

Memo



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To: Halie Endicott (US Army Corps of Engineers)
From: Hannah Briley, Melisa Kegans, and Brad Grimsted (PIONEER Technologies Corporation)
Cc: Jeff King (PERC), Laura Bartenhagen (ESM)
Date: January 21, 2021
Subject: Ditch Interim Action for the Superlon Plastics Site, Tacoma, Washington
Revegetation Plan

The purpose of this memo is to document the activities that will occur following the completion of the Interim Action (IA) outlined in the Joint Aquatic Resources Permit Application (JARPA) Form submitted to the Army Corps of Engineers for the Superlon Plastics Site in Tacoma, Washington. This work is being conducted in accordance with the Model Toxics Control Act (MTCA) Chapter 173-340 of the Washington Administrative Code (WAC) under Agreed Order No. DE 5940. The IA is addressing arsenic and lead that are present in the ditch adjacent to the Superlon property and potentially associated with the Superlon site. The objectives of the IA are to:

1. Remove the biologically active zone of the sediment (defined as up to 12 inches) of approximately 380 linear feet of the sediment in the ditch in widths varying from 9 feet to 16 feet.
2. Remove the berm soils between the edge of the ditch and the Superlon property from the excavation limits (see Figures 2 and 3) where the arsenic and lead concentrations exceed MTCA industrial cleanup standards.
3. Remove remaining berm soil between the Superlon/Port of Tacoma property line and the western limits of the excavations previously conducted on the Superlon property to remediate arsenic and lead concentrations exceeding Site-specific remediation levels (RELS).

The excavator will not enter the ditch as it will remain on the berm soil throughout the excavation process.

Current Site Conditions

There is limited vegetation at the area where the interim action will occur. There is a single, large tree at the south end of the ditch area. There are light brambles and brush surrounding the perimeter that connects the properties along the fence line. Common species include Himalayan blackberry (*Rubus armeniacus*), butterfly bush (*Buddleja* spp.), Scotch broom (*Cytisus scoparius*), Japanese knotweed (*Polygonum cuspidatum*), reed canarygrass (*Phalaris arundinacea*), Canadian thistle (*Cirsium arvense*). The property is currently being used as a drainage ditch for adjacent industrial properties (see Figure 1).

The ditch consists of patches of freshwater wetland vegetation species (cattails and reed canary grass) overlying approximately 6.5 feet of sediment collected within the ditch since it was constructed as a result of soil backfilling of the surrounding properties between 1969 and 1973. The sediment consists of clay-rich silt with varying degrees of organics. Water occurs intermittently within the ditch mostly in the months of November through June.

Prior to the remediation of asphalt tar oil within the ditch in 2015 a thick mat of organic material sat on top of the sediment. During the asphalt tar oil spill cleanup all of the freshwater wetland vegetation was removed leaving the ditch barren. This vegetation has regrown to its post-remediation state naturally. No re-vegetation or planting occurred.

Ditch IA Revegetation Plan and Monitoring

The sediment and berm will be restored to existing conditions using clean soil, clay, and seed. Soil, including pond grade clay, will be obtained from a commercial source and used to regrade the ditch berm to match the current elevation grade, and re-vegetated consistent with Washington State Department of Transportation (WSDOT) procedures. The work is currently scheduled for June 2021 through August 2021.

A wood fiber erosion control blanket will be stapled longitudinally (parallel) along the ditch side slope in order to facilitate seed germination. The wood fiber absorbs water and protects against soil movement which help seeds to germinate. The area will be planted with seed and fertilizer in accordance with WSDOT's Standard Specifications for Road, Bridge, and Municipal Construction, Erosion Control and Roadside Planting (WSDOT 2010). Following the restored area being seeded, the ditch will be monitored monthly for the first year to confirm that germination occurred, and that vegetation is growing. If the seed does not germinate within 3 months after being seeded, the ditch will be re-seeded. The restored area will be evaluated in the spring of the following year to determine percent coverage. In accordance with the WSDOT Temporary Erosion and Sediment Control Plan, if the area does not have at least 70% vegetative coverage, then additional seed will be applied during the WSDOT recommended periods (March 1 through May 15 or September 1 through October; WSDOT 2019) until the area is at least 70% vegetated.

References

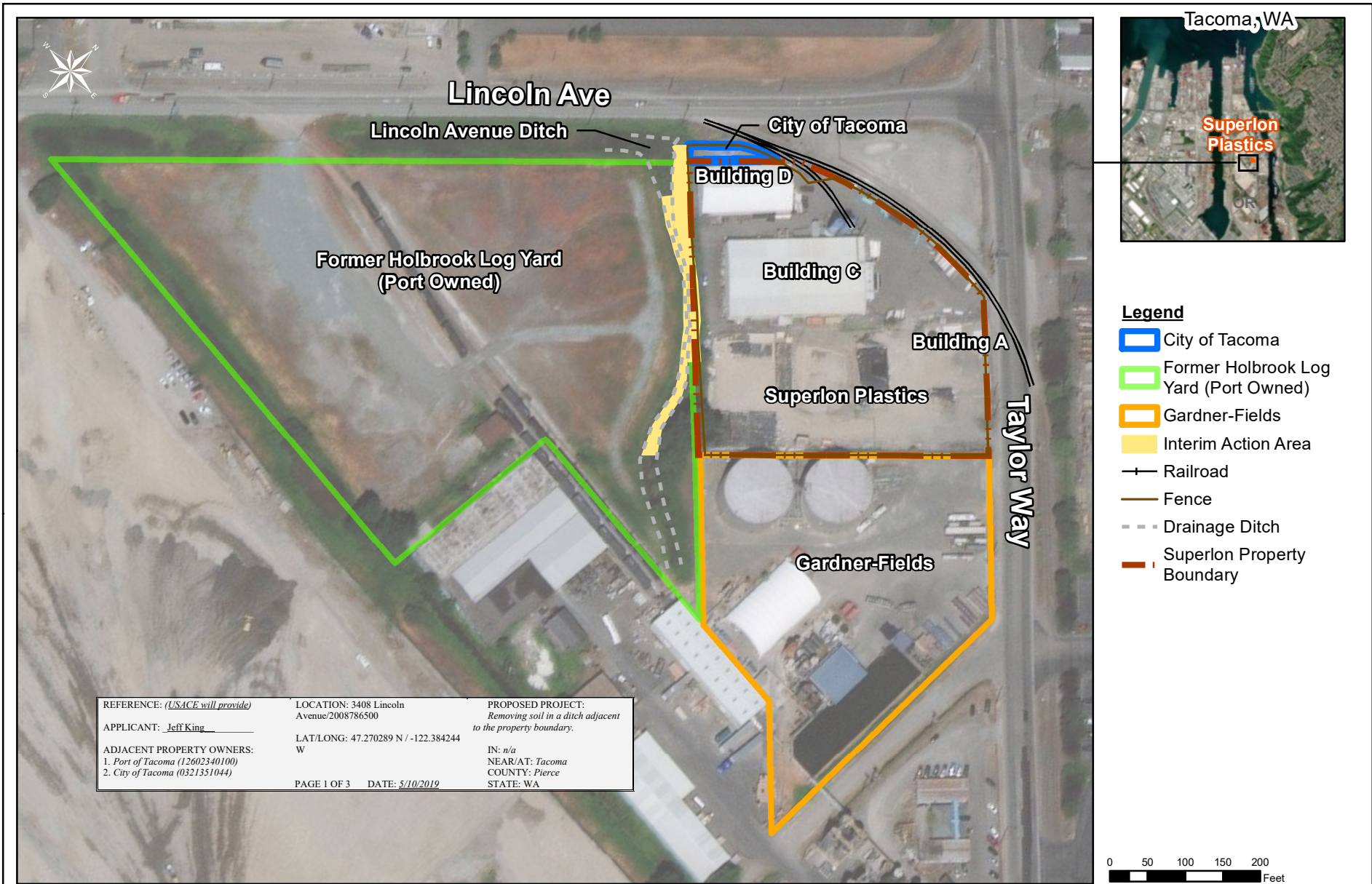
- PERC/PIONEER. Phase III Interim Action Work Plan - Ditch Remediation Version 2 for the Superlon Plastics Site, Tacoma, Washington. August 31.
- WSDOT. 2010. Standard Specifications for Road, Bridge, and Municipal Construction. M 41-10.
- WSDOT. 2019. Washington State Department of Transportation Temporary Erosion and Sediment Control Manual. May.

Enclosures

- | | |
|----------|--------------------------------------|
| Figure 1 | Site Features |
| Figure 2 | Interim Action Work Area |
| Figure 3 | Interim Action RAU and EU Work Areas |

Figures

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Site Features
Ditch Interim Action
Superlon Plastics Site, Tacoma, Washington

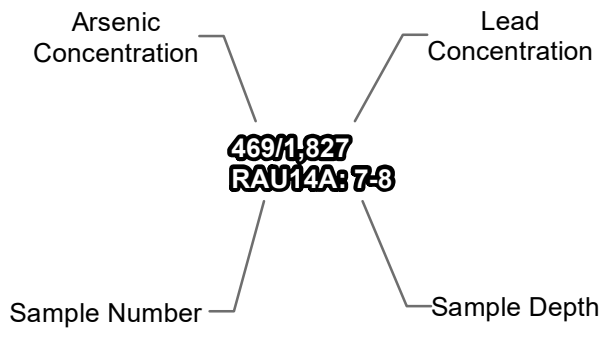
Figure 1

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double-sided printing.

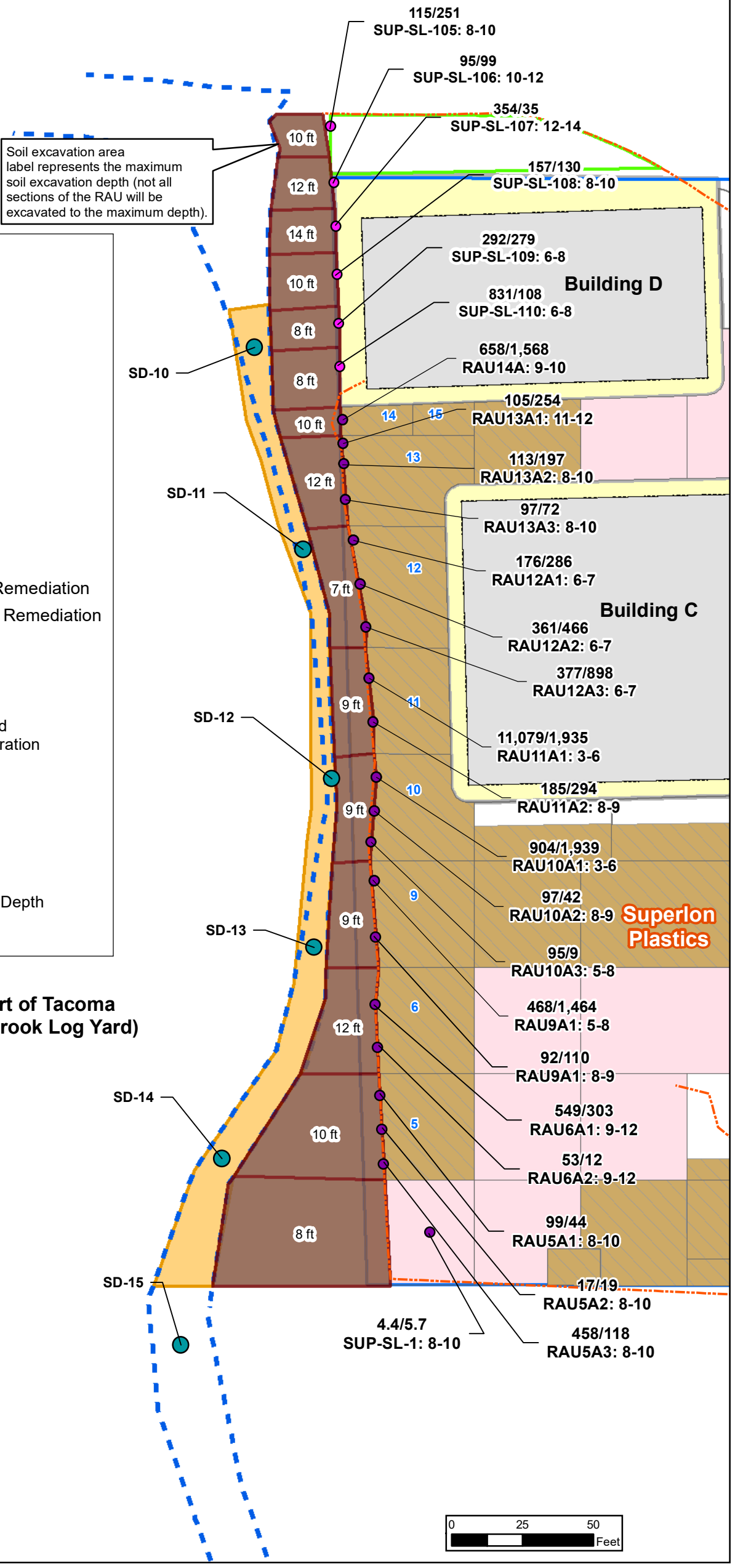


Legend

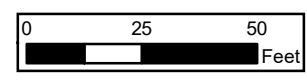
- Ditch Excavation Area
 - Berm Soil Excavation Depths
 - Side Wall Sample
 - Direct Push Sample
 - Ditch Sample Location
 - Temporary Chain-link Fence
 - City of Tacoma
 - Property Boundary
 - Drainage Ditch
 - Building Footprint
- On-Property Remedial Features**
- Soil Remedial Action Units that Require Remediation
 - Soil Remedial Action Units Not Requiring Remediation
 - Soil Remedial Action Units Completed
 - Soil Areas Not To Be Remediated



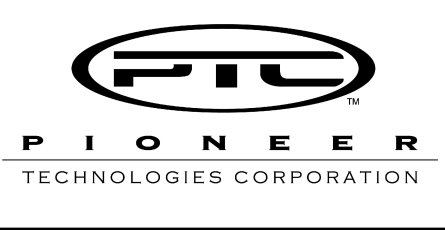
**Port of Tacoma
(Holbrook Log Yard)**



Reference Number:
 Applicant Name: Jeff King
 Proposed Project: Removing Soil
 Location: 3408 Lincoln Ave
 Sheet 2 of 4
 Date: 5/9/2019
 Updated: 5/7/2020



Document Path: G:\Projects\Superlon\Maps\2019\Feb\Fig_2_Ditch_Expansion_Areas.mxd; Author: MK; Date Saved: 5/7/2020



**Interim Action Work Area
Ditch Interim Action
Superlon Plastics Site, Tacoma, Washington**

Figure 2

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double-sided printing.



Legend

- Ditch Excavation Area
- Berm Soil Excavation Depths
- Temporary Chain-link Fence
- City of Tacoma
- Property Boundary
- Drainage Ditch
- Building Footprint

On-Property Remedial Features

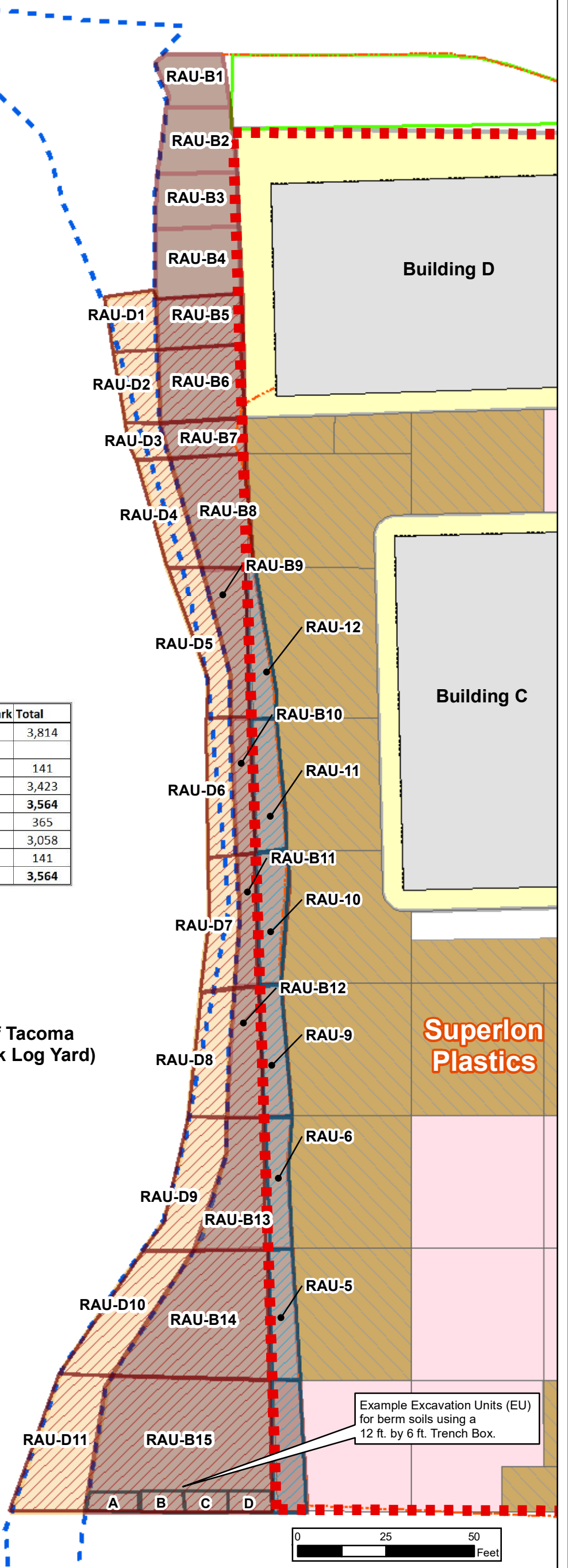
- Soil Remedial Action Units that Require Remediation
- Soil Remedial Action Units Not Requiring Remediation
- Soil Remedial Action Units Completed
- Soil Areas Not To Be Remediated
- Interim Action Excavation Unit
- Interim Action Remedial Action Units
- Superlon Plastics Site Remedial Action Units

Item	Units	Below the OHW Mark	Above the OHW Mark	Total
Excavation Area	square feet	3,814	0	3,814
Excavation Volume Sediment	cubic yards	141	0	141
Excavation Volume Soil	cubic yards	3,423	0	3,423
Total Excavation Volume	cubic yards	3,564	0	3,564
Fill Volume Clay	cubic yards	365	0	365
Fill Volume Soil	cubic yards	3,058	0	3,058
Fill Volume Ditch Mix	cubic yards	141	0	141
Total Fill Volume	cubic yards	3,564	0	3,564

Notes:
 * The values in this table are excavation area and volume estimates. The Ordinary High-Water Line (OHW) is 8.51, using the NAVD88 Datum, for Tacoma, WA (NOAA 2017). Nominal amount of the total excavation volume will fall above the OHW (approximate to or less than 1% of the total excavation volume). All excavation volumes fall below the OHW mark.

Port of Tacoma
(Holbrook Log Yard)

Superlon
Plastics



Reference Number:

Applicant Name: Jeff King

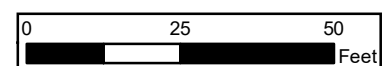
Proposed Project: Removing Soil

Location: 3408 Lincoln Ave

Sheet 3 of 4

Date: 8/3/2020

Example Excavation Units (EU)
for berm soils using a
12 ft. by 6 ft. Trench Box.



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Interim Action RAU and EU Work Areas
Ditch Interim Action
Superlon Plastics Site, Tacoma, Washington

Figure 3

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