Environmental Cap and Drainage System Inspection Report

Former Cascade Timber No. 3 Log Sort Yard (Ecology Facility ID #1206)

Prepared for:

Port of Tacoma

December 19, 2024
Project No. M0615.17.004

Prepared by:

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MAUL FOSTER ALONGI

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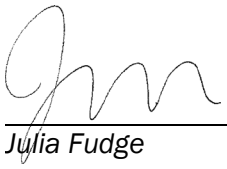
Former Cascade Timber No. 3 Log Sort Yard (Ecology Facility ID #1206)

The material and data in this report were prepared under the supervision and direction of the undersigned.

Maul Foster & Alongi, Inc.

Brooke Harmon, PE

Senior Engineer



Julia Fudge

Staff Engineer

Certification

I hereby certify that I am familiar with the facilities addressed in this report and that the inspection was conducted in accordance with acceptable engineering practices.

This digital seal certifies the signatory and document content.

12/19/2024

Brooke Harmon, PE
Senior Engineer

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Abbreviations

Cascade Timber	former Cascade Timber No. 3 log sort yard
CD	consent decree
Ecology	Washington State Department of Ecology
Husky	Husky Terminal and Stevedoring, LLC
ID	identification
MFA	Maul Foster & Alongi, Inc.
MOU	memorandum of understanding
O&M	operations and maintenance
Port	Port of Tacoma
WUT	Washington United Terminals

1 Introduction

This report summarizes the field activities and results for the environmental cap and stormwater drainage system inspection conducted on behalf of the Port of Tacoma (Port) for the former Cascade Timber No. 3 log sort yard (Cascade Timber) facility. The facility is owned by the Port and leased by Washington United Terminals (WUT) and Husky Terminal and Stevedoring, LLC (Husky) as a truck queue area on Port Parcel No. 30 – Lot F. The facility is located southwest of the Blair Waterway in Tacoma, Washington bordered by Thorne Road and Maxwell Way and is assigned Ecology Facility ID #1206 (the Site) (Figure 1-1). The ground surface at the Site is covered by an environmental cap and has several stormwater drainage features, further described in this report.

Inspection activities were conducted in accordance with the requirements identified in Consent Decree (CD) No. 92-2-03590-3 issued by the Washington State Department of Ecology (Ecology) to the Port (Washington Superior Court 1994) and the operations and maintenance plan contained in the final engineering and design report (HLA 1994). A memorandum of understanding between Ecology and the Port, updating the cap inspection frequency to every 30 months starting with an inspection in February 2012, was issued on September 12, 2011 (Ecology and Port of Tacoma 2011).

1.1 Purpose and Scope

The purpose of this report is to present the findings of the 2024 environmental cap and stormwater drainage system inspection at the Site. The purpose of the environmental cap is to prevent surface water infiltration, exposure of humans and the environment to underlying materials, and erosion. The stormwater drainage system is used to convey stormwater off the cap surfaces to prevent infiltration and erosion.

Maul Foster & Alongi, Inc. (MFA), performed the inspection between August 19 and August 20, 2024, which included the following tasks:

- Inspection of the asphalt/concrete pavement for the presence of cracks or other failures in the pavement that allow surface water runoff to infiltrate the bark/slag surficial fill (e.g., cracks greater than 1/8 in. wide, sub-base material exposed, pavement edge deterioration, and general appearance).
- Evaluation of the structural and functional condition of the cap and drainage systems (including catch basins, maintenance holes, oil/water separators, and spill containment vessels).
- Evaluation of debris/sediment accumulation in the stormwater structures (if visible).

Inspection observations are presented in this report.

1.2 Site Background

The Site encompasses approximately 10.7 acres of a larger property located southwest of the Blair Waterway. Cascade Timber operated its property as a log sort yard from 1967 to 1987 (Ecology, 2017). In 1982, approximately 500 tons of ASARCO slag were placed on-Site as ballast material. In the 1989 Record of Decision for the Commencement Bay Nearshore/Tideflats Superfund site, the Site was identified as a source of arsenic, copper, lead, and zinc to Sitcum Waterway. The Site is operated by WUT and ITS Husky as a truck queue area. Trucks drive through the property over a set of truck scales before driving over to shipping yard.

In 1991, Ecology issued an Agreed Order (No. DE 91-S199) for a remedial investigation/feasibility study to evaluate metals associated with ASARCO slag at the Site and their extent in the soils, groundwater and surface water (stormwater runoff) on and adjacent to the Site (Ecology 2017). A remedial investigation and feasibility study report was submitted to Ecology in June 1993 and an engineering design report was submitted to Ecology in 1994 by Harding Lawson Associates (HLA) (HLA 1993; HLA 1994). In 1993, a cleanup action plan was completed for the Site; the plan was included in the Site's consent decree. Remedial activities, including the installation of a low-permeability asphalt cap, stormwater drainage system, and groundwater monitoring wells, were conducted in 1994.

Groundwater monitoring has been conducted at the Site since 1994 to monitor the effectiveness of the remedial action. Groundwater quality is monitored every 18 months (Ecology 2011). The last groundwater monitoring event was conducted in February 2024 (described in a separate report [MFA 2024]).

The Port is required to conduct environmental cap and drainage system inspections (inspections) every 30 months (Ecology, 2011). The last inspection was performed in February 2022 (MFA 2022). During the 2022 inspection, portions of pavement and curbs were recommended for repair. The environmental cap was inspected to observe the condition after installation in 2020 at the Site. During the 2024 inspection, the environmental cap was inspected to observe the condition of the cap after asphalt and curb repairs recommended from the previous inspection. Between April 5 and 13, 2024, the Port made asphalt repairs to the asphalt cap at the Site. These repairs consisted of three asphalt repair areas and rutting and pothole repairs at the entry gate. The appendix to this report provides documentation of the repairs, including a map depicting the repair locations, photographs of the repaired areas, and specifications of the repair work.

2 Field Observations

MFA performed the cap and stormwater drainage system inspection at the Site on August 19 and 20, 2024, making use of the previous inspection results and information regarding maintenance work provided by the Port (see the appendix). Follow-up inspection of some drainage features was completed on October 1, 2024. The inspection was led by a Washington State licensed professional engineer.

2.1 Environmental Cap

Inspectors were able to observe all paved surfaces within the environmental cap. Relevant Site features and the Site boundary are shown in Figure 2-1. Photographs depicting cap issues are provided in Table 2-1.

The cap was generally in good condition with minor asphalt damage observed across the cap. Several cracks wider than 1/8 inch with missing sealant were observed to run parallel with the drive lanes on the cap. Gouges ranging from 1-3 feet long were observed across the Site; these were generally only 1 inch deep. Deeper tire ruts were observed across the width of the drive lanes at the edge of the cap.

Repairs of pavement edge erosion were observed behind the curb in several areas of the cap. One repair was beginning to crack at the surface of the gravel outside the curb. Several sections of curb showed deterioration on the backside of the curb and or cracks on the top of the curb.

Pavement repairs observed during the 2024 inspection are presented in Figure 2-2 and described in Table 2-2. Details and photographs of the observed repairs are provided in the appendix that follows this report.

The table below provides a summary of the cap conditions observed during the 2024 inspection; observations, photographs, and recommended actions keyed to specific locations are presented in Table 2-1 following this report.

Required Inspection Element	Observed Condition	Recommended Action
Presence of cracks wider than 1/8 inch	Cracks wider than 1/8 inch were observed across the cap.	Repair pavement as shown in Figure 2-1 and described in Table 2-1.
Pavement edge deterioration	Deterioration of pavement edge repair was observed.	Continue to monitor and reevaluate during next inspection cycle
Degradation, subsidence, general appearance	Limited degradation and deterioration were observed in asphalt surface.	Locations of pavement deterioration are shown in Figure 2-1 and described in Table 2-1.

2.2 Stormwater Drainage System

The Site stormwater drainage system consists of six catch basins, two spill containment vessels, two oil/water separators, and one maintenance hole. In 2024, each drainage system component was inspected for general appearance, sediment and debris accumulation (as visible), and structural and functional condition.

The catch basins observed appeared to be structurally sound and functioning normally. There were visual observations of sediment accumulation and observed debris in all catch basin inserts observed. Table 2-3 summarizes the observations made at each drainage structure.

3 Status and Recommendations

3.1 Maintenance and Repair Performed Since Previous Inspection

3.1.1 Environmental Cap

The following recommendations are based on this 2022 inspection:

- Repair curb damage at locations C11 and C14
- Stabilize slope at location P4 to prevent further undercutting of the pavement cap
- Seal cracks at P10, P17, P18, P27, P28, P29, P30, P31, P32, and P59
- Repair asphalt depressions at P27, P33, P34, P37, and P60
- Monitor gouges and cracks in asphalt at locations P25, P26, P35, P36, and P39

As described in section 2.1, Table 2-2, the following items have been repaired:

- Curb damage at locations C7, C11, C12, C14, C15, and C17 have been repaired
- Slope stabilization at C13, P4, and P5 have been repaired
- Areas of repaired asphalt were observed across the environmental cap

3.1.2 Stormwater Drainage System

The following recommendations are based on this 2022 inspection:

- Restore access to maintenance hole WMH to facilitate inspection during the next inspection cycle
- Consider replacing filter inserts in all catch basins
- Restore access to spill containment vessel and oil water separator during the next inspection cycle

Some of the above maintenance issues are reoccurring following the 2024 inspection of these features. The stormwater infrastructure at the Site is managed under the Port's municipal stormwater permit, and inspections and maintenance are performed under the requirements of the permit.

3.2 Recommendations

3.2.1 Environmental Cap

The following recommendations are based on this 2024 inspection:

- Continue to monitor curb and slope deterioration at C9, C13, P5, and P6
- Reseal asphalt patch edges with missing sealant (P1, P7, P9, P12, and P58)

- Seal cracks at P16, P19, P28, P29, P38, P65, P67, P68, P70, P73, P74, P89, and P90
- Repair asphalt depressions/divots at P19, P84, P86, and P87
- Monitor gouges, cracks, and depressions in asphalt at P37, P46, P69, P71, and P75.

Cracks wider than 1/8 inch observed across the Site are recommended for repair. Continue to monitor curb damage and stabilized slope repairs during the next inspection cycle. Gouges and depressions were observed throughout the cap. These gouges were generally less than 1 inch deep and are recommended for continued monitoring and evaluation during the next inspection cycle and gouges greater than 1 inch deep were recommended for repair.

3.2.2 Stormwater Drainage System

The following recommendations are based on this 2024 inspection:

- Consider replacing filter inserts and remove floatables in all catch basins on a more frequent basis
- Evaluate means to prevent stormwater runoff from bypassing catch basin CB5 and reseal area around the grate

Floatables were observed in several catch basins and maintenance hole structures. Structures should be cleaned in accordance with stormwater maintenance requirements. Stormwater structures were generally in good condition and recommendations are limited to regular cleaning and maintenance, as required by the facility's stormwater permit. Required and recommended actions are further described in Table 2-3.

References

Ecology, Port of Tacoma. 2011. Memorandum of understanding. Former log yard groundwater monitoring and cap inspection. Washington State Department of Ecology and Port of Tacoma.

Ecology. 2017. Second periodic review report final, Cascade Timber 3 POT. Washington Department of Ecology. January.

HLA. 1993. Remedial investigation/feasibility study, Cascade Timber No. 3 Log Sort Yard, Tacoma Washington. March.

HLA. 1994. Engineering design report, remedial action, former Cascade Timber No. 3 Log Sort Yard, Port of Tacoma, Tacoma Washington. Appendix C, Compliance Monitoring Plan. Harding Lawson Associates. April 29.

MFA. 2022. Cap Inspection Report, Former Cascade Timber No. 3 Log Sort Yard Site. Maul Foster & Alongi, Inc., June 17.

MFA. 2024. Draft Letter (re: Groundwater Monitoring Report, Former Cascade Timber No. 3 Log Sort Yard Site, Consent Decree No. 94-2-03590-3, Facility Site ID: 1206, Monitoring Date: February 17, 2024) to A. Smith, Washington State Department of Ecology, from C. Wise and J. Lenahansen, Maul Foster & Alongi, Inc., Seattle, Washington. May 14.

Washington Superior Court. 1994. Case No. 94TC-S167. No. 94-2-3590-3 consent decree. Superior Court of the State of Washington for Pierce County, Pierce County.

Limitations

The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Observations in this report are limited to environmental cap areas that were visible to the MFA field team. In some instances, portions of the cap surface may have been covered and not readily available for inspection. Inspection of stormwater structures was limited to observations made from the surface and by means of direct observation, probes (extendible poles to check for sediment), and photography. No confined space entry was performed. Observation of some stormwater structures was also limited by storm flow and/or the presence of damaged or sediment-laden catch basin inserts that could not be safely removed. No guarantee is made that all cap or stormwater deficiencies that could impact cap/drainage system performance were identified.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

Figures

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Notes
U.S. Geological Survey 7.5-minute topographic quadrangle (2020): Tacoma North.
Township 21 north, range 3 east, section 34.

Data Source
Property boundary obtained from Pierce County.

Legend

Site Boundary

Figure 1-1
Site Location

Former Cascade Timber
No. 3 Log Sort Yard Site
Tacoma, Washington

0 1,000 2,000
Feet

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Path: X:\0615.17\002\Pro\0615_17_002_005.aprx\Fig 1-1 Property Location
Print Date: 10/14/2024
Reviewed By:
Produced By: glaravata
Project: M0615.17.002

Path: X:\0615.17\002\Pro\0615_17_002_005.aprx
Print Date: 11/20/2024
Reviewed By: elundsen
Produced By: gjaravata
Project: M0615.17.002

Figure 2-1
Environmental Cap Issues Observations

Former Cascade Timber
No. 3 Log Sort Yard Site
Tacoma, Washington

Legend

Type

- Pavement Observation
- Curb Observation
- Site Boundary
- Tax Lot

NOTES:
Inspection completed on August 20, 2024.
Cascade Timber = Cascade Timber Company.

0 100
Feet

Source:
Aerial photograph obtained from Bing; tax lot data obtained from Pierce County GIS.

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Figure 2-2
Environmental Cap Repairs Observations

Former Cascade Timber
No. 3 Log Sort Yard Site
Tacoma, Washington

Legend

Type

- Pavement Observation
- Curb Observation
- Site Boundary
- Tax Lot

NOTES:
Inspection completed on August 20, 2024.
Cascade Timber = Cascade Timber Company.

0 100
Feet

Source:
Aerial photograph obtained from Bing; tax lot data obtained from Pierce County GIS.

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Figure 2-3
Stormwater Drainage System Observations

Former Cascade Timber
No. 3 Log Sort Yard Site
Tacoma, Washington

Legend

Type

- Catch Basin
- Maintenance Hole
- Oil/Water Separator
- Spill Containment Vessel
- Site Boundary
- Tax Lot

NOTES:
Inspection completed on October 1, 2024.
Maintenance hole "WMH" is located in a secured, fenced area that was not accessible to field staff.
Cascade Timber = Cascade Timber Company.

0 100
Feet

Source:
Aerial photograph obtained from Bing; tax lot data obtained from Pierce County GIS.

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Print Date: 11/19/2024
Reviewed By: elundeen
Produced By: gjarovata
Project: M0615.17.002

Tables

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Project Name: Environmental Cap Issues Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

Table 2-1: Environmental Cap Issues Observed During 2024 Inspection

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
C9	Curb	Curb degradation extending approximately 20 lf; damage limited to backside of curb	Monitor repair and reevaluate during next inspection cycle	
C13	Curb	Slope stabilized with recycled asphalt on the backside of degraded curb; approximately 15 lf	Monitor repair and reevaluate during next inspection cycle	

[1] IDs are sequentially numbers and are continued from previous cap inspection events to maintain consistency with recurring pavement observations. Skipped numbers indicate the issue was addressed in a previous inspection and is no longer an issue or is a repair (See Table 2-2).

Project Name: Environmental Cap Issues Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P1	Pavement	Repaired asphalt patch; approximately 5 feet by 30 feet; adjacent to catch basin CB2; missing sealant around patch edge	Reseal edges	
P5	Pavement	Recycled asphalt repair of pavement edge deterioration; small gap approximately 40 feet long	Monitor gravel and pavement edge and reevaluate during next inspection cycle	

Project Name: Environmental Cap Issues Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P7	Pavement	Repaired asphalt in good condition; joints previously sealed but missing sealant in places	Reseal edges	
P9	Pavement	Repaired asphalt in good condition; joints previously sealed but missing sealant in places	Reseal joint	

Project Name: Environmental Cap Issues Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P12	Pavement	Repaired asphalt patch; approximately 5-foot-by-10-foot; some sealant missing; minor cracking adjacent to repair	Reseal edges and cracks	
P16	Pavement	Previously sealed crack with sealant missing in places; crack extends northeast along the cap extent	Reseal crack	

Project Name: Environmental Cap Issues Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P19	Pavement	Crack previously sealed with sealant but missing in places; divots as deep as 1 inch and almost 1 foot wide in places; crack extends several hundred feet	Repair larger divot; reseal cracks	
P28	Pavement	Linear crack approximately 75 lf and as wide as 0.25 inches	Seal crack	

Project Name: Environmental Cap Issues Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P29	Pavement	Linear crack in asphalt extending along drive lane from point approximately 75 lf; as wide as 1 inch in places	Seal crack	
P37	Pavement	Repaired asphalt, degraded in places	Monitor and reevaluate during next inspection cycle	

Project Name: Environmental Cap Issues Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P38	Pavement	Previously sealed crack with sealant missing in places; approximately 30 lf	Reseal crack	
P46	Pavement	Asphalt repair near truck scale area; approximately 250-foot-by-150-foot area; wheel ruts present, but no visible cracking	Monitor and reevaluate wheel ruts during next inspection cycle	

Project Name: Environmental Cap Issues Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P58	Pavement	Previously repaired asphalt; approximately 5-foot-by-8-foot area; sealant missing on edges	Reseal edges	
P65	Pavement	Linear crack approximately 75 lf wider than 1/8 inch; runs along driveway lane	Seal crack	

Project Name: Environmental Cap Issues Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P67	Pavement	Cracks and depression in asphalt near northeast extent of cap; runs along width of cap	Seal cracks	
P68	Pavement	Linear crack approximately 75 lf; wider than 1/8 inch; runs along driveway lane	Seal crack	

Project Name: Environmental Cap Issues Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P69	Pavement	Depressions in asphalt with cracks; roughly 5 foot spacing along width of the cap; approximately 2-foot-by-3-foot depressions	Monitor and reevaluate during next inspection cycle	
P70	Pavement	Alligator cracking in asphalt; approximately 10-foot-by-5-foot area	Seal cracks	

Project Name: Environmental Cap Issues Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P71	Pavement	Minor gouge in asphalt; approximately 4 inches long and 1/2 inch deep	Monitor and reevaluate during next inspection cycle	
P73	Pavement	Linear crack approximately 40 lf; wider than 1/8 inch; runs along driveway lane	Seal crack	

Project Name: Environmental Cap Issues Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P74	Pavement	Linear crack approximately 100 lf; wider than 1/8 inch; runs along driveway lane	Seal crack	
P75	Pavement	Minor depression in asphalt; approximately 1-foot-by-1-foot	Monitor and reevaluate during next inspection cycle	

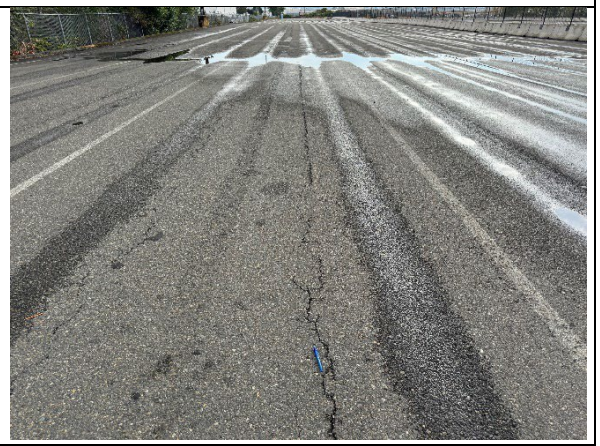
Project Name: Environmental Cap Issues Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P84	Pavement	Alligator cracking and divot in asphalt; approximately 4-foot-by-4-foot area	Repair asphalt alligator cracking and reseal smaller cracks	
P86	Pavement	Previously sealed divot in asphalt with sealant missing in places; approximately 2-foot-by-1-foot area and 1/2 inch deep	Reseal cracks and divot	

Project Name: Environmental Cap Issues Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P87	Pavement	Gouge in asphalt; approximately 3-foot-by-1-foot area and 1/2 inch deep	Repair asphalt gouge	
P89	Pavement	Linear crack approximately 15 lf 1/4-inch wide; extends from P52 and P53	Seal crack	

Project Name: Environmental Cap Issues Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P90	Pavement	Multiple linear cracks within tire ruts; wider than 1/8 inch; extending to end of cap	Repair larger rut cracks; seal smaller cracks	

NOTES:
C = curb
lf = linear foot
P = pavement

Table 2-2: Environmental Cap Repairs Observed During 2024 Inspection

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
C7	Curb	Repaired concrete curb; approximately 30 lf	None	
C11	Curb	Repaired curb; approximately 4 lf	None	

[1] IDs are sequentially numbers and are continued from previous cap inspection events to maintain consistency with recurring pavement observations. Skipped numbers indicate the repair was observed during a previous inspection and no action was required or it is presented as an issue needing repair (See Table 2-1).

Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
C12	Curb	Sealed crack in top of curb as wide as 2 inches; approximately 15 lf	None	
C13	Curb	Slope stabilized with recycled asphalt on the backside of degraded curb; approximately 15 lf	Monitor repair and reevaluate during next inspection cycle	

Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
C14	Curb	Repaired curb; approximately 5 lf	None	
C15	Curb	Repaired concrete curb; approximately 6 lf	None	

Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
C17	Curb	Repaired curb at site entrance/exit; approximately 3 lf;	None	
P4	Pavement	Slope stabilized with gravel at pavement edge; approximately 20 lf	None	

Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P6	Pavement	Gravel added to stabilize pavement edge; approximately 45 lf; cracks forming again	Monitor repair and reevaluate during next inspection cycle	
P10	Pavement	Sealed crack extending across site entrance; approximately 50 lf	None	

Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P11	Pavement	Sealed cracks	None	
P12	Pavement	Repaired asphalt patch; approximately 5-foot-by-10-foot; some sealant missing; minor cracking adjacent to repair	Reseal edges and cracks	

Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P15	Pavement	Sealed crack runs northeast along length of cap	None	
P17	Pavement	Sealed crack	None	

Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P18	Pavement	Sealed crack	None	
P20	Pavement	Sealed cracks run northeast along the length of cap	None	

Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P21	Pavement	Sealed cracks	None	
P22	Pavement	Sealed cracks	None	

Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P23	Pavement	Sealed edges of previous asphalt repair; approximately 10-foot-by-20-foot area	None	
P26	Pavement	Sealed cracks	None	

Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P27	Pavement	Sealed cracks and asphalt depression	None	
P30	Pavement	Sealed crack	None	

Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P31	Pavement	Sealed cracks	None	
P32	Pavement	Sealed cracks	None	

Project Name: Environmental Cap Repairs Inspection Report
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Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P35	Pavement	Repaired asphalt	None	
P36	Pavement	Sealed crack/divot	None	

Project Name: Environmental Cap Repairs Inspection Report
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Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P37	Pavement	Repaired asphalt, degraded in places	Monitor and reevaluate during next inspection cycle	
P39	Pavement	Gouge in asphalt filled with sealant	None	

Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P46	Pavement	Asphalt repair near truck scale area; approximately 250-foot-by-150-foot area; wheel ruts present, but no visible cracking	Monitor and reevaluate wheel ruts during next inspection cycle	
P47	Pavement	Sealed cracks	None	

Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P50	Pavement	Sealed cracks; several hundred lf	None	
P59	Pavement	Sealed crack	None	

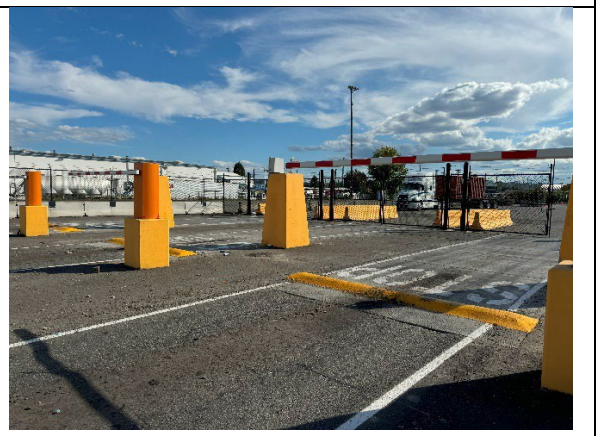
Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P60	Pavement	Asphalt repair; approximately 3-foot-by-3-foot area	None	
P61	Pavement	Repaired asphalt; approximately 30-foot-by-15-foot area	None	

Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P62	Pavement	Repaired asphalt; approximately 20-foot-by-20-foot area; location of previous cap observation P34	None	
P63	Pavement	Repaired asphalt; approximately 10-foot-by-12-foot area; location of previous cap observation P33	None	

Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P64	Pavement	Cap repair with concrete and rebar at entrance of each truck scale lane; location of previous cap observation P25	None	
P66	Pavement	Sealed crack; extends width of cap	None	

Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P72	Pavement	Repaired asphalt; approximately 4-foot-by-1-foot area	None	
P76	Pavement	Sealed cracks	None	

Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P77	Pavement	Sealed cracks and repaired asphalt; approximately 6-foot-by-11-foot area	None	
P78	Pavement	Sealed cracks and repaired asphalt; approximately 6-foot-by-12-foot area	None	

Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P79	Pavement	Sealed cracks and repaired asphalt; approximately 8-foot-by-8-foot area; divot filled with sealant	None	
P80	Pavement	Sealed cracks and circular asphalt patch; approximately 6-foot diameter	None	

Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P81	Pavement	Sealed cracks and repaired asphalt; approximately 5-foot-by-6-foot area	None	
P82	Pavement	Repaired sealant; approximately 6-inch-by-3-inch area	None	

Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P83	Pavement	Sealed divot near site entrance; approximately 1-foot-by-1-foot area	None	
P85	Pavement	Two adjacent asphalt repairs; approximately 2-foot-by-2-foot areas	None	

Project Name: Environmental Cap Repairs Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID[1]	Type of Structure	Observation	Recommended Actions	Photograph
P88	Pavement	Sealant around previous asphalt repair; approximately 5-foot-by-15-foot area	None	

NOTES:
C = curb
lf = linear feet
P = pavement

Project Name: Stormwater Drainage System Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

Table 2-3: Stormwater Drainage System Issues Observed During 2024 Inspection

ID	Type of Structure	Observed Condition	Sediment Accumulation	Additional observations	Recommended Actions	Photographs
CB2	Catch basin	Structurally sound, functioning normally	Water in structure, too deep to measure	Trace floatables on surface	Replace insert; remove floatables in accordance with stormwater maintenance requirements	 

Project Name: Stormwater Drainage System Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID	Type of Structure	Observed Condition	Sediment Accumulation	Additional observations	Recommended Actions	Photographs
CB3	Catch basin	Structurally sound; functioning normally	Water in structure and too deep to measure	Trace floatables on surface	Clear debris around catch basin; replace insert; remove floatables in accordance with stormwater maintenance requirements	 

Project Name: Stormwater Drainage System Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID	Type of Structure	Observed Condition	Sediment Accumulation	Additional observations	Recommended Actions	Photographs
CB4	Catch basin	Structurally sound; functioning normally	Water in structure and too deep to measure	Trace floatables on surface	Replace insert; remove floatables in accordance with stormwater maintenance requirements	

Project Name: Stormwater Drainage System Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID	Type of Structure	Observed Condition	Sediment Accumulation	Additional observations	Recommended Actions	Photographs
CB5	Catch basin	Structurally sound; functioning normally	Water in structure and too deep to measure	Damaged insert; trace floatables on surface; some sheet flow from site appears to bypass catch basin and run off site to Maxwell Way before ponding	Reseal area around grate; evaluate means for directing stormwater to structure; replace insert; remove floatables in accordance with stormwater maintenance requirements	 

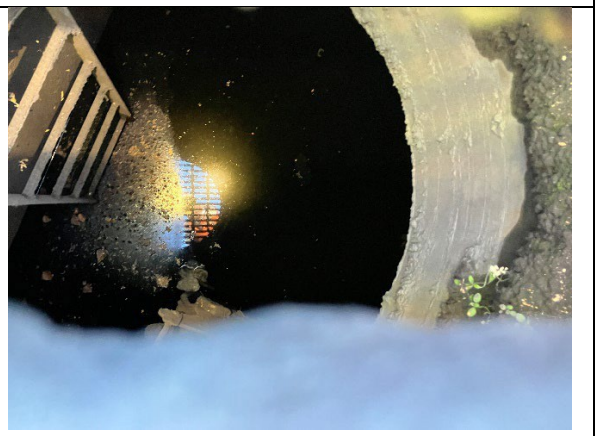
Project Name: Stormwater Drainage System Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID	Type of Structure	Observed Condition	Sediment Accumulation	Additional observations	Recommended Actions	Photographs
CB6	Catch basin	Exposed rebar in structure; functioning normally	Water in structure and too deep to measure	Trace floatables on surface	Replace insert; remove floatables in accordance with stormwater maintenance requirements	 

Project Name: Stormwater Drainage System Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID	Type of Structure	Observed Condition	Sediment Accumulation	Additional observations	Recommended Actions	Photographs
CB7	Catch basin	Structurally sound; functioning normally	water in structure and too deep to measure; visible accumulation in insert and around structure	Damaged insert; trace floatables on surface	Clear debris around catch basin; replace insert; remove floatables in accordance with stormwater maintenance requirements	
OW1	Oil/water separator	Structurally sound; functioning normally	Water in structure and too deep to measure	None	Coordinate with Port to open for future inspections	

Project Name: Stormwater Drainage System Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

ID	Type of Structure	Observed Condition	Sediment Accumulation	Additional observations	Recommended Actions	Photographs
OW2	Oil/water separator	Structurally sound; functioning normally	Water in structure too deep to measure	Trace floatables on surface	Coordinate with Port to open structure for future inspections; remove floatables in accordance with stormwater maintenance requirements	
SV1	Spill containment vessel	Structurally sound; functioning normally	Water in structure and too deep to measure	Trace floatables on water surface; slight sheen on surface	Coordinate with Port to open structure for future inspections; remove floatables in accordance with stormwater maintenance requirements	

Project Name: Stormwater Drainage System Inspection Report
Project Number: M0615.17.004
Location: Cascade Timber

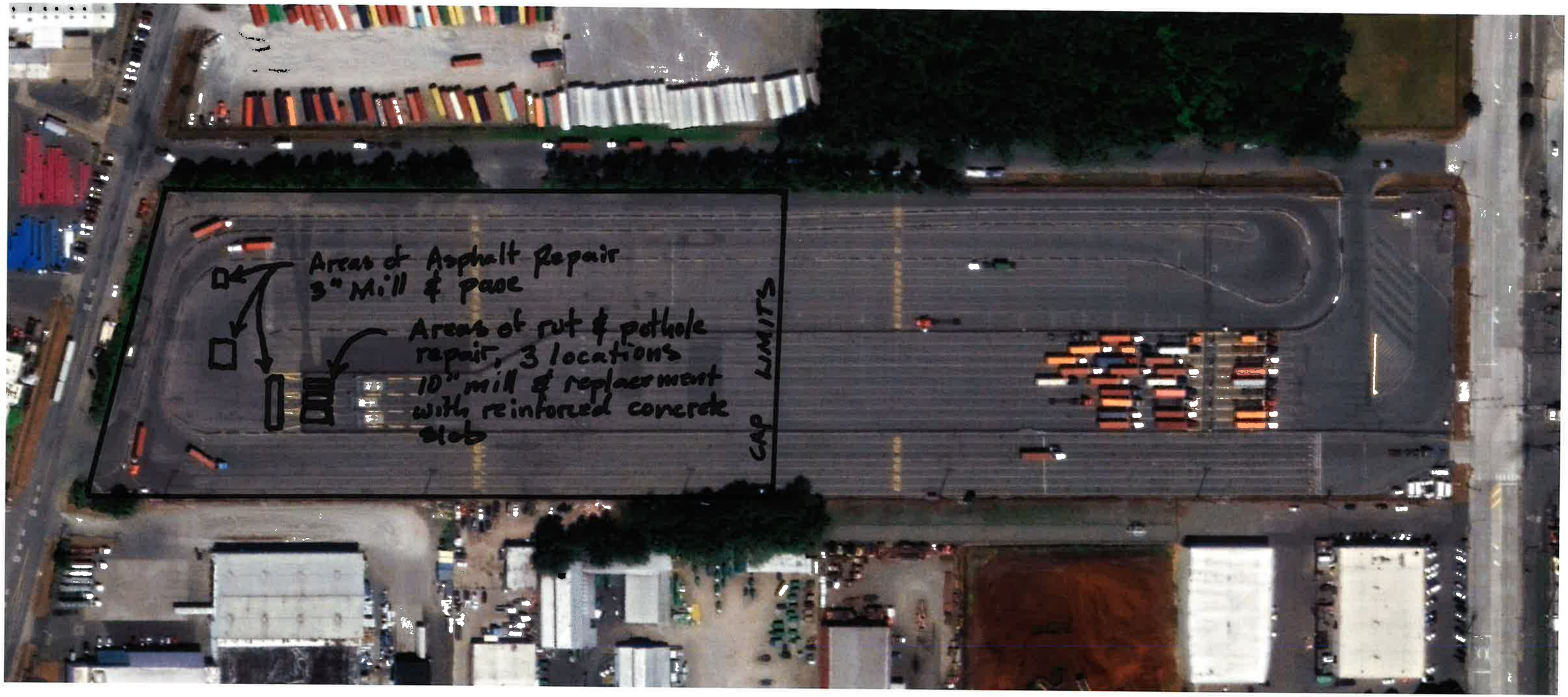
ID	Type of Structure	Observed Condition	Sediment Accumulation	Additional observations	Recommended Actions	Photographs
SV2	Spill containment vessel	Structurally sound; functioning normally	Water in structure and too deep to measure	Trace floatables on surface	Coordinate with Port to open structure for future inspections	
WMH	Maintenance manhole	Structurally sound; functioning normally	Water in structure and too deep to measure	None	Coordinate with Port to open structure for future inspections	

NOTES:
CB = catch basin
nm = not measured
OWS = oil/water separator
SV = spill containment vessel
WMH = west maintenance manhole

Appendix A

Environmental Cap Repairs

MAUL
FOSTER
ALONGI



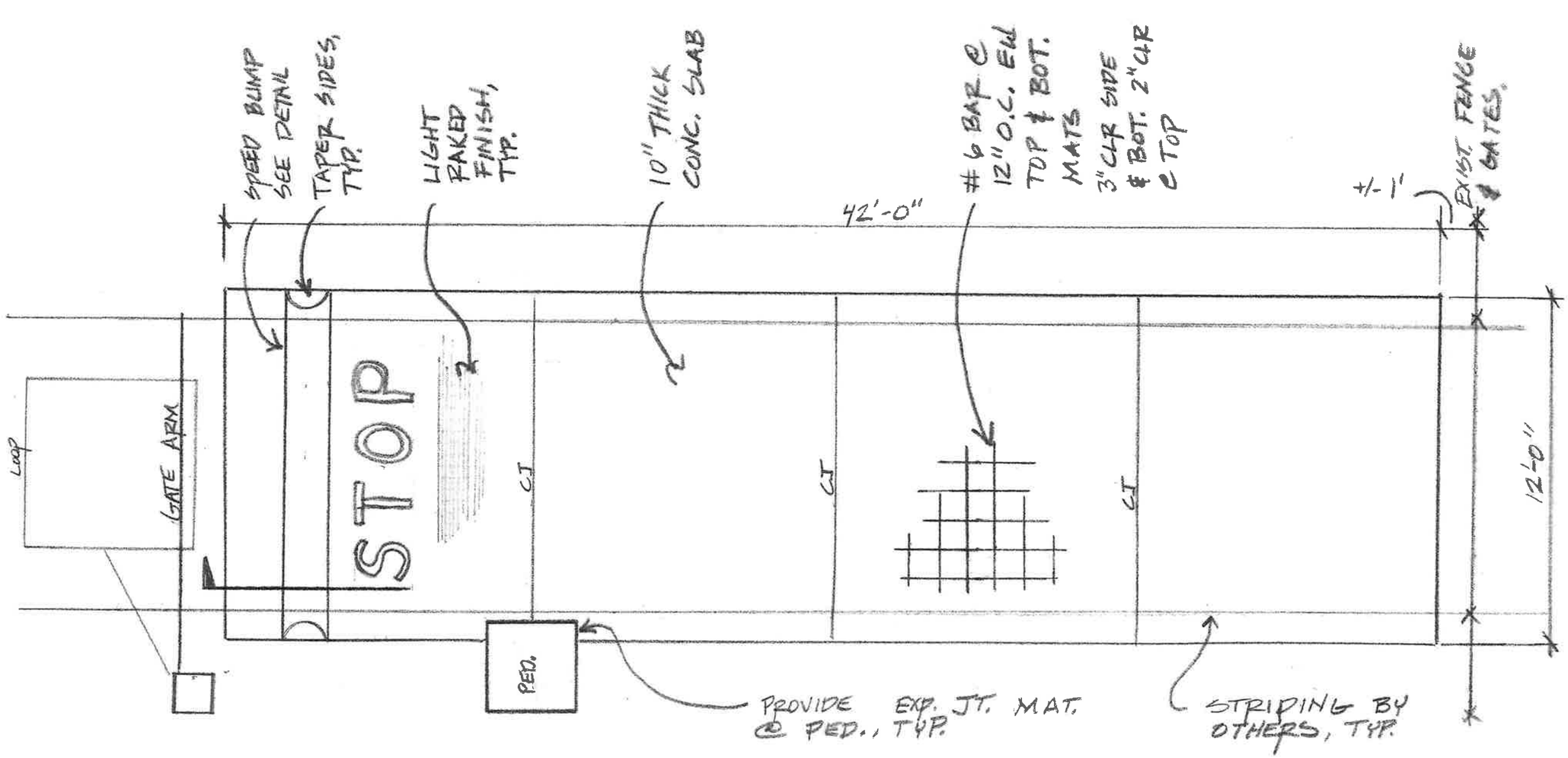
Cascade Timber 2024 Cap Repair and Maintenance work.

Asphalt Repair areas – total of three (3)

3” mill and pave, with perimeter sealant.

Rutting and Pothole Repairs – total of three (3)

10” mill, installation of rebar mats and concrete to eliminate ongoing rutting and potholes at the entry gate area.

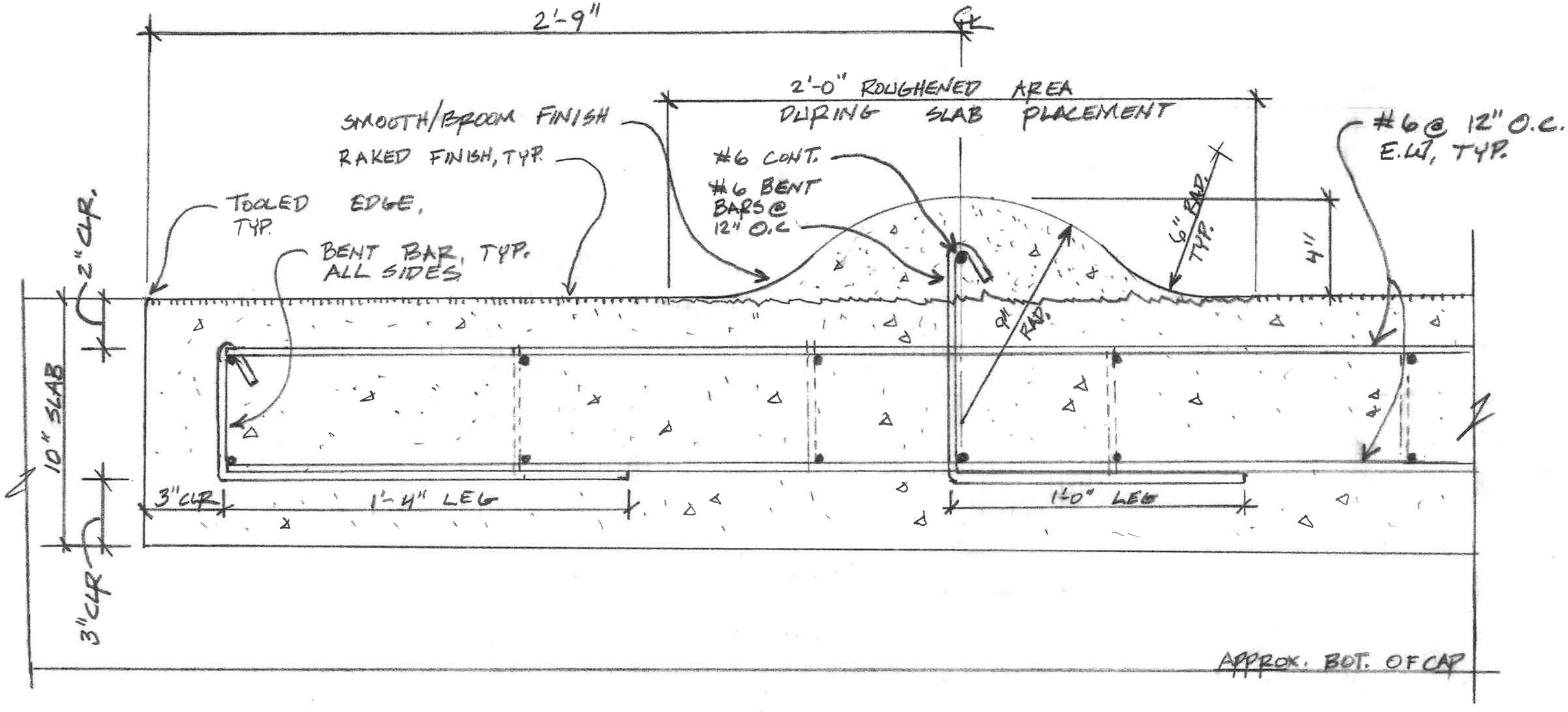


SLAB DETAIL TYP. of 3

1/4" = 1'-0"

NOTES:

1. SAW CUT CONTROL JOINTS (CJ) AS SOON AS POSSIBLE AFTER CONC. PLACEMENT.
2. CONC. SHALL BE HIGH EARLY (4500 PSI IN 3 DAYS)
3. PROVIDE CURING AGENT AND/OR COVER WITH PLASTIC TO KEEP MOIST DURING CURING



SPEED BUMP DETAIL / SECTION

3" = 1'-0"