Soil Management Plan (SMP)

Commissioners Transfer Station – Material Recycling Facility (MRF)
Building Rehabilitation
400 Commissioners Street, Toronto, Ontario

Client:
City of Toronto
Soil Waste Management Services
100 Queen Street West
Toronto, Ontario
M5H 2N2

Attention:
Mr. Ahmad M. Mian, P. Eng.

Type of Document:
Final

Project Name:
Soil Management Plan

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1 Introduction

This Soil Management Plan (SMP) has been prepared for The Corporation of the City of Toronto (hereinafter referred to as the "Project Leader" or the "Owner") for implementation during the intended earthworks at the Project Area identified as the Commissioners Transfer Station Commissioners Transfer Station – Material Recycling Facility (MRF) located at 400 Commissioners Street in Toronto, Ontario (herein referred to as the "Project Area"). A Project Area Location Plan is provided in Figure 1. For the purposes of this SMP, Commissioners Street trends in an east-west direction.

This SMP is to be provided to all personnel, contractors and environmental consultants involved in the proposed redevelopment activities involving earthworks. A copy of the SMP shall remain on-site at all times and be provided to contractors and environmental consultants in advance of any earthworks.

This SMP addresses:

1. Handling of soils, including potentially contaminated soils, during earthwork at the Project Area,
2. Export of excess soils from the Project Area, and
3. Import of soils to the Project Area (if applicable).

This SMP references the requirements outlined in Ontario's Environmental Protection Act (EPA), Ontario Regulation (O. Reg.) 406/19, as amended (On-Site and Excess Soil Management), and the "Rules for Soil Management and Excess Quality Standards".

Based on information provided by the EXP Project Leader, approximately less than **100 cubic meters (m^3)** of excess soil are anticipated to be removed from the Project Area for off-site disposal at a licenced landfill.

It is understood that no excess soil is currently planned to be imported to the Project Area; however, procedures and criteria for excess soil import are provided in the SMP, in the event that the import of excess soil is required.

This SMP is not intended to provide a detailed work plan for soil remediation or general earthwork. This SMP is intended as a procedural document for soil excavation, stockpiling, handling, and off-site reuse and/or disposal. Refer to Appendix A for the Limitation of Liability.

Expected earthwork activities at the Project Area include but are not limited to:

- Removal of an existing ramp structure at the Project Area, and
- New ramp construction.

Soil management and off-site export of excess soil for disposal and/or reuse, as well as the import of excess soil, shall be managed in accordance with the following regulations:

- O. Reg. 153/04, as amended – Record of Site Condition (RSC),
- O. Reg. 347, as amended – General Waste Management,
- O. Reg. 351/12, as amended – Waste Management Systems,
- O. Reg. 406/19, as amended – On-Site and Excess Soil Management; and
- Other applicable Regulations, as required.

Unless stated otherwise in this SMP, the Contract Administrator is to provide the Qualified Person (QP) from EXP (Ms. Stacy Meek, P.Eng., QP) with any prepared reports and documentation associated with soil import or export pertaining to the Project Area.

2 Anticipated Earthworks and Generation of Excess Soil

The Project Area is known as the Commissioners Transfer Station – Material Recycling Facility (MRF) located at 400 Commissioners Street in Toronto, Ontario. The Project Area is approximately 2.5 hectares (6.1 acres) in area and is currently occupied by the Commissioners Transfer Station. The area surrounding the Project Area consists of McCleary Park to the north, Logan Avenue followed by industrial land use to the east, Commissioners Street following by industrial land use to the south, and Bouchette Street followed by industrial land use to the west. A Project Area Location Plan is provided as Figure 1.

The earthwork to be conducted at the Project Area includes the removal of the existing ramp, and the construction and installation of the new ramp (refer to Figure 1).

The SMP is intended to ensure the soil management activities during the development of the Project Area follow the applicable regulations.

Excess soil is expected to be generated as follows:

- It is understood that approximately less than **100 cubic meters (m^3)** with an excavation depth of up to 150 to 250 mm below grade, will be generated for off-site disposal to a licensed waste disposal site.
- Any remaining soil excavated as part of the project that is geotechnically and environmentally suitable for reuse will be reused on the Project Area and is generally anticipated to be from the removal of the existing ramp structure (pending soil sampling and chemical testing – See Section 5.1 below).
- No liquid soil or sediment is expected to be excavated as part of the earthwork.

Excess soil is proposed to be managed as follows:

- Soil that is geotechnically and environmentally suitable for reuse within the Project Area shall be reused on the Project Area by the Contractor (i.e. excavated soil meeting O. Reg. 153/04 Table 3 ICC SCS).
- Soil generated that is determined to be either unsuitable for on-site reuse or that cannot be reused due to project-related constraints (approximately less than **100 cubic meters (m^3)**) will be disposed of off-site at a licensed waste disposal site that is not a Class 2 Soil Management Site.
- Imported soils required for Project Area grading and construction purposes are currently estimated to be a small volume (less than 100 m^3). It is noted that this does not include imported granular for a licenced quarry or pit.
- Any proposed Source Sites for imported soils are subject to review by the Project Area's Qualified Person (QP) for Environmental Site Assessment and approval by the Project Leader.

3 Summary of Previous Findings

A report entitled, "Geotechnical Investigation, Commissioners Transfer Station – MRF Building Rehabilitation, 400 Commissioner Street, Toronto, Ontario," dated January 2023 was prepared by EXP. The geotechnical field investigation comprised of the advancement of two (2) boreholes to a depth of approximately 15.3 m below ground surface (mbgs). The stratigraphy as revealed by the boreholes was found to consist of existing asphalt concrete pavement or a concrete slab, underlain by granular

fill material. A fill stratum was encountered below the granular base materials extending to depths ranging from 10.7 to 11.0 m bgs. The fill material was found to consist of hydraulically placed brown to grey silt and sand, containing peat layers and seams. A native silty sand layer was encountered below the fill material in the boreholes advanced extending to a depth of approximately 14.3 to 14.5 m bgs. The deposit was found to be grey in color and existed in a saturated condition. Bedrock was intersected below the silty sand deposit. The bedrock was found to contain grey weathered to highly weathered shale and limestone.

4 Project Evaluation to Determine Regulatory Requirements

It is understood that the Project is exempt from regulatory requirements to file a Project Area notice on the Excess Soil Registry ('the Registry'), and exempt from regulatory requirements to complete planning reports based on the following:

- <100 m^3 of excess soil is expected to be generated, and all excess soil is planned to be exported to a licensed waste disposal facility that is not a Class 2 soil management site (O. Reg. 406/19 Schedule 2, Section 2).

If the actual volume of excess soil exported from the Project Area exceeds 100 m^3, the project should be reevaluated by the QP to determine the appliable regulatory requirement for the Project.

It is understood that less than 100 m^3 of excess soil is currently planned to be imported to the Project Area; however, if the volume of excess soil to be imported exceeds 10,000 m^3, the project should be re-evaluated by the QP to determine the applicable regulatory requirements for the Project.

5 Records Review

5.1 Comparison of Soil Testing Results to Applicable Site Condition Standards (SCS) for Excavated Soil Reuse On-Site

Chemical testing of the excess soil to be removed off-site has not yet been conducted. Soil sampling and leachate testing (a toxicity characteristic leaching procedure (TCLP) test) will be required prior to disposal of the excess soil to a licensed waste disposal site.

Soil sampling and chemical testing (including metals, inorganics, petroleum hydrocarbons (PHC), polycyclic aromatic hydrocarbons (PAHs) and volatile organic compounds (VOCs) is required to determine if the remaining excess soil can be reused at the Project Area. Site Condition Standards (SCS) applicable to excavated soil reuse within the Project Area are the O. Reg. 153/04 Table 3 industrial/community/commercial (ICC) SCS.

5.2 Comparison of Soil Testing Results to Excess Soil Quality Standards (ESQS)

This SMP was prepared with the understanding that the excess soil to be removed from Project Area originated on-site. Based on EXP's knowledge of the general area, the Project Area is composed of reclaimed land, and the fill used to construct the reclaimed land typically does not meet ESQS for offsite beneficial reuse, therefore, the excess soil to be removed from the Project Area is assumed to be contaminated and disposed of at a licensed waste disposal site.

At the time of this SMP, no excess soil is intended to be exported from the Project Area for beneficial reuse at a Reuse Site. It is noted that in the event of additional excess soil generated, a re-evaluation of the excess soil regulatory requirements for the Project Area will be required, which may include but not be limited to updating this SMP, filing a notice as a Project Area on the Registry, regulatory sampling and reporting and the implementation of a soil tracking system.

5.3 Detailed Soil Management Activities During Redevelopment

For Excess Soil management purposes, the following earthwork activities are proposed at the Project Area:

- Soil excavation is expected during removal and reinstating of the existing ramp structure during construction activities.
- Dewatering is not anticipated during the proposed construction activities.

6 Earthwork Best Management Practices

This section of the SMP pertains to any situation where soils are excavated or exposed, and workers or visitors are potentially in contact with soils.

6.1 Administrative Controls

Administrative controls during earthwork include measures to control hazards, vehicular traffic, Project Area accessibility and minimize dust resulting from excavation, stockpiling or direct loading, and on-site transportation operations. Administrative controls include the following measures:

1. A site-specific Health and Safety Plan (HASP) will be implemented during earthwork activities. The HASP will include emergency contact information, a hazard assessment for likely on-site activities and mitigation measures. Each contractor or sub-contractor performing earthwork activities is responsible for providing a HASP for on-site employees prior to construction.
2. Restriction of employee vehicles to designated parking areas. Employee vehicles will not be permitted within the construction areas of the Project Area, except in the case of emergencies. The location of the designated parking areas shall be identified by the contractor responsible for the on-site work.
3. Construction hoarding (i.e. fencing) around the construction area shall be present to prevent public access. Access to construction areas shall be provided only to authorized personnel.
4. The Contractor shall prepare and implement a Traffic and Transportation Management Plan, if applicable, that specifies requirements for:
    a. Location and configuration of Project Area entrances,
    b. Truck queueing and parking,
    c. Dust control and mud-tracking prevention/truck cleaning for trucks leaving the Project Area,
    d. Haul routes between Source Site and Reuse Site (Receiving Site) including temporary storage or transfer sites, if applicable.

6.2 Dust Control Management

There is potential for nuisance dust from exposed soil to be carried off-site by vehicles and/or equipment, via airborne dust or in the form of surface runoff. Therefore, the following measures shall be implemented at the Project Area during earthworks:

1. To minimize on-site traffic, workers' vehicles will be parked in a designated area,
2. Vehicular speed shall be limited to 10 km/hour within the construction area to minimize excessive generation of dust,
3. The Contractor will ensure that off-site roadways used by construction-related vehicles are maintained such that debris, dust and dirt are minimized to the extent reasonably practicable. Maintenance and control measures may include road sweeping, cleaning and wetting with potable water,
4. All equipment/vehicles shall be inspected prior to departure off-site,
5. The Contractor shall be responsible for control of dust emissions, generated from on-site vehicular traffic or other construction activities. Dust suppression techniques may include misting with potable water or use of dust suppressant,
6. In the event of high wind conditions that cannot be addressed through the foregoing measures, work shall be restricted during high wind events until conditions are less likely to generate visible dust,
7. Stockpiles shall be surrounded by erosion and sediment control barriers in accordance with site-specific plans to prevent storm water runoff. If necessary, soil stockpiles shall be covered to minimize dust production,
8. Trucks transporting soil off-site shall be covered prior to leaving the Project Area and during transport.

Dust emissions shall be monitored daily during Project Area work by the Contractor, or designated personnel, and observations should be recorded in the Daily Inspection Checklist as outlined in Appendix B.

6.3 Containment of Impacted Soil

In the event that impacted soils are encountered during construction and remediation is required, the following decontamination measures shall be implemented during remediation activities:

1. Trucks shall be positioned outside excavation areas, whenever possible.
2. To prevent tracking of impacted soil outside excavation areas or off-site, vehicles and equipment used in areas of impacted soils shall be decontaminated at a tire/equipment washing station.
3. To aid in decontamination, visual inspection of equipment and physical removal of solids prior to washing will be conducted.
4. All equipment/vehicles shall be inspected prior to departure off-site.
5. Excavation equipment and/or hand tools shall be decontaminated over the stockpile or waste container when possible so that wash water and residues are co-managed with soil.
6. For decontamination only requiring physical removal of solid residues and the use of clean water rinse, water may be allowed to drain back into like soils on-site or utilized for dust suppression.
7. Solid or liquid decontamination residues that cannot be co-managed with like soils, shall be recovered and placed into appropriate containers for lawful off-site management.
8. The condition of decontamination pads, tire/equipment washing stations, mud mats and/or roadway conditions shall be inspected and maintained to prevent deterioration.

Record keeping shall include the completion of the Daily Inspection Checklist (or equivalent) (Appendix B).

7 Soil Excavation, Stockpiling and Management

7.1 Soil Excavation and Stockpiling

Excess soil to be removed from site is to be loaded directly to trucks and is not anticipated to be stockpiled on Site; however, should stockpiling be required the following procedures will be followed for the excavation, segregation, stockpiling of soils and in accordance with the Soil Storage Rules outlined in the Soil Rules.

1. Soil excavation, material handling and stockpiling shall be performed in a manner that limits mixing of different categories of soil. Excavated soils shall be reused on-site to the extent permissible.
2. Dewatering will not likely be required during earthworks.
3. Soils shall be segregated based on the known soil category or field observations and stockpiled in discrete piles in a way that limits the potential for mixing of different soil types. Soils shall be visually examined for staining or olfactory evidence of contamination.
4. Should suspected soil contamination be encountered during construction procedures beyond identified areas and types of contamination, the Project Leader should be notified and the procedure described in Section 7.2 should be followed.
5. Any impacted soils or soils suspected to be impacted shall be stockpiled on an impermeable material (i.e., asphalt pavement, concrete, polyethylene sheeting or equivalent material) or within water-tight containers (i.e., roll-off containers) pending removal off-site.
6. Soils shall be temporarily stockpiled in a clearly designated on-site stockpile area pending export off-site.

7. Stockpiles shall be surrounded by erosion and sediment control barriers in accordance with site-specific plans. When not in use, stockpiled soils or containers shall be covered by an impermeable material and secured. The Contractor shall periodically inspect and repair or replace damaged or dislodged covers and/or erosion controls.
8. Soils suitable for reuse on-site, as determined by the QP, may be reused to the extent possible, in accordance with the O. Reg. 406/19. Soils exhibiting staining or olfactory evidence of contamination shall not be reused on-site without the approval of the Project Leader and QP.
9. The stockpile storage rules from the MECP's document "Soil Rules applies to the Project Area in the absence of a Project Area Instrument, such as a municipal permit. As per the Soil Rules, stockpiles should not exceed 2,500 m^3 and cannot be situated within 10 m of the property boundary (with exemptions) and must be more than 30 m of a waterbody.

7.2 Suspected Environmental Impacts

If the Contractor encounters buried drums, tanks, containers, previously unidentified visibly contaminated soil or groundwater, soil exhibiting a strong odour, soil saturated with petroleum product, or other indicators of soil or groundwater contamination beyond the contamination that has been identified, the Contractor shall stop excavation in the Project Area and immediately notify the Project Leader and QP. The Project Leader and QP will evaluate the suspected impacts and determine whether sampling, remediation and/or soil segregation, is necessary. Excavation activities are not to resume until the Contractor has been provided formal direction by the Project Leader and QP.

Should sampling and analytical results identify concentrations of chemical parameters outside the applicable SCS and/or ESQS for remaining in place or reuse on-site, the material will remain in-place or be stockpiled and managed, as directed by the environmental technician under the supervision of the QP.

During any remediation activities to be conducted within the Project Area, an environmental technician under the supervision of the QP shall be on-site to observe soils excavated within remediation areas and to assist with assigning appropriate soil categories. Soils within remediation areas shall be periodically screened in the field for volatile organic compounds (VOCs) using a photoionization detector (PID). Activities within the affected portion of the property should not commence prior to the completion of a verification sampling program and written notification by the Project Leader and Qualified Person.

7.3 Suspected Geotechnically Unsuitable Material

If based on visual observations, material is suspected to not be geotechnically suitable for on-site reuse due to reasons including, but not limited to, excessive moisture, frozen material, organic content, debris, deleterious or compressible material, the material shall be directed to a segregated pile within a designated stockpile area.

Photographs will be taken of the soil and if required further evaluation of the material by the geotechnical engineer for the project. Should the material be deemed geotechnically suitable for reuse and meets the SCS applicable to the Project Area, the material may be reused in accordance with project specifications and drawings. Should the material be deemed geotechnically unsuitable for reuse at the Project Area, the material shall be tested and transported to a suitable Reuse Site (Receiving Site) and/or licensed waste disposal site to be approved by the QP in accordance with O. Reg. 406/19.

7.4 On-Site Soil Management for Reuse

As previously noted, grading activities may occur during construction, including cut/fill activities. The existing soil on the Project Area can be reused as long as it meets geotechnical suitability for the Project Area and the applicable SCS (i.e. O. Reg. 153/04 Table 3 ICC SCS).

8 Soil Export

The following procedures are provided for the off-site export of excess soil:

8.1 Off-Site Export of Soil

The Contractor will be responsible for the excavation and prompt off-site transport and disposal of excess soil from the Project Area to a licensed waste disposal site, other than a Class 2 Soil Management Site. Excavation and off-site transport of excess soils shall be conducted under the supervision of a QP in accordance with the O. Reg. 406/19 and O. Reg. 347.

The Contractor shall provide the name, address, current permits, approvals, and sampling requirements of proposed receiving Site(s) for soils to be transported off-site. Receiving sites are subject to review by the QP and the approval by the Project Leader.

Additional excess soil shall not be exported off -site to a reuse site without being properly characterized under the supervision of a QP and receipt of written approval having been provided to the Project Leader from the Reuse Site authorities in accordance with the O. Reg. 406/19.

8.2 Soil Disposal Characterization

Soil characterization for off-site disposal shall be conducted in accordance with O. Reg. 153/04, Reg. 347, O. Reg. 406/19, the Soil Rules, this SMP and the proposed receiving site's SMP, if applicable. For the purpose of the SMP, the receiving site is the licensed waste disposal site.

The frequency of soil sampling and parameters analyzed shall be based on the receiving site's acceptance requirements, the Project Area's QP's recommendations, and O. Reg. 406/19. In the event of conflicts, the most stringent standard and requirements shall apply. For the purposes of this Project, should additional material be determined to be unsuitable for reuse on-site, the Project Leader should be notified, and the material is to be temporarily stored within the Project Area to be further evaluated by the QP in accordance with O. Reg. 406/19 to support off-site disposal.

Soil testing documentation shall include:

- The rationale for the choice of parameters analyzed,
- The description of the methods used to ensure uniform and representative sample collection,
- A sketch depicting sample locations and depths,
- The number of soil samples collected,
- The volume of each stockpile (if applicable),
- Laboratory certificates of analysis for soil samples analyzed, and
- A comparison of the testing results to the applicable ESQS, SCS or site-specific requirements of the receiving site).

In the case where the receiving site does not have specific sampling requirements, soil testing shall be conducted based on the professional judgement of the Site QP to properly characterize the materials and comply with O. Reg. 406/19. It is recommended that all receiving sites conduct an independent review of the chemical data and physical soil composition to confirm the materials are suitable for reuse or disposal (as applicable) at the specific receiving site. The contractor shall obtain written consent for the receipt of Excess Soil from any reuse sites and provide a copy of same to the Client.

Landfill characterization testing, including (toxicity characteristic leaching procedure (TCLP)) will be required to meet the specific ECA requirements of the intended licensed waste disposal site for acceptance.

8.3 Hauling Records

The hauling contractor is required to ensure that each load of excess soil exported from the Project Area is accompanied by a regulatory-compliant hauling record. The hauling record must include:

- The location at which the excess soil was loaded for transportation,
- The date and time the excess soil was loaded for transportation,
- The quantity of excess soil in the load,
- The name of an individual who may be contacted to respond to inquiries regarding the load, including inquiries regarding the soil quality,
- The name of the corporation, partnership or firm transporting the excess soil, the name of the driver of the vehicle and the number plates issued for the vehicle under the Highway Traffic Act, and
- The location at which the excess soil is to be deposited.

Upon arriving at the receiving site, the hauling contractor shall ensure that the hauling record is updated to include:

- The date and time the load of excess soil is deposited,
- The name and phone number of the individual at the receiving site who acknowledges that the excess soil has been deposited on the date and at the time specified, and
- A declaration by the person acknowledging receipt of the load, stating that the individual acknowledges the deposit of the excess soil.

The hauling contractor shall ensure that completed copies of all hauling records are provided to the receiving site and to the Project Leader. A sample Hauling Record is included for reference in Appendix C. The Project Leader shall keep these records on-file for a minimum of seven (7) years, in accordance with O. Reg. 406/19.

8.4 Soil Export Tracking

The implementation of a Soil Tracking System in accordance with O. Reg 406/19 is not required for this Project; however, the contractor may implement a recordkeeping system to document the destination location, quantity and quality of all soil transported off-site. Record keeping may include:

1. Volume/number of trucks departing the Project Area,
2. General description and quality by reference to the ESQS of soil transported off-site,
3. Name of intended licensed waste disposal site,
4. Hauling Record signed by the licensed waste disposal site acknowledging receipt of each load of soil and documenting volume and/or weight records,
5. The volume and/or weight of soil leaving the Project Area may be cross referenced with the volume and/or weight of soil received at the licensed waste disposal site,

A sample Soil Tonnage Tracking Sheet (STTS) is included for reference in Appendix D.

The contractor shall provide all of the above soil tracking documentation promptly to the Project Leader. The Project Leader shall keep these records on-file for a minimum of seven (7) years, in accordance with O. Reg. 406/19.

9 Groundwater Management

Dewatering is not anticipated due to the shallow earthworks proposed.

10 Soil Import

Earth fill that is imported to the Project Area from an off-site source (if any) shall be imported in accordance with the requirements of O. Reg. 406/19 and this SMP as outlined in the following subsections.

10.1 Import of Non-Excess Soil Materials

In accordance with the O. Reg. 406/19, materials sourced from the following locations are excluded from the Imported Soil Acceptance Protocol as set out below and do not require testing prior to import on-site.

1. Recycled concrete and/or recycled asphalt (i.e. non-aggregate materials) do not meet the definition of soil and are not included in the scope of this SMP.
2. Consolidated or unconsolidated aggregate sourced as virgin material from a pit or quarry licensed by the Ontario Ministry of Natural Resources is not considered excess soil and is not included in the scope of this SMP. Consolidated or unconsolidated aggregate from any other source may meet the definition of excess soil and should be evaluated by the QP prior to import.

10.2 Imported Soil Acceptance Protocol

No excess soil is currently planned to be imported to the Project Area. It should be noted that excess soil includes soil, crushed rock, and soil mixed with crushed rock.

Soil intended to be imported and finally placed at the Project Area must be sampled, analyzed and deemed appropriate for reuse at the Project Area by a QP in accordance with the O. Reg. 406/19 and the Soil Rules prior to importation.

Soil imported to the Project Area shall meet the following conditions as determined by the QP and in accordance with any written instructions from the QP prior to placement at the Project Area:

1. Imported soil must be sampled and analyzed prior to import and deemed acceptable by the QP. Should it be determined that additional sampling and analysis are required for approval, the proposed sampling and analysis plan is to be provided for review to the QP in advance of implementation.
2. Imported soils must meet O. Reg. 406/19 Table 3.1 ESQS for industrial/commercial/community (ICC) property use prior to final placement within the Project Area. Salt-impacted soils that meet Table 3.1 ICC property use, excluding EC and SAR, may be finally placed on Site, since the Site is expected to continue to be used as industrial land, and since non-potable standards apply to the Site. Salt impacted soils cannot be placed within 30 m of a waterbody, within 100 m of a property that is serviced or may be serviced with a potable well, or within the top 1.5 m of soil at a location that will be used for growing crops or pasture.
3. Imported soil must be geotechnically suitable and cannot contain any deleterious materials, organic materials (except in the case of topsoil imports), construction debris, etc. The moisture content should be within 2 percent of its optimum based on the standard Proctor maximum dry density tests.

4. Imported soil cannot exhibit any staining or odours associated with petroleum hydrocarbons (PHCs) or other contaminants.
5. Imported soil must have been sampled and analyzed for appropriate parameters, as determined by the Source Site QP and agreed to by the Reuse Site QP based on:
    a. the history and prior usage of the imported soil, as ascertained from previous environmental investigations made available to the QP, and
    b. other relevant factors as determined by the QP, including potentially contaminating activities.
6. Soil sampling and analysis must be conducted by the Source Site QP in accordance with the requirements outlined in O. Reg 406/19 and subject to approval by the QP.

10.3 Documentation for Soil Import

The completion of the Site-Specific Fill Importation Form (Appendix E) and all associated environmental documentation prepared for excess soil intended for import to the Project Area shall be provided to the QP for review, comment and approval prior to the intended date to commence the importation activities. The environmental documentation provided should comply with the requirements outlined in O. Reg 406/19 and should contain information including (but not limited to) the following:

1. The rationale for the choice of parameters analyzed,
2. The description of the methods used to ensure uniform and representative sample collection,
3. The number, location and depths of soil samples collected,
4. The volume of each stockpile or area sampled in situ,
5. Laboratory certificates of analysis for soil samples analyzed,
6. A comparison of the testing results to the applicable ESQS, as applicable, and
7. The opinion of the Source Site QP that the excess fill material to be exported is suitable for reuse at the Reuse Site (Receiving Site) and adheres to this Excess Fill Acceptance Protocol.

It is understood that no excess soil is currently planned to be imported to the Project Area.

Soil shall not be imported to the Project Area without prior written approval from the QP overseeing this SMP and written authorization for the material having been provided from the Project Area Leader (Owner) to the Source Site authorities.

10.4 Soil Import Tracking

Upon arrival of a load of imported soil that has met the requirements of Section 10.3 at the Project Area, the following inspections will be conducted by a designated Project Area Representative (as appointed by the Owner):

1. The designated Project Area Representative (as appointed by the Owner) will review each hauling record to ensure the required information as per O. Reg. 406/19 has been included and evaluate the transport time is consistent with the time of arrival and the given distance from the Source Site. If discrepancies are identified with the hauling information provided (i.e. transport timing, soil type, etc.) the Project Leader shall be notified prior to accepting the material at the Project Area.

2. A visual inspection of each incoming load for evidence of deleterious materials, chemical odours or staining is to be documented and the findings are to be summarized in the Daily Inspection Checklist/Report.

3. If the imported soil is deemed suitable for receipt based on Section 10, the soil may be placed on-site or stockpiled for later use in accordance with this SMP.

4. If contamination is suspected, if the soil received does not match the type of soil expected, if the soil does not pass a slump test, or if the soil is considered suspect or unsuitable for any other reason, the soil shall either be rejected or segregated pending further testing/investigation by the QP.

5. The Project Leader is to be notified of any loads that were segregated or rejected and provided a copy of the inspection documentation or suspect transportation details.

6. The final placement of imported soil from each Source Site shall be recorded, including areas of placement on-site, depths and volumes. This documentation and records shall be provided to Project Leader.

7. The Hauling Records and soil importation tracking information shall be provided to the Project Leader and QP.

8. Electronic soil tracking software applications or manual tracking are be approved by the Project Leader and QP prior to implementation at the Project Area. The Contractor shall provide the Project Leader and Source Site QP with a minimum of a "read-only" account access throughout the soil import or export activities for the proposed development.

11 Document Retention

The QP shall retain a copy of all records relating to the SMP and all documents generated as part of requirements of O. Reg. 406/19, including documentation related to soil import and export such as bills of lading and/or weigh bills, hauling records, and environmental reports, for a minimum period of seven (7) years. The Project Leader shall be provided copies of all such documents and is also required to retain the documents for a minimum period of seven (7) years.

12 Closure

This SMP forms part of any contract with the Client for earthworks at the Project Area. Please contact the undersigned QP if you have any questions, concerns or wish to make any changes to this Sol Management Plan (SMP).

We trust this report is satisfactory for your purposes. Should you have any questions, please do not hesitate to contact this office.
Yours truly,

EXP Services Inc.

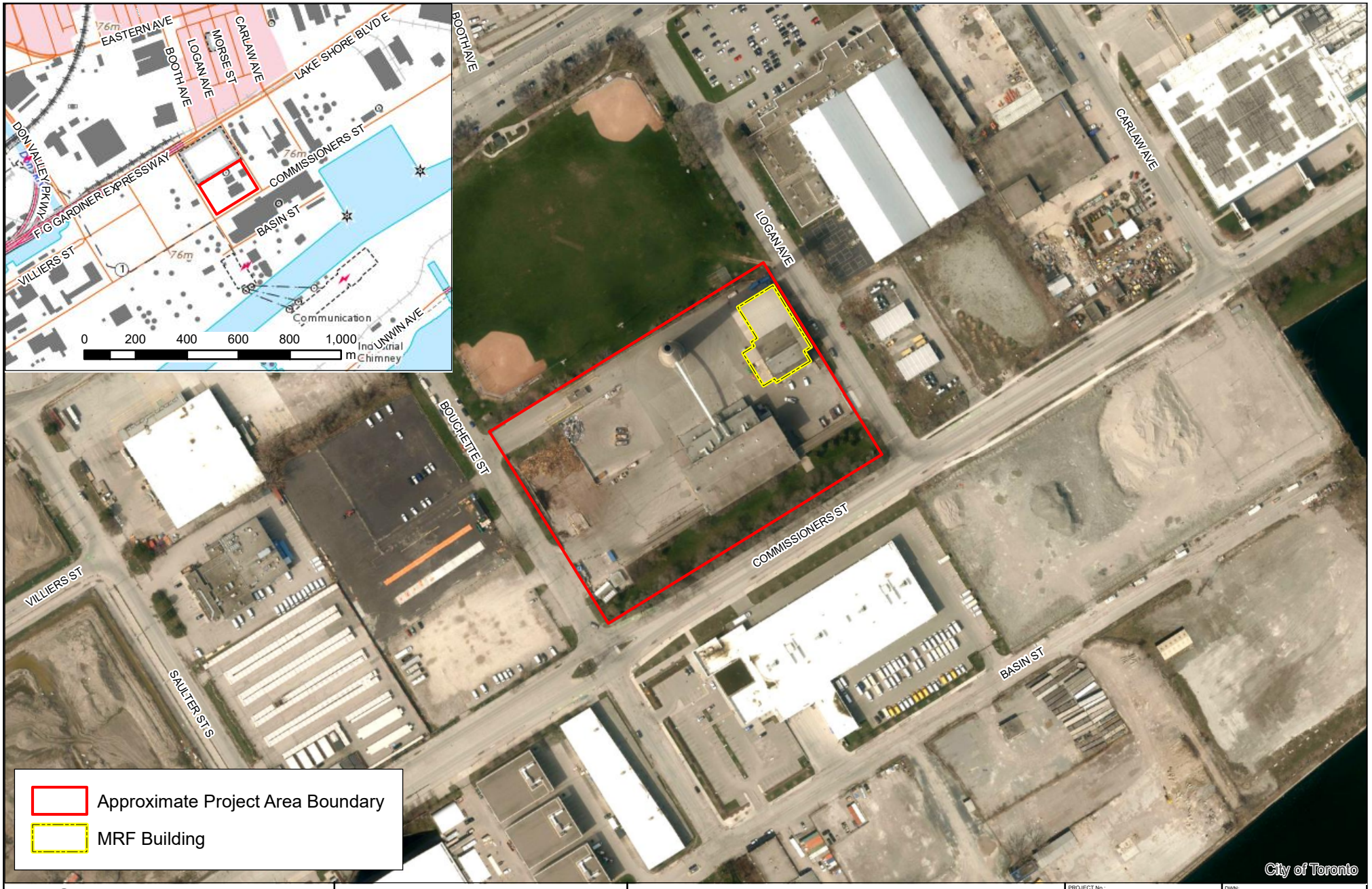
Danika Durish, B.Sc., C.E.T., E.P.
Senior Project Manager
Environmental Services

Stacy Meek, P.Eng., QP
Team Lead – Geo-Environmental & Soil Management
Earth and Environmental

13 References

- Occupational Health and Safety Act - Ministry of Labour (MOL).
- Ontario Ministry of the Environment, Rules for Soil Management and Excess Soil Quality Standards, 2022
- Ontario Ministry of Natural Resources, Natural Heritage website (www.mnr.gov.on.ca/MNR/nhic/areas.cfm)
- Ontario Regulation 153/04, as amended: Records of Site Condition – Part XV.1 of the Act under the Environmental Protection Act, R.S.O. 1990, c E.19.
- Ontario Regulation 406/19, as amended: On-Site and Excess Soil Management.

Figure



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N

0 30 60 90 120 150 m

TITLE AND LOCATION:

PROJECT AREA LOCATION PLAN
SOIL MANAGEMENT PLAN
400 Commissioners Street
Toronto, Ontario

PROJECT No.: BRM-22028009-A0	DWN: HY
SCALE: AS NOTED	CHKD: MA
DATE: OCTOBER 2023	FIG. No.: 1

Appendix A – Limitation of Liability

LIMITATIONS AND USE OF REPORT

BASIS OF REPORT

The Report is based on site conditions known or inferred by the investigation undertaken as of the date of the Report. Should changes occur which potentially impact the condition of the site the recommendations of exp may require re-evaluation. Where special concerns exist, or the Client has special considerations or requirements, these should be disclosed to exp to allow for additional or special investigations to be undertaken not otherwise within the scope of investigation conducted for the purpose of the Report.

Where applicable, recommended field services are the minimum necessary to ascertain that construction is being carried out in general conformity with building code guidelines, generally accepted practices and exp's recommendations. Any reduction in the level of services recommended will result in exp providing qualified opinions regarding the adequacy of the work. exp can assist design professionals or contractors retained by the Client to review applicable plans, drawings, and specifications as they relate to the Report or to conduct field reviews during construction.

RELIANCE ON INFORMATION PROVIDED

The evaluation and conclusions contained in the Report are based on conditions in evidence at the time of site inspections and information provided to exp by the Client and others. The Report has been prepared for the specific site, development, building, design or building assessment objectives and purpose as communicated by the Client. exp has relied in good faith upon such representations, information and instructions and accepts no responsibility for any deficiency, misstatement or inaccuracy contained in the Report as a result of any misstatements, omissions, misrepresentation or fraudulent acts of persons providing information. Unless specifically stated otherwise, the applicability and reliability of the findings, recommendations, suggestions or opinions expressed in the Report are only valid to the extent that there has been no material alteration to or variation from any of the information provided to exp.

STANDARD OF CARE

This report ("Report") has been prepared in a manner consistent with the degree of care and skill exercised by engineering consultants currently practicing under similar circumstances and locale. No other warranty, expressed or implied, is made. Unless specifically stated otherwise, the Report does not contain environmental consulting advice.

COMPLETE REPORT

All documents, records, data and files, whether electronic or otherwise, generated as part of this assignment form part of the Report. This material includes, but is not limited to, the terms of reference given to exp by the Client, communications between exp and the Client, other reports, proposals or documents prepared by exp for the Client in connection with the site described in the Report. In order to properly understand the suggestions, recommendations and opinions expressed in the Report, reference must be made to the Report in its entirety. exp is not responsible for use by any party of portions of the Report.

USE OF REPORT

The information and opinions expressed in the Report, or any document forming part of the Report, are for the sole benefit of the Client. No other party may use or rely upon the Report in whole or in part without the written consent of exp. Any use of the Report, or any portion of the Report, by a third party are the sole responsibility of such third party. exp is not responsible for damages suffered by any third party resulting from unauthorised use of the Report.

REPORT FORMAT

Where exp has submitted both electronic file and a hard copy of the Report, or any document forming part of the Report, only the signed and sealed hard copy shall be the original documents for record and working purposes. In the event of a dispute or discrepancy, the hard copy shall govern. Electronic files transmitted by exp utilize specific software and hardware systems. exp makes no representation about the compatibility of these files with the Client's current or future software and hardware systems. Regardless of format, the documents described herein are exp's instruments of professional service and shall not be altered without the written consent of exp.

Appendix B – Daily Inspection Checklist

Soil Management Plan - Daily Inspection Checklist			
Name of Inspector:			
Date:			
Description of Field Work Activities:			
Weather and Site Conditions:			
	Suggested Measures	**Status**	**Notes**
Administrative Considerations	- Designated area for employee parking away from work area.		
	- Construction fencing surrounding site.		
Dust Control and Runoff Management	- Limit vehicular speed within construction area.		
	- Visual inspection and implementation of sweeping, cleaning and/or watering of off-site roadways.		
	- Placement and maintenance of larger aggregate and/or mud mats at site entrances/exits and vehicle traffic routes on-site.		
	- Minimize dust emissions with potable water misting or use of dust suppressant, as needed.		
	- Limit soil handling during periods of high winds.		
	- Limit height of stockpiles, if any. Tarp stockpiles that are to remain at grade for an extended period.		
	- Placement and maintenance of silt fencing around site.		
	- Visual inspection of vehicles/equipment and manual removal of excess soil prior to exiting site. Implementation of tire/equipment washing station, if required.		
Off-Site Export of Soil	- Export trucks are to be covered during transport.		
	- Confirm tracking of all soil loads, including information regarding number of loads (weight/volume) and receiving site receipt as outlined in SMP.		
Soil Import	- Inspect all loads of soil imported. Document number of loads (weight/volume), name/address of source site, general area of soil placement, approximate volume of soil placed in each area.		
Record keeping	- Document any complaints received regarding site activities.		

Appendix C – Hauling Record

<Insert your company logo here>

Hauling Record

P.O/Job/Ticket # _____

GENERATOR (PROJECT AREA			
Contact Name:		***Tel:***	
		Email:	
Generating Company	***Address***	***City, Province***	***Postal Code***
GENERATING SITE (PROJECT AREA)			
Address		***City, Province***	***Postal Code***
Pick-up Location:			
Date Loaded:	***Time Loaded:***	Lat.:	
		Long.:	
Soil Information			
Profile/ID #:	***Materials Type***	☐ Compost ☐ Clean fill ☐ Other: ☐ Contaminated soil ☐ IC&I _____	
Quantity Loaded	Yards: Tons: Meters: Tonnes:	***Material Description:***	
Contact Name: *(For soil quality info)*	***Tel:***	***Email:***	
I hereby certify that the above material has been properly described, classified and packaged, and is in proper condition for transportation to applicable regulation.			
Authorized Signature:			
TRANSPORTER			
Transport Company	***Address***	***City, Province***	***Postal Code***
Driver Name:		***Tel:***	
License Plate #:		***Email:***	
Driver Signature:			
RECEIVER			
Receiving Company	***Address***	***City, Province***	***Postal Code***
Date Unloaded:	***Time Unloaded:***	Lat.:	
		Long.:	
I hereby certify that the above listed material has been accepted and that the materials are representative of the materials outlined in the above.			
Authorizer Name:		***Tel:***	
Signature:		***Email:***	

Highlighted sections denote required information under Ontario Regulation 406/19: On-Site and Excess Soil Management
Template produced by the Ontario Environment Industry Association, 2020

Appendix D – Soil Tonnage Tracking Sheet

SOIL TONNAGE TRACKING SHEET (STTS)

Site Location: _____ **Date:** _____

Project # _____ **Soil Receiving Site / Destination:** _____

Soil Point of Origin _____ **Soil Import or Soil Export (Circle One)**

		Load Number										
		1	2	3	4	5	6	7	8	9	10	11
Soil Hauler Information												
Company	License Plate	Time Off-Site	Time Off-Site	Time Off-Site	Time Off-Site	Time Off-Site	Time Off-Site	Time Off-Site	Time Off-Site	Time Off-Site	Time Off-Site	Time Off-Site

Total Number of Loads: _____ **Total Estimated Tonnage (tonnes):** _____

OR

Consultant Representative (Signature): _____ **Total Estimated Volume (cubic metres):** _____

Note: One triaxle dump truck holds approx. 10 m3 or 25 tonnes of soil

Consultant Representative (Print): _____

Appendix E – Site-Specific Fill Importation Form

Soil Importation Application Form

PART 1 – TO BE COMPLETED BY THE REUSE SITE (PROJECT AREA)

Reuse Site Name:	Commissioner's Transfer Station – Material Recycling Facility (MRF) Building Rehabilitation		
Reuse Site Address:	400 Commissioners Street, Toronto, Ontario		
Reuse Site GPS Coordinates:	17 T 633968 m E 4834598 m N		
Purpose of Import:	Soil Management Plan (SMP)		
Applicable Excess Soil Quality Standards required for import:	☐ Table 1 ☐ Table 2.1 ☒ Table 3.1 ☐ Other: _____	☐ AGR[1] or other ☐ RPI[2] ☒ ICC[3] ☐ Other: _____	
Acceptance of salt impacted soils	☒ YES ☐ NO		
Reuse Site Operator:	City of Toronto, Soil Waste Management Services	**Project Area Operator Contact Name:**	
Project Area Operator Telephone No.:		**Project Area Operator Email:**	
Has a Notice been filed on the Excess Soil Registry?	☐ Yes Registry File No. Pending ☒ No (Provide rationale for exemption)	**Rationale for Reuse Site exemption:** Small volume (less than 350 m^2)	
Reuse Site QP:	Stacy Meek, P. Eng., QP_{ESA}		
Name and Address of Environmental Consulting Firm:	EXP Services Inc. 1266 South Service Road, Suite C1-1, Stoney Creek, Ontario, L8E 5R9		
Telephone No.:	905-573-4000	**Email:**	stacy.meek@exp.com

[1]AGRICULTURAL
[2]RESIDENTIAL/PARKLAND/INSTITUTIONAL
[3]INDUSTRIAL/COMMERCIAL/COMMUNITY

PART 2 – TO BE COMPLETED BY THE APPLICANT (SOURCE SITE)

<table>
<tr><td>Source Site Name:</td><td colspan="3"></td></tr>
<tr><td>Source Site Address:</td><td colspan="3"></td></tr>
<tr><td>Source Site GPS Coordinates</td><td colspan="3"></td></tr>
<tr><td>Source Site Operator:</td><td></td><td>Site Operator Contact Name:</td><td></td></tr>
<tr><td>Source Site Operator Telephone No.:</td><td></td><td>Site Operator Email:</td><td></td></tr>
<tr><td>Project Leader:</td><td></td><td>Project Leader Contact Name:</td><td></td></tr>
<tr><td>Project Leader Address:</td><td colspan="3"></td></tr>
<tr><td>Activities involved in generation of the Excess Soil:</td><td colspan="3"></td></tr>
<tr><td rowspan="2">Material Proposed for shipment (Check all that apply):</td><td>☐ Rock
☐ Soil
☐ Topsoil
☐ Other: _____</td><td>Applicable Excess Soil Quality Standards:</td><td>☐ Table 1
☐ Table 2.1
☐ Table 3.1
☐ Other:
☐ AGR or other
☐ RPI
☐ ICC
_____</td></tr>
<tr><td colspan="2">Were salt-related parameter impacts (i.e. EC/SAR) identified?</td><td>☐ YES ☐ NO</td></tr>
<tr><td>Total Volume of Excess Soil to be considered for import (m^3):</td><td></td><td>Volume by Material Type (m^3):</td><td>Rock: _____
Soil: _____
Topsoil: _____
Other (please specify): _____</td></tr>
<tr><td>Drawing of the proposed source area for the Excess Soils has been included (including, areal extent and proposed excavation depth)</td><td>☐ YES
☐ NO</td><td>Analytical Sampling Frequency within the source area:</td><td>_____ m^3/sample</td></tr>
<tr><td>Source Site has hauling records which are acceptable and compatible with that of Reuse Site</td><td colspan="3">☐ YES
☐ NO (results in excess soil rejection by Reuse Site)</td></tr>
<tr><td>Has a Record of Site Condition (RSC) been filed for the Source Site?</td><td colspan="3">☐ Yes
RSC #:_____
☐ PENDING
An RSC is to be filed for Source Site
☐ NO
An RSC will not be filed for the Source Site</td></tr>
</table>

Has a Notice been filed on the Excess Soil Registry?	☐ Yes Registry File No_____ ☐ No (Provide rationale for exemption)	Rationale for Source Site exemption:

PART 3 – TO BE COMPLETED BY THE APPLICANT (SOURCE SITE)

QP Acting on Behalf of Project Leader:			
Name and Address of Environmental Consulting Firm:			
Telephone No.:		**Email:**	

List of Environmental Reports Prepared/reviewed by "Qualified Person" in Support of this Application:

A Soil Characterization Report (or equivalent) prepared by a QP_{ESA} has been provided in the document submittal and includes a tabulated comparison of all analytical testing conducted to date representative of the soil and/or rock intended for import compared to the Excess Soil Quality Standards (ESQS) and Leachate Screening Levels (LSL) specified criteria noted in Part 2 of this form in accordance with O. Reg 406/19 and the associated Soil Rules.	☐ YES ☐ NO

PART 4 – QP DECLARATION (SOURCE SITE)

To be completed by the "Qualified Person" identified above:

I certify that I am a "Qualified Person for Environmental Site Assessment" as defined in O. Reg 153/04. I have prepared and/or reviewed each of the reports identified above and confirm that the Excess Soils intended for import meets the applicable Excess Soil Quality Standards of the Reuse Site noted in Part 2. Further, it is my opinion that the analytical program conducted is sufficient to adequately characterize the Excess Soils intended for import.

Signature	**Name**	**Date (dd/mm/yyyy)**

Additional Comments:

PART 5 – TO BE COMPLETED BY THE REUSE SITE FOLLOWING APPLICATION REVIEW

☐ **Approved** ☐ **Rejected** ☐ **Additional Information Required** ☐ **Conditionally Approved**	**Yes**	**No**	**Clarification Required**
Form fully and correctly completed	☐	☐	☐
Copies of all reports relied upon by Qualified Professional provided for review	☐	☐	☐
The proposed excavation area and depth of the soils intended for import is clearly defined	☐	☐	☐
The current and historical land uses of the Source Site has been presented	☐	☐	☐
The rationale for the APECs and COPCs is considered appropriate (if applicable)	☐	☐	☐
An appropriate sampling and analytical program has been conducted for the soils intended for import (including for appropriate parameters, location, depth and sampling procedures)	☐	☐	☐
Laboratory results provided were from accredited laboratory	☐	☐	☐
The representative laboratory results for the soils intended for import meet the applicable ESQS and LSL for the Reuse Site	☐	☐	☐
Comments:			

Reuse Site Review Completed By:

Signature	**Name**	**Date (dd/mm/yyyy)**