



Brampton

REPORT

Planning, Design & Development Committee

Standing Committee of the Council
of the Corporation of the City of Brampton

Date: March 16, 2007

File: N05

Subject: **RECOMMENDATION REPORT
INCINERATION AND WASTE PROCESSING TRANSFER AND
DISPOSAL STUDY**

Contact: Janice Given, Manager Growth Management & Special Policy (874-3459)

Overview:

- The City of Brampton has passed an Interim Control By-Law, which prohibits the expansion or development of any waste transfer or recycling stations along with combustion-based power generation facilities within areas of the City of Brampton defined in Appendix B. The Interim Control By-Law is set to expire on October 10, 2007.
- The Interim Control By-Law was required so that the City could reassess the current policy framework for dealing with waste incineration, waste processing, and energy generation.
- Marshal Macklin Monaghan has been retained by the City to conduct the Incineration and Waste Processing Transfer and Disposal Study, and recommend a planning framework and consider appropriate amendments to the City's planning documents.
- The City's consultant prepared a Research Compendium, dated June 13, 2006, for Phase 1 of the study, which summarizes the existing policy framework of the various levels of government and public agencies, provides a regulatory overview and discusses the potential land use effects from existing and emerging technologies.
- Phase 2 of the study will recommend a planning policy approach and will include a planning policy framework for the regulation of incineration, waste processing, transfer and disposal uses.
- As part of Phase 2 of the Study, a series of consultation sessions will be held with key community and industry stakeholders and the general public to present the recommended policy framework and to solicit feedback, including a public meeting to be scheduled in Spring 2007.

RECOMMENDATIONS:

1. THAT the staff report dated March 16, 2007 and entitled "Recommendation Report: Incineration and Waste Processing Transfer and Disposal Study" be received;
2. THAT staff be authorized to hold consultations with key community and industry stakeholders and the general public to present Marshal Macklin Monaghan's recommended draft planning policy approach and the current findings of the Incineration and Waste Processing Transfer and Disposal Study, including a public meeting to be scheduled in Spring 2007.

BACKGROUND:

Incineration, waste processing, and energy generation have become prominent land use issues in Brampton and the GTA. Forecasts projected for the Greater Golden Horseshoe show an additional 3.7 million people by 2031. This growth poses implications and presents challenges for energy generation, waste management and the associated policy frameworks. There are numerous municipal responsibilities associated with the consideration of waste and energy infrastructure including land use compatibility and consideration for public health and safety as identified through the *Planning Act*, Provincial Policy Statement (PPS).

The waste processing, transfer and disposal issues are combined with the issues of an emerging energy supply shortage. Additional supply of fossil fuels and electricity is needed in the province and prices have risen sharply. It is expected that incinerators will be used for waste disposal and the generation of power. It is recognized that the current policy and land use regulation framework in Brampton needs refinement in order to deal with the challenges associated with the pressures that are anticipated.

City Council approved Interim Control By-Law 312-2005 (ICB) on October 12, 2005 to prohibit new and expanded incinerators and waste processing, transfer and disposal facilities (except as is necessarily incidental to any permitted industrial or manufacturing use) for a period of 1 year, for specific areas of the City, which generally include all employment lands in the City.

On September 23, 2006, Council endorsed the extension of the Interim Control By-Law by one year to October 10, 2007. The purpose of the Interim Control By-Law is to prohibit new or expanded uses under study while the City carries out the planning study.

The ICB excluded those facilities owned, operated, managed by or used for the purposes of a municipal waste program pursuant to a contract with the Region of Peel and the Sithe Energy facility, located west of Goreway Drive and north of Highway 407, which received planning approvals prior to the enactment of the ICB.

CURRENT SITUATION

The purpose of the Incineration and Waste Processing Transfer and Disposal Study is to:

- to evaluate the appropriateness of the City's land use designations, applicable land use policies, as well as transportation modes and routes; and
- to recommend implementation policies and zoning measures to guide development of incineration and waste processing, transfer and disposal sites.

Early in 2006 the firm of Marshall Macklin Monaghan was selected to undertake the study. A technical working group has been assembled consisting of City and Regional staff to work with the consultants in completing the study and assessing the City's current and future policy framework. The study has generally been divided into three main phases including a Research Compendium, Evaluation and Analysis followed by Implementation.

Phase 1: Research Compendium

Phase 1 was submitted on June 13 2006 and summarizes the existing policy framework of the various levels of government and public agencies, provides a regulatory overview and discusses the potential land use effects from existing and emerging technologies. This included a review of the approach and policy framework of the other municipalities faced with similar issues, to identify general requirements, patterns and anomalies.

According to Phase 1 the City's planning policy and approvals process will need to:

- a. address issues of local interest;
- b. reflect/relate to the approval responsibilities of Provincial and Federal Agencies; and
- c. fulfill the City's responsibilities that are not addressed in the Provincial or Federal levels, without unnecessarily overlapping them.

Phase 1 describes the emerging types of technology that are being used to process and recycle waste, which include physical, biological, thermal and chemical processes. It is recognized that the Region of Peel is using some the latest technology emerging in the field of waste management.

To consider the potential for waste management and power generation facilities to result in environmental effects in off-site areas, the types of existing waste management facilities existing in Brampton were identified. These facilities were then classified according to the type of waste management conducted in the facility.

Phase 2: Evaluation and Analysis (Currently underway)

The planning policy approach component of the study involves the identification of possible strategies to manage waste and energy uses. The consultants have been undertaking research and working with staff to formulate strategies for dealing with types of incineration, waste processing, and combustion-based power generation uses. The City's current policy framework is to be reviewed for any deficiencies and improvements. This includes considering the potential risk for the City of Brampton associated with land use development adjacent to waste management and combustion-based power generation facilities.

A draft Planning Policy Approach report has been submitted to the City by Marshall Macklin Monaghan Limited. This draft report recommends a planning policy framework for the regulation of incineration and waste processing, transfer and disposal uses. The report will form the basis for amendments to the City's planning documents to reflect the preferred planning approach. A summary of the report can be found in Appendix A.

The draft planning policy approach consists of a set of planning principles that the City intends to accomplish through the regulation of such uses, and preferred policy directions such as:

- ensure compatibility between existing and proposed land uses (may vary by extent/intensity of the potential hazard);
- ensure the adequate provision and efficient use of waste management systems;
- ensure the protection of public health and safety;
- ensure the protection of the natural environment;
- ensure the provision of adequate transportation system, which directs truck traffic away from residential neighbourhoods;
- encourage and promote efforts to reduce, reuse, recycle and conserve energy; promote sustainable local energy production and alternative energy sources that adhere to the planning principles;
- ensure appropriate site design, through such matters as access, aesthetics, safety, fire protection, protection of natural features/watercourses; and
- allow for extended producer responsibilities (i.e., material recovery operations).

Table 1 identifies the types of operations/uses and corresponding draft policy direction provided by Marshall Macklin Monaghan based on their understanding of the potential impacts and required extent of municipal regulation through the planning approvals process.

Table 1: Draft Policy Direction

Type of Operation/Use		Policy Direction		
		A Permit as-of-right within certain industrial land use designations and zones, subject to performance criteria	B Permit as-of-right within certain industrial land use designations subject to performance criteria. Use would require a site-specific zoning by-law amendment	C Require an Official Plan and Zoning By-law Amendment, subject to full justification
1. Solid Waste (Non Hazardous) Transfer Site	<i>Primary Use</i>	X		
	<i>Accessory Use</i>	X		
	<i>Outside Storage</i>		X	
2. Solid Waste (Non-hazardous) Processing Site	<i>Primary Use</i>	X		
	<i>Accessory Use</i>	X		
	<i>Outside Storage</i>		X	
3. Waste Transfer and Processing (Hazardous) Site	<i>Primary Use</i>			X
	<i>Accessory Use</i>			X
	<i>Outside Storage</i>			X
4. Thermal Degradation (Non-Energy Producing) Site	<i>Primary Use</i>			X
	<i>Accessory Use</i>			X
	<i>Outside Storage</i>			X
5. Thermal Degradation (Energy from Waste) Site	<i>Primary Use</i>		X	
	<i>Accessory Use</i>	X		
	<i>Outside Storage</i>		X	
6. Power Generation (Fuel Combustion) Site	<i>Primary Use</i>		X	
	<i>Accessory Use</i>		X	
	<i>Outside Storage</i>		X	
7. Landfill Site		Landfill Sites are not contemplated in the City		

Measures to address potential land use compatibility issues can be implemented under the City’s jurisdiction. Based on Marshall Macklin Monaghan review of the legal and regulatory requirements for facility siting and facility inspection and compliance enforcement responsibilities (Phase 1), the Planning Policy Approach (Phase 2) report recommends a preferred planning approach to regulate incineration and waste processing, transfer and disposal uses.

Before finalizing Phase 2, staff will conduct a series of consultations with key community and industry stakeholders and the general public for feedback and input. Staff are aiming to have these meetings during the month of April.

Planning staff, in consultation with the City’s communication staff will undertake the following:

- Meeting with industry representatives
- Meeting with key community stakeholders identified
- Host a public meeting in Council Chambers (targeted for late April 2007))


Phase 3: Implementation

The implementation phase of the study will involve recommending specific amendments to the policies of the Official Plan and Zoning By-law that govern waste management and combustion-based power generation facilities. The final recommended amendments to the City's policies and zoning by-laws will be prepared based on the results of the consultant's study and input from City staff and consultations with the public.


CONCLUSION

The Incineration and Waste Processing Transfer and Disposal Study will be completed in 2007. Once the initial consultation and the consultant's study is complete, staff will prepare a Recommendation Report to the Planning, Design and Development Committee and Council to consider the study's recommendations. After the report is endorsed, staff will finalize the planning process required to incorporate the recommended land-use policies into the Official Plan and Zoning By-Law.

Respectfully Submitted:



Adrian J. Smith, MCIP, RPP
Director, Planning & Land Development
Services



John B. Corbett, MCIP, RPP
Commissioner, Planning, Design &
Development Department

Authored by Paul Aldunate

- Appendix A – Excerpt of Draft Planning Policy Approach*
- Appendix B - Interim Control By-Law 312-2005*
- Appendix C – Interim Control By-Law 325-2006*

Policy Approach

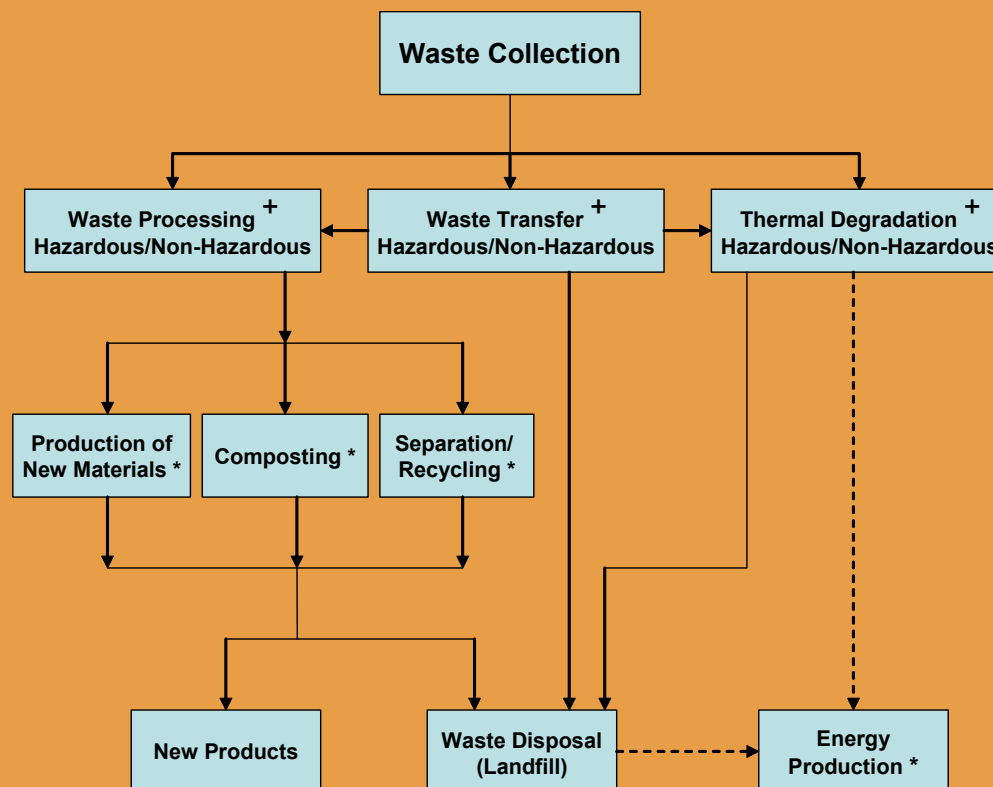
Planning Principles

- Establish a set of planning principles that relate to matters of municipal jurisdiction, and outline what the City intends to accomplish through the regulation of such uses (*i.e., Planning Act Section 2.0 (f) the adequate provision and efficient use of waste management systems; (h) the orderly development of safe and healthy communities; (o) the protection of public health and safety etc*).
- The planning principles will be substantiated with the detailed performance criteria related to the satisfactory mitigation of potential operation/use impacts.

Proposed Planning Principles

- Planning principles may include:
 - compatibility between existing and proposed land uses (may vary by extent/intensity of the potential hazard);
 - adequate provision and efficient use of waste management systems;
 - protection of public health and safety;
 - protection of the natural environment;
 - provision of adequate transportation system, which directs truck traffic away from residential neighbourhoods;
 - promote efforts to reduce, reuse, recycle and conserve energy;
 - promote sustainable local energy production and alternative energy sources that adhere to the planning principles;
 - appropriate site design, through such matters as access, aesthetics, safety, fire protection, protection of natural features/watercourses; and
 - allow for extended producer responsibilities (i.e., material recovery operations).

Inter-Relationship Among Uses / Operations



- + Waste transfer, waste processing and incineration may be conducted within the same facility
- * Indicates facility could incorporate new or emerging waste management technologies
- - - Indicates potential pathway for some facilities (e.g. waste materials and by-products)

Classification of Types of Uses / Operations

- Types of existing or potential waste management and relevant power generation facility uses were classified as follows:
 1. Solid Waste (Non-hazardous) Transfer Site;
 2. Solid Waste (Non-hazardous) Processing Site;
 3. Waste Transfer and Processing (Hazardous) Site;
 4. Thermal Degradation (Non-Energy Producing) Site;
 5. Thermal Degradation (Energy from Waste) Site;
 6. Power Generation (Fuel Combustion) Site; and
 7. Landfill Site.

Definition of Types of Uses / Operations

1. **Solid Waste (Non-hazardous) Transfer Site** - a waste disposal site used for the purpose of transferring waste from one vehicle to another for transport to another waste disposal site. Some limited degree of processing (e.g., compaction) of the waste may take place at a waste transfer site. The waste handled at a non-hazardous waste transfer site is not liquid waste and is not hazardous waste, both as defined by O.Reg. 347. Examples of non-hazardous solid waste include ashes, garbage, refuse, domestic waste, industrial waste and municipal refuse.
2. **Solid Waste (Non-hazardous) Processing Site** - a waste disposal site that manages or prepares waste for subsequent reuse or disposal. Processing sites typically include material recovery facilities (MRFs) and compost facilities (i.e., for municipal waste). The waste handled at a non-hazardous waste processing site is not liquid waste and is not hazardous waste, both as defined by O.Reg. 347. Examples of non-hazardous solid waste include ashes, garbage, refuse, domestic waste, industrial waste and municipal refuse.

Definition of Types of Uses / Operations

3. **Waste Transfer and Processing (Hazardous) Site** - a waste transfer and/or processing site that handles waste, either solid or liquid, that is defined as “hazardous waste” by O.Reg. 347.
4. **Thermal Degradation (Non-Energy Producing) Site** - a waste disposal site designed and operated for the degradation or destruction of waste by thermal means. Thermal degradation includes incineration, gasification, pyrolysis or plasma arc treatment. For the purposes of this category, thermal degradation of waste does not include the generation of electricity. This category would likely only include the thermal degradation of hazardous waste, since hazardous wastes are typically not conducive to energy generation since they involve smaller quantities of waste and a non-steady waste stream.
5. **Thermal Degradation (Energy from Waste) Site** - a waste disposal site that is accompanied by the generation of electricity, in which case the waste is used as a fuel source for the production of energy and/or heat. Thermal degradation includes incineration, gasification, pyrolysis or plasma arc treatment.

Definition of Types of Uses / Operations

- 6. Power Generation (Fuel Combustion) Site** - a facility that, by means of combustion of a fuel, converts thermal energy to electricity through a series of turbines and generators. Excludes centralized heating plants and localized district energy (may be defined by facility size).
- 7. Landfill Site** - a waste disposal site that provides for the disposal of waste on land using engineered methods for the purposes of minimizing environmental and human health hazards.

Classification of Types of Uses / Operations

- **Accessory Uses** - Thermal degradation, waste transfer and processing sites accessory to a principal use have also been identified separately to provide a planning framework which considers the magnitude of the operation/use and their relationship with other uses.
- **Outside Storage** – Where outside storage is proposed in association with the primary use, it is recognized that more vigorous standards should apply.

Policy Direction by Operation / Use

Type of Operation/Use		Policy Direction		
		A Permit as-of-right within certain industrial land use designations and zones, subject to performance criteria	B Permit as-of-right within certain industrial land use designations subject to performance criteria. Use would require a site-specific zoning by-law amendment	C Require an Official Plan and Zoning By-law Amendment, subject to full justification
1. Solid Waste (Non Hazardous) Transfer Site	Primary Use	X		
	Accessory Use	X		
	Outside Storage		X	
2. Solid Waste (Non-hazardous) Processing Site	Primary Use	X		
	Accessory Use	X		
	Outside Storage		X	
3. Waste Transfer and Processing (Hazardous) Site	Primary Use			X
	Accessory Use			X
	Outside Storage			X
4. Thermal Degradation (Non-Energy Producing) Site	Primary Use			X
	Accessory Use			X
	Outside Storage			X
5. Thermal Degradation (Energy from Waste) Site	Primary Use		X	
	Accessory Use	X		
	Outside Storage		X	
6. Power Generation (Fuel Combustion) Site	Primary Use		X	
	Accessory Use		X	
	Outside Storage		X	
7. Landfill Site				X (A policy to discourage landfill sites within the City will be included)

Key Planning Issues within City Jurisdiction & Mitigation / Assessment Measures

Key Planning Issue	Mitigation / Assessment Measures
Traffic (e.g., truck traffic)	Traffic Impact Study
Noise	Noise Study
Air Quality (e.g., odour, dust and contaminants)	MOE controlled issue – City may request Air Quality Study of MOE and provide comments
Wastewater and Runoff, Surface Water, Landfill Gas (e.g. sub-surface migration)	Municipal and MOE controlled issue - City should require a Wastewater and Runoff Management Plan
Nuisance Effects (e.g., litter and vermin)	Property Standards, Others???
Visual Aesthetics	Land Use Compatibility Analysis, Site Plan Control
Physical Containment and Security (e.g., fencing)	Site Plan Control, Others???
Operational Upset (e.g., fire, spill)	Fire Safety Consultant Report
Outside Storage	Land Use Compatibility Analysis, Site-Specific Zoning By-law Amendment, Site Plan Control

F2-18



THE CORPORATION OF THE CITY OF BRAMPTON

BY-LAW

Number 312-2005

An Interim Control By-Law Applicable to Part of the Area Subject to Zoning By-Law 270-2004.

WHEREAS the interim control by-law provisions of the *Planning Act* permit a municipality to temporarily prohibit the use of land, buildings or structures in a defined area for such purposes as may be set out in the by-law while the municipality carries out a study in respect of the land use planning policies in this area.

WHEREAS the City of Brampton wishes to prohibit development in the area set out on Schedule A attached hereto, for a specific use, in order to carry out a study in respect of the land use planning policies that apply to this area.

The Council of the Corporation of the City of Brampton ENACTS as follows:

1. Despite Section 30.9 of Zoning By-Law 270-2004, there shall be:
 - i) no new or expanded incinerators; and,
 - ii) no facilities for waste processing, transfer or disposal, except as is necessarily incidental to any permitted industrial or manufacturing use,

in any buildings or structures or on any lands shown on Schedule A to this by-law, except for those facilities owned, operated or managed by or used for the purpose of a municipal waste program pursuant to a contract with the Region of Peel.

2. For the purposes of this by-law, an incinerator shall be defined as follows:

"a furnace or other arrangement for burning waste, garbage, trash, etc. to ashes or for the purposes of power generation or waste disposal."

3. Notwithstanding Section 1, the municipally approved Site Energy facility located west of Goreway Drive and north of Highway 407 (Concession 7, Northern Division, Part of Lot 4) is exempt from this by-law.

4. This by-law shall be in effect from October 12, 2005 to October 11, 2006.

F2-19

READ a FIRST, SECOND AND THIRD TIME, and PASSED, in
OPEN COUNCIL, this 12th day of October 2005.


SUSAN FENNELL - MAYOR


~~LEONARD MIKULICH - CITY CLERK~~

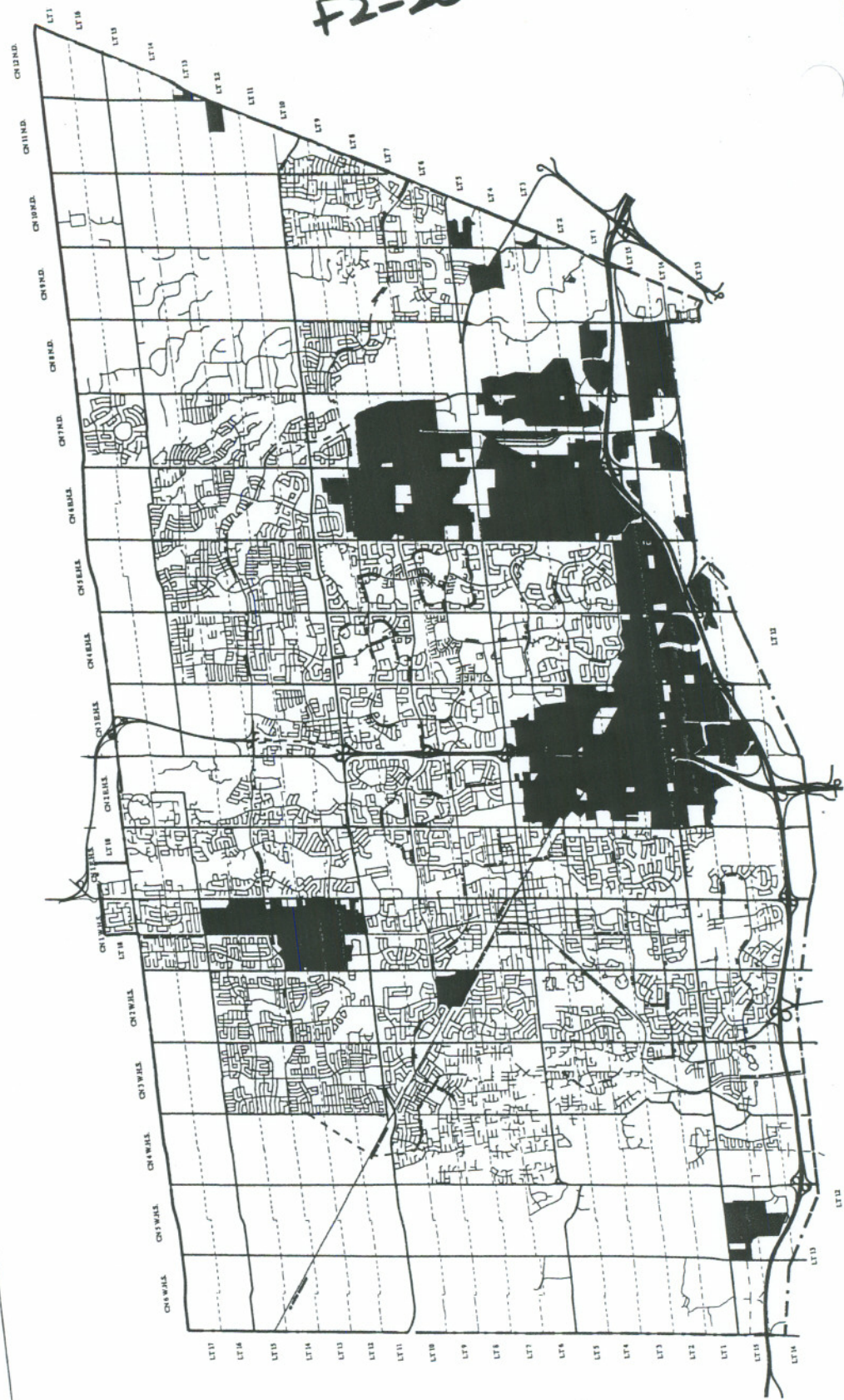
KATHRYN ZAMMIT, ACTING CITY CLERK

APPROVED
AS TO FORM
LAW DEPT.
BRAMPTON
DATE 10-13-05

Approved as to Content:


Adrian J. Smith
Director, Planning & Land Development Services

F2-20



LEGEND
 ■ Lands Subject to Interim Control By-Law 312-2005
325-2006

INTERIM CONTROL BY-LAW

Key Map To Schedule A



CITY OF BRAMPTON
 Planning, Design and Development

Date: 2005 09 23
 File no. N05_MI-Key
 Drawn by: MGW
 Map no. 1 of 1



F2-21

THE CORPORATION OF THE CITY OF BRAMPTON

BY-LAW

Number 325 - 2006

*To amend Interim Control By-Law
312-2005, applicable to Part of the Area
Subject to Zoning By-Law 270 - 2004*

WHEREAS the interim control by-law provisions of the *Planning Act* permit a municipality to temporarily prohibit the use of land, buildings or structures in a defined area for such purposes as set out in the by-law while the municipality carries out a study in respect of the land-use planning policies in this area.

WHEREAS the City of Brampton seeks to prohibit development in the area set out in Schedule A to by-law 312-2005, for a specific use, in order to carry out a study in respect of the land use planning policies that apply to this area.

The Council of the Corporation of the City of Brampton ENACTS as follows:

1. By-Law 312-2005 is hereby amended as follows:

1.1 Section 4 is deleted and replaced with the following:

This By-Law shall be in effect until October 10th, 2007

READ a FIRST, SECOND AND THIRD TIME, and PASSED, in OPEN COUNCIL, this 25 day of September 2006.

SUSAN FENNELL - MAYOR

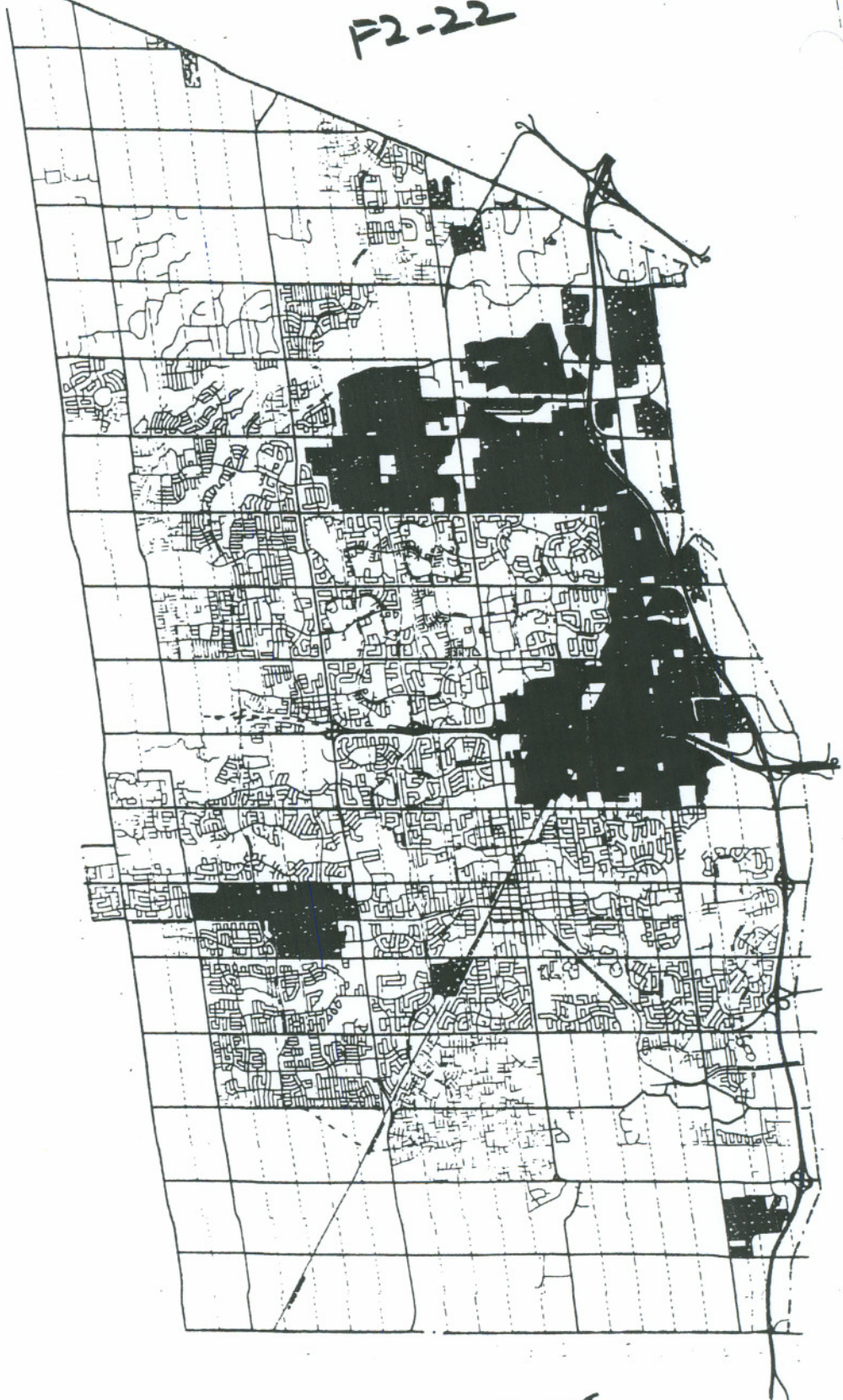
K. ZAMMIT - CITY CLERK

APPROVED
AS TO FORM
LAW DEPT.
BRAMPTON
DATE 10/11/06

Approved as to Content:

Adrian Smith, MCIP, RPP
Director, Planning & Land Development Services

F2-22



LEGEND

 Lands Subject to Interim Control By-Law 312-2005

INTERIM CONTROL BY-LAW

Key Map To Schedule A



CITY OF BRAMPTON
Planning, Design and Development

Date: 2005 09 23
File no. N05_M1-Key

Drawn by: MGV
Map no. 1 of 1