File Number A00-03-15 945 BANK

8 March 2023

Ministry of the Environment, Conservation and Parks
Ottawa District Office
2430 Don Reid Drive
Ottawa, ON K1H 1E1

Attention: Tracy Hart, Ottawa District Manager

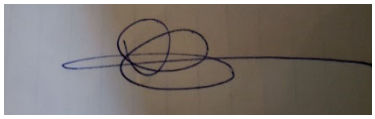
Dear Ms. Hart,

Re: 2022 Annual Report, Certificate of Property Use (CPU 0371-8TYQMY)
Lansdowne Park, Urban Park (Zone C)
450 Queen Elizabeth Drive (Part of 945 Bank Street),
Ottawa, Ontario

Pleased find enclosed one (1) digital copy of the 2022 Annual Report in accordance with the reporting requirements as identified in Section 4.2.10 of the Certificate of Property Use No. 0371-8TYQMY for Zone C, Urban Park, Lansdowne Park. A hard copy of the report can also be provided at your request.

Should you have any questions, please do not hesitate to contact me.

Best regards,



Richard Barker
Specialist (A), Environmental Remediation
Corporate Real Estate Office

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ONTARIO MINISTRY OF THE ENVIRONMENT, CONSERVATION, AND PARKS

2022 ANNUAL REPORT – CERTIFICATE OF PROPERTY USE NO. 0371-8TYQMY

LANSDOWNE URBAN PARK (ZONE C)

MARCH 8, 2023

2022 ANNUAL REPORT – CERTIFICATE OF PROPERTY USE NO. 0371-8TYQMY

LANSDOWNE URBAN PARK (ZONE C)

ONTARIO MINISTRY OF THE ENVIRONMENT, CONSERVATION, AND PARKS

PROJECT NO.: TZ10100106
DATE: MARCH 8, 2023

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March 8, 2023

Tracy Hart
Ontario Ministry of the Environment, Conservation, and Parks
2430 Don Reid Drive
Ottawa, Ontario
K1H 1E1

Dear Ms. Hart:

Subject: **2022 Annual Report – Certificate of Property Use No. 0371-8TYQMY**
Lansdowne Urban Park (Zone C)
Client ref.: 450 Queen Elizabeth Driveway (Part of 945 Bank Street),
Ottawa, Ontario

Please find enclosed an electronic copy, in PDF format, of the 2022 Annual Report prepared in reference to the above noted property. The report has been prepared on behalf of the City of Ottawa to meet the annual reporting requirements stipulated under condition 4.2.10 of Certificate of Property Use No. 0371-8TYQMY.

Should you have any questions or require any additional information, please do not hesitate to contact the undersigned.

Sincerely,

WSP E&I Canada Limited

Kevin D. Hicks, M.Sc., P.Geo., QP_{ESA}
Principal Hydrogeologist

Encl. (1)

WSP ref.: TZ10100106

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EXECUTIVE SUMMARY

Certificate of Property Use (CPU) No. 0371-8TYQMY was issued by the Ontario Ministry of Environment and Climate Change (MOECC), now the Ministry of Environment, Conservation and Parks (MECP), to the City of Ottawa (the "City") for the Lansdowne Park – Urban Park (Zone C) property located at 450 Queen Elizabeth Driveway (part of 945 Bank Street) in Ottawa, Ontario (hereinafter referred to as the "CPU Property") on November 25, 2013.

Condition 4.2.10 of the CPU stipulates that an annual report shall be prepared each year to document the activities carried out by the Owner in relation to the Risk Management Measures (RMM) that have been implemented and that are to be maintained at the CPU Property, and the report submitted to the MECP by March 31 of the following year. This report has been prepared by WSP E&I Canada Limited ("WSP"), on behalf of the City of Ottawa (the "City") to meet the annual reporting requirements for 2022 as stipulated by Condition 4.2.10 of the CPU.

The findings of the Inspection and Maintenance Plan (IMP) for the Site in 2022 noted similar conditions to those reported during previous inspections with respect to areas of bare soil in high traffic areas of the Site, stressed areas from temporary placement of equipment during entertainment events, as well as several areas of soil erosion identified throughout the South Berm as evidenced by surface rutting, areas of soil washout, bare patches, and areas of down slope sediment accumulation. Generally, the conditions of the RMM implemented at the Site were observed to be in good condition and stressed areas were not considered to result in any increase in the levels of risk to potential receptors at the CPU Property.

A review of the Groundwater Monitoring Program (GWMP) and Methane Monitoring Program (MMP) data acquired between 2015 and 2021 showed that conditions at the Site were similar or improved relative to those prior to redevelopment of the Site and that continued monitoring would not provide any additional benefit. Based on these results and having exceeded the minimum five years of implementation as stipulated in the CPU, the proposed termination of the GWMP and MMP was accepted by the MECP by verbal communication to the City on June 30th, 2022. These programs were therefore not continued in 2022.

No revisions were deemed necessary to the Soil Management Plan (SMP) or the Health and Safety Plan (HASP).

Based on the results of the RMM implemented at the Site in 2022, no contingency measures were deemed necessary at the CPU Property and therefore no such measures or activities were implemented in 2022. Routine inspections did not identify significant deterioration of the RMM that would result in an increase in potential risk to human or ecological health at the CPU property. Restoration activities of stressed soft soil capped areas were observed during inspections in 2022 including topsoil dressing and seeding. These activities should continue to be undertaken in 2023 as warranted to prevent continued erosion due to loss of stabilizing vegetation in these areas.

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APPENDICES

LIST OF ACRONYMS AND ABBREVIATIONS

COC	Contaminant of Concern
CPU	Certificate of Property Use
DOC	Dissolved Organic Carbon
GWMP	Groundwater Monitoring Program
HASP	Health and Safety Plan
IMP	Inspection and Maintenance Plan
LFG	Landfill Gas
MMP	Methane Monitoring Plan
MOE	Ministry of the Environment
MECP	Ministry of the Environment, Conservation and Parks
MOECC	Ministry of the Environment and Climate Change
OHSA	Occupational Health and Safety Act
OSEG	Ottawa Sports and Entertainment Group
PAH	Polynuclear Aromatic Hydrocarbons
PHC	Petroleum Hydrocarbons
PSS	Property Specific Standards
PVC	Polyvinyl Chloride
QP	Qualified Person
RMM	Risk Management Measure
RSC	Record of Site Condition
SCS	Site Condition Standards
SMP	Soil Management Plan

1 INTRODUCTION

On November 25, 2013, Certificate of Property Use (CPU) No. 0371-8TYQMY was issued by the Ontario Ministry of the Environment and Climate Change (MOECC), now the Ministry of the Environment, Conservation and Parks (MECP), for the Lansdowne Park – Urban Park (Zone C) property located at 450 Queen Elizabeth Driveway (part of 945 Bank Street) in Ottawa, Ontario (hereinafter referred to as the "CPU Property"). A key plan showing the location of the CPU Property is provided on Figure 1.

The CPU Property is legally described as Part of Lots 20, 21 and 22 (Block 6), Part of Lot 29 (Block 7) and Part of O'Connor Street (Formerly Mary Street) (closed by Judge's Order Instrument LT1245216) on Plan 26085, Part of Lots 57, 58, 59 and 60 and Part of Lansdowne Avenue (closed by Judge's Order Instrument LT1245216) on Plan 35722, Part of Lots 45 to 50 (Inclusive) on Plan 30307 and Part of Lots I and K, Concession C (Rideau Front), Nepean, being Parts 1, 16, 17, 32 and 33 on Plan 4R-26535; City Of Ottawa and being all of PIN 04139-0264.

Condition 4.2.10 of the CPU stipulates that an annual report shall be prepared each year to document the activities carried out by the Owner in relation to the Risk Management Measures (RMM) that have been implemented and are to be maintained at the CPU Property and submitted to the MECP by March 31 of the following year. This report has been prepared by WSP E&I Canada Limited ("WSP"), on behalf of the City of Ottawa (the "City") to meet the annual reporting requirements stipulated by Condition 4.2.10 of CPU No. 0371-8TYQMY for 2022.

1.1 BACKGROUND

Lansdowne Park, which also includes the former adjacent Sylvia Holden Commemorative Park, comprises an area of 15.64 hectares located on the east side of Bank Street in the Glebe neighbourhood of the City of Ottawa, Ontario. Lansdowne Park is bordered by Bank Street to the west, Holmwood Avenue to the north and Queen Elizabeth Driveway followed by the Rideau Canal to the east and south.

Lansdowne Park was a historic exhibition, sports and entertainment facility originally developed in the mid-1800s as an agricultural fairground. Through well over 100 years of continuous use the site has undergone numerous changes including both the site infrastructure and physiography.

In 2007 the City of Ottawa initiated a review to redevelop Lansdowne Park. The Ottawa Sports and Entertainment Group (OSEG) proposed a public-private partnership with the City to rebuild the stadium and redevelop Lansdowne Park. The redevelopment plan was initiated in 2012 and included three major components:

- Constructing a mixed-use area that includes retail, office, and residential property uses along the north and west portions of the site (Zone A);
- Refurbishing Frank Clair Stadium (sports stadium) / Civic Centre (arena complex) and re-locating and refurbishing the Horticultural Building (Zone B); and,
- Creating a large urban park along the east and south portions of the site (Zone C).

The CPU Property (i.e., Zone C) portion of the redevelopment was completed in the summer of 2015. A generalized site plan depicting the redeveloped Lansdowne Park is provided on Figure 2.

2 CERTIFICATE OF PROPERTY USE

In recognition of the redevelopment to a more sensitive property use within Zone C, AMEC (2012) submitted a Risk Assessment (RA) to the Environmental Assessment and Approvals Branch of the MECP on March 16, 2012, in support of the filing of a Record of Site Condition (RSC). The RA (3678-8JPR93) was accepted by the Director in its letter to the City of Ottawa dated April 20, 2012. In recognition of its acceptance of the RA for Zone C, CPU No. 0371-8TYQMY was issued by the MECP on November 25, 2013. CPU No. 0371-8TYQMY addresses the RMM to be implemented and maintained at the CPU Property to mitigate unacceptable risks to human health as described in the Risk Assessment (RA) and/or Part 4 of the CPU. The CPU also provides Property-Specific Standards (PSS) for specific contaminants of concern (COC) present in soil and groundwater beneath the CPU Property.

2.1 RISK MANAGEMENT MEASURES

The RMM to be implemented and maintained at the CPU Property are generalized as follows:

1. **Geotechnical Engineering:** Quality assurance and quality control for such earthworks as the placement and compaction of geotechnical materials and soils impacted by any COC shall be carried out by the representative of the geotechnical engineering firm responsible for the supervision of construction based on professional judgment.
2. **Former Eastern Landfill:** Construction of a non-woven geotextile marker horizon overlain by a combination soft soil and hard cap barrier, both extending 5 metres outward beyond the periphery of the former Eastern Landfill. The hard cap shall consist of approved structural elements. The soft soil cap shall include 0.5 to 1.5 metres of clean soil meeting the 2011 Table 3 Site Conditions Standards (SCS) for residential / parkland / institutional property use as provided in *Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act* (MOE, 2011a).
3. **East Berm:** Construction of an earthen berm to contain impacted soil excavated from Zone A. The berm shall be underlain by non-woven geotextile to demarcate the elevation above which impacted soils have been placed. The contoured surface of the impacted soils shall be covered with a non-woven geotextile to demarcate the zone of impacted soils present underneath and covered with a minimum of one metre of clean soil meeting the 2011 Table 3 SCS for residential / parkland / institutional property use and/or other approved structural elements.
4. **Former McElroy Building:** Construction of a non-woven geotextile marker horizon overlain by a combination soft soil and hard cap barrier over the east portion of the footprint of the Former McElroy Building. The hard cap shall consist of approved structural elements. The soft soil cap shall include 0.5 to 1.5 metres of clean soil meeting the 2011 Table 3 SCS for residential / parkland / institutional property use.
5. **Soil Management Plan:** Development and implementation of a Soil Management Plan (SMP) to establish best practices and procedures to mitigate adverse effects and potential exposure risks associated with the excavation, transportation, storage and handling of soil at the CPU Property. This includes earthworks undertaken during site redevelopment as well as during any post-development construction activities while the RMM are required to be maintained in place.

6 **Health and Safety Plan:** Development and implementation of a Health and Safety Plan (HASP) to provide guidance for the protection of workers from potential exposure to the COC known to be present at the CPU Property.

7 **Groundwater Monitoring Program:** Development and implementation of a Groundwater Monitoring Program (GWMP), for a minimum of five years, to identify any changes in the hydrological components and groundwater quality resulting from implementation of the risk management measures and establishing trigger levels and contingency activities in the event that the monitoring results show any concentration(s) greater than the PSS.

8 **Methane Monitoring Program:** Development and implementation of a Methane Monitoring Program (MMP), for a minimum of five years, to address the influence of seasonal variations on landfill gas concentrations in the vicinity of the former Eastern Landfill and related RMM and establishing trigger levels and contingency activities in case monitoring results show any concentration greater than the PSS that are or may be related to the production of landfill gas.

9 **Inspection and Maintenance Plan:** Development and implementation of an Inspection and Maintenance Plan (IMP) to assess the integrity of the RMM on a routine and as-needed basis and identify any depreciation or failure of the RMM requiring repair or reinstatement.

10 **Annual Report:** An annual report shall be submitted to the MECP by no later than March 31 of each year to document activities carried out by the Owner in relation to the RMM during the previous calendar year, including any activities in relation to: East Berm, former Eastern Landfill, Former McElroy Building, SMP, HASP, GWMP, MMP and IMP.

A copy of the CPU is available on request.

3 RMM IMPLEMENTATION

3.1 EAST AND SOUTH BERM RMM

The construction of the East Berm was initiated in the summer of 2012 using impacted soil exceeding 2011 Table 3 SCS for residential / parkland / institutional property use excavated from within Zone A. The impacted soil was excavated concurrently with the areas excavated to construct underground parking structure located within Zones A and B. Following removal of the impacted soil a generic RSC was obtained for Zone A. COC present in soil excavated from within Zone A exceeding the applicable 2011 Table 3 SCS included various metals, polycyclic aromatic hydrocarbons (PAH) and petroleum hydrocarbons (PHC). Impacted soil which could not be accommodated in the East Berm were temporarily stockpiled within Zone C while awaiting placement in the South Berm, a western extension of the East Berm located south of the Stadium.

Construction of the South Berm began in the spring of 2013 using soil sourced from the temporary stockpile of impacted soil as well as non-impacted soil sourced from areas excavated to construct the underground parking structures. Impacted soil that could not be accommodated in the berms due to on-site temporary storage/stockpile limitations or other site logistics was transported and disposed off-site in accordance with applicable legislation.

While constructing the East and South Berms the following RMM were implemented:

- The existing ground surface beneath the berms was prepared by removing the existing asphalt where present, levelling and covering by eight-ounce non-woven geotextile fabric. The geotextile was placed to demarcate the interface between clean and impacted soil and to mitigate the potential for soil mixing.
- Soil known or suspected of being impacted was placed, compacted and contoured to a maximum elevation of at least 1 metre less than the final design elevation of the berms.
- Impacted soil contained within the East and South Berm was covered by eight-ounce non-woven geotextile fabric. The geotextile was installed per the manufacturer's instructions. At the toe of the berms, both the bottom and overlying geotextiles were placed in an anchor trench measuring 0.5 wide by 0.5 m deep. The anchor trench was then backfilled with clean sand. Based on a design slope of 3H:1V, the geotextile and impacted soil is set-back of approximately 2.56 metres from the toe of the berms.
- The geotextile overlying the impacted soil was covered with no less than 1 metre of clean fill (i.e., soil meeting *Table 3 Site Condition Standards in a Non-Potable Groundwater Condition - Residential/Parkland/Institutional Property Use*), which includes an upper layer of topsoil sufficient to support landscaping needs.
- In areas where trees were planted, sufficient soil depth was maintained around the rooting zones such that the roots of the mature trees would not have the potential for penetrating the underlying geotextile. At a minimum, trees were planted on compacted soil to prevent downward growth of rootmass. No plant species with tap root systems were placed above or within 5 metres of any areas subject to soil capping.
- To ensure that migration of contaminants does not occur, utility trenches installed through the area of impacted soil contained within the berms were sealed with clay plugs at the transition from impacted to non-impacted soil. The clay seals were constructed to a minimum thickness of 100 cm and extended from the base of the utility trench to the sub-base.

- With respect to utility conduit materials, concrete or polyvinyl chloride (PVC) conduits are generally not affected by the COC at the site. Therefore, either concrete or PVC conduits were used as utility conduits at the site. Gaskets used to connect conduct pipe sections within the area of impact were composed of chemically resistant materials, such as nitrile or fluorocarbon.
- As-built surveys were made during construction of the berms to ensure compliance with the design requirements stipulated in the CPU and that the berms were constructed with the required minimum thicknesses of clean cover soil.
- The East and South Berms will be surveyed on an annual basis for two consecutive years following construction to assess any differential settlement or consolidation of materials that could result in unwanted thinning of the clean cover. The surveys were conducted to record any areas showing evidence of erosion of surficial soil, slope failure and/or soil caving. Any areas subject to settlement greater than 0.10 metres was subject to restoration using clean fill/topsoil. The first of these surveys was conducted in November of 2016 and the second was conducted in December of 2018.
- The as-built survey and annual settlement/consolidation surveys will be maintained by the City per Section 3.12 of the Risk Management Plan provided in Appendix I the Risk Assessment (AMEC, 2012).

In 2022, WSP conducted inspections of the RMM implemented in the area of the East and South Berms as part of the Inspection and Maintenance Plan developed for the Site to satisfy the requirements of Condition 4.2.8 of the CPU. Details of the inspections including photo logs are provided in the Risk Management Measures Inspection Logs in Appendix B. The extent of the RMM for the Berm areas is provided on Figure 3.

3.2 FORMER EASTERN LANDFILL RMM

In addition to putrescible and non-putrescible waste, COC in soil requiring risk management in the area of the former Eastern Landfill include various metals, PAH and PHC. Based on the pre-construction grades, the zone impacted soil and/or waste extended from approximately 0.8 metres below ground surface to 4.8 mbgs. Potential risks were mitigated via capping the impacted soil and waste with a combination soft soil cap and hard cap. A non-woven geotextile was placed between the cap and the underlying impacted soil/waste to demarcate the transition between the two. Capping of the former Eastern Landfill was initiated in September 2013 and was conducted concurrently with the redevelopment construction activities. The capping was completed over several stages due to limited space available during the construction works.

Utilities were installed prior to the installation of the overlying geotextile and capping materials. The extent of the former landfill was verified through visual inspection of deleterious materials in the soil and locating the physical limits of the former landfill observed as being the wood cribbing of the former inlet to the Rideau Canal. Final soft soil and hard caps placement over areas of the former Eastern Landfill was completed in the summer 2015. Excess impacted soil excavated during utility trenching and cap placement was transported and disposed off-site in accordance with applicable legislation.

The following RMM were implemented during the construction of the soft soil and hard caps over the former Eastern Landfill:

- The existing surface cover consisting of asphalt and granular subbase was removed to the required depth. The surface was contoured to accommodate the final design grades and placement of eight-ounce non-woven geotextile fabric. The geotextile was placed to demarcate the separation between underlying waste

/ impacted soil and the overlying soft soil and hard caps. The eight-ounce non-woven geotextile was extended a minimum of 5 metres beyond the limits of the former Eastern Landfill.

- The geotextile was capped with a soft soil cover consisting of clean soil (i.e., soil meeting *Table 3 Site Condition Standards in a Non-Potable Groundwater Condition - Residential/Parkland/Institutional Property Use*), a hard surface cap (i.e., asphalt, concrete or interlocking pavers and granular subbase), or a combination thereof. The thickness of the soft soil cap overlying the geotextile was determined based on landscaping needs but was not less than 500 millimetres inclusive of topsoil and grass sod. Examples of the different hard cap surface treatments include;
  - Concrete Unit Paving on Grade;
  - Granite Paving;
  - Reinforced and coloured asphalt paving;
  - Resilient Play Surface; and,
  - Refrigerated Concrete Slab for skating rink.
- Where features were constructed that penetrated the geotextile such as foundations for light standards or playground equipment, at the point of penetration, the geotextile was placed to extend 0.3 m up and around the penetration point.
- In areas where trees were planted, sufficient soil depth was maintained around the rooting zones such that the roots of the mature trees would not have the potential for penetrating the underlying geotextile. At a minimum, trees were planted on compacted soil to prevent downward growth of rootmass. No plant species with tap root systems were placed above or within 5 metres of any areas subject to soil capping.
- To ensure that migration of contaminants does not occur, utility trenches installed through the area of impacted soil contained within the berms were sealed with clay plugs at the transition from impacted to non-impacted soil. The clay seals were constructed to a minimum thickness of 100 cm and extended from the base of the utility trench to the sub-base.
- With respect to utility conduit materials, concrete or PVC conduits are generally not affected by the COC at the site. Therefore, either concrete or PVC conduits were used as utility conduits at the site. Gaskets used to connect conduct pipe sections within the area of impact were composed of chemically resistant materials, such as nitrile or fluorocarbon.
- The on-site storm water management system includes an underground stormwater retention tank encroaching the western limit of the former Eastern Landfill. The retention tank was installed such that the geotextile liner was placed along the side of the tank and secured in place with backfilled soil. Trenches for any storm sewers flowing into or out of the tank passing through the impacted soil were sealed as noted above. Soil excavated during the installation of the tank was managed as per the risk management plan.
- Once completed, the boundaries defined by the RMM developed for the former Eastern Landfill were surveyed. An as-built drawing will be maintained by the City as per the risk management plan.

In 2022, WSP conducted inspections of the RMM implemented in the area of the former Eastern Landfill as part of the Inspection and Maintenance Plan developed for the Site to satisfy the requirements of Condition 4.2.8 of the CPU. Details of the inspections including photo logs are provided in the Risk Management Measures Inspection Logs in Appendix B. The extent of the RMM for the former Eastern Landfill area is provided on Figure 3.

3.3 FORMER MCELROY BUILDING RMM

In the area of the former McElroy Building, COC requiring risk management included PAHs in soil. Contaminants in soil were managed via covering the impacted soil with non-woven geotextile that was overlain with a combination soft soil cap and hard cap (i.e., soil and paving structures and granular subbase). In October 2014 a test pit sampling program was completed to further delineate the extent of the PAH impacted soil. The extent of the RMM was based on the refined extent of the impacted soil.

The following RMM were implemented during the construction of the soft and/or hard cap over the Former McElroy Building:

- The existing surface cover consisting of asphalt and granular subbase was removed to the required depth. The surface was contoured to accommodate the final design grades and placement of eight-ounce non-woven geotextile fabric. The geotextile was placed to demarcate the separation between underlying waste / impacted soil and the overlying soft soil and hard caps. The eight-ounce non-woven geotextile was placed to extend a minimum of 5 metres beyond the limits of the define limits of the impacted soil.
- The geotextile was capped with a soft soil cover consisting of clean soil (i.e., soil meeting *Table 3 Site Condition Standards in a Non-Potable Groundwater Condition - Residential/Parkland/Institutional Property Use*), a hard surface cap (i.e., asphalt, concrete or interlocking pavers and granular subbase), or a combination thereof. The thickness of the soft soil cap overlying the geotextile was determined based on landscaping needs but was not less than 500 millimetres inclusive of topsoil and grass sod.
- Where features were constructed that penetrated the geotextile such as foundations for light standards, at the point of penetration, the geotextile was placed to extend 0.3 m up and around the penetration point.
- In areas where trees were planted, sufficient soil depth was maintained around the rooting zones such that the roots of the mature trees would not have the potential for penetrating the underlying geotextile. At a minimum, trees were planted on compacted soil to prevent downward growth of rootmass. No plant species with tap root systems were placed above or within 5 metres of any areas subject to soil capping.
- To ensure that migration of contaminants does not occur, utility trenches installed through the area of impacted soil contained within the berms were sealed with clay plugs at the transition from impacted to non-impacted soil. The clay seals were a minimum of 100 cm thick and extended from the base of the utility trench to the sub-base.
- With respect to utility conduit materials, concrete or PVC conduits are generally not affected by the COC at the site. Therefore, either concrete or PVC conduits were used as utility conduits at the site. Gaskets used to connect conduct pipe sections within the area of impact were composed of chemically resistant materials, such as nitrile or fluorocarbon.
- Once completed, the boundaries defined by the risk management measures developed for the McElroy Building were surveyed. An as-built drawing will be maintained by the City as per the risk management plan.

In 2022, WSP conducted inspections of the RMM implemented in the area of the former McElroy Building as part of the Inspection and Maintenance Plan developed for the Site to satisfy the requirements of Condition 4.2.8 of the CPU. Details of the inspections including photo logs are provided in the Risk Management Measures Inspection Logs in Appendix B. The extent of the RMM for the former McElroy Building area is provided on Figure 3.

4 SOIL MANAGEMENT PLAN

A SMP was developed in support of the Lansdowne Park redevelopment project in February 2012. The SMP was revised in May 2014 (AMEC, 2014a) to meet Condition 4.2.5 of the CPU. The objectives of the SMP for the RA RSC Property are as follows:

- Ensure that impacted soil and groundwater encountered during any earthworks are managed in compliance with all applicable environmental laws including a CPU specific to the RA RSC Property portion of the site. In this context, "impacted" soil is interpreted to mean soil that does not meet the standards for soil as laid out in the 2011 MOE document entitled "*Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act*", Table 3 Full Depth Generic SCS in a Non-Potable Groundwater Condition for Residential/Parkland/Institutional (R/P/I) Land Use, coarse soil type (2011 Table 3 SCS);
- Provide a process to manage impacted soil and/or groundwater, including any excess soil;
- Provide a contingency plan to identify and manage any unknown contamination identified during the construction process or produced due to a spill or release during construction;
- Support the execution of the site health and safety plan as it relates to the safety of the construction workforce and the neighbouring community where contamination is encountered;
- Outline the methodology and procedures to minimize dust created during the excavation, loading and importation, placement and compaction of soil;
- Outline the procedures for notification and reporting; and,
- Integrate into other management plans and procedures that could include quality, environmental management, emergency response, and sustainability.

The revised SMP to meet the requirements of Condition 4.2.5 of the CPU was submitted to the MECP on June 2, 2014. The SMP was included in contract documents and provided to contractors during the redevelopment project and WSP was retained by the City to ensure implementation of the SMP during construction works. No changes or amendments to the SMP were made in 2022.

5 HEALTH AND SAFETY PLAN

The health and safety requirements mandated under the *Occupational Health and Safety Act* (OHSA), including the development and implementation of any Health and Safety Plan (HASP) is the responsibility of the Constructor deemed to be in charge of any works being undertaken at the site. This includes contractors retained by the owner working on its behalf. To assist contractors working at the CPU Property, a HASP addendum was developed to establish the health and safety requirements and provide guidance for the protection of workers from potential exposure to the COC known to be present at the CPU Property. The HASP addendum does not address other Health and Safety requirements.

The HASP addendum identifies the COC present at the CPU Property and the potential exposure pathways through which workers at the CPU Property may be exposed to those COC. Recommendations for personal protective equipment (PPE), personal hygiene and fugitive dust control are also provided in the addendum.

The HASP addendum was developed in July 2013 (AMEC, 2013). No changes or amendments to the HASP were made in 2022.

6 INSPECTION AND MAINTENANCE PLAN

An IMP outlining the monitoring program to be implemented at the site to satisfy the requirements of Condition 4.2.8 of the CPU was submitted to the MECP on June 30, 2014 (AMEC, 2014b). The primary objectives of the IMP include, but are not necessarily limited to, addressing the following items:

- Inspection and maintenance during construction activities;
- Inspection frequencies and routine maintenance requirements for the non-woven geotextile, and for the final surfaces of each of the East Berm, the former Eastern Landfill and the Former McElroy Building;
- Event-specific inspection and maintenance;
- Weather-related inspection and maintenance, and,
- Non-routine and incident inspection and maintenance.

In 2022 WSP conducted inspections, as per the IMP, of the RMM implemented at the CPU property including; prominent drainage features, the cap over the East Berm and its extension referred to as the South Berm as well as the cap over the former Eastern Landfill and former McElroy Building areas.

The following inspections were conducted in 2022:

- June 23, 2022 – Routine spring inspection, during setup for the Escapade Music Festival (June 24-26, 2022) and following rainfall events of 31.5 mm on April 7th, 28.4 mm on May 16th, and 29.8 mm on June 9th, that included all RMM;
- November 11, 2022 – Routine fall inspection, that included all RMM.

Details of the inspections including photo logs are provided in the Risk Management Measures Inspection Logs in Appendix B.

Conditions observed during routine spring and fall 2022 inspections included small areas of bare soil and stressed vegetation primarily in high traffic areas around the ice rink and children's Garden/Skate Park as well as on top of the East Berm. The events held on the Great Lawn and south of the Water Plaza left areas of bare soil and stressed vegetation where temporary structures and equipment had been placed. Areas of bare soil were observed where an excavation was conducted in 2021 east of the Art Screen to allow the drilling of a geotechnical borehole through the berm as well as near some temporary scaffolding that was erected west of the Art Screen. In addition, the majority of the South Berm continued to have areas of bare soil with evidence of soil erosion and transport. Observations were similar to those previously observed at the Site with no significant deterioration in 2022.

There was no significant deterioration of the RMM that would result in an increase in potential risk to human or ecological health on the CPU property observed during any of the inspections conducted in 2022 and therefore no immediate actions were recommended throughout the year. No changes or amendments to the IMP were made in 2022.

7 GROUNDWATER MONITORING PROGRAM

A GWMP outlining the proposed monitoring program to satisfy the requirements of Condition 4.2.7 of the CPU was submitted to the MECP for its approval on September 2, 2014 (AMEC, 2014c). Communication from the MECP indicating that the City should proceed with the GWMP was provided in its letter to the City dated March 20, 2015. The primary objectives of the GWMP included, but were not necessarily limited to, addressing the following:

- Identifying changes in the hydrological components having a direct interaction with the CPU Property soils including well water levels, groundwater flow details, infiltration rates and interflow details;
- Identifying any changes in groundwater quality resulting from establishing the RMM;
- Establishing the location and installation details of all groundwater monitoring wells to be included in the program;
- Establishing the frequency of all groundwater sampling and monitoring events;
- Establishing an itemized list of chemical parameters to be analyzed at each monitoring well location, including those identified in Schedule 5, Column 2 – Indicator List for Groundwater and Leachate contained in the Landfill Standards: A Guideline on the Regulatory and Approval Requirements for New or Expanding Landfilling Sites (PIBS 7792e) published by the MOE and dated January 2012, as it may be amended from time to time; and,
- Establishing trigger levels and contingency activities in the event that the monitoring results show any concentration(s) greater than the PSS.

Condition 4.2.7 of the CPU stipulates that the GWMP was to be carried out at the CPU Property for a minimum period of five (5) years from the date of issuance of the CPU. The GWMP was conducted on a semi-annual basis (spring and fall) in accordance with the GWMP dated August 2014 (AMEC, 2014a) since fall 2015 through spring 2021 during which time 12 monitoring and sampling events were completed satisfying condition 4.2.7 of the CPU. Wood completed a review of the GWMP (Wood, 2021), following the spring 2021 event, which was submitted to the MECP on September 8, 2021. The review was conducted in support of terminating the GWMP and obtaining the Director's written concurrence and acceptance thereof. The following is a summary of the results of the GWMP review.

7.1 GROUNDWATER MONITORING PROGRAM REVIEW

Groundwater elevation data acquired during the GWMP has inferred groundwater flow patterns beneath the CPU Property measured over the course of the GWMP to be similar to those observed prior to redevelopment. Shallow groundwater beneath the southern half of the CPU property generally flows to the east and northeast in a quasi-inward radial flow pattern towards a groundwater low in the vicinity of the former McElroy Building. Mounding near the northeast corner of the CPU property results in localized outward radial flow to the west and south and is likely due to leakage from the Rideau Canal migrating to the west within the historic fill materials placed within the former inlet of the Rideau Canal that extends in a south-southwesterly direction beneath the CPU Property.

All groundwater samples collected from the monitoring well network located at the CPU property since the onset of the monitoring program have reported parameter concentrations below 2011 Table 3 SCS for residential / parkland / institutional property use and coarse textured soil, where established, or Property Specific Standards (PSS) for ammonia, chloroform and iron as derived from the Risk Assessment as referenced in CPU 0371-8TYQMY with but three exceptions:

- a single PHC F3 exceedance (1,310 µg/L) reported at MW15-3 in the fall of 2016 for which all preceding (2 events) and subsequent (10 events) samples reported concentrations of <100 ug/L and below the Table 3 SCS of 500 µg/L;
- a single chloride exceedance (2,410 mg/L) reported at MW15-10 in the spring of 2016 for which all preceding (1 event) and subsequent (9 events) samples reported concentrations below the Table 3 SCS (2,300 mg/L with a general decreasing concentration trend readily apparent since the exceedance; and,
- a single ammonia exceedance (10.6 mg/L) reported at MW15-12 in the fall of 2015 for which all subsequent samples (10 events) reported concentrations well below the PSS of 4.524 mg/L.

Since the above-noted exceedances have either not been reproducible, immediately decreased significantly after the occurrence, or decreased over the six-year period of the GWMP, respectively, the exceedances are considered to be anomalies and thus not representative of the groundwater quality conditions beneath the CPU Property.

In addition, trends for landfill leachate indicator parameters (alkalinity, ammonia, conductivity, chloride, nitrate sulphate, DOC) and metals (barium, boron, copper, iron, magnesium, molybdenum, sodium, uranium, zinc) routinely detected in groundwater at the Site were reviewed. In general, concentrations for these parameters have remained relatively stable, fluctuated with an expected or reasonable range, or have decreased over time.

Based on the results of the GWMP to date, groundwater conditions at the Site remain similar or improved relative to those prior to redevelopment and groundwater quality continues to meet applicable standards with but a few isolated and unreproducible exceptions reported early on in the program. With the possible exception of dissolved organic carbon at MW15-10, none of the sampled parameters have exhibited increasing trends or other evidence indicative of future potential deterioration of groundwater quality beneath the CPU Property. The GWMP has shown that groundwater conditions at the Site are stable, and that continued monitoring would not provide any additional benefit.

The proposed termination of the GWMP was accepted by the MECP by verbal communication with the City on June 30th, 2022, and therefore the GWMP was not conducted in 2022.

8 METHANE MONITORING PROGRAM

A proposed MMP outlining the proposed monitoring program to satisfy the requirements of Condition 4.2.8 of the CPU was submitted to the MECP for its approval on September 2, 2014 (AMEC, 2014d). Communication from the MECP indicating that the City should proceed with the MMP was provided in its letter to the City dated March 20, 2015. The primary objectives of the MMP include, but are not necessarily limited to, addressing the following:

- the influence of seasonal variations on landfill gas concentrations in the vicinity of the former Eastern Landfill and related risk management measures at the Property;
- location and installation details of all boreholes and landfill gas probes included in the program;
- frequency of all sampling and monitoring events;
- trigger levels and contingency activities in case monitoring results show any concentration greater than the PSS that are or may be related to the production of landfill gas; and,
- the correlation between methane measured at the Property and changes in concentration for the chemical parameters identified in Schedule 5, Column 2 – Indicator List for Groundwater and Leachate contained in the Landfill Standards: A Guideline on the Regulatory and Approval Requirements for New or Expanding Landfilling Sites (PIBS 7792e) published by the MOECC and dated January 2012, as it may be amended from time to time.

Condition 4.2.8 of the CPU stipulates that a MMP was to be carried out at the CPU Property for a minimum period of five (5) years from the date of issuance of the CPU. The MMP has been carried out on a quarterly basis (spring, summer, fall, winter) in accordance with the MMP dated August 2014 (AMEC, 2014b) since fall 2015 through spring 2021 during which time 23 monitoring events were completed satisfying condition 4.2.8 of the CPU. Wood completed a review of the MMP (Wood, 2021), following the spring 2021 event, which was submitted to the MECP on September 8, 2021. The review was conducted in support of terminating the MMP and obtaining the Director's written concurrence and acceptance thereof. The following is a summary of the results of the MMP review.

8.1 METHANE MONITORING PROGRAM REVIEW

Methane concentrations measured at the landfill gas probes located at the CPU Property since the onset of the MMP have measured below the on-site methane concentrations limits as outlined in O.Reg. 232/98 and the recommended methane alert levels provided in Procedure D-4-1. The fairly consistent presence of low level initial and stable methane concentrations measured at GP15-4 and GP15-6 indicate that methane impacts are predominantly confined within the footprint of the former Eastern Landfill. The methane concentrations recorded suggest that any methane present is closely associated with waste deposits and is likely present as pockets trapped beneath less permeable materials. Landfill gas pressures, when measurable, are slight suggesting that the subsurface methane is not likely to migrate beyond the immediate areas in which it is encountered. The lack of consistent detectable methane at the LFG probes surrounding the former Eastern Landfill footprint indicates that the subsurface methane is not likely migrating beyond the boundaries of the former landfill.

Based on the methane concentrations noted above, the Site meets the on-site methane concentrations limits as outlined in O.Reg. 232/98 and the recommended methane alert levels provided in Procedure D-4-1. The MMP has shown that methane generation at the Site is stable, and that continued monitoring would not provide any additional benefit.

The proposed termination of the MMP was accepted by the MECP by verbal communication with the City on June 30th, 2022, and therefore the MMP was not conducted in 2022.

9 CONTINGENCY MEASURES

Based on the results of the IMP completed in 2022, no contingency measures were deemed necessary and therefore no such measures were implemented at the CPU Property in 2022.

10 SITE RESTORATION ACTIVITIES

Restoration of the damaged/deteriorated soft landscaped areas overlying the Former Eastern Landfill and East Berm was observed during both the spring and fall routine 2022 RMM inspection events. Topsoil and grass seed were observed to have been spread over areas of bare soil and stressed vegetation. Photographs of these areas are provided in the RMM inspection logs in Appendix B.

Visual inspections undertaken in 2022 noted conditions similar to those of reported during previous inspections with respect to several areas of soil erosion identified throughout the South Berm as evidenced by surface rutting, areas of soil washout, bare patches, and areas of down slope sediment accumulation. The observed areas are not considered to result in any increase in the levels of risk to potential receptors at the CPU Property, however, reparations to these areas should be undertaken to prevent continued erosion due to loss of stabilizing vegetation in these areas.

Based on inspections conducted as per the IMP no significant deterioration of the RMM that would result in an increase in potential risk to human or ecological health on the CPU property was observed and therefore no immediate site restoration activities were deemed necessary at the CPU Property in 2022.

11 CONCLUSIONS AND RECOMMENDATIONS

The findings and results of the RMM programs carried out at the CPU Property in 2022 to meet the annual reporting requirements are as follows:

- The findings of the IMP for the Site in 2022 noted similar conditions to those reported during previous inspections with respect to areas of bare soil in high traffic areas of the Site, stressed areas from temporary placement of equipment during entertainment events, as well as several areas of soil erosion identified throughout the South Berm as evidenced by surface rutting, areas of soil washout, bare patches, and areas of down slope sediment accumulation. Generally, the conditions of the RMM implemented at the Site were observed to be in good condition and stressed areas were not considered to result in any increase in the levels of risk to potential receptors at the CPU Property.
- Based on a review of the GWMP and MMP implemented at the Site in 2021, after the minimum five years of implementation stipulated in the CPU, both the GWMP and MMP were found to have shown that conditions at the Site were similar or improved relative to those prior to redevelopment of the Site and that continued monitoring would not provide any additional benefit. The proposed termination of the GWMP and MMP was accepted by the MECP in conversation with the City on June 30th, 2022, and the programs were therefore not continued in 2022.
- No revisions were deemed necessary to the SMP or the HASP.

Based on the results of the RMM implemented at the Site in 2022, no contingency measures were deemed necessary at the CPU Property and therefore no such measures or activities were implemented in 2022. Routine inspections did not identify significant deterioration of the RMM that would result in an increase in potential risk to human or ecological health at the CPU property. Restoration activities of stressed soft soil capped areas were observed during inspections in 2022 including topsoil dressing and seeding. These activities should continue to be undertaken in 2023 to prevent continued erosion due to loss of stabilizing vegetation in these areas.

12 CLOSURE

This report was prepared for the exclusive use of Ontario Ministry of the Environment, Conservation and Parks Ottawa District Office, and is intended to provide a 2021 Annual Report - Certificate of Property Use No. 0371-8TYQMY on the property located at 450 Queen Elizabeth Driveway (Part of 945 Bank Street), Ottawa, Ontario at the time of the Site field work performed on the dates set out in this report. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of the third party. Should additional parties require reliance on this report, written authorization from WSP will be required. With respect to third parties, WSP has no liability or responsibility for losses of any kind whatsoever, including direct or consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

The investigation activities undertaken by WSP with respect to this report and any conclusions and/or recommendations made in this report reflect WSP's judgment based on the Site conditions observed at the time of the Site investigations and on information available at the time of preparation of this report. This report has been prepared for specific application to this Site and it is based, in part, upon visual observation of the Site, subsurface investigation at discrete locations and depths, and specific analysis of specific chemical parameters and materials during a specific time interval, all as described in this report. Unless otherwise stated, the findings cannot be extended to previous or future Site conditions, portions of the Site, which were unavailable for direct investigation, subsurface locations which were not investigated directly, or chemical parameters, materials or analysis which were not addressed. WSP has used its professional judgment in analyzing this information and formulating these conclusions.

In evaluating the property, WSP has relied in good faith on information provided by other individuals noted in this report. WSP has assumed that the information provided is factual and accurate. WSP accepts no responsibility for any deficiency, misstatement or inaccuracy contained in this report as a result of omissions, misinterpretations or fraudulent acts of persons interviewed or contacted.

WSP makes no other representations whatsoever, including those concerning the legal significance of its findings, or as to other legal matters touched on in this report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issues, regulatory statutes are subject to interpretation and change. Such interpretations and regulatory changes should be reviewed with legal counsel.

The original of this digital file will be conserved by WSP E&I Canada Limited for a period of not less than 10 years. As the digital file transmitted to the intended recipient is no longer under the control of WSP E&I Canada Limited, its integrity cannot be assured. As such, WSP E&I Canada Limited does not guarantee any modifications made to this digital file subsequent to its transmission to the intended recipient.

This Report is also subject to the further Standard Limitations contained in Appendix C.

We trust that the information presented in this report meets your current requirements. Should you have any questions, or concerns, please do not hesitate to contact the undersigned.

Yours sincerely,

WSP E&I Canada Limited

Jason F. Taylor, H.BSc.
Senior Environmental Scientist

Kevin D. Hicks, M.Sc., P.Geo., QP_{ESA}
Principal Hydrogeologist

13 REFERENCES

AMEC Environment & Infrastructure (2014d): Methane Monitoring Program, Certificate of Property Use 0371-8TYQMY, Lansdowne Park – Urban Park (Zone C), 945 Bank Street, Ottawa, Ontario; prepared for the City of Ottawa, August 2014.

AMEC Environment & Infrastructure (2014c): Groundwater Monitoring Program, Certificate of Property Use 0371-8TYQMY, Lansdowne Park – Urban Park (Zone C), 945 Bank Street, Ottawa, Ontario; prepared for the City of Ottawa, August 2014.

AMEC Environment & Infrastructure (2014b): Inspection and Maintenance Plan, Certificate of Property Use 0371-8TYQMY, Lansdowne Park – Urban Park (Zone C), 945 Bank Street, Ottawa, Ontario; prepared for the City of Ottawa, June 2014.

AMEC Environment & Infrastructure (2014a): Soil Management Plan, Certificate of Property Use 0371-8TYQMY, Lansdowne Park – Urban Park (Zone C), 945 Bank Street, Ottawa, Ontario; prepared for the City of Ottawa, May 2014.

AMEC Environment & Infrastructure (2013): Health and Safety Plan Addendum, Working with Contaminated Soil, Lansdowne Park, Ottawa, Ontario; prepared for the City of Ottawa, July 2013.

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Ontario Ministry of the Environment (2011b): Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, March 9, 2004, amended as of July 1, 2011, PIBS 4696e01.

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Wood Environment and Infrastructure (2021): Groundwater and Methane Monitoring Programs Update, Certificate of Property Use 0371-8TYQMY, Lansdowne Park – Urban Park (Zone C), 945 Bank Street, Ottawa, Ontario; prepared for the City of Ottawa, September 2021.

Figures

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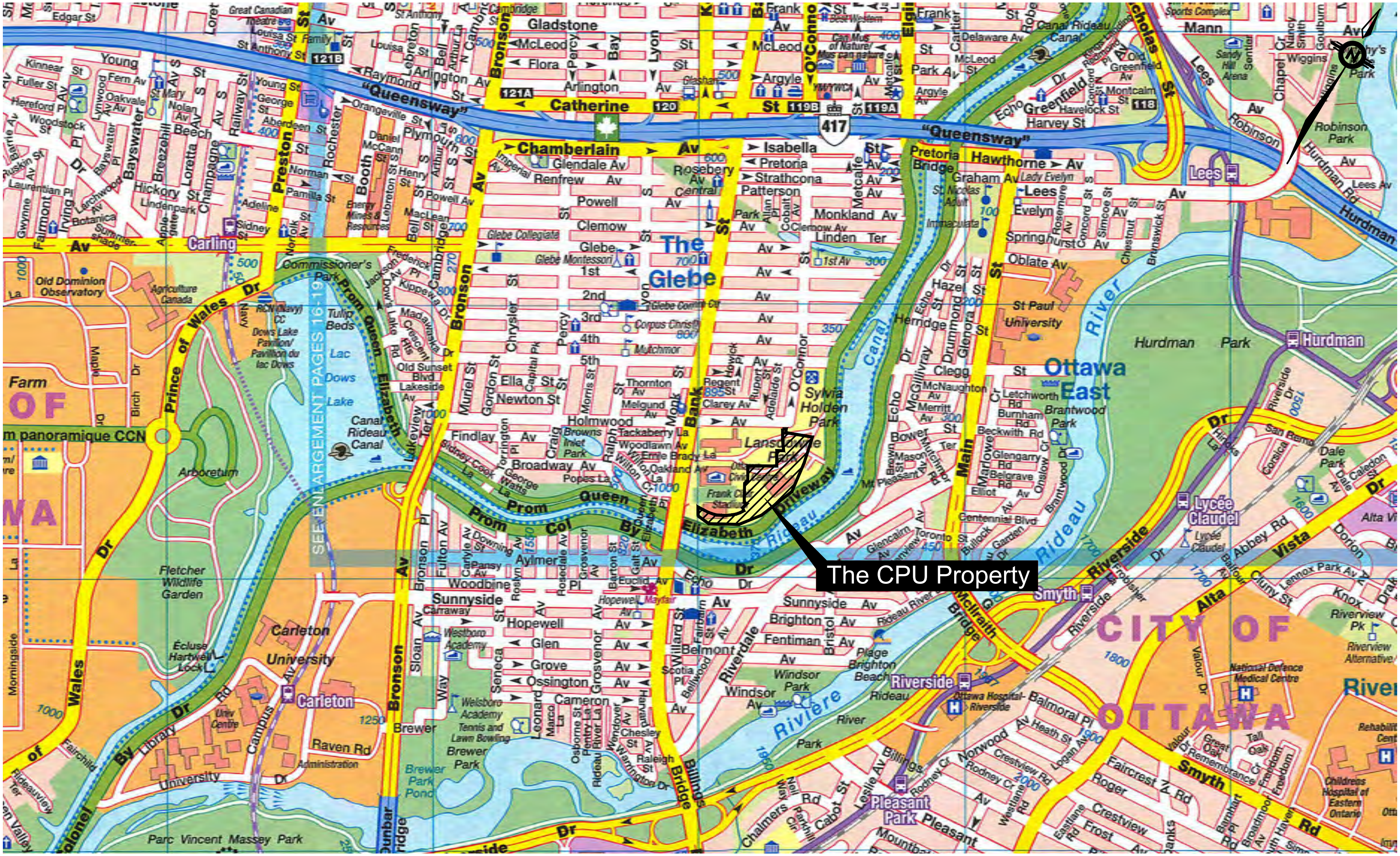

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METRES

SOURCE: STREET ATLAS OF OTTAWA AND ENVIRONS, MAPART, 2010

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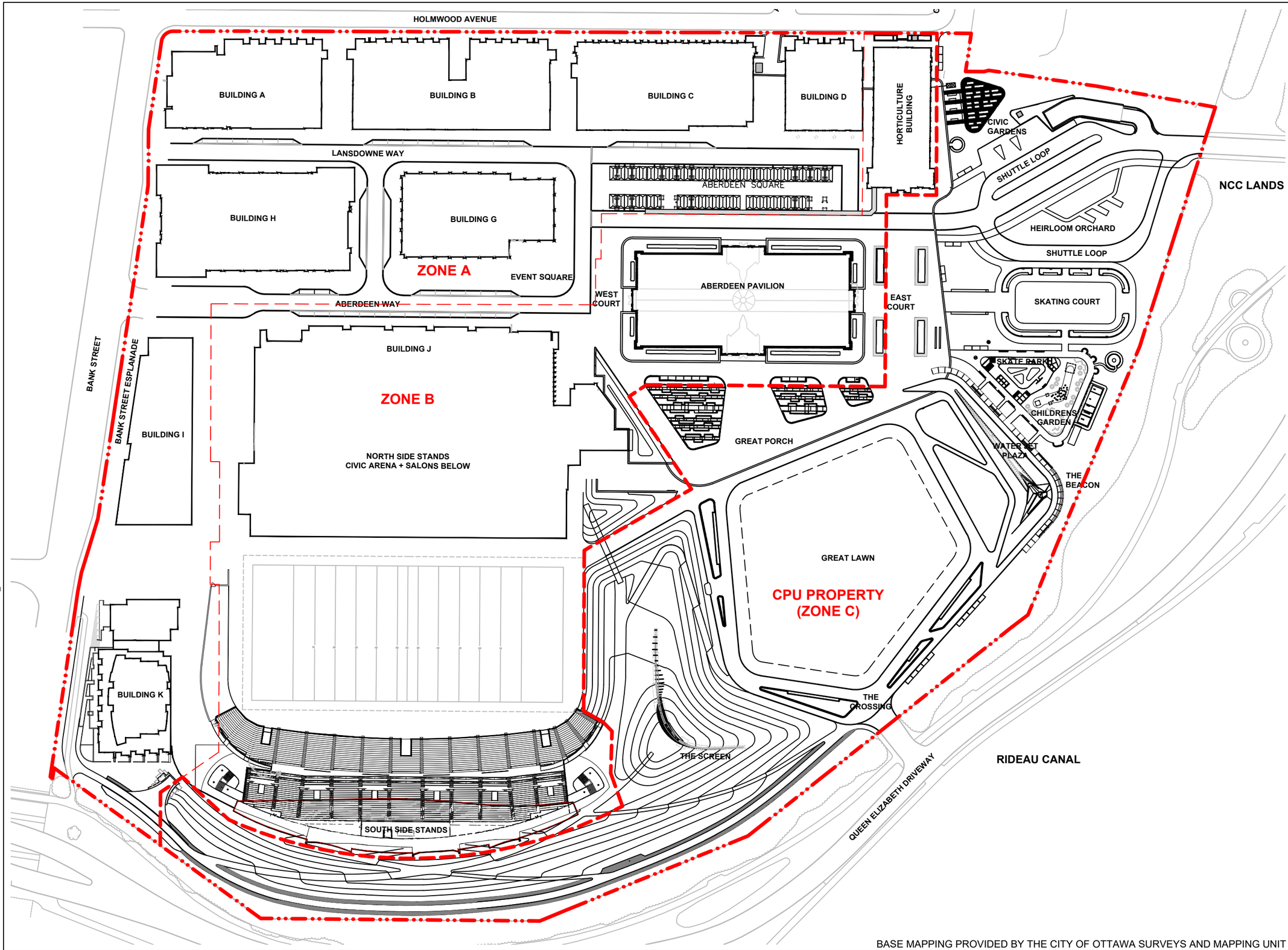
DATE: MARCH 2023	PROJECT NO: TZ10100106	FIGURE NO: 1
DRAWN BY: JFT / CHECKED BY: KDH	SCALE: 1 : 20,000	



LEGEND

- LANSDOWNE PARK PROPERTY BOUNDARY
- URBAN PARK (ZONE C) BOUNDARY
- ZONES A-B BOUNDARY

15 0 15 30 45
METRES

BASE MAPPING PROVIDED BY THE CITY OF OTTAWA SURVEYS AND MAPPING UNIT

TITLE: GENERALIZED SITE PLAN

PROJECT: 2022 ANNUAL REPORT
LANSDOWNE PARK - CPU PROPERTY
450 QUEEN ELIZABETH DRIVEWAY
OTTAWA, ONTARIO

CLIENT: Ottawa

DESIGNED BY:	KDH
DRAWN BY:	JFT
CHECKED BY:	KDH
DATE:	MARCH 2023
SCALE:	1 : 1,600
PROJECT NO:	TZ10100106
FIGURE NO:	2

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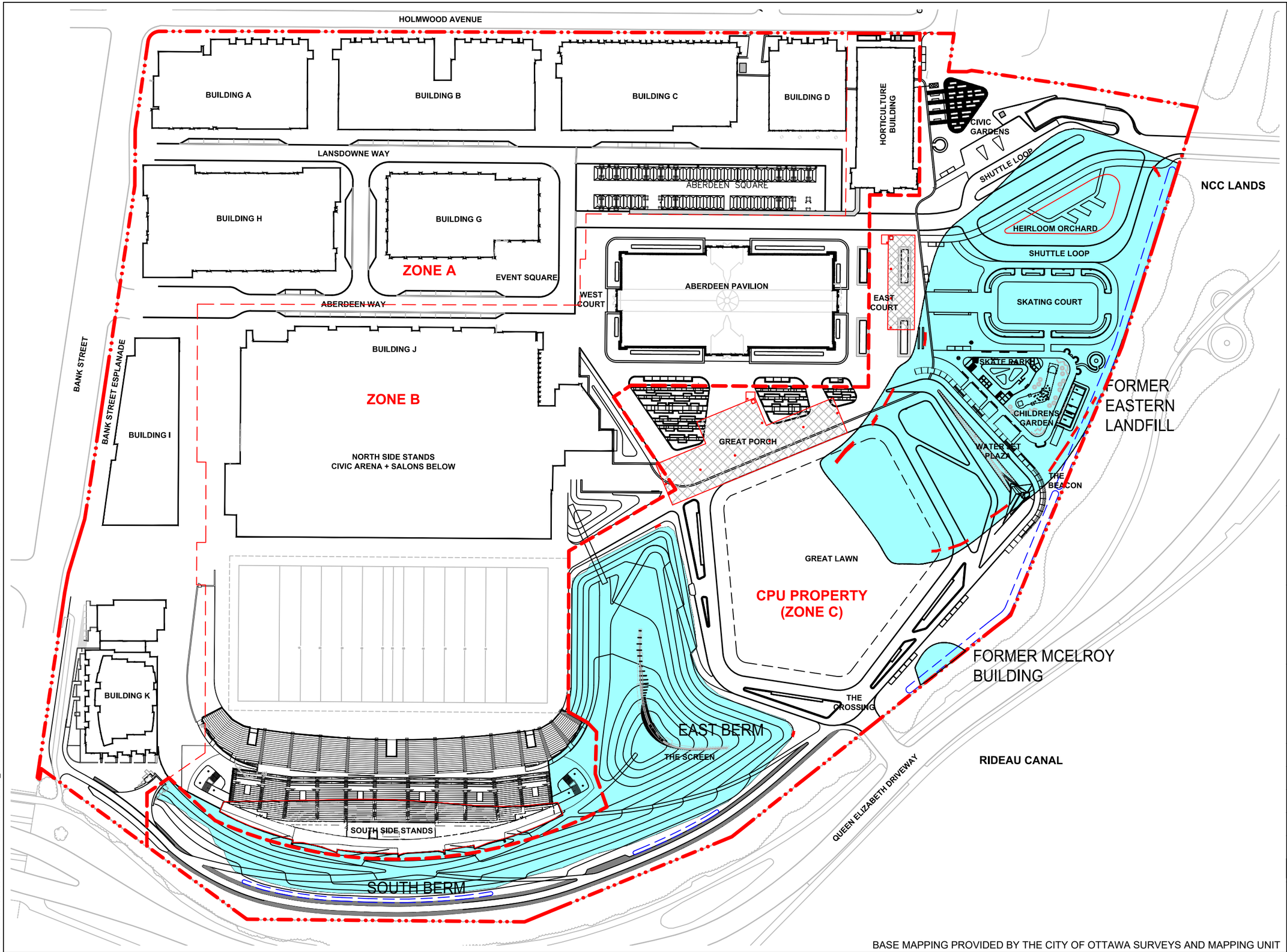

LEGEND

- LANSDOWNE PARK PROPERTY BOUNDARY
- URBAN PARK (ZONE C) BOUNDARY
- EXTENT OF NON-WOVEN GEOTEXTILE AND SOFT SOIL OR HARD CAP
- LOCATION OF CLAY SEAL IN SUBSURFACE UTILITY
- PERIMETER DRAINAGE SWALE
- UNDERGROUND STORMWATER TANK

15 0 15 30 45
METRES

TITLE:

RISK MANAGEMENT MEASURES

PROJECT:

2022 ANNUAL REPORT

LANSDOWNE PARK - CPU PROPERTY
450 QUEEN ELIZABETH DRIVEWAY
OTTAWA, ONTARIO

CLIENT:

DESIGNED BY:	KDH
DRAWN BY:	JFT
CHECKED BY:	KDH
DATE:	MARCH 2023
SCALE:	1 : 1,600
PROJECT NO:	TZ10100106
FIGURE NO:	3

BASE MAPPING PROVIDED BY THE CITY OF OTTAWA SURVEYS AND MAPPING UNIT

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Appendix A

Certificate of Property Use

Ontario

Ministry of the Environment
Ministère de l'Environnement

Certificate of Property Use

Environmental Protection Act, R.S.O. 1990, c.E.19, s.168.6

Certificate of property use number **0371-8TYQMY**
Risk assessment number **3678-8JPR93**

Client: **City of Ottawa** **(Owner)**

110 Laurier Avenue West
Ottawa, Ontario
K1P 1J1

Site: **Zone 'C' of 945-1015 Bank Street, City of Ottawa, ON (PIN 04139-0264)** **(Property)**

With a legal description of:

Part of Lots 20, 21 and 22 (Block 6), Part of Lot 29 (Block 7) and Part of O'Connor Street (formerly Mary Street) (Closed by Judge's Order Inst. LT1245216) on Plan 26085, Part of Lots 57, 58, 59 and 60 and Part of Lansdowne Avenue (Closed by Judge's Order Inst. LT1245216) on Plan 35722, Part of Lots 45 to 50 (inclusive) on Plan 30307 and Part of Lots I and K, Concession C (Rideau Front), Nepean, being Parts 1, 16, 17, 32 and on Plan 4R-26535; City of Ottawa

Appearing in Schedule 'A', which is attached to and forms part of the CPU.

The conditions of this Certificate of Property Use (CPU) address the Risk Management Measures in the Risk Assessment noted above and described in detail in Part 1 below (Risk Assessment). In the event of a conflict between the CPU and the Risk Assessment, the conditions of the CPU take precedence.

Summary:

Refer to Part 1 of the CPU, Interpretation, for the meaning of all the defined capitalized terms that apply to the CPU.

i) CPU requirements addressed in Part 4 of the CPU, Director Requirements, are summarized as follows:

a.	Installing/maintaining any equipment	Yes
b.	Monitoring any contaminant	Yes
c.	Refraining from constructing any building specified	Yes
d.	Refraining from using the Property for any use specified	Yes
e.	Other: Implementing for the Property: a health and safety plan; a soil management plan; and, an inspection and maintenance plan.	Yes

ii) Duration of Risk Management Measures identified in Part 4 of the CPU is summarized as follows:

a. The geotextile markers/barriers provided at the East Berm, at the Former Eastern Landfill and at the Former McElroy Building under which impacted soils will be stored, shall be maintained indefinitely until the Director alters section 4.2.2 and/or section 4.2.3 and/or section 4.2.4 of the CPU or revokes the CPU.

b. The requirements of the Ground Water Monitoring Program (GWMP), as described in section 4.2.7 of the CPU, shall commence immediately after the Director's written approval of the GWMP submitted by the Owner and shall be carried out for a minimum of five (5) years from the date of issuance of the CPU and thereafter until such time as the Director, upon application by the Owner, has reviewed the data available and either alters section 4.2.7 of the CPU or revokes the CPU.

c. The requirements of the Methane Monitoring Program (MMP), as described in section 4.2.8 of the CPU shall commence immediately after the Director's written approval of the MMP submitted by the Owner and shall be carried out for a minimum of five (5) years from the date of issuance of the CPU and thereafter until such time as the Director, upon application by the Owner, has reviewed the data available and either alters section 4.2.8 of the CPU or revokes the CPU.

d. The Soil Management Plan , the Health and Safety Plan and, the Inspection and Maintenance Plan, respectively described in sections 4.2.5, 4.2.6 and 4.2.9 of the CPU shall be required for as long as the Contaminants of Concern are present on, in or under the Property at concentrations greater than the Residential/Parkland/Institutional Property Use standards appearing in Table 3 of the ***Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act*** published by the Ministry and dated April 15, 2011.

Part 1: Interpretation

In the CPU the following terms shall have the meanings described below:

"Act" means the *Environmental Protection Act*, R.S.O. 1990, c. E. 19, as amended.

"Adverse Effect" has the same meaning as in the Act; namely,
(a) impairment of the quality of the natural environment for any use that can be made of it,
(b) injury or damage to property or to plant or animal life,
(c) harm or material discomfort to any person,
(d) an adverse effect on the health of any person,
(e) impairment of the safety of any person,
(f) rendering any property or plant or animal life unfit for human use,
(g) loss of enjoyment of normal use of property, and
(h) interference with the normal conduct of business.

"Contaminant" has the same meaning as in the Act; namely any solid, liquid, gas, odour, heat, sound, vibration, radiation or combination of any of them, resulting directly or indirectly from human activities

that causes or may cause an Adverse Effect.

"Contaminants of Concern" has the meaning as set out in section 3.2 of the CPU.

"CPU" means this Certificate of Property Use Number **0371-8TYQMY**, including Schedules 'A' to 'H', as it may be amended from time to time.

"Certificate of Requirement" means a certificate issued by a director pursuant to s. 197 of the EPA that is registered in the proper land registry office on the title of the real property to which the requirement relates and is in a form approved by the Minister, is signed or authorized by a person who has authority to make orders imposing requirements under s. 197(1) of the EPA and is accompanied by a registrable description of the property. The Certificate of Requirement sets out a requirement that, before dealing with a property in any way, any person with an interest in the property is to give a copy of the order or decision affecting the property to any person who will acquire an interest in the property as a result of the dealing.

"Designated Areas" means those areas at the Property which include, but are not limited to the Heirloom Orchard, the Skating Court, the Children's Garden, the Skaff Park, the Water Jet Plaza, the Great Lawn and, the Great Porch as depicted on drawing RM01 of Schedule 'B', which is attached to and forms part of the CPU, as it may be amended from time to time.

"Director" means the undersigned Director or any other person appointed as a Director for the purpose of issuing a certificate of property use.

"East Berm" means an earthen mound with a peak elevation of 75.5 m (approximate) above mean sea level, depicted on drawing RM01 of Schedule 'B', which is attached to and forms part of the CPU, as it may be amended from time to time.

"Former Eastern Landfill" means an area of the Property that was filled in with a wide variety of materials at the turn of the twentieth century and which is located below the mean ground elevation of the Property in the east portion of the Property as delineated in drawing RM01 of Schedule 'B', in drawing RM02 of Schedule 'C' and, in figure 20 of Schedule 'D', which are attached to and form part of the CPU, as it may be amended from time to time.

"Former McElroy Building" means an area of the Property delineated in figure 20 of Schedule 'D', which is attached to and forms part of the CPU, as it may be amended from time to time, and corresponding to the footprint occupied between 1957 and the early 2000's (approximate) by a building known as the McElroy Building.

"EBR" means the Environmental Bill of Rights, 1993, S. O. 1993, c. 28, as amended.

"Generic RSC Property" means the west portion of 945-1015 Bank Street, City of Ottawa, that does not include the Property and that is delineated on figure 20 of Schedule 'D', which is attached to and forms part of the CPU.

"Ministry" means the Ontario Ministry of the Environment.

"O.Reg.153/04" means Ontario Regulation 153/04, "Record of Site Condition – XV.1 of the Act" as amended, made under the Act.

"O.Reg. 347" means Ontario Regulation 347, "General - Waste Management" (R.R.O. 1990), as amended, made under the Act.

"Owner" means the owner(s) of the Property, including the person(s) to whom this CPU is issued, **City of Ottawa**, the current registered owner(s) of the Property, its successors and assigns.

"OWRA" means the *Ontario Water Resources Act*, R.S.O. 1990, c. 0. 40, as amended.

"Property" means the property that is the subject of the CPU and is described in the "Site" section on page 1 above.

"Property Specific Standards" means the property specific standards established for the Contaminants of Concern set out in the Risk Assessment and in section 3.2 of the CPU.

"Provincial Officer" means a person who is designated as a provincial officer for the purposes of the Act.

"Qualified Person" means a person who meets the qualifications prescribed in O. Reg. 153/04.

"Risk Assessment" means the Risk Assessment 3678-8JPR93 accepted by the Director on April 20th, 2012, and set out in the following document:

- Revised Risk Assessment for Lansdowne Park & Sylvia Holden Commemorative Park, Ottawa, Ontario, by AMEC Environment & Infrastructure, dated March 2012

"Risk Management Measures" means the risk management measures specific to the Property described in the Risk Assessment and/or Part 4 of the CPU.

"Tribunal" has the same meaning as in the Act; namely, the Environmental Review Tribunal.

Part 2: Legal Authority

2.1 Section 19 of the Act states that a certificate of property use is binding on the executor, administrator, administrator with the will annexed, guardian of property or attorney for property of the person to whom it was directed, and on any other successor or assignee of the person to whom it was directed.

2.2 Subsection 132(1.1) of the Act states that the Director may include in a certificate of property use a requirement that the person to whom the certificate is issued provide financial assurance to the Crown in right of Ontario for any one or more of,

(a) the performance of any action specified in the certificate of property use;
(b) the provision of alternate water supplies to replace those that the Director has reasonable and probable grounds to believe are or are likely to be contaminated or otherwise interfered with by a contaminant on, in or under the property to which the certificate of property use relates; and
(c) measures appropriate to prevent adverse effects in respect of the property to which the certificate of property use relates.

2.3 Section 168.6 (1) of the Act states that if a risk assessment relating to a property has been accepted under clause 168.5 (1) (a), the Director may issue a certificate of property use to the owner of the property, requiring the owner to do any of the following things:

(a) Take any action that is specified in the certificate and that, in the Director's opinion, is necessary to prevent, eliminate or ameliorate any adverse effect that has been identified in the risk assessment, including installing any equipment, monitoring any contaminant or recording or reporting information for that purpose.
(b) Refrain from using the property for any use specified in the certificate or from constructing any building specified in the certificate on the property.

2.4 Subsection 168.6(2) of the Act states that a certificate of property use shall not require an owner of property to take any action that would have the effect of reducing the concentration of a contaminant on, in or under the property to a level below the level that is required to meet the standards specified for the contaminant in the risk assessment.

2.5 Subsection 168.6(3) of the Act states that the Director may, on his or her own initiative or on

application by the owner of the property in respect of which a certificate has been issued under subsection 168.6(1),
(a) alter any terms and conditions in the certificate or impose new terms and conditions; or
(b) revoke the certificate.

2.6 Subsection 168.6(4) of the Act states that if a certificate of property use contains a provision requiring the owner of property to refrain from using the property for a specified use or from constructing a specified building on the property,
(a) the owner of the property shall ensure that a copy of the provision is given to every occupant of the property;
(b) the provision applies, with necessary modifications, to every occupant of the property who receives a copy of the provision; and
(c) the owner of the property shall ensure that every occupant of the property complies with the provision.

2.7 Subsection 197(1) of the Act states that a person who has authority under the Act to make an order or decision affecting real property also has authority to make an order requiring any person with an interest in the property, before dealing with the property in any way, to give a copy of the order or decision affecting the property to every person who will acquire an interest in the property as a result of the dealing.

2.8 Subsection 197(2) of the Act states that a certificate setting out a requirement imposed under subsection 197(1) may be registered in the proper land registry office on the title of the real property to which the requirement relates, if the certificate is in a form approved by the Minister, is signed or authorized by a person who has authority to make orders imposing requirements under subsection 197(1) and is accompanied by a registrable description of the property.

2.9 Subsection 197(3) of the Act states that a requirement, imposed under subsection 197(1) that is set out in a certificate registered under subsection 197(2) is, from the time of registration, deemed to be directed to each person who subsequently acquires an interest in the real property.

2.10 Subsection 197(4) of the Act states that a dealing with real property by a person who is subject to a requirement imposed under subsection 197(1) or 197(3) is voidable at the instance of a person who was not given the copy of the order or decision in accordance with the requirement.

Part 3: Background

3.1 The Risk Assessment was undertaken for the Property on behalf of the Owner to assess the human health risks and ecological risks associated with the presence or discharge of Contaminants on, in or under the Property and to identify appropriate Risk Management Measures to be implemented to ensure that the Property is suitable for the intended use: "Parkland Use" as defined in O. Reg. 153/04**.**

3.2 The Contaminants on, in or under the Property that are present at concentrations greater than the Residential/Parkland/Institutional Property Use standards appearing in Table 3 of the ***Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act*** published by the Ministry and dated April 15, 2011, or for which there are no such standards, are set out in the Risk Assessment and in Schedule 'E' (Contaminants of Concern), which is attached to and forms part of the CPU. The Property Specific Standards for the Contaminants of Concern are also set out in Schedule 'E'. The plan of survey showing the Property has been included in Schedule 'A' for reference purposes.

3.3 I am of the opinion, for the reasons set out in the Risk Assessment, that the Risk Management Measures described therein and outlined in Part 4 of the CPU are necessary to prevent, eliminate or ameliorate an Adverse Effect on the Property.

3.4 I am of the opinion, for the reasons set out in the Risk Assessment, that Contaminants of Concern require on-going elimination of the exposure pathways and it is necessary to restrict the use of the Property and/or the construction of buildings as outlined in Part 4 of this CPU, as applicable.

Part 4: Director Requirements

Pursuant to the authority vested in me under section 168.6(1) of the Act, I hereby require you to do or cause to be done the following:

Risk Management Measures

4.1 Implement, and thereafter maintain or cause to be maintained, the following Risk Management Measures.

4.2 Without restricting the generality of the foregoing in section 4.1 of the CPU, carry out or cause to be carried out the following key elements of the Risk Management Measures:

Geotechnical Engineering

4.2.1 Quality assurance and quality control for such earthworks as the placement and compaction of geotechnical materials and soils impacted by any Contaminant of Concern shall be carried out by the representative of the geotechnical engineering firm responsible for the supervision of construction based on professional judgment.

Former Eastern Landfill

4.2.2 After existing layers of bituminous concrete above the waste materials disposed of in the Former Eastern Landfill and from the five (5) metre strip extending outward and along the periphery of the Former Eastern Landfill have been removed, the following conditions shall apply to the Former Eastern Landfill and the aforementioned five (5) metre peripheral strip:

a) the surface of the waste materials and of the 5 m peripheral strip shall be prepared to ensure smoothness, absence of protruding sharp edges and adequate compaction;
b) the surface prepared in accordance to item (a) above shall be covered with a non-woven geotextile meeting or exceeding the set of specifications appearing in Schedule 'F', which is attached to and forms part of the CPU, to demarcate the zone of impacted soils and/or waste materials present underneath;
c) except for the Heirloom Orchard, the non-woven geotextile identified at item (b) above shall be covered in the Designated Areas and in the footprint of walkways and roads, with materials identified on drawing RM02 of Schedule 'C', which is attached to and forms part of the CPU, in accordance to the references applicable to details numbered 2/RM05, 03/RM05, 7/RM05, 8/RM05, 9/RM05,10/RM05, 11/RM05, 12/RM05,13/RM05, 16/RM05 and, 17/RM05 appearing in Schedule 'H', and to details numbered 21/RM05 and 22/RM05 appearing in Schedule 'H', which is attached to and forms part of the CPU. The thickness of the cover materials above the non-woven geotextile shown on details numbered 2/RM05, 03/RM05, 7/RM05, 8/RM05, 9/RM05,10/RM05, 11/RM05, 12/RM05,13/RM05, 16/RM05 and, 17/RM05, shall be minimum thicknesses;
d) layout around and connection of the non-woven geotextile with cement concrete or metallic structures - e.g. storage tanks, catch basins, vertical pipes, posts, etc. - shall be established in accordance to the references applicable to details numbered 21/RM05 or 22/RM05 appearing in Schedule 'H', which is attached and forms part of the CPU;
e) the non-woven geotextile shall be covered by no less than 1.5 metres of soil in thickness, inclusive of a layer of topsoil sufficient to support horticultural needs, where any part of a plant is located above the Former Eastern Landfill and such plant has a potential of being used as food/produce or for its medicinal properties;

f) planters may be used in such locations where the requirement of soil thickness of item (e) cannot be met. When implemented, the roots shall be fully contained within the planters and shall not be penetrating the non-woven geotextile nor any of the soil layers above or below the non-woven geotextile;
g) the anchoring of the non-woven geotextile at the periphery of the Former Eastern Landfill shall be carried out in accordance with applicable aspects of detail 16/RM05 of Schedule 'H', which is attached to and forms part of the CPU;
h) the non-woven geotextile shall be covered by no less than 0.5 metre of soil in thickness, inclusive of a layer of topsoil sufficient to support landscaping needs in the swale corridor running, east of the Great Lawn and in the vicinity of the east Property line;
i) except for those surfaces of the Former Eastern Landfill concerned by items (c), (d), (e), (f), (g) and, (h) above, the non-woven geotextile shall be covered with soil no less than 1 metre in thickness, inclusive of a layer of topsoil sufficient to support landscaping needs; and,
j) soil and topsoil placed above the non-woven geotextile shall meet the Residential/Parkland/Institutional Property Use standards appearing in Table 3 of the ***Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act*** published by the Ministry and dated April 15, 2011, as it may be amended from time to time and in effect at the time the aforementioned work is undertaken.

East Berm

4.2.3 After existing layers of bituminous concrete have been removed from the planned footprint of the East Berm, the following conditions shall apply to the East Berm:
a) the bottom of the excavation shall be covered with a non-woven geotextile meeting or exceeding the set of specifications appearing in Schedule 'F', which is attached to and forms part of the CPU, to demarcate the elevation above which soils impacted by any Contaminant of Concern excavated from the Generic RSC Property and/or from the Property are placed;
b) soils impacted by any Contaminant of Concern and excavated from the Generic RSC Property and/or from the Property shall be placed up to elevation 74.5 m (approximate) above mean sea level and to match the topography at one metre below the contour elevations shown on drawings RM01 of Schedule 'B' and RM03 of Schedule 'G', which are attached to and form part of the CPU;
c) the contoured surface of soils impacted by any Contaminant of Concern shall be prepared to ensure smoothness and absence of protruding sharp edges;
d) the contoured surface of the soils impacted by any Contaminant of Concern and prepared in accordance to item (c) above shall be covered with a non-woven geotextile – the non-woven upper geotextile - meeting or exceeding the set of specifications appearing in Schedule 'F', which is attached to and forms part of the CPU, to demarcate the zone of impacted soils present underneath;
e) the elements, structural or otherwise, proposed for the East Berm in details 19/RM05 and 20/RM05 of Schedule 'H', which is attached to and forms part of the CPU, shall be established in accordance with these details, as applicable;
f) the anchoring of the non-woven geotextiles at the periphery of the East Berm shall be carried out in accordance with detail 16/RM05 of Schedule 'H', which is attached to and forms part of the CPU;
g) when any part of a plant is located on the East Berm and such plant has a potential of being used as food/produce or for its medicinal properties, all such vegetation plantings shall have their roots fully contained within planters and not penetrating the non-woven geotextile nor any of the soil layers above or below the non-woven geotextile; and,
h) except for those surfaces of the East Berm concerned by items (e), (f) and (g) above, the non-woven upper geotextile shall be covered with no less than one (1) metre, inclusive of a layer of topsoil sufficient to support landscaping needs, in thickness of soil meeting the Parkland Property Use standards appearing in Table 3 of the ***Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act*** published by the Ministry and dated April 15, 2011, as it may be amended from time to time and in effect at the time the aforementioned work is undertaken.

Former McElroy Building

4.2.4 After existing layers of bituminous concrete and aggregates have been removed from the east portion of the footprint of the Former McElroy Building, the following conditions shall apply to the Former McElroy Building:

a) soils impacted by any Contaminant of Concern shall be excavated and such excavation shall be carried down to a depth of 1 metre below the proposed finished grade;

b) the bottom of the excavation shall be prepared to ensure smoothness, absence of protruding sharp edges and adequate compaction;

c) the surface prepared in accordance to item (b) above shall be covered with a non-woven geotextile meeting or exceeding the set of specifications appearing in Schedule 'F', which is attached to and forms part of the CPU, to demarcate the zone of impacted soils present underneath;

d) for the walkway and road depicted on drawing RM01 of Schedule 'B', located within the surface prepared in accordance to item (c) above, the non-woven geotextile shall be covered with materials identified on drawing RM02 of Schedule 'C' via applicable references to details numbered 7/RM05, 8/RM05, 9/RM05 and, 17/RM05 appearing in Schedule 'H', and to details numbered 21/RM05 and 22/RM05 appearing in Schedule 'H', which is attached to and forms part of the CPU. The thickness of the cover materials above the non-woven geotextile shown on details numbered 7/RM05, 8/RM05, 9/RM05 and, 17/RM05, shall be minimum thicknesses;

e) layout around and connection of the non-woven geotextile with cement concrete or metallic structures - e.g. catch basins, vertical pipes, posts, etc. - shall be established in accordance with details 21/RM05 and 22/RM05, as applicable, presented in Schedule 'H', which is attached to and forms part of the CPU;

f) when any part of a plant is located above the Former McElroy Building and such plant has a potential of being used as food/produce or for its medicinal properties, all such vegetation plantings shall have their roots fully contained within planters and not penetrating the non-woven geotextile nor any of the soil layers above or below the non-woven geotextile; and,

g) the anchoring of the non-woven geotextile at the periphery of the Former McElroy Building shall be carried out in accordance with applicable aspects of detail 16/RM05 of Schedule 'H', which is attached to and forms part of the CPU;

h) except for those surfaces of the Former McElroy Building concerned by items (d), (e), (f) and (g) above, the non-woven geotextile shall be covered with no less than 1 metre, inclusive of a layer of topsoil sufficient to support landscaping needs, in thickness of soil meeting the Residential/Parkland/Institutional Property Use standards appearing in Table 3 of the ***Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act*** published by the Ministry and dated April 15, 2011, as it may be amended from time to time and in effect at the time the aforementioned work is undertaken.

Soil Management Plan

4.2.5 a) The Owner shall implement and submit to the Director, within thirty (30) days after registering on title the Certificate of Requirement in accordance with section 4.9 of the CPU, a Soil Management Plan for the Property which includes but is not necessarily limited to the following:

- a description of the soil characterization procedures
- a description of the air quality monitoring procedures
- a dust management program which includes preventive measures against dust emissions leaving the Property and soil tracking by vehicles and personnel from the Property and mitigative measures to address dust emissions from the Property
- record-keeping requirements to document dates, duration and location of earthwork activities, weather and site conditions, dust control measures, stockpile management and drainage, all material characterization results, name(s) of the Qualified Person and/or his representative and any complaints received relating to site activities.

b) Earthwork activities to which the Soil Management Plan shall apply shall include but not necessarily be limited to the following:

- Any excavation with heavy equipment
- Grade preparation activities at any of the Former Eastern Landfill, East Berm and Former McElroy Building
- Grading and compaction activities
- Soil stockpiles
- Vehicular movements involving soils impacted with any Contaminant of Concern
- Importation, transportation and placement of clean soils and aggregates within the East Berm, Former Eastern Landfill, and Former McElroy Building
- Final grading, contouring and landscaping activities within the Property, and,
- Corrective measures and ongoing maintenance at any of the East Berm, Former Eastern Landfill and Former McElroy Building

c) Any soil of the Property that is found to exceed the Property Specific Standards specified in Schedule 'E' shall be removed from the Property and disposed of in accordance with applicable legislation, namely the Act, O. Reg. 347, and O. Reg. 153/04.

d) At no time shall the Owner import or arrange for the importation of soils from outside the Site and place them at the Site as fill or cover materials unless the imported soils conform to generic Ministry of the Environment soil standards for Residential/Parkland/Institutional Property Use in Table 3 of the ***Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act*** published by the Ministry and dated April 15, 2011, as it may be amended from time to time, and conform to the Property Specific Standards listed in Schedule 'E' which is attached to and forms part of the CPU.

e) The Soil Management Plan shall be posted on the Owner's website and shall be refreshed with the newest revision of the Soil Management Plan within five (5) days of a revision being made. The web page from which the Soil Management Plan can be accessed shall also include, but not necessarily be limited to the following information:
   - how to contact the Owner
   - how to inquire about activities within the Soil Management Plan
   - how to file complaints about impacts caused by earthwork activities at the Property

f) The Owner shall review the Soil Management Plan at least once every year to ensure that it is kept up-to-date and shall revise it accordingly.

g) The Owner shall keep at the Property a current copy of the Soil Management Plan and all records identified in item (a) above. All such documents shall be made available for review by a Provincial Officer upon request.

Health and Safety Plan

4.2.6 The Owner shall ensure a Health and Safety Plan is developed and implemented for the Property by an appropriately qualified person under the Occupational Health and Safety Act and shall take into consideration the Contaminants of Concern present and the risks and the exposure pathways identified for construction workers in the Risk Assessment. The Health and Safety Plan must include recommendations for personal protective equipment (PPE) for construction workers where applicable to the type of activity and potential exposure to the Contaminants of Concern. In addition, measures that should be taken to mitigate negative impacts to neighbouring properties shall be identified in the Health and Safety Plan.

Ground Water Monitoring Program

4.2.7 a) The Owner shall submit to the Director for review and approval, within one hundred and twenty (120) days after registering on title the Certificate of Requirement in accordance with section 4.9 of the CPU, a proposed Ground Water Monitoring Program which shall include, but not necessarily be limited to, addressing:
   - changes in the hydrological components having a direct interaction with the Property soils, notably well water levels, ground water flow details, infiltration rates and interflow details
   - changes in ground water quality resulting from establishing the Risk Mitigation Measures
   - location and installation details of all monitoring wells included in the program

- frequency of all sampling and monitoring events
- itemized list of chemical parameters to be analyzed at each monitoring well location, including those identified in Schedule 5, Column 2 – Indicator List For Groundwater and Leachate contained in the ***Landfill Standards: A Guideline on the Regulatory and Approval Requirements for New or Expanding Landfilling Sites*** published by the Ministry and dated June 2010, as it may be amended from time to time
- trigger levels and contingency activities in case monitoring results show any concentration greater than the Property Specific Standards

b) The Owner shall implement the approved Ground Water Monitoring Program once approved in writing by the Director.

c) The approved Ground Water Monitoring Program shall be carried out for a minimum period of five (5) years from the date of issuance of the CPU.

d) Any change(s) to the approved Ground Water Monitoring Program shall be implemented only if the Director has been provided with advance written notice of the proposed change(s) and the proposed change(s) has(ve) been accepted in writing by the Director.

e) The Owner shall not terminate the approved Ground Water Monitoring Program unless the Owner has conducted consultation with the down gradient adjacent property owners that is, in the Director's opinion, appropriate in the circumstances and the Director has confirmed in writing that the termination of the approved Ground Water Monitoring Program, as requested in writing by the Owner, is appropriate.

f) Results from the implementation of the approved Ground Water Monitoring Program and their interpretation by a Qualified Person shall be documented in an annual report.

Methane Monitoring Program

4.2.8 a) The Owner shall submit to the Director for review and approval, within one hundred and twenty (120) days after registering on title the Certificate of Requirement in accordance with section 4.9 of the CPU, a proposed Methane Monitoring Program which shall include, but not necessarily be limited to, addressing:

- the influence of seasonal variations on landfill gas concentrations in the vicinity of the Former Eastern Landfill and related risk management measures at the Property
- location and installation details of all boreholes and landfill gas probes included in the program
- frequency of all sampling and monitoring events
- trigger levels and contingency activities in case monitoring results show any concentration greater than the Property Specific Standards that are or may be related to the production of landfill gas
- the correlation between methane measured at the Property and changes in concentration for the chemical parameters identified in Schedule 5, Column 2 – Indicator List For Groundwater and Leachate contained in the ***Landfill Standards: A Guideline on the Regulatory and Approval Requirements for New or Expanding Landfilling Sites*** published by the Ministry and dated June 2010, as it may be amended from time to time.

b) The Owner shall implement the approved Methane Monitoring Program once approved in writing by the Director.

c) The approved Methane Monitoring Program shall be carried out for a minimum period of five (5) years from the date of issuance of the CPU.

d) Any change to the approved Methane Monitoring Program shall be implemented only if the Director has been provided with advance written notice of the proposed change(s) and the proposed change(s) has(ve) been accepted in writing by the Director.

e) The Owner shall not terminate the approved Methane Monitoring Program unless the Owner has conducted consultation with the down gradient adjacent property owners that is, in the Director's opinion, appropriate in the circumstances and the Director has confirmed in writing that the termination of the approved Methane Monitoring Program, as requested in writing by the Owner, is appropriate.

f) Results of the approved Methane Monitoring Program and their interpretation by a Qualified Person shall be documented in an annual report.

g) Within sixty (60) days of the completion of implementation of the approved Methane Monitoring Program, a report shall be prepared by a Qualified Person, documenting and interpreting the results of the approved Methane Monitoring Program (Methane Monitoring Report). The Methane Monitoring Report shall contain recommendations addressing building restrictions, additional monitoring and/or mitigation strategies to prevent the migration/accumulation of methane into enclosed structures as appropriate. The Methane Monitoring Report shall be kept by the Owner for as long as the Contaminants of Concern are present on, in or under the Property at concentrations greater than the Residential/Parkland/Institutional Property Use standards appearing in Table 3 of the ***Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act*** published by the Ministry and dated April 15, 2011, as it may be amended from time to time.

Inspection and Maintenance Plan

4.2.9 a) The Owner shall implement and submit to the Director, within sixty (60) days after registering on title the Certificate of Requirement in accordance with section 4.9 of the CPU, an Inspection and Maintenance Plan for the Property to address, as a minimum, the following:
- inspection and maintenance during construction activities
- inspection frequencies and routine maintenance requirements for the non-woven geotextile, and for the final surfaces of each of the East Berm, the Former Eastern Landfill and the Former McElroy Building
- event-specific inspection and maintenance,
- weather-related inspection and maintenance, and
- non-routine and incident inspection and maintenance,

b) Repair and maintenance of the non-woven geotextile and other geotechnical materials provided at the East Berm, the Former Eastern Landfill and the Former McElroy Building shall be carried out in accordance with the design specifications prescribed by conditions 4.2.2, 4.2.3 and 4.2.4.

c) The Inspection and Maintenance Plan shall address, as a minimum, the following items:
- Localized settlement areas or depressions in the final grades of the East Berm, the Former Eastern Landfill and the Former McElroy Building
- Shear and tension cracks on the East Berm
- Condition of surface water drainage features
- Erosion and sediment transport at the East Berm
- Presence of any ponded water on that portion of the Former Eastern Landfill located outside of the Designated Area known as the Great Lawn
- Structural integrity of all elements appearing on details 2/RM05, 03/RM05, 7/RM05, 8/RM05, 9/RM05,10/RM05, 11/RM05, 12/RM05,13/RM05, 16/RM05, 17/RM05, 19/RM05, 20/RM05, 21/RM05 and 22/RM05 of Schedule 'H' that are visible from the ground surface
- Condition of all ground water monitoring and methane monitoring locations

d) The Owner shall maintain records of all inspection and maintenance activities.

Documentation and Reporting

4.2.10 a) The Owner shall maintain records pertaining to the inspection and maintenance of Risk Management Measures, the implementation of contingency measures, any and all Site restoration activities, soil testing and, the leading causes of events having affected the structural integrity of any Risk Management Measure for as long as the Risk Management Measures are in place.

b) Within ten (10) days of any amendment being made to any drawing referenced in the CPU the Owner shall submit a copy of the revised drawing to the Director.

c) The Owner shall prepare an annual report and submit it to the Director by March 31 each year. A copy of this report shall be kept by the Owner for up to three years after its publication and shall be promptly made available for inspection upon request by a Provincial Officer.

d) No later than May 31 each year, the Owner shall also publish on its website an electronic version of the report submitted to the Director in accordance with item (c) above.
e) The annual report shall include all documentation relating to activities carried out by the Owner in relation to the Risk Management Measures during the previous calendar year, including as a minimum, a description of the activities prescribed by this CPU in relation to each of the following:
    - East Berm
    - Former Eastern Landfill
    - Former McElroy Building
    - Soil Management Plan
    - Health and Safety Plan
    - Ground Water Monitoring Program
    - Methane Monitoring Program
    - Inspection and Maintenance Plan

Property Use Restrictions

4.3 Refrain from using the Property for any of the following use(s): Any type of property use specified in O.Reg.153/04, other than Parkland Use

4.4 Refrain from constructing any permanent building for human occupancy.

Notification of Occupants

4.5 The Owner shall ensure that every occupant of the Property is given notice that the Ministry has issued this CPU and that it contains the provisions noted above in sections 4.3 and 4.4. For the purposes of this requirement, an occupant means any person with whom the Owner has a contractual relationship regarding the occupancy of all or part of the Property.

Site Changes

4.6 In the event of a change in the physical site conditions or receptor characteristics at the Property that may affect the Risk Management Measures and/or any underlying basis for the Risk Management Measures, the Owner shall forthwith notify the Director of such changes and the steps taken to implement, maintain and operate any further Risk Management Measures as are necessary to prevent, eliminate or ameliorate any Adverse Effect that will result from the presence on, in or under the Property or the discharge of any Contaminant of Concern into the natural environment from the Property. In support of this work, a new risk assessment may need to be completed in accordance with O. Reg. 153/04 and submitted to the Ministry for acceptance. An amendment to the CPU will be considered to address the changes set out in the notice received and any further changes that the Director considers necessary in the circumstances.

Reports

4.7 Retain a copy of any reports required under the CPU, the Risk Assessment and any reports referred to and relied on in the Risk Assessment (until otherwise notified by the Director) and within ten (10) days of the Director or a Provincial Officer making a request for a report, provide a copy to the requesting Director or Provincial Officer.

Property Requirement

4.8 For the reasons set out in the CPU and pursuant to the authority vested in me under subsection 197(1) of the Act, I hereby order you and any other person with an interest in the Property, before dealing with the Property in any way, to give a copy of the CPU, including any amendments thereto, to every person who will acquire an interest in the Property as a result of the dealing.

Certificate of Requirement

4.9 Within fifteen (15) days from the date of receipt of a certificate of requirement, issued under subsection 197(2) of the Act, the Owner shall register the certificate of requirement on title to the Property in the appropriate land registry office.

4.10 Immediately after registration of the certificate of requirement, the Owner shall provide to the Director written verification that the certificate of requirement has been registered on title to the Property.

Owner Change Notification

4.11 The Owner shall notify the Director, in writing, within the 30-day period following any change affecting the following information:

a) The ownership of the Site;
b) The Operator (if applicable) at the Site;
c) Street (postal) address of the Property Owner or Operator;
d) The partners, where the Owner or Operator is or at any time becomes a partnership and a copy of the most recent declaration filed under the *Business Names Act*, R.S.O. 1990, c. B. 17, shall be included in the notification; or,
e) The name of the corporation where the Owner or Operator is or at any time becomes a corporation, other than a municipal corporation, and a copy of the most current information filed under the *Corporations Information Act* R.S.O. 1990, c. C. 39, shall be included in the notification.

Financial Assurance

4.12 The Director has not included in the CPU a requirement that the Owner provide financial assurance to the Crown in right of Ontario.

Part 5: General Requirements

5.1 The requirements of the CPU are severable. If any requirement of the CPU or the application of any requirement to any circumstance is held invalid, the application of such requirement to other circumstances and the remainder of the CPU shall not be affected thereby.

5.2 An application under sub section 168.6(3) of the Act to,

a) alter any terms and conditions in the CPU or impose new terms and conditions; or
b) revoke the CPU;
c) shall be made in writing to the Director, with reasons for the request.

5.3 The Director may alter the CPU under subsections 132(2) or (3) of the Act to change a requirement as to financial assurance, including that the financial assurance may be increased or provided, reduced or released in stages. The total financial assurance required may be reduced from time to time or released by an order issued by the Director under section 134 of the Act upon request and submission of such supporting documentation as required by the Director.

5.4 Subsection 186(3) of the Act provides that non-compliance with the requirements of the CPU constitutes an offence.

5.5 The requirements of the CPU are minimum requirements only and do not provide relief from,

a) complying with any other applicable order, statute, regulation or legislation under municipal, provincial or federal jurisdiction; or
b) obtaining any approvals or consents not specified in the CPU.

5.6 Notwithstanding the issuance of the CPU, further requirements may be imposed in accordance with legislation as circumstances require. In particular, the Director shall alter the CPU where the approval or acceptance by the Director is required in respect of a matter under the CPU and the

Director does not grant the approval or acceptance or does not grant it in a manner agreed to by the Owner.

5.7 In the event that, any person is, in the opinion of the Director, rendered unable to comply with any requirements in the CPU because of,

a) natural phenomena of an inevitable or irresistible nature, or insurrections,
b) strikes, lockouts or other labour disturbances,
c) inability to obtain materials or equipment for reasons beyond their control, or
d) any other cause whether similar to or different from the foregoing beyond their control,

the requirements shall be adjusted in a manner defined by the Director. To obtain such an adjustment, the Director must be notified immediately of any of the above occurrences, providing details that demonstrate that no practical alternatives are feasible in order to meet the requirements in question.

5.8 Failure to comply with a requirement of the CPU by the date specified does not absolve any person identified at section 2.1 of the CPU from compliance with the requirement. The obligation to complete the requirement shall continue each day thereafter.

Part 6: Hearing before the Environmental Review Tribunal

6.1 Pursuant to section 139 of the Act, you may require a hearing before the Environmental Review Tribunal (the "Tribunal"), if within fifteen (15) days after service on you of a copy of the CPU, you serve written notice upon the Director and the Tribunal.

6.2 Pursuant to section 142 of the Act, the notice requiring the hearing must include a statement of the portions of the CPU and the grounds on which you intend to rely at the hearing. Except by leave of the Tribunal, you are not entitled to appeal a portion of the CPU or to rely on a ground that is not stated in the notice requiring the hearing.

6.3 Service of a notice requiring a hearing must be carried out in a manner set out in section 182 of the Act and Ontario Regulation 227/07: *Service of Documents,* made under the Act as they may be amended from time to time. The address, email address and fax numbers of the Director and the Tribunal are:

The Secretary
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, ON
M5G 1E5

Fax: (416) 314-4506
Email: ERTTribunalSecretary@ontario.ca

and

Steve Burns, Director
Ministry of the Environment
2430 Don Reid Drive,
Ottawa, ON
K1H 1E1

Fax: 613-521-5437
Email: MOEOttawa@ontario.ca

6.4 Unless stayed by application to the Tribunal under section 143 of the Act, the CPU is effective from the date of issue.

6.5 If you commence an appeal before the Tribunal, under section 47 of the Environmental Bill of Rights, 1993 (the "EBR"), you must give notice to the public in the EBR registry. The notice must include a brief description of the CPU (sufficient to identify it) and a brief description of the grounds of appeal.

The notice must be delivered to the Environmental Commissioner of Ontario who will place it on the EBR registry. The notice must be delivered to the Environmental Commissioner at 1075 Bay Street, Suite 605, Toronto, ON M5S 2B1 by the earlier of:

a) two (2) days after the day on which the appeal before the Tribunal was commenced; and
b) fifteen (15) days after service on you of a copy of the CPU.

6.6 Pursuant to subsection 47(7) of the EBR, the Tribunal may permit any person to participate in the appeal, as a party or otherwise, in order to provide fair and adequate representation of the private and public interests, including governmental interests, involved in the appeal.

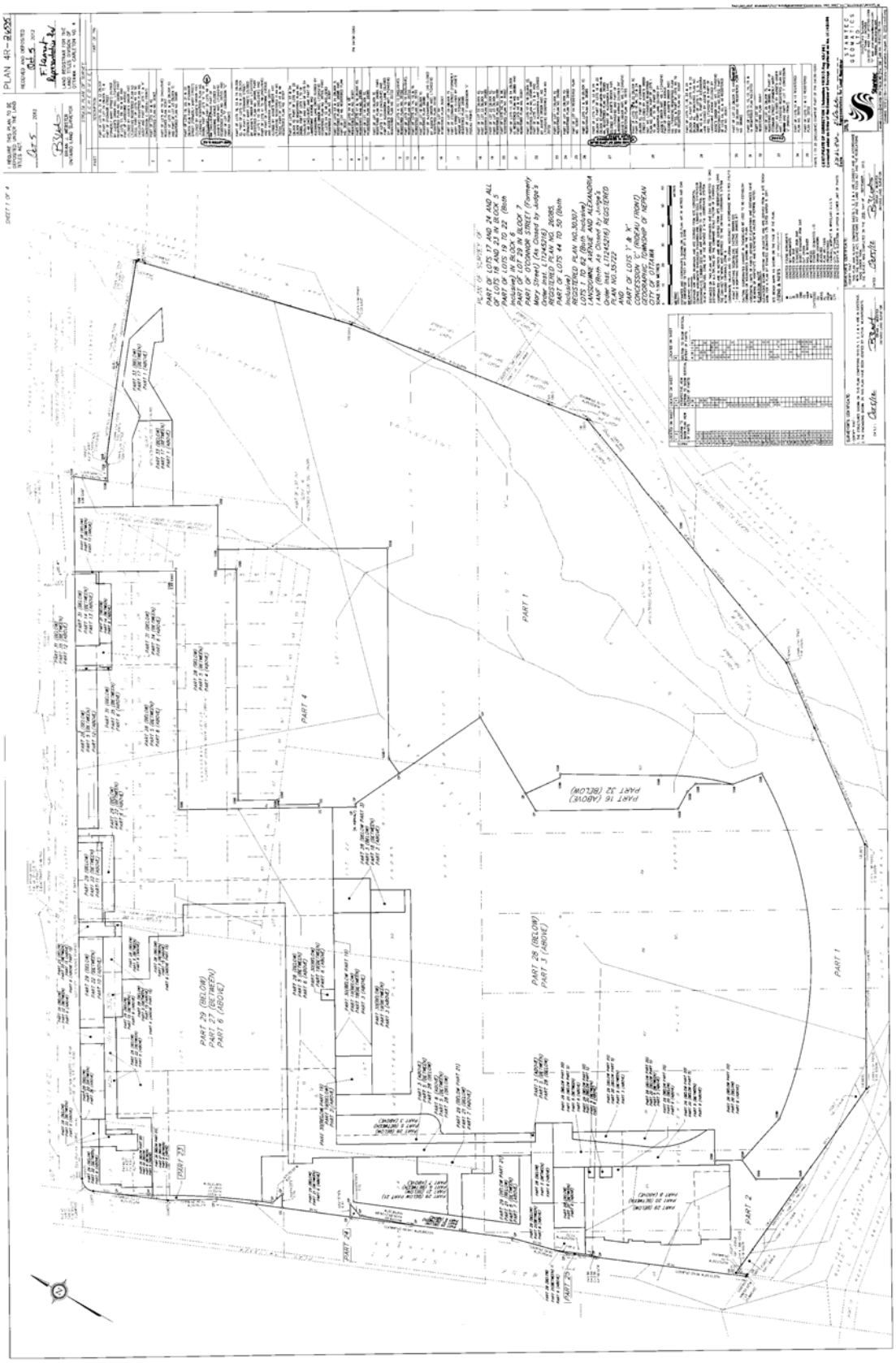
6.7 For your information, under section 38 of the EBR, any person resident in Ontario with an interest in the CPU may seek leave to appeal the CPU. Under section 40 of the EBR, the application for leave to appeal must be made to the Tribunal by the earlier of:

a) fifteen (15) days after the day on which notice of the issuance of the CPU is given in the EBR registry; and
b) if you appeal, fifteen (15) days after the day on which your notice of appeal is given in the EBR registry.

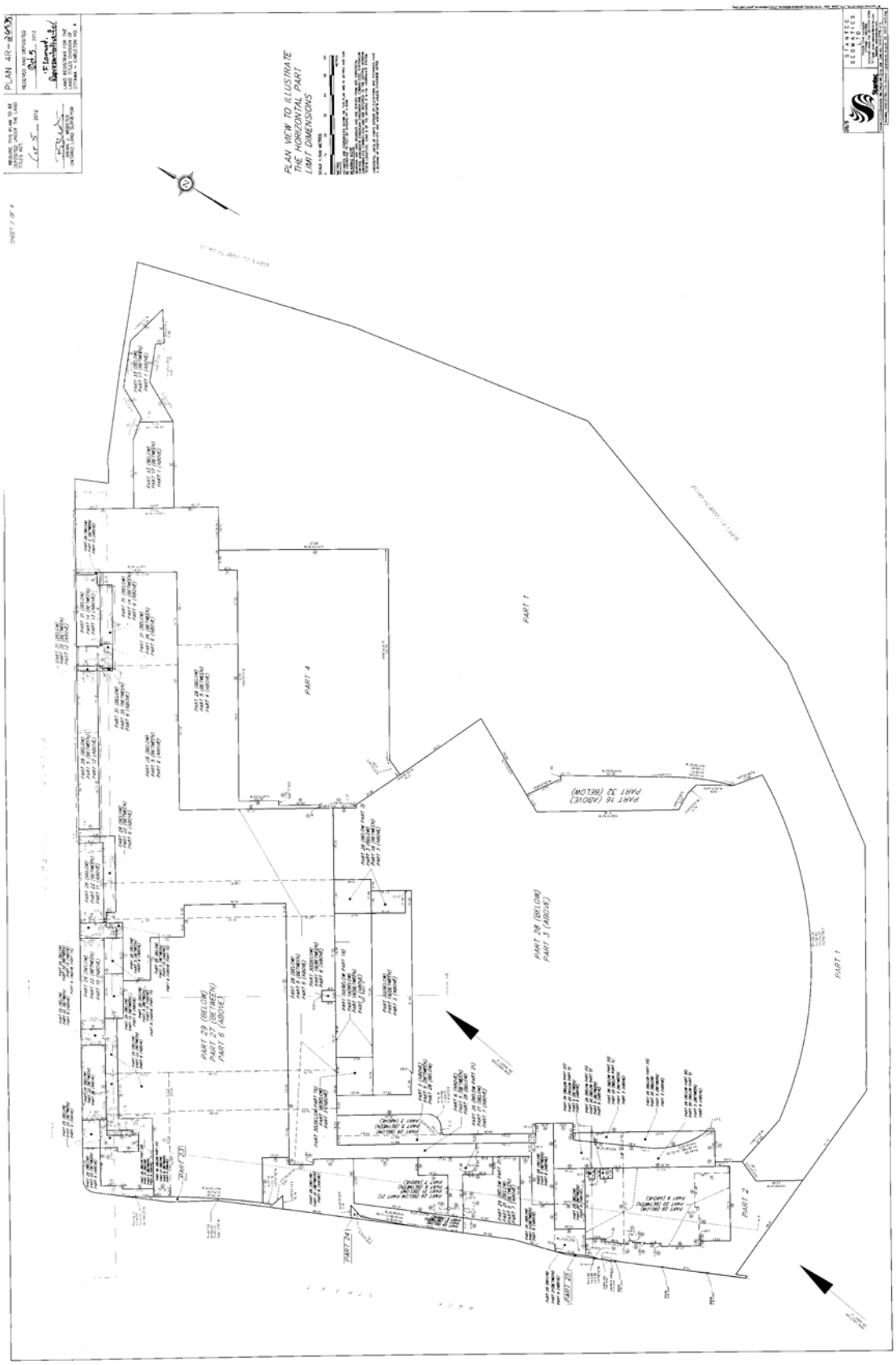
Issued at Ottawa this 25th day of November, 2013.

Steve Burns
Director, section 168.6 of the Act

Schedule 'A'
Legal Survey Plan for 945-1015 Bank Street, City of Ottawa (1 of 4)

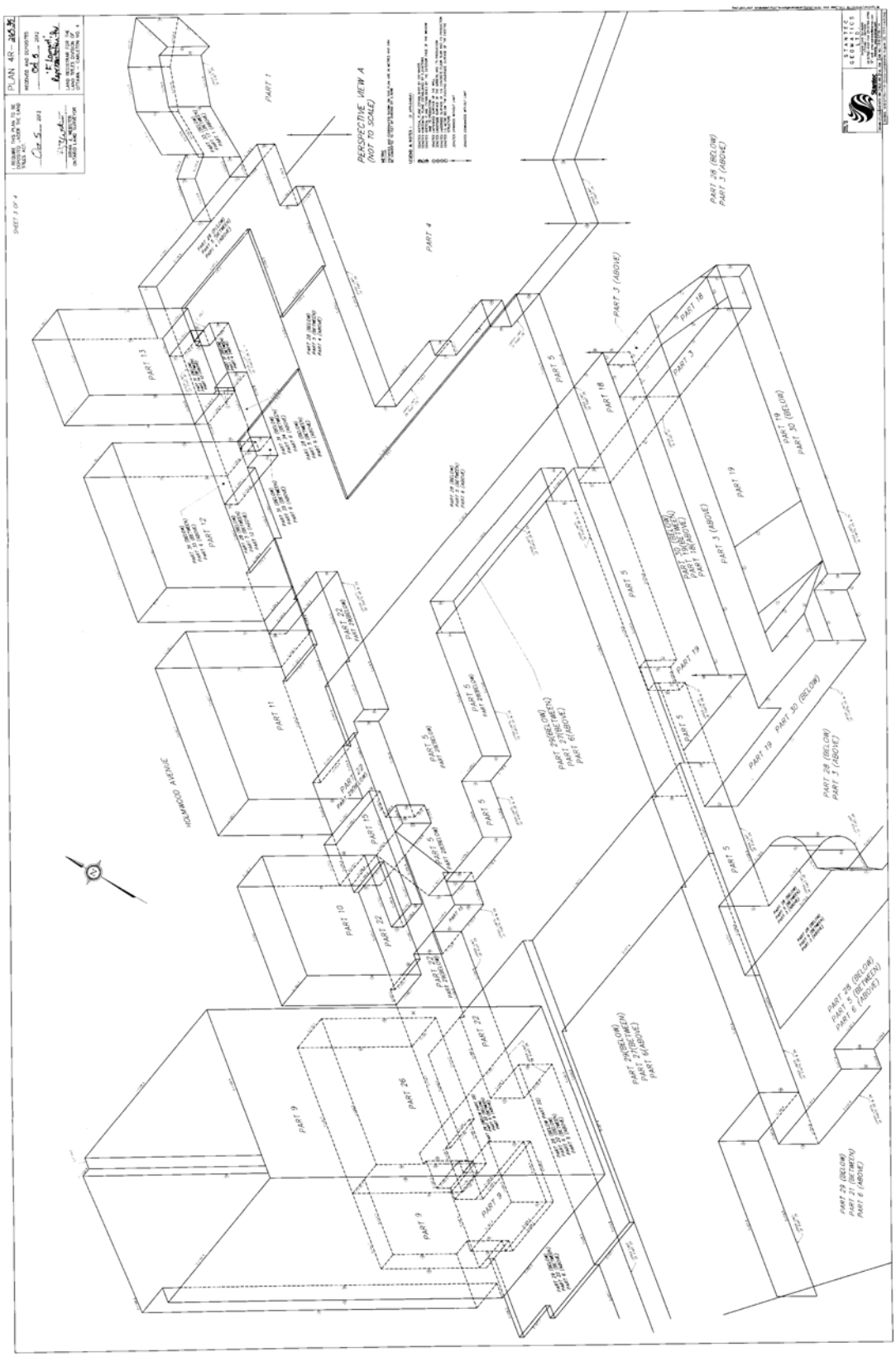


Schedule 'A'
Legal Survey Plan for 945-1015 Bank Street, City of Ottawa (2 of 4)



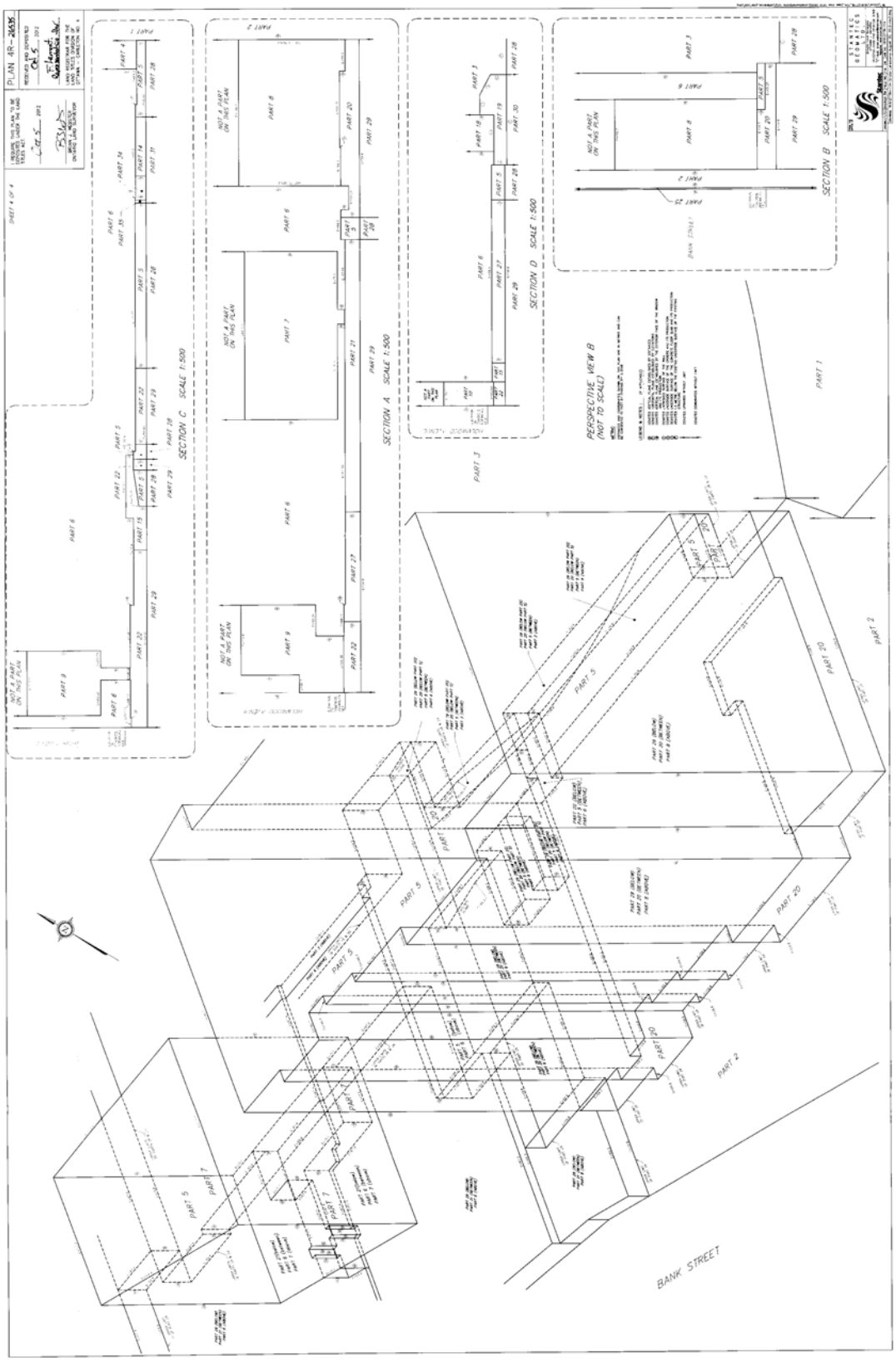
Schedule 'A'

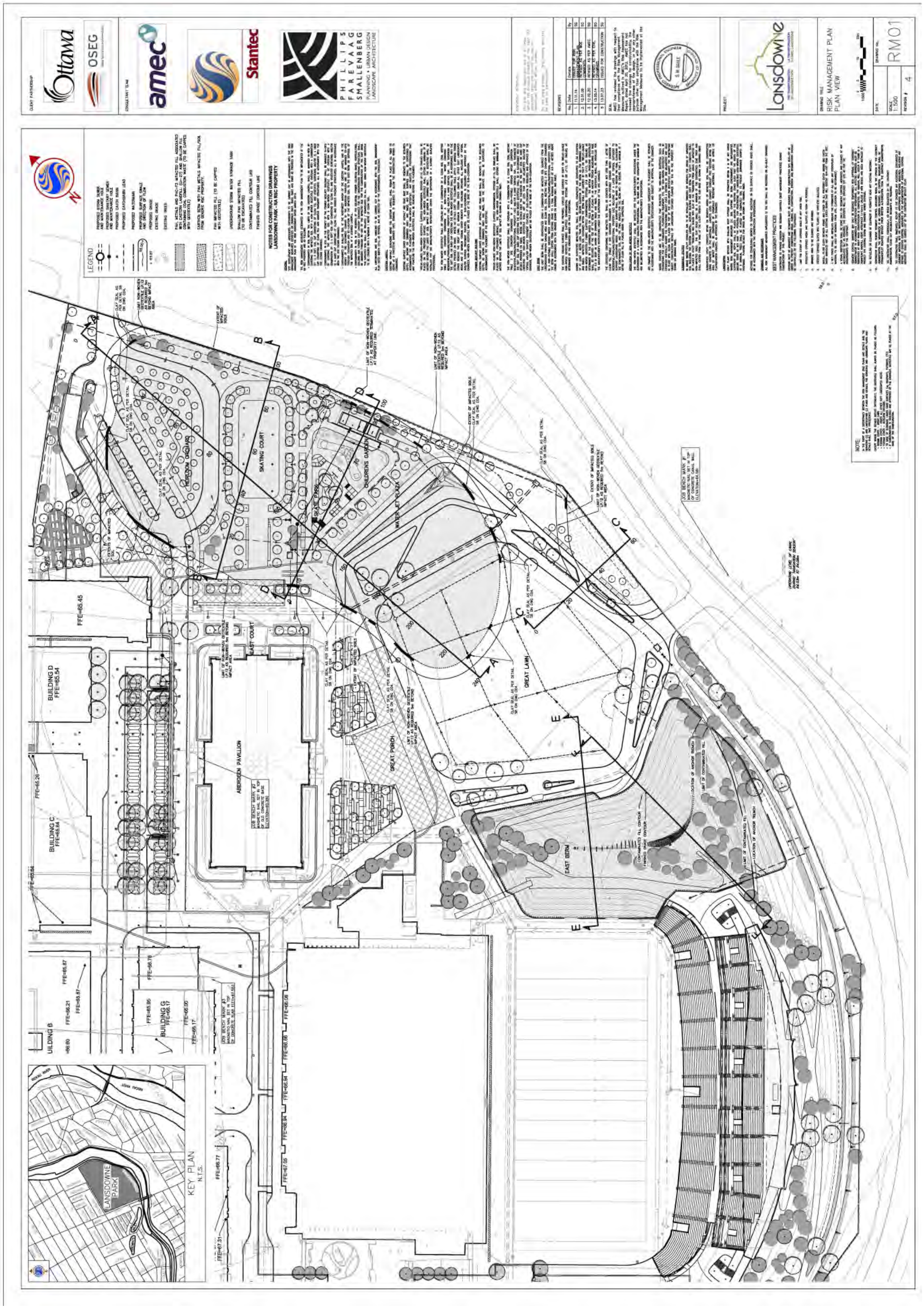
Legal Survey Plan for 945-1015 Bank Street, City of Ottawa (3 of 4)

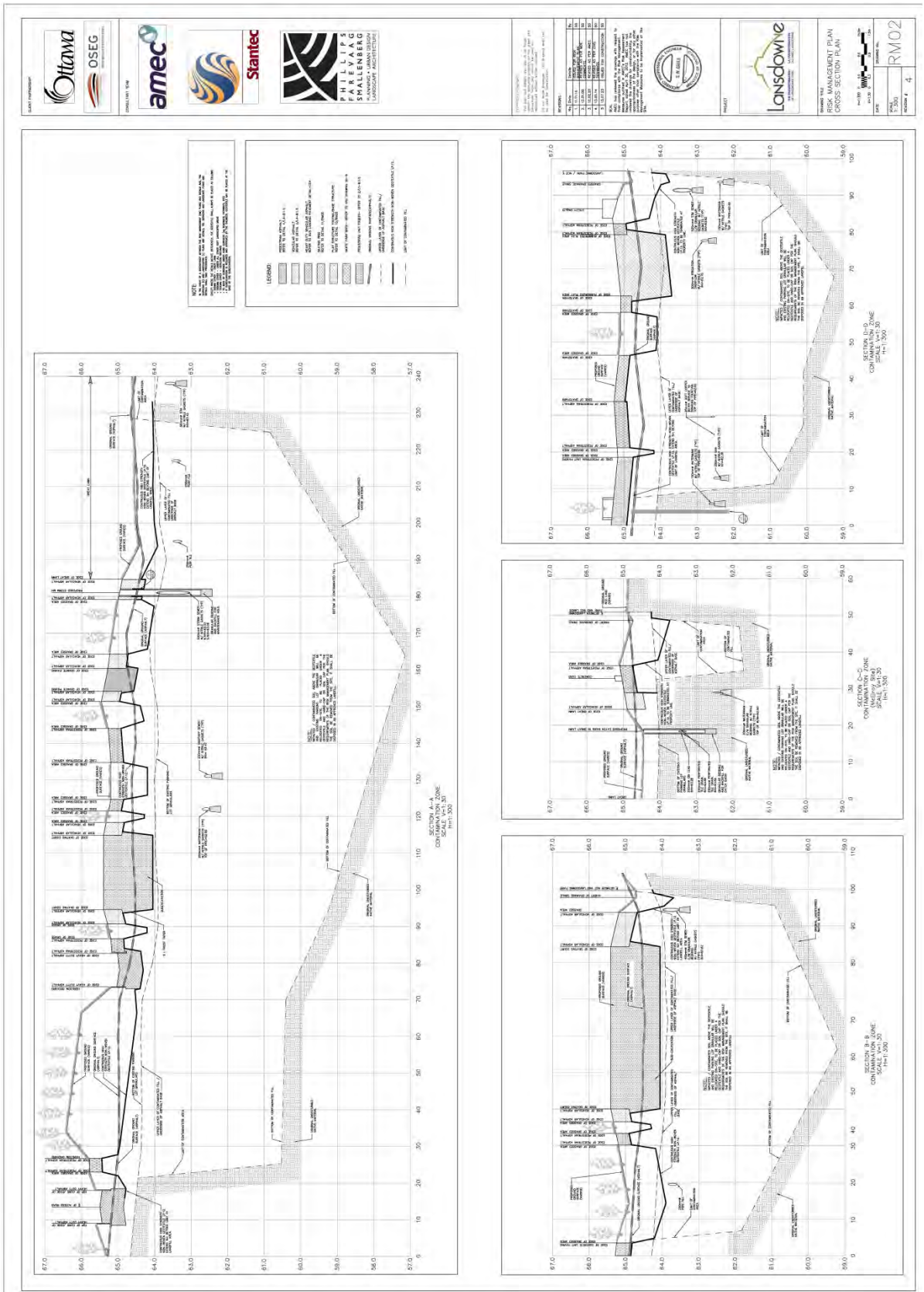


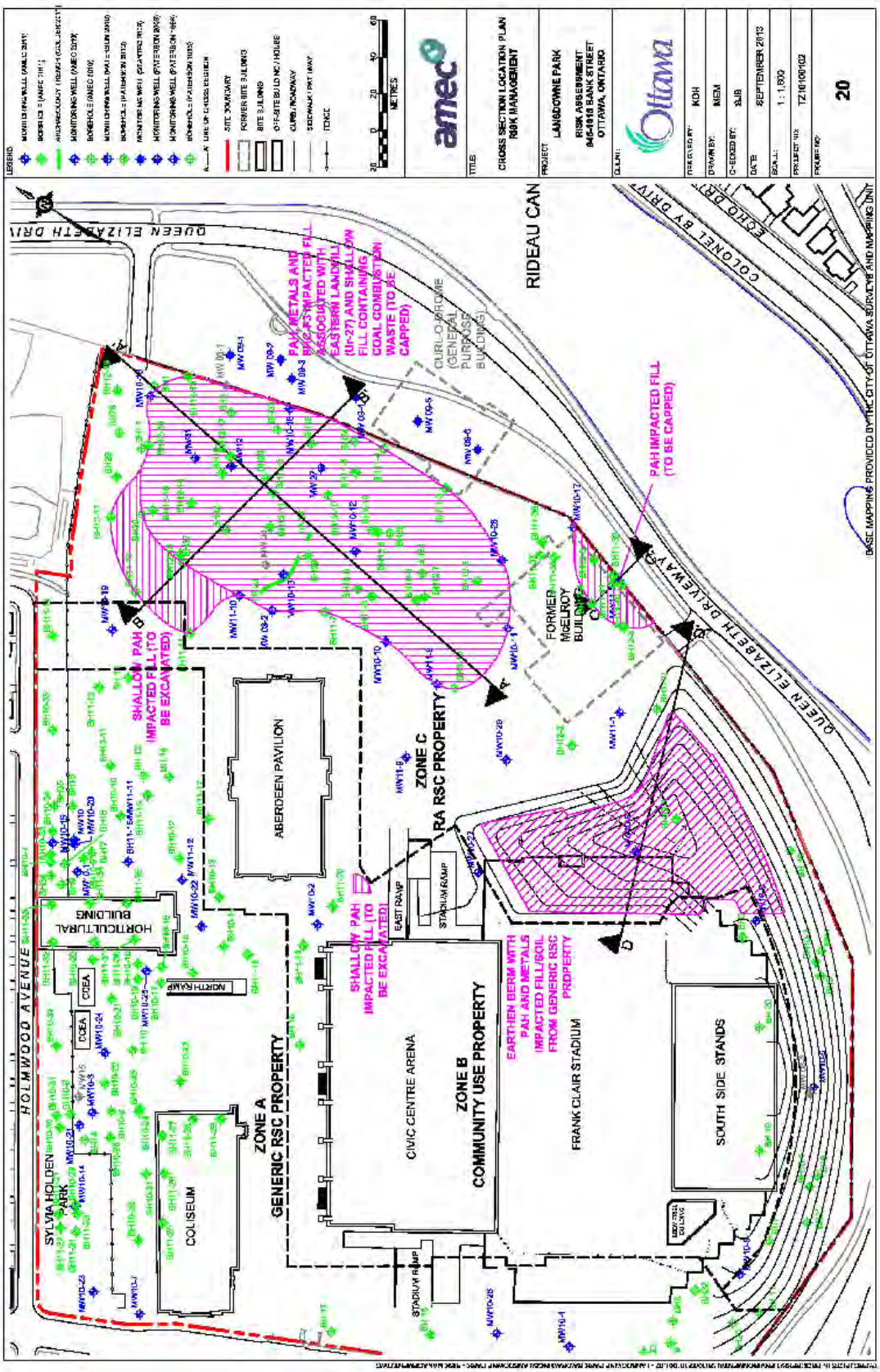
Schedule 'A'

Legal Survey Plan for 945-1015 Bank Street, City of Ottawa (4 of 4)




Ottawa
OSEG
amec
Stantec
PHILLIPS FAREVAAG SMALLENBERG
Lansdowne
RISK MANAGEMENT PLAN
PLAN VIEW
RM01
KEY PLAN
N.T.S.
LANSDOWNE PARK
ABERDEEN PAVILLION
GREAT LAWN
EAST BERM
SKATING COURT
GREAT PORCH
EAST COURT
BUILDING D
BUILDING C
BUILDING G


Ottawa
OSEG
amec
Stantec
PHILLIPS FAREVAAG SMALLENBERG
LANDSCAPE ARCHITECTURE
Lansdowne
RISK MANAGEMENT PLAN
CROSS SECTION PLAN
RM02
LEGEND:
SECTION A-A
CONTAMINATION ZONE
SECTION B-B
CONTAMINATION ZONE
SECTION C-C
CONTAMINATION ZONE
SECTION D-D
CONTAMINATION ZONE


CROSS SECTION LOCATION PLAN
RISK MANAGEMENT
LANSDOWNE PARK
RISK ASSESSMENT
845-1910 BANK STREET
OTTAWA, ONTARIO
SEPTEMBER 2015
20
RIDEAU CANAL
QUEEN ELIZABETH DRIVE
COLONEL BY DRIVE
HOLMWOOD AVENUE
ZONE A
GENERIC RSC PROPERTY
ZONE B
COMMUNITY USE PROPERTY
ZONE C
RA RSC PROPERTY
CIVIC CENTRE ARENA
FRANK CLAIR STADIUM
SOUTH SIDE STANDS
ABERDEEN PAVILION
COLISEUM
HORTICULTURAL BUILDING
SYLVIA HOLDEN PARK
FORMER McELROY BUILDING
PAH, METALS AND PHC IMPACTED FILL ASSOCIATED WITH EASTERN LANDFILL (MW-27) AND SHALLOW FILL CONTAINING COAL COMBUSTION WASTE (TO BE CAPPED)
SHALLOW PAH IMPACTED FILL (TO BE EXCAVATED)
PAH IMPACTED FILL (TO BE CAPPED)
EARTHEN BERM WITH PAH AND METALS IMPACTED FILL/SOIL FROM GENERIC RSC PROPERTY
BASE MAPPING PROVIDED BY THE CITY OF OTTAWA SURVEY AND MAPPING UNIT

Schedule 'E'

Property Specific Standards for Contaminants of Concern
Zone 'C' of 945-1015 Bank Street, Ottawa, Ontario

Environmental Medium	Contaminant of Concern (COC)	Property Specific Standards [ug/g]
Soil	Antimony	20
Soil	Arsenic	29.8
Soil	Barium	500
Soil	Boron (available)	2.6
Soil	Cadmium	7.2
Soil	Copper	509
Soil	Lead	1920
Soil	Mercury	1.7
Soil	Methyl Mercury	1.7
Soil	Molybdenum	12
Soil	Selenium	7.8
Soil	Tin	1320
Soil	Zinc	2880
Soil	Acenaphthylene	11.1
Soil	Anthracene	17.2
Soil	Benzo(a)anthracene	42.6
Soil	Benzo(a)pyrene	38.2
Soil	Benzo(b)fluoranthene	53.2
Soil	Benzo(g,h,i)perylene	16.4
Soil	Benzo(k)fluoranthene	28.6
Soil	Biphenyl-1,1	1.2
Soil	Chrysene	54.4
Soil	Dibenzo(a,h)anthracene	3.46
Soil	Fluoranthene	74.2
Soil	Indeno(1,2,3-cd.)pyrene	15.2
Soil	Methylnaphthalene, 2-(1-)	7.0
Soil	Naphthalene	3.14
Soil	Phenanthrene	58.9
Soil	PHC F3	720
Environmental Medium	Contaminant of Concern (COC)	Property Specific Standards [mS/cm]
Soil	Electrical Conductivity	1.8

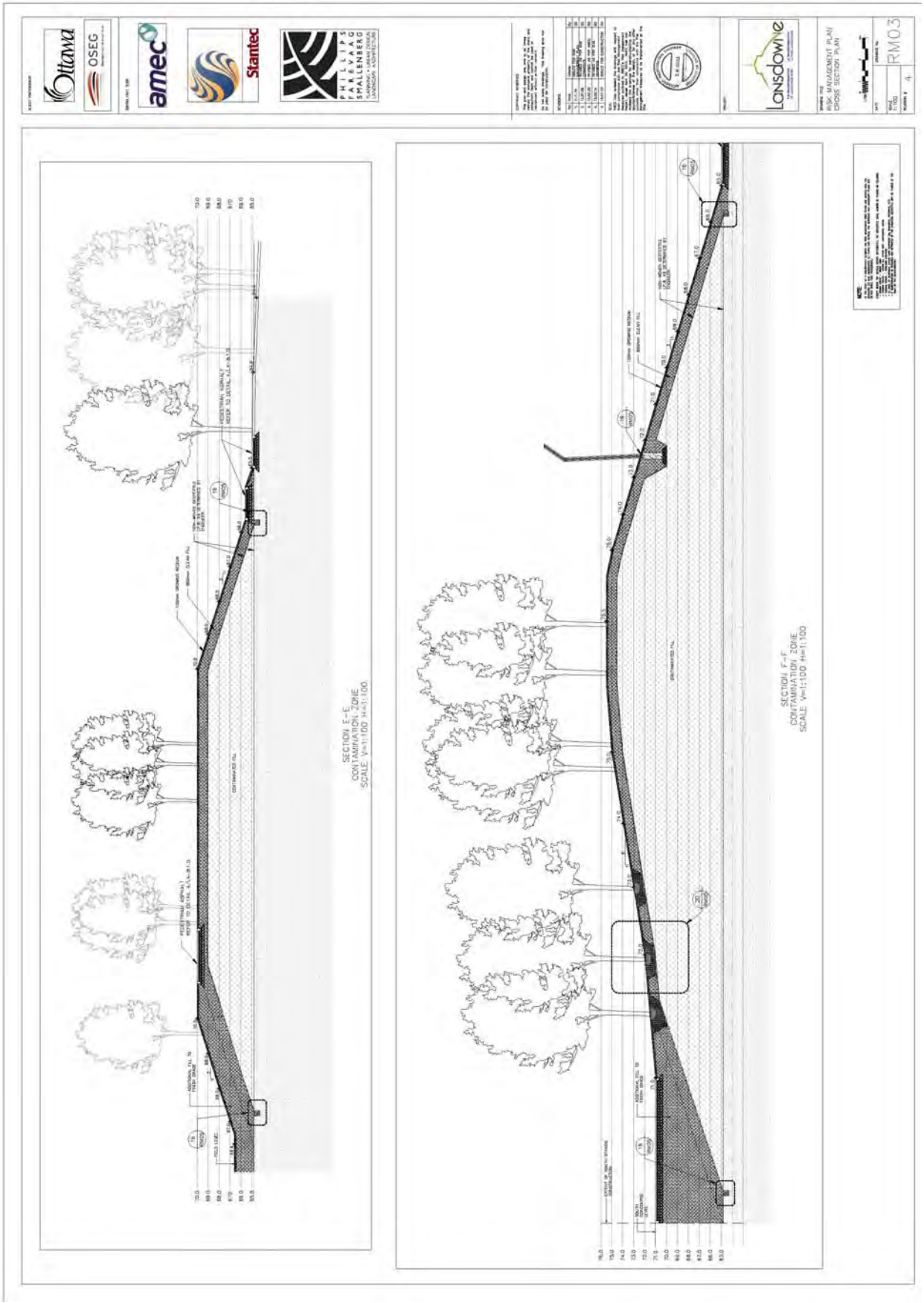
Environmental Medium	Contaminant of Concern (COC)	Property Specific Standards [ug/L]
Ground Water	Iron	24,240
Ground Water	Chloroform	22
Ground Water	Ammonia	4,524

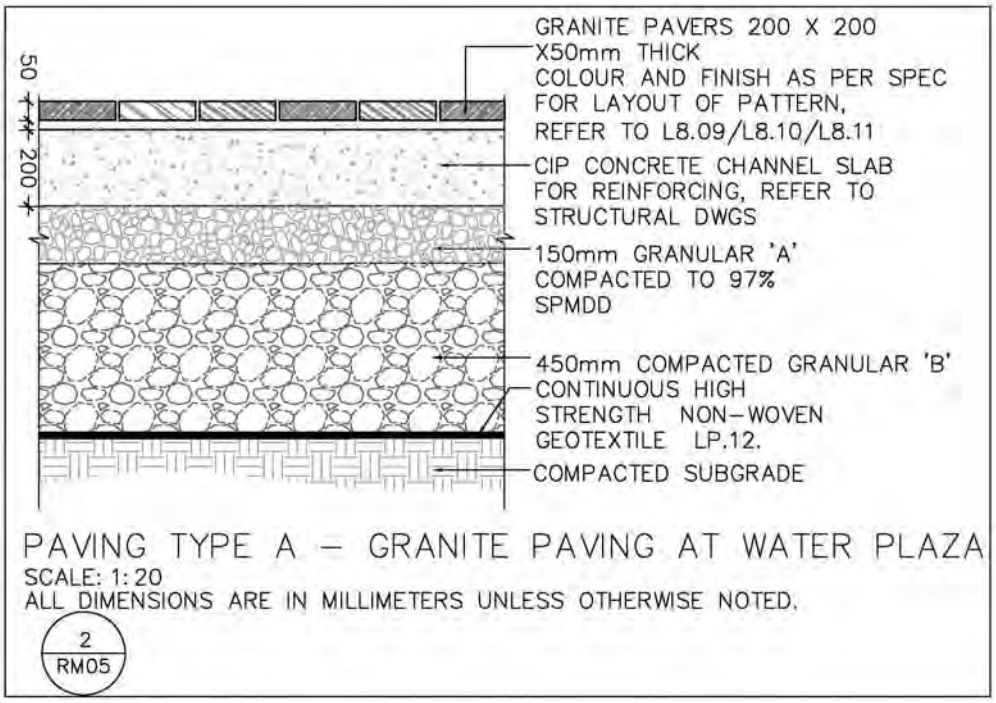
Schedule 'F'

Non-woven Geotextile Properties and Specifications

	LP12*
Grab Tensile [N]	1,330
Elongation [%]	50
Property	511
CBR Punc [N]	3,510
AOS [microns]	150
Permittivity [sec^{-1}]	1.0
Water Flow [$l/min/m^2$]	3,055
UV [500 hrs]	70%
Roll size	4.57 x 91.4
Roll weight [kg]	181

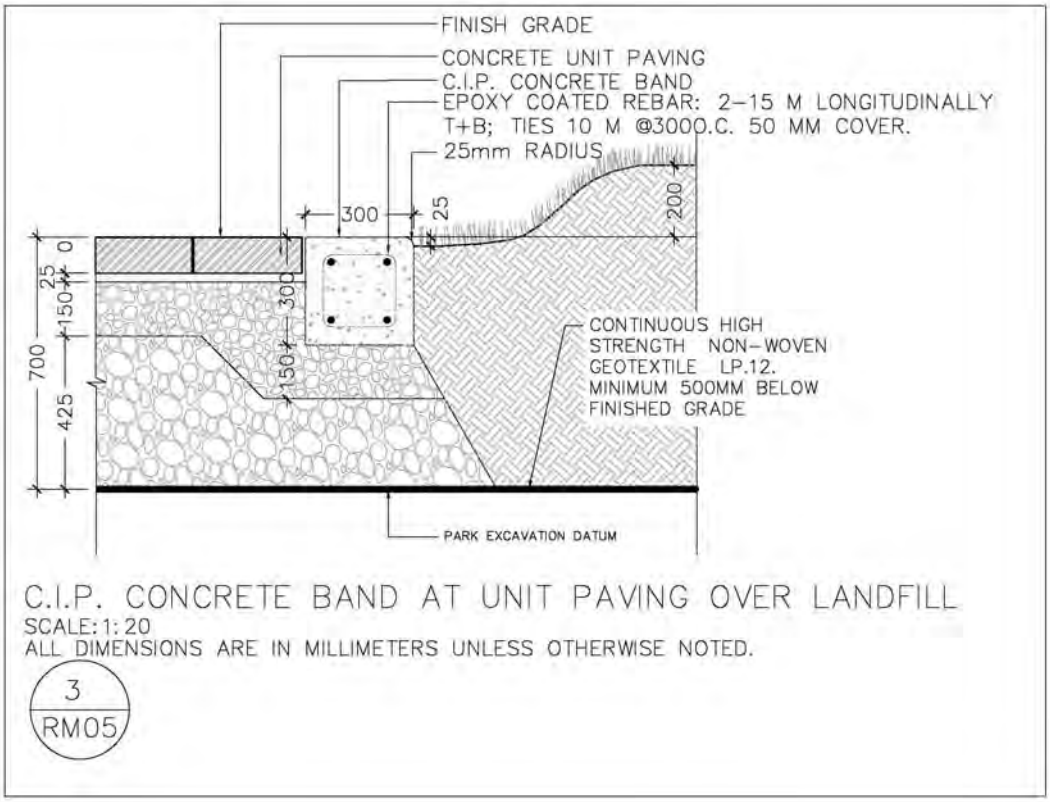
* manufactured by Layfield Geosynthetics & Industrial Fabrics Ltd. or equivalent


Ottawa
OSEG
amec
Stantec
PHILLIPS FARKEVAAG SMALLENBERG
Lansdowne
RISK MANAGEMENT PLAN
CROSS SECTION PLAN
RM03
SECTION E-E
CONTAMINATION ZONE
SCALE V=1:100 H=1:100
SECTION F-F
CONTAMINATION ZONE
SCALE V=1:100 H=1:100



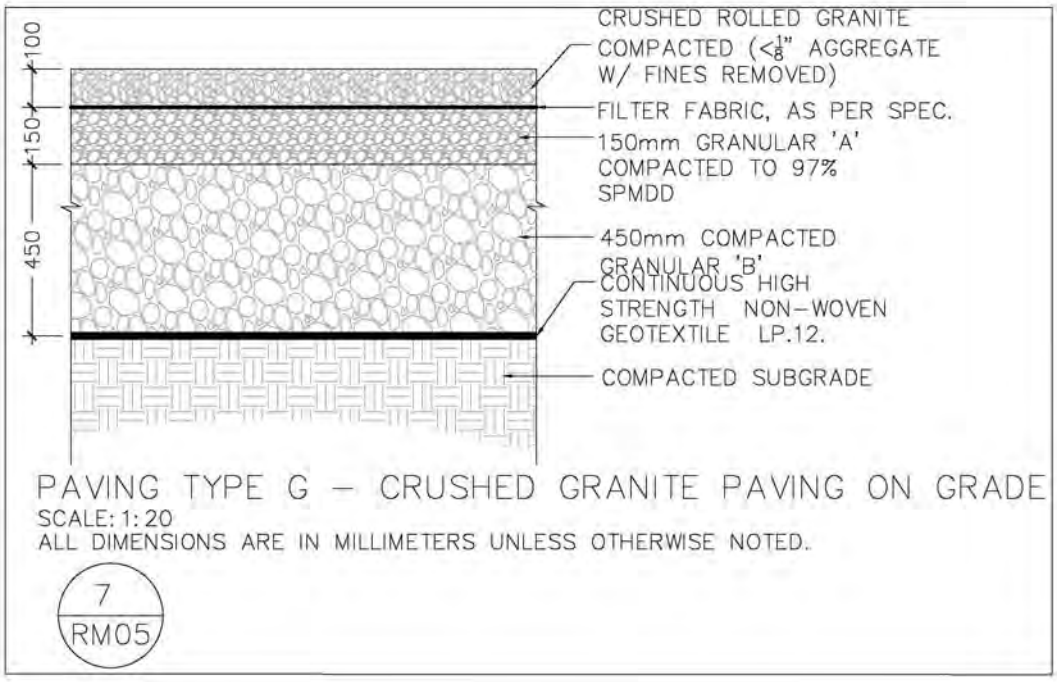
PAVING TYPE A – GRANITE PAVING AT WATER PLAZA
SCALE: 1:20
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

2
RM05



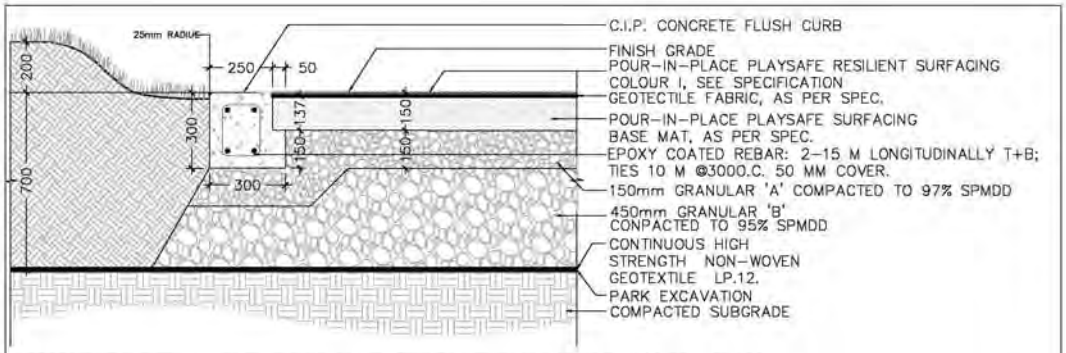
C.I.P. CONCRETE BAND AT UNIT PAVING OVER LANDFILL
SCALE: 1:20
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

3
RM05



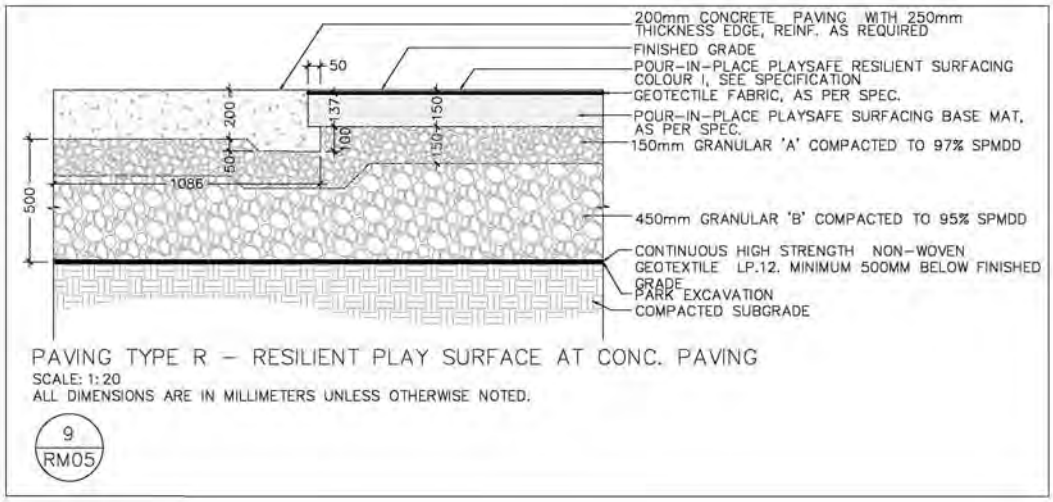
PAVING TYPE G – CRUSHED GRANITE PAVING ON GRADE
SCALE: 1:20
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

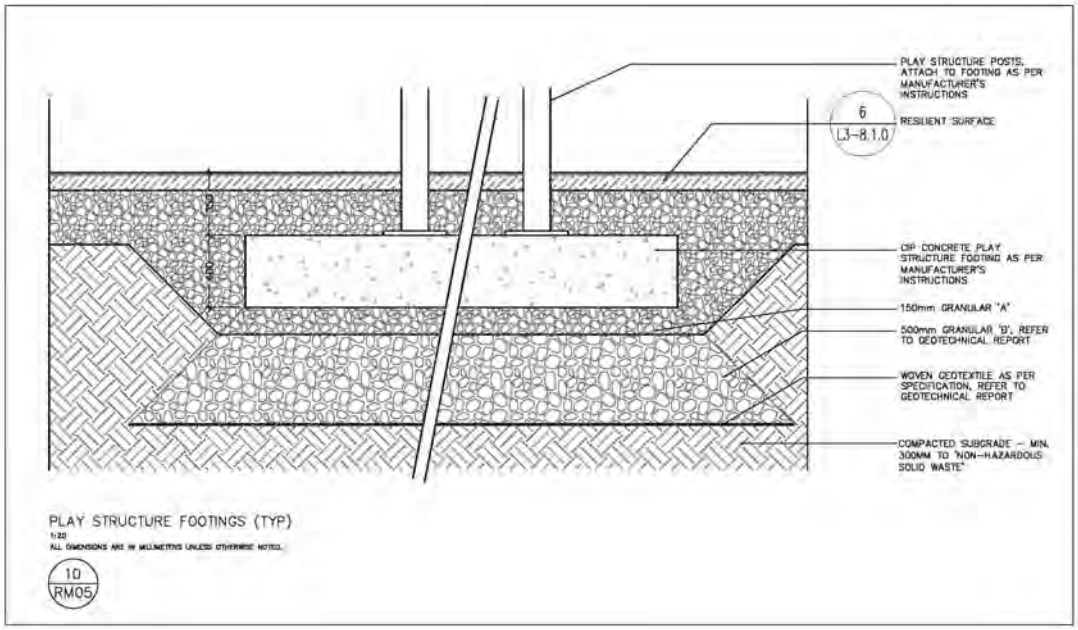
7
RM05

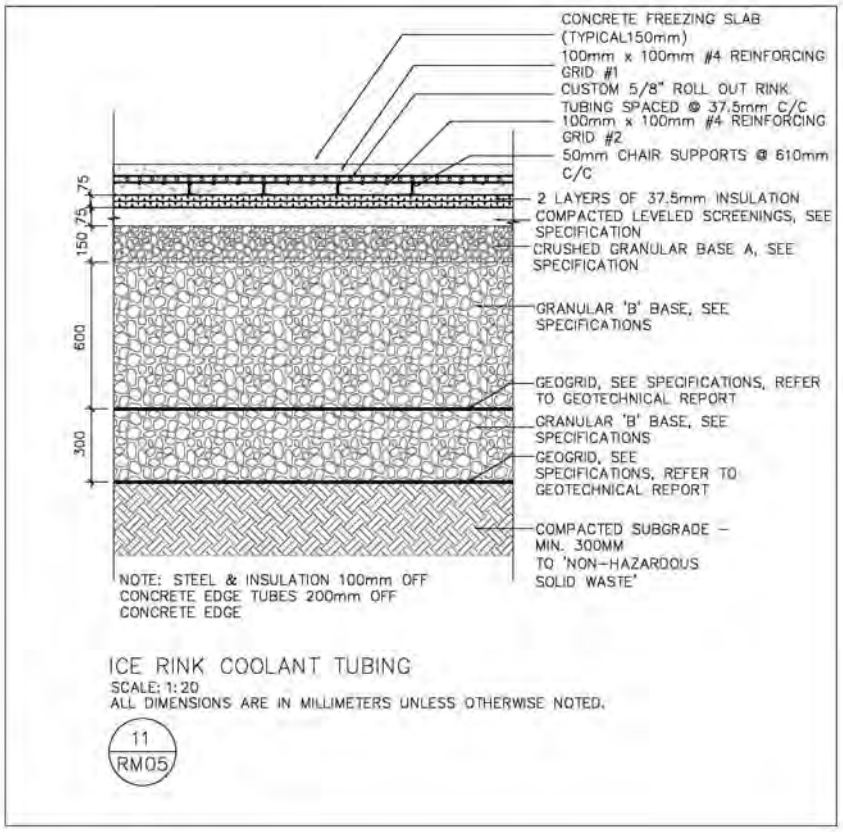


PAVING TYPE R – RESILIENT PLAY SURFACE WITH CONC. FLUSH CURB
SCALE: 1:20
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

8
RM05

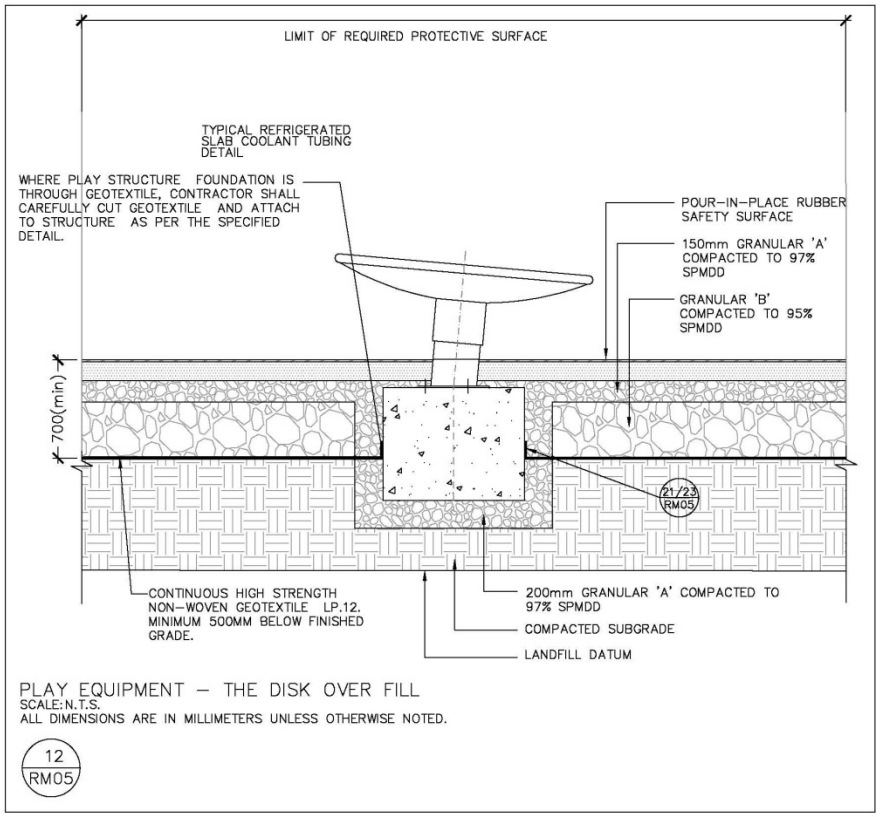

200mm CONCRETE PAVING WITH 250mm THICKNESS EDGE, REINF. AS REQUIRED
FINISHED GRADE
POUR-IN-PLACE PLAYSAFE RESILIENT SURFACING COLOUR I, SEE SPECIFICATION
GEOTECTILE FABRIC, AS PER SPEC.
POUR-IN-PLACE PLAYSAFE SURFACING BASE MAT, AS PER SPEC.
150mm GRANULAR 'A' COMPACTED TO 97% SPMDD
450mm GRANULAR 'B' COMPACTED TO 95% SPMDD
CONTINUOUS HIGH STRENGTH NON-WOVEN GEOTEXTILE LP.12. MINIMUM 500MM BELOW FINISHED GRADE
PARK EXCAVATION
COMPACTED SUBGRADE
50
200
137
150
100
150
50
1086
500
PAVING TYPE R – RESILIENT PLAY SURFACE AT CONC. PAVING
SCALE: 1:20
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
9
RM05


PLAY STRUCTURE POSTS, ATTACH TO FOOTING AS PER MANUFACTURER'S INSTRUCTIONS
6
L3-8.1.0
RESILIENT SURFACE
CIP CONCRETE PLAY STRUCTURE FOOTING AS PER MANUFACTURER'S INSTRUCTIONS
150mm GRANULAR 'A'
500mm GRANULAR 'B', REFER TO GEOTECHNICAL REPORT
WOVEN GEOTEXTILE AS PER SPECIFICATION, REFER TO GEOTECHNICAL REPORT
COMPACTED SUBGRADE – MIN. 300MM TO "NON-HAZARDOUS SOLID WASTE"
PLAY STRUCTURE FOOTINGS (TYP)
10
RM05



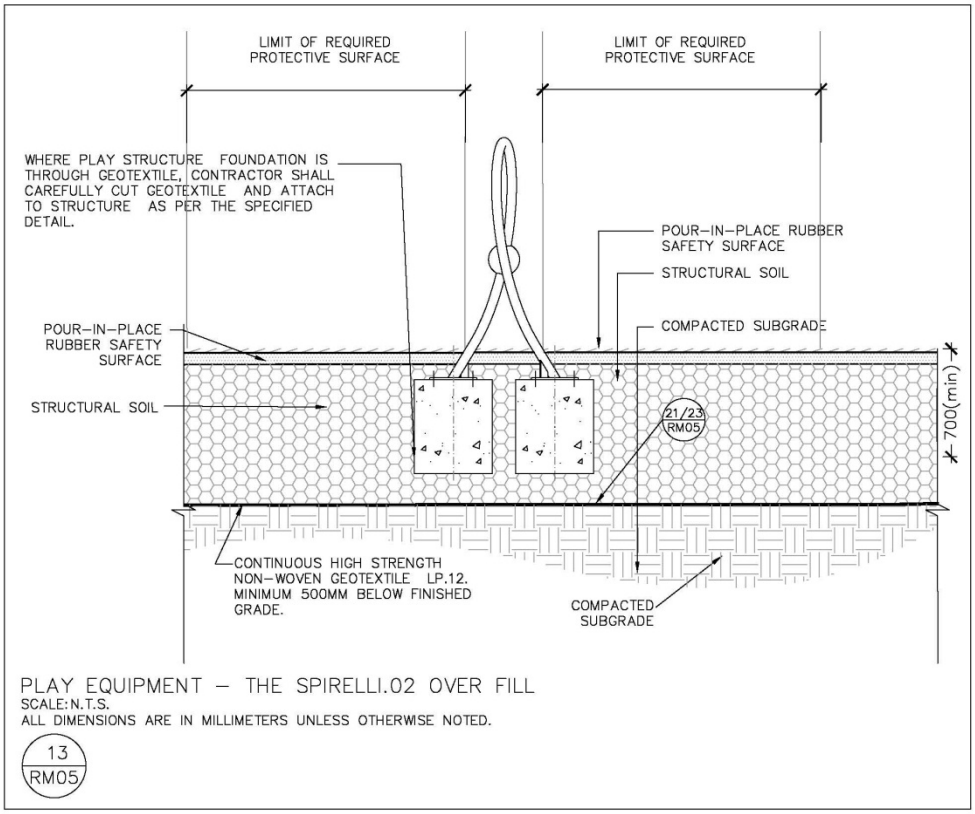
ICE RINK COOLANT TUBING
SCALE: 1:20
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

11
RM05



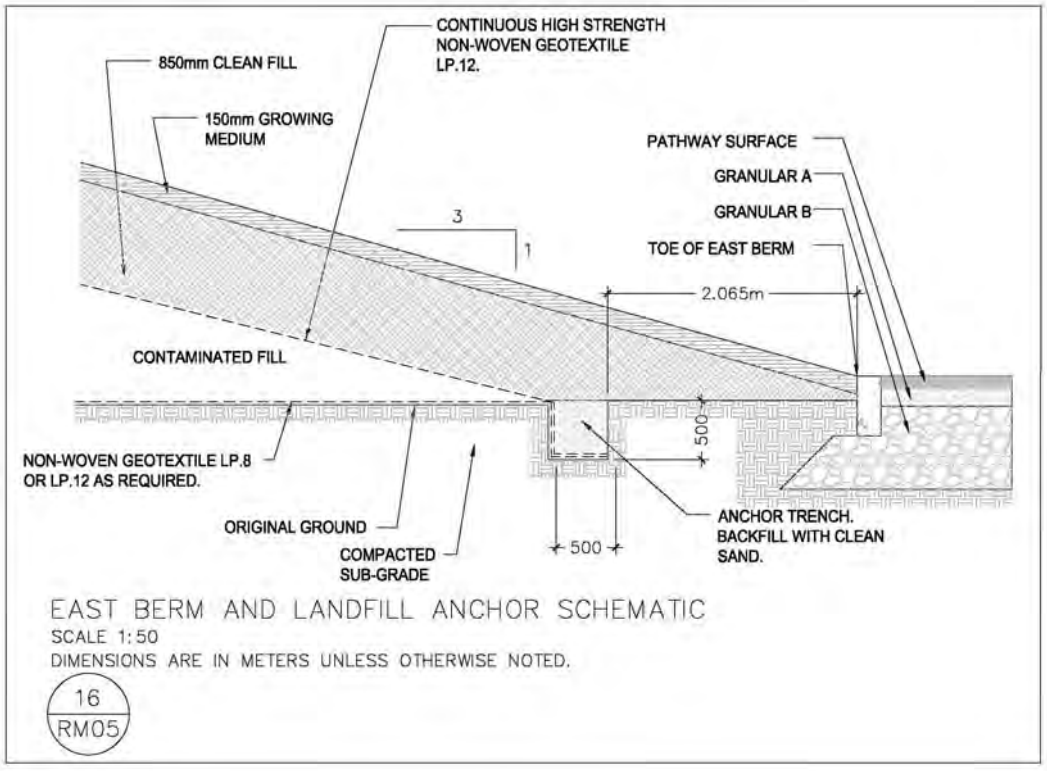
PLAY EQUIPMENT – THE DISK OVER FILL
SCALE: N.T.S.
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

12
RM05



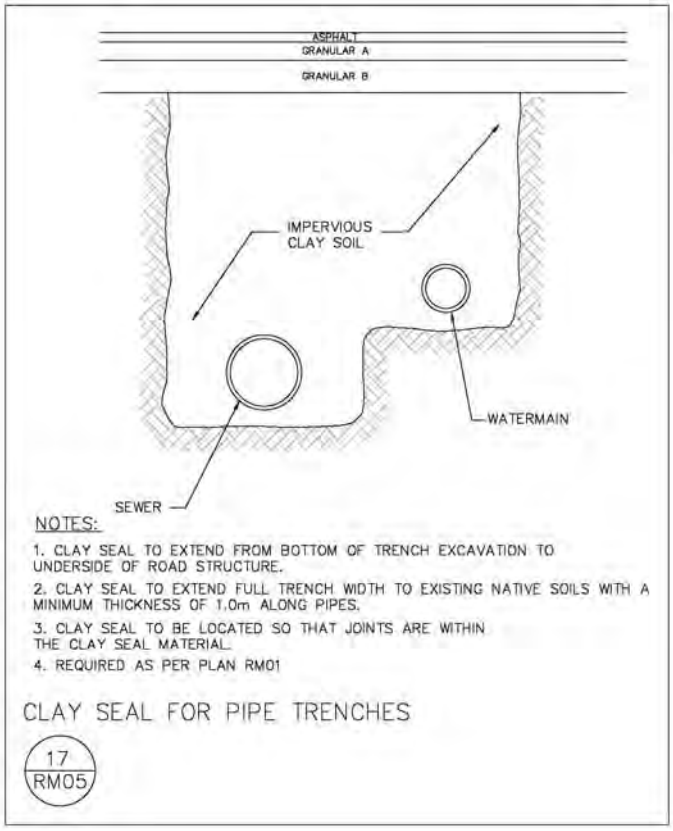
PLAY EQUIPMENT – THE SPIRELLI.02 OVER FILL
SCALE: N.T.S.
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.

13
RM05



EAST BERM AND LANDFILL ANCHOR SCHEMATIC
SCALE 1:50
DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.

16
RM05

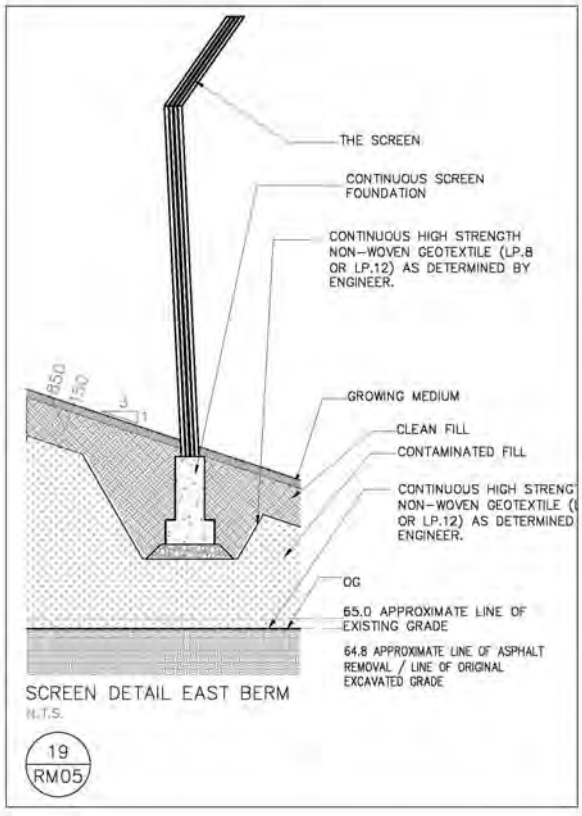


NOTES:

1. CLAY SEAL TO EXTEND FROM BOTTOM OF TRENCH EXCAVATION TO UNDERSIDE OF ROAD STRUCTURE.
2. CLAY SEAL TO EXTEND FULL TRENCH WIDTH TO EXISTING NATIVE SOILS WITH A MINIMUM THICKNESS OF 1.0m ALONG PIPES.
3. CLAY SEAL TO BE LOCATED SO THAT JOINTS ARE WITHIN THE CLAY SEAL MATERIAL.
4. REQUIRED AS PER PLAN RM01

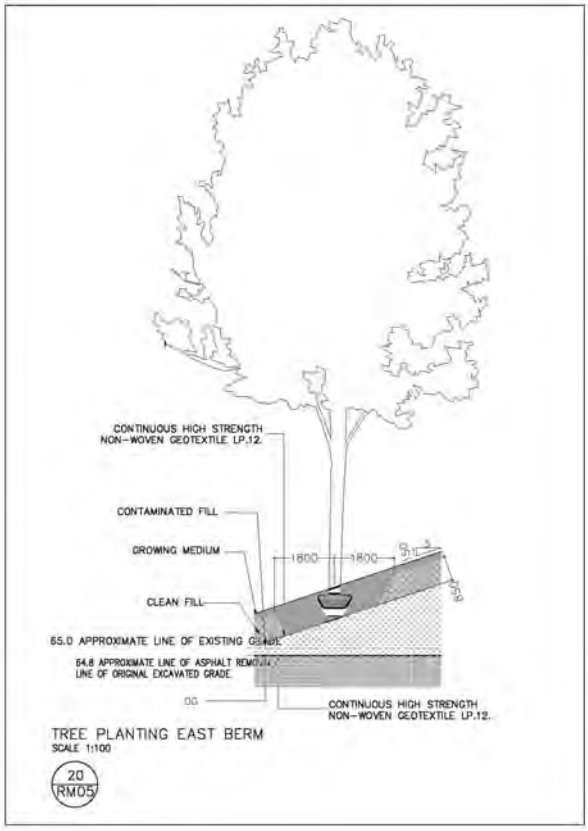
CLAY SEAL FOR PIPE TRENCHES

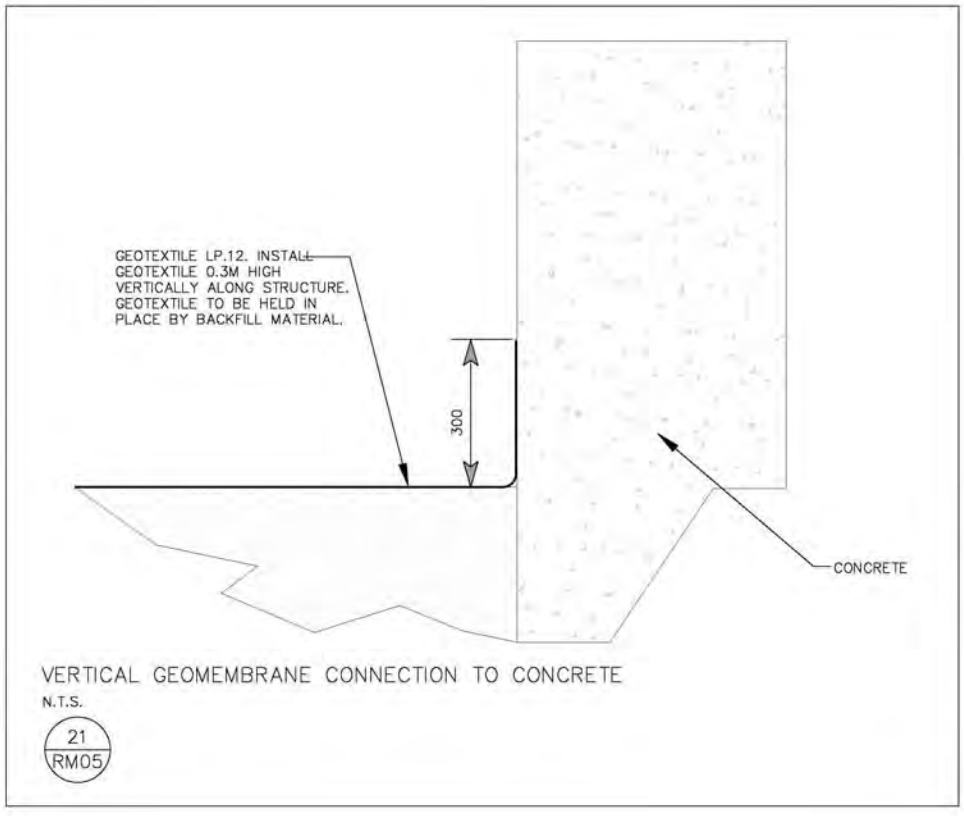
17
RM05

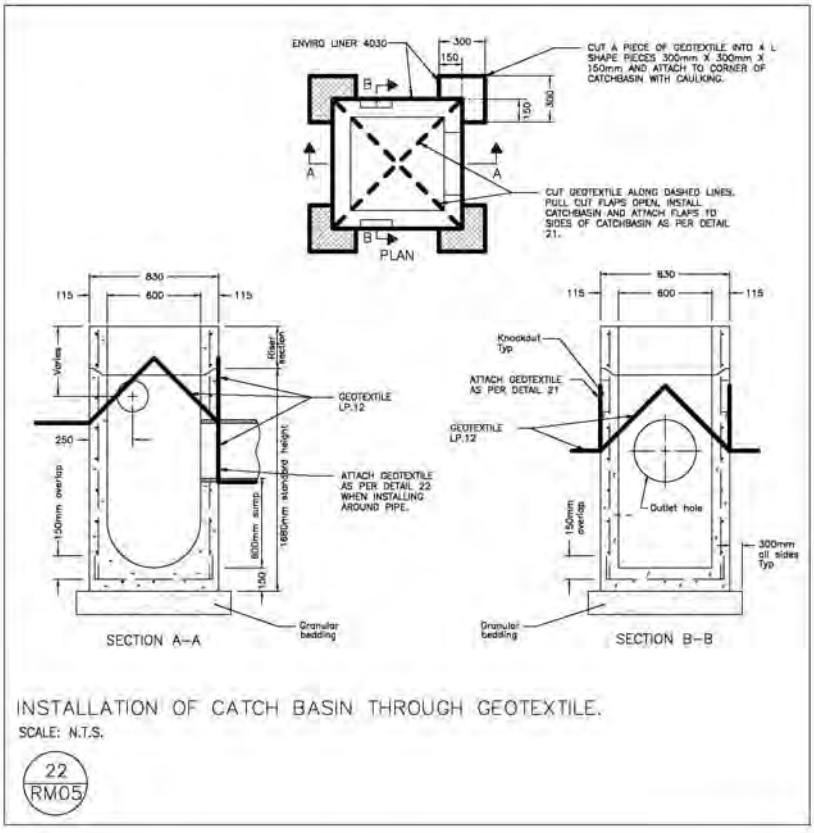


SCREEN DETAIL EAST BERM
N.T.S.

19
RM05


CONTINUOUS HIGH STRENGTH
NON-WOVEN GEOTEXTILE LP.12.
CONTAMINATED FILL
GROWING MEDIUM
CLEAN FILL
1600
1800
65.0 APPROXIMATE LINE OF EXISTING GRADE
64.8 APPROXIMATE LINE OF ASPHALT REMOVAL
LINE OF ORIGINAL EXCAVATED GRADE.
CONTINUOUS HIGH STRENGTH
NON-WOVEN GEOTEXTILE LP.12.
TREE PLANTING EAST BERM
SCALE 1:100
20
RM05


GEOTEXTILE LP.12. INSTALL
GEOTEXTILE 0.3M HIGH
VERTICALLY ALONG STRUCTURE.
GEOTEXTILE TO BE HELD IN
PLACE BY BACKFILL MATERIAL.
300
CONCRETE
VERTICAL GEOMEMBRANE CONNECTION TO CONCRETE
N.T.S.
21
RM05


ENVIRO LINER 4030
300
150
CUT A PIECE OF GEOTEXTILE INTO 4 L SHAPE PIECES 300mm X 300mm X 150mm AND ATTACH TO CORNER OF CATCHBASIN WITH CAULKING.
B
A
A
CUT GEOTEXTILE ALONG DASHED LINES. PULL CUT FLAPS OPEN. INSTALL CATCHBASIN AND ATTACH FLAPS TO SIDES OF CATCHBASIN AS PER DETAIL 21.
B
PLAN
830
115
600
115
Varies
Filter section
GEOTEXTILE LP.12
250
ATTACH GEOTEXTILE AS PER DETAIL 22 WHEN INSTALLING AROUND PIPE.
150mm overlap
800mm sump
1680mm standard height
150
Granular bedding
SECTION A-A
830
115
600
115
Knockout Typ
ATTACH GEOTEXTILE AS PER DETAIL 21
GEOTEXTILE LP.12
Outlet hole
150mm overlap
300mm all sides Typ
Granular bedding
SECTION B-B
INSTALLATION OF CATCH BASIN THROUGH GEOTEXTILE.
SCALE: N.T.S.
22
RM05

Appendix B

RMM Inspection Logs

Inspection Log
Risk Management Measures
Lansdowne Park – Urban Park

This log form is to be used to document inspections of the Risk Management Measures (RMM) in place at the East and South Berms, former Eastern Landfill and former McElroy Building to mitigate potentially unacceptable health risks associated with the exposure to contaminated soil as required by Certificate of Property Use (CPU) 0371-8TYQMY. Routine inspections are to be carried out during the spring and fall of each year following the spring thaw and prior to the winter ground frost and snow cover. Weather, event and incident inspections are to be carried out subsequent to the appropriate trigger initiating the need for inspection. Inspections shall be carried out as needed until such time that the RMM are no longer required at the site.

1) General Information

Inspection Date (mm/dd/yy): 06/23/22 Inspected by: Jason Taylor

Time in (hh/mm): 1:15 Time out (hh/mm): 2:45

Weather (current): Cloudy/Rain, High of 20°C

Precipitation in last 24 hours? Yes ☒ No ☐ Rainfall quantity if available 1.3 mm

2) Inspection Type

Routine (semi-annual) ☒ Spring ☒ Fall ☐ (if semi-annual, proceed to Section 4)

Construction (provide details below) ☐ Weather-related (provide details below) ☒

Event-specific (provide details below) ☒ Incident-related (provide details below) ☐

3) Location of Event or Incident (Check all that apply)

East Berm	☒	South Berm	☒
Shuttle Loop / Eastern Landfill	☒	Heirloom Orchard / Eastern Landfill	☒
East Court / Eastern Landfill	☒	Skating Court / Eastern Landfill	☒
Skate Park / Eastern Landfill	☒	Water Jet Plaza / Eastern Landfill	☒
Children's Garden / Eastern Landfill	☒	Great Lawn / Eastern Landfill	☒
Former McElroy Building	☒		

Details of event or incident: Spring inspection during setup for Escapade Music Festival and following Rainfall events of 31.5 mm on April 7th, 28.4 mm on May 16th and 29.8 mm on June 9th, 2022.

4) East Berm

Are there any areas of worn or stressed vegetation?	Yes	☒	No	☐
Are there any areas of bare or exposed soil?	Yes	☒	No	☐
Are there any areas of uneven settlement?	Yes	☐	No	☒
Are any shear or tension cracks present on any sloped areas?	Yes	☐	No	☒
Do roads/pathways show evidence of uneven settlement, cracking or buckling?	Yes	☐	No	☒
Is there any evidence of soil erosion, transport and sedimentation?	Yes	☒	No	☐
Has the non-woven geotextile been exposed in any area?	Yes	☐	No	☒

Other observations: Areas of bare soil were observed in high traffic areas of the berm primarily at the top of the berm. Bare soil was also observed where an excavation was conducted in 2021 east of the Art Screen to allow the drilling of a geotechnical borehole through the berm as well as near some scaffolding that was erected west of the Art Screen.

5) South Berm

Are there any areas of worn or stressed vegetation?	Yes	☒	No	☐
Are there any areas of bare or exposed soil?	Yes	☒	No	☐
Are there any areas of uneven settlement?	Yes	☐	No	☒
Are any shear or tension cracks present on any sloped areas?	Yes	☐	No	☒
Do roads/pathways show evidence of uneven settlement, cracking or buckling?	Yes	☐	No	☒
Is there any evidence of soil erosion, transport and sedimentation?	Yes	☒	No	☐
Has the non-woven geotextile been exposed in any area?	Yes	☐	No	☒

Other observations: Areas of exposed soil and soil transport were observed throughout the south berm, particularly in areas with steep slopes. Bare soil was observed on either side of pathways on the berm, inferred to be from pedestrian and vehicular traffic.

6) South Drainage Swales

The south drainage swales are located on the north and south side of the fire access route at the toe of the South Berm

Are there any areas of worn or stressed vegetation?	Yes	☒	No	☐
Are there any areas of bare or exposed soil?	Yes	☒	No	☐
Are there any areas of uneven settlement?	Yes	☐	No	☒
Are any shear or tension cracks present on any sloped areas?	Yes	☐	No	☒
Is there any evidence of soil erosion, transport and sedimentation?	Yes	☒	No	☐
Has the non-woven geotextile been exposed in any area?	Yes	☐	No	☒

Other observations: Road base material as well as portions of the northern slope of the swale were observed to be eroding into the swale.

7) Former Eastern Landfill

The former Eastern Landfill includes the Heirloom Orchard, Skating Court, Skate Park, Children's Garden, Water Jet Plaza, and the northeast portion of the Great Lawn.

Are there any areas of worn or stressed vegetation?	Yes	☒	No	☐
Are there any areas of bare or exposed soil?	Yes	☒	No	☐
Are there any areas of uneven settlement?	Yes	☐	No	☒
Do roads/pathways show evidence of uneven settlement, cracking or buckling?	Yes	☐	No	☒
Is there any evidence of soil erosion, transport and sedimentation?	Yes	☐	No	☒
Has the non-woven geotextile been exposed in any area?	Yes	☐	No	☒

Other observations: Several small areas of bare soil and stressed vegetation were observed in high traffic areas around the ice rink and children's Garden/Skate Park area. The area was largely being used for the Escapade Music Festival and a large portion of the ground was covered and could not be inspected. Some areas appear to have been damaged from activities related to the preparation for the music festival.

8) Former McElroy Building

Are there any areas of worn or stressed vegetation?	Yes	☒	No	☐
Are there any areas of bare or exposed soil?	Yes	☒	No	☐
Are there any areas of uneven settlement?	Yes	☐	No	☒
Do roads/pathways show evidence of uneven settlement, cracking or buckling?	Yes	☐	No	☒
Is there any evidence of soil erosion, transport and sedimentation?	Yes	☐	No	☒
Has the non-woven geotextile been exposed in any area?	Yes	☐	No	☒

Other observations: This area was used for trailers and storage of equipment related to the Escapade Music Festival. Bare soil and tire ruts were observed adjacent to the granular surfaced portions of the area.

9) East Perimeter Drainage Swale

The east perimeter drainage is located along the east property extending from the northeast entrance from Queen Elizabeth Driveway to the southeast corner of the Great Lawn

Are there any areas of worn or stressed vegetation?	Yes	☒	No	☐
Are there any areas of bare or exposed soil?	Yes	☒	No	☐
Are there any areas of uneven settlement?	Yes	☐	No	☒
Are any shear or tension cracks present on any sloped areas?	Yes	☐	No	☒
Is there any evidence of soil erosion, transport and sedimentation?	Yes	☐	No	☒
Has the non-woven geotextile been exposed in any area?	Yes	☐	No	☒

Other observations: Areas of bare soil and stressed vegetation were observed along the swale east of Children's Play Area and Water Plaza. South of the Water Plaza the swale was occupied by trailers and equipment related to the Escapade Music Festival.

Photo 1:
East Berm: General view of the east side of the berm.

Direction:
Southeast

Photo 2:
East Berm: General view of the steeper sloped areas along the pedestrian pathway on the east side of the berm.

Note small areas of bare soil.

Direction:
South

Photo 3:

East Berm: Areas of bare soil were observed at the top of the berm east and west of the Art Screen.

Direction:

West

Photo 4:

East Berm: Area of bare soil where a previous excavation was completed to allow the advancement of a geotechnical borehole through the berm.

Direction:

Southwest

Photo 5:

East Berm: A worn path with areas of bare soil was observed along the ridge of the east arm of the berm.

Direction:

Southwest

Photo 6:

East Berm: A temporary structure was erected west of the Art Screen and areas of bare soil were observed leading to the structure.

Direction:

Southeast

Photo 7:
South Berm: General view of berm conditions. Areas of bare soil were observed throughout the berm.

Direction:
Northwest

Photo 8:
South Berm: Bare soil observed on the western potion of the berm near the top.

Direction:
Northwest

Photo 9:
South Berm: Clumps of soil eroding from areas near the top of the of the central portion of the berm.

Direction:
North

Photo 10:
South Berm: Areas of bare soil along paths on the berm.

Direction:
Northeast

Photo 11:
South Drainage Swale: General view of the swale. Road base material has eroded into the swale.

Direction:
Southwest

Photo 12:
Former Eastern Landfill: Bare soil along pathways and roadways at the north end of the former landfill west of the Orchard.

Direction:
West

Photo 13:

Former Eastern Landfill: The majority of the former landfill was fenced-off and occupied in preparation of the Escapade Music Festival.

Direction:

Southeast

Photo 14:

Former Eastern Landfill: Damaged areas of the cover in the Orchard were repaired.

Direction:

North

Photo 15:

Former Eastern Landfill: Small areas of bare soil and stressed vegetation were observed in high traffic areas around the Skate Park and Children's Garden.

Direction:

North

Photo 16:

Former Eastern Landfill: Areas of bare soil and stressed vegetation south of the ring road at the north end the Great Lawn. Tire ruts were observed in this area and it was partially covered in preparation for the Escapade Music Festival.

Direction:

Southeast

Photo 15:

Former Eastern Landfill: Damaged areas of cover at the north end of the Great Lawn were repaired.

Direction:

Southeast

Photo 16:

Former Eastern Landfill: The stage for the Escapade Music Festival was erected south of the Water Plaza. Area is covered with equipment.

Direction:

East

Photo 17:

Former Eastern Landfill: Area of bare soil and stressed vegetation southwest of Water Plaza.

Direction:

Southeast

Photo 18:

Former McElroy Building: The area is being occupied for the Escapade Music Festival.

Direction:

Southeast

	**Photo 19:** Former McElroy Building/Eastern Perimeter Drainage Swale: Areas of bare soil near trailers used for the Escapade Music Festival.
	Direction: South
	**Photo 20:** Eastern Perimeter Drainage Swale: Some areas of bare soil and tire ruts were observed adjacent the granular resurfaced area. These areas are also being used to store material/equipment.
	Direction: Northeast

Photo 21:
Eastern Perimeter Drainage Swale: General view of the swale east of the Ice Rink and Heirloom Orchard. Small areas of bare soil were observed in the area of the utility trench previously excavated within the swale.

Direction:
Northwest

Photo 22:
Eastern Perimeter Drainage Swale: General view of the swale east of the Children's Play Area. Some areas of bare soil were observed along the property boundary where a fence has been erected for the Escapade Music Festival.

Direction:
Northwest

Inspection Log
Risk Management Measures
Lansdowne Park – Urban Park

This log form is to be used to document inspections of the Risk Management Measures (RMM) in place at the East and South Berms, former Eastern Landfill and former McElroy Building to mitigate potentially unacceptable health risks associated with the exposure to contaminated soil as required by Certificate of Property Use (CPU) 0371-8TYQMY. Routine inspections are to be carried out during the spring and fall of each year following the spring thaw and prior to the winter ground frost and snow cover. Weather, event and incident inspections are to be carried out subsequent to the appropriate trigger initiating the need for inspection. Inspections shall be carried out as needed until such time that the RMM are no longer required at the site.

1) General Information

Inspection Date (mm/dd/yy): 11/11/22 Inspected by: Jason Taylor

Time in (hh/mm): 1:00 Time out (hh/mm): 1:45

Weather (current): Cloudy, High of 17°C

Precipitation in last 24 hours? Yes ☐ No ☒ Rainfall quantity if available 0.0 mm

2) Inspection Type

Routine (semi-annual) ☒ Spring ☐ Fall ☒ (if semi-annual, proceed to Section 4)

Construction (provide details below) ☐ Weather-related (provide details below) ☐

Event-specific (provide details below) ☐ Incident-related (provide details below) ☐

3) Location of Event or Incident (Check all that apply)

East Berm	☒	South Berm	☒
Shuttle Loop / Eastern Landfill	☒	Heirloom Orchard / Eastern Landfill	☒
East Court / Eastern Landfill	☒	Skating Court / Eastern Landfill	☒
Skate Park / Eastern Landfill	☒	Water Jet Plaza / Eastern Landfill	☒
Children's Garden / Eastern Landfill	☒	Great Lawn / Eastern Landfill	☒
Former McElroy Building	☒		

Details of event or incident:

4) East Berm

Are there any areas of worn or stressed vegetation?	Yes	☒	No	☐
Are there any areas of bare or exposed soil?	Yes	☒	No	☐
Are there any areas of uneven settlement?	Yes	☐	No	☒
Are any shear or tension cracks present on any sloped areas?	Yes	☐	No	☒
Do roads/pathways show evidence of uneven settlement, cracking or buckling?	Yes	☐	No	☒
Is there any evidence of soil erosion, transport and sedimentation?	Yes	☒	No	☐
Has the non-woven geotextile been exposed in any area?	Yes	☐	No	☒

Other observations: Areas of bare soil and stressed vegetation were observed in high traffic areas of the berm primarily at the top of the berm and steeper inclined areas along the east side of the berm.

5) South Berm

Are there any areas of worn or stressed vegetation?	Yes	☒	No	☐
Are there any areas of bare or exposed soil?	Yes	☒	No	☐
Are there any areas of uneven settlement?	Yes	☐	No	☒
Are any shear or tension cracks present on any sloped areas?	Yes	☐	No	☒
Do roads/pathways show evidence of uneven settlement, cracking or buckling?	Yes	☐	No	☒
Is there any evidence of soil erosion, transport and sedimentation?	Yes	☒	No	☐
Has the non-woven geotextile been exposed in any area?	Yes	☐	No	☒

Other observations: Areas of exposed soil and soil transport were observed throughout the south berm, particularly in areas with steep slopes. Bare soil was observed on either side of pathways on the berm, inferred to be from pedestrian and vehicular traffic.

6) South Drainage Swales

The south drainage swales are located on the north and south side of the fire access route at the toe of the South Berm

Are there any areas of worn or stressed vegetation?	Yes	☒	No	☐
Are there any areas of bare or exposed soil?	Yes	☒	No	☐
Are there any areas of uneven settlement?	Yes	☐	No	☒
Are any shear or tension cracks present on any sloped areas?	Yes	☐	No	☒
Is there any evidence of soil erosion, transport and sedimentation?	Yes	☒	No	☐
Has the non-woven geotextile been exposed in any area?	Yes	☐	No	☒

Other observations: Road base material as well as portions of the northern slope of the swale were observed to be eroding into the swale.

7) Former Eastern Landfill

The former Eastern Landfill includes the Heirloom Orchard, Skating Court, Skate Park, Children's Garden, Water Jet Plaza, and the northeast portion of the Great Lawn.

Are there any areas of worn or stressed vegetation?	Yes	☒	No	☐
Are there any areas of bare or exposed soil?	Yes	☒	No	☐
Are there any areas of uneven settlement?	Yes	☐	No	☒
Do roads/pathways show evidence of uneven settlement, cracking or buckling?	Yes	☐	No	☒
Is there any evidence of soil erosion, transport and sedimentation?	Yes	☐	No	☒
Has the non-woven geotextile been exposed in any area?	Yes	☐	No	☒

Other observations: Several small areas of bare soil and stressed vegetation were observed in high traffic areas around the ice rink area and Children's Garden/Skate Park area and areas routinely used to erect stages or store material during events south of the Water Plaza.

8) Former McElroy Building

Are there any areas of worn or stressed vegetation?	Yes	☒	No	☐
Are there any areas of bare or exposed soil?	Yes	☒	No	☐
Are there any areas of uneven settlement?	Yes	☐	No	☒
Do roads/pathways show evidence of uneven settlement, cracking or buckling?	Yes	☐	No	☒
Is there any evidence of soil erosion, transport and sedimentation?	Yes	☐	No	☒
Has the non-woven geotextile been exposed in any area?	Yes	☐	No	☒

Other observations: The cover in this area is under repair. It is routinely used as a staging area for materials and equipment during work or events at the Site.

9) East Perimeter Drainage Swale

The east perimeter drainage is located along the east property extending from the northeast entrance from Queen Elizabeth Driveway to the southeast corner of the Great Lawn

Are there any areas of worn or stressed vegetation?	Yes	☒	No	☐
Are there any areas of bare or exposed soil?	Yes	☒	No	☐
Are there any areas of uneven settlement?	Yes	☐	No	☒
Are any shear or tension cracks present on any sloped areas?	Yes	☐	No	☒
Is there any evidence of soil erosion, transport and sedimentation?	Yes	☐	No	☒
Has the non-woven geotextile been exposed in any area?	Yes	☐	No	☒

Other observations: Areas of bare soil and stressed vegetation were observed in the swale east of the Great Lawn, Water Plaza, Children's Garden, and Ice Rink area.

Photo 1:

East Berm: General view of the east side of the berm.

Direction:

Southeast

Photo 2:

East Berm: General view of the steeper sloped areas along the pedestrian pathway on the east side of the berm.

Note small areas of bare soil.

Direction:

South

Photo 3:

East Berm: Areas of bare soil were observed at the top of the berm east and west of the Art Screen.

Direction:

Northwest

Photo 4:

East Berm: Area of bare soil where a previous excavation was completed to allow the advancement of a geotechnical borehole through the berm.

Direction:

East

Photo 5:

East Berm: Areas of bare soil west of the Art Screen near the pedestrian pathway.

Direction:

Southeast

Photo 6:

South Berm: General view of berm conditions. Areas of bare soil were observed throughout the berm.

Direction:

Northwest

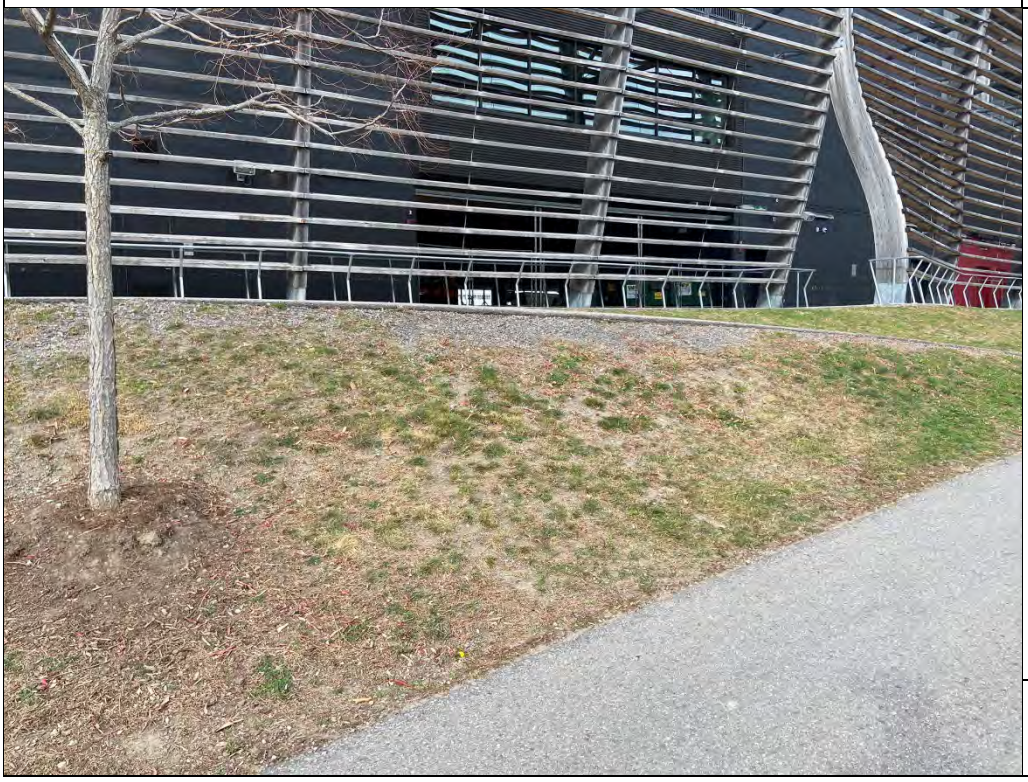
	**Photo 7:** South Berm: Bare soil observed on the western potion of the berm near the top.
	Direction: North
	**Photo 8:** South Berm: Clumps of soil eroding from areas near the top of the of the central portion of the berm.
	Direction: North

Photo 9:
South Berm: Areas of bare soil along paths on the berm.

Direction:
East

Photo 10:
South Drainage Swale: General view of the swale. Road base material has eroded into the swale.

Direction:
Southwest

Photo 11:
Former Eastern Landfill: Bare soil along pathways and roadways at the north end of the former landfill west of the Orchard.

Direction:
Southwest

Photo 12:
Former Eastern Landfill: Cover in the Orchard area along the roadway repaired in the Spring.

Direction:
North

Photo 13:
Former Eastern Landfill: Small areas of bare soil and stressed vegetation were observed in high traffic areas around the Skate Park and Children's Garden.

Direction:
Southeast

Photo 14:
Former Eastern Landfill: Small areas of bare soil and stressed vegetation were observed south of the Ice Rink area.

Direction:
North

Photo 15:

Former Eastern Landfill: Recent excavation to install in ground utility boxes disturbed the cover east of the Children's Garden.

Direction:

East

Photo 16:

Former Eastern Landfill: Areas of stressed vegetation south of the ring road at the north end the Great Lawn.

Direction:

East

Photo 15:

Former Eastern Landfill: Soil cover at the northeast east of the Great Lawn repaired in the Spring.

Direction:

Southeast

Photo 16:

Former Eastern Landfill: Stressed vegetation and areas of bare soil where infrastructure for events is routinely erected south of the Water Plaza.

Direction:

Northwest

Photo 17:
Former Eastern Landfill: Area of bare soil and stressed vegetation under repair southwest of Water Plaza.

Direction:
East

Photo 18:
Former McElroy Building: Bare soil and stressed vegetation were observed in this area routinely used as a staging area for events or work at the Site. The cover is currently under repair.

Direction:
Southeast

Photo 19:

Former McElroy Building/Eastern Perimeter Drainage Swale: Bare soil and stressed vegetation east of the Great Lawn. This area is routinely used as a staging area for events or work at the Site.

Direction:

Southeast

Photo 20:

Eastern Perimeter Drainage Swale: Areas of bare soil and stressed vegetation east of the Water Plaza.

Direction:

Southeast

Photo 21:
Eastern Perimeter Drainage Swale: General view of the swale east of the Ice Rink and Heirloom Orchard. Small areas of bare soil were observed in the area of the utility trench previously excavated within the swale.

Direction:
Northwest

Photo 22:
Eastern Perimeter Drainage Swale: General view of the swale east of the Children's Play Area. Some areas of bare soil were observed along the property boundary.

Direction:
Southeast

Appendix C

Limitations

LIMITATIONS

1. The work performed in the preparation of this report and the conclusions presented are subject to the following:
    a. The Standard Terms and Conditions which form a part of our Professional Services Contract;
    b. The Scope of Services;
    c. Time and Budgetary limitations as described in our Contract; and
    d. The Limitations stated herein.
2. No other warranties or representations, either expressed or implied, are made as to the professional services provided under the terms of our Contract, or the conclusions presented.
3. The conclusions presented in this report were based, in part, on visual observations of the Site and attendant structures. Our conclusions cannot and are not extended to include those portions of the Site or structures, which are not reasonably available, in WSP's opinion, for direct observation.
4. The environmental conditions at the Site were assessed, within the limitations set out above, having due regard for applicable environmental regulations as of the date of the inspection. A review of compliance by past owners or occupants of the Site with any applicable local, provincial or federal bylaws, orders-in-council, legislative enactments and regulations was not performed.
5. The Site history research included obtaining information from third parties and employees or agents of the owner. No attempt has been made to verify the accuracy of any information provided, unless specifically noted in our report.
6. Where testing was performed, it was carried out in accordance with the terms of our contract providing for testing. Other substances, or different quantities of substances testing for, may be present on-site and may be revealed by different or other testing not provided for in our contract.
7. Because of the limitations referred to above, different environmental conditions from those stated in our report may exist. Should such different conditions be encountered, WSP must be notified in order that it may determine if modifications to the conclusions in the report are necessary.
8. The utilization of WSP's services during the implementation of any remedial measures will allow WSP to observe compliance with the conclusions and recommendations contained in the report. WSP's involvement will also allow for changes to be made as necessary to suit field conditions as they are encountered.
9. This report is for the sole use of the party to whom it is addressed unless expressly stated otherwise in the report or contract. Any use which any third party makes of the report, in whole or the part, or any reliance thereon or decisions made based on any information or conclusions in the report is the sole responsibility of such third party. WSP accepts no responsibility whatsoever for damages or loss of any nature or kind suffered by any such third party as a result of actions taken or not taken or decisions made in reliance on the report or anything set out therein.
10. This report is not to be given over to any third party for any purpose whatsoever without the written permission of WSP.
11. Provided that the report is still reliable, and less than 12 months old, WSP will issue a third-party reliance letter to parties that the client identifies in writing, upon payment of the then current fee for such letters. All third parties relying on WSP's report, by such reliance agree to be bound by our proposal and WSP's standard reliance letter. WSP's standard reliance letter indicates that in no event shall WSP be liable for any damages, howsoever arising, relating to third-party reliance on WSP's report. No reliance by any party is permitted without such agreement.