



January 9, 2023

Concert Properties Ltd.
9th Floor – 1190 Hornby Street
Vancouver, BC V6Z 2K5
Via email: schu@concertproperties.com

Attn: Steven Chu

**Re: Performance Verification Plan for Certificate of Compliance
18 Fell Avenue (Lot D), North Vancouver, BC
Project No. 14592**

Keystone Environmental Ltd. (Keystone Environmental) has prepared this Performance Verification Plan (PVP) in support of an application for a Certificate of Compliance (CofC) for the properties referenced as 18 Fell Avenue (Lot D), North Vancouver, BC (the "Site").

The PVP presents the principal risk management measures that apply and must remain in place at the Site to ensure that the Site CofC remains valid. The PVP was prepared in accordance with BC Ministry of Environment and Climate Change Strategy (ENV) guidance (BC ENV, 2022). The PVP was based on the findings of the Keystone Environmental (2023) human health and ecological risk assessment (HHERA) report titled *Report of Findings – Human Health and Ecological Risk Assessment, 18 Fell Avenue (Lot D), North Vancouver, BC*.

DETERMINATION OF SITE TYPE

The principal risk control which must be maintained at the Site includes the following:

- ▶ Contaminated soils located within the inferred areas of soil contamination, as shown and described by metes and bounds in **Figure 22-14592-01**, must remain covered by a minimum of 1.0 m of uncontaminated material or covered by intact pavement or building foundations.

This risk control was put in place to prevent exposure to soil contamination by human and/or terrestrial ecological receptors at the Site during periods of excavation within the risk management area. The metes and bounds of the risk management area is presented in **Figure 22-14592-01**.

Based on this risk control measure for the Site, the Site is considered to be a Type 2 site. A Type 2 site is one that meets risk-based standards under current and future uses through use of institutional or engineered risk controls, apart from the risk controls included for Type 1 sites¹.

REQUIRED ACTIONS TO IMPLEMENT THE REQUIRED RISK CONTROLS

The following actions are required by Concert Properties Ltd. or future owners/operators to implement the risk controls:

Required Actions during Current Site Development

- Mandatory notification provided to the Site owner/operator and workers involved in site redevelopment that contaminated soils located within the inferred areas of soil contamination, as shown and described by metes and bounds in **Figure 22-14592-01**, must remain covered by a minimum of 1.0 m of uncontaminated material or covered by intact pavement or building foundations.
- Mandatory annual inspection of Site by a site operator, until site redevelopment is complete, to ensure risk control within area of soil contamination is being maintained. Annual site inspection records should be provided by the Site operator to the Site owner for record keeping purposes.
- Mandatory notification provided to the Site owner/operator and workers involved in site redevelopment that if soil contamination is to be removed through excavation, a qualified environmental professional should be retained to characterize the material and advise on proper soil management and disposal.
- Mandatory notification provided to the Site owner/operator that the Director must be notified if performance verification actions indicate that there is a failure of the risk control.

Records of risk control maintenance by the Site owner/operator during site redevelopment should include the following:

- Scheduled construction activities that have occurred within a risk management area.
- Description and schedule of inspection and maintenance works conducted within a risk management area.
- Detailed specifications on any engineering work to be implemented within a risk management area.
- Quantity and quality of soil or waste managed or disposed of as part of the engineered works.
- Any identified failures in risk control performance along with the measures taken to restore the risk control.

¹ Type 1 sites include those that have an institutional control for limiting the presence of future drinking water wells where the site is serviced by a treated municipal water supply and/or have an engineered control of a maintained and a paved cap covering soil contamination in a municipal roadway or sidewalk.



Suitable forms of record documentation include inspection records, site photographic documentation, engineering drawings/details, communication documents, and related information. This documentation should be recorded at least annually until site redevelopment is complete.

Required Actions Post Site Development

- Mandatory notification provided by the Site owner/operator to the future Site owners/operators (i.e., Strata Corporation) that if soil contamination in the risk management area (defined by metes and bounds in **Figure 22-14592-01** and from depths ranging from 3.4 to 5.0 mbg) is to be removed through excavation, a qualified environmental professional should be retained to characterize the material and advise on proper soil management and disposal.
- Mandatory notification provided to the future Site owners/operators (i.e., Strata Corporation) that soil contamination within the risk management area must remain covered by a minimum of 1.0 m of uncontaminated material or covered by intact pavement or building foundations.
- Mandatory notification provided to the future Site owners/operators (i.e., Strata Corporation) that the Director must be notified if performance verification actions indicate that there is a failure of the risk control.

If the risk management area is to be re-exposed (i.e., cover is removed or disturbed) after site development, records of risk control maintenance by the future Site owners/operators (i.e., Strata Corporation) should include the following:

- Scheduled construction activities that have occurred within a risk management area.
- Description and schedule of inspection and maintenance works conducted within a risk management area.
- Detailed specifications on any engineering work to be implemented within a risk management area.
- Quantity and quality of soil or waste managed or disposed of as part of the engineered works.
- Any identified failures in risk control performance along with the measures taken to restore the risk control.

Suitable forms of record documentation include inspection records, site photographic documentation, engineering drawings/details, communication documents, and related information.

SUMMARY RATIONALE

Contaminated soils located within the inferred areas of soil contamination, as shown and described by metes and bounds in Figure 22-14592-01, must remain covered by a minimum of 1.0 m of uncontaminated material or covered by intact pavement or building foundations

Soil contamination exceeding the CSR Schedule 3.1 soil standards for residential (high density) land use (RL_{HD}) relevant to human and terrestrial ecological health is currently present in soils at a minimum depth



of 3.4 mbgs. The risk assessment assumed that the identified soil contamination would remain covered by a minimum of 1.0 m of uncontaminated material or covered by intact pavement or building foundations, which would prevent potential exposures and risks to on-site human and terrestrial ecological receptors (including deep rooting vegetation). Furthermore, retaining a qualified environmental professional to advise on the proper soil management during excavation would prevent contaminated soils from being relocated to surface and mitigate future unacceptable risks to the environment.

Maintaining communication and inspection records, at least annually, until maintenance is not required is considered a suitable risk management measure. Upon completion of Site redevelopment, annual site inspections are not considered warranted based on the following rationale:

- The risk management area is small relative to the scale of the Site and surrounding lands and will be covered by landscaping and sidewalks.
- It is unlikely that excavations, if any, will extend to the minimum depth of contaminated soil (~3.4 mbgs) based on the redevelopment plans for the Site and challenging nature of excavations in this area due to shallow groundwater depth at the Site (~2.2 to 3.1 mbgs), which would likely require dewatering activities to reach the contaminated soil.
- The mandatory requirement for a qualified environmental professional be retained if soil contamination is to be removed through excavation.
- The mandatory requirement for the Director to be notified if there is a failure of the risk control.
- The mandatory requirement for any identified failures in risk control performance along with the measures taken to restore the risk control to be documented.

CONCLUSION

It is our opinion that the actions identified in this report are sufficient to ensure performance verification of the risk control required for this Site. As such, a contingency plan is not considered necessary and therefore is not provided.

STUDY LIMITATIONS

The findings presented in this report are based upon the field work conducted by Keystone Environmental for Concert Properties Ltd. Keystone Environmental has prepared this document in good faith and has relied upon information provided by others. Keystone Environmental has assumed that the information provided by third parties is both complete and accurate. This report was completed in a manner consistent with that level of care and skill normally exercised by other environmental professionals, practicing under similar circumstances in the same locale at the time of the performance of the work.

This report has been prepared solely for the internal use of Concert Properties Ltd. and for review by the BC Ministry of Environment and Climate Change Strategy pursuant to the agreement between Keystone Environmental Ltd. and Concert Properties Ltd. By using this report, Concert Properties Ltd. and



the BC Ministry of Environment and Climate Change Strategy agree that they will review and use the report in its entirety. Any use which other parties make of this report, or any reliance on or decisions made based on it, are the responsibility of such parties. Keystone Environmental Ltd. accepts no responsibility for damages, if any, suffered by other parties as a result of decisions made or actions based on this report.

Sincerely,

Keystone Environmental Ltd.

Kevin Hall, B.Sc., R.P.Bio.
Risk Assessor

Adam Radlowski, M.Sc., R.P.Bio.
Senior Environmental Risk Assessor

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ATTACHMENTS:

- References
- Metes and Bounds Figure



REFERENCES

REFERENCES

- BC ENV. (2022). *Performance Verication Plans*. Retrieved October 26, 2022, from <https://www2.gov.bc.ca/gov/content/environment/air-land-water/site-remediation/remediation-planning/remediation-plan-aip/performance-verification-plans>
- Keystone Environmental Ltd. (2023). *Report of Findings – Human Health and Ecological Risk Assessment, 18 Fell Avenue (Lot D), North Vancouver, BC. January 2023*. Burnaby, BC: Keystone Environmental Ltd.



METES AND BOUNDS FIGURE

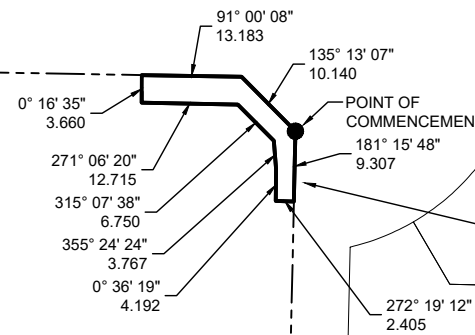


HARBOURSIDE DR.

FELL AVE.

LOT 45

HARBOURSIDE PL.



METES & BOUNDS OF ON-SITE CONTAMINATION:

- STARTING AT THE NORTHEAST CORNER OF LOT 45 DISTRICT LOT 2654 GROUP 1 NEW WESTMINSTER DISTRICT PLAN LMP49271: THE POINT OF COMMENCEMENT.
- THENCE 181° 15' 48" FOR 9.307 METRES;
- THENCE 272° 19' 12" FOR 2.405 METRES;
- THENCE 00° 36' 19" FOR 4.192 METRES;
- THENCE 355° 24' 24" FOR 3.767 METRES;
- THENCE 315° 07' 38" FOR 6.750 METRES;
- THENCE 271° 06' 20" FOR 12.715 METRES;
- THENCE 00° 16' 35" FOR 3.660 METRES;
- THENCE 91° 00' 08" FOR 13.183 METRES;
- THENCE 135° 13' 07" FOR 10.140 METRES;

RETURNING TO THE POINT OF COMMENCEMENT.

LEGEND

- PROPERTY LINE
- LOT LINES
- METES AND BOUNDS OF ON-SITE CONTAMINATION

NOTES:
 1. THIS DRAWING IS FOR GENERAL INFORMATION ONLY.
 LOT BOUNDARIES AND FEATURES ARE APPROXIMATE.



Keystone Environmental Ltd.
 Ste. 320 4400 Dominion Street
 Burnaby, British Columbia

18 Fell Avenue (Lot D)
 North Vancouver, B C

DESIGN	APPROVED
DRAWN A.B.	CHECKED
SCALE SCALE: 1:1000(approx.)	

CLIENT Concert Properties Ltd.	SHEET No. 1 of 1
Metes and Bounds of On-Site Contamination	PROJECT No. 14592-04
	REVISION No. 00
	DRAWING No. 22-14592-01

No.	DATE	DESCRIPTION	BY	APPROVED
00	11/16/22	Issued for Client Review	A.B.	
REVISIONS				