Supplemental Phase III Interim Action Work Plan –Ditch Remediation

Ditch Work Area Expansion and Additional Characterization Sampling Plan

for the

Superlon Plastics Site
Tacoma, Washington

Prepared for:

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and

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1. Introduction

This Supplemental Phase III Interim Action Work Plan (IA Work Plan) presents the approach that will be used to conduct an additional phase of work for the Washington State Department of Ecology (Ecology)-approved IA necessary to remediate the drainage ditch in the vicinity of the Superlon Plastics Property (Property), located at 2116 Taylor Way, Tacoma, Washington (Figure 1). As documented in the *Public Review Draft Phase III Interim Action Work Plan – Ditch Remediation* (Phase III IA Work Plan - PERC/PIONEER 2021), the initial phase of the ditch remediation focused on part of the drainage ditch that separates the Property from the neighboring parcel owned by Port of Tacoma (POT), located at 3408 Lincoln Avenue in Tacoma, Washington. The expanded section of the ditch to be remediated is located on POT-owned properties at 3208 and 3408 Lincoln Avenue and is within the City of Tacoma right-of-way (COTROW) adjacent to Lincoln Avenue (Figure 2). The anticipated expanded IA area is approximately 12,900 square feet in size; 446 feet in length with a maximum width of 38 feet (Figure 2, Figure 4).

This plan has been prepared on behalf of the White Birch Group, LLC (White Birch) and the Chemours Company FC, LLC (Chemours). These companies are hereafter referred to as the Companies. The Companies have retained Pacific Environmental and Redevelopment Corporation (PERC) and Pioneer Technologies Corporation (PIONEER) as their authorized agents to complete the work described in this Work Plan. The work will be completed in accordance with the State of Washington Model Toxics Control Act (MTCA), Chapter 173- 340 of the Washington Administrative Code (WAC) under Agreed Order (AO) No. DE 5940.

Under the AO, the Companies are allowed to implement IAs to improve site conditions. Phase I IAs consisted of the demolition of Building B and the removal of Occidental Chemical Waste Water sludge, and Phase II consisted of removing the soil beneath the former Building B. An additional IA to excavate arsenic and lead contaminated soils within the Superlon property boundaries has been underway since 2018.

The Phase III IA Work Plan was approved by Ecology in June 2021, after opportunity for public review and comment. As noted above, the initial phase for ditch remediation focused on the section of the ditch lying between the Superlon and Port of Tacoma properties. This supplement to the Phase III IA Work Plan expands the extent of the remediation to address additional contaminated sediments and soils within the ditch that were encountered at the limits of excavations during the initial phase. The purpose of this IA (i.e., ditch remediation expansion) is to improve site conditions in a manner that is protective of human health and the environment.

PERC will oversee this work. PIONEER will perform the characterization sampling. The Project Laboratory, if needed, will be ARI Laboratories, Inc. of Tukwila, Washington. PERC Construction (PERCCON) of Snohomish, Washington will be the general contractor. Analyses of sediment samples will be done at the on-Property laboratory.

2. Background

Ditch sediment and surface water characterization was previously undertaken and the results were provided to Ecology in the *Technical Memorandum: Phase I and II Remedial Investigation for the Superlon Plastics Site* (PERC/PIONEER 2012). However, conditions changed as a result of Gardner-Fields Products (a roofing and waterproofing products manufacturing business adjacent to the Property) releasing approximately 70,000 gallons of asphalt tar oil into the ditch on February 8, 2015 (Ecology 2015).

Gardner-Fields retained ERM to remediate the asphalt tar oil in the ditch, which included the removal of sediment and ditch side slope soils. The scope of the asphalt tar oil remediation extended from the

headwaters of the ditch for approximately 600 feet to the northwest. Post-remediation sediment samples collected by ERM following remediation of asphalt tar oil within the ditch showed that elevated levels of arsenic (up to 330 mg/kg) and lead (up to 350 mg/kg) remained in the ditch (ERM 2015). Additional sampling of ditch sediments conducted in 2016 found elevated levels of arsenic and lead (up to 400 mg/kg and 170 mg/kg, respectively) and diesel and heavy oil (up to 4,600 and 660 mg/kg respectively) at the 0-0.5 foot depth, with lower levels of chemicals found in deeper sediments (PERC/PIONEER 2017).

The top twelve inches of material in the drainage ditch (i.e., the estimated biologically active zone) are considered to be freshwater sediments. Typically, dominant freshwater wetland vegetation species (cattails and reed canary grass) are observed throughout the ditch. Since the shallow sediments are considered to be freshwater sediments, the sediment concentrations were compared to Washington State Sediment Management Standards (SMS) Freshwater Sediment Cleanup Objectives (SCOs), and Freshwater Sediment Cleanup Screening Levels (SCSLs) (WAC 173-204-563).

Remediation of upland on-property soils adjacent to the ditch occurred in 2018. Some of the confirmation samples taken along the southwest sidewall of the excavations contained arsenic and/or lead concentrations above the Site's remediation Levels (RELs), indicating that soils on the side slope between the property line and the bottom of the ditch were also contaminated. These ditch side slope soils were designated as the 'berm' in the Phase III IA work plan.

The first phase of the Phase III IA took place between July and September 2021. The work completed included excavation and off-site disposal of contaminated sediments and berm soils adjacent to the Superlon property, confirmation sampling at the limits of excavation, backfill with clean materials, placement of a clay barrier between the Superlon Property upland and the ditch, and restoration of ditch side slope vegetation in accordance with a revegetation plan approved by the U.S. Army Corps of Engineers (PIONEER 2021). The report for the completed work is under development but not yet completed. During this work, confirmation samples of the edges of the ditch excavations were taken. Concentrations of lead and/arsenic exceeding cleanup goals were present in some of these samples.

3. Data leading to the need for additional ditch sediment characterization and remediation

During the remediation of the ditch berm and sediment in 2021, excavation sidewall samples collected from the northernmost excavation boundary of the sediment excavation contained concentrations of arsenic and lead that exceeded the Freshwater SCOs and Freshwater SCSLs promulgated by Ecology in the Sediment Cleanup User's Manual II (Ecology 2015b). This data is presented in the following table:

Table 1: CLEANUP GOAL EXCEEDANCES – Northernmost Excavation Boundary

Location North Excavation Sidewall RAU D1 (Figure 2)

SAMPLE ID	Top of Sample	Bottom of sample	As (mg/kg)	Pb (mg/kg)
RAU D1 - N - SW - 0-1	0	1	433	98.2
RAU D1 - N - SW - 1-2	1	2	1,340	39.5
RAU D1 - N - SW - 2-3	2	3	156	4.2

These concentrations were not expected since sediment sampling in the ditch in September 2016 showed maximum concentrations in the vicinity of the North Excavation Sidewall RAU D1 to be 16 milligrams per kilogram (mg/kg) and 1.9 mg/kg for arsenic and lead, respectively.[1]

4. Objective and Summary of the Proposed Expanded Interim Action

The objective of the work described in this work plan is to:

- Define the extent of arsenic and lead within the sediment and underlying soil[2] in areas of the ditch that have not been remediated;
- Remediate sediment and underlying soil up to three feet below ground surface (bgs) during the dry season in order to demonstrate compliance with cleanup goals (Section 6.4.2); and
- Restore the sediment in the ditch.

Weather and the presence of water in the ditch will impact the timing and completion of this work. If water in present in the ditch the sediment cannot effectively be excavated and/or sampled. Due to the limited time that the ditch is accessible to both equipment and personnel (late July to Early September), the planned work (sampling, excavation and restoration) will be done simultaneously during the time that the ditch is dry.

5. Required Permits and Approvals

The following permits and approvals must be obtained prior to the initiation of work:

- Ecology's approval of this Work Plan;
- A modification to the existing Nationwide Permit 38 number NWS-2019-613 (USACE, 2021) currently in-place with the U.S. Army Corps of Engineers (USACE). The modification of this permit would allow for the Companies to, through their representatives, obtain the necessary permits, and plan for and conduct additional remediation in the ditch during the dry weather season in 2022;
- An access agreement with the POT to conduct the work on POT property; and
- A modification to the existing right-of-way permit (RCON21-0118) with the City of Tacoma.

6. Proposed Scope of Work

6.1. Overview

This section presents the approach and methods that will be used to meet the objectives listed in Section 4. Following the completion of this IA, the Companies will submit a technical memorandum to Ecology and a Certificate of Compliance to the USACE documenting the completion of the work. Figure 2 shows the location where the IA activity will occur.

6.2. Work Area Preparation

Once the ditch is dry enough (typically the middle part of July) to allow for access by equipment, the ditch vegetation will be cut into chips using a Bobcat 442 with a brush cutting attachment (Photograph 1) or an equivalent. The chips will remain in-place and be excavated along with the sediment during the remediation phase.

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[1] These concentrations were detected in the 0-0.5-foot sample at sample location SD-10 (PERC/PIONEER 2021a)

[2] Extent of contamination is defined as sediment and underlying soil containing concentrations exceeding the cleanup criteria presented in Table 2.

Photograph 1: Bobcat 442 with a brush cutting attachment

6.3. Sediment Sampling

Once the vegetation is chipped, sediment samples will be collected on a twelve-foot spaced grid starting at the northernmost 2021 excavation boundary (Figure 2). Sampling will continue northward from the northernmost 2021 excavation boundary to the edge of the sediment adjacent to Lincoln Avenue and then 446 feet westward of the Superlon Property boundary to the eastern edge of the POT property access road. Samples will be taken of the top three feet of the sediment and underlying soils. Excavation boundaries shown on Figure 2 will not be used to determine sample locations as they may influence the grid sampling approach.

Sediment will be collected at six inches intervals in the upper one foot of sediment starting at the surface of the sediment and will continue on one-foot intervals to three feet below the current sediment surface (samples at 0-0.5 feet, 0.5-1 foot, 1-2 feet, and 2-3 feet). Samples will be collected using a hand auger or shovel (depending on the method that will collect the best sample) and managed as described in the Superlon Project's Sampling and Analytical Plan & Quality Assurance Project Plan (SAP/QAPP; PERC/PIONEER 2019).

A discrete sediment sample will be collected from each sample location and depth interval and put into laboratory prepared glassware and delivered to the ARI Laboratories for analysis for arsenic, lead, NWTPH-HO and NWTPH-D using the analytical methods presented in the SAP/QAPP (PERC/PIONEER 2019). Sample results will be compared to the cleanup goals in Table 2. Sediment from each sample location and depth interval will also be analyzed for arsenic, lead by the on-site laboratory to aid in the planning the preliminary excavation limits. Off-site laboratory analyses and confirmation sampling will be used to defined the final excavation limits.

6.3.1. Additional Sampling

If necessary, additional sediment sampling in the remainder of the ditch will be conducted. The necessity of this work will depend on the analysis of the sediment samples collected during the initial sampling. If

the results of the initial sampling indicate that further characterization is required to meet the objectives listed in Section 4, additional vegetation will be cleared by the methods listed above and additional samples will be collected.

6.4. Excavation and Stockpiling of Sediment

6.4.1. Current Conditions

The ditch consists of patches of freshwater wetland vegetation species (cattails and reed canary grass), which overlay sediment/soil that has collected within the ditch 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. 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. This material was removed from a portion of the ditch during the ERM remediation as discussed in Section 2.

Water occurs intermittently within the ditch, mostly in the months of October through July.

6.4.2. Excavation Goals

Sediment: Remediation of the sediment, i.e., the top one foot, will remove all sediment within the biologically active zone in order to meet the sediment cleanup levels at the point of compliance. These cleanup levels will be used for both the biologically active zone and the 1 to 2 foot soil interval. This sediment will be replaced with soil that meets the freshwater sediment SCOs detailed in Table 2, which is consistent with Army Corps of Engineers requirements.

Soils underlying the Sediment: The MTCA, Method C industrial land use cleanup level for arsenic in soils of 88 mg/kg will be used to reach compliance below the biologically active zone (i.e., 2 feet bgs). The arsenic industrial land use cleanup level of 88 mg/kg is within the range of the MTCA freshwater sediment cleanup levels (i.e., between the SCO of 14 mg/kg and the SCSL of 120 mg/kg). . Similarly, the MTCA, Method C industrial soil cleanup criteria for lead of 1,000 mg/kg is within the range of the freshwater sediment cleanup levels (SCO 360 mg/kg and SCSL of >1,300 mg/kg). The NWTPH-HO industrial soils cleanup level (2,000 mg/kg) is below both the SCO and the SCSL sediment cleanup levels. The NWTPH-D industrial soil cleanup level (2,000 mg/kg) is higher than the SCSL value, but it is not expected that diesel would be encountered below the surface sediments of the ditch, as the source petroleum in the ditch was from a surface spill, which was cleaned up in 2015.

TABLE 2: SEDIMENT AND SOIL CLEANUP CRITERIA

Media Level	Level (mg/kg)	Basis	Point of Compliance
SEDIMENT			
Arsenic	14	Freshwater Sediment Cleanup Objective	0-2 foot sediment
Lead	360	Sediment Cleanup Objective	0-2 foot sediment
NWTPH-HO	3,600	Freshwater Sediment Cleanup Objective	0-2 foot sediment
NWTPH-D	340	Freshwater Sediment Cleanup Objective	0-2 foot sediment
SOIL UNDERLYING THE SEDIMENT			
Arsenic	88	MTCA Industrial Cleanup Level	2-15 feet bgs
Lead	1,000	MTCA Industrial Cleanup Level	2-15 feet bgs
NWTPH-HO	2,000	MTCA Industrial Cleanup Level	2-15 feet bgs
NWTPH-D	2,000	MTCA Industrial Cleanup Level	2-15 feet bgs

6.4.3. Excavation Process

The excavation process will be done by excavating the sediment and soil within a series of discrete remedial action units (RAU). Each RAU (Figure 2) will include multiple excavation units (EUs) which will be approximately 72 square feet in size.

6.4.3.1. Objective

The objective of this phase of the IA will be to:

- Remove the biologically active zone of the sediment (defined as up to 12 inches) and underlying soils of up to approximately 12,900 square feet of the ditch bottom as shown on Figure 2 and Figure 4. Assuming a 2-foot thickness, the estimated volume of sediment and soil to be removed is 954 cubic yards (CY).

  This area represents the anticipated extent requiring remediation based upon the findings of the 2021 remediation program and the area that can be routinely remediated during the short field season. The actual area to be remediated will be defined by:

  - the characterization sampling being done concurrently with the excavation process;
  - the confirmation sampling done at the time of excavation; and
  - the weather conditions that occur.

- Excavated as much of the impacted sediment (as characterized by the sampling described above) as time and weather allows. Remediation will be halted once the ditch bottom becomes saturated.
- Excavate as much of the side slope of the ditch containing COC concentrations above the remediation goals as possible (as characterized by the sidewall sampling collected during the remediation process described below) as time, weather and accessibility allows. Remediation will be halted once the ditch bottom becomes saturated or further excavation could undermine Lincoln Avenue or the POT retaining wall.

6.4.3.2. Preparation

To reach the maximum potential extent of the excavation boundaries, temporary access for equipment and personnel will be required. To do this, clean imported backfill (approved by Ecology) will be used to create an access pad over the sediment. The access pad will be placed in the center of the ditch, will extend to a maximum of 15 feet east of the westernmost edge of the planned excavation (Figure 3) and will be approximately 10 feet wide. The imported soil making up this pad will be excavated along with the underlying sediment and soil and disposed of as described in Section 6.4.3.5 below. Site restoration will remove all traces of this pad.

6.4.3.3. Sediment Excavation Methods

In accordance with the Washington State Sediment Management Standards, “sediment” is defined as "… settled particulate matter located at or below the ordinary high water mark, where the water is present for a minimum of six consecutive weeks, to which biota (including benthic infauna) or humans may potentially be exposed, including that exposed by human activity (e.g., dredging).” (WAC 173-204-505-22). Therefore, the scope of remediation will target the bottom of the ditch and any contaminated sediments on the side slopes up to the ordinary high water mark. However, the excavation of the sediment will be constrained so that it will not impact the stability of either the retaining wall on POT

property or the utilities that occur along Lincoln Avenue. In the majority of cases this will require a five foot setback from these features. Excavation will be conducted by the following method:

- The excavator will work from the access pad, the eastern bank of the ditch or on the Superlon Property only; the excavator will not enter unprepared sediment, POT property uplands, or Lincoln Avenue.
- The loader will be used to transport the excavated sediment/soil. It will travel on the access pad, the eastern bank of the ditch or on the Superlon Property only; the loader will not enter unprepared sediment.
- Excavation will start at the easternmost edge of the ditch and continue working westward until the data from the characterization sampling is received (approximately 5 working days). Once the characterization data is received and the projected work area determined, the following will occur:
    - The access pad will be constructed from approximately 15 feet east of the westward edge of the in-place impacted sediment and continue eastward to the Superlon Property boundary (Figure 3);
    - Excavation equipment will be relocated to the western edge of the access pad and excavation will progress eastward. The last section to be completed will be the easternmost edge of the ditch that was not remediated during the initial phase. Sediment (and the access pad associated with the EU being excavated) will be excavated to the depth required to meet cleanup goals, as determined by confirmation sampling.
- No sediment/soil will be trucked across public roadways.

6.4.3.4. Confirmation Sampling of Soil below the Sediment

Samples of the sediment and soil at the base and the leading edge (the edge of the excavation that is native sediment/soil) of the excavation will be collected and analyzed (by the on-site XRF laboratory) for arsenic and lead as identified in the SAP/QAPP (PERC/PIONEER 2019). If excavation cleanup criteria presented on Table 2 are not reached, the excavation will be expanded and resampled.

TPH analysis will occur if TPH is visual or olfactory detected. This analysis will be done by ARI Laboratories using NWTPH-HO and NWTPH-D analyses.

The sampling process will follow the procedures identified in the Project SAP/QAPP with the following modification.

- Excavation base samples: A composite sample will be collected from the top six inches of soil within each EU following soil removal. The composite sample will consist of five discrete grab samples randomly selected from the bottom of the excavation using an excavator bucket. The composite will represent a maximum of approximately 72 square feet of the post excavation bottom of the ditch. The results for the EUs in each RAU will be averaged to determine the soil/sediments concentrations that represent the base of the RAU. This average will be used to determine if the RAU is in compliance with cleanup goals.
- Sidewall samples: Sidewall samples will be collected along the three excavation walls; the leading edge of the excavation, the sidewall of the Haub Log Yard retaining wall and the sidewall nearest to Lincoln Avenue. Sediment and soils will be collected at one-foot intervals from the sidewalls of the excavation starting at the surface of the sediment and will continue to the final depth of the excavation. Each sample submitted to the onsite laboratory will be a composite sample

consisting of five discrete grab samples randomly selected from a sidewall of the excavation using an excavator bucket. A composite sample will represent a maximum of approximately 12 linear feet of sidewall and will be used to determine if this portion of sidewall is in compliance with the cleanup criteria presented on Table 2.

6.4.3.5. Stockpiling and Disposal

Once excavated, the sediment/soil will be transported (using a front end loader) to a stockpile on the Superlon property for storage until it can be treated and/or designated for disposal at the appropriate landfill. The loader will use the access pad to reach the excavation area and will not travel on public roads or use the POT property pavement.

Soil will be placed in the existing stockpile areas pending evaluation to determine whether it needs to be treated before disposal. The stockpile areas are constructed of stacked ecology blocks with an asphalt paved base that are covered with 40ml. plastic on a nightly basis. Treated stockpiled sediment/soil will be disposed of at the LRI Landfill in Puyallup, Washington if determined (by TCLP and pH analysis) to be non-hazardous. Soils suspected of having the potential for being hazardous (greater than 920 mg/kg of arsenic and/or 750 mg/kg of lead) will be treated on the Superlon Site until they pass criteria for disposal at the LRI Landfill. This soil management, evaluation, treatment and disposal process is in accordance with existing protocols for site soil management under the Ecology approved Remedial Design Report for the remediation of on-property soils at the Superlon Plastics Site (PERC/PIONEER 2017).

All soils excavated during this program will be disposed of off-site and will not be reused within the ditch or on the Superlon Property.

6.5. Ditch Restoration

The ditch will be re-established in a manner consistent with the requirements of the Nationwide Permit 38 (NWS-2019-613) and Ecology's and the City of Tacoma's stormwater regulations. At a minimum the soils in the ditch and berm will be restored in the following manner:

- The sediment (the top 2-feet) will be restored using a commercially available sediment mix to ensure the restoration of a viable biologically active zone. This material will also be analyzed to ensure that it does not have arsenic and/or lead concentrations above the cleanup criteria.
- Clay-rich soil will be used to restore the soil underlying the sediment (at greater than 2 feet in depth). This soil will act as a replacement for the clay-rich silt that currently exists at that depth.
- The chemical quality of all backfill soils will be subject to Ecology review and approval prior to use.

6.5.1. Re-vegetation

It is not anticipated that existing vegetation within the ditch bottoms sediments will be replaced as part of this project. Whereas the scope of this project does not include the excavation of soil or vegetation outside of the ditch bottom, any disturbance of non-ditch bottom vegetation that may occur will be addressed through the re-vegetation process outlined in the conditions of the existing Nationwide Permit 38 (NWS-2019-613). If necessary, WSDOT stormwater ditch mix will be placed on the banks of the ditch following excavation. .

6.6. Stormwater controls

The primary stormwater control consideration is preventing any sediment or other contaminants from escaping the worksite either up or downstream. As previously stated, the work will be done only when the ditch is dry (typically form mid-July to early September).

To ensure that the primary stormwater control consideration is addressed the following, adapted from typical in-water work practices, will be implemented:

- Work during the time of lowest flow condition. The ditch is typically dry from mid-July to early September.
- The work area will be Isolated with a downstream cofferdam and, if there is flow from upstream, an upstream cofferdam. A second downstream cofferdam will be installed to provide extra security; any leakage from the first cofferdam will be detected and pumped into the existing infiltration pond on the Superlon site. The cofferdams will be constructed of sandbags. Pond grade clay will be used on the downstream side of each cofferdam to prevent flow through the sand bags.
- The intake basins on Lincoln Avenue will be blocked using either a pipe plug or sandbags and plastic, if constructing a cofferdam in the channel is unfeasible. Inlet protection (catch basin inserts) will be used in the catch basins on Lincoln Avenue that are directly parallel to the section of the ditch that will be remediated.
- If there is flow in the channel from upstream, it will be bypassed around the work area. Unless the planned work can accommodate a gravity-flow bypass pipe in the channel, a bypass pump will be used, with the intake upstream of the upper cofferdam, and the discharge downstream of the lower cofferdam. Energy dissipation will be provided at the point of discharge to avoid scour.
- Excess water in the section of the ditch that is being remediated will be pumped into the existing infiltration pond on the Superlon site.
- Check dams will be installed on the sides of the access road that will be built inside the ditch.
- Silt fence will be installed in the berm along Lincoln Avenue in order to help prevent run off from entering the remediated section of the ditch.
- When re-watering the work area, the cofferdams will be removed slowly to avoid high-velocity flows. Exposed soils within the work area will be stabilized.
- BMPs will be followed for cofferdams, inlet protection, check dams next to access road, and silt fencing.

7. Archeological Monitoring

Under the conditions of the existing Nationwide Permit 38 number NWS-2019-613 (USACE 2021), the project will be monitored for archeological resources by Historical Resource Associates Incorporated (HRA) of Seattle, Washington. HRA will follow the scope of work outlined in their *Archaeological*

Monitoring and Inadvertent Discovery Plan for Superlon Phase III Ditch Remediation, Tacoma, Washington HRA, 2021).

8. Decontamination of Equipment and Personnel

Decontamination of personnel and equipment will follow the procedures identified in the *Health and Safety Plan for the Superlon Plastics Site* (PERC/PIONEER 2020).

9. Work Safety

This work will be conducted in a manner consistent with the *Health and Safety Plan for the Superlon Plastics Site* (PERC/PIONEER 2020) and the SAP/QAPP (PERC/PIONEER 2019).

10. Documentation and Reporting

A technical memorandum will be created to document the completed work. This memorandum will include, at a minimum:

- A description of the work completed noting any deviations to the methodology described in this work plan and the results of the sample analyses;
- The analytical results of the collected samples;
- As-builts showing the extent of the work performed during 2021 and 2022; and
- Photographs showing the excavation process and the completed remediated ditch.

11. Schedule

If all the permitting is received the work will be scheduled as follows:

1. Clearing, grubbing and preparation for work: Early to mid-July 2022;
2. Ditch remediation, sampling and backfilling: Mid-July to mid-September 2022;
3. Ditch restoration: Late September 2022; and
4. Reporting: October 2022 to February 2023.

12. References

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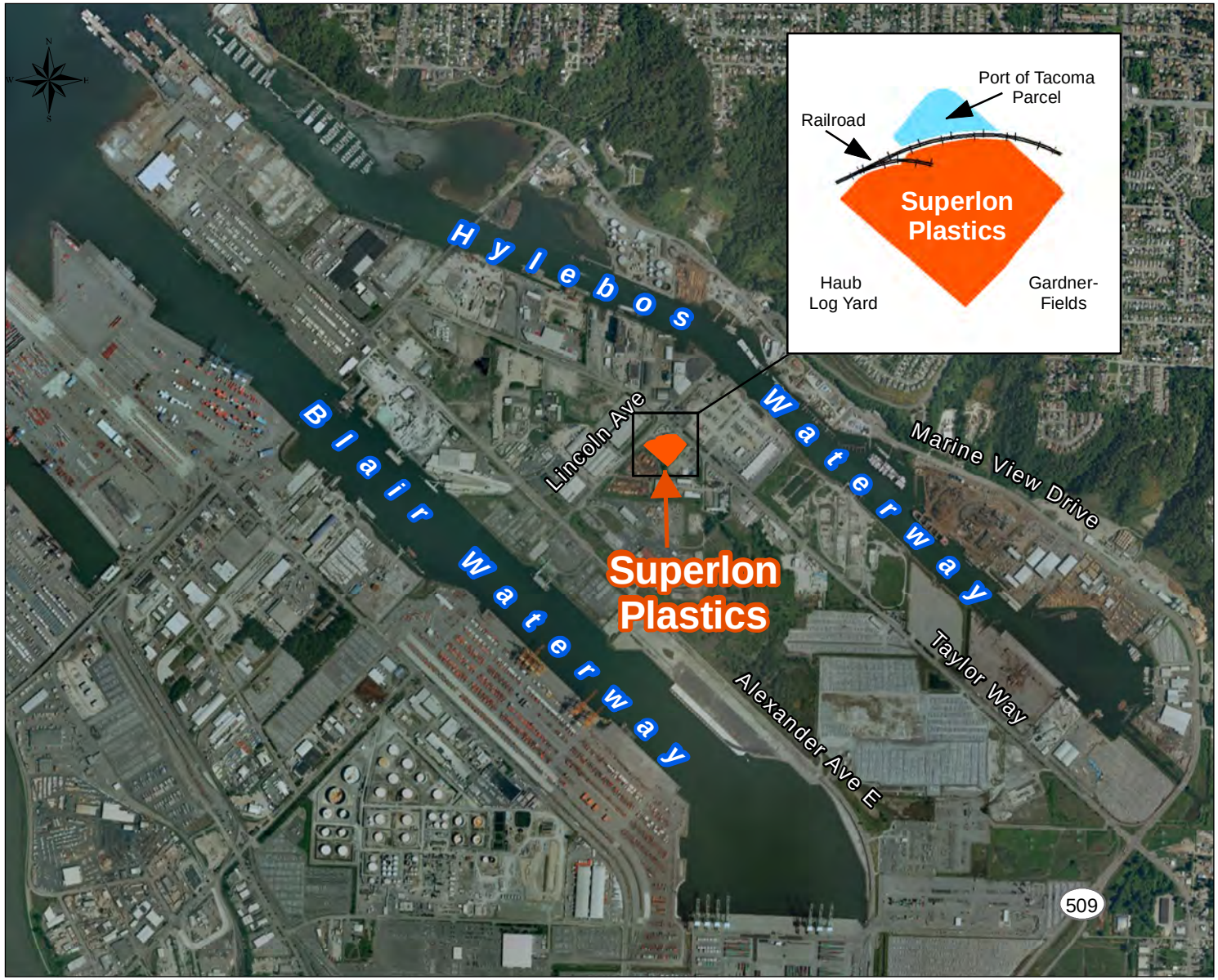
FIGURES



Legend

Superlon Plastics Site

0 750 1,500 3,000 Feet

PIONEER TECHNOLOGIES CORPORATION

Site Location
Superlon Plastics Site
Tacoma, Washington

PERC

Figure 1

Wyse Logistics
(3401 Lincoln Ave)

PNW the Northwest Co.
(2000 Taylor Way)

Lincoln Avenue
City of Tacoma ROW

Port of Tacoma
(3408 Lincoln Ave)

Access Drive

Building D

Superlon Plastics

Legend

Interim Action Work Areas
- Previously Remediated (June through Dec. 2021)
- Expanded Interim Action Remedial Action Units
- Drainage Ditch

Site Features
- Property Boundary
- Building Footprint
- Soil Remedial Action Units Completed
- Soil Areas Not To Be Remediated

Other Features
- City of Tacoma Right of Way Boundary
- Parcel Boundaries

RAU-D28 29.7' 27.5' 17.8' 36.6'
RAU-D27 37.3' 35.2' 37.2'
RAU-D26 36.4' 32.4' 37.0'
RAU-D25 37.0' 31.8' 36.9'
RAU-D24 37.2' 31.7' 36.9'
RAU-D23 37.3' 37.4'
RAU-D22 25.9' 37.5'
RAU-D21 37.5' 21.9' 37.5'
RAU-D20 37.2' 22.6' 37.0'
RAU-D19 36.9' 25.0' 37.0'
RAU-D18 33.6' 23.7' 33.5'
RAU-D17 15.6' 23.5' 21.5'
RAU-D16 36.9' 11.1' 30.3' 15.2' 11.6'
RAU-D15 12.8' 33.4' 7.9'
RAU-D14 10.4' 28.7'
RAU-D13 19.0' 16.3'
RAU-D12 15.7' 20.3'
RAU-D1 22.9' 13.8'
RAU-D2 17.0'
RAU-D3
RAU-B1
RAU-B2
RAU-B3
RAU-B4
RAU-B5
RAU-B6
RAU-B7

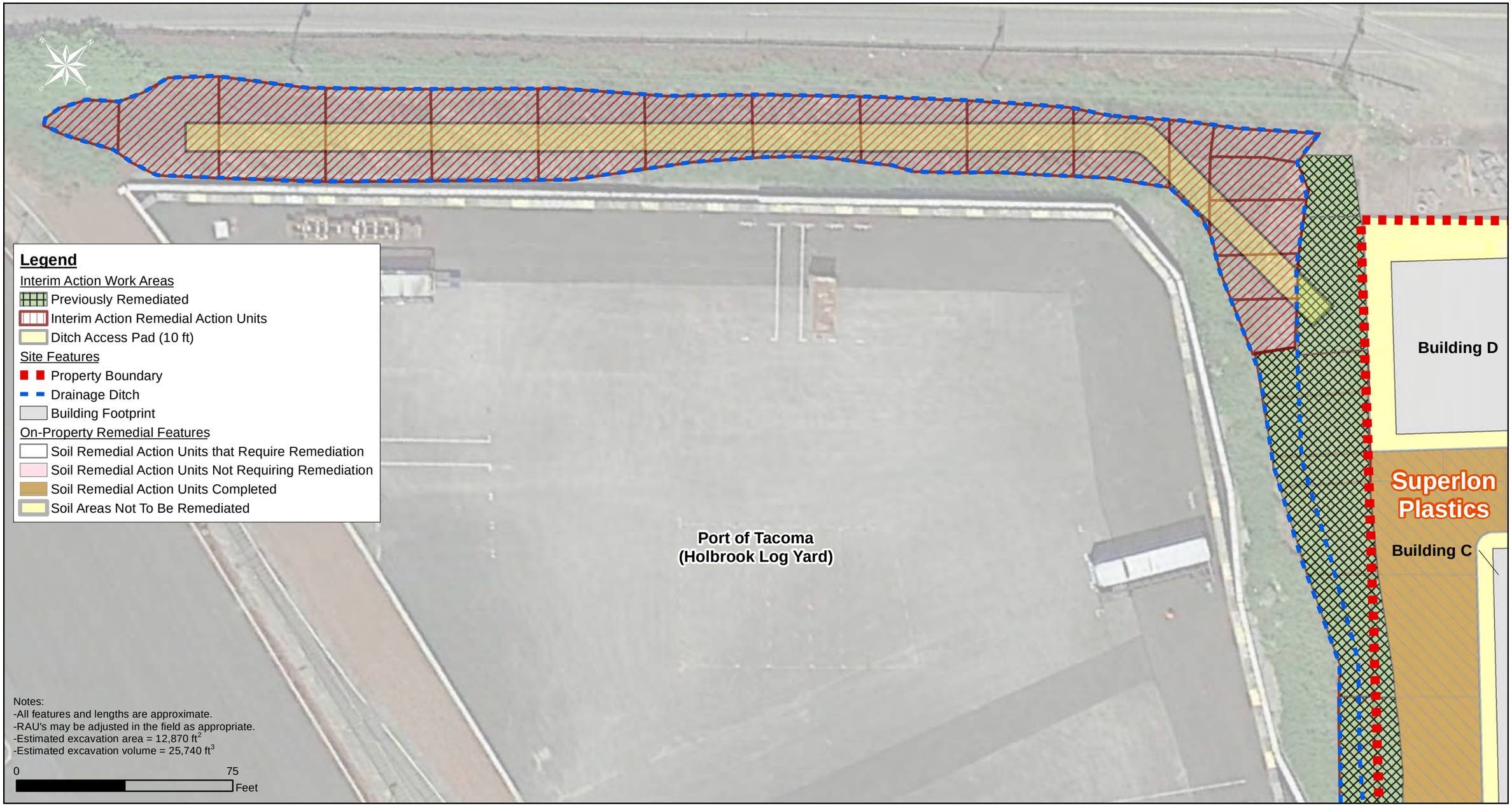
Notes:
-All features and lengths are approximate.
-The additional ditch segment was delinated based on visual interpretation from an aerial photograph from 2021.
-RAUs may be adjusted in the field as appropriate.
-Estimated excavation area = 12,870 ft^2
-Estimated excavation volume = 25,740 ft^3

0 50 100 Feet

PIONEER TECHNOLOGIES CORPORATION

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

Figure 2

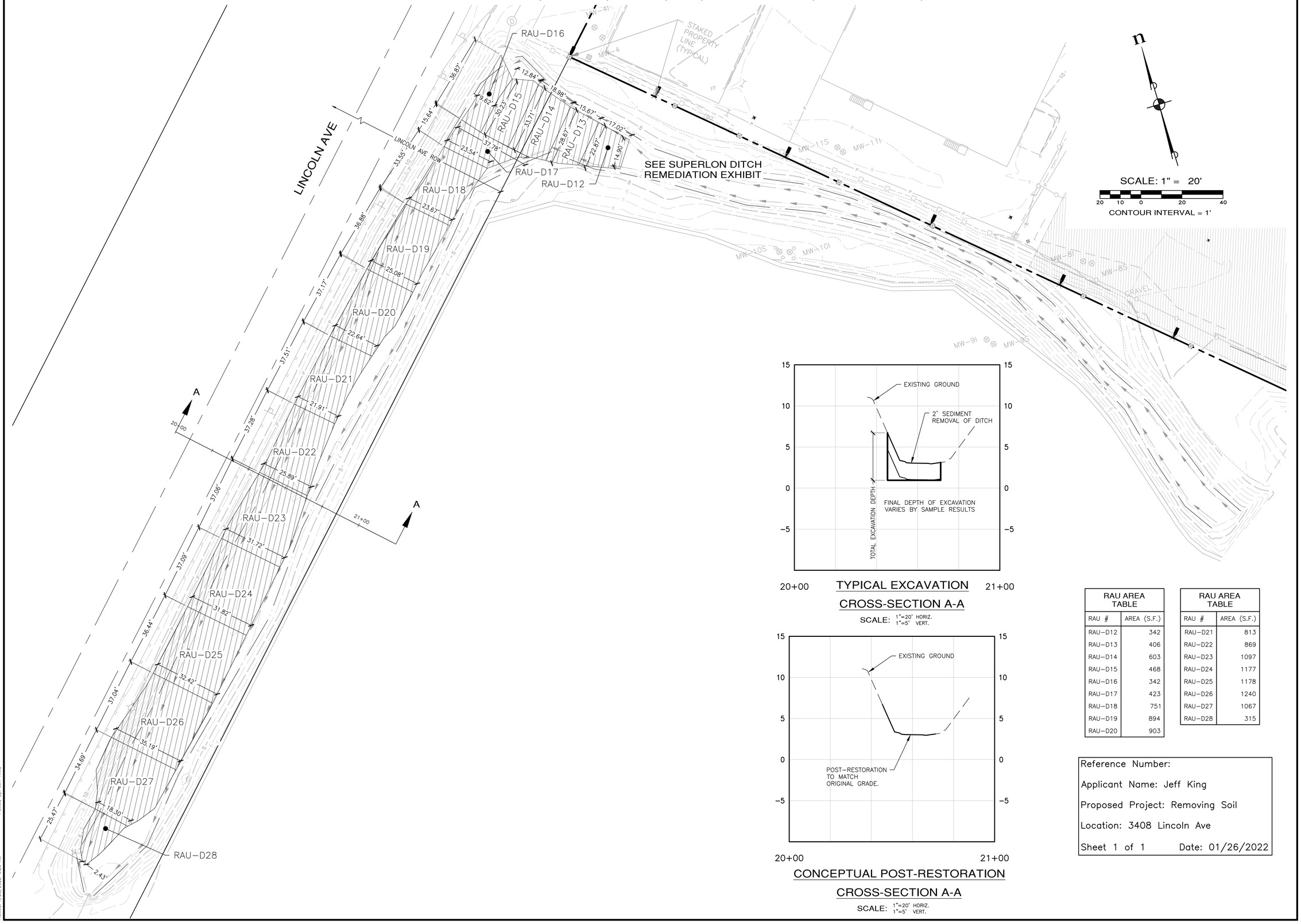


PIONEER TECHNOLOGIES CORPORATION

Interim Action Work Area
Access Pad Location
Superlon Plastics Site, Tacoma, Washington

Figure 3

A PORTION OF THE NE 1/4 OF SECTION35, TWP 21 N., RGE 3 E., W.M., CITY OF TACOMA, PIERCE COUNTY, WASHINGTON



SCALE: 1" = 20'

20 10 0 20 40

CONTOUR INTERVAL = 1'

20+00 TYPICAL EXCAVATION 21+00

CROSS-SECTION A-A

SCALE: 1"=20' HORIZ. 1"=5' VERT.

20+00 21+00

CONCEPTUAL POST-RESTORATION

CROSS-SECTION A-A

SCALE: 1"=20' HORIZ. 1"=5' VERT.

RAU AREA TABLE	
RAU #	AREA (S.F.)
RAU–D12	342
RAU–D13	406
RAU–D14	603
RAU–D15	468
RAU–D16	342
RAU–D17	423
RAU–D18	751
RAU–D19	894
RAU–D20	903

RAU AREA TABLE	
RAU #	AREA (S.F.)
RAU–D21	813
RAU–D22	869
RAU–D23	1097
RAU–D24	1177
RAU–D25	1178
RAU–D26	1240
RAU–D27	1067
RAU–D28	315

Reference Number:

Applicant Name: Jeff King

Proposed Project: Removing Soil

Location: 3408 Lincoln Ave

Sheet 1 of 1 Date: 01/26/2022

REVISIONS

NO.	DESCRIPTION/DATE	BY

LARA G. BARTENHAGEN — STATE OF WASHINGTON — 40111 — REGISTERED PROFESSIONAL ENGINEER

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ESM
Civil Engineering
Public Works
Land Planning
Landscape Architecture
Land Surveying
Project Management

JEFF KING

SUPERLON PLASTICS

CITY OF TACOMA LINCOLN AVENUE DITCH REMEDIATION EXHIBIT WASHINGTON

JOB NO.:	1624-001-009
DWG. NAME:	EN-14
DESIGNED BY:	
DRAWN BY:	DCL
CHECKED BY:	
DATE:	01/26/2022
DATE OF PRINT:	

EN-14

1 OF 1 SHEETS

File: \\esm8\engr\ESM-0853\1624\001\009\exhibits\EN-14.dwg
Plotted: 1/26/2022 8:23 AM Plotted By: Jeff Hilton

APPENDIX - USACE Nationwide Permit Verification Letter 05-24-21

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, SEATTLE DISTRICT
P.O. BOX 3755
SEATTLE, WASHINGTON 98124-3755

Regulatory Branch May 24, 2021

Mr. Eivor Donahue
White Birch, LLC
2116 Taylor Way
Tacoma, Washington 98421

Reference: NWS-2019-613
Chemours Company FC, LLC and The White Birch Group, LLC (Ditch Remediation)

Dear Mr. Donahue:

We have reviewed your application to excavate 3,564 cubic yards of contaminated soil and place 3,564 cubic yards of clean fill material (to match existing grades) over a 3,814 square foot area in a ditch that flows into Puget Sound at Tacoma, Pierce County, Washington. Based on the information you provided to us, Nationwide Permit (NWP) 38, *Cleanup of Hazardous and Toxic Waste* (Federal Register January 6, 2017, Vol. 82, No. 4), authorizes your proposal as depicted on the enclosed drawings dated August 31, 2020.

In order for this authorization to be valid, you must ensure the work is performed in accordance with the enclosed *NWP 38, Terms and Conditions* and the following special conditions:

a. The Department of Ecology's Toxics Cleanup Program representative, Joyce Mercuri, must approve a final interim action plan before any work authorized by this permit begins. The plan should include corrected/confirmed excavation figures, clarify the field-testing and response plans and outline necessary institutional controls to protect interim action design features (such as a clay liner or geotextile). The plan should also address other areas of the property (e.g. SD-13). Ecology should coordinate and provide the final interim action plan to the Environmental Protection Agency's Remedial Project Manager, Kristine Koch.

b. The Port of Tacoma must review and approve any institutional controls on Port of Tacoma property.

c. All construction Best Management Proactices specified in your Joint Aquatic Resources Permit Application to protect adjacent and "downstream" areas of the Ditch must be followed. Construction must be sequenced and occur incrementally as proposed, and all excavation and backfilling work must be performed in dry weather.

d. By accepting this permit, the permittee agrees to accept such potential liability for response costs, response activity and natural resource damages as the permittee would have under the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. 9601 et seq. (CERCLA) or the Model Toxic Control Act, R.C.W. 70.105 (MTCA) absent the issuance of this permit. Further, the permittee agrees that this permit does not provide the permittee with any defense from liability under the CERCLA or the MTCA. Additionally, the permittee shall be financially responsible for any incremental response costs attributable under CERCLA or MTCA to the permittee's activities under this permit.

e. You shall implement and abide by the Restoration Plan, Ditch Interim Action for the Superlon Plastics Site, Tacoma, Washington Revegetation Plan dated January 21, 2021. To ensure the project results in a net increase in aquatic resource functions and services, an as-built report and drawings shall be submitted within six months of project completion. This report should state if any adaptive management is required to ensure a net increase in aquatic resource functions; if this work would require additional impacts to waters of the U.S., you must wait for approval by the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch, before commencing that work. The as-built report must prominently display the reference number NWS-2019-613.

f. You must implement and abide by the Endangered Species Act (ESA) requirements and/or agreements set forth in the No Effect Determination for the Ditch Remediation Interim Action, dated June 16, 2019, in its entirety. The U.S. Army Corps of Engineers (Corps) made a determination of No Effect for all species and critical habitat based on this document. Failure to comply with the commitments made in this document constitutes non-compliance with the ESA and your Corps permit.

g. You shall implement and abide by the Archeological Monitoring and Inadvertent Discovery Plan for Superlon Phase III Ditch Remediation dated April 2021. A professional archaeologist shall be on-site to monitor for the presence of archaeological resources during all ground disturbing activities for the monitoring areas identified in the plan.

h. You shall prepare and submit a summary report of the findings of the archaeological monitoring (positive or negative) to the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch within 60 days after monitoring has been completed. The report must prominently display the reference number NWS-2019-613.

i. If human remains, historic resources, or archaeological resources are encountered during construction, all ground disturbing activities shall cease in the immediate area and you shall immediately (within one business day of discovery) notify the U.S. Army Corps of Engineers (Corps), Seattle District, Regulatory Branch. You shall perform any work required by the Corps in accordance with Section 106 of the National Historic Preservation Act and Corps regulations.

We have reviewed your project pursuant to the requirements of the Endangered Species Act, the Magnuson-Stevens Fishery Conservation and Management Act and the National Historic Preservation Act. We have determined this project complies with the requirements of these laws provided you comply with all of the permit general and special conditions.

Please note that National General Condition 21, *Discovery of Previously Unknown Remains and Artifacts*, found in the *Nationwide Permit Terms and Conditions* enclosure, details procedures that must be followed should an inadvertent discovery occur. You must ensure that you comply with this condition during the construction of your project.

The authorized work complies with the Washington State Department of Ecology's (Ecology) Water Quality Certification (WQC) requirements and Coastal Zone Management (CZM) consistency determination response for this NWP. No further coordination with Ecology for WQC and CZM is required.

You have not requested a jurisdictional determination for this proposed project. If you believe the U.S. Army Corps of Engineers does not have jurisdiction over all or portions of your project you may request a preliminary or approved jurisdictional determination (JD). If one is requested, please be aware that we may require the submittal of additional information to complete the JD and work authorized in this letter may not occur until the JD has been completed.

Our verification of this 2017 NWP authorization is valid until March 18, 2022, unless the NWP is modified, reissued, or revoked prior to that date. If the authorized work for the 2017 NWP authorization has not been completed by that date and you have commenced or are under contract to commence this activity before March 18, 2022, you will have until March 18, 2023, to complete the activity under the enclosed terms and conditions of this NWP. Failure to comply with all terms and conditions of this NWP verification invalidates this authorization and could result in a violation of Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act. You must also obtain all local, State, and other Federal permits that apply to this project.

You are cautioned that any change in project location or plans will require that you submit a copy of the revised plans to this office and obtain our approval before you begin work. Deviating from the approved plans could result in the assessment of criminal or civil penalties.

Upon completing the authorized work, you must fill out and return the enclosed *Certificate of Compliance with Department of the Army Permit*. All compliance reports should be submitted to the U.S. Army Corps of Engineers, Seattle District, Regulatory Branch electronically at nws.compliance@usace.army.mil. Thank you for your cooperation during the permitting process. We are interested in your experience with our Regulatory Program and encourage you to complete a customer service survey. Referenced documents and information about our program are available on our website at www.nws.usace.army.mil, select "Regulatory Permit Information". A copy of this letter with enclosures will be furnished to Mr. Jeff King. If you have any questions, please contact me at halie.endicott@usace.army.mil or (206) 764-6848.

Sincerely,

Halie Endicott

Halie Endicott, Project Manager
Regulatory Branch

Enclosures