

October 18, 2022

Brian Vanneman  
Leland Consulting Group  
610 SW Alder Street  
Suite 1200  
Portland, OR 97205

Regarding: Memorandum: Planning Phase Environmental Considerations  
Subject Property: 155 2<sup>nd</sup> Street SE, Puyallup, WA 98371  
PBS Project No. 41843

Dear Mr. Vanneman:

PBS Engineering and Environmental Inc. (PBS) is pleased to provide this memorandum regarding planning phase environmental considerations, as related to the property located at 155 2<sup>nd</sup> Street SE in Puyallup, Washington (the property), on behalf of Leland Consulting Group (Leland).

### PROJECT UNDERSTANDING

PBS understands the subject property is comprised of three Pierce County tax parcels (7060000020, -30, -70) that all share the same address of 155 2<sup>nd</sup> Street SE, Puyallup, WA 98371. The subject property is currently owned by the City of Puyallup, and the City intends to redevelop the property.  
<https://matterhornwab.co.pierce.wa.us/publicgis/>



There are known environmental concerns at the subject property, which include releases of hazardous substances that have impacted subsurface soil, groundwater and soil gas. The purpose of this memo is to briefly summarize those impacts and identify environmental considerations potentially affecting site redevelopment.

Environmental considerations are summarized in this memorandum at a planning level phase. It is understood that a more detailed evaluation of identified considerations would be appropriate should redevelopment proceed to design phase.

## **ENVIRONMENTAL REVIEW**

### **State Cleanup Sites**

The property is currently related to two State of Washington Department of Ecology (Ecology) Identified Environmental Cleanup Sites, summarized as follows:

#### Cleanup Site #1:

- Site Name: Cornforth Campbell Motors Inc. Main Facility
- Address: 115 2<sup>nd</sup> Street SE
- Parcels: 7060000-020 and -030
- Property owner: City of Puyallup
- Ecology Cleanup Site ID: 5682
- Ecology Facility Site ID: 21357393
- Current Status: Cleanup Started

#### Cleanup Site #2:

- Site Name: Cornforth Campbell Motors Inc.
- Address: 107 3<sup>rd</sup> Street SE
- Parcel: 0420273133
- Property owner: Ezra Meeker Historical Society
- Ecology Cleanup Site ID: 1194
- Ecology Facility Site ID: 56415898
- Current Status: Cleanup Started

Cleanup Site #2 is related to the Dry Cleaner site on the east side of 3<sup>rd</sup> Street. However, the contamination plume extends onto the subject property parcels 7060000020 and 7060000030 and were therefore considered part of the Cleanup Site #2 per Ecology definition of the 'Site'. It is important to note that while the subject parcels contain co-mingled 'dry cleaner' solvent contamination, the source of that solvent was from the Cleanup #2 property address.

### **Document Review**

PBS reviewed the following documents:

1. Further Action Determination – FS ID: 21357393 and FS ID: 56415898 (Ecology, August 2006).
2. Cleanup Action Progress Report - Cornforth Campbell Motors, Dry Cleaner Site, 107 3rd Street SE (Farallon, July 7, 2021).
3. Addendum to Cleanup Action Progress Report (Farallon, November 24, 2021).
4. Draft Figure 2 (Farallon, May 20, 2022).

### **Overview**

The Cornforth Campbell Motors Main Facility (Cleanup Site #1) is characterized by having known releases related to fuel storage and operation, including underground storage tanks (USTs). The former dry cleaner Site (Cleanup Site #2) had releases of chlorinated hydrocarbon related to drycleaning operations that affected the subject property parcels. The releases resulted in confirmed impacts to soil, groundwater, and soil gas on the subject parcels.

Since approximately 2000, significant environmental site characterization activities, remedial soil excavation, remedial solution injections and monitoring have occurred.

Contaminated soil and groundwater currently remain at the cleanup site(s), at concentrations that exceed the adopted cleanup criteria. However, the subject property has been largely remediated and impacted media appears to be isolated to the eastern portion of the property and beneath 3<sup>rd</sup> Street SE.

### **IDENTIFIED ENVIRONMENTAL CONSIDERATIONS**

The following are considerations that may impact property redevelopment:

1. Managing contaminated media
2. Mitigation of potential vapor intrusion
3. Impacts to stormwater management design
4. Potential regulatory institutional control (environmental covenant) requirements

Further detail related to these considerations is presented below.

### **Contaminated Media Management**

Managing contaminated soil and groundwater, if encountered, can increase cost and impact schedule. The pre-construction development of a Contaminated Media Management Plan (CMMP) may assist in streamlining schedule and preparing for and tracking cost.

The purpose of a CMMP is to provide information regarding the location, type, and source of contaminated media (soil, groundwater, soil gas) present at the Site, and to assist the Contractor with proper handling and disposal procedures. The volume or amount of contaminated disturbed or requiring off-site disposal is based on the development design, land-use, and depth of footing or foundations for the project, among other factors.

The following elements are included in a CMMP:

- Information on current environmental conditions and contaminants of concern.
- Roles and responsibilities of project team members for the CMMP.
- Procedures for the management and sampling of new discoveries of contaminated materials.
- Procedures for the storage of contaminated soil or debris in stockpile or staging piles awaiting sampling, classification, load-out, and disposal (should temporary storage occur).
- Required documentation for contaminated material handling, storage, loading, and disposal.

### **Vapor Intrusion Mitigation**

Subsurface soil gas that has been impacted by contaminants has the potential to migrate into indoor air and adversely impact indoor air (vapor intrusion: VI). The pre-construction development of a Vapor Mitigation System (VMS) will allow for the Contractor to present cost and schedule in the bidding phase.

The VMS creates a preferential pathway for subsurface vapors to be collected from below building foundations and conveyed to outside the building envelop through ventilation piping. Vapors in the sub-slab permeable layer can migrate into perforated horizontal pipes and vent through vertical pipes that extend to an outdoor location. A vapor barrier exists between the permeable layer and the building concrete slab.

A VMS designed specifically for this development may include the following components.

- Permeable Layer - The permeable layer between the ground surface and the building floor consists of an 8-inch thick layer of relatively uniform sized clean crushed rock. The layer is connective and has a vapor expulsion pathway. Should the permeable layer beneath a portion of the building be "disconnected" (e.g., isolated by spread footings or on a different elevation), that section will have its own vapor expulsion pathway.
- Sub-slab Depressurization System - A network of 4-inch diameter perforated horizontal pipes that run through the permeable layers (minimum 2-inch crushed rock above and below) creates a vapor expulsion pathway that connects to vertical risers.
- Vapor Membrane - The vapor membrane is an impermeable polyurethane product, which is placed between the sub-slab gravel pack and the building slab. The membrane is placed with 100% coverage beneath the horizontal concrete slab (four primary elevations), is wrapped (boot-strapped) around footings and other vertical foundation structures in accordance with manufacturer recommendations. The membrane is sealed around concrete slab penetrations.

The above-grade VMS may include the following components.

- Vertical risers that are connected to the sub-slab vent pipe network and extend to outdoor air. The vertical risers are four-inch diameter.
- The top of the riser shall have a non-restrictive rain guard and be minimum 10-feet distant or 3-feet above any openable window, door, air intake or vent shaft.
- An in-line fan is installed at each vertical ventilation pipe. The in-line fan will require accessible timer and shut-off switch meeting hazard classification for the location.
- A programmable timer is installed to control power to each fan.
- A vapor sample port installed in the vertical riser at an elevation below the in-line fan.

### **Stormwater Management**

Management of stormwater shall not result in increased mobilization of contaminants. As such, stormwater design should factor in the location of known contaminated media and be designed so that stormwater infiltration will be laterally separated or vertically beneath areas of contaminated soil/groundwater.

### **Institutional Controls - Environmental Covenant**

The property will require continued management as a Cleanup Site and meet the substantive requirements of the Model Toxics Control Act (MTCA) Cleanup Regulations. Should contamination remain in place as part of the redevelopment, it is likely that regulatory closure would be contingent upon Institutional controls being formally put in place in the form of an Environmental Covenant.

Institutional Controls are legal or administrative measures undertaken to limit or prohibit activities that interfere with the integrity of a cleanup action or that may result in exposure to hazardous substances at a site. Examples include use control areas, easements, zoning restrictions, and deed notices. In most cases, the institutional controls must be recorded as part of the property deed to warn future property owners of the condition and to restrict activities or use of the property that could result in exposure to the contamination.

The regulation specifies those circumstances where institutional controls are required as part of a cleanup action.

- (1) sites where contamination remains at concentrations that exceed the established Method A or B cleanup levels;
- (2) sites where Method C is used to establish cleanup levels;
- (3) sites where soil cleanup levels are established based on industrial land use, and
- (4) sites where a conditional point of compliance is used.

**CLOSING**

PBS is pleased to present this memorandum. Please contact me at (206) 233-9639 or [ken.nogeire@pbsusa.com](mailto:ken.nogeire@pbsusa.com) with any questions or comments.

Sincerely,

Ken Nogeire, LHG  
Senior Geologist  
PBS Engineering and Environmental Inc.



Reviewed by: Tom Mergy, LHG  
Environmental Services Department Manager