

To:	Guy Barrett, Washington Department of Ecology	
From:	Barb Morson	Project: WVFA Project: Schedule 2 Rail Access / Project #16
Copy:	Patty Boyden, Port of Vancouver Matt Graves, Port of Vancouver Kim Shaffer, Port of Vancouver Monty Edberg, Port of Vancouver	
Date:	March 5, 2012	Job No: 176820
Re:	Former Fort Vancouver Plywood Site Well Relocations	

Introduction

The purpose of this document is to request approval from the Washington Department of Ecology (Ecology) to disturb portions of the Cell 1 cap on the Former Fort Vancouver Plywood property to relocate monitoring wells. The Port of Vancouver (port) is developing portions of the Former Fort Vancouver Plywood site as part of the West Vancouver Freight Access (WVFA) Project. The Schedule 2 Rail Access / Project #16 is a subset of the WVFA Project and will connect the Schedule 1 track alignment to the east and Great Western Malting to the west.

Construction of the pile-supported trench is divided into two main phases. The first construction phase, referred to as Design Package One, involves site preparation, construction of sheet piling retaining wall, construction of permanent retaining walls, installation of a portion of the structural steel piling for the project, utility modifications, construction of an access ramp from the Pacific Coast Shredding leasehold to the project site, and removal of existing concrete debris along the shoreline for mitigation. The second construction phase, referred to as Design Package Two, involves construction of additional retaining walls, installation of remaining structural steel piles, construction of the concrete base and sidewalls for trench structure, as well as final grading and track construction.

This request for approval from Ecology encompasses activities associated with relocating monitoring wells. The remainder of the request for disturbance to Cells 1 and 2 will be provided under separate cover.

Figure 1 in Attachment A depicts the location of the proposed footprint of the Schedule 2 Rail Access / Project #16 within Cells 1 and 2 of the Former Fort Vancouver Plywood site. In addition, the locations of monitoring wells C1-MW-3, C1-MW-5, and C1-MW-8, which are proposed for relocation, are shown on Figure 2.

Well Relocation Details

Monitoring wells C1-MW-3, C1-MW-5, and C1-MW-8 will be relocated due to their current location within the trench footprint (C1-MW-3 and C1-MW-8) and adjacent to proposed utility construction activities (C1-MW-5). These three monitoring wells will be abandoned and monitoring wells C1-MW-3 and C1-MW-5 will be relocated before July 1, 2012. Relocation of monitoring well C1-MW-8 will occur in summer or fall 2012.

Monitoring Wells C1-MW-3 and C1-MW-5

Monitoring wells C1-MW-3 and C1-MW-5 will each be relocated approximately 10 to 15 feet north of their existing locations, near the southern boundary of the new Pacific Coast Shredding property line. Proposed locations for the replacement monitoring wells are shown in Figure 2.

Monitoring well C1-MW-3 will be installed within the concrete-pavement portion of the Cell 1 cap. The well will be installed by saw cutting through the existing concrete cap, removing the underlying sand using a vacuum truck, and cutting the exposed geomembrane to allow installation of the well string. Upon completion of the well, the saw cut within the existing cap will be further expanded to allow access to the geomembrane and vault. A geomembrane boot will be installed around the well vault and welded to the existing geomembrane. Sand will be reinstalled over the geomembrane, new concrete pavement will be installed, and Akwastop hydrophilic rubber concrete joint waterstop will be installed around the well vault and other pavement joints. Figure 3 provides construction details for the monitoring well completion.

Monitoring well C1-MW-5 will be relocated within the asphalt pavement cap. The well will be installed by saw cutting through the existing asphalt cap and digging out the underlying material, to allow installation of the well string. Upon completion of the well, fill material will be replaced as needed, followed by 3 inches of crushed surfacing base course, 3 inches of low permeability asphalt concrete, and 6 inches of standard asphalt. Loop sealant will be installed around the perimeter of the well vault and other pavement joints. Low permeability asphalt and standard asphalt joints will be offset to minimize the possibility of water seepage through the seams. Figure 3 provides construction details for the monitoring well completion.

Following installation, the wells will be surveyed by a state of Washington-licensed Land Surveyor.

The existing monitoring wells will be abandoned in accordance with Washington Administrative Code (WAC) 173-160-381. In addition, the concrete pavement and asphalt pavement caps will be repaired as described above at the locations of the abandoned monitoring wells.

Monitoring Well C1-MW-8

During a February 24, 2012 site visit with representatives from Ecology, the port, HDR, and Pacific Coast Shredding, participants determined replacing monitoring well C1-MW-8 concurrently with the replacement of wells C1-MW-3 and C1-MW-5 was premature as design work for that portion of the project (Design Package Two) has not been completed. Ecology would prefer the new location for well C1-MW-8 be as far south as possible and expressed concern that the proposed location north of the trench was too far inland for the well to be an effective sentinel well. Notes from the February 24, 2012 on-site meeting are provided in Attachment B. Based on the preliminary design, a small portion of the Cell 1 cap will remain south of the rail trench structure. Because of the uncertainty regarding the amount of the Cell 1 cap that will remain in place following trench construction, and concerns that a well placed south of the trench structure may be damaged during construction of the sheet pile walls, the monitoring well replacement for C1-MW-8 will be delayed until summer or fall 2012. When design details are complete for this area, the port will communicate the new location to Ecology with a request for approval and well completion details.

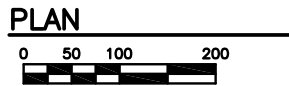
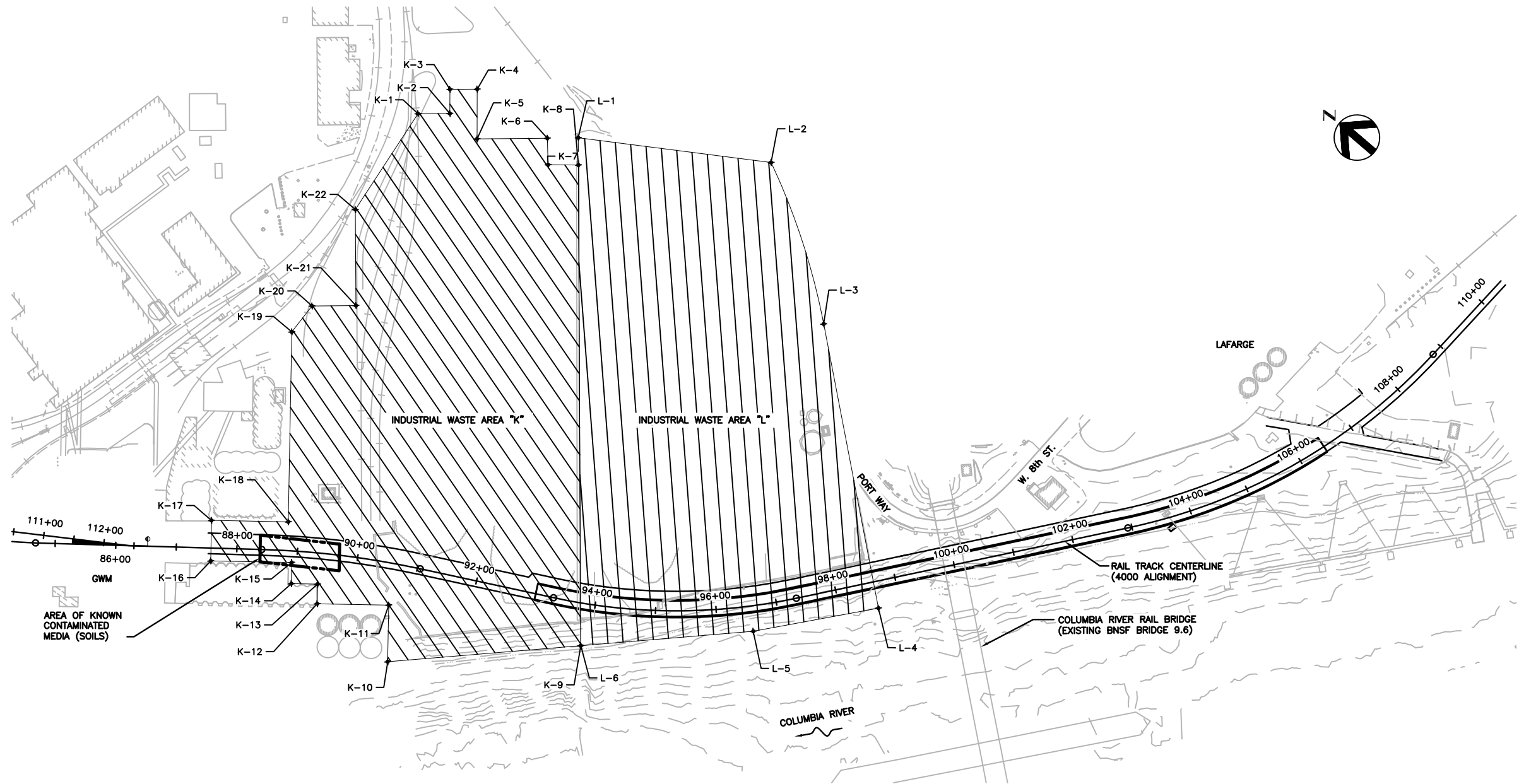
Reporting

The port will provide Ecology with a Well Relocation Report within 60 days following the relocation of C1-MW-8.

Attachment A

Figures

C:\pwworking\seo\0623669\16-CMMP_Figure.dwg



INDUSTRIAL WASTE AREA "K"		
POINT NO.	NORTHING	EASTING
K-1	116131.00	1080562.16
K-2	116091.23	1080596.61
K-3	116117.23	1080627.01
K-4	116083.22	1080656.48
K-5	116029.83	1080594.07
K-6	115942.50	1080670.42
K-7	115913.08	1080638.02
K-8	115874.82	1080670.20
K-9	115355.00	1080070.39
K-10	115579.58	1079842.68
K-11	115639.20	1079914.83

INDUSTRIAL WASTE AREA "K"		
POINT NO.	NORTHING	EASTING
K-12	115730.24	1079839.61
K-13	115750.88	1079864.59
K-14	115784.26	1079837.00
K-15	115806.55	1079863.99
K-16	115909.62	1079778.84
K-17	115952.30	1079830.49
K-18	115854.58	1079911.23
K-19	116054.40	1080153.08
K-20	116056.85	1080207.23
K-21	116002.37	1080254.95
K-22	116106.36	1080374.73

INDUSTRIAL WASTE AREA "L"		
POINT NO.	NORTHING	EASTING
L-1	115904.29	1080704.21
L-2	115636.16	1080880.46
L-3	115396.63	1080734.61
L-4	115022.55	1080437.32
L-5	115154.46	1080273.72
L-6	115355.00	1080070.39



A/E PROJECT NUMBER: 176819

DRAWING SCALE:
AS SHOWN
DRAWN BY:
AEA
APPROVED BY:
CBM
DATE:
1/20/2012

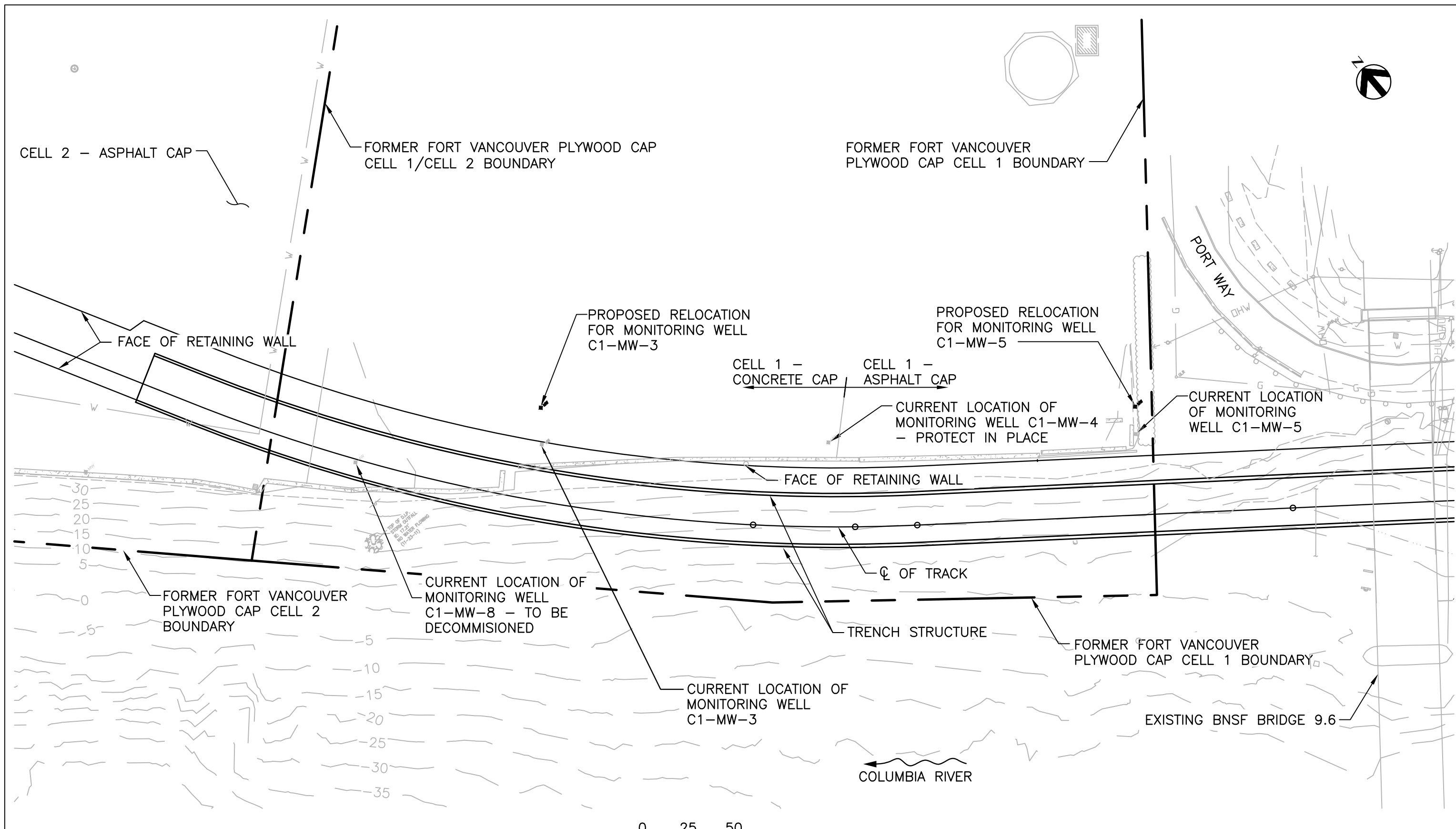
REVISION
NO. DATE.

WEST VANCOUVER
FREIGHT ACCESS PROJECT
TRENCH - DESIGN PACKAGES
ONE AND TWO

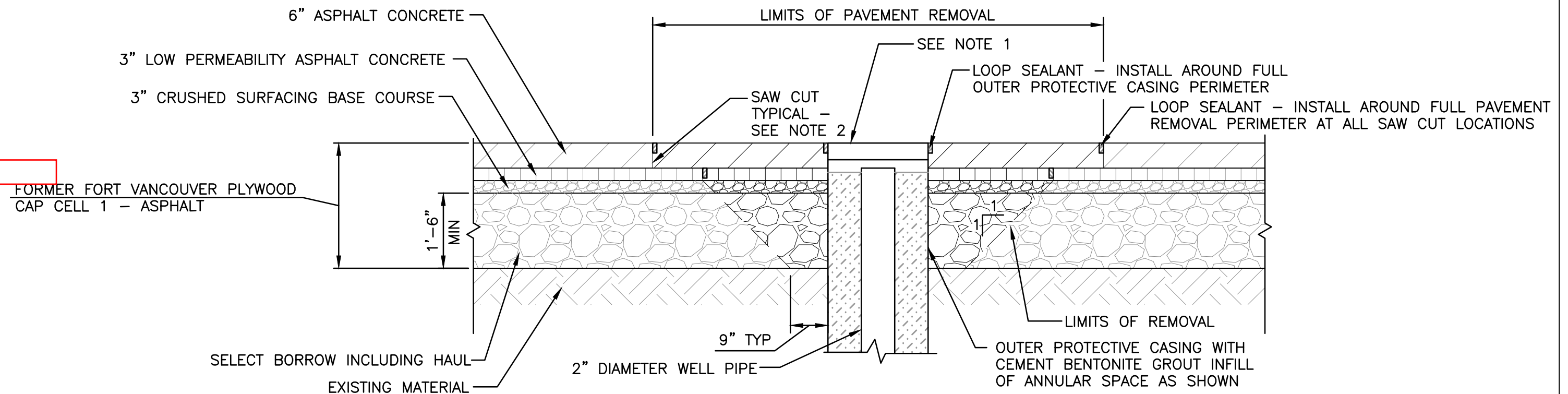
Port of Vancouver USA
3103 N.W. LOWER RIVER ROAD
VANCOUVER, WA 98660-1027
(360) 693-3611 FAX (360) 735-1565

SHEET CONTENTS
Contaminated Media
Locations for
Schedule Two Rail
Access / Project #16

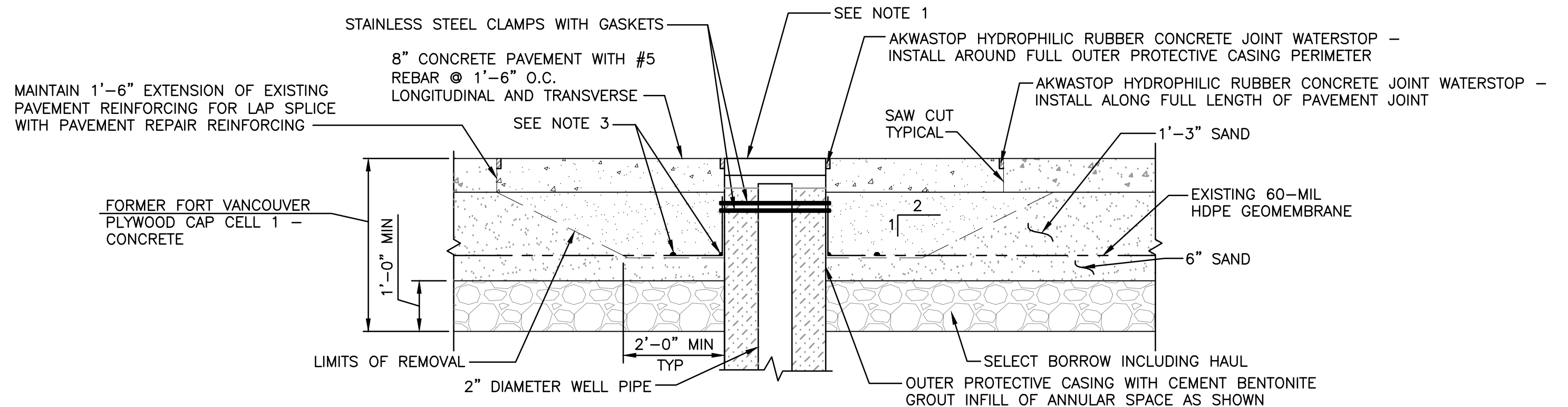
DRAWING NUMBER
FIGURE-1
SHEET NUMBER 1 OF 1
POV PROJECT NO:
CP014416



WEST VANCOUVER FREIGHT ACCESS PROJECT SCHEDULE TWO RAIL ACCESS / PROJECT #16 MONITORING WELL RELOCATION PLAN	
DATE	2012/03/23
FIGURE	1



INDUSTRIAL WASTE AREA "L" - ASPHALT CAP WELL RELOCATION DETAIL
NTS



INDUSTRIAL WASTE AREA "L" - CONCRETE CAP WELL RELOCATION DETAIL
NTS

NOTES:

1. DRIVABLE WELL CAST IRON COVER MEETING REQUIREMENTS OF ASTM A-48, CLASS 30.
2. STAGGER SAW CUTS BETWEEN 6" ASPHALT CONCRETE AND 3" LOW PERMEABILITY ASPHALT CONCRETE LAYERS 1'-0" MINIMUM.
3. PROVIDE HDPE GEOMEMBRANE BOOT SLEEVE WITH EXTRUSION WELDS AS SHOWN.

HDR

**WEST VANCOUVER FREIGHT ACCESS PROJECT
P16 TRENCH
MONITORING WELL RELOCATION DETAILS**

DATE	2012/02/13
FIGURE	3

Attachment B

Notes from February 24, 2012 Site Visit

Morson, Barbara J.

From: Morson, Barbara J.
Sent: Tuesday, February 28, 2012 9:35 AM
To: Greg Westrand; 'Matt Graves'; McManus, Corey; Hawkins, Kimberly A; 'Ryan Galbreth'; 'Barrett, Guy E. (ECY)'
Cc: Cleveland, Leandra L.; Hale, Scott
Subject: REISSUE: WVFA Schedule 2 Project 16 Trench Project Well Relocations

NOTE: ONLY CHANGE IS TO ADD A LIST OF ATTENDEES and date of meeting

All – below are my understandings with regard to our meeting Friday, February 24 at PCS. Thanks to everyone for their participation.

Attendees:

Port – Greg Westrand, Matt Graves

Ecology – Guy Barrett

HDR – Cory McManus, Barb Morson, Kim Hawkins

PCS – Neil Fitzpatrick, Kathy Balogh

Cascade Drilling – Ryan Galbreth

Well Relocations – general

- The last week of March 23-30 time period appears to be a good time period for installation
- Weekend work looks like it would be best and the timing of March 24/25 appears to work for PCS for as much work as possible to occur.
- PCS will move debris, barriers, and piles of metal as required to allow access for the drill rig and staging area needs.
- Private utility locates should be done as close as possible to drilling. The paint will not last for more than 1-2 days.
- Staging can be done near well C1-MW-5 and in the PCS box yard. The driller will have chase truck, decon trailer and needs room to store auger flights and drums. They may also have a forklift on-site to move auger and drums.
- The drill rig is 31 feet long.
- The driller will move drums to a Port-designated location for subsequent testing and disposal.
- Cascade will use heavy duty Sherwood monuments or equivalent on the well completions.
- Where possible, Cascade will place metal plates over holes to prevent access and provide protection to the newly installed concrete during curing.
- Ecology agreed with the decisions made on site for the well relocations. These will be documented in the request for Ecology's approval to disturb the caps that will be provided to Ecology within the next week-10 days or so.

Well C1-MW-5

- This well will be moved approximately 10-15 feet north of its current location.
- PCS will move debris and E-block barriers out of the way to allow access for the drill rig.

Well C1-MW-3

- This well will be moved approximately 10-15 feet north of its current location.

- PCS will move metal piles as needed to allow utility locates and access for the rig.
- During installation of the replacement well, Cascade would prefer to orient the drill rig parallel with the access road to protect the work crew from passing vehicles. In addition, Cascade is requesting an unobstructed space to the north of the drill rig for the driller's helper(s) to work.

Well C1-MW-8

- This well will be decommissioned only, and not re-installed until design on Design Package 2 is further along, and possibly until after construction is underway.

Cell 2 Contaminated Soil

- Since the cap will not be replaced within the trench, Ecology prefers to have all contaminated soil removed during construction so as not to provide a new exposure pathway that would allow petroleum contaminated soil to reach the river.
- Confirmation sampling will be required.

Geotech boring SW-LB-5

- Ecology would like the well developed and a groundwater sample taken for the same constituents that were identified in soil.
- Ecology believes that the simplest way to manage this site will be to modify the restrictive covenant to add the wedge of land that the Port owns and identify the contaminants involved.

ACTION ITEMS

- Cascade to modify quote to incorporate new information based on the field visit
- HDR to firm up exact dates for utility locates and drilling with Cascade, PCS and Port.
- HDR to provide Request to **disturb** the caps to Ecology, following Port final review.

If I have mis-stated or missed something, please let me know and I will send out a corrected version.

...Barb

BARBARA MORSON

HDR Engineering
Managing Principal

606 Columbia Street NW, Suite 200 | Olympia, WA 98501

360.570.4421 | c: 360.481.5849

barbara.morson@hdrinc.com | hdrinc.com

Follow Us – Architizer | Facebook | Twitter | YouTube | Flickr