

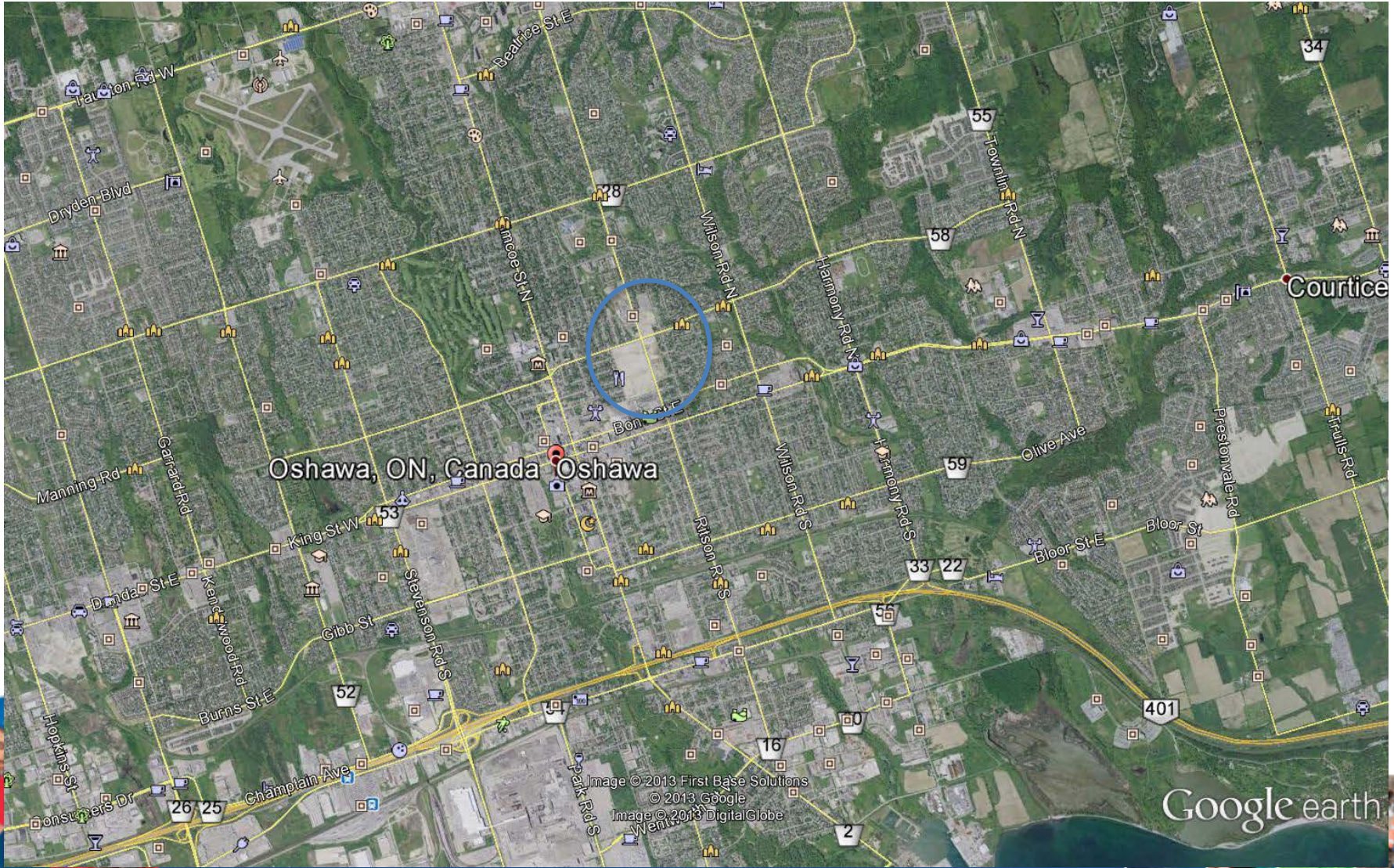
## Risk Assessment, Remediation and Redevelopment: A Brownfield Success Story in Oshawa

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Assessment

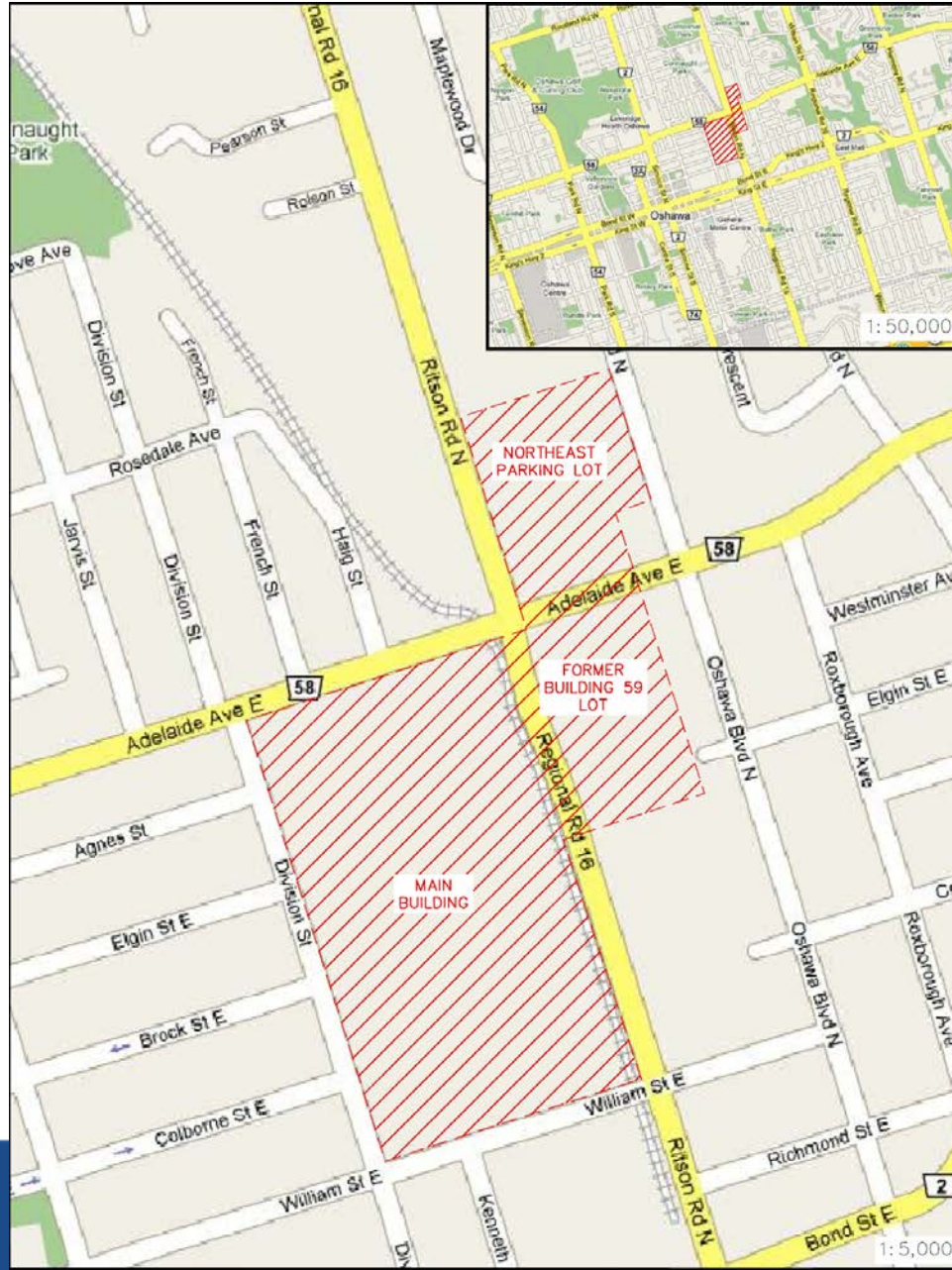


# Site Setting

- Downtown Oshawa



# The Site



# What's a Brownfield?

Previously used?	Yes
Underutilized?	Yes
Perceived or real contamination?	Yes
Potential for re-use?	Yes
Potential for urban intensification?	Yes
Central location that could help stimulate local economy?	Yes



# History of this Site

- **1876 – McLaughlin Carriage Company started production of horse-drawn carriages (made one carriage every ten minutes by 1915)**
- **1907 – Automobile production started (alliance with Buick Motor Company)**
- **1918 – McLaughlin Car Company and Chevrolet Car Company merged to become GM Car Company of Canada. Operations at the Ritson Road property started to shift away from vehicle assembly in 1954, when the GM South Autoplex (located south of the 401) was opened.**
- **1965 – 2004 – Automotive parts manufacturing continued until plant decommissioning in 2004 and final closure in 2007**
- **2007-2010 – Environmental site assessment, remediation and risk management activities. Remediation of the site initially comprised large scale dig and dump following site demolition (by CH2M Hill). Residual groundwater impacts were then treated by chemical oxidation and managed through the risk assessment.**
- **October 2010 – Three Records of Site Condition obtained for the three parts of the site.**
- **Fall 2010 to Present - During development, remaining impacts in soil have been managed through the soil management plan for the site, groundwater has been monitored as required by the CPU and capping of the site with buildings, hard caps and soil caps continues as the development continues. Currently, a Costco store is now present on the southern half of the main site, a Canada Post sorting facility is now present in the north east property and development of other commercial properties continues on the rest of the site**



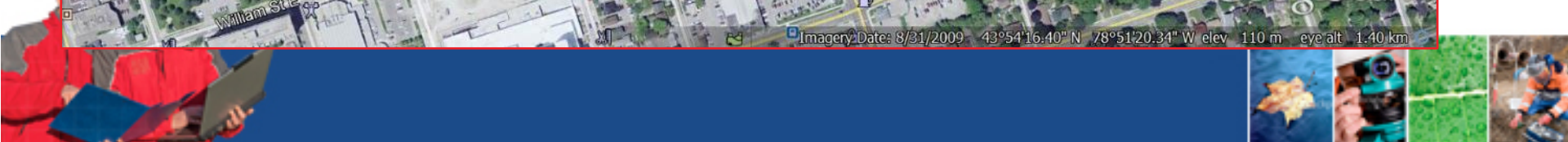
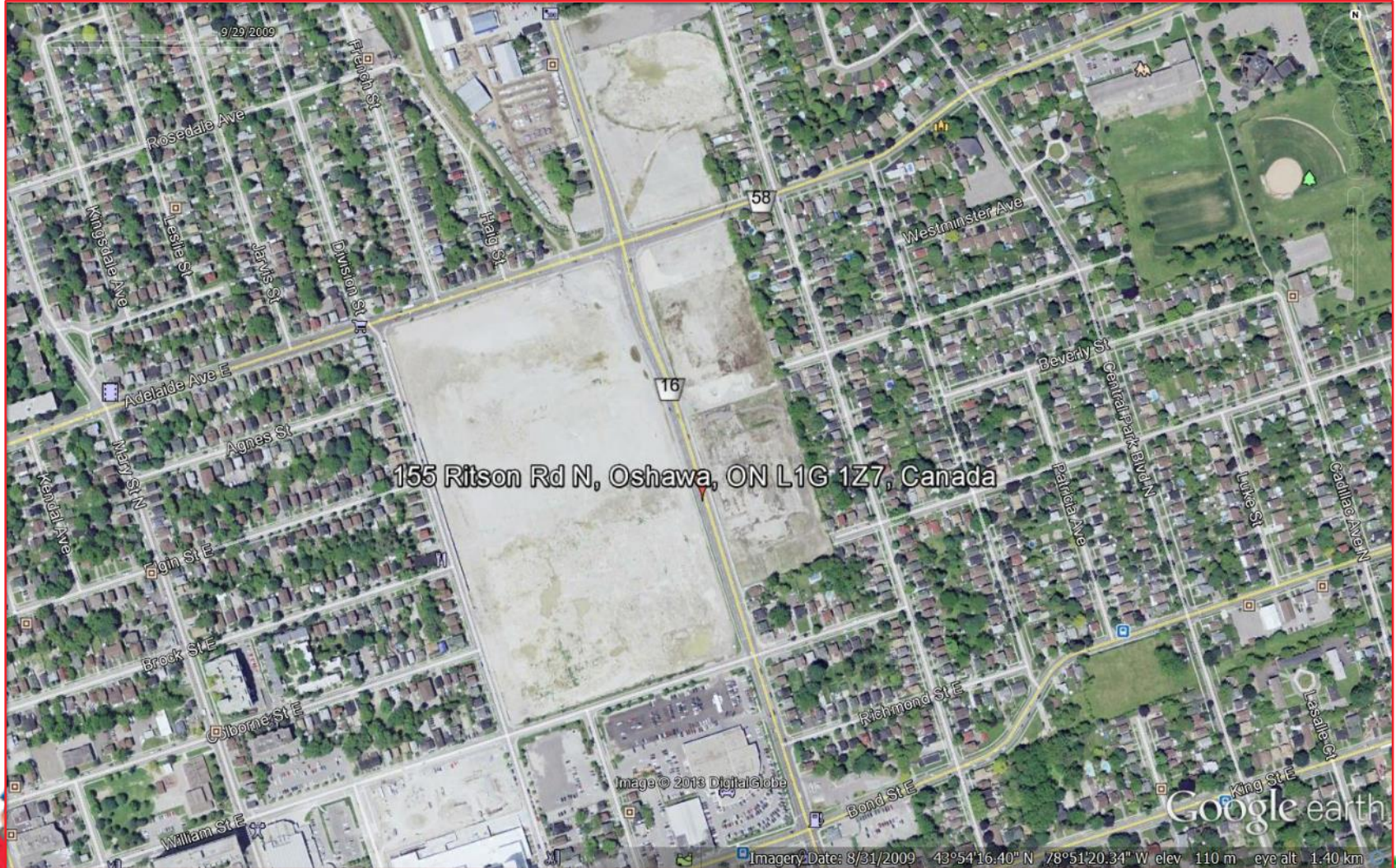
1927



1990



# 2009





# Risk Assessment

- Full Tier III Risk assessment completed under Ontario Regulation 153/04
- Considered soil and groundwater impacts in excess of generic standards and human health and ecological receptors
- Used site specific information where possible
- Developed property specific standards for impacts in soil and groundwater exceeding generic standards (VOCs, Beryllium)



# Public Communication

- Requirement of Risk Assessment process
- Developed a plan in conjunction with MOE District Engineer
- Disseminated applicable information via City of Oshawa website
- Provided direct email contact between public and project manager
- Included City/Region from outset of project



# Remediation

- Limited source removal and chemical oxidation to meet Property Specific Standards (PSS)
- Two rounds of treatment required to reduce cis-1,2-dichloroethene from 11,000 ug/l to <1,600 ug/l
- Round 1 used Potassium Permanganate
- Round 2 used Sodium Permanganate



# Obtaining the RSC

- Risk based RSC filed with Ontario Ministry of Environment
- One Risk Assessment used to obtain three RSCs in ~18 months

Registration Number	91116
Status	Filed
Filing Date	2010/10/28
Certification Date	2010/08/16
Current Property Use	Industrial
Intended Property Use	Commercial
Certificate of Property Use Number	4660-7NZCPU-1
Applicable Standards	Full Depth Site Conditions Standard, with Nonpotable Ground Water, Coarse Textured Soil, for Industrial/Commercial/Community property use with Risk Assessment
Property Municipal Address	155 Division Street, Oshawa, Ontario, L1G 7Z6

Registration Number	91118
Status	Filed
Filing Date	2010/11/15
Certification Date	2008/12/18
Current Property Use	Industrial
Intended Property Use	Residential
Certificate of Property Use Number	4660-7NZCPU-3
Applicable Standards	Full Depth Site Conditions Standard, with Nonpotable Ground Water, Coarse Textured Soil, for Residential/Parkland/Institutional property use with Risk Assessment
Property Municipal Address	No municipal address available

Registration Number	91316
Status	Filed
Filing Date	2010/11/17
Certification Date	2007/04/01
Current Property Use	Industrial
Intended Property Use	Commercial
Certificate of Property Use Number	4660-7NZCPU-2
Applicable Standards	Background Site Conditions Standard, with Nonpotable Ground Water, Coarse Textured Soil, for Industrial/Commercial/Community property use with Risk Assessment
Property Municipal Address	201 Ritson Road North, Oshawa, Ontario, L1G 7Z6



# Risk Management Measures

- Minimised RMMs where possible to help facilitate property sale/development.
- Soil capping – soft (landscaping) or hard (roads/buildings)
- No basements
- No residential land use
- Groundwater monitoring to verify PSS are met long term
- Site-specific health and safety plan
- Soil Management Plan



# Site Sale & Development

- Rice Commercial Group – purchased three portions of property
- Canada Post Corporation – purchased northern half of north east parcel for new distribution facility
- Costco Canada – purchased southern half of main parcel from Rice Commercial Group. First part of development to open.



# Post Sale Activities

- Managed implementation of RMMs
- Supported transaction with Costco
- Continued groundwater monitoring
- Supervised soil management plan
- Responded to dust complaints from neighbours/City/Region
- Provided additional data (more ESA) on land to be given to City/Region for road widening
- Supported City/Region with health and safety plan



# Good News?



**“Huge lines at Oshawa Costco job fair  
Costco looking to hire 110 part-time  
employees” ([www.durhamregion.com](http://www.durhamregion.com))**

“specific non-residential developments, like the downtown campuses of UOIT and Durham College, new commercial developments like Costco, a new Metrolinx bus maintenance station, a new Canada Post distribution centre and a forthcoming Holiday Inn Express as contributing to the “healthy” construction growth seen in Oshawa”. (*The Oshawa Express*)

<http://www.cbc.ca/player/Shows/Shows/The%2BRick%2BMercer%2BReport/Clips/ID/2298726960/>





# The Site Today



# THANK YOU!

## FRANZ ENVIRONMENTAL INC.

Mississauga, Ottawa, Vancouver, Victoria, Montreal

