



VIA E-MAIL: dave.young@vancouver.ca

Victoria File: 26250-20/0700
Regional File: 26250-20/0525
Site ID: 1244

October 6, 2022

David Young, Contaminated Sites Specialist
City of Vancouver
507 West Broadway, Suite 320
Vancouver, BC V5Z 0B4

Dear David Young:

Re: Approval in Principle – 688 Cambie Street, Vancouver, British Columbia

Please find enclosed an Approval in Principle respecting the contaminated site referenced above.

In addition to the conditions set out in Schedule B of the Approval in Principle, please be advised of the following:

1. Information about the site will be included in the Site Registry established under the *Environmental Management Act*.
2. The provisions of this Approval in Principle are without prejudice to the right of the Director to make orders or impose requirements as the Director may deem necessary in accordance with applicable laws. Nothing in this Approval in Principle will restrict or impair the Director's powers in this regard.
3. A qualified environmental consultant should be available to identify, characterize and appropriately manage:
 - (a) any environmental media that may be contaminated, or
 - (b) soil which may exceed the standards triggering a Contaminated Soil Relocation Agreement set out in Part 8 of the Contaminated Sites Regulationand may be encountered during any future subsurface work at the site.
4. This Approval in Principle does not authorize entry upon, crossing over, or use for any purpose of private or Crown lands or works, unless and except as authorized by the owner of such lands or works. The responsibility for obtaining such authority rests with the persons

undertaking remediation. It is also the responsibility of those persons to ensure that all activities conducted under this Approval in Principle are carried out with due regard to the rights of third parties, and comply with other applicable legislation that may be in force.

5. Additional permits and approvals may be required before remediation begins.
6. All site materials (e.g., excavated soil, replaced soil, groundwater from dewatering, pumping, well development etc.) must be characterized and managed in accordance with applicable legislation and ministry guidance.
7. Groundwater wells that are no longer required must be properly decommissioned in accordance with the *Water Sustainability Act's* Groundwater Protection Regulation.
8. Please be advised that there are inherent health and safety risks associated with remediation activities at contaminated sites. Development of site-specific work procedures in accordance with WorkSafeBC regulations is warranted. Please direct related questions to the WorkSafeBC office at 604-276-3100 (Lower Mainland only) or 1-888-621-7233 (toll free in B.C.).
9. Any substantial modifications to the approved remediation plan, including substantial changes to the remediation schedule, conditions or circumstances described in the risk assessment upon which the remediation plan is based, or changes in land use, must be promptly identified by written submission to the Director.
10. If an application for a Certificate of Compliance is to be submitted for the site, the confirmation of remediation report accompanying the application must demonstrate compliance with the remediation standards and criteria in force at the time the application for the Certificate is made, which may differ from the remediation standards and criteria in force at the time of issuance of this Approval in Principle.

Issuance of this Approval in Principle is a decision that may be appealed under Part 8 of the *Environmental Management Act*.

If you require clarification of any aspect of this Approval in Principle, please contact the undersigned at George.Szefer@gov.bc.ca.

Yours truly,



George Szefer, M.Eng., P.Eng.
For Director, *Environmental Management Act*

Enclosure

cc: City of Vancouver, Contaminated.Sites@vancouver.ca

Anna Popova, CSAP Society
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Travis Deeter, P.Ag., Approved Professional, Thurber Engineering Ltd.
900-1281 West Georgia Street, Vancouver, BC, V6E 3J7 (BY EMAIL)
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Scott Steer, R.P.Bio., Approved Professional, Steer Environmental Associates Ltd.
1515 Holland Street, Nelson, BC, V1L 3E2 (BY EMAIL)
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Client Information Officer, ENV, Victoria (BY EMAIL)
csp_cio@Victoria1.gov.bc.ca

Eagle Eye Security Ltd.
Office number-7, 8140 120 St Unit 103, Surrey, BC, V3W 3N3 (BY EMAIL)
info@eagleeyesecurity.ca



APPROVAL IN PRINCIPLE
(Pursuant to Section 53 of the *Environmental Management Act*)

THIS IS TO CERTIFY that the remediation plan described herein submitted by the City of Vancouver for the contaminated site identified in Schedule A of this document has been approved.

When implemented, the remediation plan must be implemented in accordance with the requirements and conditions specified in Schedule B.

The substances for which remediation will be conducted and for which this Approval in Principle is valid are specified in Schedule C.

I have issued this Approval in Principle based on a review of the documents listed in Schedule D. I, however, make no representation or warranty as to the accuracy or completeness of that information.

A Director may rescind this Approval in Principle if conditions imposed in the Approval in Principle are not complied with or any fees payable under Part 4 of the Act or regulations are outstanding.

This Approval in Principle should not be construed as an assurance that there are no hazards present at the site.

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Schedule A

The site covered by this Approval in Principle is located at 688 Cambie Street, Vancouver, British Columbia which is more particularly known and described as:

Block 48, District Lot 541, Plan 8970

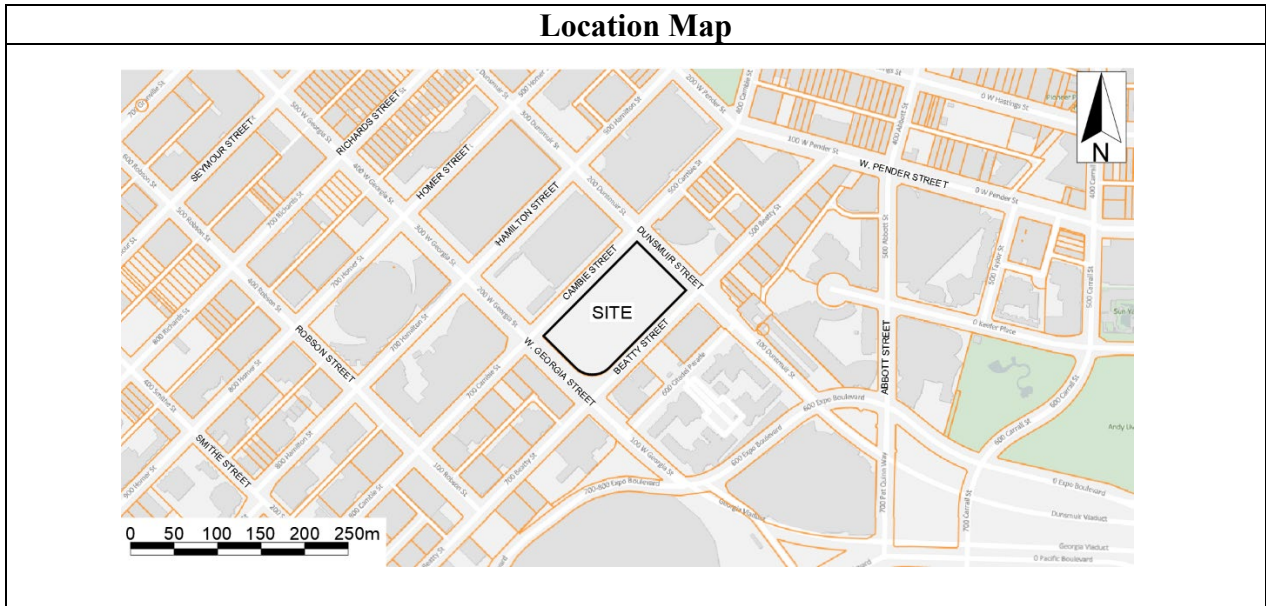
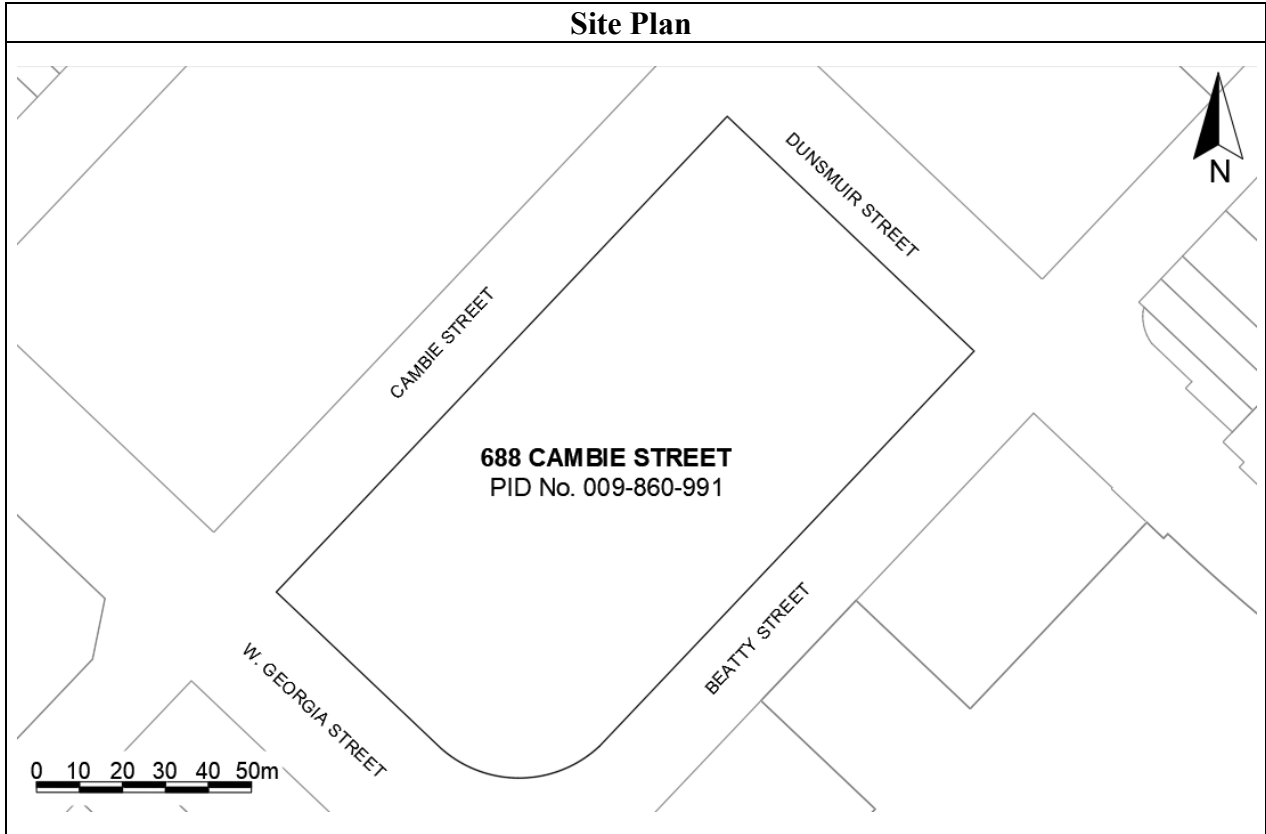
PID: 009-860-991

The approximate centre of the site using the NAD (North American Datum) 1983 convention is:


Latitude: 49° 16' 46.69"
Longitude: 123° 6' 42.76"

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Schedule B

Requirements and Conditions

1. Remediation, including monitoring, inspections and maintenance of any works, must be undertaken by the responsible person in the manner and schedule specified in the plan listed in Schedule D or as specified in a modification of the plan approved by the Director.
2. Any substantial modifications to the approved remediation plan, including substantial changes to the remediation schedule, conditions or circumstances described in the risk assessment upon which the remediation plan is based, or changes in land, vapour, water, or sediment use, must be promptly identified in a written submission by the responsible person to the Director. An application for an amendment or new Approval in Principle may be necessary.
3. Up-to-date records of monitoring, inspections and maintenance of any works must be maintained by the responsible person or their agent. The records must be available for inspection by the Director.
4. Remediation must be completed within 10 years of the date of issuance of this Approval in Principle.
5. Remediation must be confirmed in accordance with applicable legislation and ministry guidance. Within 90 days of completing remediation, a report summarizing confirmation of remediation must be prepared in accordance with section 49 (2) of the Contaminated Sites Regulation and submitted to the Director.
6. A statement signed by an Approved Professional must be submitted to the Director within 90 days of the anniversary of the date of issuance of this Approval in Principle. The statement must include the following:
 - (a) A summary of remedial activities undertaken during the reporting period; and
 - (b) An assessment comparing remediation progress to the actions and schedule set out in the plans referenced above. Refer to Condition 3 above if remedial progress differs substantially from the schedule set out in the approved plan.

If requested by the Director, a report signed by an Approved Professional must be submitted for review to the Director and must include the following:

- (a) A summary of remedial activities undertaken to date;

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- (b) An assessment comparing remediation progress to the actions and schedule set out in the plan referenced above. Refer to Condition 3 above if remedial progress differs substantially from the schedule set out in the approved plan;
 - (c) Evaluation of the performance of the institutional and/or engineering controls; and
 - (d) Supporting documentation (e.g., analytical reports, records of inspection, maintenance of treatment works, etc.).
7. The documents listed in Schedule D indicate that vapour attenuation factors were applied to meet Contaminated Sites Regulation numerical standards at the site. These vapour attenuation factors were selected based on assumptions about the structures, locations and depths of buildings existing or expected at the site. These assumptions include the following:
- (a) *Future Site buildings will consist of two mixed-use buildings with commercial use at grade with underground parkades.*

Any inconsistencies that arise between the structures, locations and depths of proposed or constructed buildings at the site and the range of structures, locations and depths of buildings assumed in the selection of vapour attenuation factors in the documents listed in Schedule D must be promptly identified by the responsible person in a written submission to the Director. An application for an amendment or new Approval in Principle may be necessary.

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Schedule C

Substances and Uses

Substances to be remediated in soil for commercial land soil use:

To meet numerical remediation standards:

| | |
|------|-----------|
| lead | 7439-92-1 |
| zinc | 7440-66-6 |

To meet risk-based remediation standards:

| | |
|---------|-----------|
| LEPHs | NA |
| VPHs | NA |
| xylenes | 1330-20-7 |

Substances evaluated in soil for commercial land soil use:

To meet local background concentrations:

| | |
|----------|-----------|
| selenium | 7782-49-2 |
|----------|-----------|

Substances to be remediated in water for marine aquatic water use:

To meet risk-based remediation standards:

| | |
|-------------------|----------|
| acenaphthene | 83-32-9 |
| acridine | 260-94-6 |
| anthracene | 120-12-7 |
| benz(a)anthracene | 56-55-3 |
| benzo(a)pyrene | 50-32-8 |
| chrysene | 218-01-9 |
| EPHw10-19 | NA |
| fluoranthene | 206-44-0 |
| fluorene | 86-73-7 |
| LEPHw | NA |
| naphthalene | 91-20-3 |

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| | |
|--------------|----------|
| phenanthrene | 85-01-8 |
| pyrene | 129-00-0 |
| VHw6-10 | NA |
| VPHw | NA |

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Schedule D

Documents

| Document Title | Author / Company | Document Date |
|---|---|------------------|
| Performance Verification Plan, 688 Cambie Street, Vancouver, BC, Site ID: 1244 | Steer Environmental Associates Ltd. | June 2, 2022 |
| Human Health and Ecological Risk Assessment, 688 Cambie Street, Vancouver, BC | Steer Environmental Associates Ltd. | June 2022 |
| Detailed Site Investigation and Remediation Plan, 688 Cambie Street, Vancouver, BC | Thurber Engineering Ltd | May 25, 2022 |
| Stage 1 Preliminary Site Investigation, 688 Cambie Street, Vancouver, BC | Thurber Engineering Ltd | May 18, 2022 |
| Protocol 6 Preapproval Application to Not Delineate Contaminants of Concern and for Approval in Principle longer than 5 years – 688 Cambie Street (SITE ID 1244) and Adjacent Land beneath Beatty Street (SITE ID 15721), Vancouver, BC, PID: 009-860-991 | Ministry of Environment and Climate Change Strategy | March 3, 2022 |
| Request for Preapproval Under Protocol 6, 688 Cambie Street, Vancouver, BC, PID: 009-860-991, Site ID: 1244 & 15721 | Thurber Engineering Ltd | October 27, 2021 |
| Human Health and Ecological Risk Assessment, 688 Cambie Street, Vancouver, BC | Steer Environmental Associates Ltd. | July 2018 |
| Environmental Summary for Temporary Modular Housing, 688 Cambie Street, Vancouver, BC | Thurber Engineering Ltd. | June 29, 2018 |
| Progress Report, Dual Phase Extraction System (DPES) Decommission | Keystone Environmental Ltd. | May 29, 2017 |
| Site Profile – 688 Cambie Street | SNC-Lavalin Inc. | November 8, 2016 |
| Site Risk Reclassification Site 1244 & 15721 | BC Ministry of Environment | October 3, 2016 |
| Summary of Site Condition, 688 Cambie Street, Vancouver, BC (Site ID: 8071) | SNC-Lavalin Inc. | July 28, 2016 |
| Site Risk Classification Report | SNC-Lavalin Inc. | July 28, 2016 |
| Water Use Determination at 688 Cambie Street, Vancouver, BC | SNC-Lavalin Inc. | May 5, 2016 |

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| Document Title | Author / Company | Document Date |
|---|-------------------------------|----------------------|
| Q1 2016 Additional Investigation at 688 Cambie Street, Vancouver, BC | SNC-Lavalin Inc. | April 29, 2016 |
| Mann-Kendall Toolkit for Trend Analysis | SNC-Lavalin Inc. | April 20, 2016 |
| 2015 Groundwater Monitoring, Sampling, and Geophysical Survey at 688 Cambie Street, Vancouver, BC | SNC-Lavalin Inc. | July 29, 2015 |
| High Risk Site – Reporting Requirements, Source Site: 688 Cambie Street, Vancouver, PID: 009-860-991 | BC Ministry of Environment | February 12, 2015 |
| Summary of Findings, Off-Site Investigations along Beatty Street, Adjacent to 688 Cambie Street, Vancouver, BC | Active Earth Engineering Ltd. | April 29, 2014 |
| Re: Notification of Likely or Actual Offsite Migration to Neighbouring Property from 688 Cambie Street, Vancouver, BC | BC Ministry of Environment | November 20, 2013 |
| Re: High Risk Site Conditions - Notification of Likely or Actual Offsite Migration, Source Site: 688 Cambie Street, Vancouver, BC, PID: 009-860-991 | BC Ministry of Environment | November 6, 2013 |
| Notification of Likely or Actual Off-Site Migration, Beatty Street between West Georgia Street and Dunsmuir Street, Vancouver, BC | Active Earth Engineering Ltd. | September 17, 2013 |
| Groundwater Quality Assessment, 688 Cambie Street, Vancouver, BC | Active Earth Engineering Ltd. | December 17, 2012 |
| Stage 2 Preliminary Site Investigation, Northern Acre – 688 Cambie Street, Vancouver, BC | Active Earth Engineering Ltd. | November 2012 |
| 150 Dunsmuir Street, Vancouver, BC – Remediation System | Keystone Environmental Ltd. | December 2007 |
| Report of Findings, Preliminary Site Investigation Stage 1, 150 Dunsmuir Street/688 Cambie Street, Vancouver, BC | Keystone Environmental Ltd. | June 2006 |
| Supplemental Soil and Groundwater Investigation Letter – Beatty Street | Keystone Environmental Ltd. | January 2006 |
| December 2004 Groundwater Sampling Letter | Keystone Environmental Ltd. | January 2005 |
| Client Brief and Schedule 8 Drawings | Keystone Environmental Ltd. | February 2000 |

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| Document Title | Author / Company | Document Date |
|--|--|----------------------|
| Summary of Previous Investigation and Remediation Activities | Keystone Environmental Ltd. | August 9, 1999 |
| Status Report – 150 Dunsmuir Street | City of Vancouver | July 14, 1999 |
| Soil Tables | Keystone Environmental Ltd. | January 1, 1999 |
| Interim Closure Report, 150 Dunsmuir Street, Vancouver, BC | Keystone Environmental Ltd. | March 1995 |
| Site Investigation and Remedial Plan, 150 Dunsmuir Street, Vancouver, BC | Keystone Environmental Ltd. | August 1993 |
| Report of Findings, July 13, 1993 | O'Connor Associates Environmental Inc. | July 1993 |
| Report of Findings, April 7, 1993 | O'Connor Associates Environmental Inc. | April 1993 |

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