part of this modernization program, Prince Albert Airport's NDBs and the VOR are to be decommissioned, with the ILS and DME to be retained. The timing of the decommissioning of the NDBs and VOR has not yet been announced. Anticipated impacts are detailed in Table 7.8.

As the current location of the DME conflicts with the recommended medium-term extension of Taxiway C, it is recommended that NAV CANADA be consulted to identify opportunities for the relocation of the DME.

Table 7.8 – Electronic Navigation Aid Modernization Program Impacts

Navigation Aid to be Decommissioned	Impacted Procedures	Mitigation Measures
Glass (ZPA) NDB	Revoke NDB RWY 26 (Complete)	RNAV (GNSS) RWY 26 implemented
Prince Albert (PA) NDB	Revoke NDB RWY 08 (Complete) Redesign ILS RWY 08	RNAV (GNSS) RWY 08 implemented
Prince Albert (YPA) VOR	Revoke VOR/DME RWY 08 Revoke VOR/DME RWY 26 Revoke VOR RWY 26	RNAV (GNSS) procedures implemented for both runways

ILS glidepath array (left) and VOR/DME (right)

Instrument Flight Procedures

Aircraft arrivals in Instrument Meteorological Conditions (IMC) are supported by Instrument Approach Procedures (IAPs). Prince Albert Airport's IAPs are detailed in Table 7.9. The IAPs of Prince Albert Airport are a significant strength of the facility and improve the availability of the facility in IMC.

However, a recurring theme in stakeholder consultations was the problem of ceilings and visibility decreasing below the minimums of existing IAPs during periods of morning and evening fog in the spring and fall seasons. The fog issue is compounded by the Airport's low elevation, proximity to the North Saskatchewan River, and weather conditions that do not promote the dissipation of fog. Further, the scheduling of air carrier flights with a significant peak in the morning accentuates delays because of fog.

While IMC can limit the availability of Prince Albert Airport, the facility is comparatively well served by its three ILS and RNAV IAPs. Prince Albert's RNAV procedures include Localizer Performance with Vertical Guidance (LPV) minima which are the highest precision GPS IAPs currently available without specialized pilot training requirements. Also, while the current Category I ILS could be upgraded to a Category II system with a Minimum Decision Altitude of 100 ft. to 200 ft., doing so would require significant involvement by NAV CANADA and upgrades to the Airport's infrastructure, including upgraded approach lighting, runway centreline lights, and touchdown zone lights.

To further understand and quantify the Airport's annual availability in IMC, **it is recommended that a meteorological study be completed in the medium-term** that considers historical weather data, existing infrastructure and IAPs, and the improvement that would be offered with more advanced IAPs.

Four RNAV-based Standard Instrument Departures (SIDs) are provided from Runway 08-26 to the north and south. Two Standard Terminal Arrival Routes (STARs) are provided to Runway 08-26 from the airspace system to the north and south. No deficiencies were noted through stakeholder consultations with respect to the SIDs and STARs.

Table 7.9 – Instrument Approach Procedures

Instrument Approach Procedure	Minimum Decision Altitude	Minimum Visibility
ILS RWY 08	200 ft. AGL	½ SM RVR 2,600 ft.
RNAV (GNSS) RWY 08	315 ft. AGL	1 SM RVR 5,000 ft.
RNAV (GNSS) RWY 26	308 ft. AGL	1 SM RVR 5,000 ft.
VOR/DME RWY 08*	475 ft. AGL	1 SM RVR 5,000 ft.
VOR/DME RWY 26*	458 ft. AGL	1 ½ SM
VOR RWY 26*	638 ft. AGL	2 SM
SM = Statute Mile		RVR = Runway Visual Range
* IAP to be revoke as part of NAV CANADA's navigation aid modernization program		

Aircraft are currently not permitted to maneuver during Reduced Visibility Operations, which occurs when visibility is below RVR 2600 (½ SM visibility) and above RVR 1200 (¼ SM visibility). A Reduced Visibility Operations Plan (RVOP) can be established to permit continued ground operations during these conditions. The development of an RVOP is not a regulatory requirement but is strongly encouraged by Transport Canada and would improve the usability of the Airport for aircraft operators with Transport Canada Special Authorizations. An RVOP would describe matters such as authorized taxi routes, the use of visual navigation aids, roles of the Airport operator and NAV CANADA, and operational limitations and procedures. **The development of an RVOP is recommended in the short-term**.

7.2.4 NAV CANADA Services

NAV CANADA is a private not-for-profit corporation that is responsible for Canada's air navigation system. Prince Albert Airport is supported by a NAV CANADA Flight Service Station (FSS) that occupies a two-storey building immediately south of the terminal building. NAV CANADA's Flight Service Specialists provide traffic advisory services to pilots, hourly weather reports, forecasts, vehicle control services, and other services.

The Prince Albert Airport FSS operates 24 hours per day, 7 days per week. Overnight services were suspended from May 2020 to September 2020. In September 2020, NAV CANADA announced that a level of service review will be completed to determine whether to terminate overnight FSS services at Prince Albert Airport amid the economic challenges of COVID-19. While City Staff will be consulted, the decision regarding the future of the Prince Albert Airport FSS will be the responsibility of NAV CANADA and Transport Canada as the approval authority.

A deficiency noted by the NAV CANADA Flight Service Specialists are line of sight issues from the FSS to the airside system. Specifically, line of sight is limited by the Field Electric Centre, wildfire suppression base, and Taxiway B and Apron III aircraft hangars. However, consultations with NAV CANADA did not indicate that the organization has plans to modify their facility to overcome these issues. Future development plans must consider limiting new line of sight challenges. Opportunities to collocate the FSS with a new terminal building or airport maintenance building can also be considered through consultations with NAV CANADA, as documented later in this Master Plan. However, the Master Plan does not make any assumptions as to whether this relocation will occur as it is at the discretion of NAV CANADA.

A study is currently being undertaken by NAV CANADA at the time of this report's preparation trialing the use of camera arrays at Fredericton Airport in New Brunswick to enable the overnight FSS to be operated remotely from Saint John Airport. If successful, the future implementation of this system at other airports by NAV CANADA could change the manner in which aerodrome advisory services are provided at Prince Albert Airport. Similarly, camera arrays are currently in use at Red Deer Regional Airport to address line of sight issues at NAV CANADA's second-storey Air Traffic Control / FSS facility.

NAV CANADA also maintains a VHF Direction Finder (VDF) that enables Flight Service Specialists to provide navigation assistance to pilots based on the bearing from received radio transmissions. The Prince Albert VDF system is identified for possible decommissioning as part of a service review initiated by NAV CANADA in 2019. Depending on the findings of the NAV CANADA study, the VDF array located south of the VOR/DME unit could be decommissioned.

Flight Service Station (top) and line of sight obstructions (bottom, emphasis added)

7.2.5 Weather Observation and Forecasting

NAV CANADA provides Aerodrome Routine Meteorological Reports (METARs) on an hourly basis or as conditions change. METARs are made by human observers with support from weather instruments and are available during the staffed hours of the FSS; this is referred to as a Human Weather Observation System (HWOS). During unstaffed hours, such as the 2020 COVID-19 temporary suspension of overnight services, a Limited Weather Information System (LWIS) is available to report wind, temperature, dew point, and altimeter setting. The LWIS provides the minimum information required for pilots to conduct Instrument Approach Procedures. NAV CANADA also publishes four Terminal Area Forecasts (TAFs) per day, offering a localized forecast of weather conditions over a 24-hour period.

Depending on the findings of NAV CANADA's level of service review for the Prince Albert FSS, the Airport may be limited to an LWIS for overnight weather observations. LWIS units lack key information such as ceiling and visibility data that determine whether pilots will be able to meet the minimum requirements of Instrument Approach Procedures. Accordingly, flight planning for overnight operations during Instrument Meteorological Conditions could be challenging. An Automated Weather Observation System (AWOS) provides a broader array of weather observation data and may be advantageous to support nighttime aircraft operations and may be required depending on the outcome of the level of service review.

Limited Weather Information System

7.2.6 Communications

A Mandatory Frequency area has been established for a 5 Nautical Mile radius around Prince Albert Airport to 4,400 ft. ASL on a frequency of 122.3 MHz. Pilots are required to contact the Prince Albert FSS within this area during its staffed hours, or broadcast on the Mandatory Frequency during unstaffed hours. A ground frequency has also been established on 122.6 MHz. Pre-flight and enroute information services are provided by the Winnipeg Flight Information Centre through a Remote Communications Outlet on 123.475 MHz.

As described in Section 7.2.7, cross-coupling issues exist as the radio units mounted in the Airport's mobile equipment only have one channel and no scanning capabilities. Maintenance vehicles monitoring the ground frequency (122.6 MHz) cannot communicate on 122.3 MHz, which presents a safety and operational issue when the FSS is closed.

7.2.7 Airport Maintenance Equipment and Buildings

Maintenance Equipment Fleet

As described previously, the Airport Manager and Airport Maintenance Staff are responsible for daily operations and maintenance. Call-out procedures are established for services outside of normal working hours. Stakeholder consultations and on-site observations indicate that the ongoing maintenance and operation of Prince Albert Airport is well-executed. The Airport equipment fleet is detailed in Table 7.10.

Table 7.10 – Airport Maintenance Mobile Equipment Fleet

Mobile Asset	Hours / km (Oct 2020)	Year	Age (2021)	Replacement Year
Duke Snowblower (Back-Up)	4,368 km	1987	34 Years	N/A (Back-Up)
Navstar Sander / Deicer / Plow Truck	8,000 km (estimated)	1989	32 Years	2009
SMI Sweeper (Back-Up)	2,637 km	1992	29 Years	N/A (Back-Up)
Navstar Plow Truck	5,635 km	2000	21 Years	2020
Case Loader	3,976 km	2006	15 Years	2026
Chevrolet 1/2 Ton Truck	109,511 km	2009	12 Years	2029
11’ John Deer Mower	662 km	2014	7 Years	2034
Chevrolet 1/2 Ton Truck	72,052 km	2015	6 Years	2035
SMI Sweeper	1,297 km	2015	6 Years	2035
Towed Deicer Spreader	N/A	2015	6 Years	2035
Polaris Indy Voyager Snowmobile	N/A	2016	5 Years	2036
Larue Snowblower	563 km	2017	4 Years	2037
Gravely Walk Behind Sweeper	N/A	2018	3 Years	2038
CAT M140 Grader	184 km	2019	2 Years	2039
Kabota Tractor	195 km	2020	1 Year	2040
Grasshopper 6’ Mower (Groundside)	18 km	2020	1 Year	2040
Schulte Towed 25’ Mower	N/A	2020	1 Year	2040
Ariens Walk Behind Snow Blower	N/A	2020	1 Year	2040

Consultations with the Airport Manager identified the need for a cold air blower attachment in the short-term. Additionally, regular fleet upkeep and renewal is required to ensure that maintenance can continue to be performed to current expectations and standards. Given the small number of Airport Maintenance Staff, operational procedures have been designed to maximize efficiency (e.g., the coupled plow, sweeper, and de-icer) and extra equipment continues to be maintained for redundancy purposes. Future fleet renewal projects by the City should continue to support the realization of workflow efficiencies and equipment redundancies to maximize the operational flexibility and safety of Prince Albert Airport. The recommended installation of an ARCAL system on 122.3 MHz and potential overnight closure of the FSS in the short-term will present challenges for the Airport's mobile equipment. The existing equipment fleet is equipped with radios that are limited to communications on 122.6 MHz, as adding channels and scanning is a challenge on these units. Airport Maintenance Staff would have difficulties monitoring the Mandatory Frequency and activating the airfield lighting using the future ARCAL system; accordingly, **the installation of new multi-channel VHF radios for the mobile equipment fleet is recommended in the short-term planning horizon**.

Airport Maintenance Building

The airport maintenance building is a steel structure that originally consisted of five vehicle bays. The two northern bays were expanded in 2011 to increase storage capacity and to support a plow truck with a towed sweeper to be parked without uncoupling. Ventilation improvements were completed in 2015 and renovations were planned for 2020, including the addition of a second overhead door on the western façade. These renovations had not commenced prior to the completion of the Master Plan. A separate two-bay sand shed was constructed in 2017 to house sand, pavement de-icing materials, and miscellaneous items. Fuel for maintenance equipment is available adjacent to the Airport Maintenance Building.

The airport maintenance building is located on the groundside and does not have direct access to the airfield. Airport Maintenance Staff and vehicles access the airfield via an automated perimeter fence gate southeast of the FSS, approximately 150 m from the airport maintenance building. The advantage of this location is that land with airfield access that could otherwise be used for airside development is not occupied by the airport maintenance building. However, limitations of this location include:

- Airport Maintenance Staff are required to hold a Class 3 Driver's License with Air Brake and Heavy Trailer endorsements to cross public roads with the plow truck and sweeper. This requirement would not be applicable if these units are only operated airside;
- Road salts that are not used on airfield pavements are tracked airside by transiting vehicles;
- Diesel equipment that is left running unattended outside while Airport Maintenance Staff attend to other duties (e.g., the plow and sweeper while Staff complete a runway report) is a security issue, as the Airport Maintenance Building is accessible to the public; and
- The Emergency Command Centre collocated within the airport maintenance building is separated from the airfield, hindering operational responses.

As the current structure is generally adequate for the current and future needs of the City despite the limitations noted above, investments have recently been made in the facility, and a wide range of capital priorities compete for municipal funding, the relocation of the airport maintenance building is not recommended across the short and medium-term planning horizons. If sufficient municipal capital reserves are available in the long-term planning horizon, consideration could be made to developing a new airport maintenance building with airside access east of Apron I. This potential project could also represent an opportunity to collocate a new NAV CANADA FSS with the facility, reducing line of sight issues. The Recommended Land Use Plan will reserve space for such a function east of Apron I.

Airport maintenance building

7.2.8 Emergency Response Services

Prince Albert Airport is not required to maintain an on-site Aircraft Rescue and Fire Fighting presence per Section 303 of the CARs, as its annual passenger movements are fewer than 180,000. The activity forecast presented in Chapter 6 does not anticipate that passenger movements will exceed the 180,000 threshold within the planning horizon. Emergency Response Services are provided by the City of Prince Albert Fire Department and Prince Albert Police Service. In accordance with Transport Canada's requirements for a Certified Airport, Prince Albert Airport maintains an Emergency Response Plan. Consultations did not identify the existing Emergency Response Services arrangement as an area of concern.

7.3 Terminal Building

The terminal building is a single-storey structure with a total area of approximately 492 m^2 (5,292 ft^2). The terminal building supports the processing of arriving and departing scheduled and charter passengers, baggage and cargo handling, and administrative functions for air carriers. The current terminal building floorplan is presented as Figure 7.2.

The terminal building was constructed in 1983 and subsequently renovated in 2012, with additions to the northern and eastern façades also completed at that time for inbound and outbound baggage handling. The terminal is a wood frame structure on concrete piles above a pony wall crawlspace, with natural gas forced ventilation heating and air conditioning for climate control. The structural condition of the terminal building is understood to be good based on consultations with City Staff.

Like many regional airport terminal buildings designed under Transport Canada's purview in the late 20th century, Prince Albert Airport's terminal building was not "future proofed" to be easily expandable. The building has numerous challenges that limit the efficient expansion of the structure to support both current and future passenger and cargo activity levels. Expansion in all directions is constrained by factors that include:

- Apron I to the east;
- The terminal building road and parking lot to the west;
- The cargo handling facilities located in the southern portion of the building and the limited structural capacity of the floor to support the weight of additional cargo loads; and
- The inbound baggage handling system located in the northern portion of the building, and fuel tanks immediately to the north.

7.3.1 Assessment Methodology

The terminal building functionality and space requirements were assessed using guidelines published by Transport Canada, through their Systemized Terminal Expansion Program (STEP), and IATA's Airport Development Reference Manual. Terminal building requirements are determined using two industry metrics: Peak Hour Passenger – Departing (PHPD) and Peak Hour Passenger – Arriving (PHPA). The Peak Hour values are the number of departing or arriving passengers provided within the busiest hour of the average peak day of the peak month. The Peak Hour values are used in conjunction with the three-tiered IATA Level of Service (LoS) guidelines: Sub-Optimum, Optimum, and Over-Design. The Optimum LoS balances the passenger experience with responsible capital investment and operational costs and is used in this assessment.

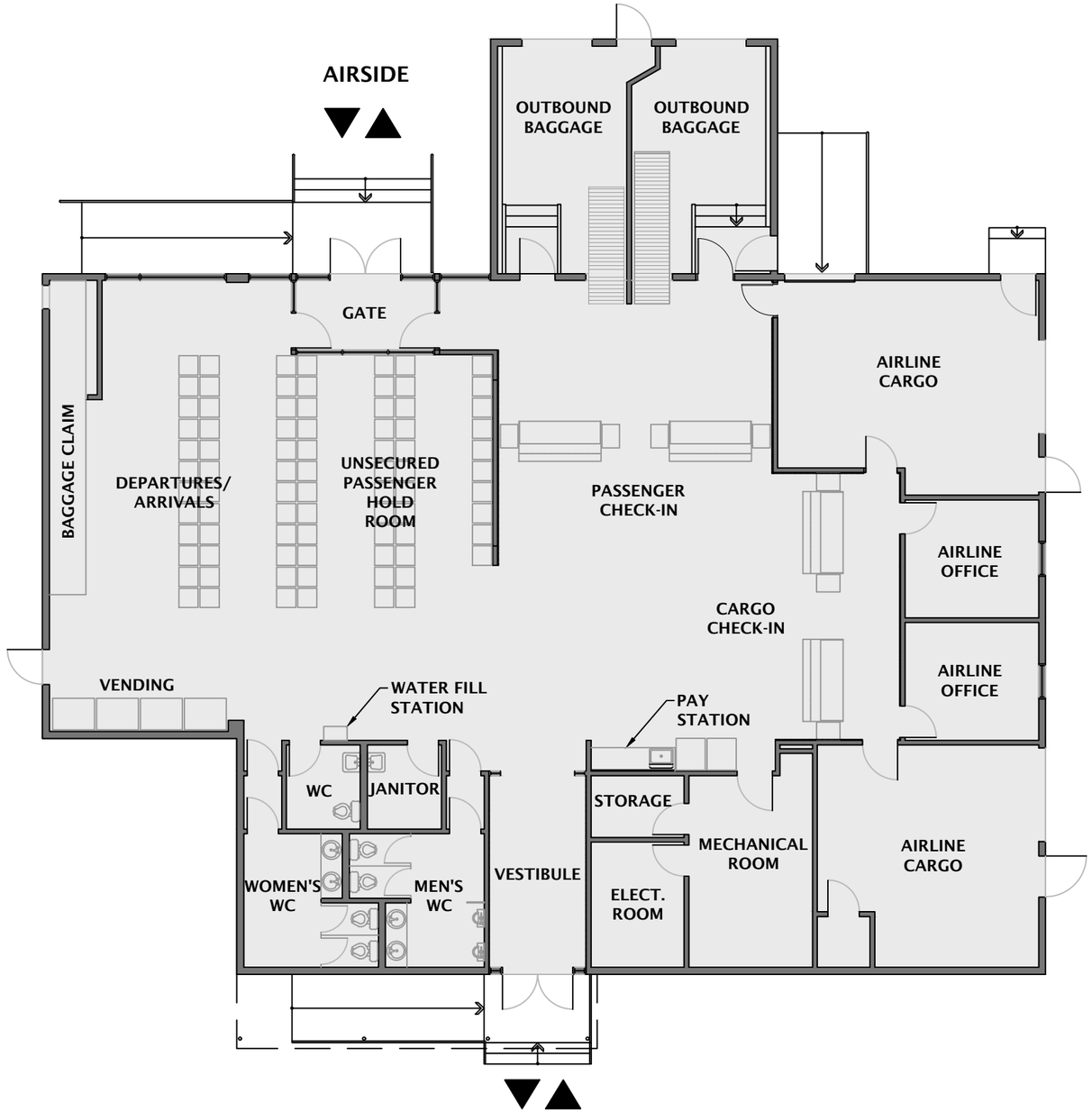
Summer 2020 schedules (adjusted due to COVID-19) for Transwest Air and West Wind Aviation were used to create a nominal schedule to analyze the existing capacity of the terminal building, supplemented by qualitative data from stakeholder consultations. Stakeholder consultations were used to confirm the validity of the PHPA and PHPD values and account for scheduling differences prior to COVID-19.

The baseline PHPD and PHPA values are calculated assuming the departure or arrival of four Transwest Air and West Wind Aviation flights within a one-hour period – a situation that can commonly occur during the mid-day bank of flights on weekdays. Based on the following assumptions, the baseline PHPD and PHPA is estimated at 84 passengers:

- Two flights are operated by 34-seat Saab 340Bs and two flights are operated by a 44-seat ATR42;
- All flights operate at a 90% load factor; and
- 60% of passengers on each flight enplane or deplane in Prince Albert, accounting for passengers originating from or travelling to other destinations that do not make use of the terminal building.

The long-term nominal schedule is consistent with the Master Plan passenger activity forecast (Section 6.1.2). The long-term scenario considers the same assumptions with respect to Transwest Air and West Wind Aviation's operations. PHPD and PHPA values increase to 115 passengers in the long-term nominal schedule based on the following assumptions:

- One new flight is added which is operated by a 34-seat Saab 340B;
- The flight operates at 90% load factor; and
- 100% of passengers embark or disembark, which is consistent with the operations of a potential scheduled air carrier that services the catchment area market from an airport such as Calgary.



PRINCE ALBERT AIRPORT
STRATEGIC MASTER PLAN

FIGURE 7.2 - EXISTING TERMINAL BUILDING

FEBRUARY 2021

0 4 8 Meters

*FOR PLANNING PURPOSES ONLY

7.3.2 Groundside Interface

The terminal building is accessed from the groundside by a single 13 m^2 (142 ft^2) vestibule. Due to the elevation of the terminal building relative to the grade of the curbside, a wheelchair accessible ramp and a set of steps are provided to access the vestibule. Unlike terminal buildings of similar size, separate entrances and exits are not provided for arriving and departing passengers.

7.3.3 Check-In Area

The check-in area supports the processing of departing scheduled and charter passengers, baggage, and cargo. Four check-in counters are provided in a 21 m^2 (224 ft^2) area, each of which has two staff positions. Based on the 2020 operations of Transwest Air and West Wind Aviation, two check-in counters are used for passenger processing and two counters are used for cargo processing. It is understood that the four counters are generally sufficient for the current and future needs of Transwest Air and West Wind Aviation, although no check-in counters are available for new air carriers.

Approximately 46 m^2 (499 ft^2) of queuing space is provided in the check-in area. The configuration of the check-in counters, with the two areas of counters aligned perpendicular to each other, can result in periods of crowding and conflicting passenger queues. Check-in counter lines are delineated by movable stanchions.

A portion of the check-in area is occupied by the public parking payment station and, during the COVID-19 pandemic, a table with passenger screening forms.

Check-in area (top) and queuing issues (bottom)

7.3.4 Cargo Handling

Two cargo storage and handling areas are provided in the terminal building with a combined area of 87 m^2 (934 ft^2). Cargo is received by air carrier staff in the check-in area, transferred to one of the two cargo rooms, stored, and then transferred airside to the departing flight. One cargo area has both groundside and airside access via two overhead doors. However, the other cargo area does not have airside access, requiring staff to transfer cargo to the airside via an access gate.

The cargo handling areas were reported and observed to be significantly undersized relative to current and potential future demand, which has led to air carriers:

- Installing prefabricated storage sheds adjacent to the terminal building;
- Storing cargo outside of the terminal building under staff supervision; and
- Trucking excess cargo.

Based on consultations with air carrier staff, it is understood that maintaining cargo facilities either within or in proximity to the terminal building is of prime importance, as passengers departing on scheduled air carrier flights are a significant source of cargo demand. Separating the passenger and cargo facilities would require additional staffing, as airline employees are frequently cross utilized for passenger and cargo functions.

Terminal cargo handling area (left) and groundside cargo loading (right)

7.3.5 Outbound Baggage Handling

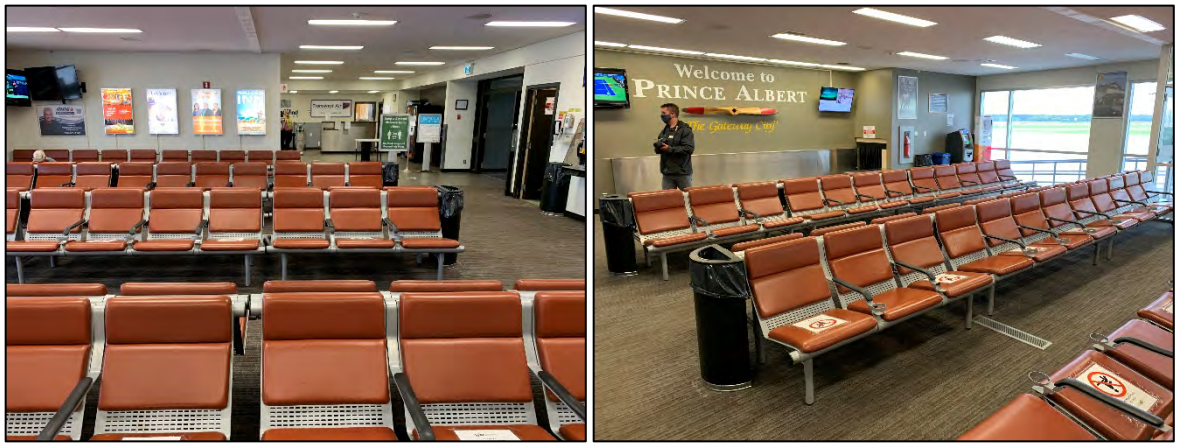
Outbound passenger baggage is received by air carrier staff in the check-in area and conveyed to two handling rooms via roller conveyors. The combined area of the outbound baggage handling rooms is 41 m^2 (446 ft^2), with both rooms appropriately sized to accommodate one to two baggage carts through overhead doors. The size of the baggage handling rooms was not noted as a deficiency during consultations with air carrier staff.

Outbound baggage handling area

7.3.6 Unsecure Passenger Holdroom

The unsecure passenger holdroom is located adjacent to the check-in area. As air carrier flights from Prince Albert Airport depart unsecured, there is no partition required to separate the passenger holdroom from other terminal areas. The unsecure holdroom is 98 m^2 (1,059 ft^2) with seating provided for 82 passengers. While the amount of seating provided is close to the PHPD value (84 passengers), periods of congestion commonly occur in the unsecure holdroom during normal air carrier operations.

Crowding is exacerbated during flight delays which are understood to exceed the capacity of the holdroom and are common during low visibility days. The lack of capacity in the unsecure passenger holdroom, and the terminal building more generally, has led air carriers operating northbound routes on poor weather days to hold their flights in Saskatoon International Airport while waiting for conditions to improve. The limitations of the terminal building disincentivizes Transwest Air and West Wind Aviation from positioning their flights to Prince Albert Airport before departing northbound on poor weather days, removing an opportunity for future vendors in the terminal building to realize revenues from waiting passengers and airline staff.



Unsecure passenger holdroom

7.3.7 Arrivals Area and Inbound Baggage Handling

The arrivals area is approximately 17 m^2 (183 ft^2) and is collocated with the unsecure passenger holdroom, without partitions to separate outbound and inbound passengers. Inbound baggage is unloaded by air carrier staff through a door on the terminal building's northern façade. Baggage is then conveyed into the arrivals area for collection by passengers via a 5 m long linear conveyor claim belt. Bags are not recirculated on the conveyor belt and instead are deposited onto the terminal floor.

The current configuration of the arrivals area and inbound baggage handling system is understood to be a deficiency of the terminal building. The area for inbound passengers waiting to collect their baggage is also used for passengers queuing for departure, leading to space conflicts. The baggage claim belt is also undersized relative to current demand, resulting in baggage and cargo commonly piling up at the end of the conveyor.

Additionally, the terminal building's single gate means that only a single flight can be loaded or unloaded at a given time – during peak periods, this can delay air carrier operations.

Baggage claim belt (left) and arrivals area (right)

7.3.8 Washrooms and Building Amenities

Approximately 34 m^2 (364 ft^2) of the terminal building is dedicated to the provision of passenger and staff amenities. Three washrooms are provided:

- A men's washroom with two toilets, two sinks, and two urinals;
- A women's washroom with two toilets and two sinks; and
- An accessible washroom with one toilet and one sink.

The capacity of the washrooms is reported to be a deficiency during peak air carrier periods, where high numbers of passengers can result in queuing for the washrooms. This challenge is worsened during flight delays, where higher than normal volumes of passengers are waiting in the terminal building for extended periods. Additionally, no washrooms are provided for air carrier staff separate from public areas of the terminal building. A project to install tankless auto-flush toilets was set to commence during the preparation of the Master Plan.

Several passenger amenities are provided throughout the terminal, including four food and beverage vending machines; two arcade kiosks; a Flight Information Display and three televisions; a water fountain and bottle fill station; public pay phones; an Automated Teller Machine; and a cellphone charging station.

The primary deficiency noted during stakeholder consultations with respect to passenger amenities is the lack of food service options for passengers and staff. A common stakeholder view was that a food services concession in, or near, the terminal building would be a significant improvement during normal operations and especially during flight delays. However, no floor space or infrastructure (i.e., ventilation, fire suppression) is available for the provision of food services in the current terminal building. Further, no serviced land is available near the terminal building for a standalone restaurant.

Washroom entrances (left) and select passenger amenities

7.3.9 Administrative Space

Two offices are leased to Transwest Air and West Wind Aviation, located adjacent to the check-in area. Each office is 11 m^2 (115 ft^2) and is used to support air carrier administrative functions. From consultations with air carrier staff, additional administrative space would be desirable to support daily operations. Additionally, no dedicated space has been provided for employee breaks resulting in check-in agents and ground handlers creating temporary facilities in cargo handling areas. Additionally, no office space is available should a new air carrier seek to commence service at Prince Albert Airport.

7.3.10 Functional Systems and Support Rooms

Approximately 80 m^2 (858 ft^2) is dedicated to the mechanical room, electrical room, and two storage areas supporting the terminal building's functional systems. The functionality and capacity of electrical, water, septic, and HVAC systems were not identified deficiencies, with upgrades and replacement projects completed by the City on an as-needed basis.

7.3.11 Secure Passenger Air Service Requirements

CATSA is responsible, either directly or through a contracted service provider, for screening passengers and baggage at airports across Canada. The CATSA Aerodrome Designation Regulations (SOR/2002-180) identifies Prince Albert Airport as a designated aerodrome at which CATSA Pre-Board Screening (PBS) services can be provided.

PBS services were provided at Prince Albert Airport from 2002 to 2012. A common air carrier concern noted in the 2009 Airport Master Plan was that PBS services were not necessary for flights to unsecured northern airports, and that requiring passengers arriving from unsecured airports enroute to Saskatoon International Airport to proceed through PBS was inefficient and disruptive. Currently, the only secured airport that receives scheduled air carrier services from Prince Albert Airport is Saskatoon International Airport. Passengers arriving at Saskatoon from Prince Albert must proceed through PBS if connecting to a secured flight.

As noted previously, the lack of PBS services disincentivizes a new air carrier from entering the Prince Albert market if their existing operations are typically secured (e.g., WestJet Link at Calgary International Airport). Per the Canadian Aviation Security Regulations, if CATSA services are to be provided, then the City is responsible for making facilities available for passenger and baggage PBS at their own cost.

The Recommended Terminal Building Development Plan provides a flexible concept that can be implemented if the City seeks to support the implementation of PBS services for a new air carrier providing secure passenger services. Specifically, this concept will include:

- Space for the PBS area and queuing; and
- A secure passenger holdroom and gate with the capacity to handle the departure of a representative 34-seat aircraft, such as the Saab 340B.

7.3.12 Summarized Terminal Building Requirements

As described throughout the preceding sections, numerous operational deficiencies of the terminal building limit the ability of Prince Albert Airport to support both current and forecast future passenger and cargo activity levels. The lack of residual capacity in the terminal building commonly leads to periods of crowding during flight delays and has resulted in air carriers opting to hold their flights in Saskatoon prior to departing northbound in instances where poor weather in northern destinations may result in delays. Further, the expansion potential of the current building is limited by constraints in all directions and by its capacity to support the weight of additional cargo loads because of its design.

As shown in Table 7.11, **a new terminal building with a floor area of approximately 1,200 m^2 is recommended in the medium-term planning horizon**. It should be noted that while the development of a new terminal building is assigned to the medium-term planning horizon, this phasing has been recommended to provide adequate time for the City to allocate capital resources to the project. The terminal building is deficient in its capacity to support current operations – if funding opportunities exist to advance the timing of the terminal building development project, it is recommended that they be pursued.

Table 7.11 – Terminal Building Functional Area Requirements

Functional Area	Existing Area (m^2)	Future Area (m^2)	Change (m^2 + / -)
Floorspace – Core Terminal Building			
Groundside Interface	13	26	+13
Check-In Area – Counters	21	33	+12
Check-In Area – Queuing	46	36	-10
Cargo Handling	87	174	+87
Outbound Baggage Handling	41	83	+41
Unsecure Passenger Holdroom	98	98	-
Arrivals Area and Inbound Baggage Handling	17	190	+173
Washrooms and Building Amenities	34	68	+34
Food Services	0	80	+80
Air Carrier Administrative Space	21	92	+71
Car Rental Counter and Office	0	18	+18
Functional Systems and Support Rooms	33	50	+17
Other Building Area	80	140	+60
Total – Core Terminal Building	492	1,086	+594
Floorspace – Secured Passenger Air Service			
Pre-Board Screening Area	0	20	+20
Pre-Board Screening Queue	0	14	+14
Secure Passenger Holdroom	0	35	+35
Total – Secure Passenger Air Service Expansion	0	69	+69
Total – Core Terminal Building and Secure Passenger Air Service Expansion	492	1,155	+663

7.4 Groundside System

The groundside system includes elements of the Airport that are not directly integrated with the aviation activities of the facility, including its roadways, parking lots, and airside security measures.

7.4.1 Groundside Roads

Airport Road (Veterans Way)

Airport Road provides access to the Airport from Highway 55. The road is approximately 7.5 m wide with roadside ditches contained within a 24 m right-of way. The total length of Airport Road is approximately 2,800 m; the 2,000 m from Highway 55 to the fire services training structure is asphalt surfaced, while the remaining 800 m to the wildfire suppression base is comprised of a gravel surface.

No deficiencies have been identified with respect to the capacity, design, or access provided by Airport Road. Airport Road is considered adequate to meet the long-term needs of the Airport, and no significant upgrades are anticipated within the Master Plan horizon. Low and medium severity transverse cracking was noted on the paved portion of Airport Road during the site visit, with **rehabilitation recommended in the medium-term**. The unpaved portion of Airport Road may warrant paving if additional development lots are absorbed, to provide improved groundside access. This can be considered by the City if future development rates increase.

In addition to Airport Road, several roads are located throughout the groundside area as a legacy of the former Royal Canadian Air Force base. These roads are not identified as a core asset of the Airport and are not identified for improvements unless significant groundside development occurs.

Terminal Building Road

The Terminal Building Road provides unidirectional access to the terminal building curbside, public parking lot, and airside access gates from Airport Road. It has three paved lanes: two through-lanes and one lane for passenger drop-off and pick-up adjacent to the terminal curb and sidewalk. The Terminal Building Road experiences some congestion during peak periods but is generally anticipated to meet the needs of the Airport over the Master Plan horizon.

Low and medium severity transverse and longitudinal cracking and localized alligator cracking were observed on the Terminal Building Road by the project team. Short-term localized repairs (patching) will likely defer the need for rehabilitation until the medium term. **The reconfiguration of the Terminal Building Road concurrent with the development of a new terminal building is recommended in the medium-term**.

Wayfinding and Signage

Several stakeholders noted experiencing difficulty navigating the groundside roadways and parking lots, based on the current signage available. **It is recommended that a comprehensive review of groundside wayfinding and signage be completed in the short-term**. This exercise is also an opportunity to improve the Airport's brand presence throughout the groundside area.

7.4.2 Parking Lots

Three parking lots supporting passengers are provided at Prince Albert Airport: public, long-term designated, and long-term corporate. The current parking rate structure is shown in Table 7.12. Rates are set to match those of other City-operated parking facilities.

Table 7.12 – Parking Lot Data

Parking Lot	Spaces	Payment Type	Rate
Public	6	Coin Meter	$2 / hour, 5 hour maximum
	82	Terminal Building Pay Station	$5 / day
			$60 / month
Car Rentals	2	Through Service Provider	N/A
Long-Term Designated	50	Contract	$720 / year
Long-Term Corporate	350	Contract	Negotiable based on volume

Public Parking Lot

The public parking lot is located immediately west of the terminal building with vehicular access provided via the Terminal Building Road. The public parking lot is comprised of an asphalt surface supporting a total of 90 parking spaces, including three accessible spaces and power outlets for vehicle block heaters. Of the 90 parking spaces:

- Two are reserved for rental car companies;
- Six are metered spaces with a five-hour maximum; and
- 82 are paid using a pay station inside the terminal building.

Based on stakeholder consultations, the capacity of the parking lot is understood to be adequate for the current needs of the Airport. Concurrent with the development of a new terminal building and reconfiguration of the Terminal Building Road, the opportunity will exist for the expansion of the public parking lot to support potential future demand increases. **It is recommended that the public parking lot be rehabilitated and reconfigured in the medium-term planning horizon**.

Long-Term Designated Parking

A total of 50 long-term designated spaces for passholders are provided in two parking lots south of the terminal building:

- 36 parking spaces are provided in a gravel surfaced lot access from the Terminal Building Road, with electrical outlets for vehicle block heaters; and
- 14 parking spaces are provided in a paved lot that is collocated with the City maintenance garage.

The capacity of the existing long-term designated parking lots was not noted as a deficiency during stakeholder consultations. In conjunction with the rehabilitation of other groundside surfaces, **it is recommended that the primary long-term designated parking lot be paved in the medium-term** to improve the level of service provided to users.

Long-Term Corporate Parking

The corporate parking lot located southwest of the terminal building provides 350 spaces that are contracted to major resource extraction employers such as Cameco and Orano. The corporate parking lot is accessed from Airport Road, is partially paved with the balance gravelled, and provides power outlets for vehicle block heaters. The existing capacity of the long-term corporate parking lot is anticipated to be sufficient for the needs identified within the timelines of the Master Plan.

The long-term corporate parking lot was observed to be in good condition during the site visit. **It is recommended that the long-term corporate parking lot be rehabilitated in the long-term planning horizon**.

Long-Term Corporate Parking Lot

7.4.3 Airside Access Control

A security fence is located along the entire perimeter of the Airport, limiting access to people, vehicles, and wildlife. The security fence was reported in be installed in 2002 and is in good condition. The City is planning to modify approximately 5,000 linear metres of fencing to extend below grade to address concerns of coyotes and foxes burrowing under the fence. Aside from minor maintenance and repairs, replacement of the security fence is not anticipated to be required over the planning period.

Airside access is controlled per the Movement Area Access and Control Policies developed by the City. The City is understood to operate the Airport in compliance with the requirements for Class 3 Airports prescribed in the Canadian Aviation Security Regulations. All person and vehicle gates are secured with locks and pin-pad codes, and all gates are reportedly in good condition. The Airport Manager is actively involved in maintaining appropriate airside access controls, and access is limited to essential parties.

The findings of the FSS level of service review may impact the manner in which airside access is provided. Historically, NAV CANADA's Flight Service Specialists served as the Airport's dispatchers for airside access for itinerant aircraft operators. If overnight FSS services are curtailed, new procedures and / or infrastructure will need to be implemented to enable 24-hour airside access.

7.5 Utilities and Servicing

7.5.1 Potable Water and Fire Suppression

Potable water for the Airport is provided by a 250 mm PVC watermain which was installed below the North Saskatchewan River in 1984. The watermain connects to a 150 mm ductile iron watermain at Airport Road which then supplies the Airport's internal water distribution network. The internal network is comprised of cast iron watermains installed during the original development of the Airport by the Royal Canadian Air Force in the 1940s. With the subsequent demolition of several surplus buildings over the years, there are numerous watermain fragments that have been left in place. A 150 mm loop services groundside commercial lots and buildings, and a 200 mm watermain extends from Airport Road across Apron II to the wildfire suppression base.

A 2015 Hydraulic Systems Analysis identified critical fire flow deficiencies at the Airport, noting that that the primary watermain is undersized and that there is no watermain loop. The 2015 study recommended that the City consider the extension of a new 300 mm PVC watermain from the existing system at River Street East across the North Saskatchewan River to the west end of Airport Road, in addition to the existing 250 mm watermain. The 2015 study also recommended that the diameter of the existing watermain along Airport Road be increased from 150 mm to 250 mm. **The Master Plan carries forward the recommendations of the 2015 Hydraulic System Analysis.** It is also **recommended that potable water servicing be extended along Airport Road** to the unserviced development lots. Both projects are recommended to occur in the short-term planning horizon.

7.5.2 Sanitary Sewer

The sanitary sewage collection system consists of a network of 150 mm and 225 mm gravity sewers that convey wastewater from the terminal building, FSS, maintenance garage and tenants to a lift station at the west end of the Airport. The lift station pumps wastewater from the airport across the North Saskatchewan River through a sanitary forcemain. The lift station is a concrete block building that was built in 2017 and was observed to be in good condition. Interior mechanical components were not reviewed as part of the condition assessment.

The sanitary sewage collection system is in good condition as confirmed through recent CCTV inspections and discussions with City Staff. It is understood that there is sufficient residual capacity in the system to meet the long-term development needs of the Airport. To prepare land for new development**, it is recommended that the City extend gravity sewers to new development lots in the short-term**.

7.5.3 Stormwater Management and Drainage

Existing stormwater runoff generally flows overland from north to south to open ditches and storm sewers that ultimately discharge into the North Saskatchewan River. The ditches are generally well maintained and evidence of sediment or erosion downstream was not noted by the project team. Repairs have been recently completed by the City to improve damaged culverts, as well as select projects such as new swales along the south side of Taxiway B.

Existing drainage issues noted by the City include:

- Poor drainage in the infield between Taxiways A, D, and Runway 08-26;
- Catch basins inlets along the eastern perimeter of Runway 08-26 are located too high above grade to efficiently collect runoff;
- Wooden box drains have failed near Apron II resulting in pavement edge sloughing, and the majority of existing wood box drains which date to the 1940s require replacement;

- A culvert outlet at the Taxiway E / Runway 16-34 intersection has been damaged; and
- Ponding is an issue to the east of the Runway 08-26 clearway.

To address these issues, **Taxiway A, Taxiway D, and Runway 08-26 infield drainage improvements are recommended in the short-term**.

Ongoing maintenance and repair of the stormwater management system will be required to address matters such as failed culverts. **The preparation of a comprehensive Stormwater Management Plan is recommended in the short-term**. Following the preparation of a Stormwater Management Plan, a systematic infrastructure replacement and rehabilitation program will be required to mitigate future drainage issues.

No runoff quality issues were noted through stakeholder consultations, including from de-icing operations and runoff from the wildfire suppression base.

7.5.4 Electrical Servicing

The main non-essential power service for the terminal building is a metered 4160 Y / 2400 V, 3 phase, 4 wire supply provided by a 225kVA SaskPower pad mount transformer. Non-essential terminal building power is distributed through federal pioneer switchgear panels which include:

- Panel A: 225A, 120/208V, 3 phase, 4 wire;
- Panel G: 100A, 120/208V, 3 phase, 4 wire;
- Panel H: 40A, 120/208V, 3 phase, 4 wire)
- Panel F (Parking Lot): 100A, 120/208V, 3 phase, 4 wire;
- Two 50A 120/208V air conditioner loads; and
- Four 120/208V 60A aircraft energizer receptacles.

Terminal building essential power is provided from the FEC by a feeder routed through an outdoor step-down transformer, with secondary feeds connected into a 150A, 120/208V, 3 phase 4 wire panel within the terminal building.

The airport maintenance building has a dedicated service from SaskPower which is connected through a 400A disconnect switch to a 400A 120/208V, 3 phase, 4 wire panel board. There is an essential power panel board within the maintenance garage backed up by a 40kVA, 120/208V 3 phase, 4 wire Kohler generator dating from 1984. **The generator appears to be in poor condition and is recommended for replacement in the short-term planning horizon**. The essential power feed from the FEC and generator output are routed through a Kohler transfer switch. The aerodrome beacon is powered from the essential power panel in the maintenance garage.

The FSS is provided with a dedicated service from SaskPower whose loads include the Apron I floodlighting and an automated vehicle gate. There is also a dedicated SaskPower service for the salt shed and a dedicated service for the parking lot lights and plugs which, in addition to the plugs, powers eight pole mounted lights equipped with 250W HPS fixtures.

SaskPower has confirmed that there is ample residual capacity to service the long-term needs of the Airport.

7.5.5 Natural Gas

SaskEnergy provides natural gas servicing to the terminal building, maintenance garage, and Taxiway B leasehold lots. Natural gas servicing can be extended by SaskEnergy to service new development, as required throughout the planning horizons of the Master Plan.

7.5.6 Telecommunications and Internet

SaskTel

Saskatchewan Telecommunications Holding Corporation (SaskTel) provides internet services at the Airport. Stakeholder consultations commonly identified slow network speeds at the Airport as a deficiency. However, SaskTel has indicated that there are no immediate plans to upgrade services at the Airport. Existing services can be extended by SaskTel on an as-required basis to meet the needs of new Airport tenants.

FlexNetworks (BH Telecom)

FlexNetworks is a private service provider that delivers fibreoptic internet services in numerous locations across Canada, including Prince Albert. Fibreoptic infrastructure has already been installed along Airport Road to its western intersection with the Terminal Building Road, which is used by the RCMP and Transwest Air. FlexNetworks' internet services at Prince Albert Airport are provisioned to allow speeds up to 1 Gigabits per second (Gbps), and FlexNetworks indicates that service could be reprovisioned to provide speeds up to 10 Gbps if required.

The provision of high-speed internet services is crucial to attracting new businesses to Prince Albert Airport and existing services are a significant deficiency. **It is recommended that discussions with FlexNetworks be initiated in the short-term to determine the feasibility of upgrading internet services at the Airport.** Preliminary discussions between the project team and FlexNetworks indicate that the company is interested in pre-servicing the development lots proposed through the Recommended Airport Development Plan, and in extending servicing to existing parties such as the City (maintenance and terminal buildings) and the SPSA base.

8 RECOMMENDED AIRPORT DEVELOPMENT PLAN

Future growth at Prince Albert Airport should be guided by comprehensive Recommended Airport and Terminal Building Development Plans. Both plans have been prepared to ensure that future demand can be met by the facility while ensuring that aeronautical constraints and environmental impacts are considered. The infrastructure projects required to realize both plans are structured in a systematic 20-year capital investment plan to guide the City of Prince Albert in its budgeting processes.

8.1 Aeronautical Constraints

All future development at Prince Albert Airport must be compatible with the facility's regulatory obligations as a certified airport. This includes structure height restrictions because of Obstacle Limitation Surfaces and Obstacle Protection Surfaces; line of sight constraints from the NAV CANADA FSS; and constraints from the electronic navigation aids and communication systems.

Future development within the City of Prince Albert and R.M. of Buckland must also conform with these restrictions. **It is recommended that a land use planning review be undertaken by the City and R.M. of Buckland in the short-term planning horizon** to ensure their respective plans and bylaws account for matters of airport land use compatibility.

8.1.1 Obstacle Limitation and Protection Surfaces

Obstacle Limitation Surfaces (OLS) are three-dimensional planes that limit the height of buildings, vegetation, and other structures. Transport Canada's TP312 – Aerodrome Standards and Recommended Practices enumerates the standards for OLS, with Prince Albert Airport certified to TP312 4th Edition. Three types of OLS are established, as described below, and shown in Figure 8.1:

- **Approach Surfaces:** An inclined plane that begins at the runway threshold and extends along the runway centreline while diverging outwards.
- **Transitional Surfaces:** A complex surface along the edge of the Runway Strip which slopes upwards and outwards towards the Outer Surface and Approach Surfaces.
- **Outer Surface:** A common plane established at 470 m ASL (45 m above the Aerodrome Reference Point) with a radius of 4,000 m.

In the future, Prince Albert Airport may become certified to TP312 5th Edition – either as a voluntary action or as a regulatory requirement. TP312 5th Edition OLS, including the Approach, Take-off, Transitional, and Inner Transitional Surfaces, as well as the Outer Obstacle Identification Surface, are shown in Figure 8.2. All future development should comply with the more restrictive OLS standards of either TP312 4th or 5th Edition, based on the unique constraints of each given case.

An Obstacle Protection Surface (OPS) is established to limit penetrations and visual obstructions into the three-dimensional view plane for the Runway 26 PAPI system. The Runway 26 OPS currently complies with the standards of TP312 4th Edition, as described in Table 8.1. Both the TP312 4th and 5th Edition OPS are less restrictive in their slope and dimensions than the OLS for Runway 26 within the Airport property boundary. Accordingly, on-site adherence to the OLS will ensure compliance with the OPS[3].

[3] While the Runway 26 OLS are more restrictive than the OPS, both the TP312 4th and 5th Edition OPS extend further beyond Prince Albert Airport than the Runway 26 OLS. Off-site development should continue to be verified against the OPS specifications provided in TP312.

Table 8.1 – Runway 26 PAPI Obstacle Protection Surface Specifications

	TP312 4th Edition	TP312 5th Edition
Length of Inner Edge	75 m	122 m (Each Side of Runway Centreline)
Distance from Runway Threshold	60 m	61 m
Divergence	15%	
Length	15,000 m	7,500 m
Slope	1.93° (3.37%)	

8.1.2 Bird and Wildlife Hazards

Prince Albert Airport has the regulatory obligation to maintain a Wildlife Management Program under the CARs, given the threat that birds and wildlife can pose to aviation safety. Proactive planning can be undertaken to limit the development of new on and off-airport land uses that are attractive to birds and wildlife.

All proposed land uses at Prince Albert Airport should be evaluated against the Primary Hazard Zone guidelines of TP1247 – Land Use in the Vicinity of Aerodromes. The generalized land use guidance of TP1247 should be used to inform whether a site-specific assessment should be undertaken for a development proposal, and whether bird and wildlife mitigation and deterrence measures are required.

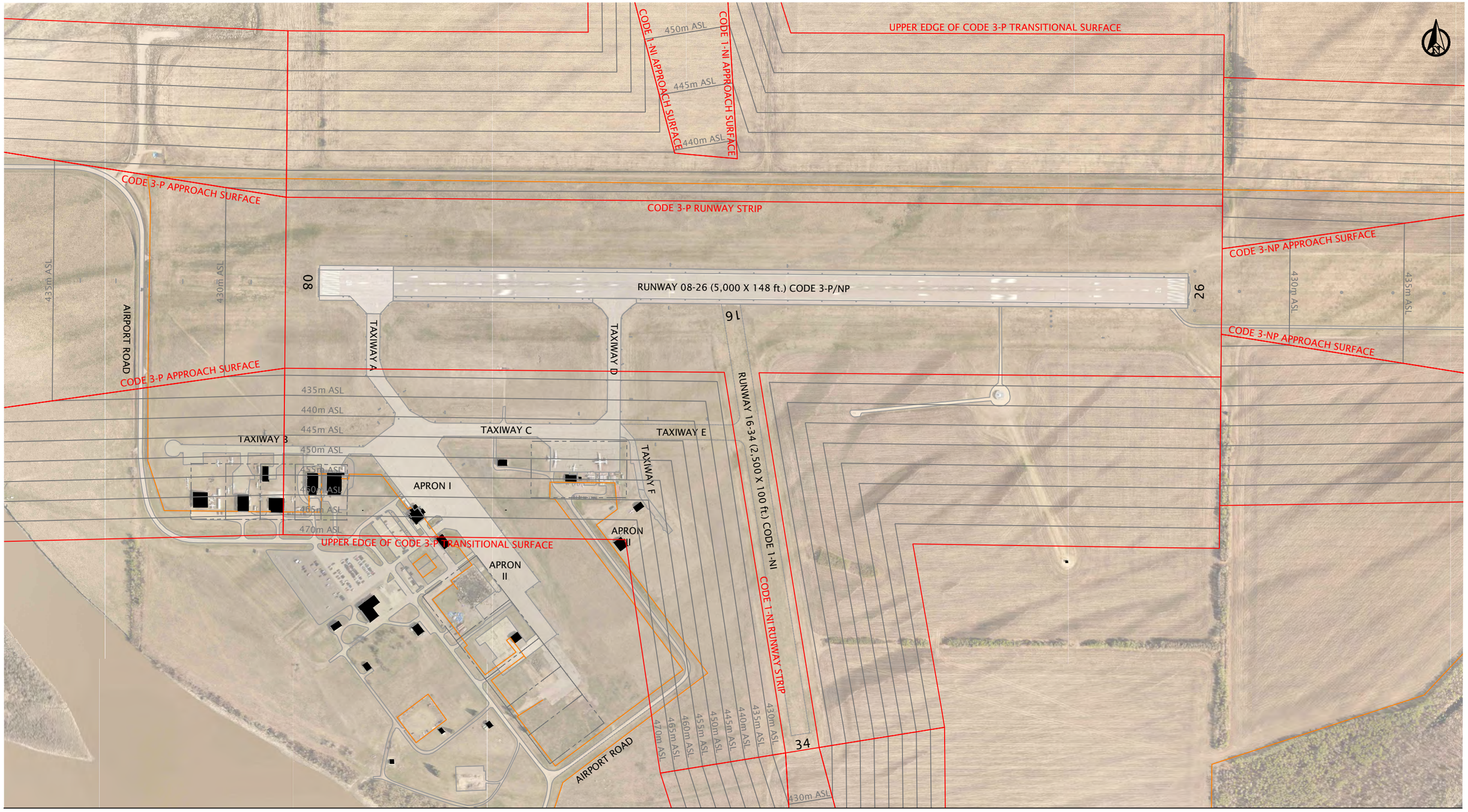


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FIGURE 8.1 - OBSTACLE LIMITATION SURFACES, TP312 4th EDITION

FEBRUARY 2021

0 150 300 Metres

*FOR PLANNING PURPOSES ONLY

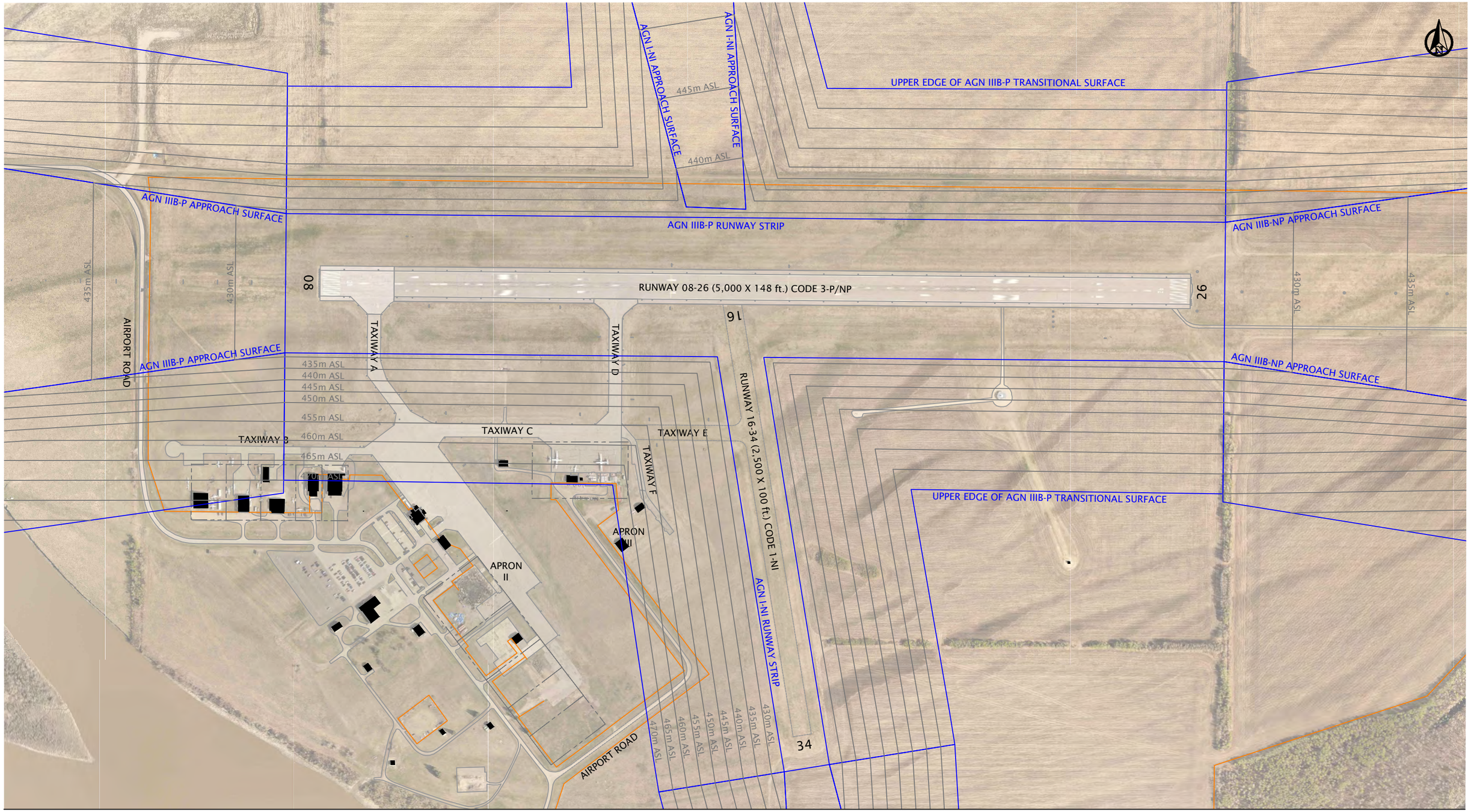

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FIGURE 8.2 - OBSTACLE LIMITATION SURFACES, TP312 5th EDITION

FEBRUARY 2021

0 150 300 Metres

*FOR PLANNING PURPOSES ONLY

8.1.3 Flight Service Station Line of Sight

Visual line of sight across the airside system with minimal gaps must be maintained to maximize the operational awareness of the Flight Service Specialists. As noted in Section 7.2.4, the NAV CANADA FSS currently has line of sight issues between the facility and many points on the aircraft movement and manoeuvring areas due to the presence of the FEC, wildfire suppression base, and aircraft hangars on Apron III and along Taxiway B.

Figure 8.3 illustrates the fields of vision from the FSS to the runways, taxiways, and aprons that should be protected from new obstructions. Also depicted are areas with line of sight constraints due to existing development, including the obstructions noted above. Future development within the line of sight fields identified in Figure 8.3 will require assessment by NAV CANADA through the Land Use Submission process prior to construction. Specifically, future hangars east of Apron II are anticipated to be potential line of sight obstructions between the FSS and Runway 16-34 that require assessment.

The closure of Runway 16-34 is recommended to facilitate the extension of Taxiway C in the medium-term planning horizon. The closure would also eliminate the line of sight constraints imposed on the development lots east of Apron II, thereby strengthening the case for closing the runway. Additionally, it is recommended that NAV CANADA be consulted during the design of the new terminal building and / or airport maintenance building to identify whether an opportunity exists to collocate a new FSS with either facility to improve lines of sight.

8.1.4 Electronic Zoning

New development at Prince Albert Airport has the potential to interfere with the operation of NAV CANADA's electronic navigation aids and communication systems. Guidelines on the protection of these systems are provided by Transport Canada in TP1247 – Land Use in the Vicinity of Aerodromes (9th Edition) and by the International Civil Aviation Organization (ICAO) in EUR DOC 015 – European Guidance Material on Managing Building Restricted Areas (2nd Edition).

The electronic navigation aids and communication systems that require protection include the:

- ILS glidepath and localizer arrays;
- VOR, until decommissioned;
- DME;
- VDF, until decommissioned; and
- VHF transmitters / receivers collocated with the FSS.

Figure 8.4 shows the areas where development proponents should review the electronic zoning constraints of TP1247 and EUR DOC 015. Proposed developments within these areas should be reviewed by NAV CANADA through the Land Use Submission process to identify the need for further analysis, potential impacts, and required mitigation measures.

OBSCURED
PORTIONS OF
RUNWAY 08-26

08

RUNWAY 08-26 (5,000 X 148 ft.) CODE 3-P/NP

26

TAXIWAY A

TAXIWAY D

16

SASKATCHEWAN
PUBLIC SAFETY
AGENCY

RUNWAY 16-34 (2,500 X 100 ft.) CODE 1-NI

TAXIWAY C

TAXIWAY E

TAXIWAY B

FEC

TAXIWAY F

OBSCURED
PORTIONS OF
RUNWAY 16-34

APRON I

AIRCRAFT
SHELTERS

APRON
III

FSS LINE OF
SIGHT ORIGIN

APRON
II

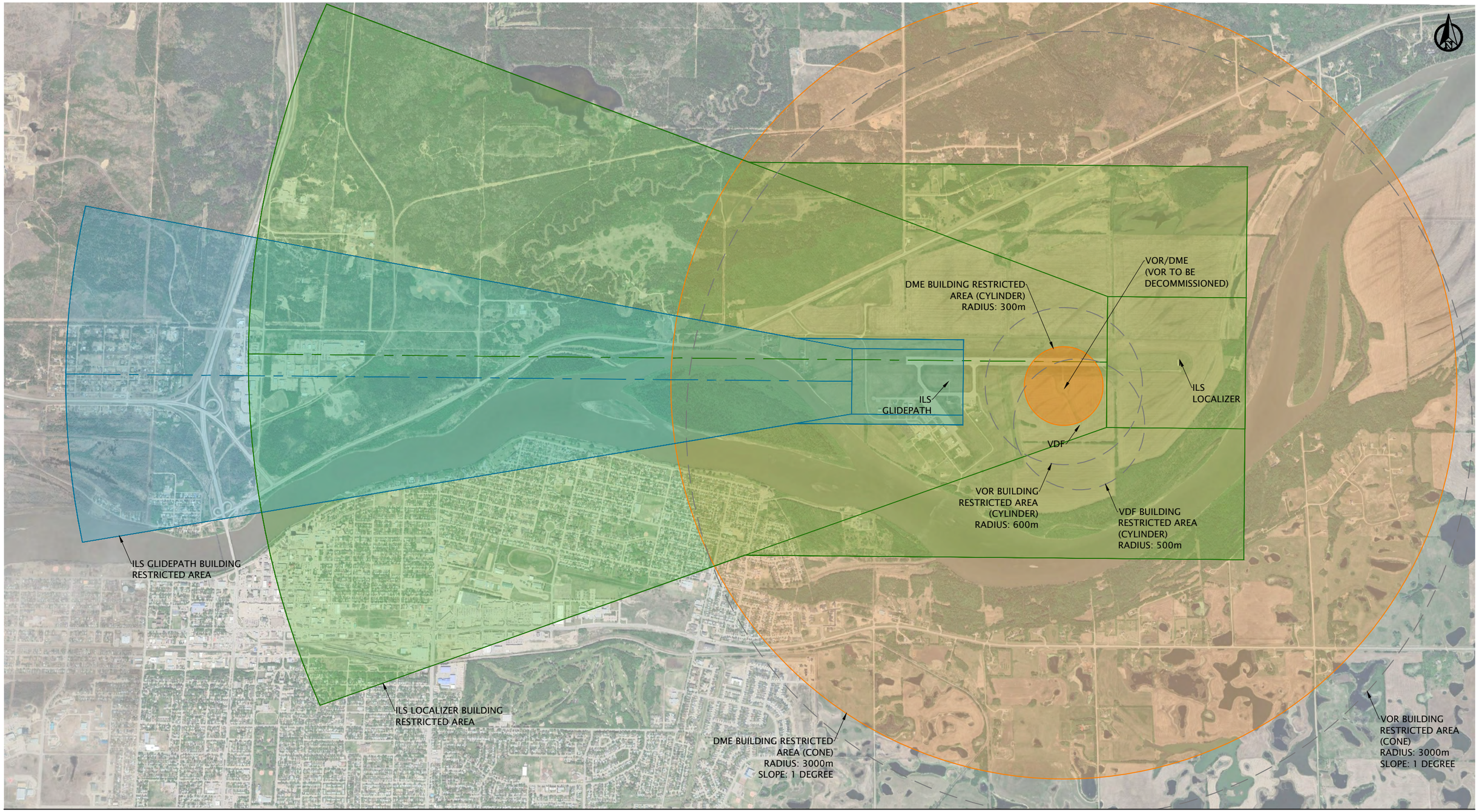
PRINCE ALBERT AIRPORT
STRATEGIC MASTER PLAN

FIGURE 8.3 - FLIGHT SERVICE STATION LINE OF SIGHT CONSTRAINTS

FEBRUARY 2021

0 125 250 Metres

*FOR PLANNING PURPOSES ONLY



PRINCE ALBERT AIRPORT
STRATEGIC MASTER PLAN

FIGURE 8.4 - ELECTRONIC ZONING BUILDING RESTRICTED AREAS

FEBRUARY 2021

0 750 1500 Meters

*FOR PLANNING PURPOSES ONLY

8.2 Recommended Airport Development Plan

The Recommended Airport Development Plan is presented in Figure 8.5 and incorporates the capital projects recommended for the airside system, groundside system, and utilities and servicing identified in Section 7. Operational projects, reports and studies, and the renewal and upgrading of the mobile equipment fleet are not identified within the Recommended Airport Development Plan but are included within the 20-Year Capital Plan.

8.2.1 Airside System

Recommended developments for the airside system have been identified based on the noted deficiencies and requirements discussed in earlier sections of the Master Plan. Short-term infrastructure improvements include the following:

- 2021 – Installation of an ARCAL system;
- 2022 – Localized repairs to the concrete Runway 08 threshold and the reconstruction and extension of Apron II;
- 2024 – Replacement of the fibreoptic airside guidance signs with LED units, rehabilitation of the airfield lighting system, and rehabilitation of the airfield electrical system; and
- 2025 – Rehabilitation of Apron I.

Medium and long-term term priorities shift to the rehabilitation and expansion of the runways and taxiways, with recommended projects including:

- 2026 – Rehabilitation of Taxiways A and B;
- 2027 – Rehabilitation of Runway 08-26 and implementation of Runway End Safety Areas;
- 2028 – Rehabilitation of Taxiways C and D;
- 2029 – Extension of Taxiway C to the Runway 26 threshold, decommissioning of Runway 16-34, and reconfiguration of the future Taxiway C / Taxiway F intersection; and
- 2035 – Extension of Taxiway F, pending the absorption of a sufficient number of development lots to warrant its construction.

Aside from the extension of Taxiway F, other airside capital projects have not been identified in the long-term planning horizon, largely because of the significant number of short and medium-term capital rehabilitation and expansion projects that are required. However, proactive financial management should be undertaken by the City of Prince Albert to ensure sufficient reserves exist to fund future priorities as they emerge. The recommended updating of the Strategic Master Plan in 2030 is an opportunity to consider emergent priorities over the long-term planning horizon.

8.2.2 Groundside System

The short, medium, and long-term recommended capital projects for the groundside system include:

- 2021 – Implementation of improved groundside wayfinding and signage;
- 2026 – Rehabilitation and reconfiguration of the Terminal Building Road and public parking lot to support the recommended development of a new terminal building;
- 2027 – Paving the long-term designated parking lot;
- 2030 – Rehabilitation of Airport Road; and
- 2035 – Rehabilitation of the long-term corporate parking lot.

8.2.3 Utilities and Servicing

Further expansion and improvements to utilities and servicing is a significant prerequisite to the development of new lots at the Airport. It is recommended that the utility and servicing network undergo a systematic series of short-term improvements:

- 2021 – Taxiway A, Taxiway D, and Runway 08-26 infield drainage improvements;
- 2022 – Installation of fibreoptic internet servicing;
- 2023 – New 300 mm potable watermain crossing the North Saskatchewan River, in addition to the existing 250 mm potable watermain;
- 2024 – Upgrade existing potable watermain to 250 mm along Airport Road; and
- 2025 – Extend a new potable watermain and sanitary sewer line to unserviced development lots along Airport Road.

The requirement to replace or repair existing wooden stormwater box drains on an as-failed basis and other improvements recommended through a subsequent Stormwater Management Plan will also have capital planning implications in the short and medium-term planning horizons. Cost estimates are provided in the 20-Year Capital Plan; however, these figures are subject to change as more detailed investigations are completed.

8.2.4 Leasehold Lot Development Strategy

Development Phasing

Development of new leasehold lots is recommended to be phased in a manner that makes the most efficient use of existing infrastructure, prior to requiring the expansion of utilities, services, taxiways, and groundside roads. Based on the infrastructure and servicing requirements of anticipated new developments, the phased priority for the absorption of new development lots is recommended to be:

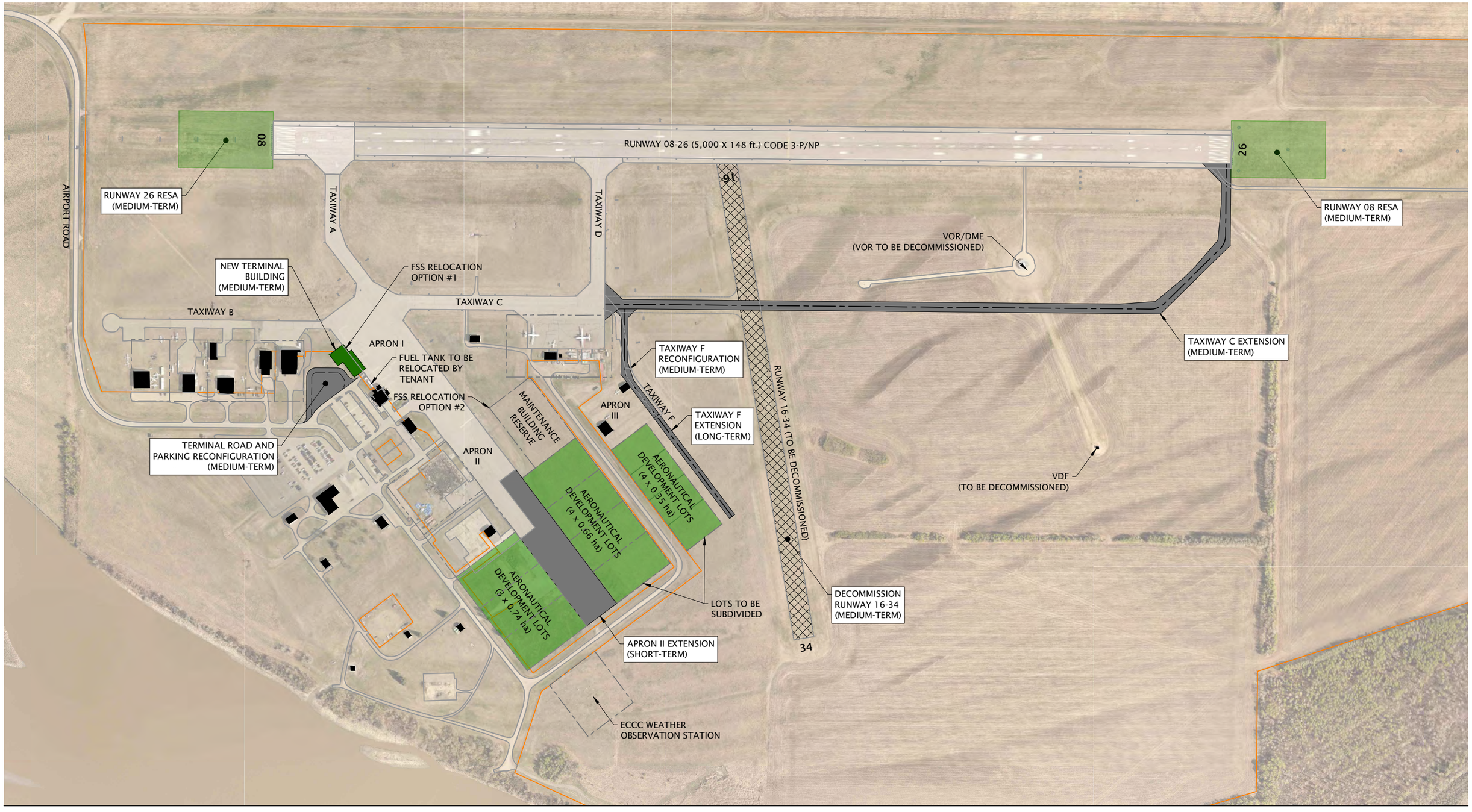
1. Priority 1 (Short-Term): Leasehold lots west of Apron II, with lots allocated from north to south. Access to the most southerly lots is dependent on the recommended short-term extension of Apron II;
2. Priority 2 (Medium-Term): Leasehold lots east of Apron II, with lots allocated from south to north. The absorption of Priority 2 lots is dependent on the recommended short-term extension of Apron II, potable water, and sanitary sewer services; and
3. Priority 3 (Long-Term): Leasehold lots west of Taxiway F, with lots allocated from north to south. Priority 3 growth would follow the extension of potable water and sanitary sewer services along Airport Road and the long-term extension of Taxiway F.

The recommended development phasing of the Master Plan is understood to be a flexible concept, as prospective tenants may have development needs that require adaptations to the above-noted strategy.

Leasehold Lot Sizes

As noted above, prospective tenants may have land requirements that exceed the size of existing lots such as an air carrier, FBO, or large-scale AMO. In this case, the City should consider flexibly consolidating and leasing two or more lots shown in the Recommended Airport Development Plan while endeavouring to maintain the phasing strategy identified above, and without hindering the development of other land parcels.

Conversely, inquiries may be received from tenants requesting smaller parcels. The land southwest of the Heli-Lift International hangar west of Apron II may be a suitable location for small aircraft hangars.



PRINCE ALBERT AIRPORT
STRATEGIC MASTER PLAN

FIGURE 8.5 - RECOMMENDED AIRPORT DEVELOPMENT PLAN

FEBRUARY 2021

0 150 300 Metres

*FOR PLANNING PURPOSES ONLY

8.3 Recommended Terminal Building Development Plan

Location Selection

Pending a future geotechnical investigation, assessment by NAV CANADA, and the completion of detailed building designs, the new terminal building is recommended to be located northwest of the existing structure. The proposed location of the new air terminal building is shown in Figure 8.6. This location has been chosen for the following reasons:

- Access is maintained to Apron I, which already has the infrastructure required for nighttime operations, a PLR sufficient for air carrier aircraft, and designated air carrier parking positions;
- The future terminal building will continue to be in proximity to existing vehicle parking lots and roadway infrastructure, negating the need to duplicate infrastructure;
- The existing terminal building can continue to be used during construction, as opposed to building the new terminal at the location of the existing structure after demolition;
- Sufficient space is available for the loading and unloading of semi-trailers with cargo;
- The location allows for the expansion of the new terminal to the south, if required, following the relocation of the fuel tanks; and
- Time spent by air carriers taxiing to and from Runway 08-26 will be limited, improving operational efficiency and providing cost savings to these operators with less fuel burned.

Conceptual Design

As described in Section 7.3, the existing terminal building is deficient in terms of its available floorspace, operational capabilities, and structural ability to support expansion and redevelopment. The Recommended Terminal Building Development Plan presented in Figure 8.6 presents a preliminary and conceptual floorplan for a single-storey facility with a floor area of 1,330 m^2. The conceptual design presented in Figure 8.6 is preliminary, requiring refinement during the detailed design process.

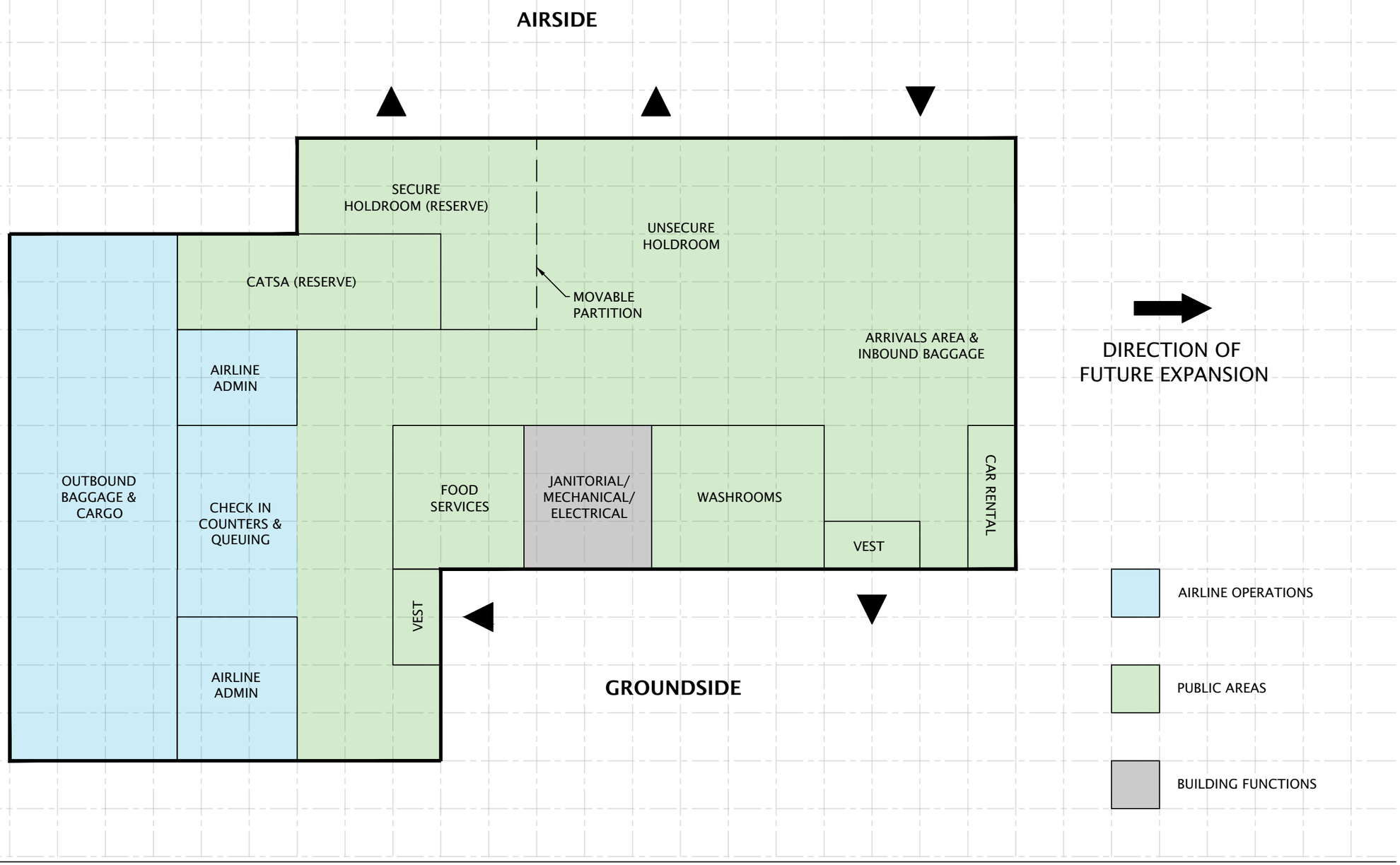
The terminal building has been appropriately sized to support secure scheduled air services within its proposed footprint. A conceptual design has been prepared that would enable a secure holdroom to be sequestered on an as-needed basis (e.g., two hours prior to the departure of a secure flight) using movable partitions integrated as part of the new building. During periods where no secured flights are scheduled, these partitions would be stowed and the secure holdroom would function as an unsecure holdroom. Sufficient space is also provided for CATSA's PBS equipment and associated office space.

The floorplan shown in Figure 8.6 only considers the building programming identified in Section 7.3.12; opportunities for additional functions, such as a new NAV CANADA FSS or administrative space for the City of Prince Albert, should be considered during the design process.

Expansion Potential

It is assumed that the fuel tanks maintained by Snowbird Aviation Services adjacent to the existing terminal building will be relocated, potentially to one of Transwest Air's existing leasehold lots. This will permit the future expansion of the new terminal building to the south in a linear manner, if required.

It is assumed that the existing terminal will be demolished once the new facility is in operation. An alternative to demolishing the current terminal building is offering the structure for sale or lease to an interested company that could use the building as a Fixed-Base Operator. In such a scenario, the expansion of the new terminal building to the south is still maintained as an option.



PRINCE ALBERT AIRPORT
STRATEGIC MASTER PLAN

FIGURE 8.6 - RECOMMENDED TERMINAL BUILDING DEVELOPMENT PLAN

FEBRUARY 2021

0 5 10 Meters

*FOR PLANNING PURPOSES ONLY

8.4 Impacts Analysis

The projects described through the Recommended Airport Development Plan can have a range of multifaceted impacts that require early consideration and analysis. A preliminary impacts analysis has been undertaken by the project team that considers new capital infrastructure projects. Specifically, each project has been reviewed against the following factors:

- **Transport Canada Action:** Whether the project requires the submission of an Aeronautical Assessment Form, the approval of a Plan of Construction Operations, and / or changes to the Airport's AOM and other regulatory documents.
- **NAV CANADA Action:** Whether the project requires an update to Aeronautical Information Publications and / or a Land Use Submission to identify impacts to Instrument Flight Procedures, electronic navigation aids, and FSS sightlines.
- **Changes to the Natural Environment:** Whether the project will change the natural environment (e.g., paving a previously vegetated area), potentially impact flora and fauna, and be screened for federal and provincial environmental assessment requirements.
- **Obstacle Limitation Surfaces:** Whether the project should be checked for compliance with the Airport's OLS.
- **Bird and Wildlife Hazards:** Whether the project should be analyzed to determine whether a bird or wildlife hazard will be introduced and if mitigation measures are required.
- **FSS Line of Sight:** Whether the project has the potential to penetrate a view plane from the FSS and requires assessment, or whether the project will add a new airfield surface that requires visual monitoring from the FSS.
- **Electronic Zoning:** Whether the project has the potential to impact the functioning of NAV CANADA's electronic navigation aids and communication systems and requires assessment.
- **Utilities and Servicing:** Whether the construction activity has the potential to damage subsurface utilities and infrastructure and requires utility locates.
- **Winter Maintenance:** Whether the project will increase the City's winter maintenance obligations (i.e., increased pavement areas), change the manner in which winter maintenance is conducted, and / or complicate snow removal and dumping.
- **Asset Maintenance and Renewal:** Whether the project will increase the City's workload and financial obligations in maintaining and renewing the asset at the end of its lifespan.

The impacts analysis shown in Table 8.2 is intended to serve as a starting point that will guide the City when conducting additional planning in the future and implementing each project. The specific requirements and impacts of each project should be confirmed during the advanced planning and design phase.

Table 8.2 – Preliminary Impacts Analysis

	Transport Canada Action	NAV CANADA Action	Change to Natural Environment	Obstacle Limitation Surfaces	Bird and Wildlife Hazards	FSS Line of Sight	Electronic Zoning	Utilities and Servicing	Winter Maintenance	Asset Maintenance and Renewal
Development of New Leasehold Lots	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO
Runway 08-26 Runway End Safety Areas	YES	YES	TBD	NO	NO	NO	NO	YES	NO	YES
Runway 16-34 Decommissioning	YES	YES	NO	NO	NO	NO	NO	NO	NO	NO
Taxiway C Extension	YES	YES	YES	NO	NO	YES	YES	YES	YES	YES
Taxiway F Realignment	YES	YES	YES	NO	NO	YES	YES	YES	NO	NO
Taxiway F Extension	YES	YES	YES	NO	NO	YES	YES	YES	YES	YES
Apron II Extension	YES	YES	YES	NO	NO	YES	YES	YES	YES	YES
New Terminal Building	YES	YES	YES	YES	NO	YES	YES	YES	NO	YES
Terminal Building Road Extension	NO	NO	YES	NO	NO	NO	TBD	YES	YES	YES
Public Parking Lot Expansion	NO	NO	YES	NO	NO	NO	TBD	YES	YES	YES
Potable Water Servicing Extension	NO	NO	TBD	NO	NO	NO	NO	YES	NO	YES
Sanitary Sewer Servicing Extension	NO	NO	TBD	NO	NO	NO	NO	YES	NO	YES

TBD = To be determined, further analysis required

8.5 20-Year Capital Plan

Table 8.3 presents the 20-Year Capital Plan that considers all projects, mobile asset replacements, and studies that are recommended throughout this Master Plan. Rough Order-of-Magnitude cost estimates are provided for each item to assist the City with its annual capital budget process. The majority of the cost estimates were developed using local construction unit rates and research completed by the project team. Several cost estimates have been informed from other sources, including Hanscomb Yardsticks for Costing and City records on Airport project costs from 2016 to 2020.

The following assumptions apply throughout the 20-Year Capital Plan:

- Cost estimates are in Canadian Dollars and are adjusted for inflation in the project year;
- The annual inflation rate is set at 2.5%;
- All cost estimates assume a competitive bidding process is used.

The 20-Year Capital Plan does not include:

- The cost of crossing the North Saskatchewan River with a 300 mm potable watermain due to the highly variable costs of projects of this nature;
- Costs associated with marketing and business development initiatives completed by the City;
- Costs associated with financing the projects and mobile assets;
- Funding through external grant programs;
- Legal and / or regulatory permitting fees necessary for the completion of the projects;
- Engineering and project management contingencies. A 10% contingency should be added to all capital infrastructure projects.

Table 8.3 – 20-Year Capital Plan

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Infrastructure																				
Aircraft Radio Control of Aerodrome Lighting System	$21,000																			
Taxiway A, Taxiway D, and Runway 08-26 infield drainage improvements	$102,000																			
Apron II Reconstruction		$1,809,000																		
Apron II Expansion		$3,139,000																		
Runway 08 Threshold Concrete Repairs		$16,000																		
Fibreoptic Internet Servicing		*																		
Airport Maintenance Building Generator Replacement			$40,000																	
North Saskatchewan River Watermain Crossing (300 mm)			**																	
LED Fibreoptic Guidance Signs				$83,000																
Airfield Lighting System Rehabilitation				$3,091,000																
Replace Airfield Electrical System Constant Current Regulators and Power Distribution Equipment				$386,000																
Airport Road Watermain Upgrades (250 mm)				$663,000																
Development Lot Preparation				$67,000																
Apron I Rehabilitation					$5,550,000															
Extend Potable Water Servicing					$293,000															
Extend Sanitary Sewer Servicing					$320,000															
New Terminal Building						$5,398,000														
Rehabilitation and Reconfiguration of Terminal Building Road						$254,000														
Rehabilitation and Reconfiguration of Public Parking Lot						$298,000														
Taxiway A Rehabilitation						$433,000														
Taxiway B Rehabilitation						$204,000														

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Long-Term Designated Parking Lot Paving							$154,000													
Runway 08-26 Rehabilitation							$6,557,000													
Runway 08-26 Runway End Safety Areas							$1,605,000													
Taxiway C Rehabilitation								$2,025,000												
Taxiway D Rehabilitation								$1,389,000												
Taxiway F / Taxiway C Intersection Realignment									$563,000											
Taxiway C Extension									$5,341,000											
Terminal Building Secure Holdroom										$15,000										
Airport Road Rehabilitation										$1,282,000										
Taxiway F Extension															$623,000					
Long-Term Corporate Parking Lot Rehabilitation															$1,094,000					
TOTAL – Infrastructure	**$123,000**	**$4,964,000**	**$40,000**	**$4,290,000**	**$6,163,000**	**$6,587,000**	**$8,316,000**	**$3,414,000**	**$5,904,000**	**$1,297,000**	**$0**	**$0**	**$0**	**$0**	**$1,717,000**	**$0**	**$0**	**$0**	**$0**	**$0**
Mobile Assets																				
Airport Mobile Equipment Multi-Channel VHF Radios	$3,000																			
2000 Navstar Plow Truck	$256,000																			
1989 Navstar Sander/Deicer/Plow Truck	$256,000																			
2021 RPM Blizzard Cold Air Blower	$140,000																			
2006 Case Loader						$174,000														
2009 Chev 1/2 ton									$75,000											
2014 11’ John Deer Mower														$71,000						
2015 Chev 1/2 ton															$87,000					
2015 SMI Sweeper															$362,000					
2015 Towed Deicer Spreader															$406,000					
2016 Polaris Indy Voyager																$15,000				
2017 Larue Snowblower																	$822,000			
2018 Gravely Walk Behind Sweeper																		$3,000		

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
2019 CAT M140 Grader																			$568,000	
2020 Ariens Walk Behind Snow Blower																				$3,000
2020 Kabota Tractor																				$221,000
2020 Schulte Towed 25’ Mower																				$82,000
2020 6’ Grasshopper Mower																				$8,000
TOTAL – Mobile Assets	**$655,000**	**$0**	**$0**	**$0**	**$0**	**$174,000**	**$0**	**$0**	**$75,000**	**$0**	**$0**	**$0**	**$0**	**$71,000**	**$855,000**	**$15,000**	**$822,000**	**$3,000**	**$568,000**	**$314,000**
Plans and Studies																				
Reduced Visibility Operations Plan	$15,000																			
Groundside Wayfinding and Signage Plan	$21,000																			
Stormwater Management Plan		$32,000																		
TP312 5th Edition Gap Analysis			$40,000																	
Air Service Demand and Catchment Area Leakage Study				$30,000																
Instrument Meteorological Conditions Availability Analysis					$23,000															
Update Airport Master Plan										$77,000										
TOTAL – Plans and Studies	**$36,000**	**$32,000**	**$40,000**	**$30,000**	**$23,000**	**$0**	**$0**	**$0**	**$0**	**$77,000**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Annual Totals																				
TOTAL – All Projects	**$814,000**	**$4,996,000**	**$80,000**	**$4,320,000**	**$6,186,000**	**$6,761,000**	**$8,316,000**	**$3,414,000**	**$5,979,000**	**$1,374,000**	**$0**	**$0**	**$0**	**$71,000**	**$2,572,000**	**$15,000**	**$822,000**	**$3,000**	**$568,000**	**$314,000**

* The cost of installing fibreoptic services will be determined through negotiations with the provider

** The cost of crossing the North Saskatchewan River with a 300 mm potable watermain due to the highly variable costs of projects of this nature

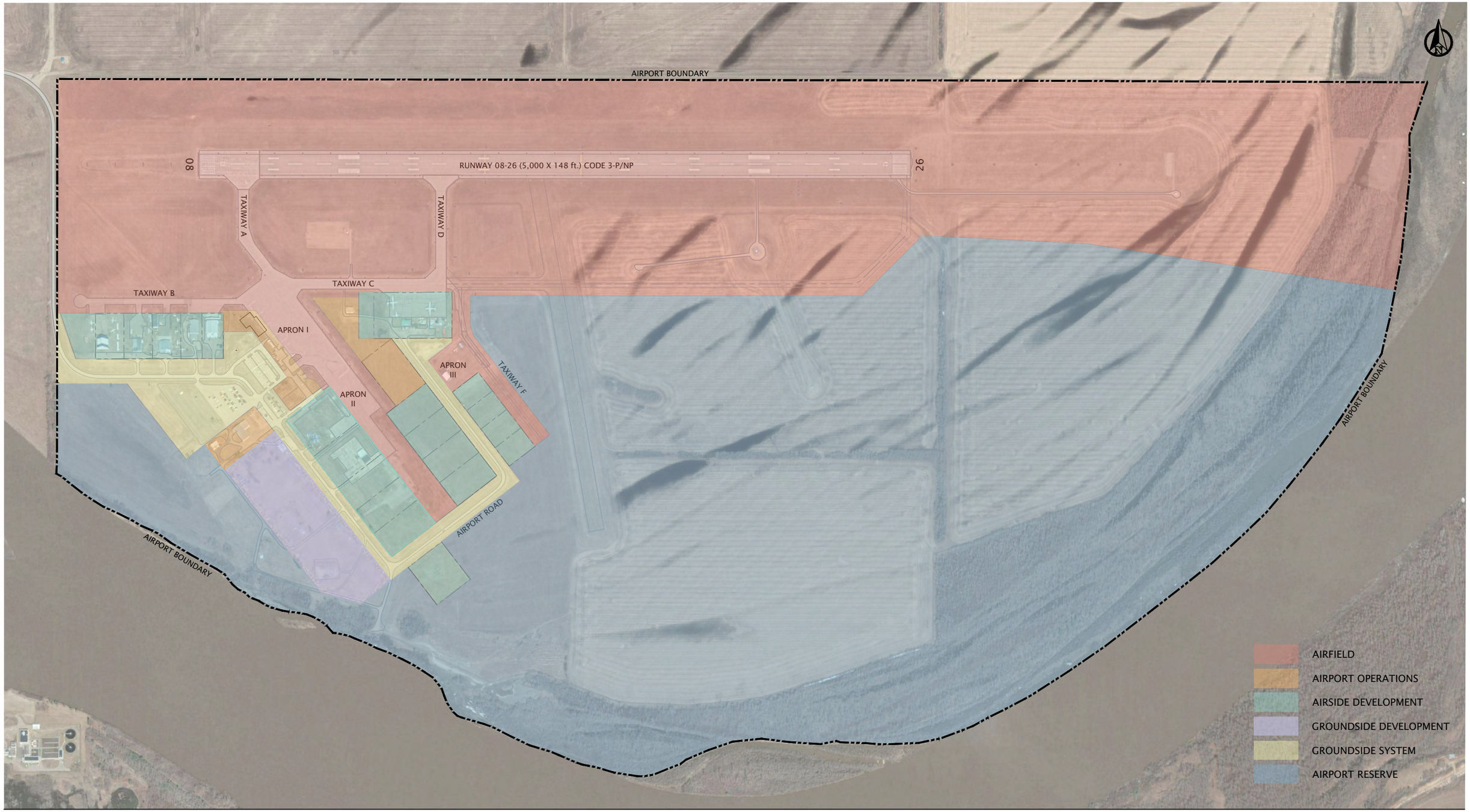
9 RECOMMENDED LAND USE PLAN

A Recommended Land Use Plan has been prepared for Prince Albert Airport, as shown in Figure 9.1. The intent of the Recommended Land Use Plan is to:

- Manage the land supply of Prince Albert Airport and direct new uses to their most appropriate location(s);
- Ensure new land uses do not conflict with aeronautical safety and the Airport's regulatory obligations;
- Protect for future infrastructure projects; and
- Maximize the aviation and non-aviation development potential of the facility.

The Recommended Land Use Plan includes six designations that encompass the entirety of Prince Albert Airport. Future development should be consistent with the Recommended Land Use Plan. Acknowledging that the full spectrum of potential land uses is not identified in the examples provided within each zone, the Airport Manager shall have final discretion in the interpretation and application of the Recommended Land Use Plan. The six land use designations have been derived from former Transport Canada planning documents and are as follows:

- **Airside System:** Lands reserved for existing and planned runways, taxiways, and aprons. Electronic navigation aids and weather observation systems may also be located within the Airside System where required for their proper functioning and subject to the standards of TP312.
- **Airside Development:** Leasehold lots that support tenants requiring access to the Airside System for their intended use or business. Land uses that do not require access to the Airside System and / or that are not aviation-related shall not be permitted in the Airside Development zone. Examples of permissible uses include, but are not limited to: hangars, aviation businesses, Fixed-Base Operators, air carriers, and air cargo facilities.
- **Groundside System:** Lands reserved for groundside roads, parking lots, and servicing and utility infrastructure.
- **Groundside Development:** Leasehold lots that are available to tenants that do not require access to the Airside System. Land uses in the Groundside Development zone should be complementary to the aviation functions of the Airport and be of a nature that benefits from the lot sizes and industrial context of the facility. Examples of permissible uses include, but are not limited to: self-storage businesses, training facilities, warehousing and logistics, restaurants, and retail businesses.
- **Airport Operations:** Land and facilities that support the operation and maintenance of Prince Albert Airport, including the current and future terminal building, maintenance building, sand storage shed, NAV CANADA FSS, and FEC.
- **Airport Reserve:** Lands that are not anticipated to be required for development or capital projects within the Master Plan horizon, but which should be held by the City in an undeveloped state until a definite need is identified and detailed planning and an update to the Master Plan is completed. Agricultural cropping is an acceptable use in the Airport Reserve zone in the interim.



PRINCE ALBERT AIRPORT
STRATEGIC MASTER PLAN

FIGURE 9.1 - RECOMMENDED LONG-TERM LAND USE PLAN

FEBRUARY 2021

0 200 400 Metres

*FOR PLANNING PURPOSES ONLY

10 OPERATIONAL RECOMMENDATIONS

10.1 City Resource Utilization

As described in Section 3.2.2, the priority of the Airport Manager and Airport Maintenance Staff should be addressing the regulatory obligations of the facility and ensuring that the airfield is maintained in a safe and usable manner. Both the Airport Manager and Airport Maintenance Staff possess a unique set of skills that facilitate this goal, such as training on:

- Operating mobile equipment for maintenance;
- Completing Runway Surface Condition reports;
- Operating safely in the airside environment (Airside Vehicle Operators Permit);
- Regulatory obligations; and
- Working with other Airport stakeholders, such as NAV CANADA.

Similarly, City Staff in other departments are subject matter experts in their respective fields – Planning and Development Services Staff, for example, are well-versed in land sales and marketing. As a municipally owned and operated facility, opportunities may exist for the improved cross-utilization of other City departments and divisions based on their varying areas of expertise in the operation of Prince Albert Airport. Table 10.1 presents an overview of how select City departments (aside from the Airport Division) are involved in the operation of Prince Albert Airport. Table 10.1 also presents potential opportunities for where other City resources could be assigned to support Airport-related tasks based on their areas of expertise.

The recommendation presented in Section 3.2.2 that a fulsome municipal services review with respect to the Airport should be completed in the short-term is affirmed. While it is understood that from an organizational standpoint, maintaining a separate Airport Division encompassing the Airport Manager and Airport Maintenance Staff is pragmatic and advantageous, efforts should be made to ensure that other City departments support the functioning of the Airport, decreasing the 'silo effect' of expertise and knowledge.

Where new airport-related responsibilities are assigned to other City divisions, a structure should be established for minimum service standards (e.g., the frequency of grass cutting, the Airport's priority in the City's Snow and Ice Control Policy). Additionally, cross-training may be required to account for any airport-related matters that are not typically encountered by the given division.

Table 10.1 – City Resource Utilization Strategy

Department	Division	Responsibility	Action
Public Works	Engineering	Managing Airport capital projects, in cooperation with the Airport Manager (or their designate)	Continue existing responsibility
	Fleet	Maintenance of mobile equipment	Continue existing responsibility
	Roadways	Groundside roadway and parking lot repairs, sweeping, and snow clearing	Recommended new responsibility
	Traffic and Transportation	Maintaining groundside roadway signage and line painting	Continue existing responsibility
Planning and Development Services	Economic Development / Property Leasing	Overseeing the marketing and leasing of development lots, in cooperation with the Airport Manager (or their designate) and PAREDA	Recommended new responsibility
Financial Services		Accounting and payroll, taxation, parking fees, and procurement support	Continue existing responsibility
Corporate Services		Human resources and labour relations; occupational health and safety; corporate communication; and Information Technology	Continue existing responsibility
Community Services	Parks	Groundside grass cutting and landscaping	Recommended new responsibility
	Facilities	Maintenance of facilities	Continue existing responsibility
	Marketing and Sponsorship	Advertising in the terminal building and on the Airport property	Continue existing responsibility

Towed sweeper being maintained by the Fleet Division

10.2 Airport Staffing and Development

Consultations completed in support of the Master Plan identified challenges associated with airport staffing. In addition to interviews with City Staff, the 2020 Quality Assurance Audit and Airport Operations Manual (AOM) were reviewed and the following five staffing findings were made:

1. The AOM identifies the position of Safety Management System Manager in text and the organizational chart, however the position is not staffed. As described in the AOM, the Airport Manager performs all roles and tasks assigned to the Airport Manager and the Safety Management System Manager. This arrangement results in a significant workload for one person to satisfy all requirements of airport certification. As a result, Airport Manager responsibilities not related to certification and regulatory compliance cannot be prioritized and tasks such as business development and marketing can only be addressed in a passive manner. Because Airport Maintenance Staff are unionized, the Airport Manager is only able to assign duties that are not considered the responsibility of the Airport Manager.
2. There is no redundancy for the position of Airport Manager. This increases the City's risk that the Airport may fail to meet certification requirements should the current Airport Manager be absent for an extended period. This risk is heightened by the Airport Manager also bearing all responsibilities of the Safety Management System Manager position.
3. The AOM indicates that the Safety Management System Manager is to report directly to the Accountable Executive and thereby bypass the Manager of Engineering Services and Director of Public Works. This reporting structure is intended to allow for the timely and efficient response to deficiencies related to aviation safety. Consultation identified that the Airport Manager, who also acts as the Safety Management System Manager, does not have direct communication with the Accountable Executive.
4. Under the current organizational structure, the Manager of Engineering Services acts as the back-up for the Airport Manager in the event of a planned absence (i.e., vacation). In addition to the Airport, the Manager of Engineering Services is also responsible for transportation and transit, the water plant, wastewater plant, and review of development permits for the City. Consultations revealed concern that in the event of the Airport Manager's unplanned or extended absence, the Manager of Engineering Services may not have the capacity or airport-specific knowledge to direct Airport Maintenance Staff and meet all operational and regulatory obligations of a certified airport.
5. Airport Maintenance Staff are assigned all maintenance duties for the Airport, both airside and groundside. Airside duties require the use of specialized skills and training. Consultation suggests that there are sufficient staff members to perform all airside duties, however, the requirement to conduct all groundside maintenance as well can result in the capacity of the Airport Maintenance Staff being exceeded.

To address the above findings, two short-term recommendations have been identified:

1. **Establish an additional Full-Time Equivalent position**. This new position, filled by an employee with aviation expertise and knowledge, would achieve the following:
    a. Reduce the duties and resulting workload of the Airport Manager position (Finding #1).
    b. Introduce redundancy to the position of Airport Manager (Finding #2).
    c. Allow for planned or unplanned absence of the Airport Manager without the requirement for involvement by the Manager of Engineering Services (Finding #4).

    It is anticipated that the duties of this new position will be identified and assigned as deemed appropriate by the Airport Manager.
2. **Review the utilization of other City resources (Section 10.1)**. For example, utilizing staff responsible for snow clearing of city streets and cutting grass in city parks will allow Airport Maintenance Staff to focus efforts on airside tasks for which they are specifically trained. As described in 10.1, supporting the Airport with other City divisions may increase operational efficiencies and reduce the staffing and equipment obligations of the Airport (Finding #5).

10.3 Airport Communications

Effective communication between the Airport and the public helps to educate the public on the value of the Airport, gather valuable opinions, and relay relevant information to Airport users. Consultations supporting the Master Plan identified that communications from the City regarding the Airport are infrequent and are primarily through the City website. Consultations also suggested that the means for the public to communicate with the Airport are limited (i.e., phone calls to the Airport Manager) and could be improved. Communication regarding the Airport should be bi-directional: from the Airport to the public and from the public to the Airport.

10.3.1 Airport Communications to the Public

Communications about the Airport typically fall into one of the following four categories:

1. Airport Operations – information about current airport operations is important to travellers, airport businesses, and tenants. This information may include, but is not limited to:
    - Changes in flight schedules;
    - Addition of new services;
    - User fees and rates;
    - Car rentals and accommodations;
    - Aviation fuel prices
    - Public events
    - Temporary construction-related closures; and
    - Weather-related delays.

    For members of the public with less of an interest in the Airport, these communications also promote a perception of activity at the Airport.

2. Social and Economic Benefit – Demonstrating the social and economic benefit of the Airport helps present the value of the facility's presence to members of the public who may only see the Airport as a means to travel through the City. Sharing pictures of air ambulance flights, corporate jet activity, forest fire suppression aircraft, airport business activity, passenger travel, air cargo processing, special events, developable land, etc. conveys a message that the airport is open for business, and supports an important social role within the community, and the region. Additionally, relevant facts, statistics, and employment opportunity postings may construe the Airport as an important asset for the community.
3. Business Development – Providing information about commercial development lease rates, appropriate contact information, the Master Plan, and relevant development plans shows the community and prospective tenants that the Airport is open for business and interested in generating greater economic benefits for the community and region. Additionally, tourism brochures and community profiles could be presented.
4. Infrastructure Improvements – Understanding that the Airport is a draw on City resources and funding, presenting examples of how municipal money is used to improve the Airport allows the public to associate funding with an outcome beyond operational expenses. Making announcements about infrastructure improvements such as pavement rehabilitation, upgraded facilities, or new passenger amenities may assist the public in associating value with funding.

10.3.2 Public Communications to the Airport

Conversely, providing opportunities for the public to provide their input about the operation and development of the Airport can build a sense of pride for a public asset. A review of the Airport web page identified limited means for the public to communicate with the Airport. Contact information for the airlines and generic City contact information is presented, but an opportunity for visitors to provide airport-specific feedback was not found.

10.3.3 Recommendations

1. Use the Airport webpage and City social media regularly (e.g., weekly, bi-monthly) to communicate operational changes at the Airport; public interest, facts, and statistics about the Airport; and Airport improvement projects.
2. Develop an online fillable form accessible through the Airport's webpage on the City website to allow the public to provide suggestions or voice complaints about airport infrastructure or operations (e.g., passenger amenities, snow clearing, accessibility, etc.). Emphasis should be clearly made that suggestions or complaints associated with passenger or cargo services should be provided to air carriers directly.
3. Via existing City social media accounts, encourage discussion of the airports value to the community, its strengths, and areas for improvement. Also, direct the public to the fillable form on the City website. The Airport and City should monitor the feedback received and develop actionable items where possible. The establishment of Airport-dedicated social media accounts could be considered in the future with the hiring of an additional Airport employee.

11 BUSINESS DEVELOPMENT STRATEGY

Section 5 of the Master Plan outlined a series of aeronautical and non-aeronautical development and growth opportunities that may be realistic and beneficial for Prince Albert Airport in the future. Opportunities deemed to have a medium likelihood of occurring include the absorption of additional airside leasehold lots; a new Flight Training Unit; new aviation service businesses; and the development of the Green Industrial Park.

Opportunities deemed to have potential but have a lower likelihood of realization include increased air carrier services; new groundside commercial, industrial, and public land uses; and photovoltaic power generation. As described in Section 5, floatplane operations and CBSA services have not been carried forward for further analysis.

For each development and growth opportunity, a preliminary business development strategy has been established which includes:

6. An overarching goal;
7. The prerequisite investments that must be completed for that opportunity to be realized, as enumerated in preceding Sections;
8. Partner organizations that can support the attainment of the business development goal;
9. Key messaging to be communicated to target audiences; and
10. Potential marketing and business development methods, as summarized in Table 11.1.

Table 11.1 – Marketing and Business Development Methods

Minimal Cost	Low Cost	Moderate Cost	High Cost
Direct Outreach Press Releases Editorials Email Newsletter Speeches and Networking	Airport Website Social Media Advertising Industry Publications Promotional Events	Targeted Online Ads Radio Ads Newspaper Ads Billboard Ads Conference Attendance Specialist Marketing Consultant	Television Advertising

11.1 Airside Land Development

Goal: The retention of existing leasehold tenants and the absorption of additional development lots through new land lease agreements for private hangars, Flight Training Units (Section 11.2) and aviation service businesses (Section 11.3).

Prerequisite Actions and Investments

- Resolution of NAV CANADA line of sight issues through FSS relocation or installation of cameras to address blind spots;
- Apron II Reconstruction and Expansion (2022) for Priority 1 and 2 development lots;
- Development lot preparation (2024);
- Potable water and sanitary sewer servicing upgrades and extensions (2023-2025), as well as fibreoptic internet improvements; and
- Taxiway F Extension (2035) for Priority 3 development lots.

Partner Organizations and Roles

- **Planning and Development Services Department:** As described in Section 10, the City may consider reassigning the responsibility for marketing the availability of airside development land at Prince Albert Airport from the Airport Manager to the Planning and Development Services Department. The Planning and Development Services Department, through the Land Sales Division, currently oversees the sale and leasing over other City-owned properties and maintains an online database of development opportunities.
- **PAREDA and Chamber of Commerce:** As the City's newly formed economic development arm, PAREDA should be equipped with marketing resources on Airport land availability which they can provide to prospective tenants. PAREDA can also direct prospective tenants to the Land Sales Division to further explore specific development opportunities. Providing airside land development marketing resources to the Prince Albert & District Chamber of Commerce will also enable their staff to communicate opportunities to members that may be pursuing business expansion plans.
- **Airport Manager:** It is envisioned that the Airport Manager would support Planning and Development Services Staff in identifying appropriate leasehold lots, assisting in the lease approval process, and in facilitating construction and approvals. The Airport Manager could also respond to inquiries and direct prospective tenants to the Land Sales Division.

Key Messaging

Key messaging should be integrated in the marketing of airside lots that communicates the Unique Selling Points (USPs) of developing new facilities at Prince Albert Airport while also considering the USPs of competitor airports. Based on the Strengths, Weaknesses, Opportunities, and Threats explored in Section 3.6, primary USPs that should be communicated in all marketing methods include:

- The availability of the Airport through its year-round maintenance, lighting for nighttime operations, and Instrument Flight Procedures;
- The full range of tenant types and aircraft that can be accommodated, ranging from general aviation aircraft to corporate jets and air carriers; and
- When completed, the availability of municipal services and fibreoptic internet.

Summarized, Prince Albert Airport's USPs centre around the full-service nature of the facility. Prospective airside tenants who seek to develop at the Airport can expect reliable year-round maintenance, infrastructure that supports most types of operations, and land availability that will suit a variety of needs. While lease rates may currently exceed those of other airports, marketing materials should articulate the value that is afforded by these rates in terms of Prince Albert Airport's level of service.

Business Development and Marketing Methods

When the prerequisite actions to support future airside development are taken and lots are available, the City should commence a focussed marketing initiative that may include one or more of the following methods:

- **Airport Development Brochure:** A comprehensive brochure can be prepared that communicates the development opportunities of Prince Albert Airport, utilizing the current airport brand. This should include key information such as the Airport's USPs; lease rates; lot sizes; aeronautical and non-aeronautical infrastructure; acceptable land uses; and development timelines, approval requirements, and costs. The development brochure should be made available on the Airport webpage and be provided to the City's previously noted marketing partners.

- **Direct Outreach:** The City should follow up with individuals that have previously expressed interest in developing at the Airport, and maintain open lines of communication with existing tenants with a focus on retention. Proactive outreach with the Airport's anchor tenants (e.g., RCMP, SPSA, Transwest Air) should also be completed to identify potential future land requirements and expansion plans. The City should consider the establishment of regularly scheduled airport tenant meetings as a means of direct outreach.
- **Advertising:** Development opportunities at Prince Albert Airport can be advertised on the City website and social media channels; the municipal land sales webpage; and through materials provided by aviation industry associations such as the Saskatchewan Aviation Council, COPA, and Canadian Business Aviation Association.

Most importantly, adequate resources should be available that enable a prospective tenant to efficiently determine whether Prince Albert Airport can support their proposed development, how a new development will be approved, and who to contact for additional information. The marketing and approvals process should be streamlined to ensure that all touchpoints by prospective tenants are positive and frustrations are minimized.

Existing airside hangar

11.2 Flight Training Units

Goal: The establishment of a locally based Flight Training Unit or the satellite branch of an existing FTU.

Prerequisite Actions and Investments

- Actions to support airside development previously enumerated in Section 11.1.

Partner Organizations and Roles

- **Airport Manager:** It is anticipated that the Airport Manager, given their knowledge of aviation activities, would be the primary lead in attracting future flight training operations. Their activities could be supported by other parties such as the Economic Development Division and PAREDA.
- **Industry Associations:** The opportunity for a new FTU to develop at Prince Albert Airport should be communicated to industry associations such as the Saskatchewan Aviation Council and Air Transport Association of Canada, which in turn may be able to connect prospective parties with the City.

Key Messaging

With respect to flight training, Prince Albert Airport has several USPs that can be articulated:

- As described in Section 11.1, the year-round maintenance of the Airport;
- The availability of Instrument Flight Procedures for instrument flight training and lighting to support students completing night ratings;
- The generally uncongested airspace of the surrounding region and large non-populated areas that are favourable for the establishment of practice areas;
- Proximity to Saskatoon International Airport for students to practice operations in controlled airspace and at large airports;
- Numerous development lots of varying sizes to support FTU needs; and
- Large regional catchment area from which to attract prospective students.

Business Development and Marketing Methods

It is anticipated that the pursuit of a future FTU would primarily occur through direct outreach with industry associations, as noted above, as well as with existing successful FTUs in western Canada that may have expansion plans. As a future FTU will require an airside development lot, the business and marketing actions previously recommended in Section 11.1 also apply.

11.3 Aviation Service Businesses

Goal: The establishment of a Fixed-Base Operator and other aviation service businesses, such as an Aircraft Maintenance Organization.

Prerequisite Actions and Investments

- Actions to support airside development previously enumerated in Section 11.1; and
- While not a prerequisite, the development of new terminal building (2026) would render the existing structure surplus and available for use by a prospective FBO.

Partner Organizations and Roles

- **Airport Manager:** Similar to the pursuit of a FTU described in Section 11.2, it is anticipated that the Airport Manager would lead business development efforts with prospective FBOs, with support on an as-required basis by the Economic Development Division and PAREDA.

Key Messaging

The decision by a prospective entity to establish an FBO at Prince Albert Airport is largely tied to whether a viable business case can be established. The viability of an FBO is partially tied to the size and value of the prospective market. To determine the Airport's USPs for a new FBO, analysis by the City can be undertaken to estimate factors such as:

- The number of annual itinerant movements and the services required by operators, such as fuel, ground handling, parking, etc.;
- The number of locally based aircraft that may require FBO support; and
- Whether opportunities exist to enter contracts with major aircraft operators, such as air carriers.

Both the size and nature of the potential FBO market, as well as the operating costs that are associated with developing at the Airport, can be communicated to prospective operators to support their decision making and growth plans.

Business Development and Marketing Methods

It is understood that the development of an FBO is a priority of the City of Prince Albert. The project team has identified three primary methods to facilitate the establishment of an FBO at Prince Albert Airport:

1. **Passive Marketing:** The City could communicate the availability of airside development lots as described in Section 11, and an interested FBO operator may identify sufficient demand to enter into a lease agreement and commence operations.
2. **Direct Outreach:** The City could initiate exploratory discussions with:
    a. Snowbird Aviation Services, the incumbent aircraft fuelling and ground handling provider, to determine whether interest exists for the company to take on other functions typically provided by an FBO; and / or
    b. Existing FBO companies in western Canada (e.g., Kreos, Tucana Aviation) to ascertain whether interest exists in developing operations at Prince Albert.
3. **Active Procurement:** A Request for Proposals (RFP) process could be initiated for the provision of FBO services at the Airport.

In each of the three scenarios, the current terminal building could be offered for lease to a prospective FBO once rendered surplus pending the planned opening of a new terminal building in 2026. An interested business may elect to renovate the terminal building to support the functions of an FBO, such as passenger processing, pilot areas, and administrative space.

Regardless of the business development process that is followed, it is unlikely that a new FBO will develop at Prince Albert Airport without the demonstration of a viable business case that satisfies the internal due diligence processes of the firm. While the City can support the analyses of prospective FBOs through the provision of information and the facilitation of approvals, it is not recommended that the City positions itself as an FBO service provider – consistent with other services provided at Prince Albert Airport, this is a role that can be served by the private sector.

Dash 8-100 being serviced at a Fixed-Base Operator

11.4 Air Carrier Services

Goal: The retention of existing scheduled and charter air carrier services, and the commencement of scheduled air carrier services to a hub airport. In the context of this report, a hub airport is defined as a major airport with onward connection opportunities via a national air carrier not presently served from Prince Albert, such as Calgary International Airport, Edmonton International Airport, or Winnipeg International Airport.

Prerequisite Actions and Investments

- Development of a new terminal building (2026) to address capacity constraints for incumbent carriers and provide infrastructure required to support a new air carrier (e.g., administrative space, check-in counters, etc.); and
- Development of a secured passenger holdroom and CATSA Pre-Board Screening to support secured departures (2030 or as required with expression of air carrier interest).

Partner Organizations and Roles

For the retention of existing air carrier services, it is envisioned that the Airport Manager will continue to serve as the first point of contact with incumbent airlines and meet with them on a regular basis to discuss their operations at Prince Albert Airport, opportunities for improvements, and emerging concerns. Proactive and ongoing communication by the Airport Manager will be key to supporting the facility's current air carriers, with support provided by other City Staff, the Mayor, and Councillors on an as-required basis.

The development of a new air carrier route to a hub airport will represent a high level of effort challenge that requires the formation of an effective partnership to conduct outreach with prospective air carriers; provide data to support their route analysis and business case development process; and demonstrate the commitment of the region to securing and utilizing such a service. This may involve:

- **Planning and Development Services:** The Economic Development Division is expected to take on the leadership role in pursuing new air carrier services, spearheading the multi-organization partnership. The Director of Planning and Development Services should have the full support of the Airport Manager, City Staff and Council, and be able to leverage resources as required, including the involvement of the Mayor and Councillors.
- **Airport Manager:** The Airport Manager can support air service development efforts by identifying and overcoming operational and infrastructure constraints that would preclude new air services, providing technical information required by airlines on Prince Albert Airport, demonstrating a commitment to developing a relationship with the airline if service commences, and other tasks as required.
- **PAREDA and Chamber of Commerce:** Both organizations can support the pursuit of new air carrier services by providing insights on demographic trends, such as population growth; data on business activity in the region, such as new employers and expansion plans; conducting data collection and surveys that support the case for new services; and by serving as the organizing force to demonstrate the business community's commitment to air carrier services.
- **Nearby Municipalities:** Other municipalities within the Airport's catchment area, such as Shellbrook and Birch Hills, can lend support to the air service development partnership by rallying their respective business communities and residents and providing additional data on local activities that may generate demand for air services, such as new businesses.

Key Messaging

Prospective airlines that may provide service to a hub, such as WestJet, generally have robust datasets on traveller origins and destinations, market demand, and yield from historical booking records – i.e., a booking made by a Prince Albert resident for a flight departing from Saskatoon will provide the air carrier with data on their community of residence. This information is typically inaccessible to parties other than air carriers, air service development consultants, and market research firms. The priority in air service development is the communication of data to the prospective air carrier that is not readily held on file. Specifically, key messaging for air service development efforts should include:

- Data on regional business travel, including new catchment area employers, growth plans, and survey data on the propensity of regional businesses to use airline services and priorities;
- Insights on tourism activity in the catchment area and demand as a result of travel by catchment area residents;
- Information on the logistics and costs of establishing operations at Prince Albert Airport, including the competitiveness of the facility's fees and incentive programs that may exist;
- Plans for facility improvements, such as terminal building upgrades; and
- Commitments by the City and partner organizations to promote new air services.

Business Development and Marketing Methods

For the pursuit of a new air carrier, a recommended first step is the **completion of an air service demand and catchment area leakage study in the short-term planning horizon.** Such a study will provide the City and its partner organizations with greater insight on what opportunity(s) exist for new air services based on regional demand, how competitor airports such as Saskatoon affect Prince Albert Airport's activity levels, and what air carriers may be approached in subsequent efforts.

If a viable opportunity is identified through the air service development study term, the previously described partnership of the City, PAREDA, Chamber of Commerce, and nearby municipalities should be formed to commence work on pursuing such an initiative. Key messaging and data as described above should be compiled for use in subsequent outreach to air carriers – potentially with support from a third-party air service development consultant. Once these steps are taken, direct outreach with prospective air carriers can commence to explore opportunities, identify and overcome barriers to service, and address other matters as required. This assumes that the City has invested in the infrastructure required to support a new air carrier.

Air carrier operations at the Prince Albert Airport Terminal Building

11.5 Green Industrial Park and Groundside Land Development

Goal: The sale of City-owned lots in the Green Industrial Park and the leasing of groundside development lots with the Airport property boundary. As studied in Section 5.2.1, the Green Industrial Park is not envisioned to be developed for airside uses due to factors such as the capital, operating, and lifecycle rehabilitation expenses associated with developing and maintaining a new taxiway; the availability of existing airside lots; and the need to lease these lots instead of selling the land fee simple.

Partner Organizations and Roles

- **Planning and Development Services Department:** It is anticipated that Planning and Development Services will continue to spearhead the marketing of the Green Industrial Park through its Land Sales and Economic Development Divisions, while also expanding its focus to encompass groundside development lots.
- **PAREDA and Chamber of Commerce:** Information on development opportunities and marketed resources should be provided to both PAREDA and the Chamber of Commerce, who in turn can connect prospective tenants with the City's Land Sales Division.
- **Airport Manager:** The Airport Manager may advise on aeronautical compatibility considerations for development proposals and identify required approvals.

Key Messaging

The USPs of the Green Industrial Park and groundside areas of the Airport for non-aeronautical development include:

- Lands are pre-zoned and planned for development;
- Full servicing is available at the Green Industrial Park and is planned for the Airport groundside area (2025);
- The availability of large land areas and flexible lot sizes;
- Opportunities for synergies with existing Airport tenants (e.g., Transwest Air, SPSA);
- Potential business demand from Airport-based employees, users, and air carrier passengers;
- Good visibility from Highway 55 and traffic volumes; and
- Lack of nearby noise-sensitive land uses means that a wide array of light industrial activities can occur.

Business Development and Marketing Methods

It is assumed that current marketing and business development practices employed by the City's Planning and Development Services Department will continue to be used in spurring non-aeronautical development in the Green Industrial Park and in the Airport's groundside area.

11.6 Photovoltaic Power Generation

Goal: The establishment of a photovoltaic power generation facility at Prince Albert Airport through a long-term land lease with an independent power producer and / or SaskPower.

Prerequisite Actions and Investments

- To be determined through future research and industry outreach

Partner Organizations and Roles

It is anticipated that future outreach efforts with independent power producers would be a joint effort involving the Director of Planning and Development Services, PAREDA, and the Airport Manager. The specific role of each party can be determined through future research on this opportunity.

Key Messaging

For solar power generation, Prince Albert Airport's USPs include the:

- Large land assembly available for development, relatively flat topography, and lack of nearby sensitive land uses;
- Secured nature of the site, with perimeter fencing and regular monitoring;
- High annual photovoltaic potential of the area; and
- Potential for favourable negotiated annual lease rates through long-term commitments.

Business Development and Marketing Methods

The Master Plan contemplates a scenario whereby an independent power producer enters into a long-term land lease agreement at Prince Albert Airport for the development of a photovoltaic generation facility. Future business development by the City to support this strategy includes direct outreach to SaskPower to identify future solar procurement opportunities. Further, the City may conduct outreach with independent power producers to communicate the benefits of Prince Albert Airport being proposed as a project location in future procurement opportunities.

Photovoltaic generation facility at Windsor Airport (Google Earth)

12 FINANCIAL MANAGEMENT PLAN

12.1 Aeronautical Rates and Fees Review

Establishing and maintaining an appropriate airport rates and fees structure is a critical factor in limiting annual operating deficits. It is important that fee structures are developed to be:

- Fair and transparent for users;
- Competitive in how they incentivize or disincentivize activity and growth; and
- Practical in accounting for the costs associated with operating the facility.

As examined in Section 3.3.1, operating revenues at Prince Albert Airport are primarily generated through the following sources:

- Aircraft landing fees, which vary by aircraft Maximum Takeoff Weight (MTOW);
- Aircraft parking fees, which by the time of year, duration of parking (annual vs. daily), and MTOW;
- Passenger Facility Fees, which are levied on all passengers departing on scheduled and charter air carrier flights;
- Land lease agreements for the use of Airport property, including agricultural cropping agreements;
- Vehicle parking fees, which vary by the duration of parking and lot type;
- Rental payments for the use of the terminal building by air carriers; and
- After-hours Airport Maintenance Staff call-out fees.

While airports collect revenue on an annual basis, few regional airports in Canada are entirely financially self-sustaining. Revenues are collected to reduce annual cost-revenue gaps, although annual expenses commonly exceed revenues. Operating deficits should be contextualized by the economic and social benefits that are provided by Prince Albert Airport to the surrounding region.

Consultations with the City indicate that commercial air carriers operating at Prince Albert Airport contribute approximately 85% of annual aeronautical revenues. Furthermore, air carriers contribute approximately 90% of annual landing fees, 100% of Passenger Facility Fees, and 50% of land lease revenues. From a non-aeronautical revenue perspective, more than 95% of vehicle parking revenues are collected through passengers utilizing air carrier services. These figures demonstrate the importance of air carrier operations to the financial sustainability of Prince Albert Airport.

Future changes in the rates and fees of Prince Albert Airport should consider the concept of price elasticity – Airport users, such as air carriers, aircraft operators, and tenants, will have varying levels of willingness or ability to pay for the services rendered at the Airport. Generally, decreased demand for Prince Albert Airport may be expected as the costs incurred in operating at the facility increase, and users consider alternate facilities such as Birch Hills Airport and Saskatoon International Airport. A balance must be found in ensuring that rates are fair and competitive while also not disincentivizing activity at the Airport.

12.1.1 Methodology

A review of the four primary sources of revenue at Prince Albert Airport has been completed by the project team:

1. Aircraft landing fees;
2. Aircraft parking fees;
3. Passenger Facility Fees (or Airport Improvement Fee); and
4. Land lease rates.

Vehicle parking rates are established based on municipal policies for City-owned parking lots and have been omitted from the review. After hours call-out charges, unit costs for staff and equipment, and terminal building rental rates were also not reviewed. Commentary is also provided on the appropriateness of levying a fuel concessions fee.

The project team selected a sample of six comparable airports in western Canada against which to evaluate the rates and fees structure of Prince Albert Airport. Comparators were selected based on their role as a regional airport, certification and operational obligations, and / or proximity to Prince Albert:

1. Brandon Municipal Airport;
2. La Ronge Airport;
3. Lloydminster Airport;
4. Regina International Airport;
5. Saskatoon International Airport; and
6. Medicine Hat Regional Airport.

From stakeholder consultations, it is understood that Birch Hills Airport is a cost-effective competitor to Prince Albert Airport in attracting general aviation activity (Section 2.5.1). However, Birch Hills Airport was not analyzed as a comparator facility as its primary user type differs from that of Prince Albert (general aviation vs. air carrier activity), the facility is a registered aerodrome with less onerous regulatory obligations, and an overall lower level of service is provided (i.e., runway length, Instrument Flight Procedures, limited winter maintenance, etc.).

The review provided herein serves as a preliminary analysis of whether the current rates and fees structure of Prince Albert Airport is appropriate versus comparator airports. Building on this review, additional analysis may be completed to fully model the revenue impacts of changing the Airport's rates and fees – for example, using historical aircraft movement data from NAV CANADA to model the implications of various pricing structures.

12.1.2 Landing Fees

Prince Albert Airport

Landing fees are levied to realize revenue from aircraft arriving at Prince Albert Airport and are charged based on the aircraft's Maximum Takeoff Weight (MTOW). Prince Albert Airport's 2020 landing fee structure is shown in Table 12.1.

The landing fee structure of Prince Albert Airport is similar to that of other regional and municipal airports, in that small general aviation aircraft are exempted from landing fees by establishing a minimum weight threshold. Numerous airports have a difference in landing fees for domestic and international traffic and may have specific exemptions for certain aircraft types or operators, depending on the situation. For example, a Flight Training Unit (FTU) may pay an annual fee in lieu of paying a separate charge per landing, especially if a high number of takeoffs and landings are performed.

Table 12.1 – Prince Albert Airport Landing Fees (2020)

Aircraft MTOW	Rate per 1,000 kg
Minimum Charge	$5.00
< 2,500 kg	Exempt
2,500 – 15,000 kg	$3.00
15,001 – 45,000 kg	$4.00
> 45,000 kg	$5.00

Comparator Airports

Landing fees at six comparator airports are shown in Table 12.2. Although each airport uses a tiered fee structure based on MTOW, there are many exemptions and factors that each facility has applied to maintain fairness and transparency among users. Some airports have elected to specify that smaller piston engine aircraft are exempt from landing fees (Regina, Saskatoon), while others have a weight threshold where aircraft below are exempt (Medicine Hat). While Lloydminster does not charge landing fees for scheduled air carriers, such operations are typically limited to a single daily flight, thereby reducing the revenue implications of such an exemption. A unique system has been implemented by Brandon Airport, whereby locally based aircraft under 2,500 kg have the option to pay an annual registration fee of $162 or pay a fee of $12.73 per landing.

Table 12.2 – Comparator Airport Landing Fees (2020)

Airport	Minimum Charge	Rate per 1,000 kg	Exceptions
Prince Albert	$5.00	< 2,500 kg: Exempt 2,500 kg – 15,000 kg: $3.00 15,001 kg – 45,000 kg: $4.00 > 45,000 kg: $5.00	Aircraft under 2,500 kg
Brandon	$17.46	<21,000 kg: $3.69 21,001 kg – 45,000 kg: $4.80 > 45,000 kg: $5.62	$162 annual registration fee for locally based aircraft, charters, training, and piston aircraft > 2,500 kg; or $12.73 per landing for locally based aircraft not paying annual fee
La Ronge	N/A	1,000 kg – 21,000 kg: $3.00 21,001 kg – 45,000 kg: $4.00 > 45,001 kg: $5.00	N/A
Lloydminster	$14.20	<2,000 kg: $0.00 2,001 kg – 21,000 kg: $3.90 > 21,001 kg: $4.55	Scheduled air carrier flights
Regina	$18.04	< 15,000 kg: $4.92 15,001 kg –45,000 kg: $6.19 >45,001 kg: $7.00	Piston fixed wing aircraft
Saskatoon	$13.00	< 21,000 kg: $4.62 21,001 kg – 45,000 kg: $6.00 45,001 kg – 80,000 kg: $7.19 > 80,000 kg: $9.96	Piston aircraft
Medicine Hat	N/A	< 21,000 kg: $5.71 21,001 kg – 45,000 kg: $6.98 >45,001 kg: $8.17	Piston aircraft under 3,000 kg

Analysis and Recommendations

A review of the fees at comparator airports and consultations with City Staff indicate that the current tiered landing fee structure at Prince Albert Airport is generally appropriate; however, minor adjustments in the landing fee structure could result in increased revenue, while continuing to be fair and transparent. It should be noted that for the attraction of locally based general aviation aircraft, the fee environment at Birch Hills Airport will likely continue to be more competitive than the landing fee structure recommended for Prince Albert Airport.

Prince Albert Airport's minimum weight threshold of 2,500 kg and the rates charged per 1,000 kg are comparable with the studied airports. However, the minimum charge for an aircraft landing at the facility is significantly lower than comparator airports. The City may consider increasing the minimum charge from $5.00 to $12.00 per landing.

Similar to Brandon Airport, the City should consider implementing an annual aircraft registration fee to capture revenues from aircraft at the Airport that do not pay parking fees directly to the City. For example, the City does not currently realize revenue from an aircraft owner that subleases hangar space from a tenant. This charge would be levied on all piston-engine aircraft under 2,500 kg that are based at Prince Albert Airport or that use the facility for flight training circuits. Landing fees would continue to be charged for aircraft that do not pay the annual fee as well as itinerant aircraft visiting from other airports.

The recommended landing fee structure for Prince Albert Airport is shown in Table 12.3.

Table 12.3 – Recommended Landing Fee Structure

2020 Landing Fees		Recommended Landing Fees	
Aircraft MTOW	**Rate per 1,000 kg**	**Aircraft MTOW**	**Rate per 1,000 kg**
Minimum Charge	$5.00	Minimum Charge	$12.00
< 2,500 kg	Exempt	Annual Registration Fee (< 2,500 kg)	$162.00
2,500 – 15,000 kg	$3.00	< 15,000 kg	$3.70
15,001 – 45,000 kg	$4.00	15,001 kg – 45,000 kg	$4.80
> 45,000 kg	$5.00	> 45,000 kg	$5.20

12.1.3 Aircraft Parking Fees

Prince Albert Airport

Parking fees are charged to itinerant aircraft operators visiting the Airport, and to locally based operators that store their aircraft on a public apron (Aprons I, II, and III). The current parking fee structure is shown in Table 12.4. A tiered structure is used based on aircraft MTOW, length of stay, and time of year – aircraft parking during the winter months require plug-in power, justifying a higher daily rate. Annual rates for aircraft in the higher weight categories are not prescribed due to the lack of suitable long-term parking space and reduced demand for such parking.

Table 12.4 – Prince Albert Airport Aircraft Parking Fees (2020)

Aircraft MTOW	Daily (Apr – Oct)	Daily (Nov-Mar)	Annually
< 15,000 kg	$10.00	$12.00	$650.00
15,001 kg – 45,000 kg	$20.00	$22.00	N/A
> 45,000 kg	$30.00	$32.00	N/A

Comparator Airports

Comparator airport aircraft parking charges are provided in Table 12.5. Most reviewed airports charge parking fees based on a tiered aircraft weight structure and length of stay, with one airport charging flat rates (Lloydminster). Certain airports discount or waive parking fees for aircraft that purchase fuel, as revenue is collected through fuel surcharges. Lloydminster Airport is an example of a facility that charges lower aircraft parking fees but is responsible for fuel procurement, quality control, and sales through a third-party, and accordingly realizes revenue through a per litre surcharge. However, as the City is not responsible for fuel sales and does not realize revenue through fuel surcharges, discounting or waiving parking fees is not recommended.

Analysis and Recommendations

The comparison of aircraft parking fees indicates that the current rates of Prince Albert Airport are competitive and appropriate. The City could consider removing the seasonal rate variation and charge all parking fees at the November through March rate, simplifying rate collection and offering a modest increase in revenue.

Table 12.5 – Comparator Airport Aircraft Parking Fees (2020)

Airport	Daily Charge	Monthly Charge	Annual Charge
Prince Albert	April – October < 15,000 kg: $10.00 15,001 kg – 45,000 kg: $20.00 > 45,000 kg: $30.00 November – March < 15,000 kg: $12.00 15,001 kg – 45,000 kg: $22.00 > 45,000 kg: $32.00	N/A	< 15,000 kg: $650.00
Brandon	N/A	N/A	N/A
La Ronge	1,000 kg – 4,000 kg: $5.00 > 4,001: $10.00	N/A	1,000 kg – 4,000 kg: $150.00 > 4,001: $300.00
Lloydminster	< 48 hours: $0.00 > 48 hours: $7.00	$70.00	$350.00 for prepaid and preregistered aircraft
Regina	< 15,000 kg: $15.00 15,001 kg – 45,000 kg: $35.00 >45,000 kg: $55.00	< 5,000 kg: $150	< 5,000 kg: $1,350
Saskatoon	< 2,000 kg: $11.44 2,001 kg – 5,000 kg: $14.04 5,001 kg – 20,000 kg: $16.64 20,001 kg –30,000 kg: $80.08 30,001 kg –60,000 kg: $88.40 Increases to a maximum of $176.80	Dependent on availability and market rates	Dependent on availability and market rates
Medicine Hat	< 2,000 kg: $10.70 2,001 kg – 10,000 kg: $21.82 10,001 kg –30,000 kg: $33.49 30,001 kg – 45,000 kg: $46.45 > 45,001 kg: $2.00 / tonne	< 2,000 kg: $84.267 2,001 kg – 10,000 kg: $202.02	< 2,000 kg: $423.49 2,001 kg – 10,000 kg: $831.84

12.1.4 Passenger Facility Fee

Prince Albert Airport

The 2009 Prince Albert Airport Master Plan recommended that an Airport Improvement Fee (AIF) should be instituted for passengers to finance capital projects and improve the facility's financial sustainability. A $10.00 Passenger Facility Fee (PFF) was subsequently implemented in 2010 and increased to $15.00 in 2015, $17.50 in 2018, and $20.00 in 2020. The next PFF renewal is scheduled for 2022. The PFF is levied on departing passengers of scheduled and chartered flights.

Comparator Airports

AIF and PFF data for the comparator airports is shown in Table 12.6. La Ronge Airport does not charge an AIF, although it is understood that the Town of La Ronge is studying the possibility of implementing such a fee. Prince Albert's PFF exceeds the AIFs levied at Lloydminster, Medicine Hat, and Brandon. However, as fees are levied on both departing and arriving passengers at Lloydminster and Medicine Hat, a traveller on a return trip from Lloydminster effectively pays $10.00 in AIFs and $18.78 from Medicine Hat – closer to the PFF levied on departing passengers from Prince Albert Airport.

Prince Albert's $20.00 PFF exceeds the $5.00 and $5.76 AIFs levied at Regina and Saskatoon, respectively, for travellers within Saskatchewan. However, both Regina and Saskatoon handle significant amounts of interprovincial travellers which incur higher AIFs (~ $20) and are accordingly a large source of revenue. Prince Albert Airport's PFF is charged almost exclusively on intra-provincial passengers which represent the facility's main air carrier user type.

Table 12.6 – Comparator Airport Passenger Fees

Airport	AIF / PFF	Notes
Prince Albert	$20.00	Levied on departing passengers on scheduled and charter air carrier flights
La Ronge	N/A	
Lloydminster	$5.00	Levied on departing and arriving passengers on scheduled air carrier flights
Medicine Hat	$9.39	Levied on departing and arriving passengers on scheduled air carrier flights
Brandon	$10.70	Levied on departing passengers
Regina	$5.00	Rate within Saskatchewan Levied on departing passengers
	$20.00	Rate beyond Saskatchewan Levied on departing passengers
Saskatoon	$5.76	Rate within Saskatchewan Levied on departing passengers
	$22.08	Rate beyond Saskatchewan Levied on departing passengers

Analysis and Recommendations

AIFs and PFFs are commonly implemented at airports across Canada that support passenger air services, are a useful tool to fund capital projects, and improve the financial sustainability of airports that are municipally subsidized. As a user fee, Prince Albert Airport's PFF enables the City to fairly realize revenue from passengers making use of a municipal service. Accordingly, the reduction or removal of the PFF is not recommended.

While numerous capital projects are recommended through this Master Plan that will benefit from the PFF, significantly increasing the PFF to fund these projects may not be feasible given the comparatively limited number of passengers that use Prince Albert Airport and the ability for air carriers to bypass Prince Albert on select flights if more competitive rates are levied at Saskatoon International Airport. For example, resource extraction companies that purchase charter tickets for Prince Albert-based staff may elect to bus their employees to Saskatoon for their flight if it becomes the cost-competitive option. A modest increase to the PFF accounting for inflation from 2020 to 2022 may be justifiable, with subsequent increases tied to the City pursuing capital projects with an associated benefit to the passenger experience – i.e., the recommended development of a new terminal building in 2026.

12.1.5 Land Lease Rates

Prince Albert Airport

Airside and groundside development lots are offered for lease at Prince Albert Airport on multi-year terms. Prices for tenants are calculated based on a rate per m^2 per year. Four lease rates have been established as shown in Table 12.7, accounting for whether the subject lot has airside access to a taxiway or apron, and whether water, sanitary sewer, and electrical services are provided.

A market analysis of the lease rates of Prince Albert Airport was completed by Brunsdon Junor Johnson Appraisals Ltd. in September 2014. That study recommended that lease rates for airside serviced land should be increased from $1.20 per m^2 to between $2.60 and $3.46 per m^2 – as shown in Table 12.7, lease rates in this category were increased to $3.00 per m^2. The 2014 market analysis report also recommended that lease rates of between $0.89 and $1.58 per m^2 should be established for groundside unserviced lands. Rates in this category have been set by the City at $1.10 per m^2.

Table 12.7 – Prince Albert Airport Land Lease Rates (2020)

Lease Category	Rate (per m^2 per year)
Airside, Serviced	$3.00
Airside, Not Serviced	$2.00
Groundside, Serviced	$2.00
Groundside, Not Serviced	$1.10

Comparator Airports

Unlike other previously described fees, many airports do not make land lease rates publicly available, including three of the previously described comparator airports (Medicine Hat, Brandon, and Regina). Annual land lease rates for serviced and unserviced airside lots at six airports are provided in Table 12.8. The sampled airports, with the exception of Saskatoon International Airport, set their lease rates for serviced airside lots at between $1.40 per m^2 and $2.75 per m^2.

Table 12.8 - Comparator Airport Land Lease Rates

Airport	Airside, Serviced (per m^2)	Airside, Unserviced (per m^2)
Prince Albert	$3.00	$2.00
La Ronge	$1.40	
Lloydminster	$1.68	
Swift Current	$2.22	$1.98
Red Deer	$2.70	$2.50
Grande Prairie	$2.75	
Saskatoon	$5.28	

Analysis and Recommendations

With respect to the 2014 market analysis that guided the establishment of the Airport's current land lease rates, the appraised value of serviced airside land was partially based on the lack of serviced industrial land available for sale in Prince Albert at the time of the report's preparation, driving values higher. However, this justification did not consider the generally smaller market for leasehold tenures as opposed to fee simple sales and the lower number of end users that would typically locate at an airport as opposed to an industrial park.

Consultations with the Airport Manager indicate that several parties have inquired about development opportunities at Prince Albert Airport. However, interest decreased when land lease rates were presented, indicating that current rates may exceed the willingness to pay for new tenants. Accordingly, current lease rates may be a hinderance on the growth of the Airport and its associated economic impacts. Reducing airside land lease rates may remove a barrier that has historically precluded development at the Airport; accordingly, a new rate structure is recommended in Table 12.9 that aligns more closely with comparator airports such as Swift Current and Lloydminster. Land lease rates should be reviewed at regular intervals (e.g., every five years) to ensure continued competitiveness and to account for increases in inflation.

Table 12.9 – Recommended Land Lease Rates

Lease Category	Rate (per m^2 per year)
Airside, Serviced	$2.20
Airside, Not Serviced	$1.90
Groundside, Serviced	As negotiated with the City based on market demand and user requirements
Groundside, Not Serviced	

While the recommended reduction in serviced airside rates ($3.00 to $2.20) and unserviced airside rates ($2.00 to $1.90) will result in a short-term decrease in operating revenues for the City, it is envisioned that in the medium and long-term planning horizons, additional development will be stimulated at the Airport as a result of the more competitive lease rates. Planned capital projects to support new development, such as the expansion of Apron II in 2022 and improvement of municipal services between 2023 and 2025, may be rendered ineffective if interest by prospective fails to materialize on account of the Airport's lease rates. Further, revenues will increase with existing leases over time with the inclusion of an annual growth provision as stated above.

The availability of serviced commercial and industrial lands in Prince Albert and throughout the region, including the lots available for sale at the Green Industrial Park, create a challenge for the City in marketing groundside lands to prospective tenants. While a minimum level of revenue generation should be attained through the leasing of groundside Airport lands, it is recommended that the rates paid by new groundside tenants should be determined through negotiations with the City Land Sales Division. This will provide the City with the flexibility to stimulate groundside development at the Airport while also addressing other priorities. For example, reduced rates could be offered for an end user that provides a service of value to the Airport (e.g., a restaurant). Alternatively, rates could be negotiated based on the agreement of the developer to contribute to a capital project planned for the Airport, such as improving groundside roadways.

12.1.6 Fuel Concession Fees

Many Canadian airports levy a fuel surcharge (concession fee) to collect revenue from sources not captured through other means, such as general aviation aircraft that are exempt from landing fees. Fuel surcharges generally range from $0.05 / L to $0.10 / L at the comparator airports surveyed as part of the Master Plan; however, many of these airports are fully or partially responsible for the procurement and sale of aviation fuel. The City of Prince Albert is not involved in the sale of aviation fuel at Prince Albert Airport; as described in Section 7.2.1, this role is performed by private businesses and tenants.

Considering that there are numerous tenants on-site that dispense aviation fuel, mainly for their own use, initiating a fuel surcharge at Prince Albert Airport could present challenges. Specifically, adding a surcharge would be difficult to track by the City and would increase the price of fuel beyond its current rate for public sale – a rate stated by many during stakeholder consultations as being higher than at other nearby airports. Further, it would be difficult for the City to justify initiating a fuel surcharge as they are not currently responsible for storing, testing, and dispensing aviation fuel.

Other aviation fuel dispensing options are available to airports where it could be more appropriate to collect a fuel surcharge, such as the provision of a self-serve cardlock system. However, the capital and operational expenses of these systems are significant, revenues collected through surcharges may not be sufficient to offset the capital costs within the 20-year Master Plan horizon, and the workload of Airport Staff would increase. Accordingly, the implementation of fuel concession fees at Prince Albert Airport is not recommended.

12.1.7 Summarized Aeronautical Rates and Fees Recommendations

The recommended revisions to the Airport's landing fees, parking fees, Passenger Facility Fees, and land lease rates are summarized in Table 12.10. Prior to the implementation of the revised rates and fees structure, it is recommended that the City consults with key stakeholders (e.g., air carriers, locally based aircraft operators, etc.), conducts additional analysis, and refines the recommendations as required. Rates and fees should be reviewed again in 2026 and adjusted, as necessary.

Table 12.10 – Summarized Rates and Fees Recommendations (2021 to 2025)

Aircraft Landing Fees			
Minimum Charge		$12.00	Per landing
MTOW < 15,000 kg		$3.70	Per landing per 1,000 kg aircraft MTOW Exemption for aircraft that pay the Annual Registration Fee
MTOW 15,001 kg – 45,000 kg		$4.80	Per landing per 1,000 kg aircraft MTOW
MTOW > 45,001 kg		$5.20	Per landing per 1,000 kg aircraft MTOW
Annual Registration Fee		$162.00	Per aircraft per year. Paid for piston-engine aircraft under 2,500 kg MTOW that: • Are based at Prince Albert Airport; or • Use the facility for flight training circuits.
Aircraft Parking Fees			
Daily	MTOW < 15,000 kg	$12.00	Per aircraft per day
	MTOW 15,001 kg – 45,000 kg	$22.00	Per aircraft per day
	MTOW > 45,001 kg	$32.00	Per aircraft per day
Annual	MTOW < 15,000 kg	$650.00	Per aircraft per year
Passenger Facility Fees			
Passenger Facility Fee		$20.00	Levied on all passengers departing on scheduled and charter flights Exemptions: • Airline employees travelling on business • Infants under two years of age for whom no ticket was purchased • Customers travelling on passes or other travel documents with discount codes ID/IN
Land Lease Rates			
Airside, Serviced		$2.20	Per m^2 per year
Airside, Not Serviced		$1.90	Per m^2 per year
Groundside, Serviced		N/A	As negotiated with the City based on market demand and user requirements
Groundside, Not Serviced		N/A	

12.2 20-Year Pro Forma Financial Outlook

The projected pro forma financial statement anticipates a consistent increase in operating revenues over the Master Plan horizon, while operating expenditures remain relatively constant. An operating deficit of approximately $140,000 is budgeted in 2021, similar to the deficits historically experienced with the Airport and consistent with the operating deficits experienced at similar Canadian regional airports.

The annual operating deficit may be eliminated as early as 2022 as revenues increase relative to expenses. After 2022, the Airport is projected to realize annual operating surpluses for the remainder of the Master Plan horizon. However, these surpluses will be insufficient to fund the capital projects recommended throughout the Master Plan, and external funding will be required. The assumptions made in the preparation of the pro forma are presented below. The 20-year pro forma financial statement is presented in Table 12.11.

The financial implications of federal and provincial grants on capital expenses have not been modelled in the 20-Year Pro Forma Financial Outlook. While the City has experienced considerable success in obtaining grant funding for several capital projects, such funding is not guaranteed as evaluation processes are competitive in nature. Further, the number and purpose of available grant programs can vary over time. However, the continued proactive identification and pursuit of grant opportunities by City Staff will be a key process during the implementation of the Master Plan.

Operating Revenue

- Aircraft landing fee revenue will increase with forecast growth of aircraft movements over the 20-year planning period and with the proposed new fee structure implemented in 2022.
- Aircraft parking fee revenue will grow in proportion to forecast aircraft movements and fees will be revised every 5 years based on annual inflation. This analysis assumes inflation to be 2.0% per annum.
- The Passenger Facility Fee will remain at $20 until 2025, the year prior to the construction of a new terminal building, when it will be raised to $25 and increase in line with inflation every 5 years. Passenger Facility Fee revenue will also grow in proportion to forecast passenger movements.
- Lease revenue assumes seven serviced airside lots will be absorbed over the 20-year planning period. The rate per square metre of serviced airside land will be reduced from $3.00 to $2.20 in 2022 and will be adjusted for inflation every 5 years thereafter.
- Vehicle parking revenue will grow in proportion to forecast passenger movements and vehicle parking fees will be adjusted for inflation every 5 years thereafter.
- Revenue from interest and penalties will be adjusted annually for inflation.
- Sundry revenue will be adjusted annually for inflation.

Operating Expenses

- Salaries and wages expenses will be adjusted for inflation annually. The recommended additional Airport employment position will be staffed starting in 2024 and assumes an annual salary of $65,000, also adjusted annually for inflation.
- All other expenses will increase with inflation annually.

Table 12.11 – 20-Year Pro Forma Financial Statement

	2021 (Budget)	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
OPERATING REVENUES																				
Aircraft Landing Fees	$ 200,000	$ 279,354	$ 295,945	$ 312,555	$ 318,339	$ 356,450	$ 363,053	$ 369,781	$ 376,638	$ 383,625	$ 429,596	$ 437,574	$ 445,705	$ 453,991	$ 462,435	$ 517,898	$ 527,541	$ 537,368	$ 547,383	$ 557,590
Aircraft Parking Fees	$ 5,600	$ 5,953	$ 6,307	$ 6,661	$ 6,784	$ 7,601	$ 7,741	$ 7,885	$ 8,031	$ 8,180	$ 9,165	$ 9,335	$ 9,509	$ 9,685	$ 9,866	$ 11,054	$ 11,260	$ 11,470	$ 11,683	$ 11,901
Passenger Facility Fees	$ 200,000	$ 280,856	$ 316,578	$ 352,300	$ 446,886	$ 453,504	$ 460,232	$ 467,070	$ 474,022	$ 529,198	$ 537,100	$ 545,134	$ 553,301	$ 561,604	$ 627,050	$ 636,491	$ 646,090	$ 655,849	$ 665,772	$ 743,447
Vehicle Parking	$ 196,000	$ 208,361	$ 220,736	$ 233,125	$ 237,439	$ 266,018	$ 270,945	$ 275,967	$ 281,084	$ 286,299	$ 320,774	$ 326,731	$ 332,803	$ 338,990	$ 345,295	$ 386,893	$ 394,096	$ 401,437	$ 408,919	$ 416,544
Airport Leases	$ 261,860	$ 278,140	$ 278,140	$ 278,140	$ 294,420	$ 297,676	$ 297,676	$ 315,584	$ 315,584	$ 315,584	$ 338,526	$ 338,526	$ 338,526	$ 356,095	$ 356,095	$ 365,518	$ 384,844	$ 384,844	$ 384,844	$ 404,171
Interest and Penalties	$ 1,500	$ 1,530	$ 1,561	$ 1,592	$ 1,624	$ 1,656	$ 1,689	$ 1,723	$ 1,757	$ 1,793	$ 1,828	$ 1,865	$ 1,902	$ 1,940	$ 1,979	$ 2,019	$ 2,059	$ 2,100	$ 2,142	$ 2,185
Sundry	$ 22,650	$ 23,103	$ 23,565	$ 24,036	$ 24,517	$ 25,007	$ 25,508	$ 26,018	$ 26,538	$ 27,069	$ 27,610	$ 28,162	$ 28,726	$ 29,300	$ 29,886	$ 30,484	$ 31,094	$ 31,715	$ 32,350	$ 32,997
Total Operating Revenues	**$ 887,610**	**$ 1,077,297**	**$ 1,142,832**	**$ 1,208,410**	**$ 1,330,008**	**$ 1,407,913**	**$ 1,426,844**	**$ 1,464,028**	**$ 1,483,654**	**$ 1,551,747**	**$ 1,664,599**	**$ 1,687,328**	**$ 1,710,470**	**$ 1,751,605**	**$ 1,832,606**	**$ 1,950,357**	**$ 1,996,984**	**$ 2,024,784**	**$ 2,053,094**	**$ 2,168,835**
OPERATING EXPENSES																				
Salaries, Wages, and Benefits	$ 403,370	$ 411,437	$ 419,666	$ 494,359	$ 504,247	$ 514,332	$ 524,618	$ 535,111	$ 545,813	$ 556,729	$ 567,864	$ 579,221	$ 590,805	$ 602,621	$ 614,674	$ 626,967	$ 639,507	$ 652,297	$ 665,343	$ 678,650
Contracted and General Services	$ 238,300	$ 243,066	$ 247,927	$ 252,886	$ 257,944	$ 263,102	$ 268,365	$ 273,732	$ 279,206	$ 284,791	$ 290,486	$ 296,296	$ 302,222	$ 308,266	$ 314,432	$ 320,720	$ 327,135	$ 333,678	$ 340,351	$ 347,158
Financial Charges	$ 750	$ 765	$ 780	$ 796	$ 812	$ 828	$ 845	$ 862	$ 879	$ 896	$ 914	$ 933	$ 951	$ 970	$ 990	$ 1,009	$ 1,030	$ 1,050	$ 1,071	$ 1,093
Utilities	$ 112,130	$ 114,373	$ 116,660	$ 118,993	$ 121,373	$ 123,801	$ 126,277	$ 128,802	$ 131,378	$ 134,006	$ 136,686	$ 139,420	$ 142,208	$ 145,052	$ 147,953	$ 150,912	$ 153,930	$ 157,009	$ 160,149	$ 163,352
Fleet Expenses	$ 108,260	$ 110,425	$ 112,634	$ 114,886	$ 117,184	$ 119,528	$ 121,918	$ 124,357	$ 126,844	$ 129,381	$ 131,968	$ 134,608	$ 137,300	$ 140,046	$ 142,847	$ 145,704	$ 148,618	$ 151,590	$ 154,622	$ 157,714
Maintenance Materials and Supplies	$ 140,700	$ 143,514	$ 146,384	$ 149,312	$ 152,298	$ 155,344	$ 158,451	$ 161,620	$ 164,852	$ 168,150	$ 171,513	$ 174,943	$ 178,442	$ 182,010	$ 185,651	$ 189,364	$ 193,151	$ 197,014	$ 200,954	$ 204,973
Insurance	$ 21,910	$ 22,348	$ 22,795	$ 23,251	$ 23,716	$ 24,190	$ 24,674	$ 25,168	$ 25,671	$ 26,184	$ 26,708	$ 27,242	$ 27,787	$ 28,343	$ 28,910	$ 29,488	$ 30,078	$ 30,679	$ 31,293	$ 31,919
Bad Debt	$ 2,700	$ 2,754	$ 2,809	$ 2,865	$ 2,923	$ 2,981	$ 3,041	$ 3,101	$ 3,163	$ 3,227	$ 3,291	$ 3,357	$ 3,424	$ 3,493	$ 3,563	$ 3,634	$ 3,707	$ 3,781	$ 3,856	$ 3,933
Total Operating Expenses	**$ 1,028,120**	**$ 1,048,682**	**$ 1,069,656**	**$ 1,157,349**	**$ 1,180,496**	**$ 1,204,106**	**$ 1,228,188**	**$ 1,252,752**	**$ 1,277,807**	**$ 1,303,363**	**$ 1,329,430**	**$ 1,356,019**	**$ 1,383,139**	**$ 1,410,802**	**$ 1,439,018**	**$ 1,467,799**	**$ 1,497,155**	**$ 1,527,098**	**$ 1,557,640**	**$ 1,588,792**
Operating Surplus/Deficit	**-$ 140,510**	**$ 28,615**	**$ 73,176**	**$ 51,060**	**$ 149,512**	**$ 203,806**	**$ 198,656**	**$ 211,276**	**$ 205,847**	**$ 248,384**	**$ 335,169**	**$ 331,309**	**$ 327,331**	**$ 340,803**	**$ 393,588**	**$ 482,559**	**$ 499,829**	**$ 497,687**	**$ 495,454**	**$ 580,043**
CAPTIAL EXPENSES																				
Infrastructure	$ 123,000	$ 4,964,000	$ 40,000	$ 4,290,000	$ 6,163,000	$ 6,587,000	$ 8,316,000	$ 3,414,000	$ 5,904,000	$ 1,297,000	$ 0	$ 0	$ 0	$ 0	$ 1,717,000	$ 0	$ 0	$ 0	$ 0	$ 0
Mobile Assets	$ 655,000	$ 0	$ 0	$ 0	$ 0	$ 174,000	$ 0	$ 0	$ 75,000	$ 0	$ 0	$ 0	$ 0	$ 71,000	$ 855,000	$ 15,000	$ 822,000	$ 3,000	$ 568,000	$ 314,000
Studies and Plans	$ 36,000	$ 32,000	$ 40,000	$ 30,000	$ 23,000	$ 0	$ 0	$ 0	$ 0	$ 77,000	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
Total Capital Expenses	**$ 814,000**	**$ 4,996,000**	**$ 80,000**	**$ 4,320,000**	**$ 6,186,000**	**$ 6,761,000**	**$ 8,316,000**	**$ 3,414,000**	**$ 5,979,000**	**$ 1,374,000**	**$ 0**	**$ 0**	**$ 0**	**$ 71,000**	**$ 2,572,000**	**$ 15,000**	**$ 822,000**	**$ 3,000**	**$ 568,000**	**$ 314,000**
ANNUAL SURPLUS/DEFICIT	**-$ 954,510**	**-$ 4,967,385**	**-$ 6,824**	**-$ 4,268,940**	**-$ 6,036,488**	**-$ 6,557,194**	**-$ 8,117,344**	**-$ 3,202,724**	**-$ 5,773,153**	**-$ 1,125,616**	**$ 335,169**	**$ 331,309**	**$ 327,331**	**$ 269,803**	**-$ 2,178,412**	**$ 467,559**	**-$ 322,171**	**$ 494,687**	**-$ 72,546**	**$ 266,043**

13 MASTER PLAN IMPLEMENTATION

13.1 Implementation Strategy

The adoption of the Strategic Master Plan by City Council establishes the recommended direction that will guide the future of Prince Albert Airport. However, the adoption of the Master Plan does not bind or oblige the City to follow the recommendations presented throughout this report. It is anticipated that the implementation of the Master Plan will primarily be championed by the Airport Manager with support from the Manager of Engineering Services and Director of Public Works, as well as other parties based on the subject matter of the given project.

A comprehensive Implementation Strategy is presented in Tables 13.1 and 13.2, which considers both the infrastructure-related projects previously included in the 20-Year Capital Plan (Section 8.5) and non-capital projects such as business development initiatives, organizational changes, etc. It is recommended that the City strive to follow the Implementation Strategy where practical and feasible, especially with respect to lifecycle renewal and asset rehabilitation projects. Deferring projects beyond their recommended implementation timeline has the potential to rapidly increase the Airport's infrastructure deficit, while also limiting the City's ability to achieve the goals established for the Airport, such as growth and business development.

The successful implementation of the Master Plan will require a "whole of City" approach – the Airport does not exist as a siloed piece of infrastructure that is separate from other City functions, but instead it is an integral part of the community and region. Accordingly, the Master Plan should be reviewed and understood by parties that include:

- The Airport Manager;
- Senior City Staff, including the Manager of Engineering Services, Manager of Capital Projects, Director of Public Works, Director of Planning and Development Services, and City Manager;
- The Airport Advisory Committee;
- City Council; and
- The Prince Albert Regional Economic Development Alliance.

Table 13.1 – Master Plan Implementation Strategy: 2021-2030

Light green denotes preparatory activities (e.g., planning, design, and funding applications)

Dark green denotes project implementation

Project	Section	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Capital Projects											
Aircraft Radio Control of Aerodrome Lighting System	7.1.6										
Taxiway A, Taxiway D, and Runway 08-26 infield drainage improvements	7.5.3										
Apron II Reconstruction	7.1.3										
Apron II Expansion	7.1.3										
Runway 08 Threshold Concrete Repairs	7.1.1										
Fibreoptic Internet Servicing	7.5.6										
Airport Maintenance Building Generator Replacement	7.5.4										
North Saskatchewan River Watermain Crossing	7.5.1										
LED Fibreoptic Guidance Signs	7.1.5										
Airfield Lighting System Rehabilitation	7.1.6										
Replace Airfield Electrical System Constant Current Regulators and Power Distribution Equipment	7.1.7										
Airport Road Watermain Upgrades	7.5.1										
Development Lot Preparation	8.2.4										
Apron I Rehabilitation	7.1.3										
Extend Potable Water Servicing	7.5.1										
Extend Sanitary Sewer Servicing	7.5.2										
New Terminal Building	7.3.12										
Rehabilitation and Reconfiguration of Terminal Building Road	7.4.1										

Project	Section	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Rehabilitation and Reconfiguration of Public Parking Lot	7.4.2										
Taxiway A Rehabilitation	7.1.2										
Taxiway B Rehabilitation	7.1.2										
Long-Term Designated Parking Lot Paving	7.4.2										
Runway 08-26 Rehabilitation	7.1.1										
Runway 08-26 Runway End Safety Areas	7.1.1										
Taxiway C Rehabilitation	7.1.2										
Taxiway D Rehabilitation	7.1.2										
Taxiway C Extension	7.1.2										
Taxiway F / Taxiway C Intersection Realignment	7.1.2										
Runway 16-34 Decommissioning	7.1.1										
Terminal Building Secure Holdroom	7.3.12										
Airport Road Rehabilitation	7.4.1										
Mobile Equipment Renewal											
Airport Mobile Equipment Multi-Channel VHF Radios	7.2.7										
2000 Navstar Plow Truck											
1989 Navstar Sander/Deicer/Plow Truck											
2021 RPM Blizzard Cold Air Blower											
2006 Case Loader											
2009 Chev 1/2 ton											
Plans and Studies											
Reduced Visibility Operations Plan	7.2.3										
Groundside Wayfinding and Signage Plan	7.4.1										
Stormwater Management Plan	7.5.3										
TP312 5th Edition Gap Analysis	3.1										

Project	Section	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Air Service Demand and Catchment Area Leakage Study	11.4										
Instrument Meteorological Conditions Availability Analysis	7.2.3										
Update Airport Master Plan	13.3.2										
Operational, Organizational, and Business Development Actions											
Re-evaluation of Airport Advisory Committee composition	3.2.1										
Initiate recommended Airport communication changes	10.3										
City resource utilization review and changes	3.2.2, 10.1										
City of Prince Albert and R.M. of Buckland land use planning review	8.1										
Consultations with NAV CANADA on FSS line of sight issues and solutions	7.2.4, 8.1.3										
Establish Business Development Strategy partnerships	11										
Hiring of Additional Airport Employee	10.2										
Implementation of Business Development Strategy	11										
Consultations with NAV CANADA on IFR airfield capacity	7.1.4										

Table 13.2 – Master Plan Implementation Strategy: 2031-2040

Light green denotes preparatory activities (e.g., planning, design, and funding applications)

Dark green denotes project implementation

Project	Section	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Capital Projects											
Extension of Taxiway F	7.1.2										
Long-Term Corporate Parking Lot Rehabilitation	7.4.2										
Mobile Equipment Renewal											
2014 11’ John Deer Mower	7.2.7										
2015 Chev 1/2 ton											
2015 SMI Sweeper											
2015 Towed Deicer Spreader											
2016 Polaris Indy Voyager											
2017 Larue Snowblower											
2018 Gravely Walk Behind Sweeper											
2019 CAT M140 Grader											
2020 Ariens Walk Behind Snow Blower											
2020 Kabota Tractor											
2020 Schulte Towed 25’ Mower											
2020 6’ Grasshopper Mower											
Operational, Organizational, and Business Development Actions											
Implementation of Business Development Strategy	11										

13.2 Risk Management

The implementation of the Master Plan by the City of Prince Albert and the success of Prince Albert Airport may be affected by risks in the future. Successful risk management involves:

- The early identification of potential risks;
- The analysis of the potential impacts of identified risks to Prince Albert Airport; and
- The identification and implementation of risk mitigation measures.

An important element of risk management is the appropriate framing of expectations by City Council, City Staff, and the public. Issues should be expected over the course of the Master Plan's implementation by nature of the variability that categorizes the aviation industry. Overcoming an issue, such as a decline in Airport activity levels, requires resilience and commitment among decision-makers with a focus on practical solutions.

A Risk Management Matrix has been provided in Table 13.3 which enumerates select risks that may impact the future operation and development of Prince Albert Airport. The Risk Management Matrix is a starting point which considers challenges commonly encountered at other Canadian airports, or matters identified through the analysis of the project team. City Staff should routinely revisit the Risk Management Matrix and update it over time as conditions change.

Table 13.3 does not consider safety risks that are addressed through the Airport's Safety Management System, Emergency Response Plan, and other regulatory processes.

Table 13.3 – Risk Management Matrix

Risk	Probability of Occurrence	Potential Impacts	Mitigation Measures
Annual fluctuations in Airport activity levels	High	• Decreased revenue from aircraft landing fees, parking fees, Passenger Facility Fees, etc. • Challenges in preparing annual municipal budgets • Increased cost-revenue gap and municipal subsidization required	• Proactive financial management, including contributions to a reserve fund • Annual budget inputs that consider recent activity levels and anticipated changes • Consideration of annual cost-revenue gaps alongside the Airport's social and economic impacts • Pursue diversified non-aeronautical revenue sources and long-term land lease agreements to provide increased financial stability
Deferral of required capital asset rehabilitation and renewal projects by the City	High	• Degradation of asset conditions and usability (e.g., a degrading taxiway that must be closed on the basis of aviation safety) • Increased capital costs of asset replacement vs. rehabilitation	• Monitoring of asset conditions by the Airport Manager • Funding and completion of routine preventive maintenance activities (e.g., crack sealing, spot repairs) • Proactive planning of infrastructure projects per the 20-Year Capital Plan (Section 8.5) • Pursuit of capital grant funding
Continued passenger leakage to Saskatoon and other competitor airports	High	• Loss of potential Airport activity and revenues to competitor airports • Weakened business case to attract new air carrier services to the region • Minimal public exposure to Prince Albert Airport and unclear understanding of its value	• Commence Airport communication efforts to increase awareness among the public (Section 10.3.1) • Complete Air Service Demand and Catchment Area Leakage Study (Section 11.5) to quantify the impacts of passenger leakage • Implement the business development strategy for new air carrier services (Section 11.5)
Increased regulatory requirements imposed by Transport Canada	Medium	• Increased capital costs to address projects for regulatory changes affecting Airport infrastructure • Increased operating costs – e.g., due to additional staff being required to maintain regulatory compliance • Staff training required • Operational process changes required	• Monitoring of regulatory changes by the Airport Manager • Involvement by the City during Transport Canada's regulatory consultation periods • Continued use of third-party regulatory consultants for Quality Assurance audits • Continued involvement in industry associations (e.g., Regional Community Airports of Canada)

Risk	Probability of Occurrence	Potential Impacts	Mitigation Measures
Limited market interest in airside development lots	Medium	• Under-performance of the Airport relative to the Master Plan's proforma financial outlook • Failure to realize revenues from capital investments made in supporting development (e.g., servicing upgrades) • Airport's regional economic benefits do not increase	• Pursue recommendations outlined in the Business Development Strategy (Section 11.1) • Implement capital projects supporting new development in a phased manner as described in Section 8 • Defer projects supporting the development of Priority 3 lots until Priority 1 and 2 lots are absorbed
Temporary or permanent departure of the Airport Manager	Medium	• Failure to meet Transport Canada's regulatory obligations • Loss of organizational and operational knowledge • Increased workload imposed on other senior City Staff	• Begin succession planning for the Airport Manager position (Section 10.2) • Hire additional Airport employee (Section 10.2)
Reduced prioritization of the Airport amid changing term of Council priorities	Low	• Airport initiatives considered by an incumbent term of Council are not carried forward in successive terms due to political priorities and / or public pressure • Failure to implement select recommendations of the Master Plan	• Brief incoming Council members on the Airport's current circumstances, priorities, and direction provided in the Master Plan • Initiate regular communications on the social and economic benefits of Prince Albert Airport (Section 10.3.1) • Airport Manager and senior City Staff members champion the implementation of key Airport projects
Loss of existing tenants / failure to renew lease agreements	Low	• Loss of multi-year land lease revenues • Decreased regional economic impact of the Airport (e.g., employment levels, taxation) • Vacant lots that must be cleared, remediated, and marketed	• Conduct regular outreach with existing tenants to identify potential problems • Maintain or improve the Airport's level of service • Undertake regular reviews of the competitiveness and fairness of the Airport's land lease rates
Failure to form business development partnerships (e.g., PAREDA, Chamber of Commerce)	Low	• Challenges in pursuing the recommendations of the Business Development Strategy (Section 11) • Inconsistent messaging regarding the Airport across key regional organizations	• Present and / or circulate the Master Plan to key regional organizations • Identify Airport "champions" at City Council, City Staff, and at target organizations to develop partnerships • Integrate regional stakeholders in the next term of the Airport Advisory Committee

13.3 Plan Monitoring and Review

13.3.1 Key Performance Indicators

Key Performance Indicators (KPIs) are quantifiable metrics that can be used to track the progress of Prince Albert Airport over time, the degree to which the facility is meeting its Mission and Vision Statements described in Section 4, and the overall level of service provided. A draft set of KPIs has been prepared by the project team for consideration and implementation by the City of Prince Albert, as shown in Table 13.4.

While KPIs are a useful tool for City Staff and Council given the ease with which changes over time can be identified, the Airport's success is not solely defined by these metrics. Other measures of success, such as the economic impacts of tenants and air services and the social benefits of critical services, are qualitative in nature or require detailed standalone studies to quantify their magnitude. Further, success in all KPI areas may not be achieved every year – as considered in the Risk Management Matrix, external events such as the COVID-19 pandemic may negatively impact KPI performance.

Table 13.4 – Sample Key Performance Indicators

Performance Area	Key Performance Indicator	Desired Trend	Review Period
Operational Excellence and Safety	Flight delays because of Airport maintenance and closures	Decrease over time	Annually
	Number of Quality Assurance Audit Level 1, 2, and 3 findings	Decrease over time	Every three years
	Number of workplace health and safety accidents and incidents	Decrease over time	Annually
Financial Sustainability	Annual operating deficit	Decrease over time	Annually
	Aeronautical and non-aeronautical revenues	Increase over time	Annually
	Proportion of capital expenses funded by external sources	Increase over time	Annually
	Budget vs. cost for capital projects	Decrease over time	At completion of each capital project
Growth and Development	Number and value of land lease agreements	Increase over time	Annually
	Passenger activity levels	Increase over time	Annually
	Aircraft movements	Increase over time	Annually
	Air cargo throughput	Increase over time	Annually
	Airport's economic impact (e.g., GDP, job creation	Increase over time	At City's discretion – studied at least every ten years

13.3.2 Plan Reviews and Updates

The Master Plan has been prepared using all available information to provide a realistic and practical approach to the future development and operation of Prince Albert Airport from 2021 to 2040. However, factors will emerge over the horizon of this study that will challenge the assumptions, analyses, and recommendations of the Master Plan, such as:

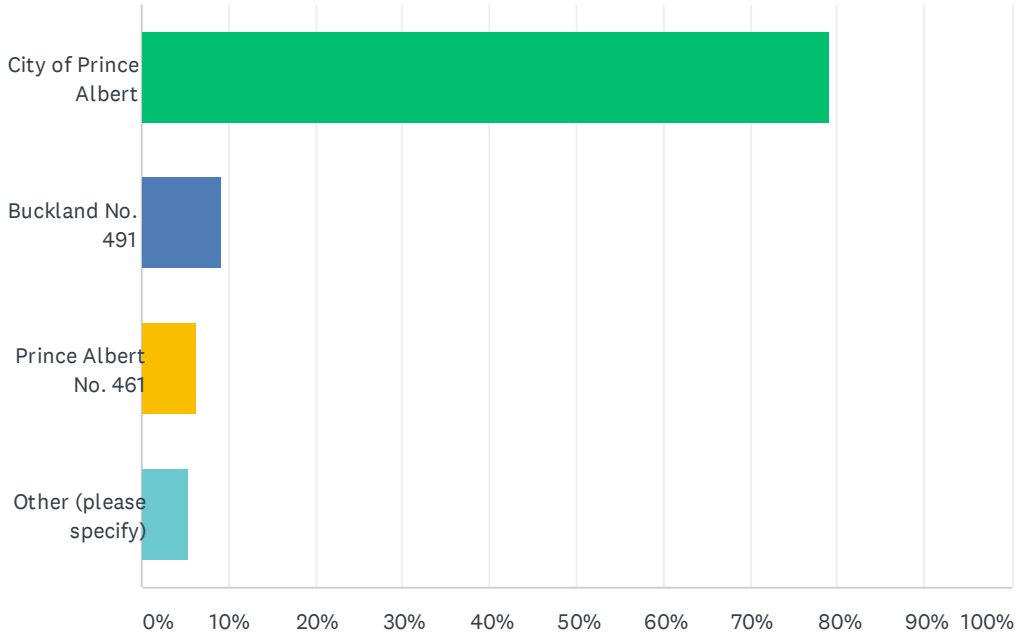
- The unknown long-term effects of the COVID-19 pandemic on the Canadian aviation industry;
- Air carrier service terminations and new routes;
- Regulatory changes affecting the Airport's operations and infrastructure;
- The strength of the Prince Albert and Saskatchewan economies; and
- The financial capacity of the City of Prince Albert.

Accordingly, it is recommended that the Prince Albert Airport Strategic Master Plan be reviewed and updated in 2030 (or sooner, at the discretion of the City) to evaluate the City's success in implementing the current plan, identify new capital and operational needs that have emerged, and account for contextual changes such as those noted above.

Appendix A - Online Survey Responses

Q1 Which option best describes your location?

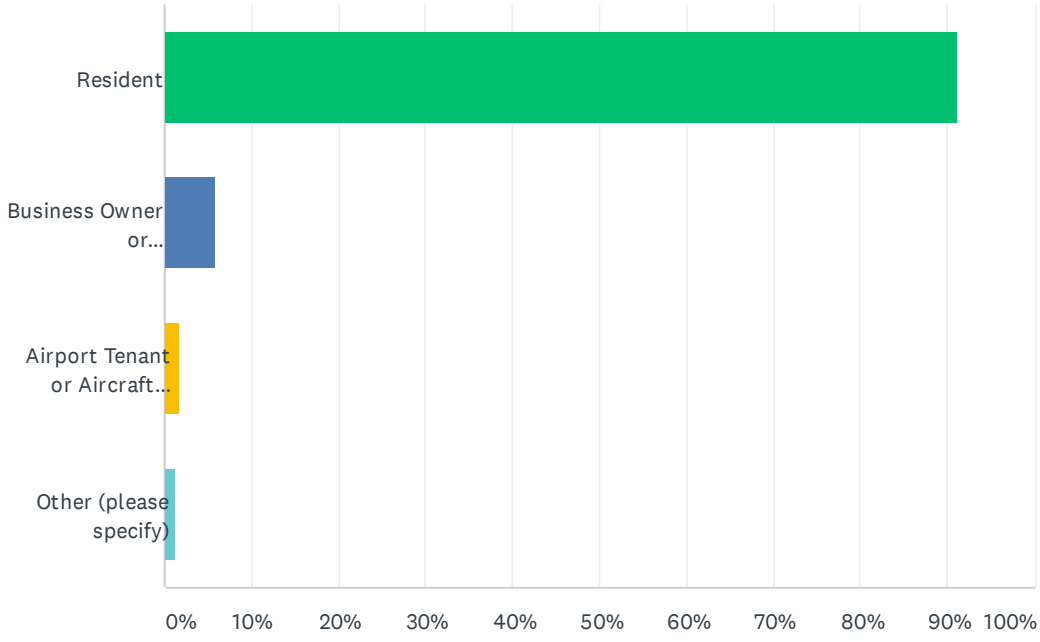
Answered: 307 Skipped: 0



ANSWER CHOICES	RESPONSES	
City of Prince Albert	79.15%	243
Buckland No. 491	9.12%	28
Prince Albert No. 461	6.19%	19
Other (please specify)	5.54%	17
TOTAL		307

Q2 Which option is the most applicable to you?

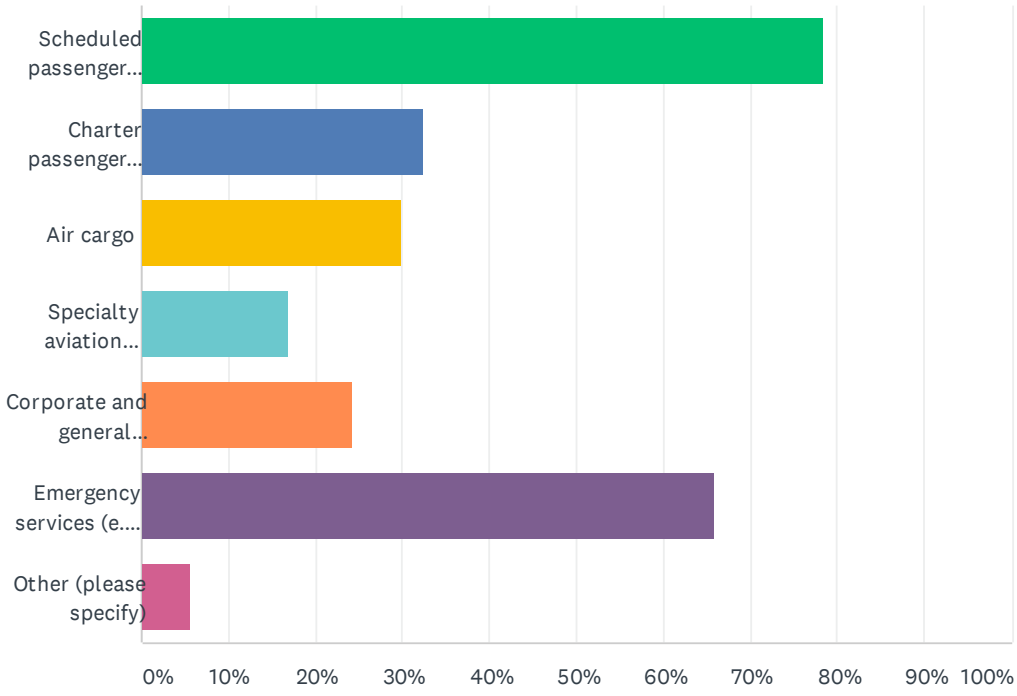
Answered: 306 Skipped: 1



ANSWER CHOICES	RESPONSES	
Resident	91.18%	279
Business Owner or Representative	5.88%	18
Airport Tenant or Aircraft Operator	1.63%	5
Other (please specify)	1.31%	4
TOTAL		306

Q3 What services or features of Prince Albert Airport are important to you or your business (please select all that apply):

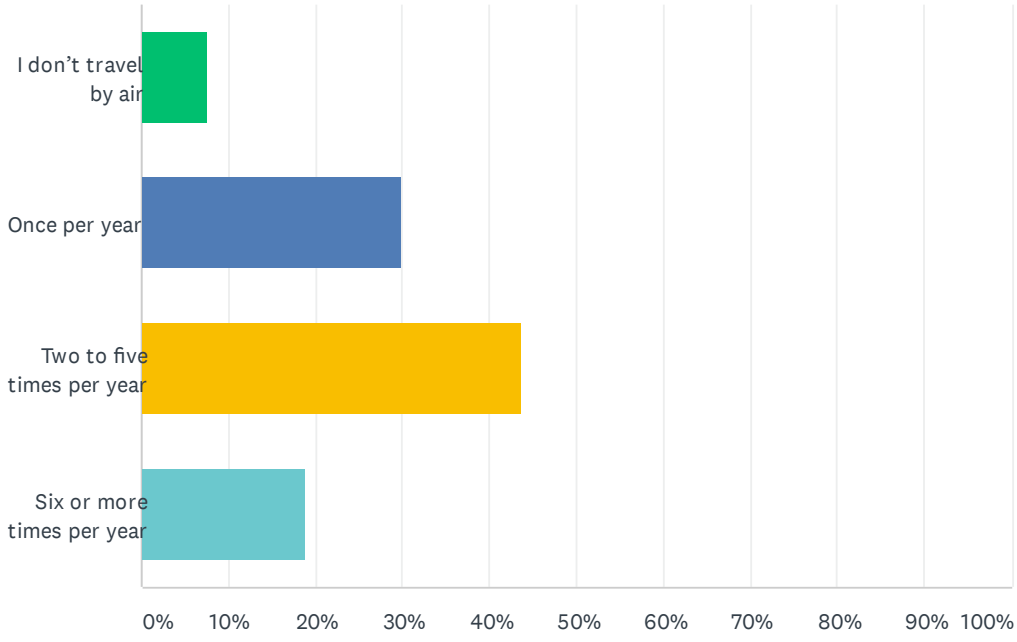
Answered: 305 Skipped: 2



ANSWER CHOICES	RESPONSES	
Scheduled passenger services	78.36%	239
Charter passenger services (e.g. mining industry flights)	32.46%	99
Air cargo	29.84%	91
Specialty aviation services (e.g. helicopter operators)	17.05%	52
Corporate and general aviation	24.26%	74
Emergency services (e.g. air ambulance, law enforcement, wildfire suppression)	65.90%	201
Other (please specify)	5.57%	17
Total Respondents: 305		

Q4 In general, how often do you travel by air on an annual basis?

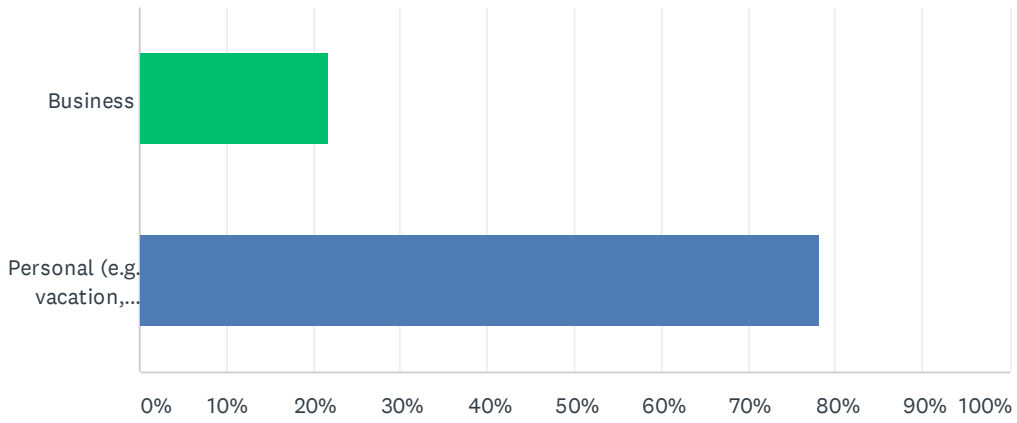
Answered: 304 Skipped: 3



ANSWER CHOICES	RESPONSES	
I don't travel by air	7.57%	23
Once per year	29.93%	91
Two to five times per year	43.75%	133
Six or more times per year	18.75%	57
TOTAL		304

Q5 In general, what is the primary reason when you travel by air?

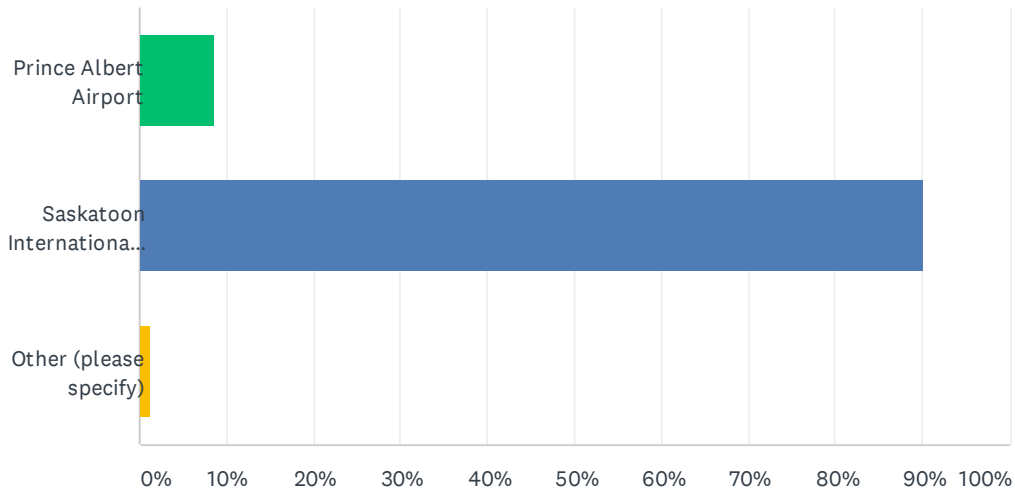
Answered: 304 Skipped: 3



ANSWER CHOICES	RESPONSES	
Business	21.71%	66
Personal (e.g. vacation, visiting friends and family)	78.29%	238
TOTAL		304

Q6 What is your most used airport when travelling by air?

Answered: 306 Skipped: 1



ANSWER CHOICES	RESPONSES	
Prince Albert Airport	8.50%	26
Saskatoon International Airport	90.20%	276
Other (please specify)	1.31%	4
TOTAL		306

Q7 In your opinion, what are the strengths of Prince Albert Airport?

Answered: 254 Skipped: 53

Q8 In your opinion, what are the weaknesses of Prince Albert Airport?

Answered: 265 Skipped: 42

Q9 In your opinion, what goals should guide the future development of Prince Albert Airport?

Answered: 258 Skipped: 49

Q10 Do you have any other comments you would like to provide regarding the Prince Albert Airport Strategic Master Plan?

Answered: 181 Skipped: 126