



EDMONTON INTERNATIONAL AIRPORT

Administrative Requirements

I - Design Standards

01 30 50 Villeneuve Development Guidelines

V1 R1

Revision Control

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Reviewers

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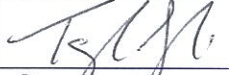



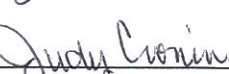
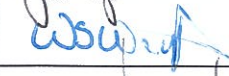


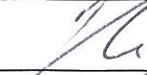

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1.0 General

1.1 Intent of This Document

The intent of this document is to describe the general requirements for development at Villeneuve Airport. This document does not replace government regulations, building code requirements, or good engineering practice.

1.1.1 Developer's Responsibility

It is the developer's responsibility to familiarize themselves with all governing regulations, standards and practices required for their specific development.

1.2 Reference Documents

The following lists regulations and guidelines (but not exhaustive) that are important at Villeneuve Airport:

Sturgeon County Municipal Development Plan, By Law 818/96

Sturgeon County Calahoo - Villeneuve Sand and Gravel Extraction Area Structure Plan, By Law 922/01

Sturgeon County Land Use Bylaw 819/96

Alberta Building Code

Canadian Electric Code

NFPA 409, Standard on Aircraft Hangars

Transport Canada TP312, Aerodromes Standards and Recommend Practices

Transport Canada TP1247, Aviation – Land Use in the Vicinity of Airports

Government of Canada, Villeneuve Airport Zoning Regulations (SOR/81-568)

2.0 Application

2.1 GENERAL REQUIREMENTS

There are two related by independent processes for development at Villeneuve Airport; Sturgeon County (the Authority having jurisdiction) has a development and building permit approval process and Edmonton Regional Airports Authority has a Facility Alteration Permit (FAP) process. Both are required for any development at Villeneuve.

The governing document for Sturgeon County for the development application process is the *Land Use Bylaw 819/96*.

The governing document for Edmonton Airports for FAP applications is the [FAP Submission Requirements](#).

2.2 DEVELOPMENT PERMIT AND BUILDING PERMITS

Section 2.3 of the County Land Use Bylaw 819/96 outlines what types of developments do not require a development permit. Most developments at Villeneuve airport will require a Development and Building Permit issued by Sturgeon County.

2.3 DEVELOPMENTS REQUIRING A FAP

Any work that may impact existing airport infrastructure will require review by Edmonton Airports. The work may be a new development, demolition of an existing development or a renovation of existing infrastructure.

Note that having an approved FAP does not preclude the need for permitting from the Local Authority Having Jurisdiction. At Villeneuve Airport, this is Sturgeon County.

Contact Technical Services at 780-890-8582 for more information on the approval process.

Work that is cosmetic in nature, such as repainting a wall or changing a laminate surface would not require a FAP.

Emergency work where property or life and limb may be at risk does not require a FAP, nor does maintenance work where the item being repaired is being left as is.

If the construction is for a new development or a redevelopment of an existing site that changes its current usage, you will be required to apply for a development permit to make sure the proposal meets Edmonton Airports' land use criteria. This should be done prior to reaching

90% design development documentation in case changes are required. A second review of the completed design will then occur once the applicant has applied for a FAP - Construction permit.

All other work will be required to apply for a FAP - construction permit only. Excavation cannot occur until construction approval has been received. Edmonton Airports' has private utilities on all of its sites that need to be located, so Alberta One Call must be contacted before any excavation can proceed, and copies of completed locate requests must be provided to Edmonton Airports.

2.4 FEES

Sturgeon County requires fees for development permits and building permits. These fees change from time to time, please contact Sturgeon County for up to date information.

Edmonton Airports charges a nominal fee for the processing of FAPs. This fee is levied to recover some of the costs associated with the administration of FAPs. Please contact Technical Services at 780-890-8582 for the most current fee schedule and method of payment.

2.5 PROCESS

The recommended process for development at Villeneuve is outlined in the flow diagram below:

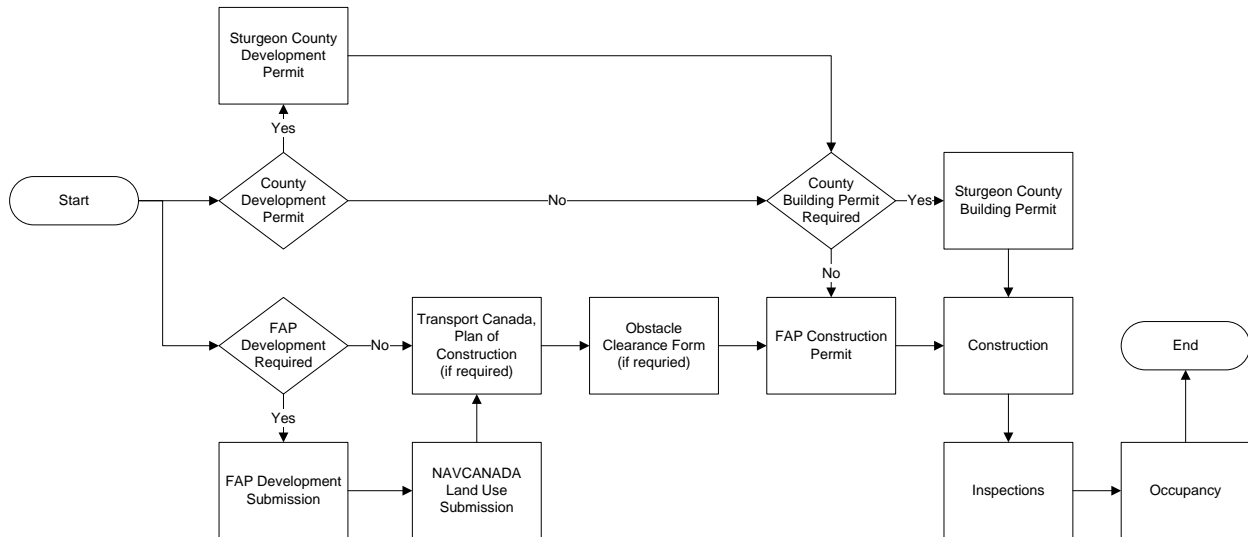


Figure 1 – Recommend Submission Process

The recommended submission process allows for simultaneous submission of both the FAP application and County Development / Building Permits. The submission process is a guide; project specific requirements may dictate an alternate submission process. Please consult with the appropriate representatives.

Contact Sturgeon County for the specific application process for development and building permits.

FAP submissions (development or construction) are completed through an online form located at:

http://corporate.flyeia.com/business_development/construction_at_eia.aspx

3.0 Permit Submission Requirements

3.1 COUNTY DEVELOPMENT AND BUILDING PERMIT

Sturgeon County's *Land Use Bylaw 819/96*, section 2.4 outlines the submission requirements. The developer should consult with Sturgeon County before application as these requirements maybe subject to change. The requirements are summarized below; the Developer is responsible to ensure all submission requirements conform to Sturgeon County's requirements:

- a) an application with the signature of the registered owner of the land or an agent authorized by the owner to make the application;
- b) a site plan in duplicate showing: the legal description, front, rear and side yard setbacks, the location of existing and proposed buildings, outline of roof overhands and dimensions, provision for off-street loading and vehicle parking and access egress points to the site, other structures including accessory buildings, garages, fences and sour gas lines;
- c) foundation plans, floor plans, elevations and cross-sections;
- d) a statement of uses
- e) the estimated commencement and completion dates;
- f) the estimated cost of the project or contract price;
- g) the approximate location and boundaries of the bed and shore of any steam or water body that is contained or bounds the property;
- h) where development is proposed near the 1:100 year flood plain of the North Saskatchewan River or the Sturgeon River, the precise location of the 1:100 year flood contour as certified by a qualified, registered professional Engineer.
- i) any other pertinent information or tests required by the Development Approving Authority respecting the site or adjacent lands;
- j) a north arrow and the scale and date of the drawings and
- k) such a fee is prescribe by resolution of Council from time to time.

In addition to the development permit submission a building permit may be required. The building permit requires site plans in duplicate at a scale of 1:2000 (or such other scale as deemed satisfactory) showing the following:

- a) all roads and highways;
- b) all rights-of-way and easements within or abutting the subject property
- c) the existing and proposed services;
- d) landscaping information, including the vegetation that is to be retained and removed clearly identified and detailed planting plan with general type, size, number, spacing and height of plantings;

- e) related proposed development such as sidewalks, patios, playgrounds, and other similar features; and
- f) other information that may be required by the Development Approving Authority to determine how a proposed development may impact land uses in the vicinity.

3.2 FAP SUBMISSION REQUIREMENTS

As part of the FAP process anyone completing work on an Edmonton Airports site is required to provide drawings and documentation appropriate to the size of the intended alteration or installation.

Submission documents must include:

- A detailed description of the intended use of the building and grounds (exterior work) or internal development (within an Edmonton Airports owned building). Multi-tenant building applications are to include a description of the types or categories of business and a description of their use of the building and site. Aviation related facilities must provide anticipated aircraft type.
- Drawings drawn at a metric scale containing information as required below (where applicable). The level of detail is to be relevant to the permit being applied for.
- A completed Assignment of License of Copyright for each copyright Owner for any documents provided.

3.2.1 Development FAP

These are minimum requirements for documents that need to be provided in order for an application to be reviewed. However, it is recommended that the applicant supply all documents as indicated on the chart below in order to provide a more thorough and timely review:

- a) architectural Layout (60-90% design development).
- b) architectural rendering of the proposed facility and sample board of finishes
- c) preliminary Engineering Design:
 - Preliminary Equipment Lists with demand / load requirements
 - Number of washrooms and approximate fixture counts
- d) equipment plan for all food/beverage installations (if applicable)
 - Preliminary routing of mechanical / electrical / civil
 - Utility loads and preliminary sizes (for exterior work)
- e) initial site layout
 - true north
 - corresponding street and avenue

- initial dimensions including property lines (or lease line)
 - size and location of existing and new buildings/structures relative to the property lines
 - initial drainage plan with grading dimensioned
 - identification of outdoor activity areas including servicing areas, trash collection, storage areas, display area, etc..
 - locations of all overhead and underground utilities including right of ways or easements
 - aircraft parking and equipment layout (where required)
- f) any other drawings or documents reasonably required by Edmonton Airports

3.2.2 Construction FAP

Drawings should be at the same stage required for applying for a County building permit (i.e. the drawings should either issued for tender or issued for construction and signed/sealed as required by the Authority Having Jurisdiction).

a) Detailed Site Plan showing:

- true north
- corresponding street and avenue
- dimensions of the site, labeling property lines, and including geographic coordinates or distances and angles to Alberta Survey Control Monuments (2 minimum)
- size and location of proposed and existing accesses to the site
- size and location of existing and new building/structures relative to the property lines (side, front and rear yard setbacks)
- layout of vehicle parking and parking stall count
- loading and unloading areas
- identification of outdoor activity areas including servicing areas, trash collection, storage areas, display area, etc..
- Locations of all overhead and underground utilities including right of ways or easements
- A storm water management plan
- Proposed access to airfield (where required)
- Aircraft parking and equipment layout (where required)
- Storage of dangerous goods inc. those used for fuelling/servicing aircraft

b) Floor plans (min scale 1:100) showing:

- architectural design
- number of floors
- intended occupancy

DESIGN STANDARDS – ADMINISTRATIVE REQUIREMENTS

- construction materials used for exterior walls and fire rating.
 - location of mechanical and electrical equipment
 - equipment list (mechanical or electrical) and anticipated load
 - number of washrooms and fixture count
 - fire protection system
- c) Building elevations (min. scale 1:100) showing:
- all sides of the building
 - building height including height of highest point of structure (including roof top units or other mechanical structures)
- d) Utility connection requests (if required):
- Domestic Water
 - Sewer
 - Storm Sewer
- e) If using a crane or drilling equipment
- Location plan showing height above sea level and geographic coordinates of any crane or drilling rig being used on site. Must include dimensions showing proximity to runways and taxiways

3.2.3 NAV CANADA Land Use Submission

NAV CANADA maintains its mandate for safe and efficient movement of aircraft at airports through its Land Use Submission process. Development that may affect the air navigation systems at the airport will require a Land Use Submission to NAV CANADA for review.

Information on this process can be found at www.navcanada.com → Land Use Program, or contact NAV CANADA at:

NAV CANADA
1601 Tom Roberts Road
P.O. Box 9824, Station T
Ottawa, ON K1G 6R2
Telephone: (866) 577-0247
Fax: (613) 248-4094
Land Use E-mail: landuse@navcanada.ca

Note: The Land Use Office prefers to receive proposal submissions electronically.

3.2.4 Transport Canada, Plan of Construction Operations (PCO)

The purpose of this Plan of Construction Operations (PCO) is to:

- Provide notification of deviations from the certification standards and the Airport Operations Manual (AOM);
- Formulate in advance the coordination required to implement this construction project with minimal interruption to, and conflict with, airport operations and to ensure that airport security and flight safety are not compromised by the construction operations;
- Inform all airport users, tenants and airlines of the project, such that they are aware of its effect on their operations; and
- Inform the Contractor, Consultant and Edmonton Airports of work procedures to be followed in a safe and secure manner

Please contact Edmonton Airports for help in filling out a PCO.

3.2.5 Transport Canada, Obstruction Clearance Form

The purpose of this form is to specify the location of new or altered structures that may pose a hazard to aviation. It also allows Transport Canada (TC) to identify proposals that conflict with Air Regulations or, as necessary, to advise the applicant of marking and lighting requirements. This form does not constitute authority for construction.

Completed forms, electronic or paper, are submitted at least 90 days prior to all alterations which increase the structure's height; or for proposed new structures if

- such a height as to penetrate an airport obstacle limitation surface specified in the Aerodrome Standards and Recommended Practices Manual - TP312;
- within 6 km of the centre of an aerodrome;
- higher than 90 m AGL within 3.7 km of the centreline of a recognized VFR route such as, but not limited to, a valley, a railroad, a transmission line, a pipeline, a river or a highway
- higher than 150 m AGL at any other location; or
- a component of a catenary wire crossing where any portion of the wires or supporting structures exceed 90 m AGL;

Please contact Edmonton Airports for support in completing an Obstruction Clearance Form.

4.0 Villeneuve Airport Site Specific Requirements

All developments at Villeneuve Airport must adhere to Part 6.0, General Regulations of the *Sturgeon County Land Use Bylaw 819/96*. Part 8 outlines the land uses permitted by the Sturgeon County.

4.1 LAND USE DISTRICT AP – AIRPORT DISTRICT

The zoning of Villeneuve airport is an Airport District which's purpose is to maintain airport facilities and operations in the County and to protect the operation safety of each airport facility from incompatible land uses.

4.1.1 Permitted Uses

- Aerodrome
- Aircraft hangar

4.1.2 Discretionary Uses

- Accessory building and use
- Aircraft sales and service
- Aircraft training facilities and uses
- Extensive agricultural use
- Military use
- Public use
- Restaurant
- Surveillance suite

4.1.3 Regulations

- a) Minimum yard setbacks:
 - i. Front yard setback – 1.0 m (3.3 ft) from boundary of a service road or other public roadway
 - ii. Side yard setback – 3.0 m (9.8ft)

- iii. Rear yard setback – 5.0 m (16.4ft)
- b) All other site regulations and requirements shall be based upon the type of rural commercial development proposed and shall be at the discretion of the Development Approving Authority.
- c) The use or operation of a development on any land situated within the Airport District shall not cause any objectionable or dangerous condition that would interfere with the safe and efficient operation of the airport without restriction the generality of the foregoing, the shall not cause excessive:
 - i. smoke, dust, steam or other emissions;
 - ii. toxic and noxious matters; or
 - iii. radiation, fire and explosive hazards
- d) Minimum Construction Standards
 - i. Construction shall conform to Canada Mortgage and Housing Corporation Standards for sound insulation for buildings situated in Noise Exposure Forecast (NEF) areas.
 - ii. No operation or activity shall emit air and water contaminants in excess of the standards prescribed by the Environmental Protection and Enhancement Act.

4.2 EDMONTON AIRPORTS SPECIFIC REQUIREMENTS

4.2.1 Access and Setbacks

- a) Front Yard Setback – 1.0 m (3.3 ft) from the lot line that boundaries a service road or other public roadway.
- b) Rear Yard Setback 3.0 m (16.4 ft) from the lot line that boundaries the airside taxiway or opposite of the Front Yard Setback.
- c) Developer will require a license agreement if access is off a privately owned roadway. Please contact Edmonton Airports for clarification.

4.2.2 Domestic Water Service

- a) Domestic water flows shall not exceed an Average Daily Demand (ADD) of 10,000 l/ha/day.
- b) Maximum Daily Demand (MDD) is equal to 2xADD
- c) Peak Hour Demand (PHD) is equal to 4xADD
- d) Other requirements must be approved by Edmonton Airports Engineering
- e) Domestic Water service design is per City of Edmonton Design Standard – Chapter 4, Water
- f) Water meters are required with all water services
- g) Connection to the domestic water system requires a water connection request submitted to and approved by Edmonton Airports Engineering.
- h) Domestic Water service is installed as per standard 31 10 00 – Water Utilities.

4.2.3 Fire Water Service

- a) Fire water service is not provided to Villeneuve Airport.

4.2.4 Sanitary Service

- a) Sanitary flows shall not exceed 6,170 l/ha/day without prior consent of Edmonton Airports Engineering
- b) A sampling point is required on all sanitary connections, this may include a manhole location just upstream of the connection to the main distribution.
- c) Sanitary Sewer design is per the City of Edmonton's Design Standards – Chapter 3, Drainage.
- d) Connection to the sanitary sewer system requires a sewer connection request submitted to and approved by Edmonton Airports Engineering.

4.2.5 Stormwater Management

- a) Site is to have a stormwater oil and grit separator installed in any catch basins.
- b) Stormwater design is to use the City of Edmonton's Design Standards – Minor System.
- c) Stormwater systems must not be designed with standing water and are required to drain within 24 hours.
- d) Roadway access cross sections are to be designed and built per this detail:

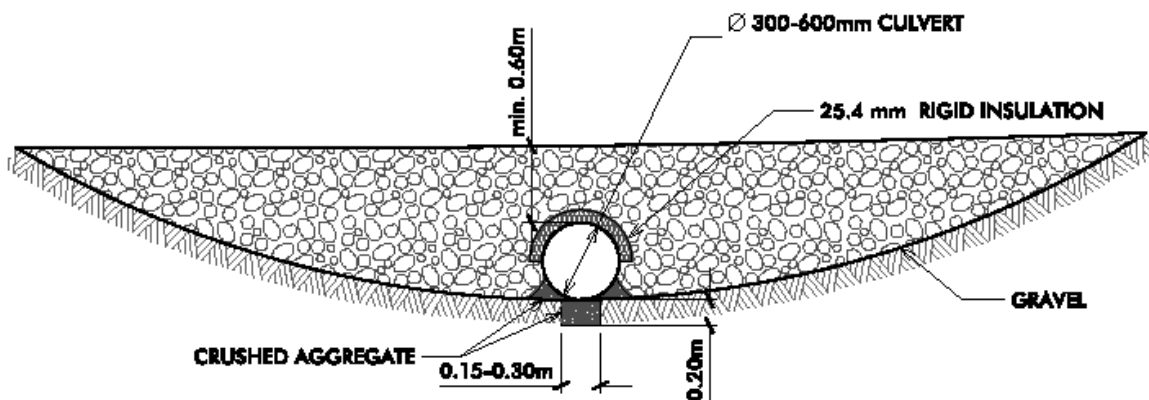


Figure 2 Roadway Culvert Details

DESIGN STANDARDS – ADMINISTRATIVE REQUIREMENTS

- e) Airside access (apron / taxiway) cross sections are to be designed by engineer and drawings provided to Edmonton Airports for review.

4.2.6 Power

- a) Power is provided by Fortis Alberta

4.2.7 Natural Gas

- a) Natural gas is supplied by ATCO gas

4.2.8 Garbage Containment

- a) All outdoor garbage must be stored in approved sealed containers to prevent the attraction of wildlife and bird hazards.