CITY OF ST. THOMAS

BY-LAW NO. 36-2019

A By-law to regulate the use of lands and the erecting, locating or using of buildings or structures within the City, adjacent to or in the vicinity of the St. Thomas Municipal Airport, for the purposes of ensuring compatibility with Airport operations with the safe operation of the Airport.

WHEREAS the City has entered into an agreement with Her Majesty the Queen in Right of Canada, as represented by the Ministry of Transport, pursuant to section 5.81 of the *Aeronautics Act*, R.S.C., 1985, c. A-2;

AND WHEREAS the City has the authority to enact by-laws for the regulation of land use in the City of St. Thomas, as set out in Section 34 of the Planning Act, R.S.O. 1990, c. P.13;

AND WHEREAS the City wishes to regulate, in the same manner and to the same extent as it may regulate the use of land within its jurisdiction, the use of the lands adjacent to or in the vicinity of the airport for the purpose of ensuring that the use of lands is not incompatible with the safe operation of an airport or aircraft;

AND WHEREAS the By-law, being a Federal regulation, is subject to Federal legislation, such as the *Statutory Instruments Act* (R.S.C., 1985, c. S-22), the *Official Languages Act* (R.S.C., 1985, c. 31 (4th Supp.)) and associates regulations;

AND WHEREAS the Federal Minister has authorized the City, pursuant to section 5.81 of the Aeronautics Act, to regulate, in the same manner and to the same extent as it may regulate the use of lands within its jurisdiction, in accordance with section 34 of the Planning Act, R.S.O. 1990, c. P.13, the use of lands adjacent to or in vicinity of an airport or airport site that are not the subject of regulations made pursuant to subsection 5.4(2) of the *Aeronautics Act*, for the purpose of ensuring that use is not incompatible with the safe operation of an airport or aircraft.

AND WHEREAS Council advertised its intention to consider the provisions of this By-law pursuant to Section 34 of the Planning Act, R.S.O. 1990, c. P.13 and O.REG. 545/06;

AND WHEREAS copies of this By-law and related documents were made available for inspection by the public at the office of the City Clerk as required by the Act;

AND WHEREAS a public meeting was held by Council as required by Section 34 of the Planning Act, R.S.O. 1990, c. P.13 and O.REG. 545/06;

NOW THERFORE THE COUNCIL OF THE CORPORATION OF THE CITY OF ST. THOMAS ENACTS AS FOLLOWS:

1.0 Short Title

1.1 This By-law may be cited as the Airport Zoning Protection By-law.

2.0 Definitions

2.1 **"Act"** means the *Planning Act*, R.S.O. 1990, c. P.13 as amended or replaced from time to time;

2.2 **"Agreement"** means the City's agreement with Her Majesty the Queen in Right of Canada, as represented by the Ministry of Transport, pursuant to section 5.81 of the *Aeronautics Act*, R.S.C., 1985, c. A-2;

2.3 **"Airport"** or **"Airport owned lands"** means the St. Thomas Municipal Airport in the Municipality of Central Elgin in the Province of Ontario and are further defined herein in Appendix "D";

2.4 **"Airport Manager"** means the City employee responsible for the management and operation of the Airport or his or her designate;

2.5 **"Airport Zoning Protection Area"** means the area shown on Figure 1, Index Plan (Appendix "C") affected by zoning regulations for the St. Thomas Municipal Airport being part of the City of St. Thomas and the Municipality of Central Elgin;

2.6 **"Airport Reference Point"** means the point described in Part I of Appendix "A";

2.7 **"Approach Surfaces"** means the imaginary inclined planes more particularly described in Part II of Appendix "A";

2.8 **"Approval Authority'** means for the purposes of an amendment to this By-law means Council, and for the purposes of a minor variance of this By-law means the Committee of Adjustment;

2.9 **"Building"** means a building or structure defined or designated under the Ontario Building Code Act, 1992, S.O. 1992, c.23;

2.10 **"By-law Enforcement Officer"** means a person appointed as a By-law Enforcement Officer pursuant to City of St. Thomas By-laws No. 92-2015, 129-2015, 113-2013, as amended or replaced from time to time;

2.11 **"Chief Building Official, Inspectors"** means the Chief Building Official and such Inspectors appointed by the City under pursuant to Section 3(2) of the Ontario Building Code Act, 1992, S.O. 1992, c.23;

2.12 **"City"** means the Corporation of the City of St. Thomas or where the context requires, the area within the boundaries of the City;

2.13 **"Council"** means the Council of the City;

2.14 **"Object of Natural Growth"** includes trees and shrubs;

2.15 **"Outer Surface"** means an imaginary surface located above and in the vicinity of the Airport, more particularly described in Part III of Appendix "A";

2.16 **"Storm Water Management Facility"** means a facility for the management of the quality and/or quantity of storm water;

2.17 **"Strip Surface"** means a surface associated with an Airport runway, existing or future, that is prepared for the take-off and landing of aircraft in a particular direction, more particularly described in Part IV of Appendix "A";

2.18 **"Transitional Surfaces"** means the imaginary inclined planes more particularly described in Part V of Appendix "A";

2.19 **"Wildlife Hazard Zone"** means the area located in the immediate vicinity of the airport and described in Part VII of Appendix "A";

2.20 **"Zoning Plan(s)"** means the Zoning Plan(s) attached as Appendix "C", St. Thomas Municipal Airport Plan(s) of Lands Affected by Zoning By-law.

3.0 APPLICATION

This By-law applies to all lands within the City, including public road allowances that are adjacent to or in the vicinity of the Airport Zoning Protection Area or directly under an Approach Surface, Outer Surface, Strip Surface or Transitional Surface.

4.0 PURPOSE

The purpose of the Airport Zoning by-law is to prohibit or regulate and control the use of land and the erecting, locating or using of buildings or structures adjacent to or in the vicinity of the St. Thomas Municipal Airport to ensure that the use of land and the erecting, locating or using of buildings or structures is not incompatible with the safe operation of an airport or aircraft.

5.0 BUILDING RESTRICTIONS

No person shall place, erect or construct, or permit the placement, erection or construction, on any land to which this By-law applies, any land use, building, structure or object or any addition to an existing building, structure or object, any part of which would penetrate one of the following surfaces:

(a) Approach Surface;

(b) Outer Surface; or

(c) Transitional Surface.

6.0 INTERFERENCE WITH COMMUNICATION

A person must not use or develop, or permit another person to use or develop, any of the lands under the outer surface in a manner that causes interference with any signal or communication to and from an aircraft or to and from any facility used to provide services relating to aeronautics.

7.0 NATURAL GROWTH

No owner or lessee of land in respect of which these Regulations apply shall permit any part of an object of natural growth that is on the land to grow to a height that exceeds, at the location of that part of the object, the elevation of any surface referred to in section 5.

8.0 WILDLIFE HAZARD

(a) No person shall use or permit or permit another person to use any of the lands for activities or uses that attract wildlife - particularly birds - that may create a hazard for aviation safety.

(b) Despite subsection 8 (a), the City may approve the use of any of the lands as a site for a Storm Water Management Facility.

9.0 NON-CONFORMING USES

9.1 This By-law shall not prevent the use of any land, building or structure for any purpose prohibited by the by-law if such land, building or structure was lawfully used for such purpose on the day of the passing of the by-law, so long as it continues to be used for that purpose; or

prevent the erection or use for a purpose prohibited by the by-law of any building or structure for which a permit has been issued under subsection 8 (1) of the *Building Code Act, 1992*, as amended, prior to the day of the passing of the by-law, so long as the building or structure when erected is used and continues to be used for the purpose for which it was erected and provided the permit has not been revoked under subsection 8 (10) of that Act. R.S.O. 1990, c. P.13, s. 34 (9); 2009, c. 33, Sched. 21, s. 10 (1).

9.2 Subject to section 9.3, the following may continue as they exist as of the date this By-law comes into force provided that any required permits, licenses or other permissions were in place on or before the date this By-law comes into force:

(a) Objects of Natural Growth that penetrate an Approach Surface, Outer Surface, Strip Surface or Transitional Surface;

(b) electronic interference that causes interference with a signal to or from an aircraft or to or from any facility used to provide services to aeronautics;

(c) a use of land, buildings or structures that attract wildlife and that may create a hazard for aviation safety.

9.3 Any:

(a) non-conforming Building;

(b) Object of Natural Growth referred to in subsection 9.2(a);

(c) electronic interference referred to in subsection 9.2(b);

(d) use of land, buildings or structures that attract wildlife and that may create a hazard for aviation safety referred to in section 9.2(c),

shall be deemed non-conforming uses or non-conforming buildings, as the case may be, and may continue only in the manner and to the extent that non-conforming uses and non-conforming buildings are allowed by the *City of St. Thomas Zoning By-law* and the Act.

10.0 ZONING AMENDMENT OR MINOR VARIANCE

10.1 An amendment or minor variance, pursuant to the Act, from this By-law may be granted if the approval authority for an amendment or minor variance determines the request would not be incompatible with the safe operation of the Airport or an aircraft. Prior to granting an amendment or minor variance from this By-law, the approval authority may, at its discretion, consult with the Minister of Transport as permitted by s.3 of the Agreement.

10.2 An applicant for an amendment or minor variance may be required to undertake an aeronautical assessment, according to approved industry standards, in order to make a determination pursuant to section 10.1.

11.0 ADMINISTRATIVE POWERS AND DUTIES

11.1 The City is responsible for administering and enforcing this By-law and in so doing has the authority to create or issue forms, procedures, protocols, requirements and guidelines in relation to this By-law.

11.2 The City may at its sole discretion delegate any or all responsibilities, duties and powers created by this By-law, to any other City employee, including the Chief Building Official.

12.0 ENTRY AND INSPECTION

An enforcement officer appointed by the City may, pursuant to the Act, enter upon any property to which this By-law applies to inspect for the purposes of determining compliance with the provisions of this By-law.

13.0 OFFENCES AND PENALTIES

13.1 Violations and Penalties

Every person

(a) who contravenes any of the provisions of this By-law, or

(b) who is the owner of any land used or of any building or structure erected, altered, enlarged or used in contravention of this By-law, or

(c) who causes or permits any land used or of any building or structure erected, altered, enlarged or used in contravention of this By-law, or

(d) who is the occupant or owner of any land used or of any building or structure erected, altered, enlarged or used in contravention of this By-law

is guilty of an offence and upon conviction liable,

(i) on a first conviction to a fine of not more than $20,000.00, and

(ii) on a subsequent conviction to a fine of not more than $10,000.00 for each day or part thereof during which the contravention has continued after the day upon which there was a first conviction;

provided that if a corporation is convicted under this Subsection 13.1, the maximum penalty that may be imposed is,

(iii) on the first conviction, a fine of not more than $50,000.00, and

(iv) on a subsequent conviction to a fine of not more than $25,000.00 for each day or part thereof during which the contravention has continued after the day upon which the corporation was first convicted.

13.2 Order of Prohibition

When a conviction is entered under Subsection 13.1, in addition to any other remedy or any penalty provided by law, the Court in which the conviction has been entered, and any Court of competent jurisdiction thereafter, may make an order prohibiting the continuation or repetition of the offence by the person convicted.

14.0 Other Action

Nothing herein contained shall prevent the City from taking any such other lawful action as is necessary to prevent or remedy any violation or breach of this By-law.

15.0 Appendices

Appendices "A", "B", "C" and "D" attached to this By-law shall form part of this By-law.

16.0 Coming into Force

This By-law comes into force at the beginning of the day that it is passed.

READ a First and Second time this 8th day of April, 2019.

READ a Third time and FINALLY PASSED this 8th day of April, 2019.

Maria Konefal, City Clerk

Joe Preston, Mayor

APPENDIX "A"

PREAMBLE

In this By-law:

(a) all grid coordinates are in metres (m) and refer to the North American Datum 1883 (NAD83) UTM Zone 17N (CSRS);

(b) all elevation values are in metres (m) and are based on the Canadian Geodetic Vertical Datum 1928 (CGVD28) above mean sea level. 1978 Southern Ontario Adjustment.

APPENDIX "A"

PART I – AIRPORT REFERENCE POINT

The Airport Reference Point is a point located at:

Geodetic Coordinates	N 4735165.20 E 491086.35
Geographic Coordinates[1]	N 42° 46' 08.2797" W 81° 06' 32.2251"
Elevation	235.16 metres Above Mean Sea Level (AMSL)

and shown on Sheet 14 of Appendix D.

The Airport Reference Point assigned elevation of 235.16 metres AMSL is established with reference to the geodetic elevation of the runway strip end closest to Runway Threshold 03.

1 Geographic coordinates are presented in degrees, minutes and seconds of latitude and longitude.

APPENDIX "A"

PART II –APPROACH SURFACES

The Approach Surfaces are imaginary surfaces abutting each end of the Strip Surface surfaces associated with Runways 03-21, 15-33 and 09-27. The Approach Surfaces are described as follows:

(a) an imaginary inclined surface abutting the end of the strip surface associated with runway approach ***09*** and ascending, from an assigned elevation of ***237.40m*** above sea level, at a ratio of 1.00 (ONE) m measured vertically to 50.00 (FIFTY) m measured horizontally, rising to an imaginary horizontal line drawn at right angles to the projected centre line of the Runway Strip surface and distant 15,000.00 (FIFTEEN THOUSAND) m measured horizontally from the end of the strip surface; the outer ends of the imaginary horizontal line being 2,400.00 (TWO THOUSAND FOUR HUNDRED) m from the projected centre line and 300.00 (THREE HUNDRED) m above the assigned elevation at the end of the strip surface associated with runway approach ***09***;

(b) an imaginary inclined surface abutting the end of the strip surface associated with runway approach ***27*** and ascending, from an assigned elevation of ***235.64m*** above sea level, at a ratio of 1.00 (ONE) m measured vertically to 50.00 (FIFTY) m measured horizontally, rising to an imaginary horizontal line drawn at right angles to the projected centre line of the Runway Strip surface and distant 15,000.00 (FIFTEEN THOUSAND) m measured horizontally from the end of the strip surface; the outer ends of the imaginary horizontal line being 2,400.00 (TWO THOUSAND FOUR HUNDRED) m from the projected centre line and 300.00 (THREE HUNDRED) m above the assigned elevation at the end of the strip surface associated with runway approach ***27***;

(c) an imaginary inclined surface abutting the end of the strip surface associated with runway approach ***15*** and ascending, from an assigned elevation of ***236.24m*** above sea level, at a ratio of 1.00 (ONE) m measured vertically to 30.00 (THIRTY) m measured horizontally, rising to an imaginary horizontal line drawn at right angles to the projected centre line of the Runway Strip surface and distant 2,500.00 (TWO THOUSAND FIVE HUNDRED) m measured horizontally from the end of the strip surface; the outer ends of the imaginary horizontal line being 295.00 (TWO NINTY FIVE) m from the projected centre line and 83.33 (EIGHTY THREE DECIMAL THREE THREE) m above the assigned elevation at the end of the strip surface associated with runway approach ***15***; and

(d) an imaginary inclined surface abutting the end of the strip surface associated with runway approach ***33*** and ascending, from an assigned elevation of ***235.17m*** above sea level, at a ratio of 1.00 (ONE) m measured vertically to 30.00 (THIRTY) m measured horizontally, rising to an imaginary horizontal line drawn at right angles to the projected centre line of the Runway Strip surface and distant 2,500.00 (TWO THOUSAND FIVE HUNDRED) m measured horizontally from the end of the strip surface; the outer ends of the imaginary horizontal line being 295.00 (TWO HUNDRED NINTY FIVE) m from the projected centre line and 83.33 (EIGHTY THREE DECIMAL

THREE THREE) m above the assigned elevation at the end of the strip surface associated with runway approach ***33***.

(e) an imaginary inclined surface abutting the end of the strip surface associated with runway approach **03** and ascending, from an assigned elevation of **235.16m** above sea level, at a ratio of 1.00 (ONE) m measured vertically to 20.00 (TWENTY) m measured horizontally, rising to an imaginary horizontal line drawn at right angles to the projected centre line of the Runway Strip surface and distant 2,500.00 (TWO THOUSAND FIVE HUNDRED) m measured horizontally from the end of the strip surface; the outer ends of the imaginary horizontal line being 280.00 (TWO HUNDRED EIGHTY) m from the projected centre line and 125.00 (ONE HUNDRED TWENTY FIVE) m above the assigned elevation at the end of the strip surface associated with runway approach **03**.

(f) an imaginary inclined surface abutting the end of the strip surface associated with runway approach **21** and ascending, from an assigned elevation of **235.46m** above sea level, at a ratio of 1.00 (ONE) m measured vertically to 20.00 (TWENTY) m measured horizontally, rising to an imaginary horizontal line drawn at right angles to the projected centre line of the Runway Strip surface and distant 2,500.00 (TWO THOUSAND FIVE HUNDRED) m measured horizontally from the end of the strip surface; the outer ends of the imaginary horizontal line being 280.00 (TWO HUNDRED EIGHTY) m from the projected centre line and 125.00 (ONE HUNDRED TWENTY FIVE) m above the assigned elevation at the end of the strip surface associated with runway approach **21**.

The elevation of an Approach Surface at any point is equal to the elevation of the nearest point on the centerline of that Approach Surface. The elevation of an Approach Surface centerline is calculated from the elevation of the abutting end of the strip surface, increasing at the constant ratios as provided herein.

APPENDIX "A"

PART III – OUTER SURFACE

The Outer Surface, as shown on the zoning plan, Appendix "C", is an imaginary circular-shaped surface with its centre located at each respective existing or future runway threshold, with a radius of 4000.00 (FOUR THOUSAND) m. The imaginary circular-shaped surfaces are then connected at the tangent points. It is situated at a constant elevation of 45.00 (FOURTY FIVE) m above the Airport Reference Point and 280.16m above sea level at coordinates of Northing 4735165.20 Easting 491086.35, but where that elevation would place the Outer Surface at an elevation of less than 9 (NINE) m above the ground, the Outer Surface will be located at 9 (NINE) m above the ground.

APPENDIX "A"

PART IV – RUNWAY STRIP

The Runway Strip associated with Runway 09-27 is described as follows:

(a) 300.00 min total width, being 150.00 m on either side of the centerline of the runway, commencing 60.00 m to the east of threshold 09 and ending 60.00 m to the west of threshold 27 and having a total length of 1811.64 m.
(b) The 09 end of the Runway Strip has an elevation of237.40 m and the 27 end of the Runway Strip has an elevation of235.64 m.
(c) Threshold 09 has grid coordinates of 4735545.47 North and 490243.67 East and,
(d) Threshold 27 has grid coordinates of 4735691.22 North and 491929.02 East.

The Runway Strip associated with Runway 15-33 is described as follows:

(a) 90.00 min total width, being 45.00 m on either side of the centerline of the runway, commencing 60.00 m to the south of threshold 15 and ending 60.00 m to the north of threshold 33 and having a total length of 1199.24 m.
(b) The 15 end of the runway strip has an elevation of236.24 m and the 33 end of the runway strip has an elevation of235.17 m.
(c) Threshold 15 has grid coordinates of 4735586.15 North and 490892.35 East and,
(d) Threshold 33 has grid coordinates of 4734701.94 North and 491511.15 East.

The Runway Strip associated with Runway 03-21 is described as follows:

(a) 60.00 min total width, being 30.00 m on either side of the centerline of the runway, commencing 30.00 m to the south of threshold 03 and ending 30.00 m to the north of threshold 21 and having a total length of 854.19 m.
(b) The 03 end of the Runway Strip has an elevation of235.16 m and the 21 end of the runway strip has an elevation of235.46 m.
(c) Threshold 03 has grid coordinates of 4734879.66 North and 491485.33 East and,
(d) Threshold 21 has grid coordinates of 4735599.25 North and 491821.37 East.

The elevation of a Runway Strip surface at any point is equal to the elevation of the nearest point on the centerline of that Runway Strip surface.

The elevation of the Runway Strip surface centerline between the runway strip end and the closest Runway Strip threshold is equal to the elevation of the Runway Strip end.

The elevation of the Runway Strip surface centerline between the Runway Strip surface thresholds is calculated using a constant ratio between the elevations of the Runway Strip surface thresholds.

APPENDIX "A"

PART V – TRANSITIONAL SURFACES

Transitional surfaces, shown on the zoning plan, Appendix "C", are imaginary inclined surfaces that extend upward and outward from the lateral limits of the abutting Runway Strip surface and the abutting Approach Surface rising at a ratio of 1.00 (ONE) m measured vertically to 7.00 (SEVEN) m measured horizontally for Runways 09-27 and 15-33 and 1.00 (ONE) m Measured vertically to 5.00 (FIVE) m measured horizontally for Runway 03-21 and perpendicularly to the centerline of each Runway Strip surface or Approach Surface, as the case may be, and continuing to a point where it intersects with the Outer Surface or with the Transitional Surface of an adjoining Runway Strip.

The elevation of the Transitional Surface where it abuts a Runway Strip is equal to the elevation of the nearest point on the centerline of the abutting Runway Strip.

The elevation of the Transitional Surface where it abuts an Approach Surface is equal to the elevation of the nearest point on the centerline of the abutting Approach Surface.

APPENDIX "A"

PART VI – WILDLIFE HAZARD ZONE

Wildlife Hazard Zone, shown on the zoning plan, Appendix "C", is an area of defined proportions, encompassing the primary bird hazard zones associated with Runways 09, 27, 15, 33, 03 and 21.

The area is described as follows:

(a) The wildlife hazard zone, as shown on the zoning plan, Appendix "C", is an area bounded by points of Northing and Easting overlaying the surface of the earth, commencing at a point WHA-1 having a coordinate of Northing 4732481.57 Easting 501240.20

Thence North 82°24'51" West 6500.28 metres to point WHA-2 having a coordinate of Northing 4733339.69 Easting 494796.81

Thence South 55°00'51" West 3366.09 metres to point WHA-3 having a coordinate of Northing 4731409.66 Easting-492039.00

Thence South 6°35'51" West 95.09 metres to point WHA-4 having a coordinate of Northing 4731315.20 Easting 492028.08

Thence North 64°58'03" West 82.11 metres to point WHA-5 having a coordinate of Northing 4731349.94 Easting 491953.68

Thence South 55°00'51" West 440.60 metres to point WHA-6 having a coordinate of Northing 4731097.32 Easting 491592.70

Thence North 16°33'04" West 510.22 metres to point WHA-7 having a coordinate of Northing 4731586.39 Easting 491447.36

Thence North 64°58'03" West 3234.61 metres to point WHA-8 having a coordinate of Northing 4732955.05 Easting 488516.58

Thence South 72°31 '42" West 7228.26 metres to point WHA-9 having a coordinate of Northing 4730784.88 Easting 481621.80

Thence North 4°56'34" West 8000.00 metres to point WHA-10 having a coordinate of Northing 4738755.13 Easting 480932.49

Thence South 82°24'51" East 7845.07 metres to point WHA-11 having a coordinate of Northing 4737719.48 Easting 488708.90

Thence North 55°00'51" East 2565.69 metres to point WHA-12 having a coordinate of Northing 4739190.58 Easting 490810.95

Thence South 16°33'04" East 1189.64 metres to point WHA-13 having a coordinate of Northing 4738050.23 Easting 491149.84

Thence North 06°35'51" East 1120.91 metres to point WHA-14 having a coordinate of Northing 4739163.72 Easting 491278.63

Thence South 64°58'03" East 2301.79 metres to point WHA-15 having a coordinate of Northing 4738189.76 Basting 493364.21

Thence North 72°31 '42" East 7534.28 metres to point WHA-16 having a coordinate of Northing 4740451.82 Basting 500550.90

Thence South 04°56'34" East 8000.00 metres to the point of commencement, being point WHA-1.

APPENDIX "B"

PARAMETERS FOR ST. THOMAS MUNICIPAL AIRPORT ZONING REGULATION

RUNWAY	**09**	**27**
Code Number & Letter	3C	3C
Runway Type	IP	IP
Runway end elevation above sea level	237.40 m	235.64 m
Runway length	1,691.64 m	1,691.64 m
Strip length Strip width	1,811.64 m* 300 m	1,811.64 m* 300 m
Distance runway end to inner edge of approach surface	60 m	60 m
Length of inner edge each side of runway centerline	150 m	150 m
Approach Surface divergence	15 %	15 %
Approach Surface length	15,000 m	15,000 m
Approach Surface slope	2.0 %	2.0 %
Transition Surface slope	14.2857 %	14.2857 %
PAPI OPS (If requested by Airport Operator)	-- m	-- m

*Strip provides protection for the possible future extension of Runway 27 by 164.23 m.

RUNWAY	**15**	**33**
Code Number & Letter	2A	2A
Runway Type	NP	NP
Runway end elevation above sea level	236.24 m	235.17 m
Runway length	1,079.24 m	1,079.64 m
Strip length Strip width	1,199.24 m* 90 m	1,199.24 m* 90 m
Distance runway end to inner edge of approach surface	60 m	60 m
Length of inner edge each side of runway centerline	45 m	45 m
Approach Surface divergence	10 %	10 %
Approach Surface length	2,500 m	2,500 m
Approach Surface slope	3.33 %	3.33 %
Transition Surface slope	14.2857 %	14.2857 %
PAPI OPS (If requested by Airport Operator)	-- m	-- m

*Strip provides protection for the possible future extension of Runway 15 by 76.84 m and Runway 33 by 207.02 m.

RUNWAY	03	21
Code Number & Letter	1A	1A
Runway Type	NI	NI
Runway end elevation above sea level	235.16 m	235.46 m
Runway length	794.19 m	794.19 m
Strip length Strip width	854.19 m* 60 m	854.19 m* 60 m
Distance runway end to inner edge of approach surface	30 m	30 m
Length of inner edge each side of runway centerline	30 m	30 m
Approach Surface divergence	10 %	10 %
Approach Surface length	2,500 m	2,500 m
Approach Surface slope	5.0 %	5.0 %
Transition Surface slope	20 %	20 %
PAPI OPS (If requested by Airport Operator)	-- m	-- m

Outer Surface radius	4,000 m based on existing and-or future runway thresholds
Outer Surface height above Airport Reference Point	45 m, except when terrain rises to a height less than 9 m below the outer surface elevation, in which case natural growth is limited to 9 m AGL (to be determined in consultation with the local forestry authority)
Airport Reference Point assigned elevation above sea level	235.16 m
Area for Natural Growth Clause to apply	Approach, transitional, and outer surfaces
Area for Interference with Communications Clause to apply	(to be determined by NavCanada) Contact: George Donovan, In-House General Counsel NavCanada, 77 Metcalfe Street, Ottawa Tel: 613-563-7737; Fax: 613-563-3357 Email: donovagnavcanada.ca Mr. Donovan handles ASFA agreements and restrictive covenants that either flow from ASFA`s or are related to a particular airport. He will coordinate with the applicable technical sections in NavCan to determine the area that this clause should apply.
Bird Hazard Zone(s) for Bird Hazards Clause to apply:	
Standard	Primary BHZ from Safety Above All (from parameters on next page)

PRIMARY BHZS generally enclose airspace in which aircraft are at or below altitudes of 1500 feet AGL (above ground level). These are the altitudes most populated by hazardous birds, and at which collisions with birds have the potential to result in the greatest damage.

SECONDARY BHZS are buffers that account for:
- variables in pilot behaviour and technique;
- variations in departure and arrival paths that are influenced by environmental conditions, ATC (air traffic control) requirements, IFR versus VFR flight, etc.; and
- unpredictability of bird behaviour, and variations in bird movements around specific land uses.

SPECIAL BHZS, though often distant from airports, may regularly attract potentially hazardous species across primary or secondary zones (see Step 2).

STEP 1: ESTABLISH PRIMARY AND SECONDARY BIRD HAZARD ZONES (BHZS)

A. Draw lines parallel to, and 2 kms' on each side of, the full length of all runway centerlines. *(Lines "A" in Figure 2)*

B. Draw an extended centerline 9 km in length from the approach and departure ends of all runways. *(Lines "B" in Figure 2)*

C. Draw lines perpendicular to, and 4 km from each side of the ends of, extended runway centerlines. *(Lines "C" in Figure 2)*

D. Join the ends of lines A and C on each side of all runway centerlines to define the airport's primary bird-hazard zone. *(Lines "D" in Figure 3)*

E. Establish the airport's secondary bird-hazard zone by creating a boundary 4 km beyond the edges of the primary BHZ. *(Dotted line in Figure 4)*

FIGURE 2

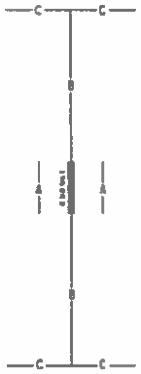


FIGURE 3

FIGURE 4

Note that the size of specific zones is dictated in part by aircraft types and the manoeuvering area encompassed in circuit patterns. For the purposes of this overview, size has been set arbitrarily to accommodate FAR 25 transport-category aircraft.

APPENDIX C - AIRPORT

ST. THOMAS MUNICIPAL AIRPORT ZONING PLAN

Zoning Map or Map Parts

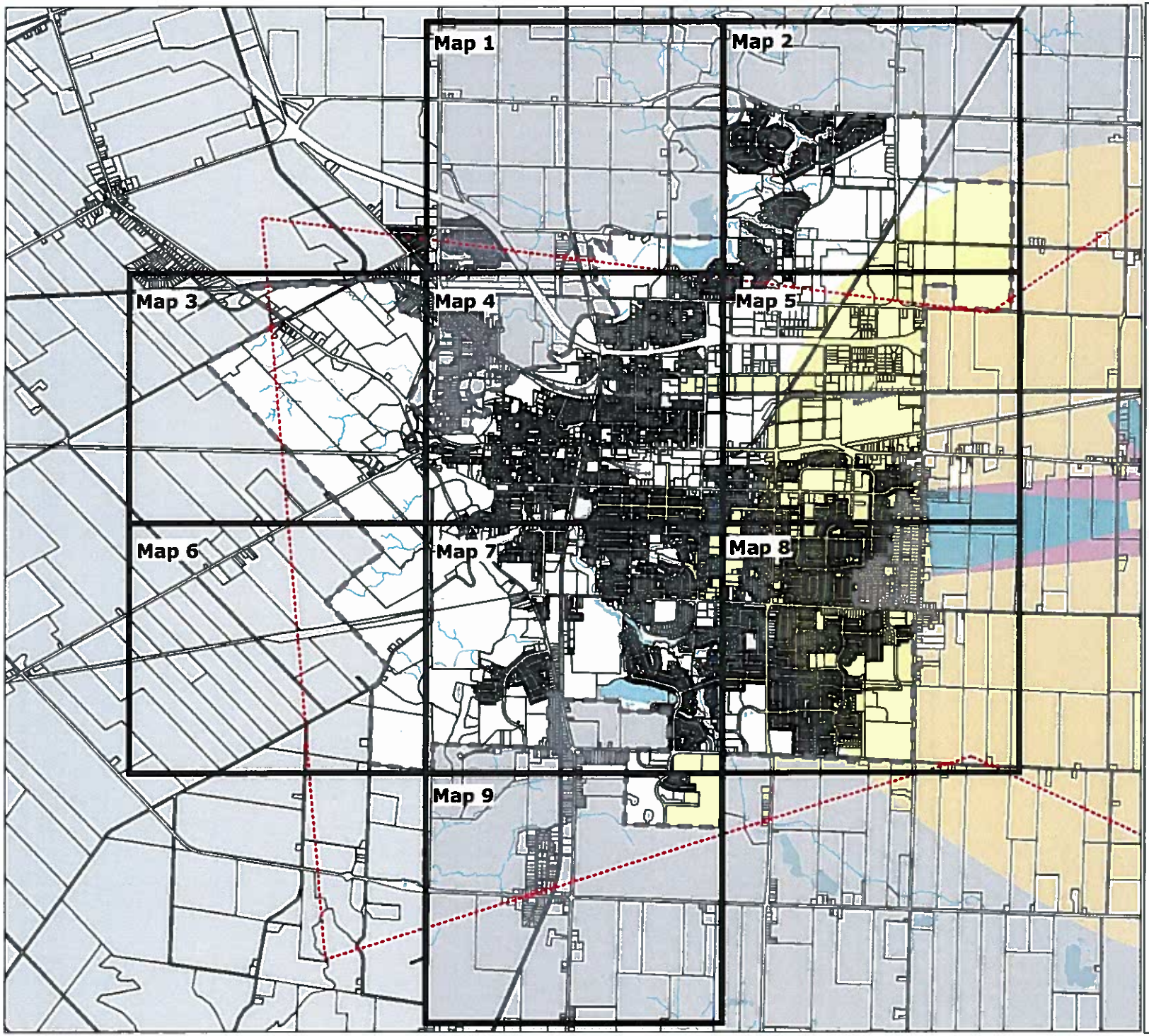
APPENDIX D - AIRPORT

ST. THOMAS MUNICIPAL AIRPORT LEGAL DESCRIPTION

The St. Thomas Municipal Airport is located 3 Kilometres East of the City of St. Thomas, with an Airport Reference Point (ARP) at coordinates Northing 4735165.202, Basting 491086.35, and includes the following lands:

All and Singular that certain parcel or tract of land and premises, situate, lying and being in the Municipality of Central Elgin and Province of Ontario and being composed of the following:

CON 8 LOTS 16, 17 & PT LOT 18; RP 11R165 PARTS 1 TO 12.



City of St. Thomas Airport Zoning Map Index

Legend

- APPROACH SURFACE
- TRANSITIONAL SURFACE
- STRIP
- OUTER SURFACE
- RUNWAY EXTENSION
- RUNWAY
- Map Lines
- RUNWAY CENTRE LINE
- ELEVATION
- WILDLIFE HAZARD ZONE
- MUNICIPAL BOUNDARY

THE OUTER SURFACE IS A COMMON PLANE ESTABLISHED AT A CONSTANT ELEVATION OF 45 METRES ABOVE THE ASSIGNED ELEVATION OF THE AIRPORT REFERENCE POINT.

THE AIRPORT REFERENCE POINT HAS AN ASSIGNED ELEVATION OF 235.16 METRES ABOVE MEAN SEA LEVEL. MEAN SEA LEVEL IS REPRESENTED BY THE CANADIAN GEODETIC DATUM.

NAD83 UTM ZONE 17N (CSRS) 6d ZONE WIDTH GRID AND CO-ORDINATES ARE COMPUTED, CENTRAL MERIDIAN OF 81d WEST AND ALL BEARINGS SHOWN HEREON ARE RELATED THERETO.

ALL DISTANCES SHOWN ARE GROUND DISTANCES AND MAY CONVERTED TO GRID BY MULTIPLYING THE COMBINED SCALE FACTOR OF 0.9996.

ST. THOMAS
THE RAILWAY CITY

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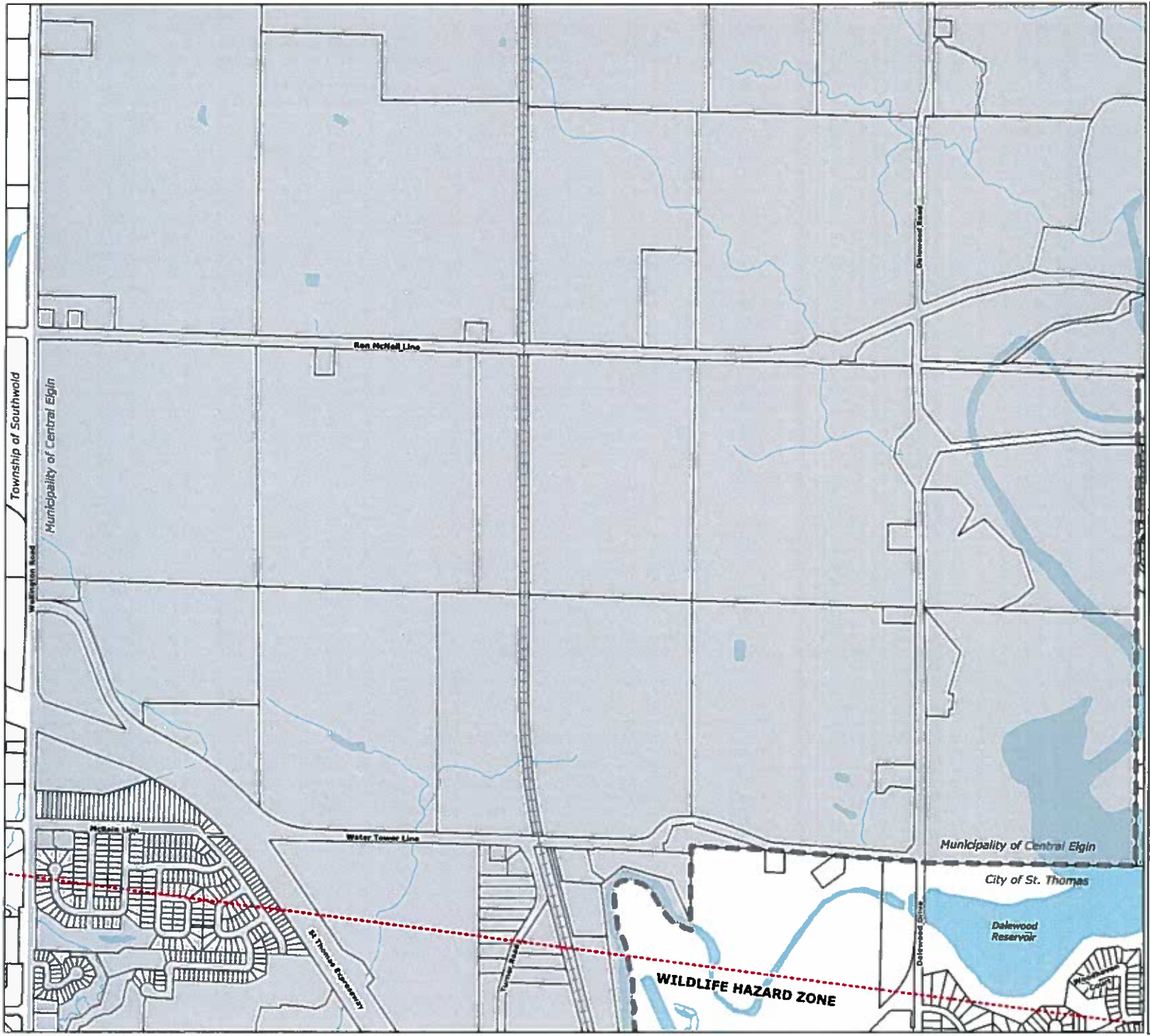

City of St. Thomas Airport Zoning Map 1

Legend

- APPROACH SURFACE
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- STRIP
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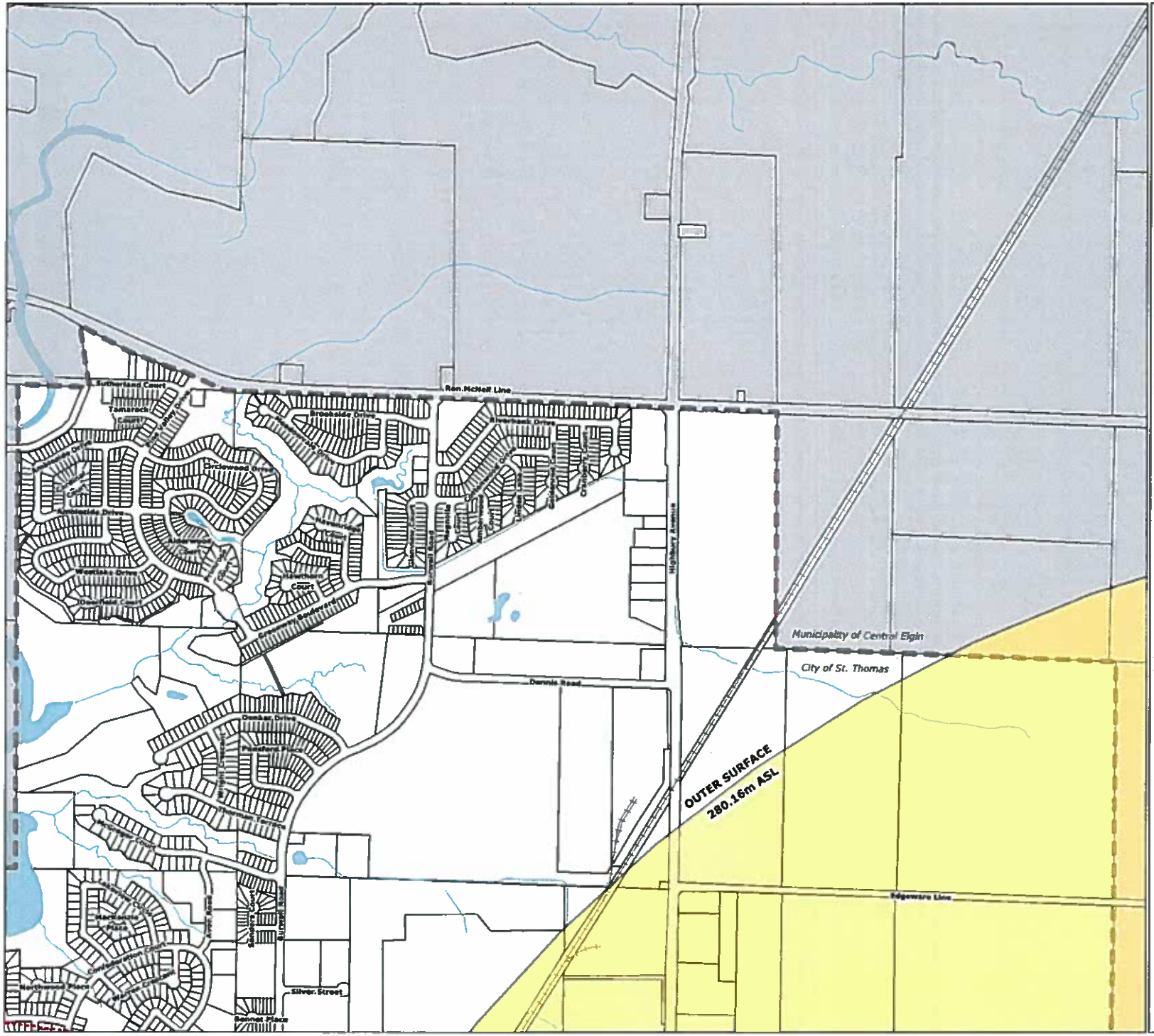

City of St Thomas Airport Zoning Map 2

Legend

- APPROACH SURFACE
- TRANSITIONAL SURFACE
- STRIP
- OUTER SURFACE
- RUNWAY EXTENSION
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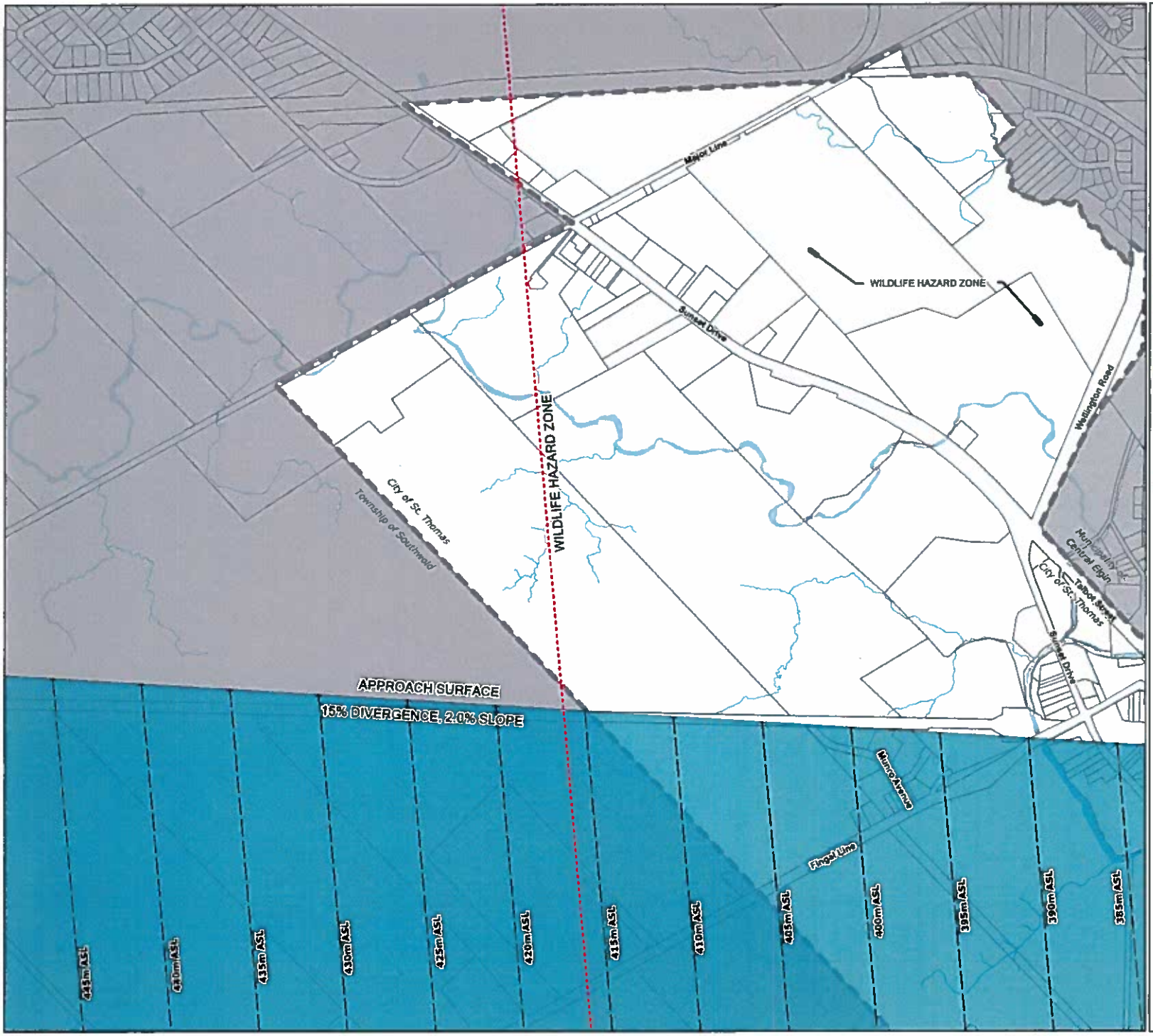
April 2019



City of St Thomas Airport Zoning Map 3

Legend

- APPROACH SURFACE
- TRANSITIONAL SURFACE
- STRIP
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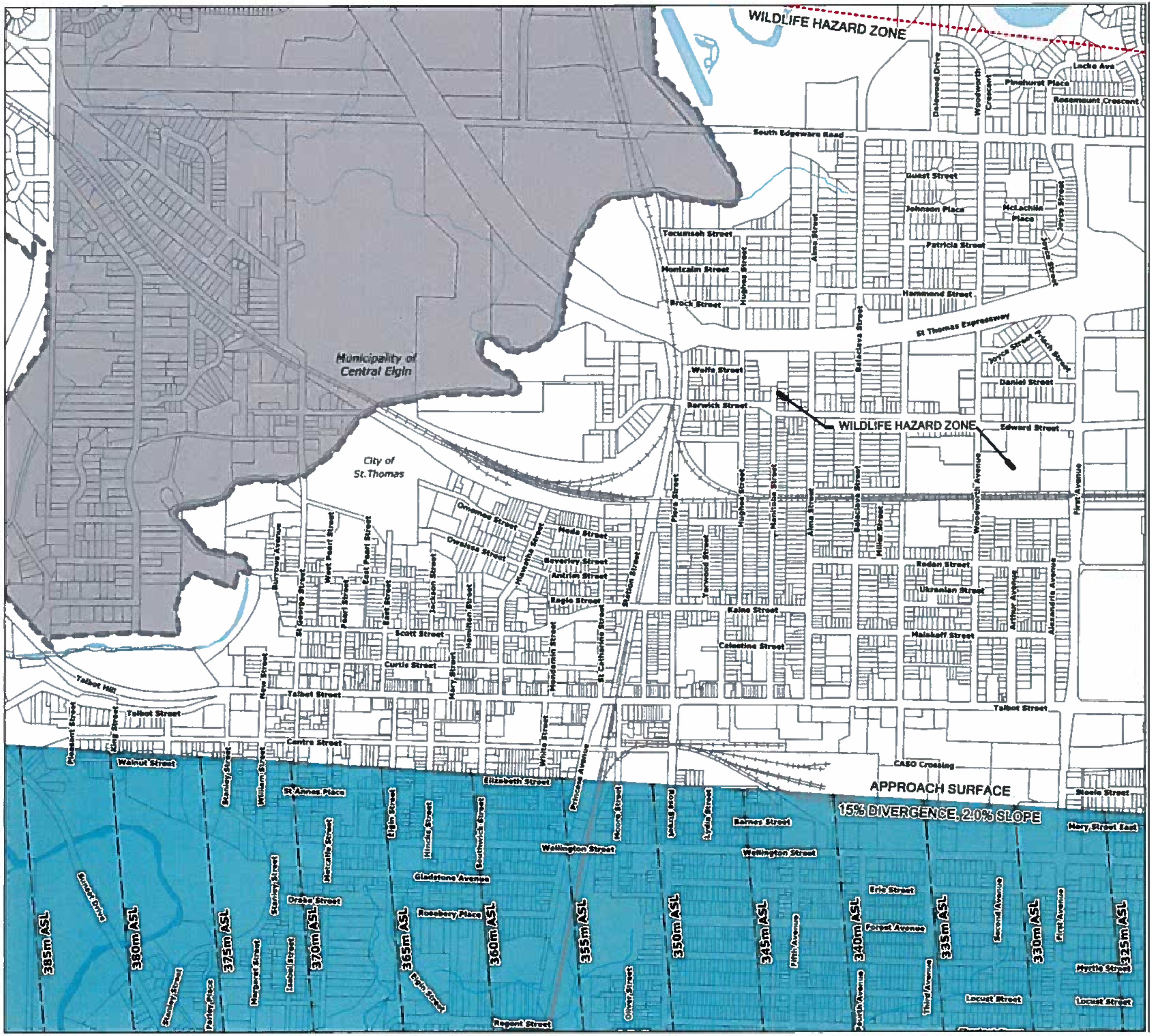

City of St Thomas Airport Zoning Map 4

Legend

- APPROACH SURFACE
- TRANSITIONAL SURFACE
- STRIP
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April 2019

City of St Thomas Airport Zoning Map 5

Legend

- APPROACH SURFACE
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Meters
April 2019

City of St Thomas Airport Zoning Map 6

Legend

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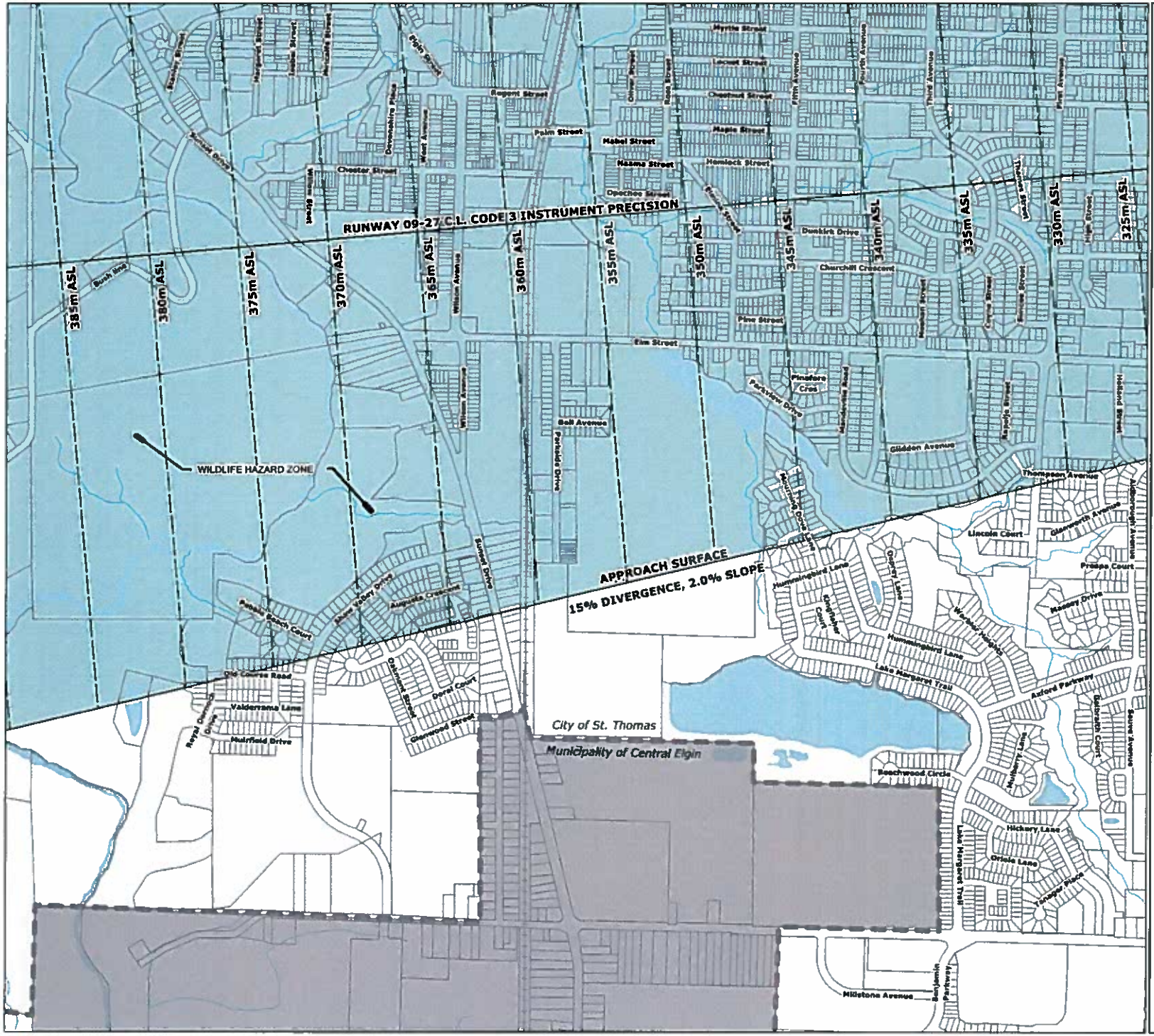

City of St Thomas Airport Zoning Map 7

Legend

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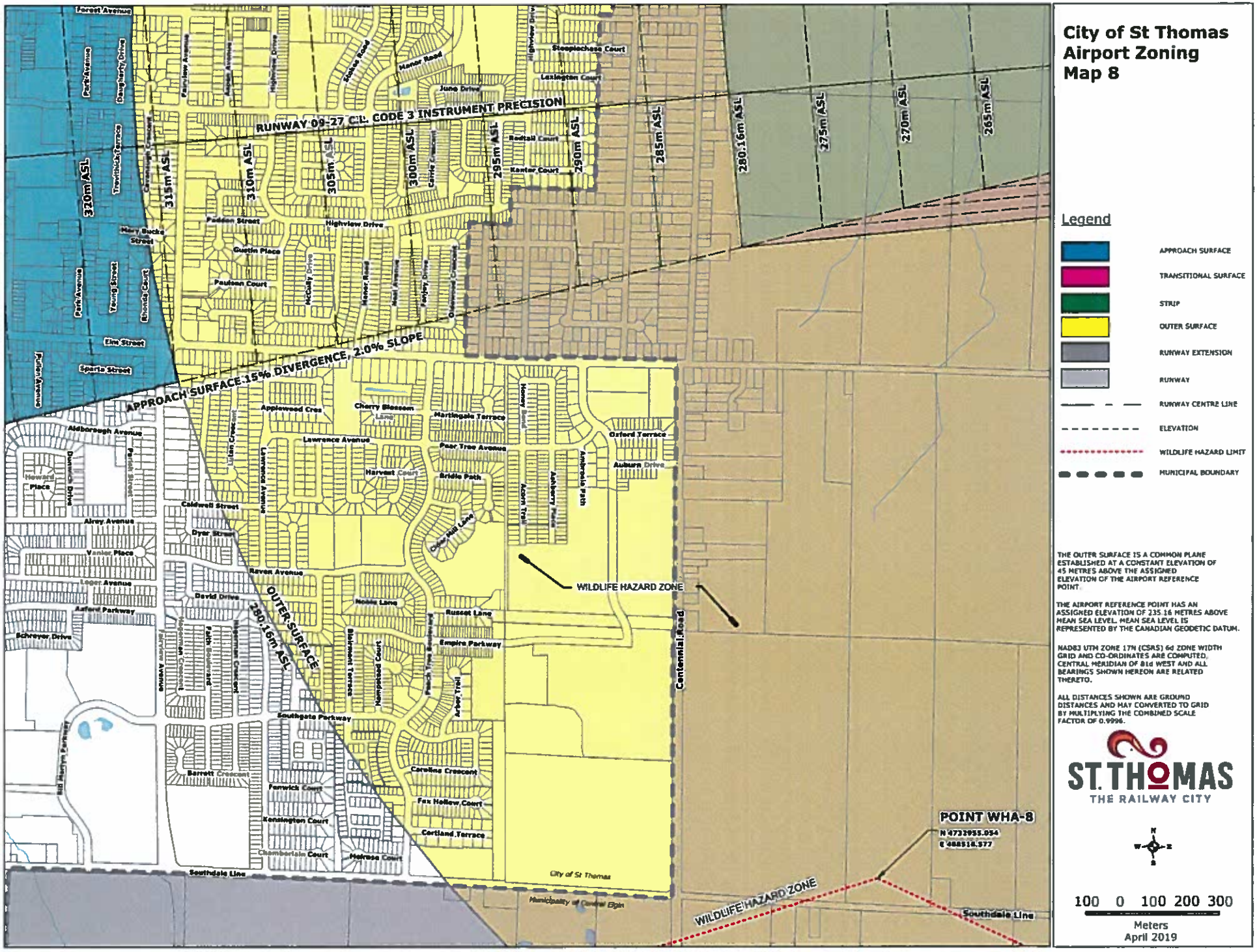

City of St Thomas Airport Zoning Map 8