

APPENDIX 'A'



Report to: Development Services Committee

Report Date: June 2, 2009

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**SUBJECT:**                **RECOMMENDATION REPORT**  
Gemcross Developments  
(ConStrada Aggregate Recycling Facility)  
350 Yorktech Drive  
Application for zoning by-law amendment to permit the existing aggregate  
recycling facility for an additional three years  
ZA-08-119862

**PREPARED BY:**       Scott Heaslip, Senior Project Coordinator, ext. 3140  
Central District

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**RECOMMENDATION:**

1. That the temporary zoning by-law amendment application by Gemcross Developments (Constrada Aggregate Recycling Facility) to permit the existing aggregate recycling facility at 350 Rodick Road for an additional three years, be denied.
2. That staff be authorized and directed to do all things necessary to give effect to this resolution.

**PURPOSE:**

The purpose of this report is to provide background information regarding an application for a temporary zoning by-law amendment to permit the Constrada Aggregate Recycling Facility at 350 Rodick Road to operate for an additional three years, and to recommend that the application be denied.

**EXECUTIVE SUMMARY:**

Gemross Developments (Constrada) operates an aggregate recycling facility on the east side of Rodick Road, south of Highway 7.

The facility was approved by the Town in 2002 and 2005 as a temporary use, for a period not to exceed a total of 6 years, in order to permit the owners to generate sufficient funds to finance the clean up of the contaminated lands west of Rodick Road, facilitating the Rodick Road and Yorktech Drive extensions.

The temporary use by-law expired on June 14, 2008. The facility continues to operate, while the subject application is being considered by the Town.

The applicant applied for zoning by-law amendment on June 23, 2008, and is now requesting that the use be permitted for an additional three years.

In originally approving this temporary use, the Town was clear with the applicant that it would not be supported beyond 6 years. An aggregate recycling facility is not a desirable use over the long term at this location in proximity to Markham Centre and the Highway 7 corridor, and in the context of the planned

redevelopment of the general area.

With increasing traffic volumes on Rodick Road and with additional commercial development occurring in the immediate vicinity, an aggregate recycling facility is becoming increasingly less acceptable at this location.

Staff have been concerned from the outset that once approved it may be difficult, if challenged, to require this use to be discontinued once the temporary use permission has lapsed. Extending the temporary use permission beyond the 6 years period originally agreed to by the applicant and the Town will only increase this risk. Staff cannot support the request to permit this use for an additional 3 years.

At the November 18, 2008 Public Meeting to consider the requested extension to the temporary use by-law, Committee raised a number of issues and concerns. The applicant's response to these matters is outlined in the options/discussion section of this report. In the event that Committee and Council were to decide to permit the requested extension to the temporary use, an amendment to the site plan agreement should also be required to address the matters raised by the Committee at the Public Meeting.

## **BACKGROUND:**

### **Site description and area context**

The subject lands have an area of approximately 3.8 hectares (9.4 acres) and are located on the east side of Yorktech Drive, directly opposite Fairburn Drive. The lands are being used for an aggregate recycling facility consisting of various material stockpiles, a weigh scale, a crushing machine and an administration office (see Figure 4). The facility is surrounded by a landscaped berm and fencing.

Surrounding uses include Rouge River valleylands to the north, the IBM technology campus to the east across the hydro corridor, Zoom Zoom Truck Storage to the south, and multi-tenant industrial/commercial buildings to the west across Rodick Road.

### **Official Plan and Zoning**

The site is designated "Industrial - General Industrial" in the Official Plan. Open storage is provided for only as an accessory use to a permitted industrial use in this designation.

The subject lands are zoned "Select Industrial with Controlled Storage" [M(CS)] by By-law 165-80, as amended. This zoning does not permit the use of an aggregate recycling facility nor would it permit the associated outside storage. The Town approved a 3-year temporary use by-law in 2002 permitting the subject property to be used for an aggregate recycling facility. The temporary use by-law was renewed in 2005, and expired on June 14, 2008. The facility continues to operate while the subject application for a further temporary use extension is being considered by the Town.

### **Proposal**

The applicant has applied for zoning by-law amendment, requesting that the use be permitted for a further three years.

## **OPTIONS/DISCUSSION:**

### **Aggregate recycling facility approved in 2002 as a temporary use not to exceed 6 years.**

The following excerpt from the June 4, 2002 recommendation report for the applicant's original application for temporary use by-law summarizes the rationale for approving this facility:

*This site is located adjacent to major commercial uses along Highway #7, the Markham Centre plan area with major office and residential uses, and directly adjacent to the Rouge River. The long term intent for these lands is for industrial uses with a limited outdoor storage component which is screened and compatible with the commercial and prestige space within Markham Centre. The aggregate recycling facility would not be an appropriate use over the long term.*

*However, this site has been restricted from any redevelopment due to the site contamination. The opportunity that this temporary use / lease arrangement provides is to permit the owners to generate sufficient funds to finance the clean up of the lands west of Rodick Road, as well as the management of environmental contaminants over the long term on the two eastern parcels. In addition, the road extension (Rodick Road and Yorktech Drive) necessary to serve transportation network requirements can now be realized with the clean up of these sites. The property owner has indicated that the proposed lease/temporary use arrangement would enable them to finance the clean up. The proposed lease arrangement with the tenant who will operate the recycling facility is for three years with the opportunity to extend for a maximum of an additional three years. The temporary effects of the uses on adjacent properties are minimized through the berming, landscaping and fencing proposed by the applicant. Also, many of the uses proposed within Markham Centre have not yet been built and are not anticipated to be fully built within the time frame proposed for the temporary use.*

*Past experience with the use of temporary by-laws indicates that once approved it may be difficult, if challenged, to discontinue the use at the end of the proposed time frame. In some instances, applicants have been successful in securing a permanent or extended temporary use on the basis that if once considered appropriate, then there is an increased argument to consider them appropriate over the long term.*

*In this instance, the proposed use over the long term is clearly not appropriate in the Markham Centre context, and Town staff has made it clear to the property owner and the applicant from the outset. However, the opportunity of realizing an environmental clean up of these sites, facilitating the Rodick Road extension, and the screening and landscaping which can be incorporated on site in the short term, would justify recommending approval of a temporary use. In addition, the applicant has indicated that they intend to use the site for a maximum of three to six years and have demonstrated through a draft lease agreement, their commitment to this time frame. Prior to final Site Plan approval, an executed lease agreement will be required, demonstrating a maximum three (3) to six (6) year term, subject to zoning approvals. The temporary use zoning is recommended for approval with the condition of a Holding (H) provision, only to be removed upon the execution of the Site Plan Agreement. The direct references to the lease agreement, and corresponding references in the site plan agreement, are intended to make clear to all parties the temporary and time limited nature of any support by the Town for this use.*

*Town staff is clearly supporting the proposal only on the basis of the property owner and the applicant abiding by their commitments to the Town in regard to a limited temporary use pursuant to the application and related submissions/commitments and as reflected in the specific conditions of approval. These arrangements are intended to be binding on any subsequent parties, and all corresponding agreements should be registered on title.*

### **Applicant committed in writing to the Town not to extend use beyond 6 years**

On April 25, 2003, the Owner entered into a site plan agreement with the Town. The agreement includes a commitment to the maximum 6 year time limit, as follows:

- (zz) *That the Owner and the Applicant covenant and agree not to initiate any applications, transactions or legal action that would seek to permit the recycling facility as a temporary use beyond the proposed maximum six (6) year period, nor to seek permission for the use as a permanent use.*

The April 5, 2005 staff report regarding the extension to the temporary use by-law reinforced that the use is to be temporary, as follows:

*The applicant originally indicated that the site would be used for recycling purposes for a maximum of three to six years, and has demonstrated through a lease agreement a commitment to this time frame. Prior to final Site Plan approval, an executed lease agreement was required, demonstrating a maximum three (3) to six (6) year term, subject to zoning approvals, and appropriate clauses being incorporated into the executed site plan agreement. A copy of the executed lease agreement was received March 1, 2005. Direct references to the lease agreement, and corresponding revisions in the site plan agreement were included to make clear to all parties the temporary and time limited nature of any support by the Town for this use.*

*The use was deemed by the Town to be inappropriate in the long term. The Town has made it clear to the property owner and the applicant from the outset that the facility was not a desirable use over the long term given the location of the site in proximity to Markham Centre and the Highway #7 corridor. While the environmental clean up of the adjacent sites, the Rodick Road extension and the screening and landscaping all served to justify recommending approval on a temporary use, all parties have committed to a temporary and time limited arrangement.*

### **Applicant now requesting a further three year extension**

The applicant has applied for temporary use by-law to permit the facility to operate for a further three years. This current request replaces an earlier application in 2008 to permit the use on a permanent basis.

### **Aggregate recycling facility becoming less acceptable over time at this location**

The site currently has only one access to Rodick Road, which is on a curve with sight line restrictions. When this facility was originally approved in 2002, Rodick Road ended at Fairburn Drive. With the completion of the Rodick Road bridge over the 407ETR to 14<sup>th</sup> Avenue, the traffic volume on Rodick Road has increased, and will increase further when Rodick Road is extended across the CN Rail line to Esna Park Drive (tentatively scheduled for 2010). Truck turning movements at this location will become more difficult and disruptive as traffic volumes on Rodick Road increase. If the application were to be approved, ongoing traffic monitoring should be required.

Subsequent to the original approval of the facility in 2002, First Markham Centre, a multi-tenant industrial development with accessory retail, has been constructed directly across Rodick Road from the facility. A similar development has also been approved at the south-west corner of Road and Yorktech Drive. An aggregate recycling facility, which generates considerable dust, noise and truck traffic, is not considered to be a compatible use to the adjacent commercial developments, nor to higher order land uses in the nearby Markham Centre and Hwy 7 Corridor Areas.

### **Extension beyond the 6 years originally committed to by applicant would increase risk of facility**

### **becoming permanent**

Staff have advised Council from the outset that it may be difficult, if challenged, to require this use to be discontinued once the temporary use permission has lapsed.

Each successive extension to the temporary use permission strengthens the potential case for the use to be permitted on a permanent basis.

For the reasons outlined above, staff cannot support the request to permit this use for an additional 3 years.

The Legal Services Department advises that the written commitments provided by the applicant not to extend the use beyond 6 years do not extinguish the applicant's statutory right under the Planning Act to apply to extend the use. In the event the application is appealed to the Ontario Municipal Board, the Board would adjudicate the case based on the planning merits, and would not likely place any significant weight to the prior written commitments of the applicant.

### **Applicant has made submissions regarding the issues identified by Development Services Committee**

At the November 18, 2008 Public Meeting to consider the requested extension to the temporary use by-law, Committee raised a number of issues and concerns that need to be addressed in the final staff report, including:

- Procedural guarantee that an application for permanent use will not be filed in future
- Status of the on-site sediment control facility
- Status of contamination on the subject property
- Assurance that the property will eventually be cleaned of contaminated soils (economics of environmental remediation)
- Percentage of materials produced from the facility (both concrete and asphalt) that is used for construction within Markham
- Amount of truck traffic eliminated as a result of having the facility in Markham
- Truck circulation patterns

The applicant has responded to these concerns as follows:

- *Procedural guarantees:* The applicant submitted a letter (Appendix 'A'), which advises that "we are unable to provide such a guarantee, although it is not our client's intention to file such an application at this time."
- *On-site sediment control facility:* The applicant's letter advises that the design of the sediment control facility has been approved by the Town's Engineering Department and that the facility is ready to be installed.
- *Contamination:* The applicant submitted a report from an environmental engineer (Appendix 'B'), which advises that approximately 150,000 tonnes of contaminated soil would need to be removed from the site to remediate site contamination, at an estimated cost of \$12,750,000.
- *Truck traffic:* The applicant submitted a report from a transportation engineer (Appendix 'C'). The highlights of the report (for the year 2008) are as follows:
  1. Average daily truck traffic into and out of the site ranged from a low of 70 in December to a high of 420 in June.
  2. Truck movements peak mid morning and mid afternoon.
  3. 67% of the vehicles are 6-axle trucks (dump trucks), 21% are larger trailer trucks and

the remaining 11% are cars and pickups.

4. 47.5% of the deliveries had destinations in Markham.
5. A further analysis will be undertaken this summer of background traffic flows on the boundary roads including an examination of roadway and intersection operations with the inclusion of truck site movements.

Staff note that the written submissions provided by the applicant do not fully provide all of the assurances requested by Committee (i.e. procedural guarantees; assurance of future environmental remediation). The applicant should be prepared to address these items at the Development Services Committee meeting.

**FINANCIAL CONSIDERATIONS AND TEMPLATE:** (external link)

Not Applicable.

**ALIGNMENT WITH STRATEGIC PRIORITIES:**

Not applicable.

**BUSINESS UNITS CONSULTED AND AFFECTED:**

The application was circulated to various departments for comment.

**RECOMMENDED BY:**

\_\_\_\_\_  
Biju Karumanchery, M.C.I.P, R.P.P  
Senior Development Manager

\_\_\_\_\_  
James Baird, M.C.I.P, R.P.P  
Commissioner, Development Services

**ATTACHMENTS:**

Figure 1	Location Map
Figure 2	Area Context/Zoning
Figure 3	Air Photo
Figure 4	Site Plan

Appendix 'A' letter dated January 16, 2009 from Macauley Shiomi Howson Limited.

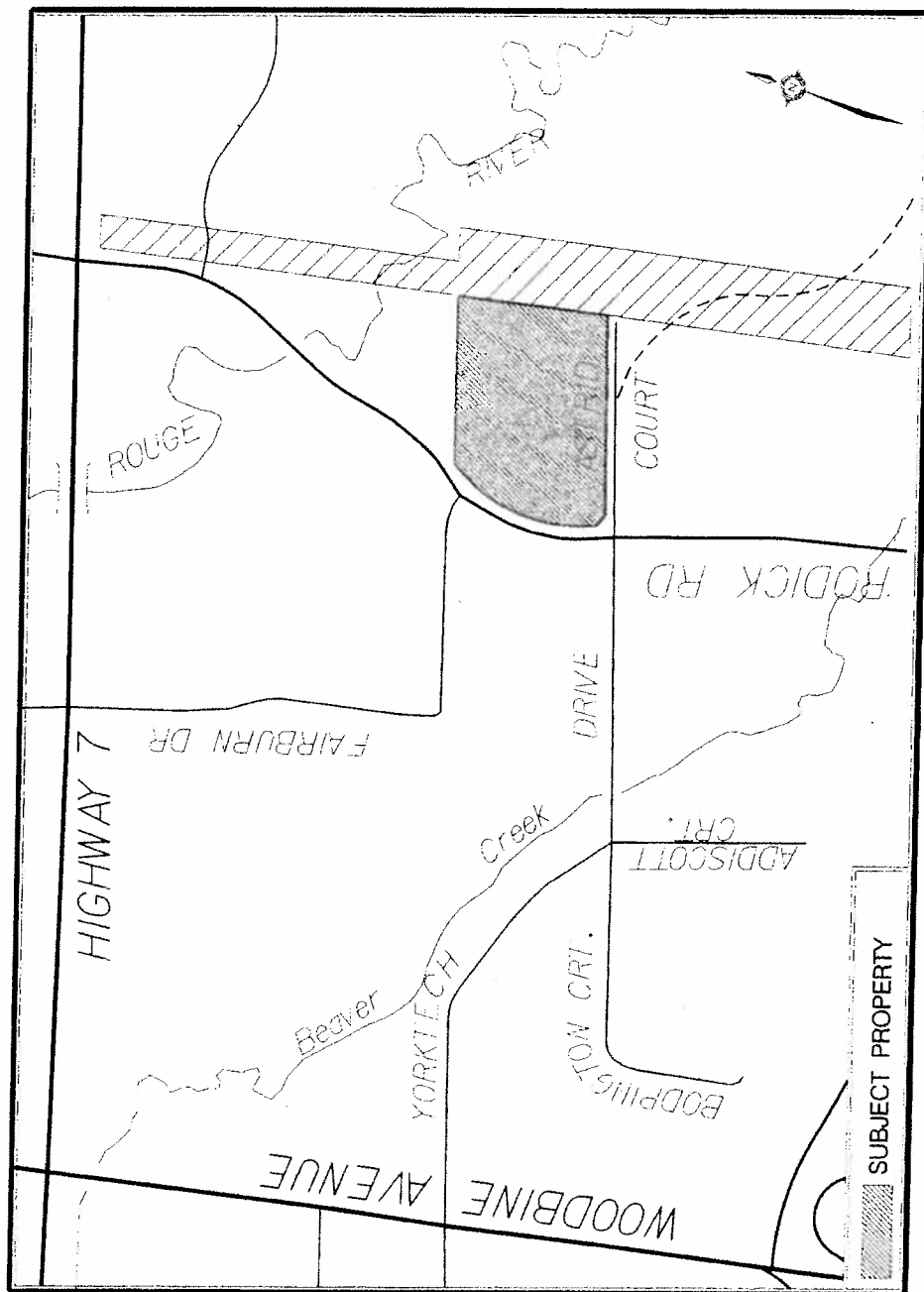
Appendix 'B' letter dated December 23, 2008 from Barenco Environmental Engineering and Site Remediation Services

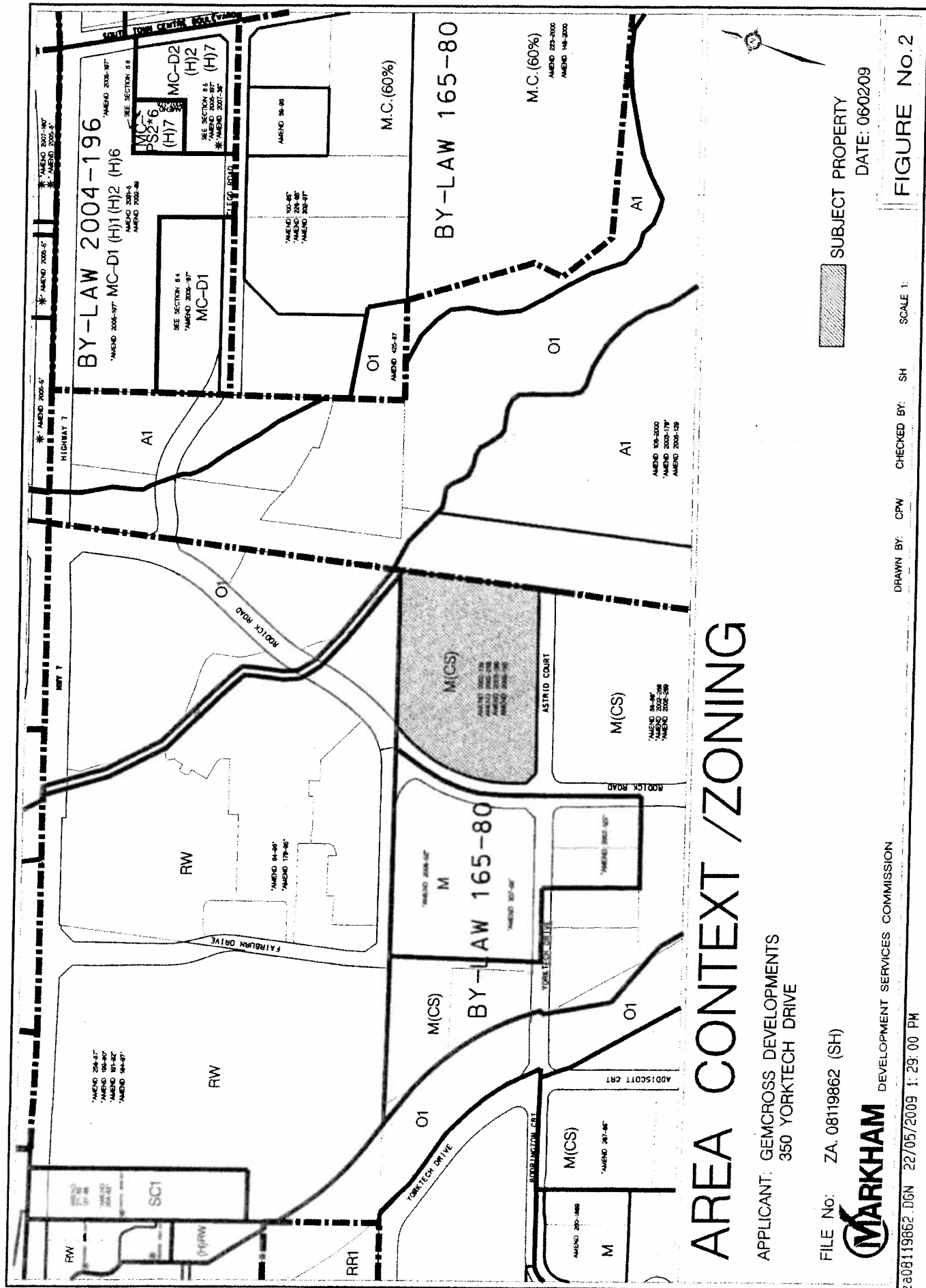
Appendix 'C' Letter dated February 4, 2009 from Poulos and Chung Limited

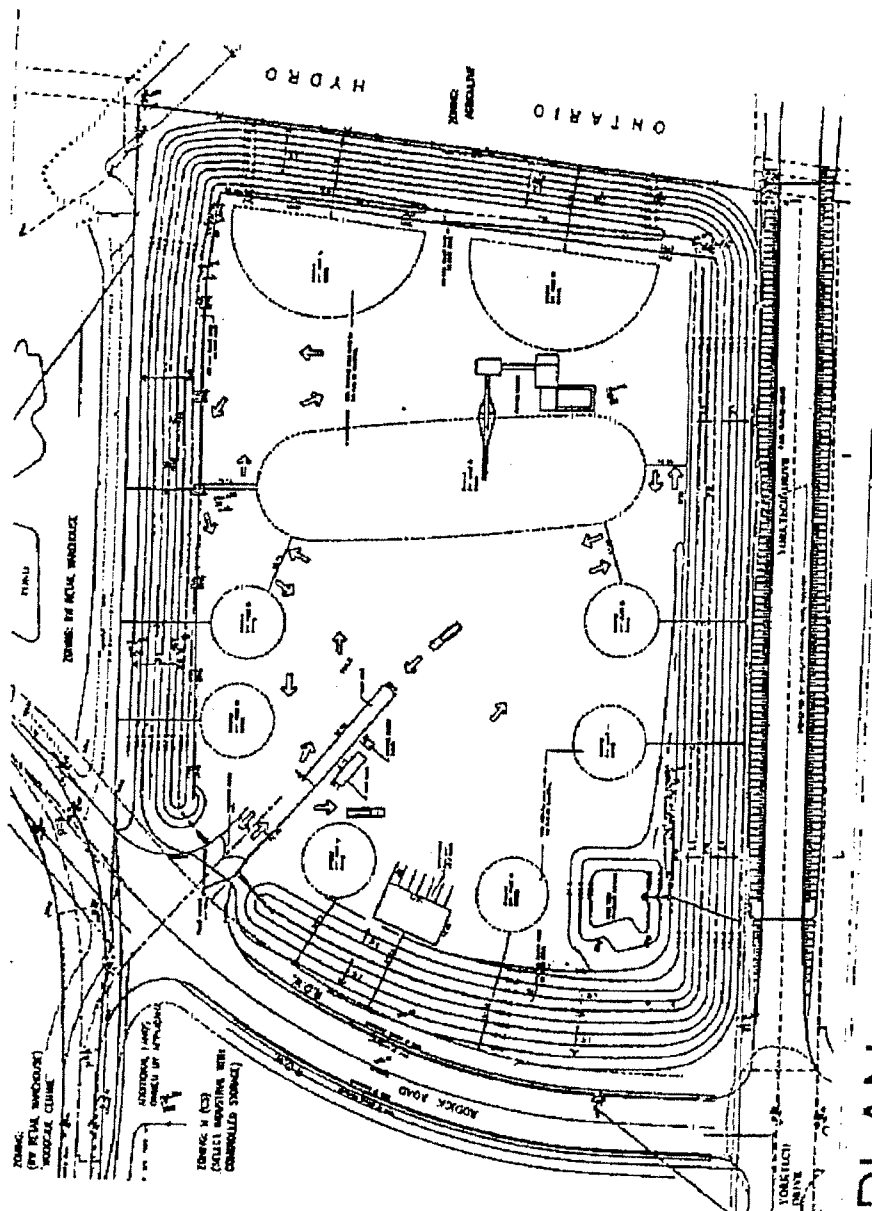
APPLICANT/AGENT: Peter Cheatley  
MaCauley Shiomi Howsom Limited  
60 Annette Street

Toronto, Ontario  
M6S 2C4  
Tel: 416-487-4101  
Fax: 416-487-5489  
Email: [cheatley@mshplan.ca](mailto:cheatley@mshplan.ca)

File path: Amanda\File 08 119862\Documents\Recommendation Report







# SITE PLAN

APPLICANT: CONSTRADA AGGREGATES INC.  
350 YORKTECH DRIVE

FILE No: ZA-01104767 (DC)



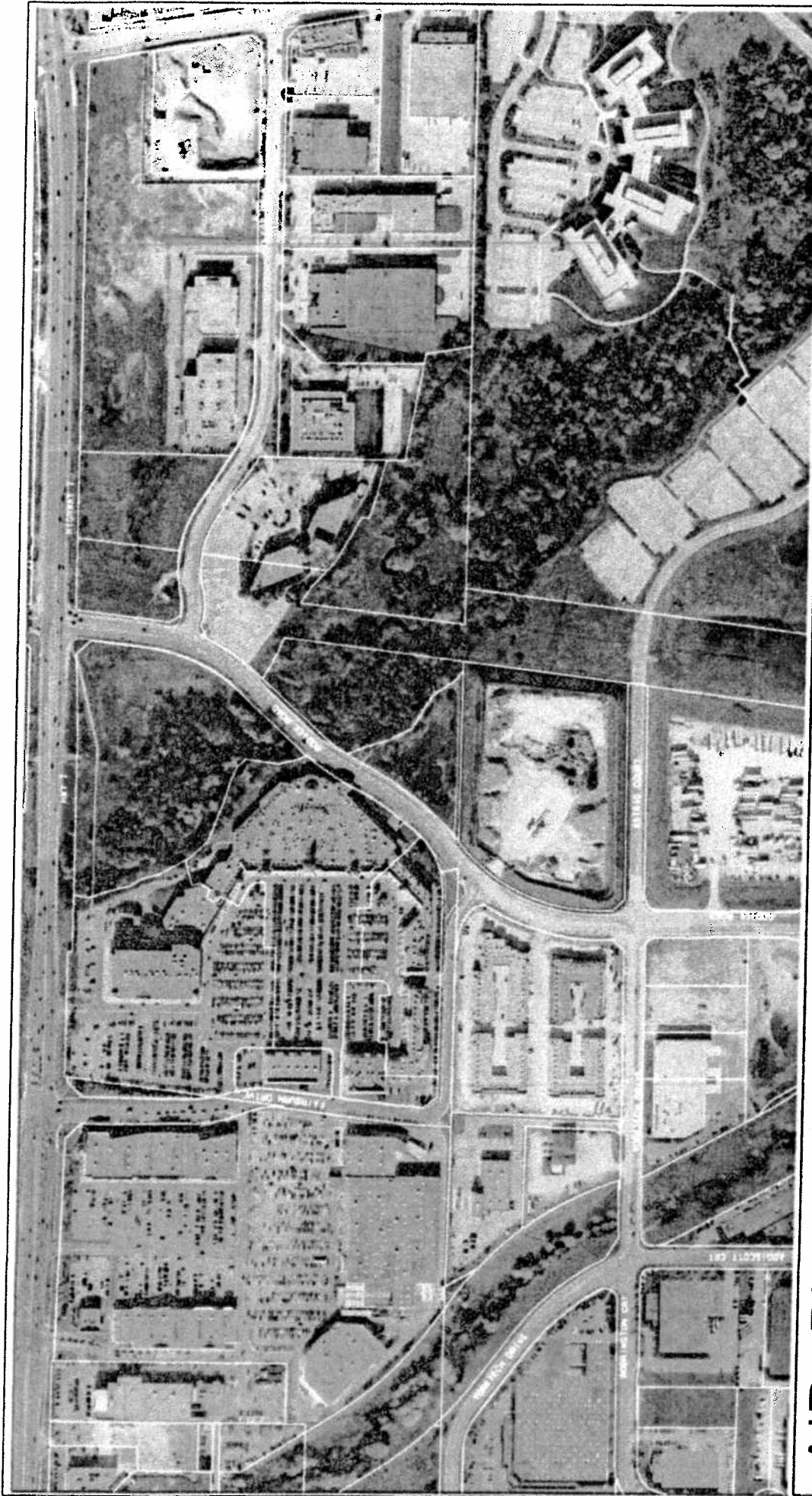
DEVELOPMENT SERVICES COMMISSION

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DRAWN BY: CPW CHECKED BY: DC SCALE 1:

DATE: 060209

FIGURE No.4



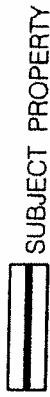
# AIR PHOTO (2007)

APPLICANT: GEMCROSS DEVELOPMENTS  
350 YORKTECH DRIVE

FILE No: ZA. 08119862 (SH)



DEVELOPMENT SERVICES COMMISSION



SUBJECT PROPERTY

DATE: 06/02/09

DRAWN BY: CPW CHECKED BY: SH SCALE 1:

FIGURE No.3

**MACAULAY SHIOMI HOWSON LTD.**  
**MUNICIPAL AND DEVELOPMENT PLANNING SERVICES**

January 16, 2009

Scott Heaslip, MCIP, RPP  
Senior Project Co-ordinator,  
Planning Department,  
Town of Markham,  
101 Town Centre Blvd  
Markham, Ont  
L3R 9W3

Dear Sir:

Re: Gemcross Developments (Con-Strada Aggregate Recycling Facility) 350 Yorktech Drive; Your file # **ZA-08-119862**

Lyn Townsend has forwarded your email to me in which you request the information that Council asked for on November 18, 2008. While we are endeavouring to provide as much to you as is possible, I am sorry to say that we will not have the complete package available until near the end of February.

With respect to the Development Services Committee's questions, I can provide the following answers:

**Status of Contamination on the lands and Assurance the Property will be Cleaned:**

I have attached a copy of a Barenco letter, dated December 23, 2008, which should answer the questions.

**Amount of Trucks Eliminated, Percentage of Materials used in Markham, and Truck Circulation Patterns:**

Poulos and Chung are preparing this documentation and expect to have it available at the end of February.

**Procedural Guarantee that no application will be filed for permanent aggregate use:**

We are unable to provide such a guarantee, although it is not our client's intent to file such an application at this time.

*Your Header Here*

**Status of the Sediment Control Facility:**

Approval from the Town of the plans has been received. The appropriate culverts were delivered to the site after the frost in late December. It has not been possible to install the culverts because of weather conditions. As soon as the weather changes, the system will be installed.

I believe this covers all of the matters requested of us on November 18, 2008. As soon as the transportation information is available, I will forward it to you.

If you wish to take a status report to the Development Services Committee in February, I would be pleased to attend to provide what information we have.

Yours truly,

Macaulay Shiomi Howson

A handwritten signature in black ink, appearing to read 'Peter Cheatley', with a stylized, cursive script.

per: Peter Cheatley, RPP, MCIP



December 23, 2008

TOWNSEND, ROGERS LLP  
Barristers and Solicitors  
2-1400 Cornwall Road  
Oakville, Ontario  
L6J 7W5

**DRAFT FOR REVIEW**

Attention: Ms. Lynda Townsend

Dear Ms. Townsend:

Re: Strada Aggregates Property Environmental Remediation  
Northeast Corner of Rodick and Yorktech Roads, Markham, Ontario

As requested, we have reviewed the information we have on file for the Strada Aggregates property located on the northeast corner of Rodick and Yorktech Roads in Markham, Ontario, and prepared a cost estimate if an environmental remediation of the site were undertaken to meet current Ministry of the Environment standards.

### Background

The Strada Aggregates property is about one quarter of what was formerly a larger piece of land that pre-dated the construction of Rodick and Yorktech Roads. As the larger piece was being developed, the four quarters on each corner of the two roads were named as follows:

Roseport 1 (R1) - northwest corner  
Landport 1 (L1) - southwest corner

Roseport 2 (R2) - northeast corner  
Landport 2 (L2) - southeast corner

Figure 1 shows the layout of the four parts, including the Strada Aggregates property which is Roseport 2.

Since 1981 numerous environmental investigations, remediations and site specific risk assessments have been conducted on and around the Strada Aggregates property (herein referred to as R2) and properties surrounding the Rodick/Yorktech intersection. The reports we have reviewed are listed below:

Professional Engineers  
Ontario



..... 2

- Trow, Dames & Moore, *Phase I Decommissioning - Ryan Road Subdivision - Blocks 1 through 6, Markham, Ontario, March 15, 1989.*
- Trow, Dames & Moore, *Application for Section 23 and 24 Approval (OWRA) Roddick Road North and Yortech Drive - Kellett subdivision, Markham, Ontario, May 3, 1989*
- Trow, Dames & Moore, *Application for Section 45 (EPA) Approval, Rodick Road North of Yorktech Drive - Kellett Subdivision, Markham, Ontario, June 12, 1989*
- Trow, Dames & Moore, *Supplementary Report - Phase I Decommissioning, Ryan Road Subdivision - Blocks 1 through 6, Markham, Ontario, November 15, 1989*
- Eco Geochemical Consulting Limited, *Draft Factual Report, Ryan Road Storm Sewer Investigation, Markham, Ontario, March 30, 1992*
- Conestoga-Rovers and Associates, *Landfill Gas Investigation, Ryan Road Developments, Markham, Ontario, January 12, 1995*
- Proctor and Redfern Limited. *ESSROC Canada Inc. 801 Rodick Road-Markham Yard, Town of Markham, Phase I and II Environmental Assessment, August 1997*
- Proctor & Redfern, *Phase I and II Environmental Site Assessment 801 Rodick Road - Markham Yard, Town of Markham, August 1997*
- Beak Environmental Specialists, *Site Specific Risk Assessment Report, Part of Lot 9, Concession 4, EYS (Sabiston Lands), Markham, Ontario, October 1997*
- Trow Consulting Engineers Ltd., *Phase II Environmental Site Assessment Part of Lot 9, Concession 4, Markham, Ontario, December 1, 1999*
- Trow Consulting Engineers Ltd., *Phase II Environmental Site Assessment, East Part of Part 1, Lot 9, Concession 4, Markham, Ontario, June 14, 2000*
- XCG Consultants Ltd., *Site Specific Risk Assessment and Risk Management Plan Rodick Road and Yorktech Drive, Markham, Ontario, May 15, 2001*
- Barenco Inc., *Limited Subsurface Investigation, Landport L2 Property, Yorktech Drive and Rodick Road, Markham, Ontario, March, 2005.*
- Barenco Inc., *Limited Subsurface Investigation Landport L2 Property Yorktech Drive and Rodick Road, Markham, Ontario, March 2005*

- Barenco Inc., *Phase I Environmental Assessment Landport L2 Parcel, 801 Rodick Road, Markham, Ontario, March 05, 2008*

We reviewed these reports with respect to the data relevant to R2 and chemicals that could potentially exceed the currently applicable MOE Standards. The potential contaminants are identified as follow:

Soil	Metal	antimony, arsenic, beryllium, boron, cadmium, copper, lead, molybdenum, nickel, zinc
	Polyaromatic hydrocarbon (PAH)	benzo(a)pyrene, benzo(b)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoranthene, indeno(1,2,3-cd)pyrene, phenanthrene
	Petroleum hydrocarbon (PHC)	petroleum hydrocarbon fractions (PHC) F1 - F4
Ground water	Metal	arsenic, cadmium, copper, lead, silver
	Polyaromatic hydrocarbon (PAH)	benzo(k)fluoranthene, benzo(g,h,i)perylene, indeno(1,2,3-cd)pyrene
	Volatile organic carbon (VOC)	xylene, vinyl chloride

### Scope and Costing

If remediation of the site were to be undertaken, the contaminated soil could be excavated and disposed at an Ministry of the Environment approved disposal or treatment facility. Since the contaminated ground water is entrained in the soil, removal of the soil should eliminate the ground water contamination.

During the relocation of soils from the west side of Rodick Road (Roseport 1 - R1) to R2, the grade level of R2 was raised by approximately two metres. Soils were also used to construct privacy berms two metres high and ten metres wide on the perimeter of R2.

A remedial excavation would cover the entire R2 property, approximately three hectares in area, bringing the whole property to grade level (with respect to adjacent roadways). The volume of soil that would be excavated and hauled to a landfill is estimated and presented in the following table.

December 23, 2008

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Strada Aggregates Property Environmental Remediation, Rodick & Yortech Roads, Markham

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	Dimensions	Volume
<b>R2 property</b>	Area: $200 \times 150 = 30,000 \text{ m}^2$ Height above grade: 2 m	$30,000 \times 2 = 60,000 \text{ m}^3$
<b>Privacy Berms</b>	Area: $(200 \times 150) - (180 \times 130) = 6,600 \text{ m}^2$ Height above R2 grade: 2	$6,600 \times 2 = 13,200 \text{ m}^3$
Total Volume		<b>73,200 m<sup>3</sup></b>

Based on the estimated soil volume and a soil bulk density of 2 tonnes per m<sup>3</sup>, the mass of soil that would be excavated and hauled to landfill is approximately 150,000 tonnes.

If remediation were undertaken, the cost would be approximately \$85 per tonne of soil. This cost is estimated based on past experience and current rates and it includes the cost of excavation, laboratory leachate and confirmatory testing, haulage and disposal at an MOE approved facility, backfill material, backfilling and compaction.

If the Strada Aggregates property is remediated by excavating and disposing 150,000 tonnes of soil, the cost is estimated to be \$12,750,000.

If there are any questions, please give me a call.

Yours very truly,  
BARENCO INC.

Jim Phimister, P.Eng., P.Geo.  
Hydrogeologist, Principal

attachment: Figure 1



February 4, 2009

Mr. Peter Cheatley, B.E.S., MCIP, RPP  
 Senior Associate, Planning  
 MaCaulay Shiomi Howson Ltd.  
 600 Annette Street  
 Toronto, ON  
 M6S 2C4

***Re: Strada Aggregates  
 Strada Aggregates Re-Cycling Facility  
 Rodick Road and Fairburn Drive  
 Town of Markham***

***Project 09.203***

Dear Mr. Cheatley

Poulos & Chung Limited is pleased to submit this initial report on the yearly traffic monitoring program for the above facility. This letter report is to be followed by a final report which will contain updated boundary road and boundary road intersection turning movement count information. To verify the boundary road vehicle flow the traffic counts will be conducted in the month of February which is outside of the seasonal effects caused by the Holidays and March school break. The February counts will then use past monthly variations (of background traffic flows) to factor in the peak summer month conditions.

The information contained in this letter report includes:

- The average daily truck traffic into and out of the re-cycling facility by month over the past four (4) years;
- The re-cycling truck traffic calculated in the average day of the highest month in the year;
- The re-cycling truck traffic calculated in the highest day of the highest month of the year;
- The percentage distribution of truck types used in the arrival and departure patterns of the site;
- The calculation of truck deliveries from the site that are destined to construction sites in the Town of Markham;

The following sections present the detail analysis and calculations completed to date.

**Poulos & Chung Limited**

535 Bur Oak Avenue— Markham, ON, Canada L6C 2S5— Tel (905) 479-7942 – Fax (905) 479-1266

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***Specialists in Transportation Planning & Traffic Engineering***

## **1. Site Location**

The Strada Aggregates re-cycling facility is located on the east side of Rodick Road approximately 350 meters south of Highway 7. The entrance to the facility is located directly opposite Fairburn Drive.

The location of the site is shown in Figure 1.

Rodick Road and Fairburn Drive are roads under the jurisdiction of the Town of Markham.

The primary routing of all re-cycling trucks is Rodick Road to Yorktech Road and then to Woodbine Avenue. Yorktech Road is also under the jurisdiction of the Town of Markham. Woodbine Avenue and Highway 7 are major arterial roads and are under the jurisdiction of York Region.

## **2. Re-cycling Operations**

The Strada Aggregates re-cycling facility essentially receives trucks carrying materials such as asphalt and concrete blocks recovered from tear-down buildings and roads. The materials are then on-site ground into specified sizes for use in new construction projects including houses, buildings and roads.

Observations indicate that the site is very efficient. Most trucks arrive and leave with loads.

## **3. Average Daily Traffic Flows**

The site operates on weekdays from 7:00 a. m. to 5:00 p. m. In the summer months the site operates for one-half day on Saturdays.

The average daily truck traffic (in and out of the site) by month of year is shown in Figure 2. The daily truck traffic by month is presented for years 2004, 2005, 2006, 2007 and 2008.

Although there are minor monthly variations by year it is evident that the majority of truck movements are during the major construction season between April and November.

## **4. Daily Truck Flow Variations**

The detailed data available was analyzed to determine hourly variations in the day. Since data is available for every month of the year, the peak month of the year was used.

Within the peak month of the year, two days were calculated. The first day is the "Average Day" and the second day is the "Highest Day".

The hourly variation of these two days is shown in Figure 3.

The hourly variation of truck flows in these days is very similar. As expected the highest day in the highest month of the year experiences the greatest number of truck movements.

All other days outside of the highest month of the year accommodate less truck movements.

In the winter months of December, January, February the typical daily flows are less than half of the peak month (June). All other months range between approximately 60 to 85 percent of the peak month.

## **5. Vehicle Classification**

The type of truck using the Strada Aggregates facility is illustrated in Figure 4.

The vehicle descriptions are as follows:

- Trailer – 6 axle Tractor- Triaxle semi-trailer;
- Tri-sAxle – 4-axle Single Unit Aggregate and 3-axle Truck and 4-axle Full Trailer;
- Pick Up – 2 or 3-axle Single Unit Truck;
- Cars – Automobiles or single axle pick-up trucks.

The type of truck used in the Markham operation is considered normal and indicative of similar operations.

## **6. Truck Delivery Distribution Pattern In Markham**

The product delivery information for 2008 was examined.

The calculations indicate that of the total product (trucks) leaving the site 47.5 percent of the deliveries had destinations within the Town of Markham. The location of product deliveries within the Town of Markham was also recorded.

It is concluded that approximately half of all trucks exiting the site to deliver aggregate materials had destinations to construction sites within the Town of Markham.

Figure 5 identifies the location of product deliveries and the percentage of product (percent of total trucks leaving the site) destined to the location.

Upon completion of the boundary road and boundary road intersection turning movement counts in February a further report will be produced. This report will identify the background traffic flows on the boundary roads and examine all roadway and intersection operations with the inclusion of site truck movements. All weekday and Saturday peak hours will be examined and detailed levels of service and volume to capacity ratios will be presented.

Poulos & Chung Limited is pleased to have the opportunity to make this submission and is available to provide further clarification or respond to any questions as they may arise.

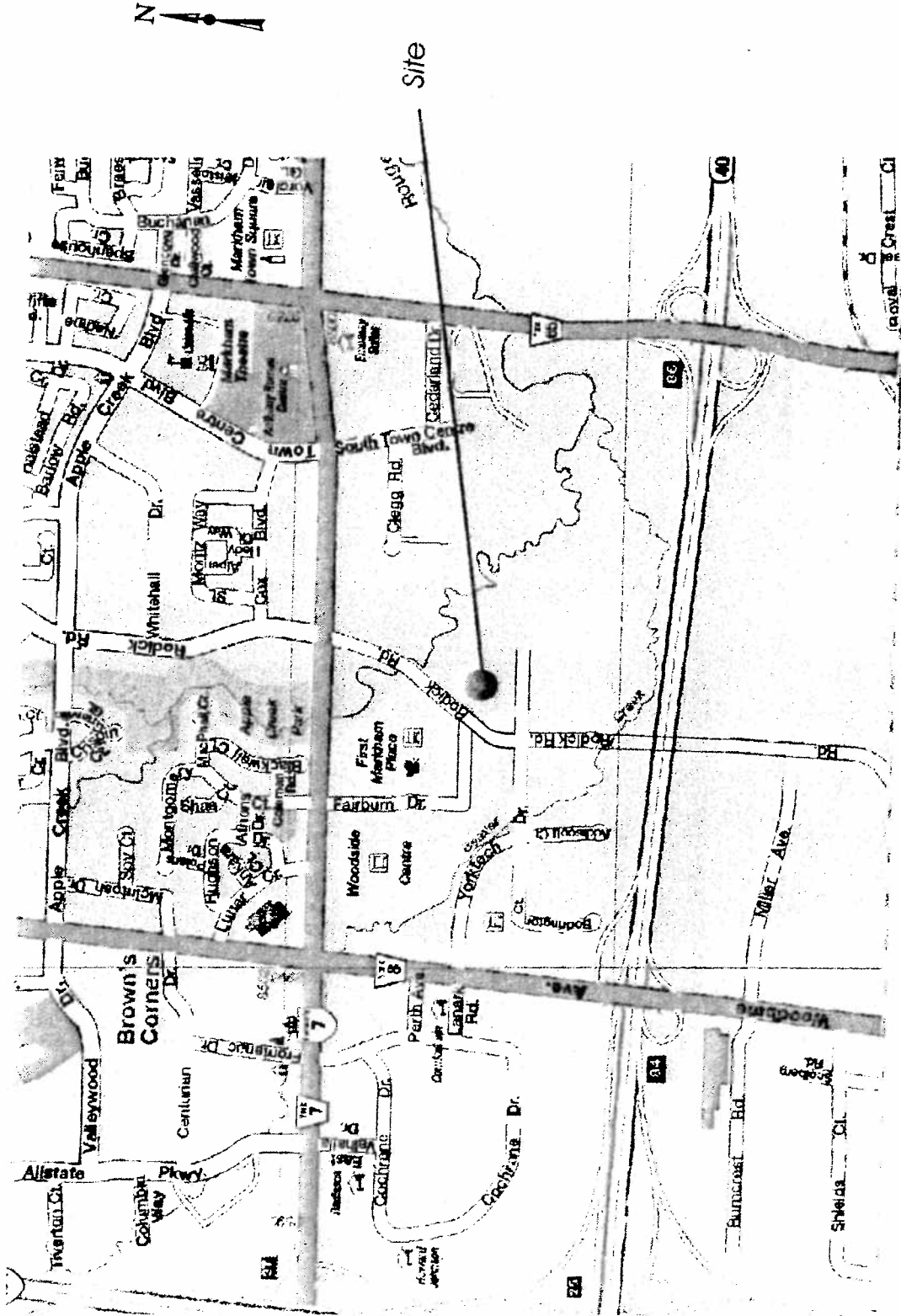
Yours Very Truly

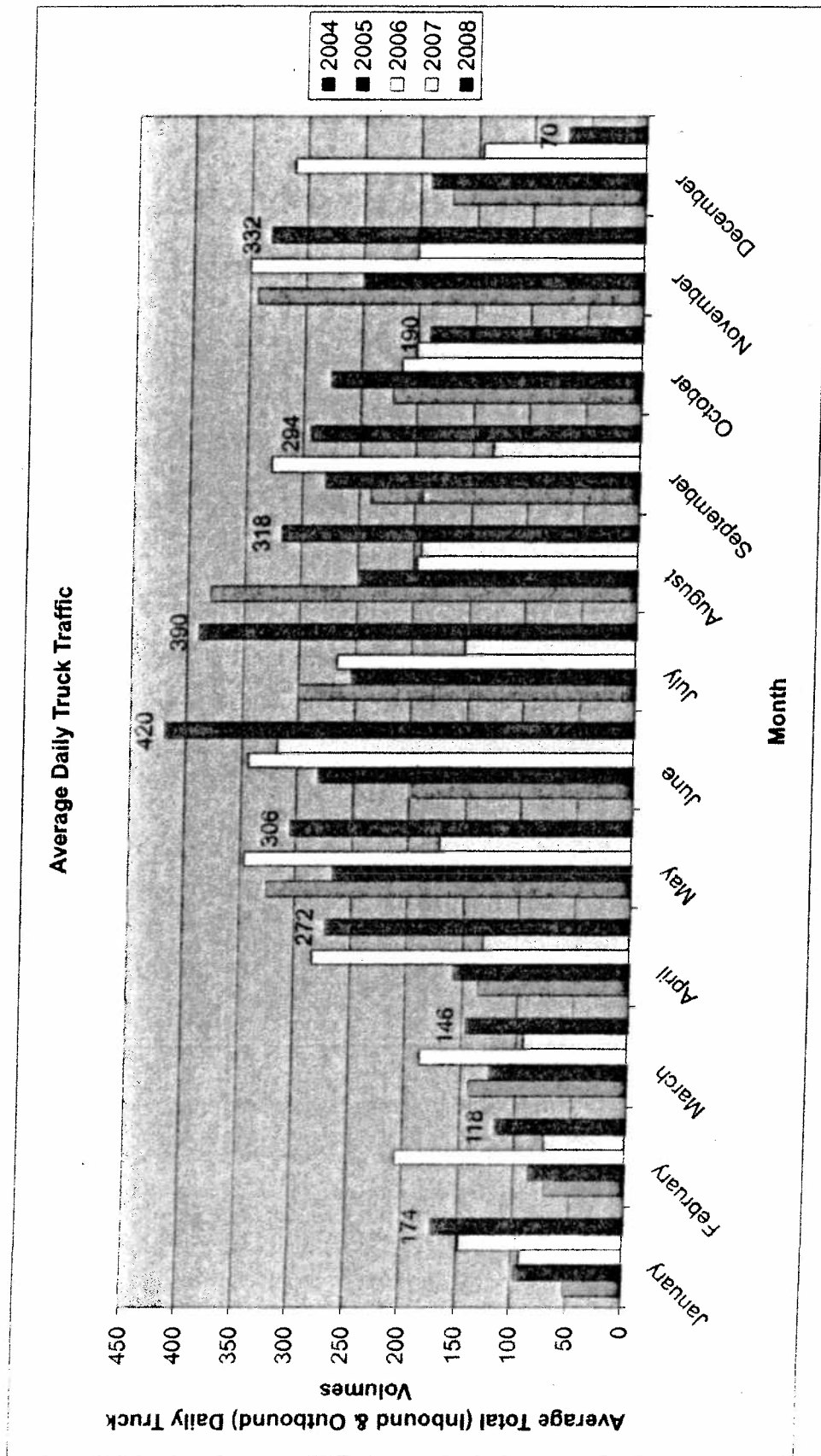
Handwritten signature of N. G. Poulos in black ink.

N. G. Poulos, P. Eng.  
Partner

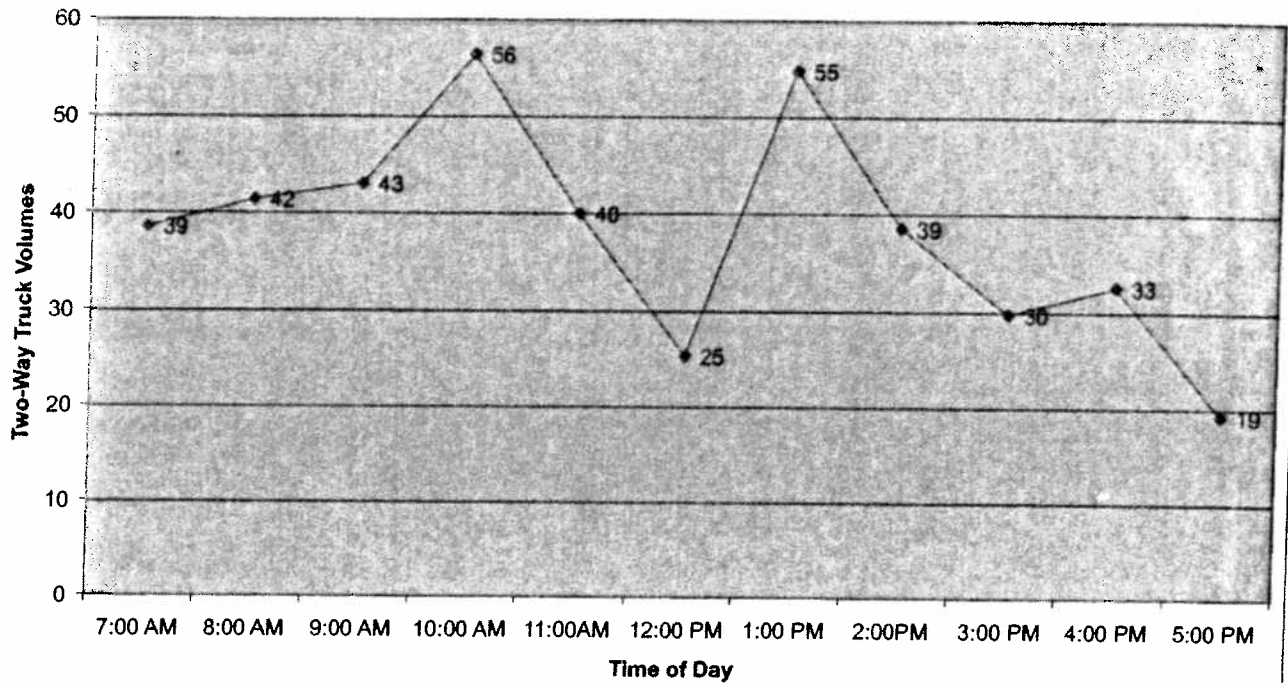
Handwritten signature of Norman Q. Chung in black ink.

Norman Q. Chung, P. Eng.  
Partner





**Two-way Truck Traffic Highest Month Average Day**



**Two-way Truck Traffic Highest Month Highest Day**

