

REPORT NO. 370 of the
ENVIRONMENT, TRANSPORTATION & PUBLIC SAFETY
STANDING COMMITTEE
of its meeting held March 23, 2016

Present: Councillor Chris Holt
Councillor Fred Francis
Councillor Bill Marra (Chair)
Councillor Hilary Payne
Councillor Paul Borrelli

That the following recommendations of the Environment, Transportation and Public Safety Standing Committee **BE APPROVED**:

Moved by Councillor Francis, seconded by Councillor Borrelli,

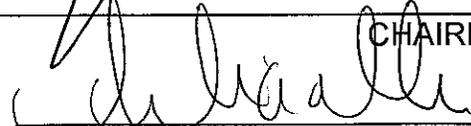
- I. That **Schedule A** –Executive Summary of the Windsor International Airport – Airport Zoning Regulations Discussion Paper, prepared by Tetra Tech dated August 2014 **BE RECEIVED**.
- II. That the recommendation to proceed with the steps required to amend the Airport Zoning Regulations (AZR) for the Windsor International Airport as outlined in Option 3 in the Airport Zoning Regulation Discussion Paper dated August 2014 **BE ENDORSED**.
- III. That the Chief Administrative Officer and the City Clerk **BE AUTHORIZED** to sign an Agreement for consulting services to complete the AZR project, and any other agreements that may be required to bring effect to this resolution, subject to the Agreement(s) being satisfactory in form to the City Solicitor, in financial content to the City Treasurer and in technical content to the City Engineer.
Carried.
Councillor Marra was absent when the vote was taken on this matter.

S 61/2016 APM/12473

Clerk's Note: The report of the City Engineer dated March 10, 2016 entitled "*Windsor International Airport – Airport Zoning Regulations*" is **attached** as background information.

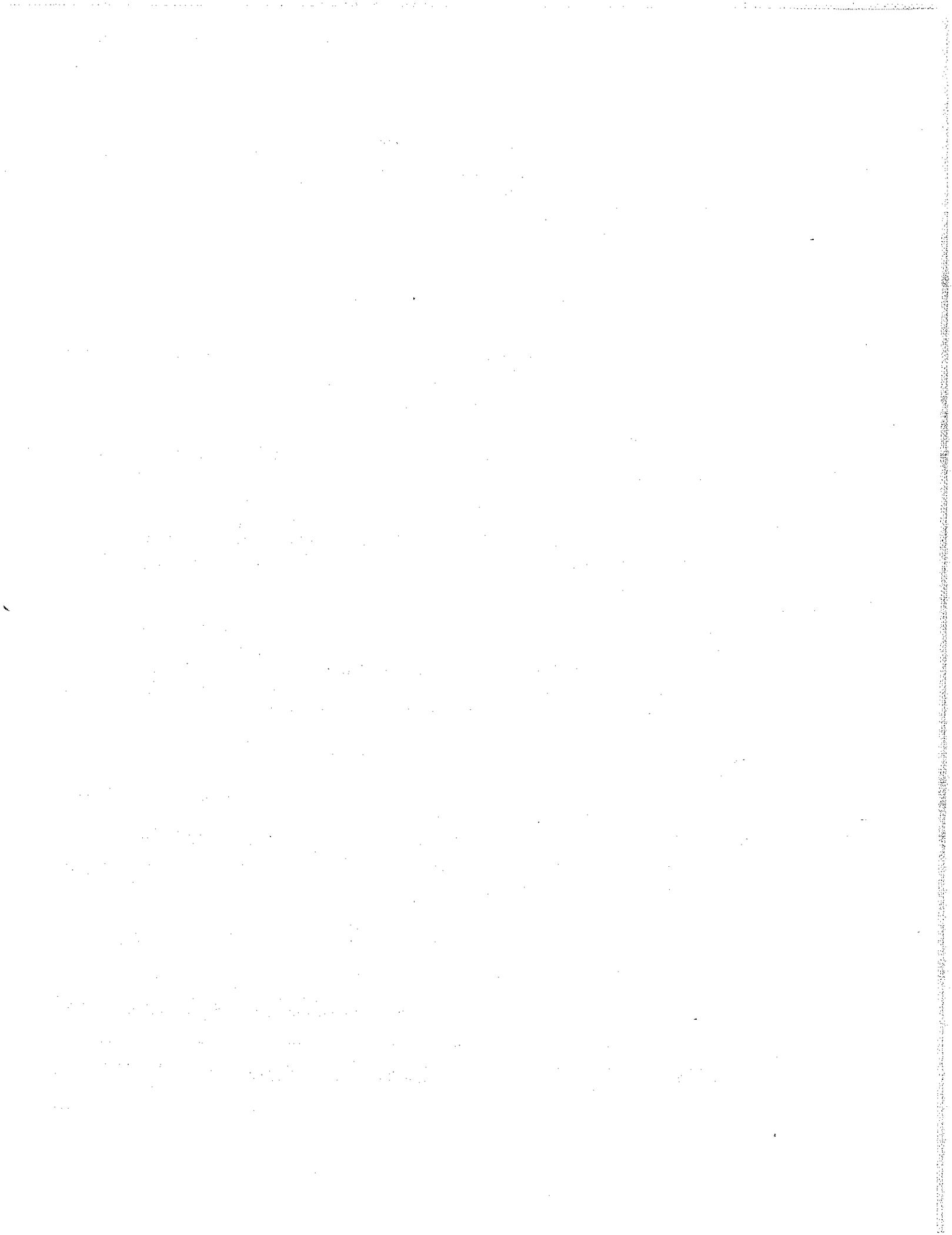


 CHAIRPERSON



 SUPERVISOR OF COUNCIL SERVICES

NOTIFICATION:	
NAME	CONTACT INFORMATION





Development, Projects & Right-of-Way

MISSION STATEMENT

"Our City is built on relationships – between citizens and their government, businesses and public institutions, city and region – all interconnected, mutually supportive, and focused on the brightest future we can create together"

REPORT #: S 61/2016	Report Date: 3/10/2016
Author's Contact: Carolyn Brown France Isabelle-Tunks (519) 969-2430 x420 (519) 255-6100 x6402 cbrown@citywindsor.ca ftunks@citywindsor.ca	Date to Council: March 23, 2016
	Clerk's File #: APM/12473

To: Mayor and Members of City Council

Subject: Windsor International Airport - Airport Zoning Regulations - Ward 10

RECOMMENDATION:

- I. That **Schedule A** –Executive Summary of the Windsor International Airport – Airport Zoning Regulations Discussion Paper, prepared by Tetra Tech dated August 2014 **BE RECEIVED**.
- II. That the recommendation to proceed with the steps required to amend the Airport Zoning Regulations (AZR) for the Windsor International Airport as outlined in Option 3 in the Airport Zoning Regulation Discussion Paper dated August 2014 **BE ENDORSED**.
- III. That the Chief Administrative Officer and the City Clerk **BE AUTHORIZED** to sign an Agreement for consulting services to complete the AZR project, and any other agreements that may be required to bring effect to this resolution, subject to the Agreement(s) being satisfactory in form to the City Solicitor, in financial content to the City Treasurer and in technical content to the City Engineer.

EXECUTIVE SUMMARY:

N/A

BACKGROUND:

Airport Zoning Regulations (AZRs) for an airport are similar to land zoning for properties in that they provide the parameters for allowable uses of land. AZRs provide regulations related to the air space above and surrounding an airport and its associated runways in order to ensure the safe operations of aircraft. AZRs are governed by Transport Canada, used by Nav Canada and implemented by the airport authority (YQG).

The current AZRs for Windsor International Airport were adopted in the late 1960s and deposited with the Registry Office on January 7, 1970. To date these AZRs have not been amended. Since 1970, there have been significant changes to airport operations such as the conversion of Runway 02-20 to Taxiway Foxtrot and the extension of Runway 25. In addition, Transport Canada has introduced new regulations to enhance aircraft safety such as the requirement to include the 18.3 m (60ft) critical end strip, extending the runway approaches from 3,050m to 15,000 m and to include environmental elements as vertical obstructions. As a result, the current AZRs are out-of-date and require amendments.

Tetra Tech, an aeronautic consultant, was engaged to review the process of implementing a new AZR for Windsor International Airport and to determine whether given the transfer of ownership from Transport Canada to the City, any efficiencies could be realized by using the existing city planning policies i.e. the City's Official Plan.

DISCUSSION:

Tetra Tech undertook a review of the current AZRs in combination with the current operations at the airport, applying the future development of the airport as outlined in the Airport Master Plan and the existing obstacles in the vicinity. The full analysis resulted in the following three options:

- **Option 1:** Status Quo (AZRs from January 7, 1970) – This option would leave the existing AZR plan in place with no amendments.
- **Option 2:** Current Operations – This option would align the AZRs with the current operating procedures.
- **Option 3** – Current Operations plus providing for future development – This option would align with current operating procedures and would protect the air space for future growth of the airport (i.e. extension of Runway 25).

Tetra Tech recommends Option 3. This option would provide accurate AZRs that incorporate:

- The current displaced thresholds due to fixed obstacles (i.e. hydro towers, houses) and the removal of other obstacles (i.e. treetops);
- The elimination of Runway 02-20 that will provide some relief to land development and the future extension of Runway 25;
- The new regulatory restrictions in terms of bird hazards, disposal of waste and interference with signal and communications to/from aircraft.

Tetra Tech's scope of work included a review of the submission procedure to Public Works Canada to determine if the AZR process could be included as part of the City's Official Plan; thereby, reducing the legal costs (i.e. gazetting and registering on title). Unfortunately, because the airport's original AZRs were undertaken by Transport Canada and the changes to update the airport's AZR have been deemed substantial, a full replacement of the AZR is required.

The estimated timeline to prepare and implement new AZRs is approximately 1-3 years at an estimated upset limit of \$400,000. The following information is provided from the discussion paper;

1. The Executive Summary (**Schedule 'A'**),
2. The AZR Process and Estimated Costs ("**Schedule B**") and
3. The Step-by-Step Process and Approximate Timelines ("**Schedule C**").

It should be noted that the regulations governing the new AZRs will be far reaching in terms of distance as the protected runway approaches would extend into the Town of LaSalle and the Town of Tecumseh. These municipalities have been notified and will receive regular updates on the progress of the AZR Project.

RISK ANALYSIS:

Risk Description	Impacted Objective(s)	Risk Level	Mitigating Strategy / Status	Responsibility
<p>The current AZRs are out of date and there are impacts that affect the current operations of the airport and surrounding areas</p>	<p>These impacts include development restrictions in place that are no longer required; the permanent displacement thresholds on runways (limit use of the full runway) which are noted in the airport's annual audit with Transport Canada as an area of action; and the delay of improvements to lighting and landing controls for Runway 07.</p>	<p>Significant</p>	<p>Updating the AZRs will reduce the impacts to airport operations by eliminating the requirement for displaced thresholds, provide opportunity for grant funding, and relieve height restrictions on some areas.</p>	<p>City and YQG</p>
<p>Any obstacle protruding into the ceiling approach is considered a risk to aircraft and is considered a violation by Transport Canada.</p>	<p>The following obstacles currently breach the height requirements of the existing AZRs: hydro pole lines, dwellings on Riberdy Road. In addition, there may be impacts caused by future improvements. The goal is to minimize the impact to future development and further preserve airport operations.</p>	<p>Significant</p>	<p>The airport operates with displaced thresholds caused by fixed objects and works diligently to remove/prevent/control any other obstacles (i.e. trees) as required by Transport Canada. This operation will continue; however,</p>	<p>YQG</p>

			it is noted that the existing obstacles have been grandfathered and any new construction must meet AZR requirements, including hydro poles along Walker Road.	
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FINANCIAL MATTERS:

In 2005 Council approved a budget of \$190,000 for the initial phase of the Airport Zoning Study (Project # 7051024). As a result of the study findings, a full replacement of the AZR is required. The Consultant of record completed a detailed estimate which outlines the additional cost to complete the new AZRs will range from \$250,000 to \$400,000, depending on the availability of mapping and legal costs. It will take approximately 3 years to complete the new AZRs. A full replacement of the AZR was not anticipated during the development of the original budget.

At its meeting held on June 30th 2015, the YQG Board of Directors approved the following resolution;

*"That the Board **DIRECTED** YQG administration to request a reallocation of capital funding of up to \$270,000 from the enhanced capital budget to the AZR project."*

Subsequently, at its November 24th, 2015 meeting, the Airport Capital Coordinating Committee further approved the reallocation of \$270,000 from the Airport enhanced capital budget to fund the balance of the AZR project and will further re-prioritize the balance of the capital works.

With the additional \$270,000 in funding, the project has a current budget of \$460,000. To date, roughly \$60,000 has been spent, leaving \$400,000. It is anticipated that these remaining funds are sufficient to complete the required work.

CONSULTATIONS:

Steve Tuffin, Director of Operations, Your Quick Gateway (Windsor) Inc

Thom Hunt, City Planner

Wira Vendrasco, Deputy City Solicitor

CONCLUSION:

YQG and City administration recommend proceeding with the development and implementation of a new Airport Zoning Regulation based on Option 3 for the Windsor International Airport. The updated AZRs will provide the airport and the city with additional direction and clarity for future developments and business opportunities in that area.

Option 3 as recommended by Tetra Tech addresses both the current operational requirements and the future expansion of the airport while relieving some development restrictions in the vicinity of the airport. There is sufficient funding in the budget to proceed with the initial phase of Option 3.

PLANNING ACT MATTERS:

N/A

APPROVALS:

Name	Title
France Isabelle-Tunks	Senior Manager, Development, Projects & ROW/ Deputy City Engineer
Carolyn Brown	Chief Executive Officer Your Quick Gateway & Windsor Detroit Tunnel Corporation/ Corporate Leader Transportation Services
Mark Winterton	City Engineer and Corporate Leader

Name	Title
	Environmental Protection and Transportation
Onorio Colucci	Chief Financial Officer/City Treasurer and Corporate Leader Finance and Technology
Helga Reidel	Chief Administrative Officer

NOTIFICATIONS:

Name	Address	Email

APPENDICES:

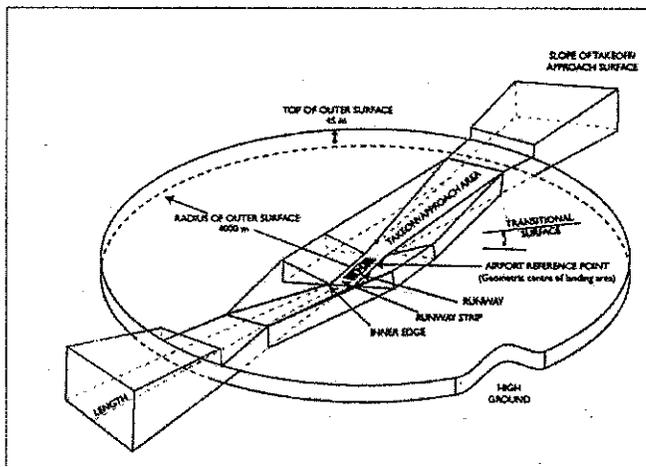
APPENDICES:
Schedule A – Executive Summary, Windsor International Airport, Airport Zoning Regulations Discussion Paper, August 12, 2014
Schedule B - The AZR Process and Estimated Costs
Schedule C - The Step-by-Step Process and Approximate Timelines

EXECUTIVE SUMMARY

In Canada, the *Aeronautics Act* is an Act to authorize the control of aeronautics, and in particular, Airport Zoning Regulations (AZRs) which prevent lands adjacent to, or in the vicinity of airports, being used or developed in a manner that is incompatible with the safe operation of an airport or aircraft. These regulations address the height of objects and buildings, the interference with signals or communications to and from aircraft and other hazards associated with safe aircraft operations. In principle, the AZRs permit the Minister to direct an owner or occupier of a property to remove obstacles and natural growth that could interfere with airport operations.

Obstacle Limitation Surfaces (OLS) are a requirement of Airport Certification and establish the limits to which objects may project into the airspace associated with an airport, such that aircraft operations may be conducted safely. OLS surfaces include takeoff/approach surfaces, transitional surfaces and an outer surface as illustrated in the following figure for a typical airport.

The OLS within the airport property boundary are generally controlled by the airport and protected through appropriate planning and development controls. Beyond the airport property, the protection of the OLS surfaces becomes more tenuous as it involves the support and participation of the local municipality and/or other levels of government to enforce height restrictions. Since the Windsor International Airport is owned by the City of Windsor, it would appear straightforward that the City would protect for those lands within the city limits using the City's development approval process. However, the OLS also extends beyond the City limits into the municipalities of Tecumseh and Lasalle.



This is where Federally enacted zoning controls, such as AZRs are important to airport operations.

AZRs can be implemented and/or amended through a Federal Process which was undertaken by Transport Canada for airports under its control, or a Federal/Provincial Process whereby the federal government may enter into an agreement with a provincial authority to regulate the use of lands. However, the Federal/Provincial Process cannot be used at an airport that has Federal Airport Zoning Regulations already in effect, as is the case with the Windsor International Airport.

The current AZRs were enacted in the late 1960's and are based on infrastructure that was in place at that time, including 3 operational runways. Since then, the airfield and surrounding communities have undergone several changes including Runway 02/20 converted to Taxiway Foxtrot and Runway 07/25 lengthened at the 25 end.

Some encroachment to the runway approaches has also emerged over the years. The reasons for how this occurred are unknown given the long history of the airport and as a result, the airport now operates with displaced thresholds to accommodate various encroachments.

The City is now examining the options for amending the AZRs to reflect changes that have taken place and for future operational requirements identified in the Airport Master Plan.

Windsor Airport Aeronautical Zoning

Tetra Tech was requested by the City to prepare a discussion paper on the AZRs, and in particular provide a review of the following main tasks:

- identify the airport's current operating requirements and constraints;
- determine an approach to protect for future airport operations;
- recommend the preferred process by which to amend the existing Airport Zoning Regulations; and
- identify a mechanism by which municipal by-laws can be used to monitor and control development in the vicinity of the airport.

As part of Tetra Tech's review, 3 options were discussed with City and Airport staff, and summarized in the discussion paper as follows:

Option 1 – a status quo option that leaves the existing AZRs in their current state.

Option 2 – an option to amend the AZRs to reflect current takeoff / approach surfaces, operations and threshold displacements. However, this option does not allow for future developments.

Option 3 – this option is a compromise taking into account the current takeoff / approach surfaces and displaced thresholds, protection for a future Runway 25 extension and associated development, current obstacles that could be removed, a future precision approach for Runway 07, and potentially new thresholds.

It is understood that the current airport operating limits and the requirement for displaced thresholds will likely remain for the current runway configurations. However, some effort to protect for the extension of Runway 25 and a precision approach to Runway 07 is a realistic expectation. Based on a review of each option, discussions with the City and Airport staff, and correspondence with Transport Canada, **Option 3** was selected as providing the most benefit to the City and Airport both in the short term, and for long term operations and development opportunities.

The following are general comments regarding the proposed changes to the AZR based on Option 3.

- The current AZR location and presence of hydro poles on the approach to Runway 25 restrict the use of the full length of the runway for landing operations. If full operations are required on the existing runway, or if this runway is to be extended in the long term, a negotiated settlement to remove the poles will be required. Therefore, if the AZR is to be revised to protect for the current runway length, it should also protect for a future runway extension.
- Maintaining the location of the AZR for Runway 12 allows for the removal or reduction of the displaced threshold, and the potential for a precision approach should the CN Rail spur be removed which may in turn allow the relocation of the Runway 25 localizer and obstacles in the surface.
- It offers some relief to adjacent lands for additional development in the vicinity of the airport.
- Removing zoning restrictions for the old Runway 02-20 will potentially allow development within the City that previously had height restrictions due to the TO/A surfaces.
- A revised AZR would allow for new regulatory restrictions in terms of bird hazards, disposal of waste and interference with signal or communications to/from aircraft.
- Protection of the TO/A surface would be extended from the current 3,050m (10,000ft) to 15,000m.

In consultation with Transport Canada, the above changes are considered substantive, and the AZR amendment process should be for a full replacement. Details of the AZR amendment process, timelines and estimated costs are outlined in Section 6.0 and Appendix IV. A copy of the existing AZR, supporting OLS figures, documentation and correspondence with Transport Canada are also attached in the Appendixes.

6.0 THE AZR PROCESS AND ESTIMATED COSTS

Phase 1 - Pre-Regulatory Phase	Reference
1. Submit a written request to amend Airport Zoning Regulations (AZRs) Pursuant to section 5.4 of the <i>Aeronautics Act</i> is for the City of Windsor (airport owner/operator) to the Transport Canada Regional Director, Civil Aviation.	Appendix VII Correspondence with TC
2. Complete the Requirements - Airport Zoning Regulations form. The request to amend zoning is based on such factors as: a. The Airport Master Plan, which would identify long term airport expansion requirements b. Future airfield expansion c. Future approach aids d. Future instrument procedures e. Bird hazard areas f. NAVAID sensitive areas g. Aircraft engine-out performance criteria h. Long term municipal plans i. Special requirements such as mobile objects, future land required outside airport boundaries etc.	Appendix V
3. Prepare and execute Commitment Agreement. The Agreement is prepared by the TC Primary Inspector.	Appendix VI
4. Develop Zoning cost estimates. Costs associated with zoning will include: a. Preparation of zoning plans b. Legal Description of lands c. Baseline study of significant obstacles on the lands subject to the regulations. Buildings, structures and objects that exist or have received the necessary building permits prior to the coming-in-force date of the Regulations and that do not conform to the Regulations are documented and where appropriate, photographed and copies provided to the Minister. Where there is uncertainty about conformance, a survey shall be conducted and included in the baseline study. d. Translation e. Publication of consultation opportunities in local newspaper f. Consultation with Land Use Authorities and potentially affected landowners (are there aboriginal lands involved?) g. Deposit of Regulation in land Titles/Land Registry Office h. Publication notices – two successive issues of at least one newspaper serving the area to which the proposed zoning regulations relates i. Project management and coordination costs	
5. Prepare Preliminary Intrusions report and submits to Transport Canada	
6. Prepare Zoning Plans and Legal Description of Lands	

Windsor Airport Aeronautical Zoning

<p>7. Consultation Period – 3 levels of consultation required:</p> <ul style="list-style-type: none"> a. Land Use Authorities – Transport Canada sends zoning plans to local land use authorities. b. Potentially Affected Landowners – A notice of intent for the proposed zoning regulations must be published in at least one issue of a local newspaper. c. Aboriginal Groups – Consultation with Aboriginal groups might be required. Transport Canada will consult the Aboriginal Consultation Specialist. 	
Phase 2 - Regulatory Phase	
1. Publish notices	
2. Public consultation meetings	
Phase 3 – Post Regulatory Phase	
1. Submit final intrusions report to Transport Canada before AZR comes into force	
2. Prepare Zoning Plans and Legal Description of Lands	
3. Deposit of Regulation in Land Titles/Land Registry Office (comes into force)	
4. Publish Airport Zoning Regulation in 2 issues of local newspaper	
5. Confirm that Full AZR in in Local Land Title Office	

A detailed step-by-step process with approximate timeframes as provided by Transport Canada are contained in Appendix IV.

As illustrated in Section 5.0, the AZR process is a comprehensive process that requires the development of AZR and Obstacle Limitation Surface drawings, legal texts that describe these surfaces, a full list of land parcels affected by the regulation, an intrusion report to identify obstacles that are grandfathered, consultations with City officials and other affected municipalities, consultation and participation by Transport Canada officials, announcements in local newspapers, translation services, a public Open House and the depositing of the AZR on all affected land titles through Terranet Inc. and the associated project management fees. The cost of this work would be spread out over 1 to 3 years depending on the government of the day, government priorities, Cabinet shuffles and election status.

Based on consultations with Transport Canada, the estimated cost to implement a new AZR can range from \$250,000 to \$400,000. The variability in costs are due to the availability of base mapping that a municipality and surrounding communities already have in place and/or its ability to produce in-house, the number of properties that are affected, the option of City staff preparing legal documents, and the costs associated with depositing the AZR on property titles.

STEPS TO MAKE/AMEND AIRPORT ZONING REGULATION – Federal Process	Approximate Timeframe
PHASE 1 – PRE-REGULATORY PHASE	
1) Submission of Request for Regulation	1 month
2) Submission of AZR Requirements Form to Proponent	1 month
3) Completion of AZR Requirements Form by Proponent	1 week
4) Proponent sends AZR Requirements Form to Inspector	1 week
5) Review of AZR Requirements Form	1 week
6) Inspector Prepares Draft Commitment Agreement	1 week
7) Execution of Commitment Agreement by RDCA and Proponent	1-2 weeks
8) Briefing note to the RDCA	1 week
9) Inspector to complete SEA Preliminary Scan	1 week
10) Inspector to complete Triage Statement and submits to HQ	1-3 weeks
11) Proponent to obtain Estimate for Zoning Costs	1-3 weeks
12) Proponent to complete Preliminary Zoning Intrusions Report	1-3 weeks
13) Preparation of Zoning Plans and Drafting of Zoning Instructions and Legal Description of Land	1-3 months
Tetra Tech NOTE – As per correspondence with TC Primary Inspector, Zoning Instructions are prepared by Transport Canada	
14) Proponent to send Zoning Plans and instructions to Inspector for review	1-3 weeks
15) Translation of AZR Drafting Instructions	1-2 months
16) AZR Drafting Instructions Sent to Legislative Services for Preparation of Discussion Draft	1-2 months
17) Consultation - Briefings with Land Use Authorities/Potentially Affected Landowners/Aboriginal	2-3 months



**Windsor Airport Aeronautical
Zoning**

Appendix IV

Consultation	
18) Update Briefing Note to RDCA	1 week
19) Inspector drafts RIAS, including Identification of Costs and Benefits	1-2 weeks
20) Inspector submits final AZR Drafting Instructions, Zoning Plans and RIAS to Regulations Unit, Legislative Services	1 week
PHASE 2 – REGULATORY PHASE	
1) Preparation of Discussion Draft by Regulations Unit	1-2 months
2) Update Briefing Note to RDCA	1 week
3) Proposed regulation "Blue-Stamped" and Request for Insertion to Canada Gazette I	1 week
4) Inspector to prepare Submission Package for RDG Signature	1-2 weeks
5) Submission for Minister's Approval – Transmission to TB/PCO/Publication in Canada Gazette Part I	1-2 weeks
6) Update Briefing Note to RDCA	1 week
7) Consultation on Timing of Newspaper Publication	1 week
8) Publication in Local Newspaper	1 week
9) Proposed AZR may be published on the Regional Website	1 week
10) 60-day Public Notice Period Begins	2 months
11) Responses to Written Representations – Updating of RIAS	1-2 weeks
12) Update Briefing Note to RDCA	1 week
13) Proposed regulation "Blue-Stamped" and Request for Insertion to Canada Gazette Part II	1 week
14) Inspector to prepare submission package for RDG Signature	1-2 weeks
15) Submission for Minister's Approval – Transmission to TB/PCO/ Publication in Canada Gazette Part II	1-2 weeks
16) AZR may be published on the Regional Website	1 week