

Background Information on The Grand Trunk Site

November 11, 2024

Introduction & Purpose

This report is intended solely for general information of the public related to the Grand Trunk Railway project. Staff's involvement in the environmental remediation of the Grand Trunk Railway site began in 1993, with numerous investigations conducted over the years. This document provides high-level summary of environmental assessment findings for the site, presenting an overview of potential impacts and estimated remediation costs by parcel. This document outlines both general information on brownfield remediation and site-specific details for the Grand Trunk Railway site.

General Information on Environmental Remediation

This section provides an overview of standard processes for brownfield remediation, applicable to sites that undergo similar redevelopment.

Record of Site Condition (RSC) Processes

The RSC process ensures that a brownfield site meets environmental standards for its proposed use. The RSC process can vary in duration and complexity, depending on the extent of soil impacts and the level of remediation required. Figure 1 shows a generic record of site condition process.

RSC Process if Managing Existing Environmental Impacts (Duration: 18-36 months)

1. Phase 1 Environmental Assessment – Desktop study
2. Phase 2 Environmental Assessment – Site assessment
3. Risk Assessment Report
 - Site-specific standards and risk management measures if required.
4. Remediation – If necessary and feasible
5. File RSC – Approval process with Ministry of Environment, Climate and Parks (MECP)

6. Certificate of Property Use – Ongoing management measures (e.g., land-use restrictions)

RSC Process if Removing Impacted Soils (Duration: 12-18 months)

1. Phase 1 Environmental Assessment – Desktop study
2. Phase 2 Environmental Assessment – Site assessment
3. Remediation – Removal and treatment to meet generic standards.
4. File RSC – Iterative approval process with MECP.
5. Certificate of Property Use – As required.

Notes on the RSC Process

- Record of Site Conditions are required when zoning or land-use becomes more sensitive (e.g. industrial to residential, parkland or community use).
- The conditions achieved through record of site condition would apply to the entire parcel of land identified for development.
- A site can have 'Site Specific Standards,' which are tailored environmental remediation conditions specific to the parcel of land and its proposed use. This is often a more cost-effective process but takes time and requires approval.
- The entire site has gone through preliminary environmental assessments through a Phase 1 and 2. These reports and findings are outdated. To develop all locations to a more sensitive use, a full RSC process is required.
- Risk Management Measures (RMMs) are put into place if impacted soils are to remain on site. The intent of RMMs is to identify potentially unacceptable risk of exposure to human and ecological receptors in soil and groundwater. Examples include hard cap surface to limit vapours, and vapour intrusion systems that block and vent vapours from buildings.
- Construction fill refers to material used to raise the ground level. Often fill is not suitable for supporting structures such as roads or buildings. A common practice when installing structures is to remove the fill and replace it with appropriate granular material.

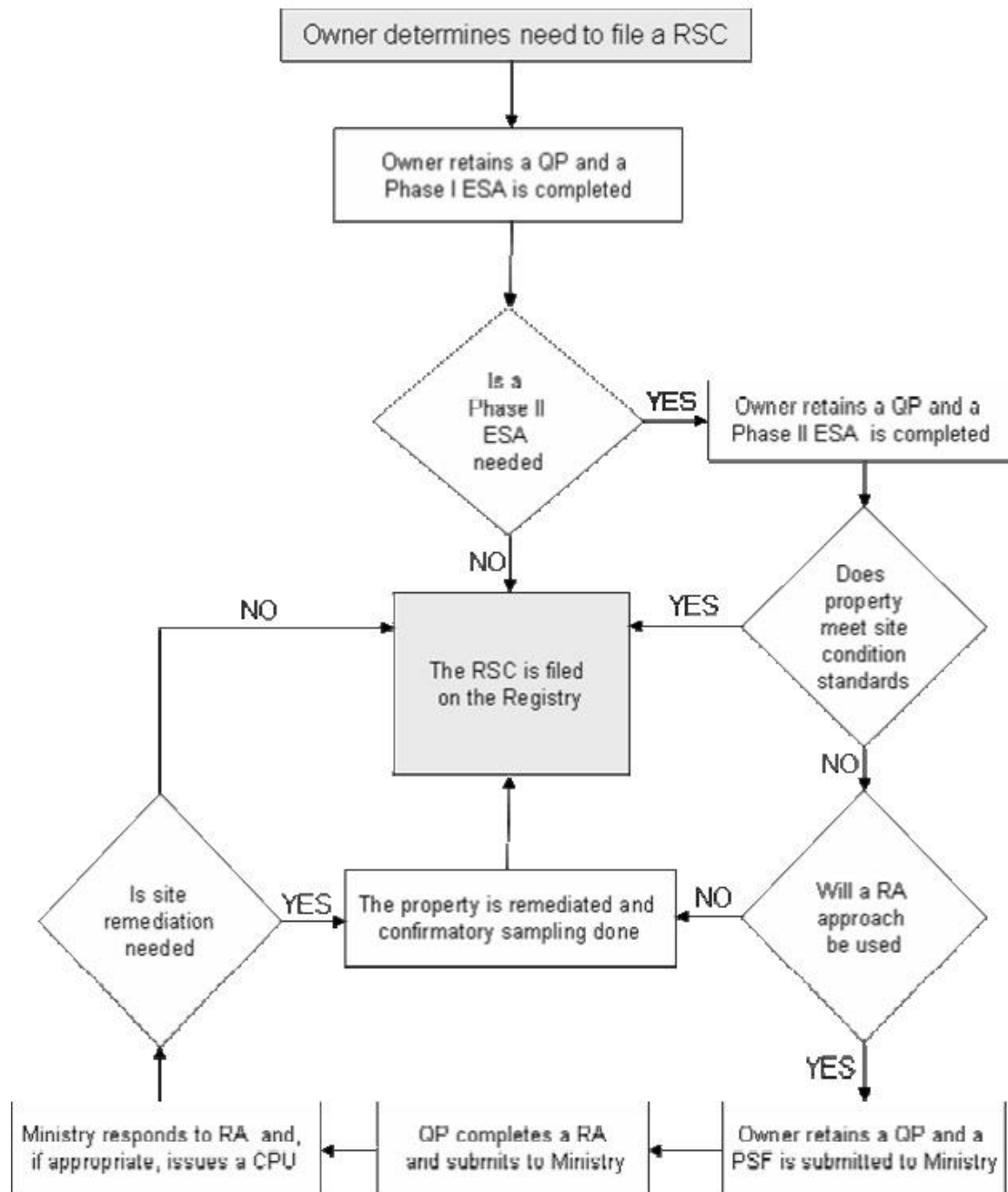


Figure 1 Generic Record of Site Condition Flow Chart

Source: <https://www.ontario.ca/page/guide-site-assessment-cleanup-brownfields-filing-records-site-condition>

CPU, certificate of property use
 ESA, environmental site assessment
 Ministry, means Ministry of the Environment

QP, qualified person
 RA, risk assessment
 PSF, pre-submission form

Roads and Servicing

- To construct a municipal road on the site, a public consultation and planning process is necessary, which may include one of the following options:
 - Municipal Class Environmental Assessment (Soon to be Municipal Project Assessment Process)
 - Plan of Subdivision
 - Plan of Condominium

Information on the Grand Trunk Railway Site

This section details site-specific findings, parcel characteristics, and expected remediation needs based on preliminary assessments.

Conceptual Grand Trunk Railway Parcels

Based on the 2018 Grand Trunk Railway Master Plan, this site consists of several conceptual parcels with unique characteristics and remediation needs. Appendix 3 illustrates these parcels. Parcel boundaries are approximate, and sizes may change with final planning and development decisions. While each parcel is considered individually, general considerations apply to all.

- All require an RSC if a more sensitive land use is considered.
- Remediating a site and going through an RSC is common practice for infill development.
- It should be assumed that all parcels have hydrocarbon impacts amongst other hazardous material.
- The entire site contains fill. Generally, fill is not suitable for building and needs to be removed.
- Consultant costs of the RSC process for each parcel is expected to be between \$200,000 and \$400,000.

The following information summarizes known site-specific conditions and cost estimates. A map of sampling sites is in Appendix 1. This demonstrates sampling that has been done on site but is not exhaustive.

Parcel 1A – 12,500 m² (3.1 acres)

- Site Characteristics: Contains existing industrial buildings from the 1800s; proposed location for the Community Hub.
- Current Remediation Status: Record of Site Condition filed in 2024.
- Requirements: RMMs (e.g., hard capping and vapor intrusion) to manage environmental risks for development.

Parcel 1B – 3,800 m² (0.9 acres)

- Site Characteristics: Moderate fill depth (0.5-2.5 meters).
- Remediation: Like Parcel 1A, requiring an RSC and RMMs for development.

Parcel 1C – 17,300 m² (4.3 acres)

- Site Characteristics: Moderate fill depth (1.5-2.5 meters); Masterplan recommends a municipal parking lot.
- Remediation: An RSC will be required if a parking structure or other development is proposed.

Parcel 2A – 2,000 m² (0.5 acres)

- Site Characteristics: Former rail turntable and locomotive maintenance area with shallow impacts; moderate fill depth (1.5-2.5 meters).
- Remediation Estimate: Expected costs between \$500,000 and \$2 million, with site-specific standards.

Parcel 2B – 2,500 m² (0.6 acres)

- Site Characteristics: Former coal storage and rail spurs, shallow impacts, less fill (0.5-1.5 meters).
- Remediation Estimate: Expected costs between \$500,000 and \$2 million, with site-specific standards.

Parcel 2C – 2,500 m² (0.6 acres)

- Site Characteristics: Former commercial and rail spur area, shallow impacts with moderate fill (1.0-2.5 meters).
- Remediation Estimate: Expected costs from \$1 million, up to \$2 million for site-specific standards.

Parcel 2D – 10,000 m² (2.5 acres)

- Site Characteristics: Former industrial area, moderate fill depth (1.0-2.0 meters).
- Remediation Estimate: Exceeds \$2 million for site-specific standards.

Site Servicing and Road Geometry

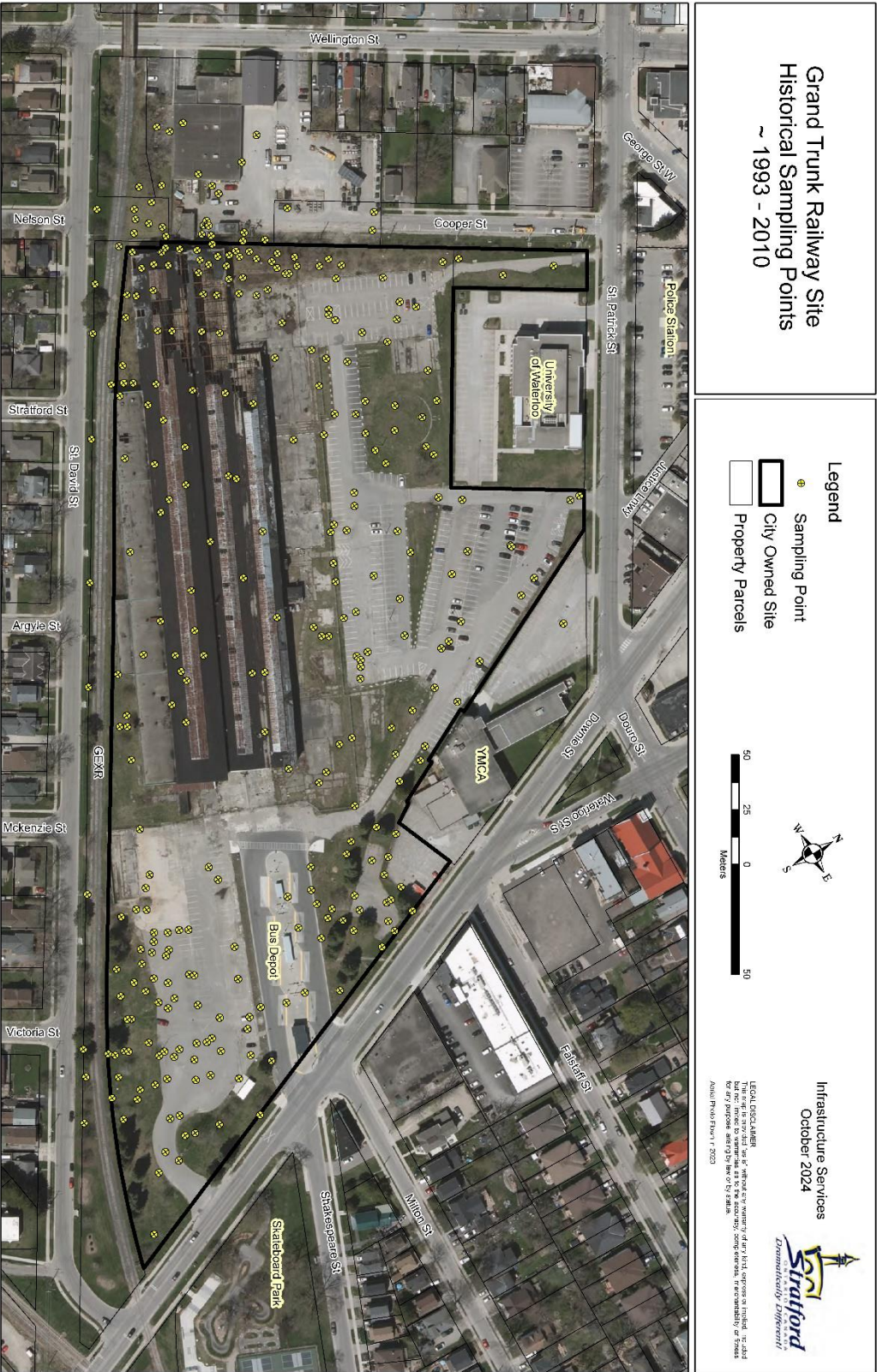
- Staff have utilized the conceptual 2018 Grand Trunk Railway Masterplan as a guiding document. This plan was developed through extensive public consultation and engagement. What was presented is not final but serves as a framework that allows staff to continue making progress on the site. The focus has been on identifying potential challenges and exploring alternative solutions to address those challenges.

- This past spring Staff engaged a consultant to progress municipal servicing, which is servicing of storm sewer, sanitary sewers, watermain and road, to 70% level. This is available in Appendix 2. The assessment yielded a few findings:
 - There is not a much flexibility in the street layout. The entrance at St. Patrick Street is relatively set due to proximity to Downie Street. The entrance off Downie Street is largely set by the location of Falstaff Street. The entrance of St. David Street is largely set by the location of the Grand Trunk building and the transit terminal. It is anticipated that these intersections are recommended to ensure adequate traffic flow, but the detailed studies required to confirm this has not been completed at this time. Further analysis will be needed when the known development types are confirmed as they will dictate traffic volumes and patterns. Adjustments to the road geometry can be anticipated to facilitate potential large bus turning movements.
 - Water, sanitary and storm services, have capacity to support more dense development. There will be obstacles to overcome with stormwater management and the new provincial regulations regarding infiltration.
- To define parcels, the road layout will need to be confirmed, endorsed by Council, and undergo a public planning process such as Municipal Class Environmental Assessment or Plan of Subdivision, neither which have started at the time of this report.
- There are items that will be considered at the detail design stage, including but not limited to traffic studies, street lighting and decorative poles, pedestrian versus cycling movements, landscaping, and utilities.
- All this work is conceptual and used to identify potential roadblocks and enable informed decision-making. Adjustments to these plans should be expected as we continue with further public engagement and design.

Disclaimer:

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Appendix 1 Historic Sampling Sites



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