

MULTNOMAH COUNTY DEPARTMENT OF COMMUNITY SERVICES
TRANSPORTATION PLANNING AND DEVELOPMENT PROGRAM

Construction Permit

October 28, 2024

Under the provisions of Multnomah County Code (“MCC”) Sections 27.055, 27.056, 29.506, and 29.572, and Multnomah County Road Rules (“MCRR”) 18.200, this Construction Permit (the “Permit”) is hereby issued by Multnomah County Transportation Planning and Development Program (“County”) to :

PORTLAND WATER BUREAU

1120 SW 5TH AVE, RM 405, PORTLAND, OR 97204

CONTACT: ROBERT FRALEY

CONTACT PHONE: 503-823-3573

CONTACT EMAIL: Robert.fraley@portlandoregon.gov

(“Developer”). This Permit is issued for the construction of the improvements within the County controlled rights-of-way or easements, as described in EXHIBIT A, attached hereto and made a part of this document.

A. General Permit Requirements:

1. The County shall approve all plans, drawings, and other design documents prior to the construction of any improvements as described in the Exhibit A.
2. NO PARTIAL IMPROVEMENTS SHALL BE CONSTRUCTED WITHIN THE COUNTY RIGHT-OF-WAY.
3. ANY EXCAVATION, ROCKING, OR PAVING SHALL ONLY BE ALLOWED AS A PART OF A CONTINUOUS, TIMELY OPERATION TOWARD COMPLETION OF THE WORK AS DESCRIBED IN THE EXHIBIT “A.” NO PAVING SHALL BE ALLOWED UNTIL ALL CURB, EXCAVATION, ROCK, DRAINAGE, AND UTILITY WORK, HAS BEEN COMPLETED WITHIN THE AREA TO BE PAVED, AND THEN ONLY AS A PART OF THE CONTINUOUS, TIMELY COMPLETION OF THE ENTIRE PAVING PROJECT, AS SHOWN ON THE APPROVED PLANS.
4. The County reserves the right to prohibit any further connections, withhold occupancy permits, or remove or block any existing connections between the facilities covered by this Permit and adjacent properties, if the Developer does not provide or complete all items of this Permit to the County's satisfaction.

B. The County agrees to do the following:

1. Establish the amounts of the Administration Fee, Performance Guarantee, and Maintenance Guarantee.
2. Review plans, drawings, and other design documents for conformance with design and drafting criteria. Upon approval of the plans, provide the Developer with copy sets of plans and specifications, and schedule a pre-construction meeting.
3. Establish a reasonable length of time for construction activities within the right-of-way. Issue "First Notification" to authorize the beginning of construction activities, and start the calendar day count
4. Issue "Second Notification" to stop the calendar day count if the County deemed the project to be substantially complete in accordance to the contract documents so that the work can be used for its intended purpose.
5. Perform all required final construction supervision, inspection, and testing if needed.
6. Inspect completed facility for acceptance of construction work, and if facilities are accepted issue the "Third Notification" to release the Performance Guarantee.
7. Conduct final inspection prior to expiration of Maintenance Guarantee, and if facilities are accepted issue the "Fourth Notification" to release the Maintenance Guarantee.
8. Administration required for processing and accepting facility as a County or Service District maintained facility, where applicable.

C. The Developer agrees to do the following:

1. Deposit with the County an Administration Fee, of **\$ See Exhibit A** prior to scheduling the pre-design meeting. Following acceptance by the County of the completed improvements, this fee may be adjusted up or down to reflect the actual costs incurred by the County. Over-payment will be refunded to the Developer. Under-payment will result in billing the Developer for the difference between the actual costs incurred and the initial fee.
2. Before issuance of the "First Notification" provide to the County a properly executed Performance Guarantee in the amount of **\$ See Exhibit A**. This guarantee shall be submitted to the County Engineer. The Performance Guarantee shall guarantee the completion of the improvements described in Exhibit A and shall remain in full force and effect until the Developer receives the "Third Notification" or termination of this Construction Permit whichever comes first.
3. Before issuance of the "Third Notification" provide to the County a properly executed Maintenance Guarantee, in the amount of **\$ See Exhibit A**. The guarantee shall be submitted to the County Engineer. The guarantee shall not expire for two (2) years from date Developer receives the "Third Notification" or receives the "Fourth Notification", whichever comes later. The Maintenance Guarantee shall guarantee the repair or replacement of any improvements constructed under this permit which become unsatisfactory to the County because of workmanship or materials used during their

construction or that are damaged by project workmen or equipment completing the related adjacent construction.

4. Complete all construction activities, to include all "As-Built" information, within eighteen (18) months of the issuance date of the "Third Notification".
 5. Obtain the services of a consulting Engineer, registered in the state of Oregon, WHO WILL BE FURNISHED A COPY OF THIS PERMIT BY THE DEVELOPER. The Developer or Consultant shall furnish to the County a fully executed "Consulting Engineer's Statement" (see attachment), AND SCHEDULE A PRE-DESIGN MEETING WITH THE COUNTY PRIOR TO COMMENCING ANY DESIGN WORK. If Developer should change consulting engineers prior to acceptance of plans a new fully executed "Consulting Engineer's Statement" must be furnished to the County before the project can continue. Any compensation paid to the Engineer for services rendered in performance of Developer's obligations under this Permit may not be included as part of the Administration Fee.
 6. Convey all right-of-way dedications and easement dedications as required by this Construction Permit to the appropriate governing body, free of all encumbrances, before issuance of the "First Notification."
 7. Developer shall defend, save, hold harmless, and indemnify County and its officers, employees, and agents from and against all claims, suits, actions, losses, damages, liabilities, costs, and expenses of any nature whatsoever, including attorney fees, resulting from, arising out of, or relating to the activities of Developer or its officers, employees, agents, contractors, subcontractors under this Permit. Developer shall have control of the defense and settlement of any claim that is subject to this paragraph. However, neither the Developer nor any attorney engaged by the Developer shall defend the claim in the name of the County or any department of the County, nor purport to act as legal representative of the County or any of its departments without receiving from the Multnomah County Attorney's Office, authority to act as legal counsel for the County, nor shall Developer settle any claim on behalf of the County without the approval of the Multnomah County Attorney's Office. County may, at its election and expense, assume its own defense and settlement.
- D. Developer shall ensure that any Consulting Engineer ("Engineer") retained by the Developer to provide services under this Permit complies with the following requirements:
1. The Engineer must work directly with the County Engineer, and provide engineering services in the same manner as if the Engineer had been retained by the County.
 2. Design the project, including complete plans and specifications, in conformance with MCC 29.500, the Multnomah County Design and Construction Manual, and design standards adopted thereunder. All plans submitted for review shall be submitted on 24 inch by 36 inch sheets. Plans shall be produced using English units and quantities.
 3. Perform or obtain all survey work according to County standards, as required for design and construction of the project. Perform any additional construction staking or material testing as directed by the County. The Engineer shall document any changes to the approved design that occur during construction, and submit any additional work required for preparation of "as-built" plans.

4. After production of “as-built” plans, the Engineer shall provide to the County an electronic copy of the drawings, to include the base topographic survey data, with the “as-built” mylars.
5. Detail on the plans items of esthetic or historic significance, including trees, inside the right-of-way or within ten (10) feet of the right-of-way line that may be disturbed or destroyed by the project.
6. Detail on the plans all underground utilities to be constructed as part of this Permit as a composite utility plan. All information is to be furnished by the respective utilities, and approved by them.
7. Obtain DEQ and appropriate city approval of sanitary sewers, if applicable, and furnish copy of approval to the County prior to the County’s approval of plans.
8. The Engineer shall make all changes to the plans as may be required for County approval of the plans. After all changes have been made, the Engineer shall submit a stamped and signed plans either electronically or on double mat mylar or photocopied mylars on double mat mylars and one set of 11 inch by 17 inch paper. If mylars are hand produced or pen plotted, mylars are to be produced in black ink.

E. Developer shall ensure that any Construction Contractor (“Contractor”) retained by the Developer to provide services under this Permit complies with the following requirements:

1. Before the pre-construction meeting, Contractor shall notify all affected utilities and coordinate their work within the project.
2. At the time of the pre-construction meeting, the Contractor shall provide to the County the following documents:

Traffic control plans
 Insurance Certificate with Multnomah County as additional insured
 Construction work schedule
 List of contractors’ contact numbers for emergencies
 List of subcontractors
 List of material suppliers
 Gradation, Abrasion, Sand Equivalent, Fracture, and Degradation Tests for Aggregate
 Mix Design for Concrete and Asphalt
 Material Certifications

All documents shall conform to the requirements of the current ODOT Oregon Standard Specifications for Construction.

3. All activities, including work to be performed and materials to be used in the performance of work as described in the Exhibit/s, shall conform to the current ODOT Oregon Standard Specifications for Construction except as modified by Multnomah County Special Provisions.
4. Maintain all erosion control measures at all times.

5. Complete all construction activities within the right-of-way within the period specified in the “First Notification” and complete any corrective work as detailed in the “Second Notification” within twenty (20) calendar days from the date of the “Second Notification”. Failure to meet these deadlines shall be grounds for the County to proceed under Section F (2) of this Permit.

F. Time Extension/Forfeiture

1. The County may, in its sole discretion, grant time extensions to the time limits described in this Permit. Any request for a time extension shall be in writing, and state the reasons for the extension. An approved extension may require an additional Administration Fee and may also require a new Performance Guarantee in an increased amount necessary to cover current estimated construction costs. Before the County grants any time extension, the Developer shall furnish proof that all Fees and Guarantees have met the requirements of Sections C (1) and C (2) for the new date being requested.
2. The County may, in its sole discretion, require forfeiture of the Performance Guarantee and complete the project for any of the following:
 - a) Failure to complete construction by the date established in Section C (4)
 - b) Failure to complete construction activities within the time limit established in the “First Notification.”
 - c) Failure to complete the corrective work within 20 calendar days of the date of the “Second Notification.”
 - d) Failure to abide by the other terms of this Permit.
3. If the Performance Guarantee is insufficient to reimburse the County for its costs to complete the project under paragraph 2 of this section, the County shall bill the Developer for any excess costs.

I (We) have read and hereby accept the terms of this Construction Permit.

By David Peters
Developer
David Peters
Developer (Print Name)

10/29/2024
(Date)

Tax ID No.

Accepted for Multnomah County, Oregon

By Brad Choi
Brad Choi, PE
Transportation Development Manager

Digitally signed by Brad Choi
DN: c=US, e=brad.choi@multco.us, o=Multnomah County,
ou=Transportation Planning and Development, cn=Brad Choi
Date: 2024.10.31 16:20:17-0700

10/31/2024
(Date)

By
Jon Henrichsen, PE
Transportation Division Director

11/1/2024
(Date)

EXHIBIT "A"

To make frontage/road improvements as part of the Notice of Decision document T3-2022-16220 Hearings Officer's Decision and fulfills the following Conditions of Approval D.5.c, D.6.g, D.6.h, D.6.i, D.7, D.8, D.9, E.1.e, E.1.f, E.1.h, E.1.i, E.1.j, E.1.k, E.1.l, E.1.m, E.1.n, E.1.o, E.1.p, E.1.q, and E.1.r.

The improvements are to consist of the following:

1. Road improvements as shown in the Phase 3 – Water Main Construction Plan.

Furnish Administration Fee in amount of \$ See Exhibit B - Memorandum (please see Section C (1) of Construction Permit). Administration Fee must accompany signed Project Permit. If writing a check, please make check payable to: MULTNOMAH COUNTY.

Furnish Performance Guarantee in amount of \$ See Indemnity Agreement (please see Section C (2) of Construction Permit).

Furnish Maintenance Guarantee in amount of \$ See Indemnity Agreement (please see Section C (3) of Construction Permit).

Both the Performance Guarantee and the Maintenance Guarantee can be provided in the form of an indemnity agreement between the City and County in a form approved by the County Attorney.

EXHIBIT B - MEMORANDUM

Department of Community Services
Land Use and Transportation Program
<http://multico.us/roads>



1620 SE 190th Avenue, Portland Oregon 97233-5910 • PH. (503) 988-5050 • Fax (503) 988-3419

To: Portland Water Bureau
c/o Robert Fraley

From: Rick Buen, P.E.
Engineer 2

Date: October 20, 2024

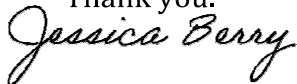
Subject: Bull Run Construction Permit Admin Fee - Permit #CONST-2023-0003.5

In connection with the Bull Run Filtration Project (BRFP) construction permit processing, Multnomah County would like to inform you that the County will not be collecting Administration Fee for this permit. The County has collected \$655,427.00 fees for cost recovery of time that the County staff and its consultant aiding the County in processing this BRFP permit during its review and construction phase.

As mentioned in the Construction Permit Section C.1, over-payment will be refunded and under-payment will be billed to Portland Water Bureau.

Please feel free to contact me if you have any questions.

Thank you.



Jessica Berry, AICP
Transportation Division
Deputy Director

**INDEMNITY AGREEMENT
IN LIEU OF
PERFORMANCE AND MAINTENANCE BONDS**

**PROJECT TITLE: Portland Water Bureau (PWB) Filtration Project
PUBLIC STREET IMPROVEMENTS**

BACKGROUND

- A. The City of Portland (“**City**”), acting by and through its Portland Water Bureau, is building a new filtration facility, raw water pipelines, finished water pipelines, a communications tower, and various additional pieces of associated infrastructure (collectively, the “**Project**”) as described in the County Hearings Officer’s Decision in the matter of T3-2022-16220, issued and mailed 11/29/2023 (the “**Land Use Decision**”).
- B. The City has applied or will apply to Multnomah County (“**County**”) for permits (collectively, the “**Permits**”) to construct those public street and stormwater improvements in County right-of-way that were contemplated in the Land Use Decision (collectively, the “**ROW Improvements**”). The Permits include, without limitation, Permit No. ROW-CONST-2023-0003, which is currently under review by the County.
- C. The County will issue the City’s Permits pursuant to Multnomah County Code (the “**MCC**”) Chapters 27 and 29, and the Multnomah County Road Rules (the “**MCRR**”).
- D. Upon approval of the City’s permit applications, the County Engineer will issue the Permits for the ROW Improvements subject to certain terms and conditions in each permit.
- E. In consideration of the City entering this Indemnity Agreement In Lieu of Performance And Maintenance Bonds (this “**Agreement**”), the County is willing to waive the performance and maintenance bonds that would typically be required for each of the Permits under MCRR Section 18.
- F. All other terms and conditions of the Permits are to remain unaffected by this Agreement.

AGREEMENT

- 1. Subject to the limitations and conditions of the Oregon Constitution and the Oregon Tort Claims Act (ORS 30.260 to 30.300), including (without limitation) specifically subject to and within the financial limits and conditions set forth at ORS 30.272 for local public bodies and at ORS 30.273 for public bodies, the City shall fully indemnify, hold harmless, and defend the County and its officers, agents, and employees from and against all claims, suits, actions, damages, or losses of whatsoever nature, and all expenses and costs

incidental to the investigations and defense thereof (including reasonable attorney fees), brought against any or all of them resulting from or arising out of the acts or omissions of the City or its contractors (including their officers, employees, and agents) in connection with or arising out of the ROW Improvements, the Permits, or of the maintenance of the work associated therewith.

2. The City will promptly repair to the written satisfaction of the County, which shall not be unreasonably withheld, all damage to public streets or infrastructure resulting from or arising out of the acts or omissions of the City or its contractors (including their officers, employees, and agents) in connection with or arising out of the ROW Improvements, the Permits, or the maintenance of the work associated therewith. The County may notify the City of such damage in writing. The City will promptly repair such damage to the written satisfaction of the County, which shall not be unreasonably withheld. "Promptly" means within thirty (30) calendar after receipt of such written notification or, in the case of damage that cannot with due diligence be repaired within a period of thirty (30) calendar, commencement of the steps necessary to repair the damage within that thirty (30) calendar day period and diligently prosecute the same to completion. If the City fails to repair the damage as required in this paragraph, the County may repair the damage and the City will promptly pay the County's written invoices for costs therefor.
3. If the City or its contractors fail to complete the ROW Improvements in accordance with the terms and conditions of the Permits and to the written satisfaction of the County, the County may engage a contractor in accordance with the County's procurement procedures to complete the ROW Improvements in accordance with the terms and conditions of the Permits. Before engaging the contractor, however, the County shall give the City written notice of the failure to complete the ROW Improvements in accordance with the terms and conditions of the Permits and of the County's intent to engage a contractor to complete the ROW Improvements, and shall allow the City a reasonable time of not less than thirty (30) calendar days to cure, or to undertake to cure if the cure would take longer than thirty (30) calendar days, the failure to complete the ROW Improvements in accordance with the terms and conditions of the Permits. Upon written request from the County, the City shall promptly reimburse the County for reasonable costs incurred by the County to complete the ROW Improvements pursuant to this paragraph.
4. The City agrees to pay within thirty (30) days' of written demand from the County any engineering fees that exceed the amount the City has previously tendered to the County for the Project.
5. The County waives the performance and maintenance bond requirements that would otherwise apply to the Permits for the ROW Improvements. All other terms and conditions of the Permits are unaffected by this Agreement.
6. Nothing in this Agreement shall alter the City's duty to abide by the requirements of the MCC, MCRR, and any other applicable law, regulation, and policy.

Indemnity Agreement

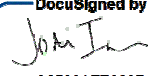
PWB Filtration Project Public Street Improvements

7. The terms of this Agreement will survive the expiration or termination of the Permits and the completion of the ROW Improvements, provided, however, that, as to any specific Permit, this Agreement shall automatically expire and be of no further force and effect on the date which is two (2) years after the date that the City receives from the County the “Third Notification” or receives the “Fourth Notification”, whichever comes later, as each such term is defined in such Permit.

The remainder of this page is intentionally blank.

City of Portland

Multnomah County

DocuSigned by:

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City Engineer
Portland Water Bureau

By: _____

Title: _____

Date: 6/12/2024

Date: _____

Approved as to Form:

Approved as to Form:

DocuSigned by:

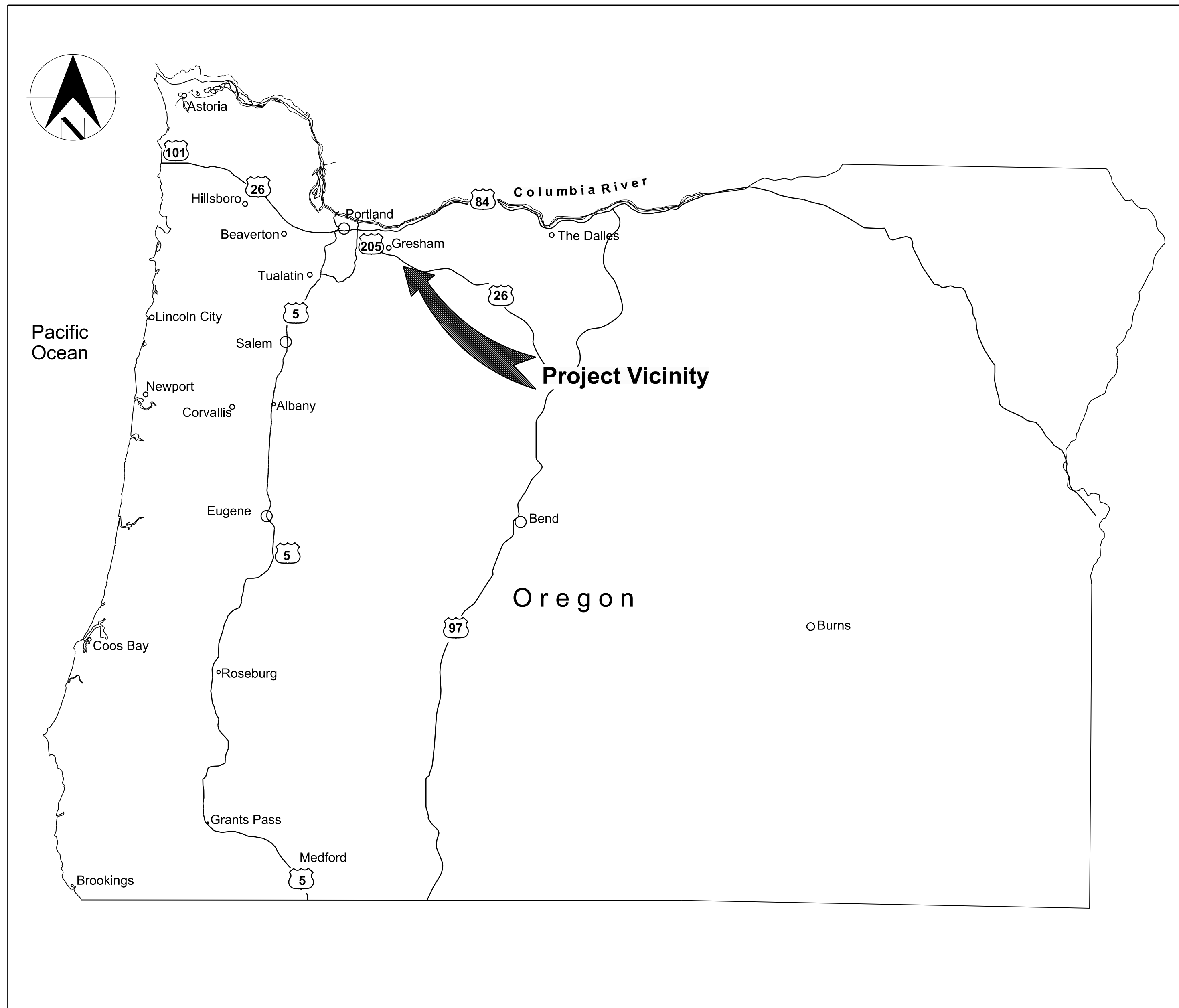
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City Attorney

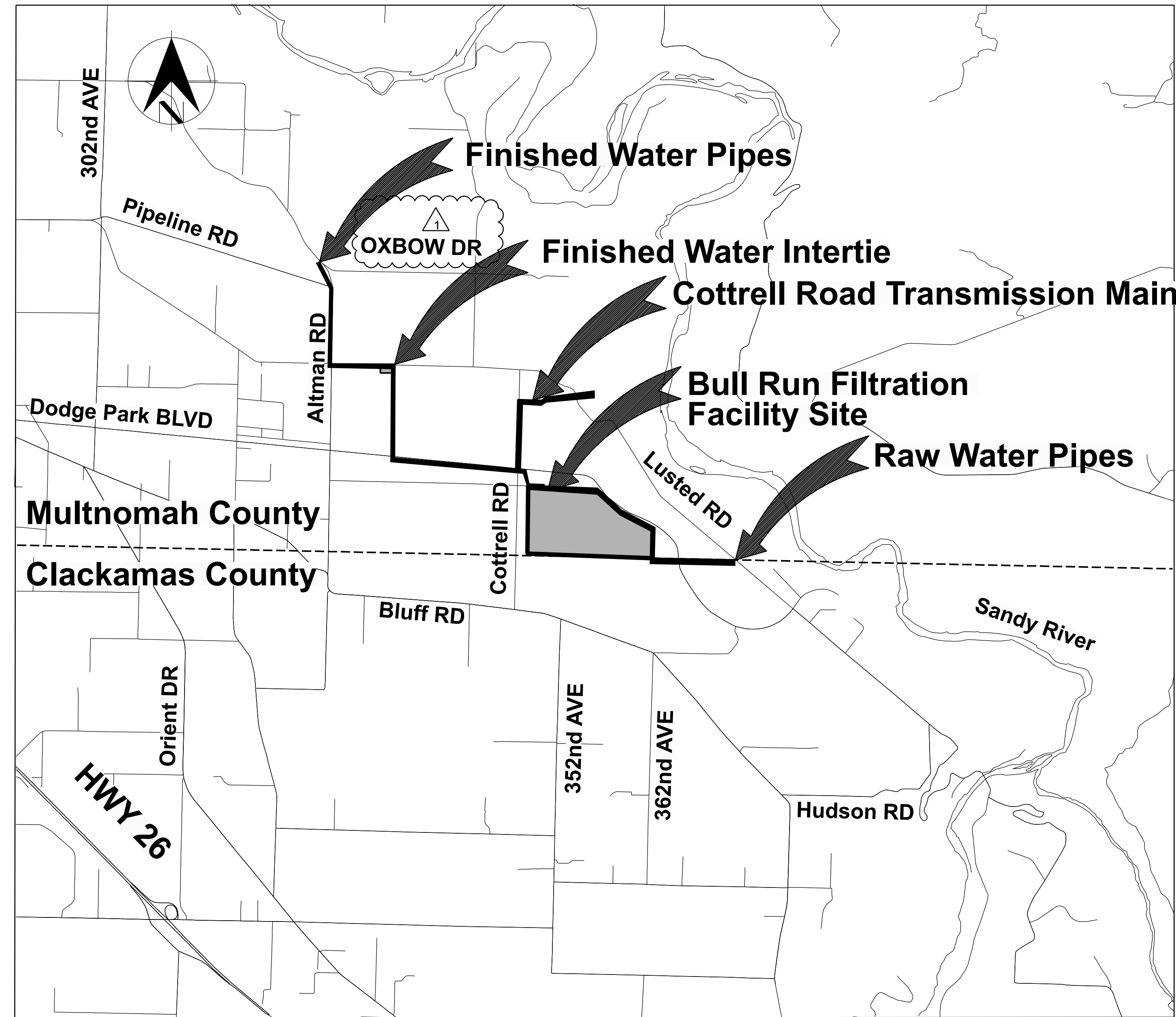
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General Counsel



LOCATION MAP
NOT TO SCALE



VICINITY MAP
NOT TO SCALE

MULTNOMAH COUNTY
TRANSPORTATION DIVISION

ACCEPTED
 ACCEPTED WITH COMMENTS
 APPROVED
 APPROVED AS NOTED
 RETURNED FOR CORRECTION

DOCUMENTS BEARING THIS STAMP ARE SUBJECT TO THE PROVISIONS SET FORTH IN SECTION 0705 OF THE OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION THAT ARE ACTIVE FOR THIS PROJECT. REVIEW IS ONLY FOR GENERAL CONFORMANCE AND COMPLIANCE OF THE PROJECT AND DOES NOT EXTEND TO MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL OREGON DOCUMENTS, ORDINANCES AND REGULATIONS TO BE OBSERVED AND COMPLETED AT THE JOB SITE FOR PROGRESS AND COORDINATION OF THE WORK OF ALL TRADES AND SATISFACTORY WORK PERFORMANCE.

BY **buent** DATE **10/28/2024**

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CONFIDENTIAL

No	Date	Description	Appd
1	10/2024	DCN-04 - CCD-0004	BJP
Revision			
Survey			



Designed By	TWL	Program Mgr	DH
Drawn By	AP	Const Mgr	BN
Checked By	SDA	CMII Eng Mgr	JB
Project Mgr	BJP	Date	9/29/23

WARNING

0 1"

If this bar does not measure 1" then the drawing is not to scale



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424



Bull Run Filtration Pipelines
GENERAL
LOCATION AND VICINITY MAP

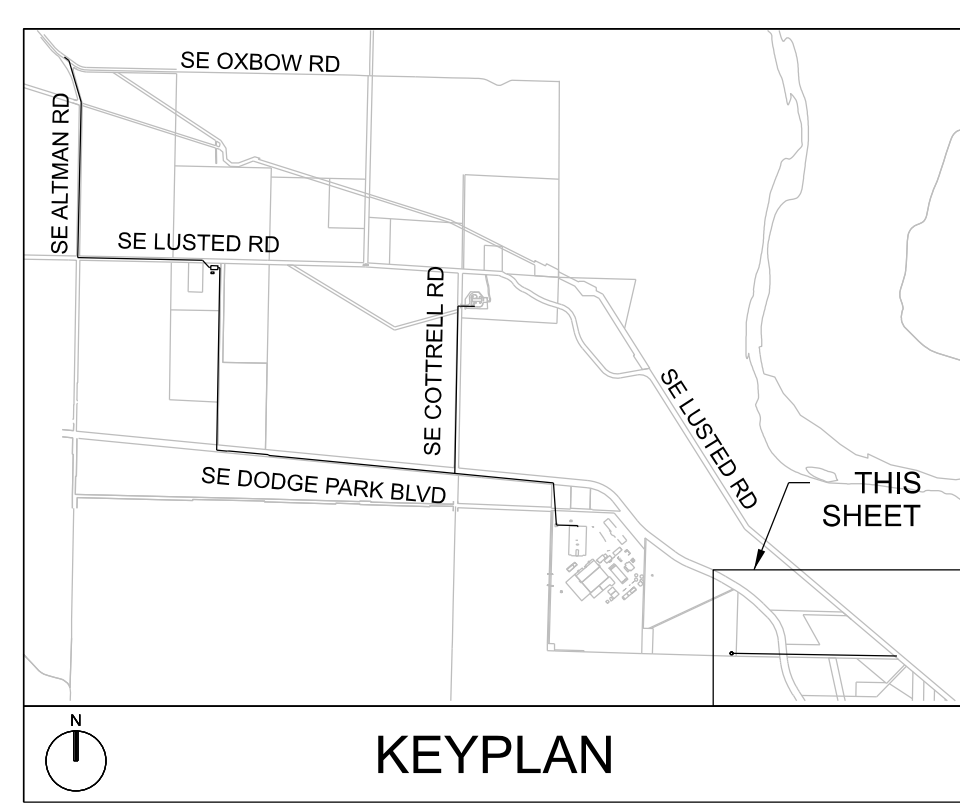
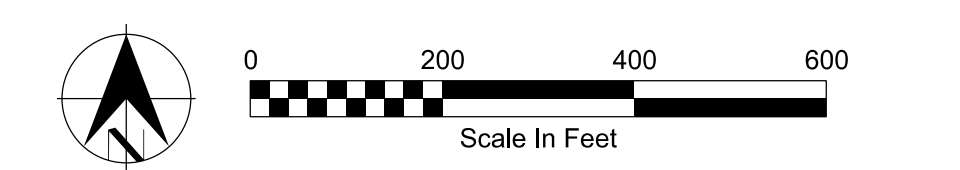
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W02563
1/4 Section
Sheet No
GEN-G-0002

GENERAL SHEET NOTES

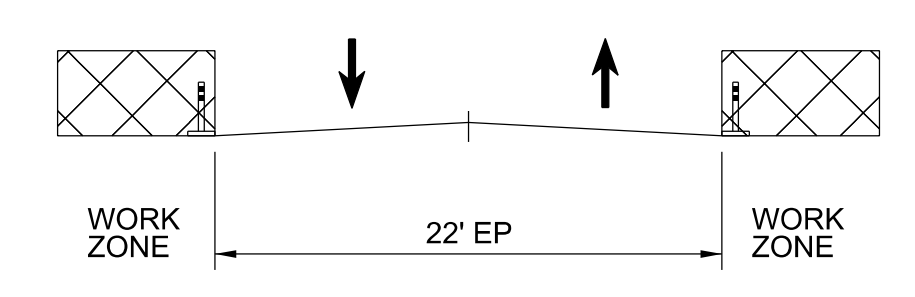
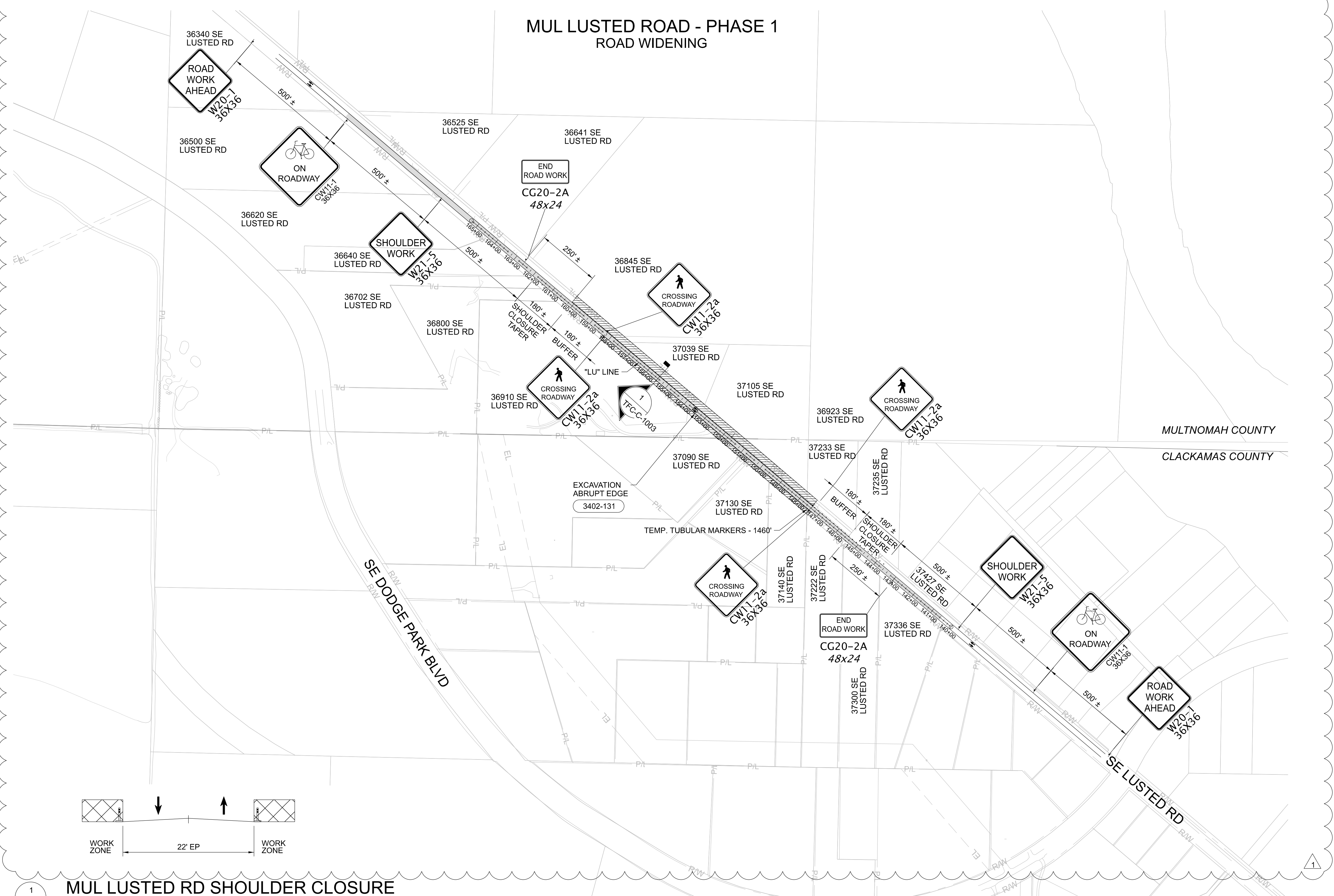
- REFER TO MUL-CG-2101 FOR TEMPORARY STREET DESIGN.
- THIS LOCATION IS SHARED BETWEEN CLACKAMAS AND MULTNOMAH COUNTIES.
- CONTRACTOR SHALL COORDINATE WITH BUREAU PUBLIC OUTREACH AGENT FOR TEMPORARY DRIVEWAY CLOSURES. PUBLIC OUTREACH AGENT SHALL COORDINATE WITH PROPERTY OWNERS. SEE 01 55 26.13 FOR ADDITIONAL DRIVEWAY CLOSURE INFORMATION.
- THIS DRAWING PROVIDES A GENERAL LAYOUT FOR MAINTAINING TRAFFIC DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTAL OF FINAL PLANS FOR APPROVAL PRIOR TO IMPLEMENTATION IN THE FIELD.
- TEMPORARY TUBULAR MARKER SPACING AT TAPERS SHALL BE 20' LONG.
- TEMPORARY TUBULAR MARKER SPACING AT RADII SHALL BE 10' LONG.
- TEMPORARY TUBULAR MARKER SPACING AT DRIVEWAYS SHALL BE NO MORE THAN 20' AND ALLOW ACCESS FOR PASSENGER VEHICLES.
- TEMPORARY TUBULAR MARKERS SPACING SHALL BE 40'.

LEGEND

- DIRECTION OF TRAFFIC
- UNDER TRAFFIC
- UNDER CONSTRUCTION
- TRAFFIC CONTROL SIGN (3471-901)
- TEMPORARY TUBULAR MARKERS
- P/L - EXISTING PROPERTY LINE
- R/W - EXISTING RIGHT OF WAY
- EL - EXISTING EASEMENT



MUL LUSTED ROAD - PHASE 1 ROAD WIDENING



1 MUL LUSTED RD SHOULDER CLOSURE
TFC-C-1003 NTS

CONFIDENTIAL

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No	Date	Description	Appd
1	10/2024	DCN-04 - CCD-0004	BJP
Revision			
Survey			



Designed By	RG	Program Mgr	DH
Drawn By	RG	Const Mgr	BN
Checked By	RG	CMII Eng Mgr	JB
Project Mgr	BJP	Date	9/29/23



Bull Run Filtration Pipelines
MULTNOMAH CONNECTION
TRAFFIC CONTROL
LUSTED RD PHASE 1

SAP Project No	W02563
1/4 Section	
Sheet No	TFC-C-1003

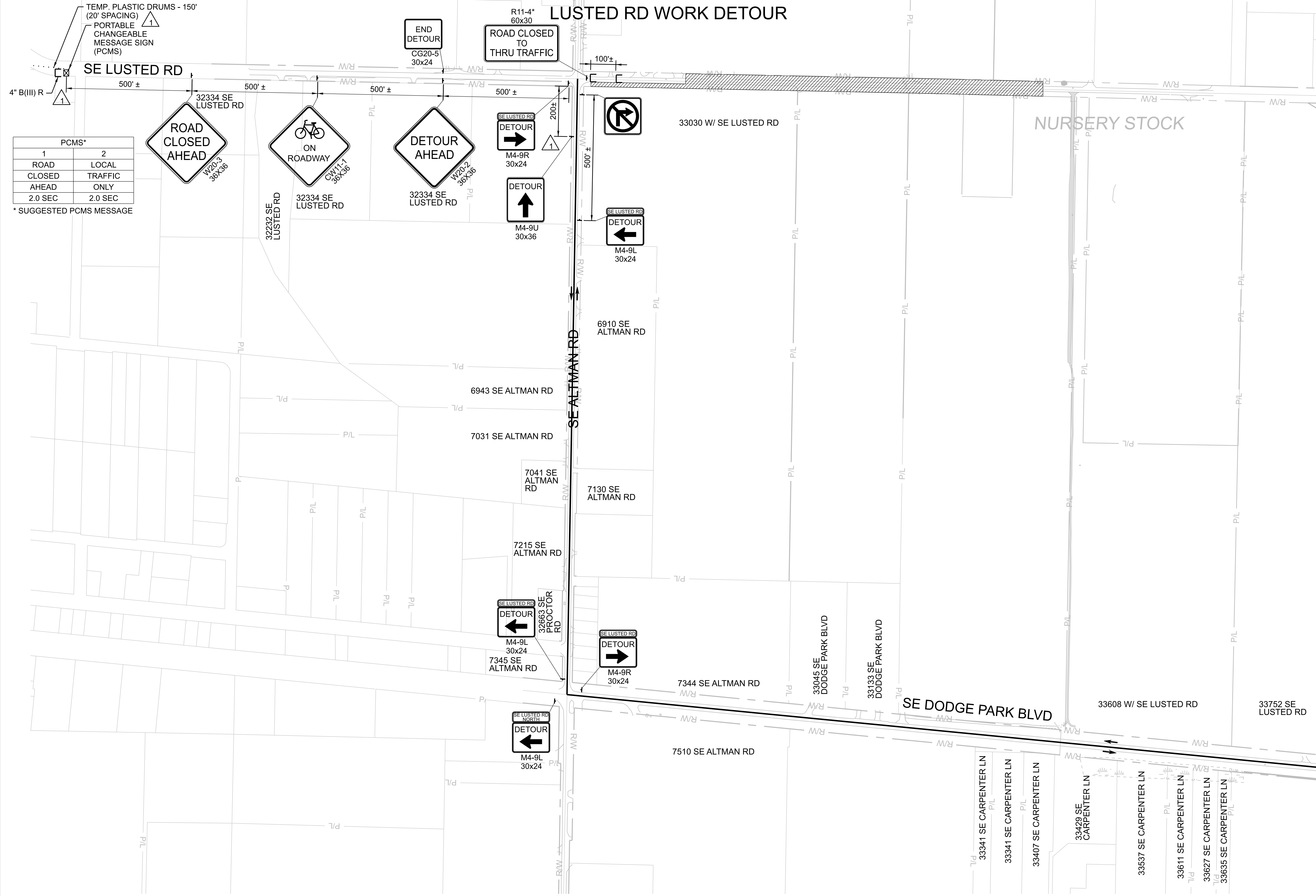
GENERAL SHEET NOTES

1. THIS LOCATION IS FULLY CONTAINED WITHIN MULTNOMAH COUNTY BORDERS AND SHALL BE REGULATED BY MULTNOMAH COUNTY TRAFFIC STANDARDS.
2. CONTRACTOR SHALL COORDINATE WITH BUREAU PUBLIC OUTREACH AGENT FOR TEMPORARY DRIVEWAY CLOSURES, PUBLIC OUTREACH AGENT SHALL COORDINATE WITH PROPERTY OWNERS. SEE 01 55 26.13 FOR ADDITIONAL DRIVEWAY CLOSURE INFORMATION.

LEGEND

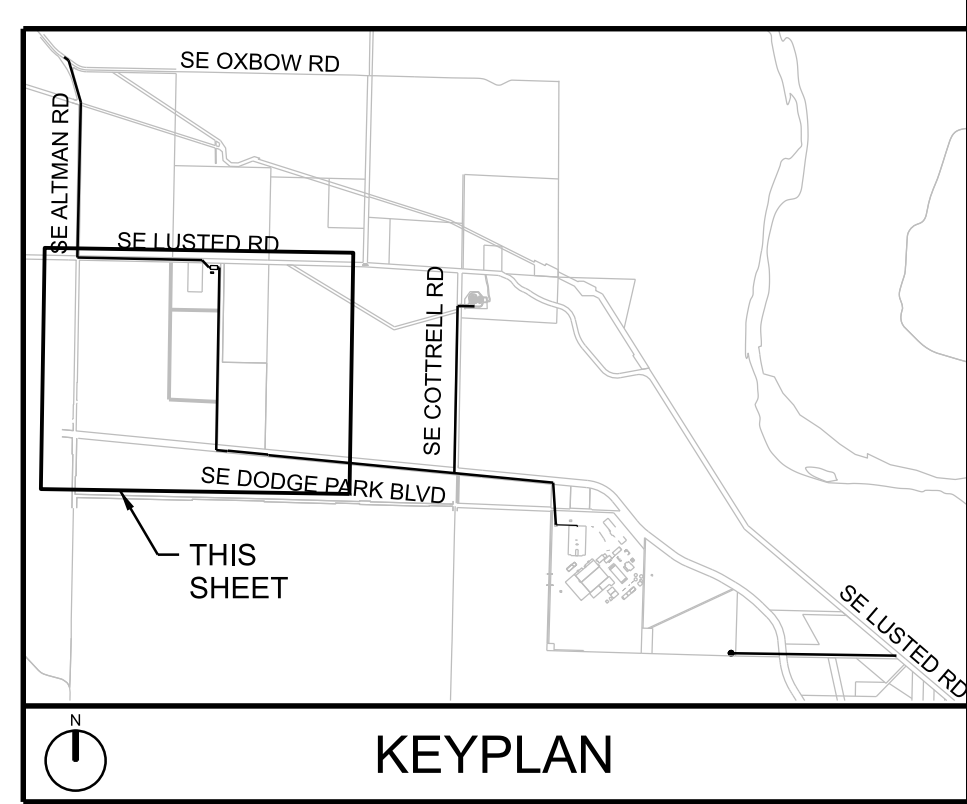
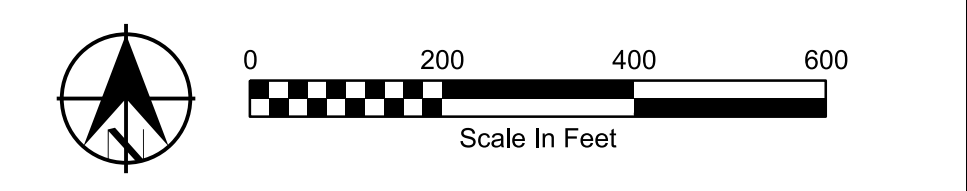
- DIRECTION OF TRAFFIC
- UNDER CONSTRUCTION
- DETOUR ROUTE
- DETOUR SIGNS (3471-901)
- TYPE III BARRICADE (3471-865)
- EXISTING PROPERTY LINE
- EXISTING RIGHT OF WAY
- EXISTING EASEMENT
- PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- TEMPORARY PLASTIC DRUMS (2)

LUSTED RD WORK DETOUR



PCMS*	
1	2
ROAD CLOSED AHEAD	LOCAL TRAFFIC ONLY
2.0 SEC	2.0 SEC

* SUGGESTED PCMS MESSAGE



SEE DWG-TFC-C-1151 FOR DETOUR ROUTE CONTINUATION

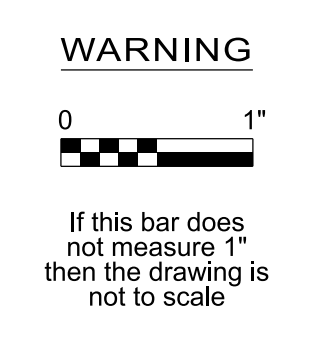
CONFIDENTIAL

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No	Date	Description	Appd
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1	6/2024	DCN-03 - CCD-0003	BJP



Designed By	DH
Drawn By	BN
Checked By	JB
Project Mgr	JB
Date	9/29/23



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424



Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
TRAFFIC CONTROL
 LUSTED WORK DETOUR - 2

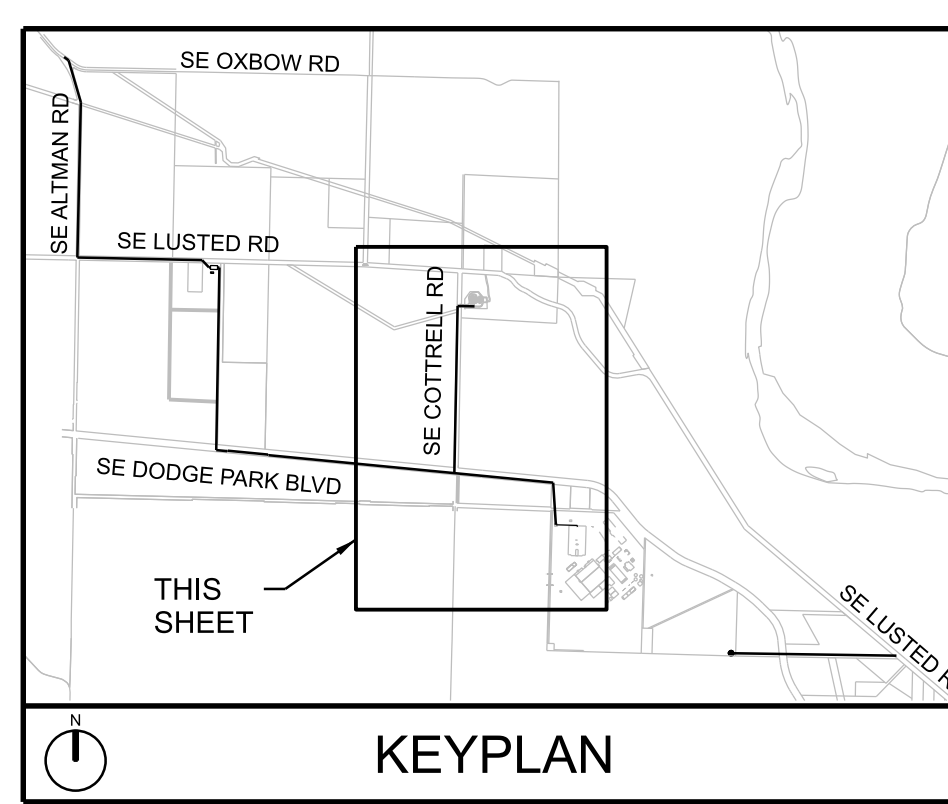
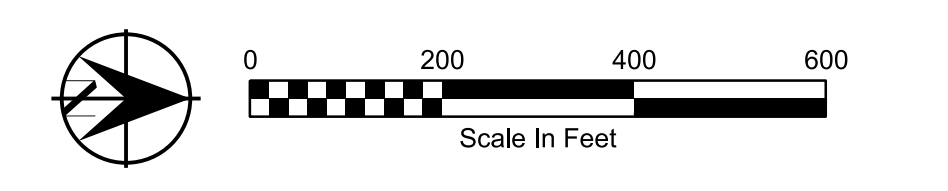
SAP Project No	W02563
Sheet No	TFC-C-1152

GENERAL SHEET NOTES

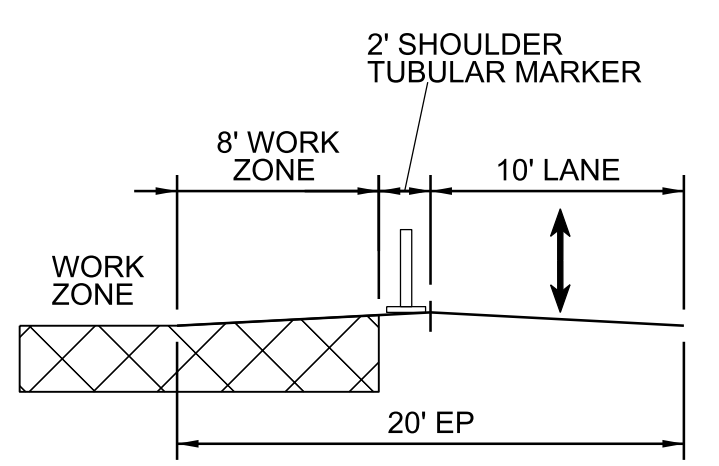
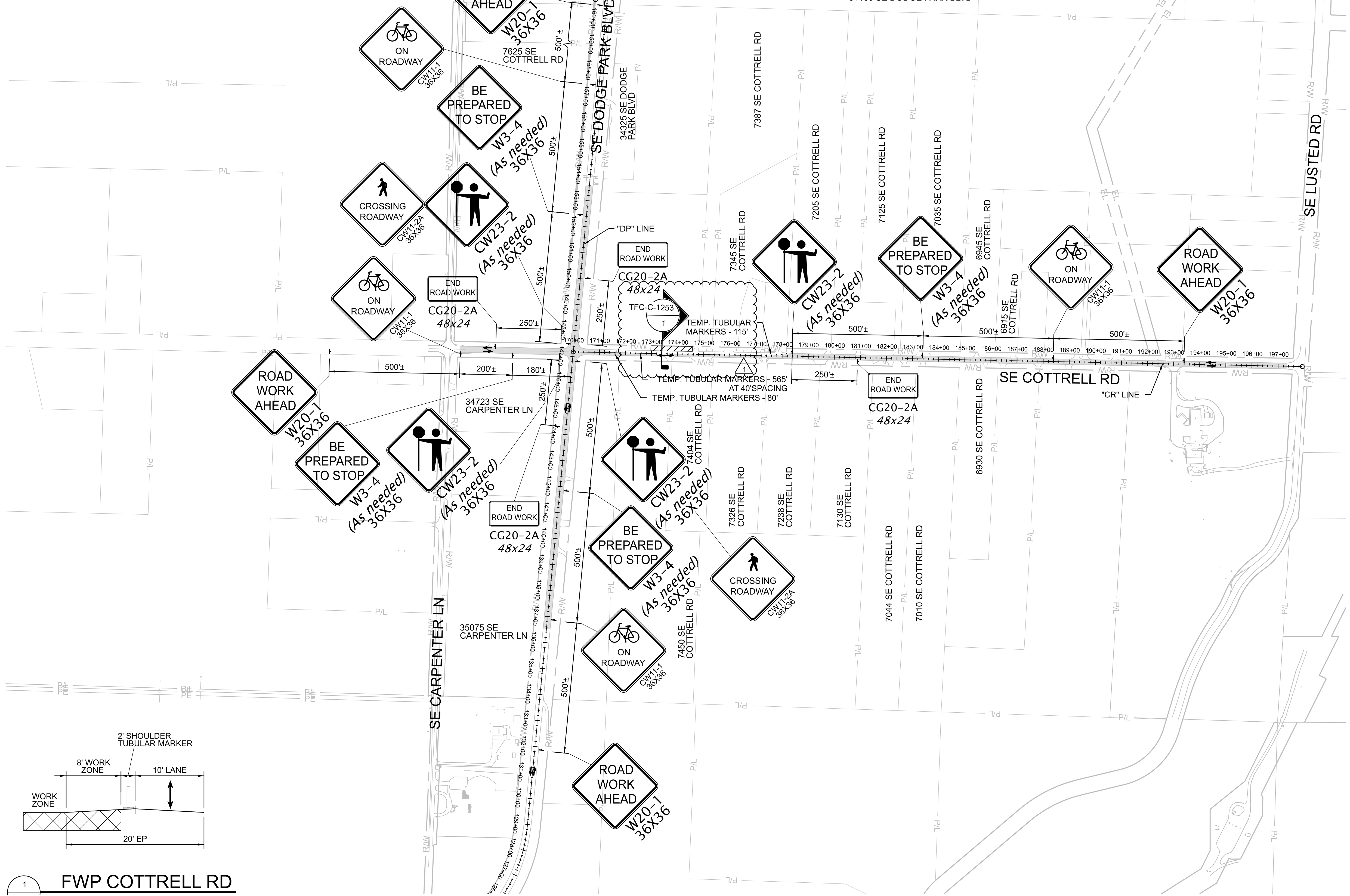
- REFER TO FWP-CG-2132 FOR TEMPORARY STREET DESIGN.
- THIS LOCATION IS FULLY CONTAINED WITHIN MULTNOMAH COUNTY BORDERS AND SHALL BE REGULATED BY MULTNOMAH COUNTY TRAFFIC STANDARDS.
- CONTRACTOR SHALL COORDINATE WITH BUREAU PUBLIC OUTREACH AGENT FOR TEMPORARY DRIVEWAY CLOSURES. PUBLIC OUTREACH AGENT SHALL COORDINATE WITH PROPERTY OWNERS. SEE 01 55 26.13 FOR ADDITIONAL DRIVEWAY CLOSURE INFORMATION.
- THIS DRAWING PROVIDES A GENERAL LAYOUT FOR MAINTAINING TRAFFIC DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTAL OF FINAL PLANS FOR APPROVAL PRIOR TO IMPLEMENTATION IN THE FIELD.
- TEMPORARY TUBULAR MARKER SPACING AT TAPERS SHALL BE 20' LONG.
- TEMPORARY TUBULAR MARKER SPACING AT RADII SHALL BE 10' LONG.
- TEMPORARY TUBULAR MARKER SPACING AT DRIVEWAYS SHALL BE NO MORE THAN 20' AND ALLOW ACCESS FOR PASSENGER VEHICLES.
- THIS PHASE IS TO BE SET UP DURING WORKING HOURS ONLY. DURING NON-WORKING HOURS, CONTRACTORS SHALL MOVE PLASTIC DRUMS TO THE WEST SHOULDER OF COTTRELL TO DEMARCATHE THE STAGING AREA AND KEEP ONE LANE OF TRAFFIC IN EACH DIRECTION OPEN. CONTRACTORS SHALL PROVIDE STEEL PLATES OR SIMILAR TRENCH PROTECTION IN OPEN PITS OR TRENCHES ADJACENT TO THE ROAD.

LEGEND

- DIRECTION OF TRAFFIC
- UNDER TRAFFIC
- UNDER CONSTRUCTION
- TRAFFIC CONTROL SIGN (3471-901)
- TEMPORARY TUBULAR MARKERS
- EXISTING PROPERTY LINE
- EXISTING RIGHT OF WAY
- EXISTING EASEMENT
- PERMANENT EASEMENT



COTTRELL RD - PHASE 1 INSTALLATION OF CRTM



1 FWP COTTRELL RD
TFC-C-1253 NTS

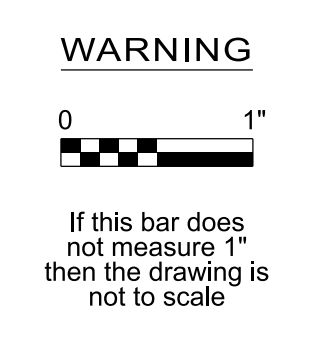
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No	Date	Description	Appd
1	10/2024	DCN-04 - CCD-0004	BJP
Revision			
Survey			



Designed By	Program Mgr
Drawn By	Const Mgr
Checked By	CMII Eng Mgr
Project Mgr	Date
	9/29/23



Bull Run Filtration Pipelines
**FINISHED WATER PIPELINE
TRAFFIC CONTROL**
COTTRELL ROAD
PHASE 1

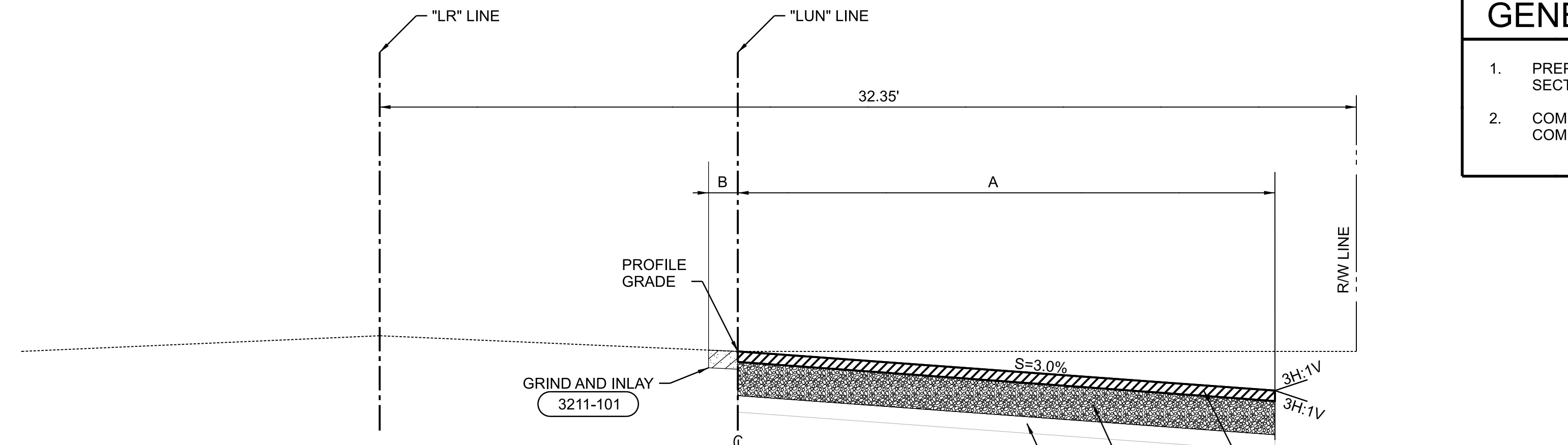
SAP Project No
W02563
1/4 Section
Sheet No
TFC-C-1253

GENERAL SHEET NOTES

1. PREPARE SUBGRADE PER SPECIFICATION 32 11 13 SECTION 3.03.
2. COMPACT BASE AGGREGATE MATERIAL TO 95% COMPACTION PER SPECIFICATION 32 11 13

STA1	STA2	NEW PAVEMENT
240+50.00	241+80.00	0'-17.5'
241+21.87	241+57.01	DRIVEWAY
241+80.00	242+97.44	17.5'
242.97.44	244+28.30	17.5'-0'

START STA	END STA	GRIND AND INLAY WIDTH
240+50.00	241+80.00	2'-0"
241+80.00	243+97.44	0'
243+97.44	244+28.30	2'-0"



STA "LUN" 240+50 TO STA "LUN" 244+28.30

LUSTED ROAD EAST WIDENING TYPICAL SECTION

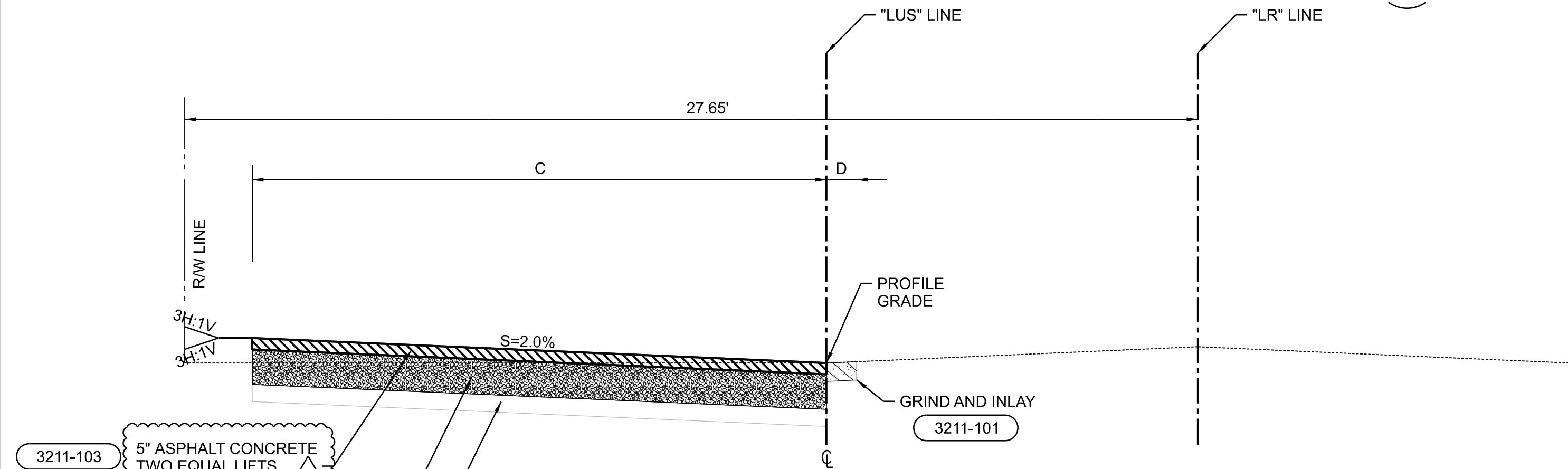
1
MUL-CG-2101 NTS

3211-103
3211-104
FIRM SUBGRADE SEE NOTE 1

*SEE SHEETS RWP-CG-2101 THROUGH RWP-CG-2103 FOR CONTINUATION

STA1	STA2	NEW PAVEMENT
245+40.98	245+68.30	DRIVEWAY
245+50.00	246+18.82	0'-15'
246+18.82	247+27.11	15'
246+28.19	247+06.61	*DRIVEWAY
247+27.08	248+56.51	15'-0'
247+66.82	247+80.82	*DRIVEWAY

START STA	END STA	GRIND AND INLAY WIDTH
245+50.00	246+18.82	2'-0"
246+18.82	247+27.03	0'
247+27.03	248+56.51	2'-0"

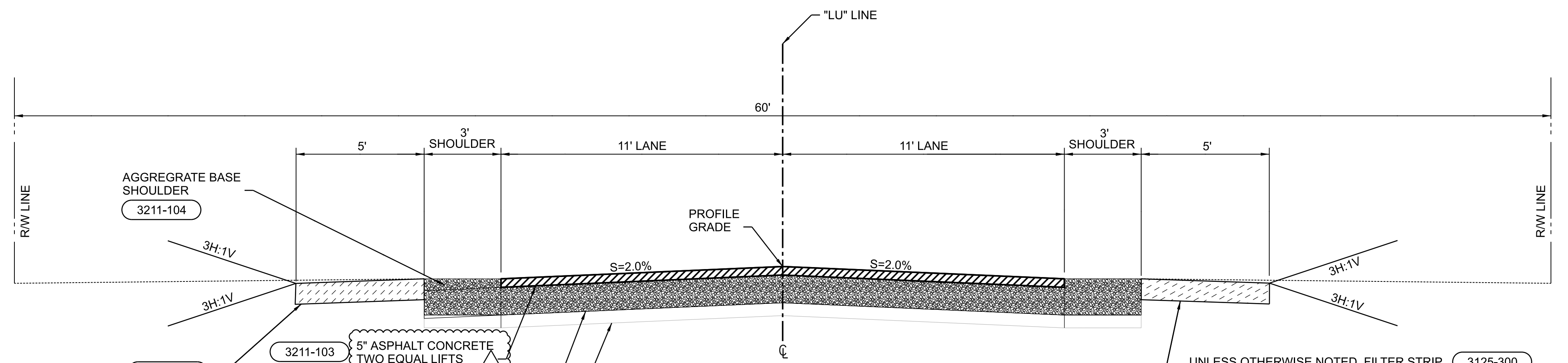


STA "LUS" 245+50 TO STA "LUS" 248+56.51

LUSTED ROAD WEST WIDENING TYPICAL SECTION

2
MUL-CG-2102 NTS

3211-103
5" ASPHALT CONCRETE TWO EQUAL LIFTS
13" COMPACTED AGGREGATE BASE SEE SPECIFICATION 32 11 13 AND NOTE 2
FIRM SUBGRADE SEE NOTE 1



STA "LU" 151+67.50 TO STA "LU" 153+11.95

LUSTED ROAD TYPICAL SECTION

3
MUL-CG-2150 NTS

STA1	STA2	NEW PAVEMENT
151+67.50	151+94.47	*DRIVEWAY

*SEE MUL-CG-2201 FOR DRIVEWAY ENLARGEMENT SHEET

UNLESS OTHERWISE NOTED, FILTER STRIP SHALL BE INSTALLED

STA1	STA2	NEW PAVEMENT
151+67.50	151+75.17	*DRIVEWAY
152+42.82	153+04.66	**DRIVEWAY

*SEE MUL-CG-2201 FOR DRIVEWAY ENLARGEMENT SHEETS

**SEE SHEET RWP-CG-2150 FOR DRIVEWAY ENLARGEMENT SHEET

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No	Date	Description	Appd
1	10/20/24	DCN-04 - CCD-0004	BJP



Designed By	DH
Drawn By	BN
Checked By	JB
Project Mgr	JB
Date	9/29/23



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424



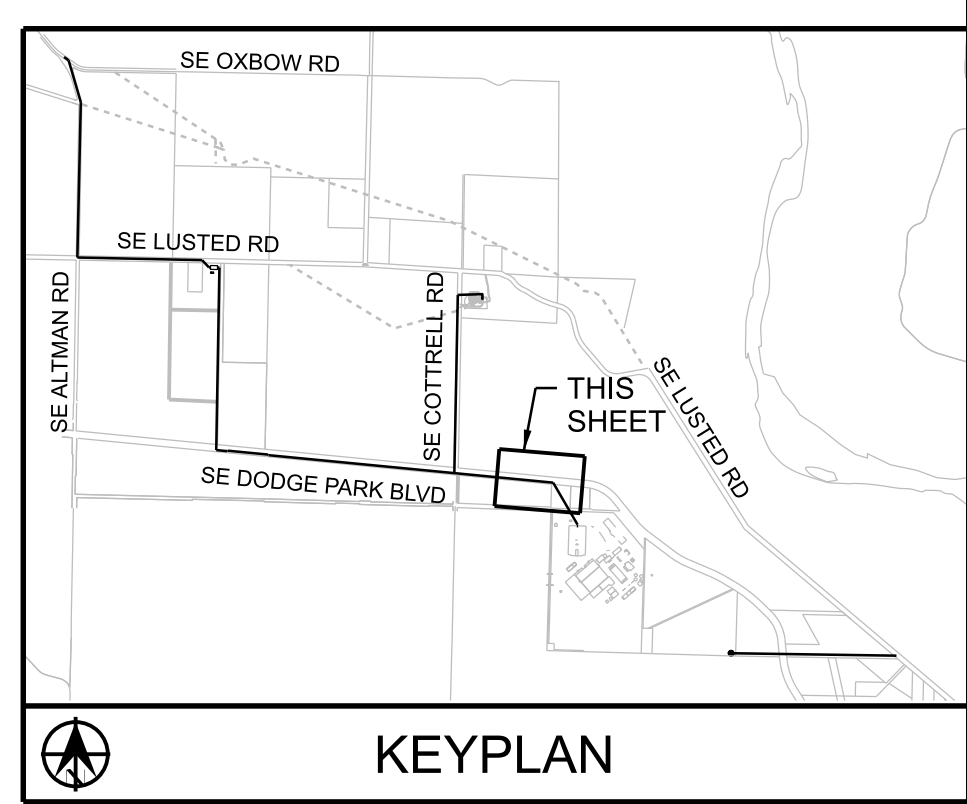
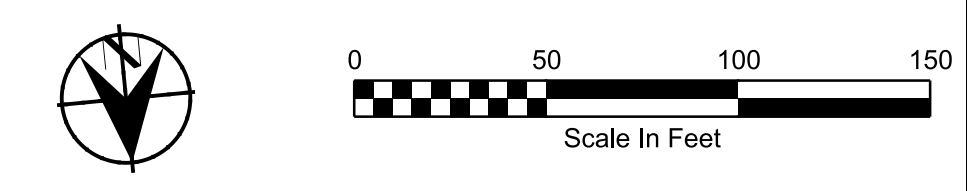
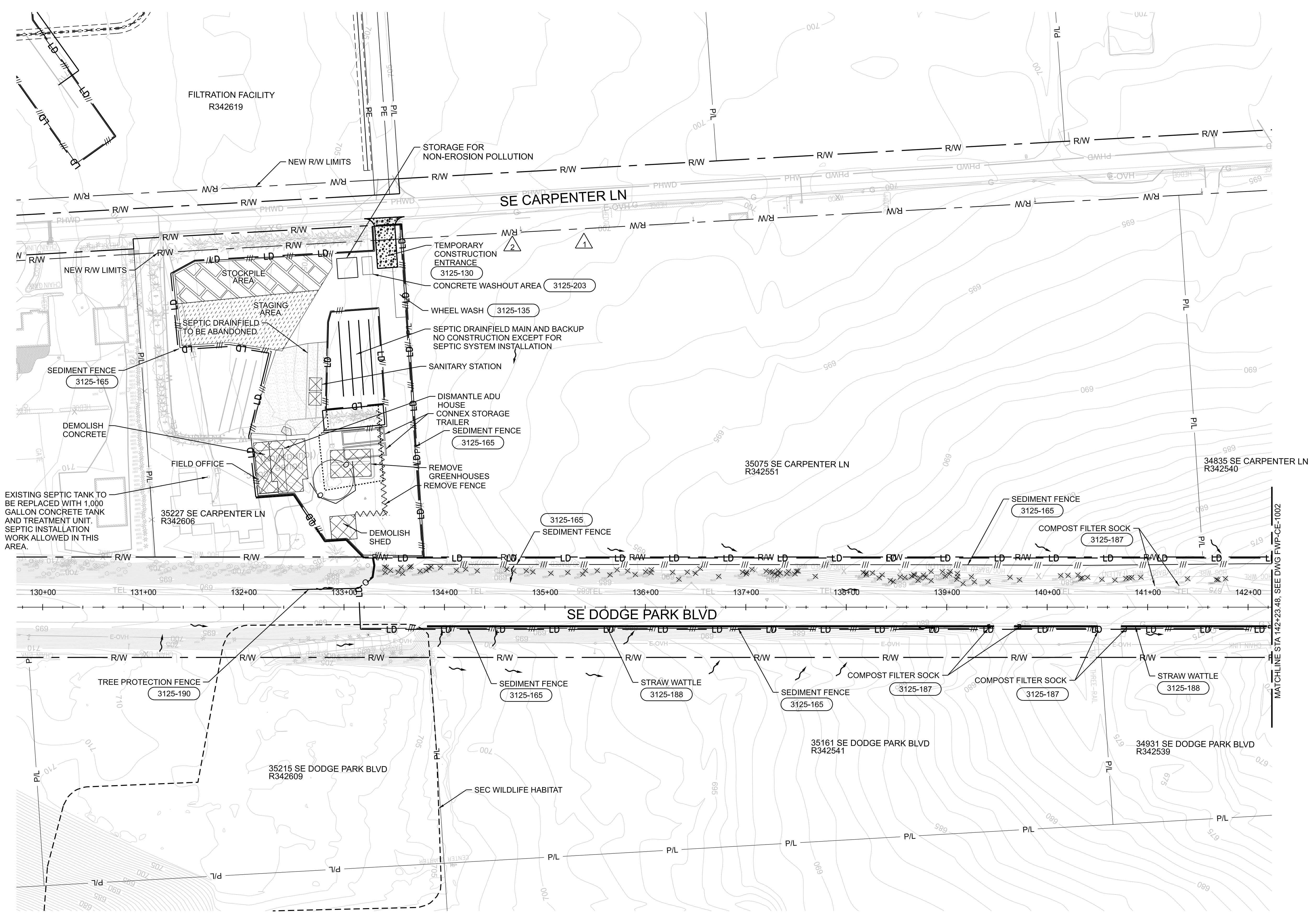
Bull Run Filtration Pipelines
MULTNOMAH CONNECTION STREET DESIGN SECTIONS

SAP Project No	W02563
Sheet No	MUL-CG-4000

CONFIDENTIAL

LEGEND	
	CONSTRUCTION ENTRANCE
	TREE REMOVAL
	FLOW DIRECTION
	LIMITS OF DISTURBANCE
	SEDIMENT FENCE
	TREE PROTECTION FENCE
	STRAW WATTLE
	COMPOST FILTER SOCK
	STANDARD DETAIL CALLOUT
	DEMOLITION AREA
	ABANDON
	DEMOLITION
	STOCKPILE AREA
	STAGING AREA
	SANITARY STATION
	FIELD OFFICE
	CONNEX STORAGE TRAILER

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



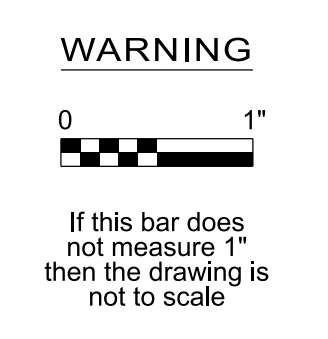
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No	Date	Description	Appd
3	10/2024	DCN-04 - CCD-0004	BJP
2	8/2024	DCN-03 - CCD-0003	BJP
1	10/2023	DCN-01 - CCD-0001	BJP



Designed By	DH
Drawn By	BN
Checked By	JB
Project Mgr	JB
Date	9/29/23



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424



Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
EXISTING CONDITIONS AND DEMOLITION
DODGE PARK BLVD

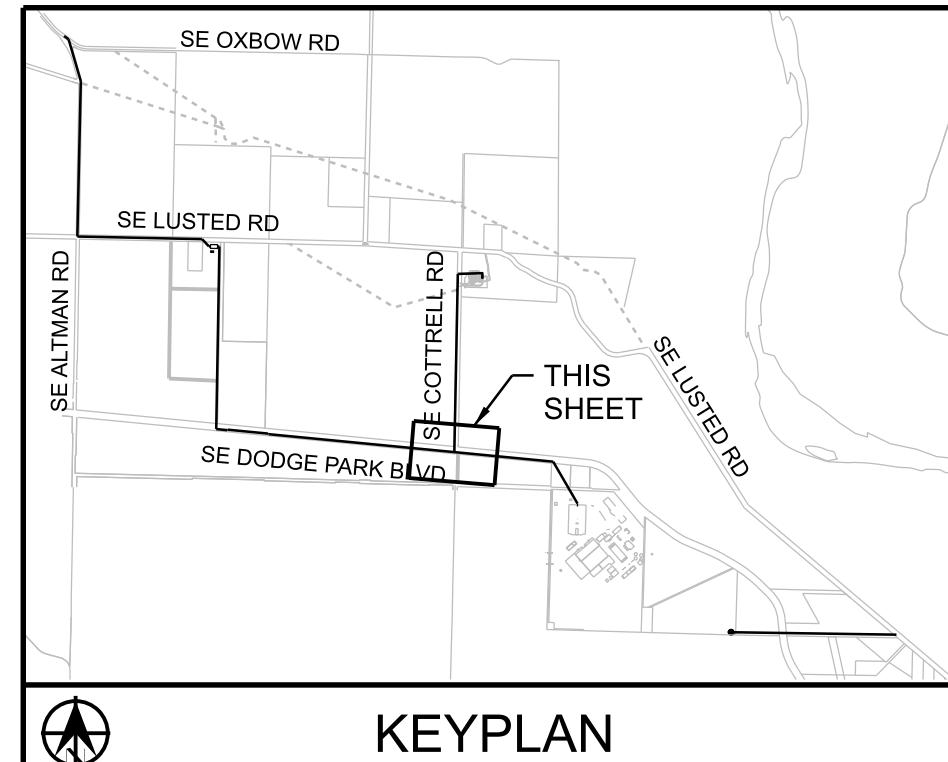
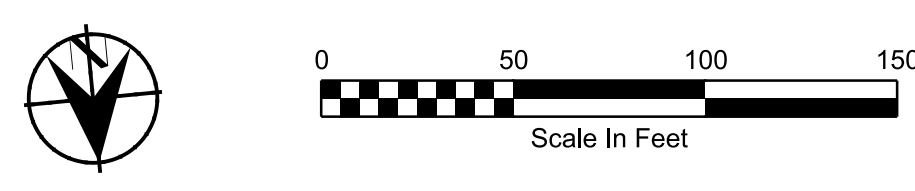
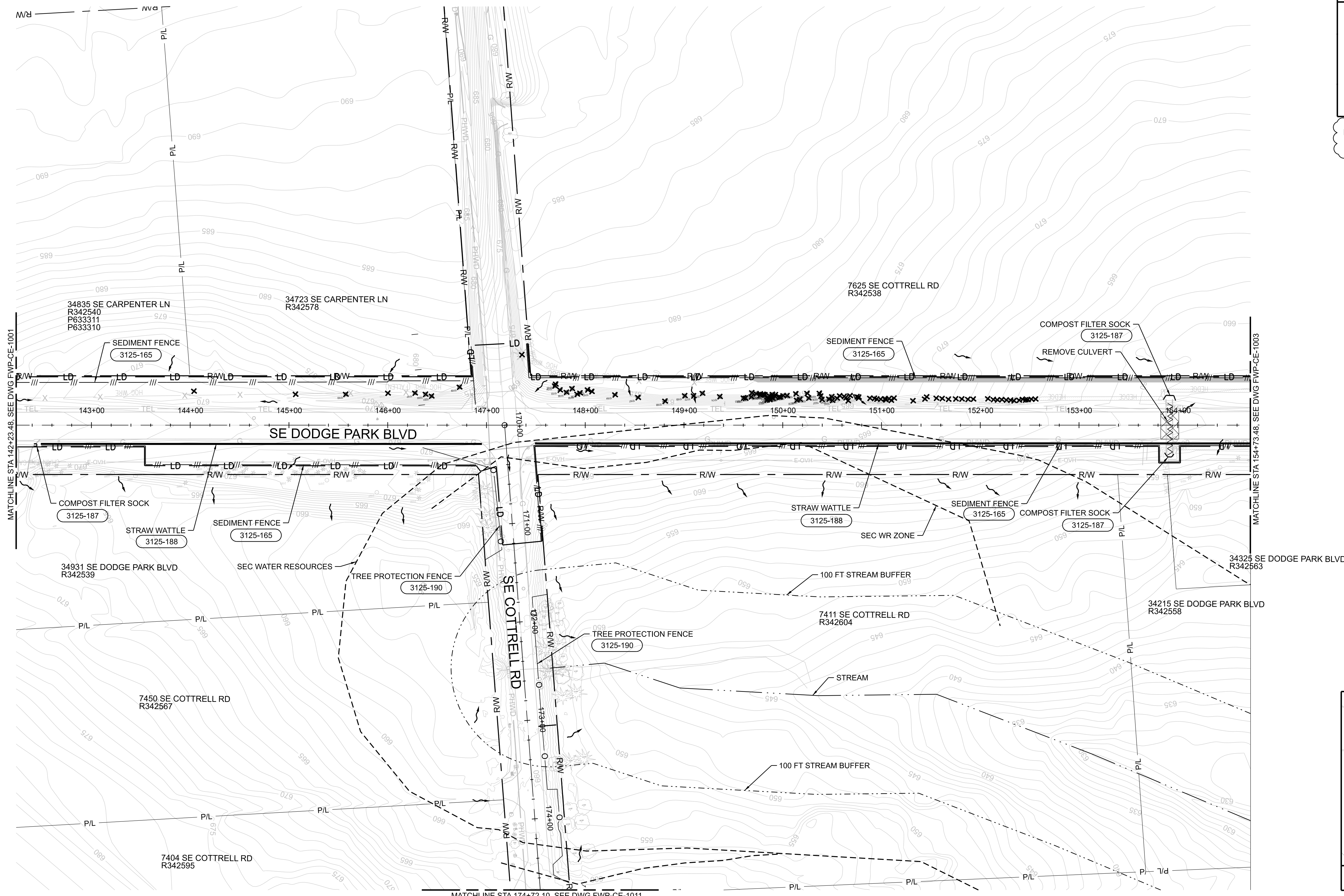
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Sheet No
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LEGEND

- TREE REMOVAL
- FLOW DIRECTION
- LIMITS OF DISTURBANCE
- SEDIMENT FENCE
- STRAW WATTLE
- COMPOST FILTER SOCK
- STANDARD DETAIL CALLOUT
- DEMOLITION AREA
- DEMOLITION

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



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No	Date	Description	Appd
1	10/2024	DCN-04 - CCD-0004	BJP
Revision			
Survey			



Designed By	RG	Program Mgr	DH
Drawn By	BN	Const Mgr	BN
Checked By	RG	CMII Eng Mgr	JB
Project Mgr	BJP	Date	9/29/23

WARNING

If this bar does not measure 1" then the drawing is not to scale



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424

Date



Bull Run Filtration Pipelines

FINISHED WATER PIPELINE

EROSION AND SED. CONTROL

EXISTING CONDITIONS AND DEMOLITION

DODGE PARK BLVD

CONFIDENTIAL

SAP Project No
W02563

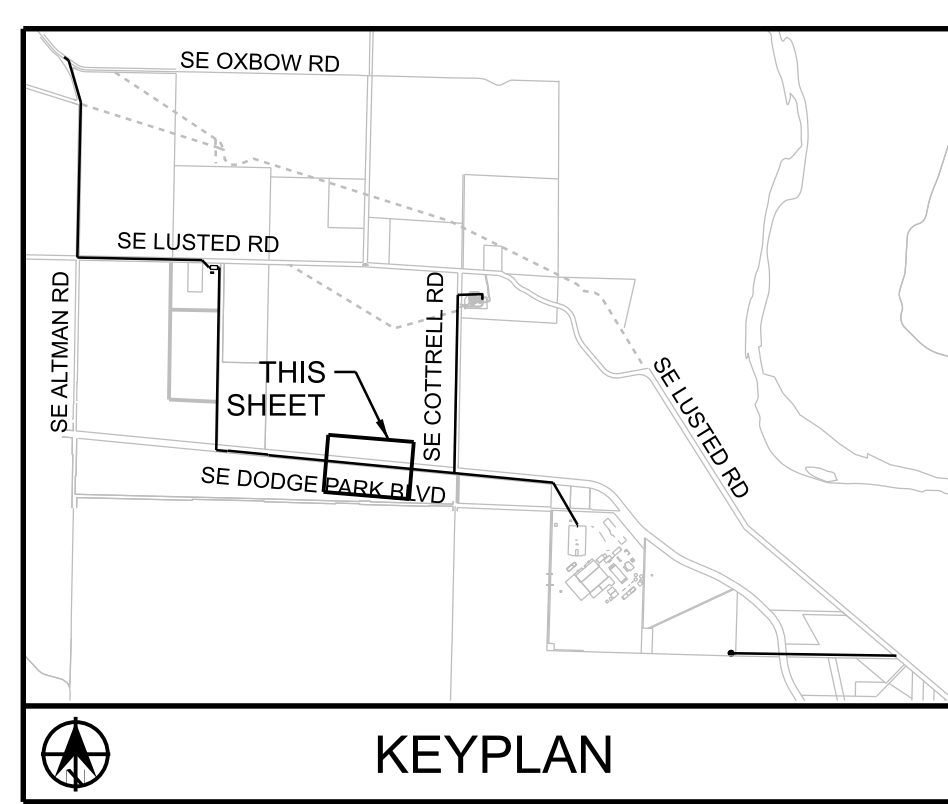
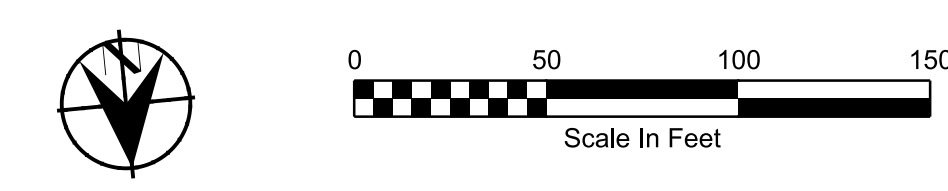
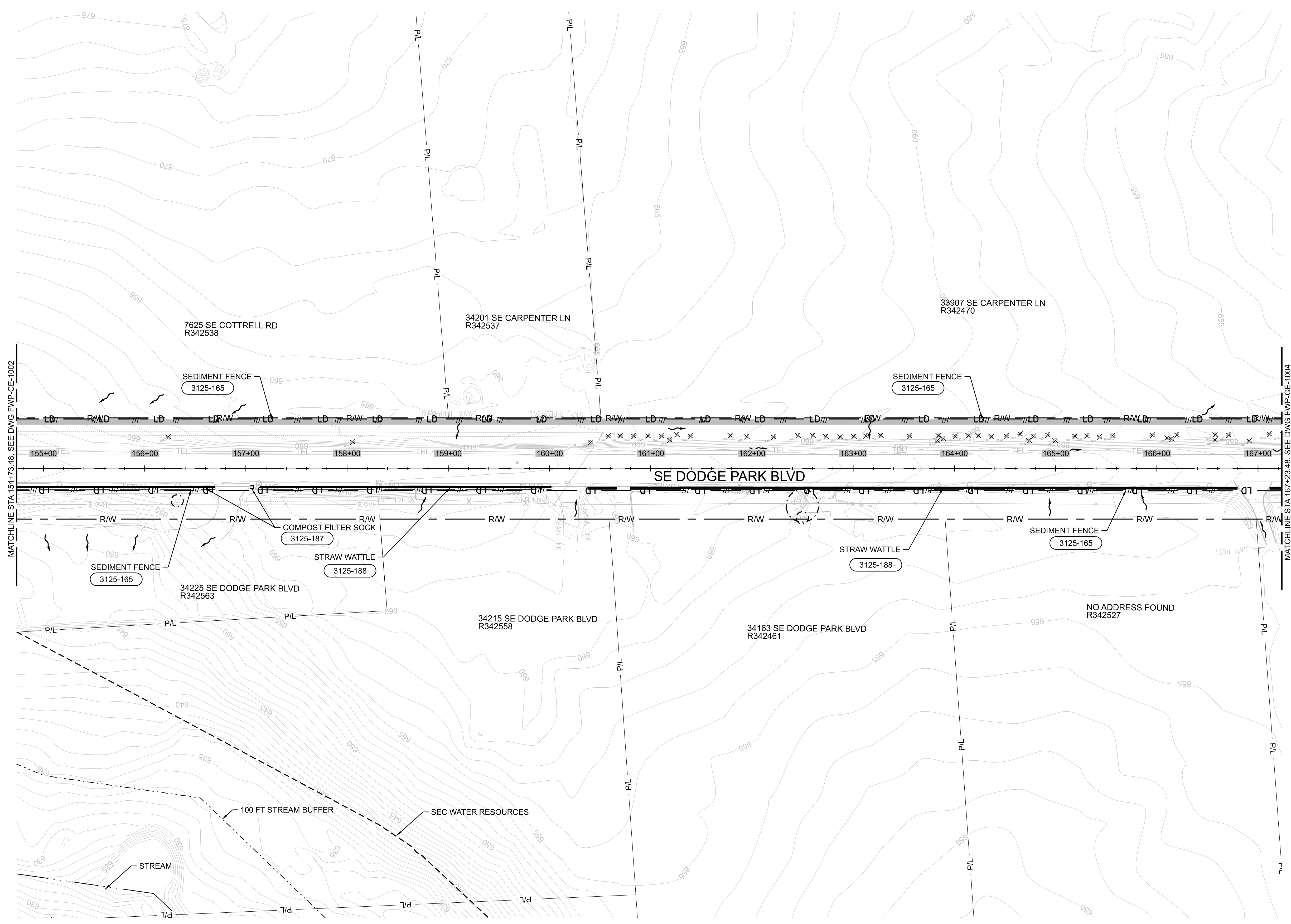
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Sheet No
FWP-CE-1002

LEGEND

- TREE REMOVAL
- FLOW DIRECTION
- LIMITS OF DISTURBANCE
- SEDIMENT FENCE
- STRAW WATTLE
- COMPOST FILTER SOCK
- STANDARD DETAIL CALLOUT

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



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No	Date	Description	Appd
1	10/2024	DCN-04 - CCD-0004	BJP
Revision			
Survey			



Designed By	Program Mgr
Drawn By	Const Mgr
Checked By	CMII Eng Mgr
Project Mgr	Date
	9/29/23



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424

Date



Bull Run Filtration Pipelines

FINISHED WATER PIPELINE

EROSION AND SED. CONTROL

EXISTING CONDITIONS AND DEMOLITION
DODGE PARK BLVD

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Sheet No
FWP-CE-1003

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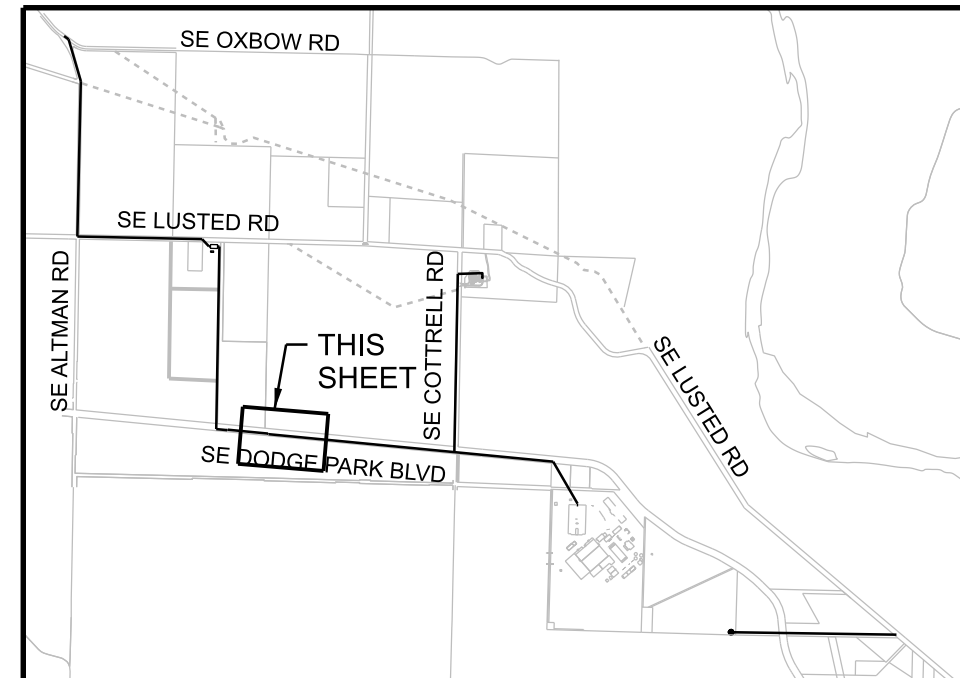
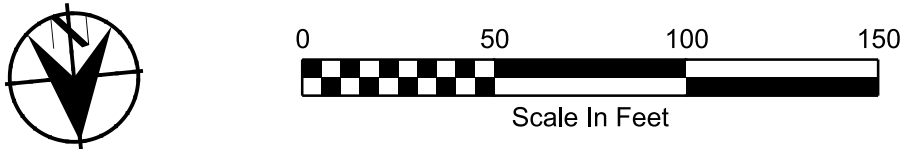
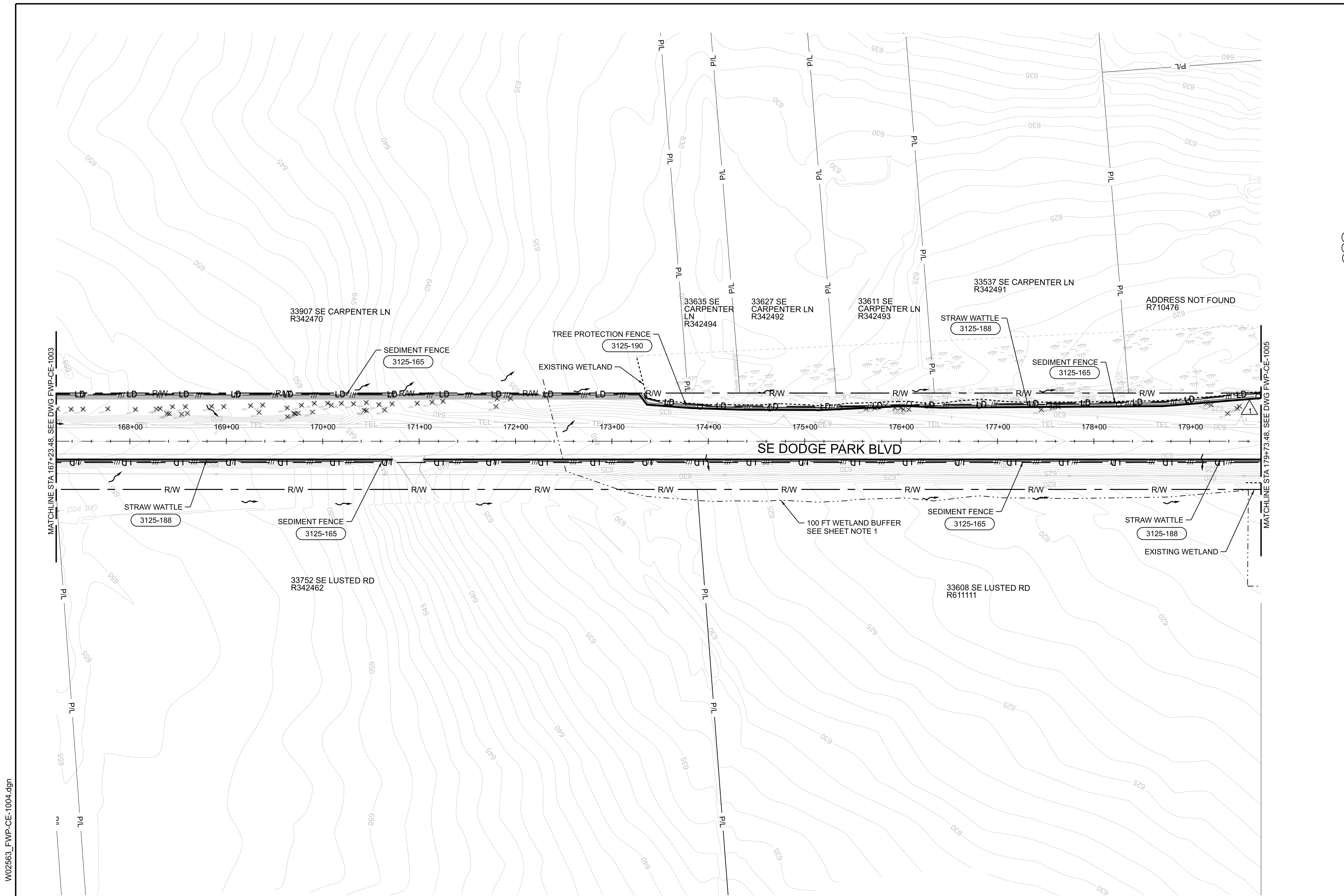
GENERAL SHEET NOTES

- FOR CONSTRUCTION WITHIN 100 FOOT BUFFER OF WET AREA, PROVIDE COMPOST FILTER SOCK 1 FOOT DOWNSLOPE OF PROPOSED SEDIMENT FENCE.
- SEE RUSLE2 CALCULATIONS FOR PROPOSED BMP PERFORMANCE TO REDUCE SEDIMENT TO LESS THAN 1 TON/ACRE/YEAR.

LEGEND

- TREE REMOVAL
- FLOW DIRECTION
- LIMITS OF DISTURBANCE
- SEDIMENT FENCE
- TREE PROTECTION FENCE
- STRAW WATTLE
- STANDARD DETAIL CALLOUT

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



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No	Date	Description	Appd
2	10/2024	DCN-04 - CCD-0004	BJP
1	4/2024	DCN-02 - CCD-0002	BJP



Designed By	RG	Program Mgr	DH
Drawn By	JL	Const Mgr	BN
Checked By	RG	CMII Eng Mgr	JB
Project Mgr	BJP	Date	9/29/23



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Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
 EXISTING CONDITIONS AND DEMOLITION
 DODGE PARK BLVD

SAP Project No
W02563
 1/4 Section
 Sheet No
FWP-CE-1004

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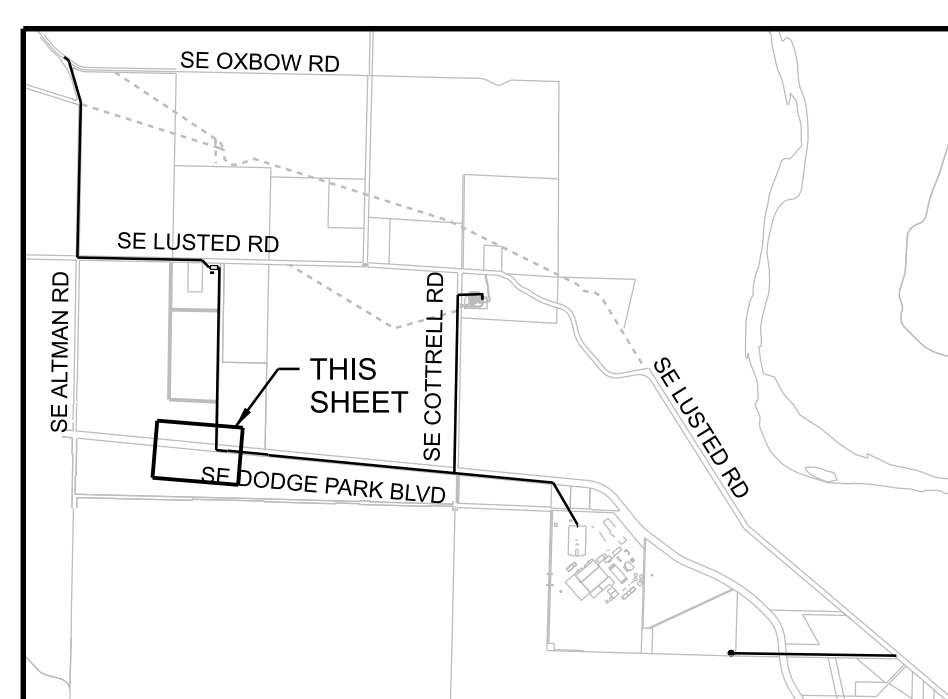
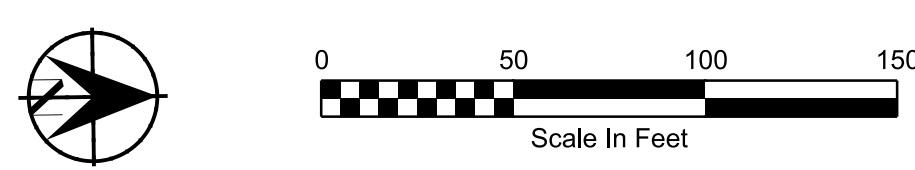
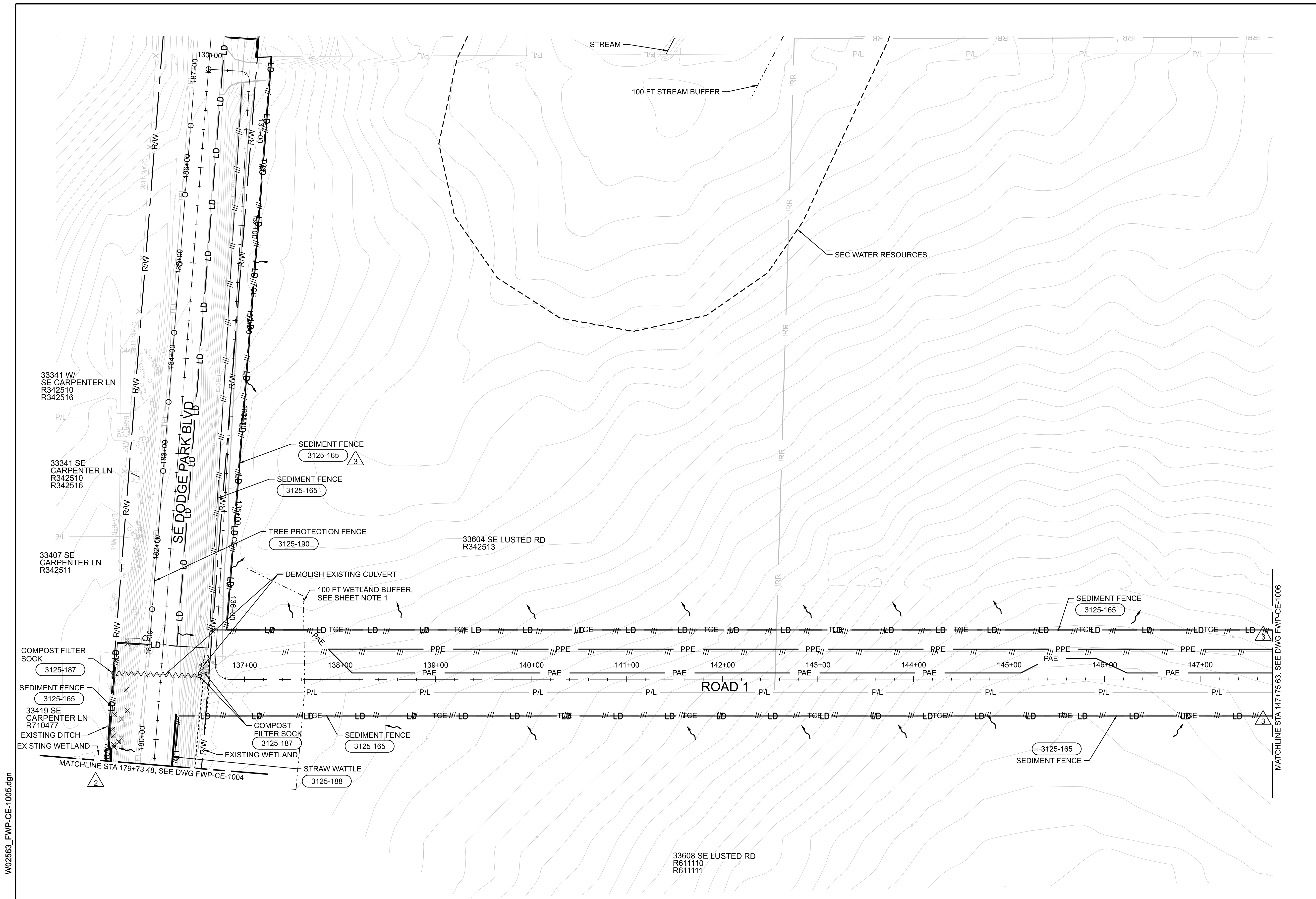
GENERAL SHEET NOTES

- FOR CONSTRUCTION WITHIN 100 FOOT BUFFER OF WET AREA, PROVIDE COMPOST FILTER SOCK 1 FOOT DOWNSLOPE OF PROPOSED SEDIMENT FENCE.
- SEE RUSLE2 CALCULATIONS FOR PROPOSED BMP PERFORMANCE TO REDUCE SEDIMENT TO LESS THAN 1 TON/ACRE/YEAR.

LEGEND

- X TREE REMOVAL
- FLOW DIRECTION
- LD LIMITS OF DISTURBANCE
- /// SEDIMENT FENCE
- O TREE PROTECTION FENCE
- STRAW WATTLE
- XXXX-XXX STANDARD DETAIL CALLOUT
- ∩ COMPOST FILTER SOCK
- TCE TEMPORARY CONSTRUCTION EASEMENT
- PPE PERMANENT PROPERTY EASEMENT
- PAE PUBLIC ACCESS EASEMENT
- ~~~~~ TO BE DEMOLISHED

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



No	Date	Description	Appd
4	10/2024	DCN-04 - CCD-0004	BJP
3	4/2024	DCN-02 - CCD-0002	BJP
2	1/2024	DCN-01 - CCD-0001	BJP
1	6/7/23	ADDENDA NO. 1 - 100% REVIEW COMMENT UPDATE	BJP



Designed By	RG	Program Mgr	DH
Drawn By	JL	Const Mgr	BN
Checked By	RG	CMII Eng Mgr	JB
Project Mgr	BJP	Date	9/29/23



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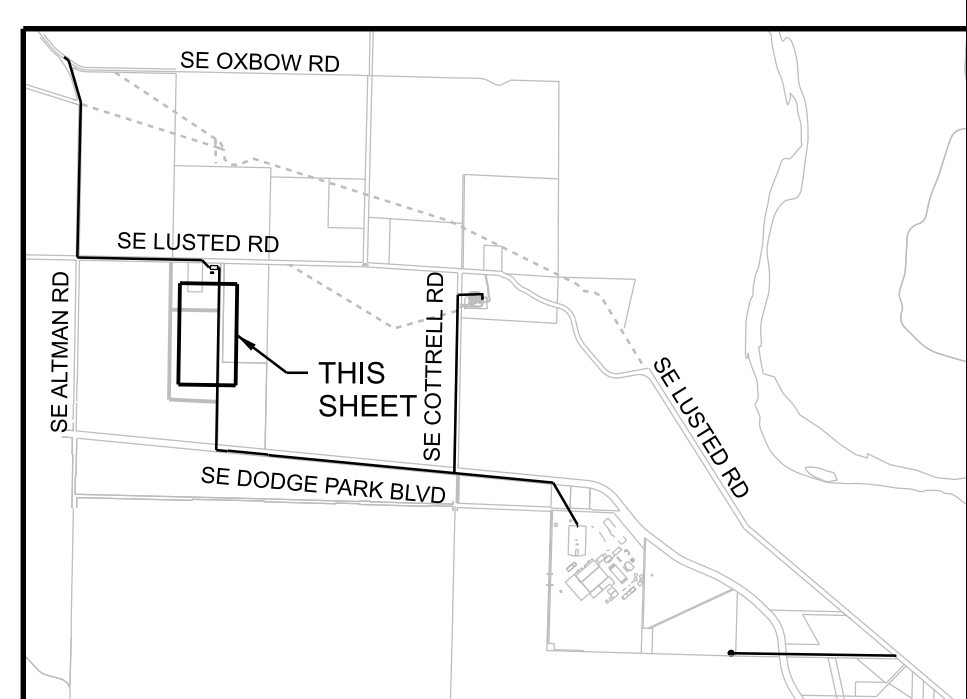
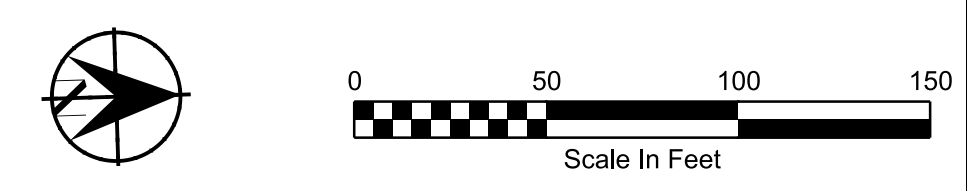
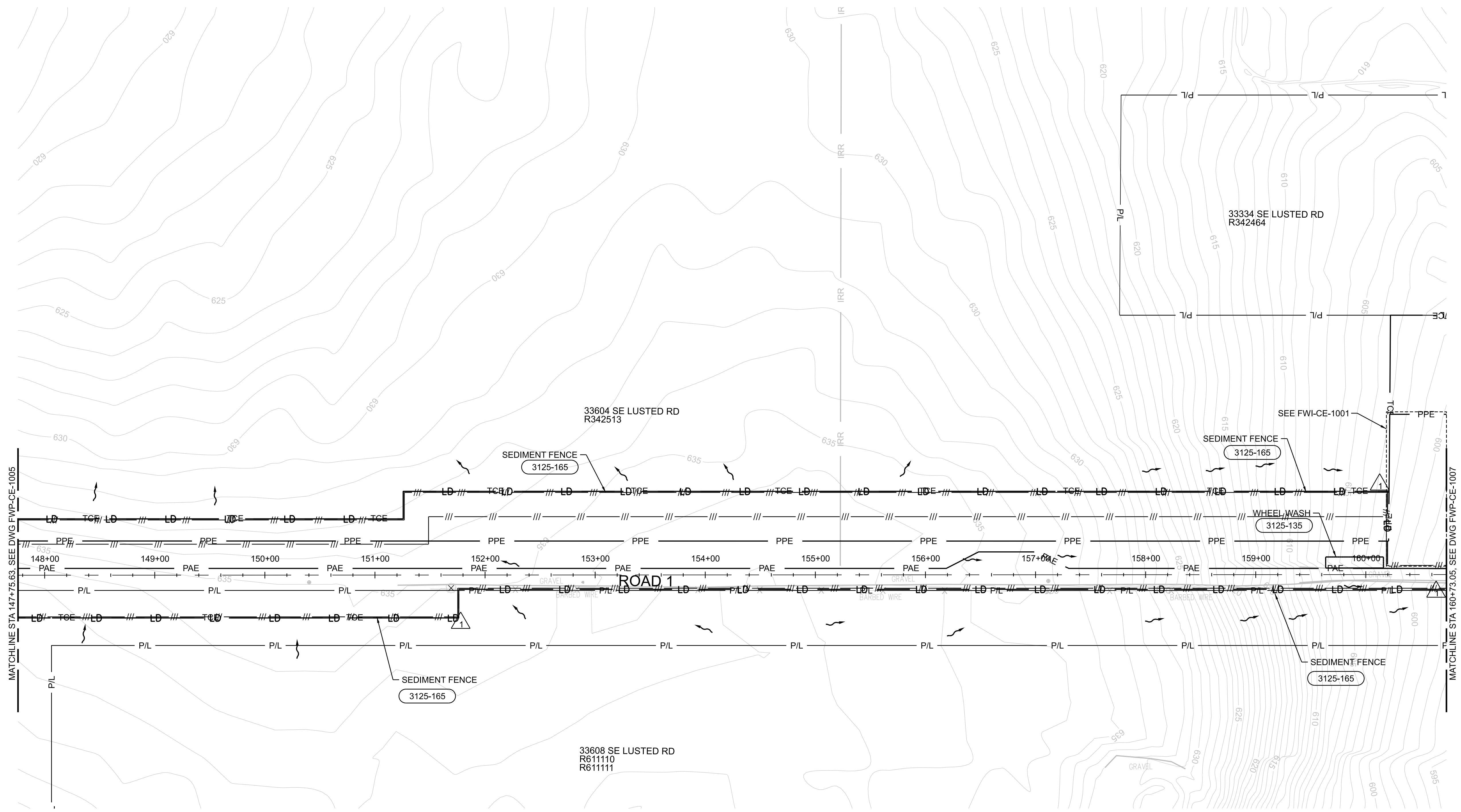
Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
 EXISTING CONDITIONS AND DEMOLITION
 ROAD 1

SAP Project No
W02563
 1/4 Section
 Sheet No
 FWP-CE-1005

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LEGEND	
	FLOW DIRECTION
	EXISTING PROPERTY LINE
	LIMITS OF DISTURBANCE
	SEDIMENT FENCE
	STANDARD DETAIL CALLOUT
	TEMPORARY CONSTRUCTION EASEMENT
	PERMANENT PROPERTY EASEMENT
	PUBLIC ACCESS EASEMENT

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



KEYPLAN

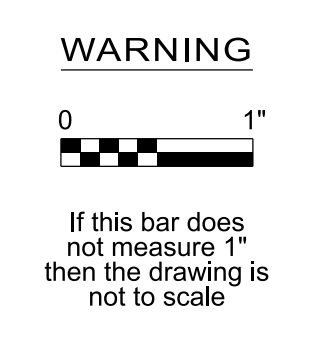
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No	Date	Description	Appd
2	10/2024	DCN-04 - CCD-0004	BJP
1	4/2024	DCN-02 - CCD-0002	BJP



Designed By	Program Mgr
Drawn By	Const Mgr
Checked By	CMII Eng Mgr
Project Mgr	Date
	9/29/23



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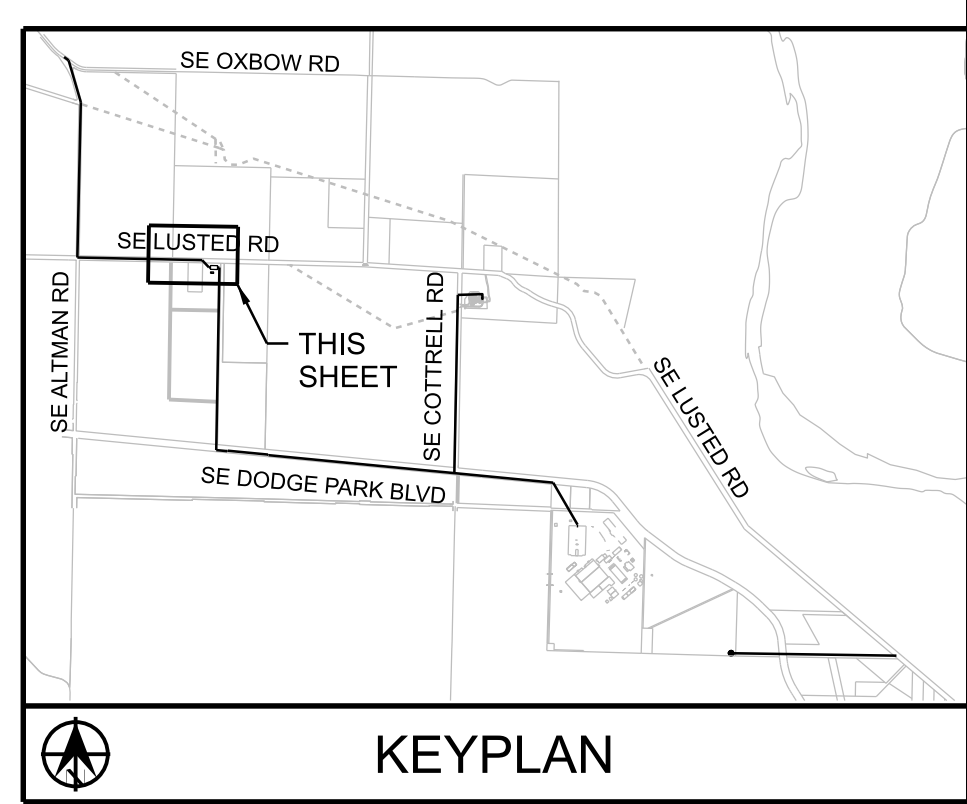
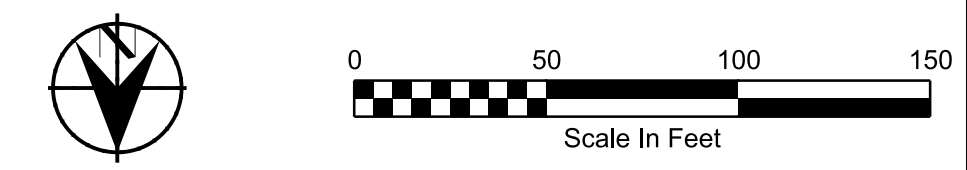
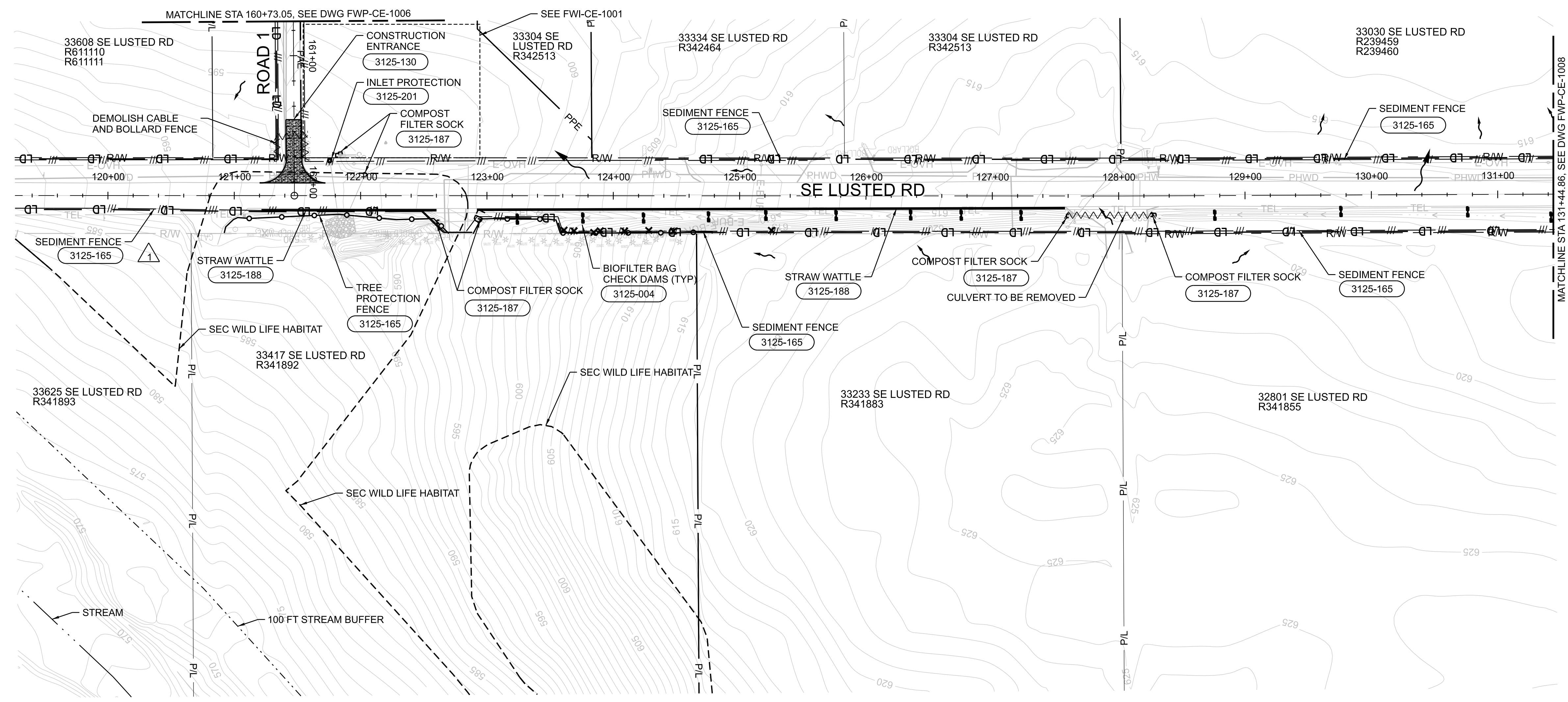


Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
 EXISTING CONDITIONS AND DEMOLITION
 ROAD 1

SAP Project No	W02563
Sheet No	FWP-CE-1006

LEGEND	
X	TREE REMOVAL
	FLOW DIRECTION
	CONSTRUCTION ENTRANCE
LD	LIMITS OF DISTURBANCE
	SEDIMENT FENCE
	TREE PROTECTION FENCE
	STRAW WATTLE
XXXX-XXX	STANDARD DETAIL CALLOUT
	BIOFILTER BAG CHECK DAM
J	COMPOST FILTER SOCK
TCE	TEMPORARY CONSTRUCTION EASEMENT
PPE	PERMANENT PROPERTY EASEMENT
	TO BE DEMOLISHED

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571

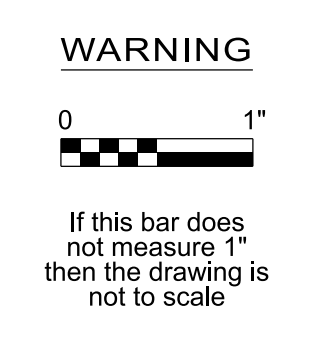


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No	Date	Description	Appd
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1	6/2024	DCN-03 - CCD-0003	BJP
Revision			
Survey			



Designed By	Program Mgr
Drawn By	Const Mgr
Checked By	CMII Eng Mgr
Project Mgr	Date
	9/29/23



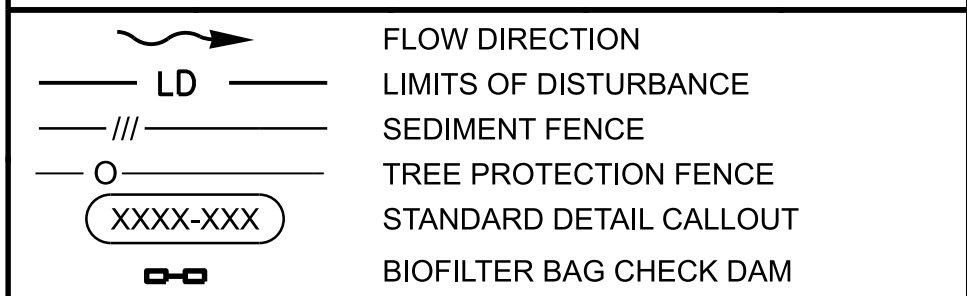
Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
 EXISTING CONDITIONS AND DEMOLITION
 LUSTED ROAD

SAP Project No
W02563
 1/4 Section
 Sheet No
FWP-CE-1007

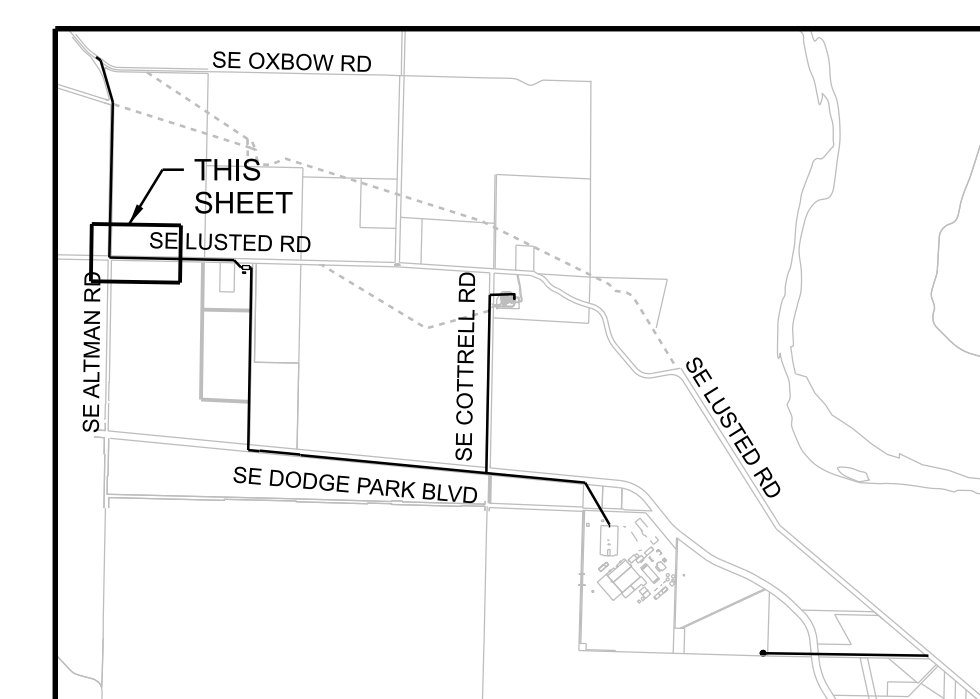
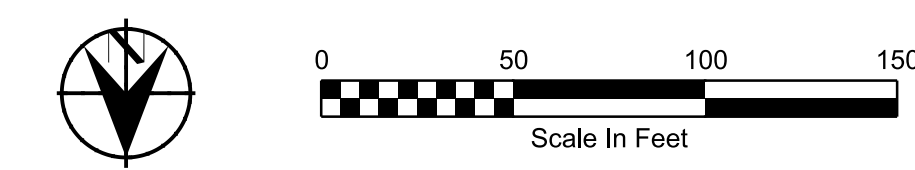
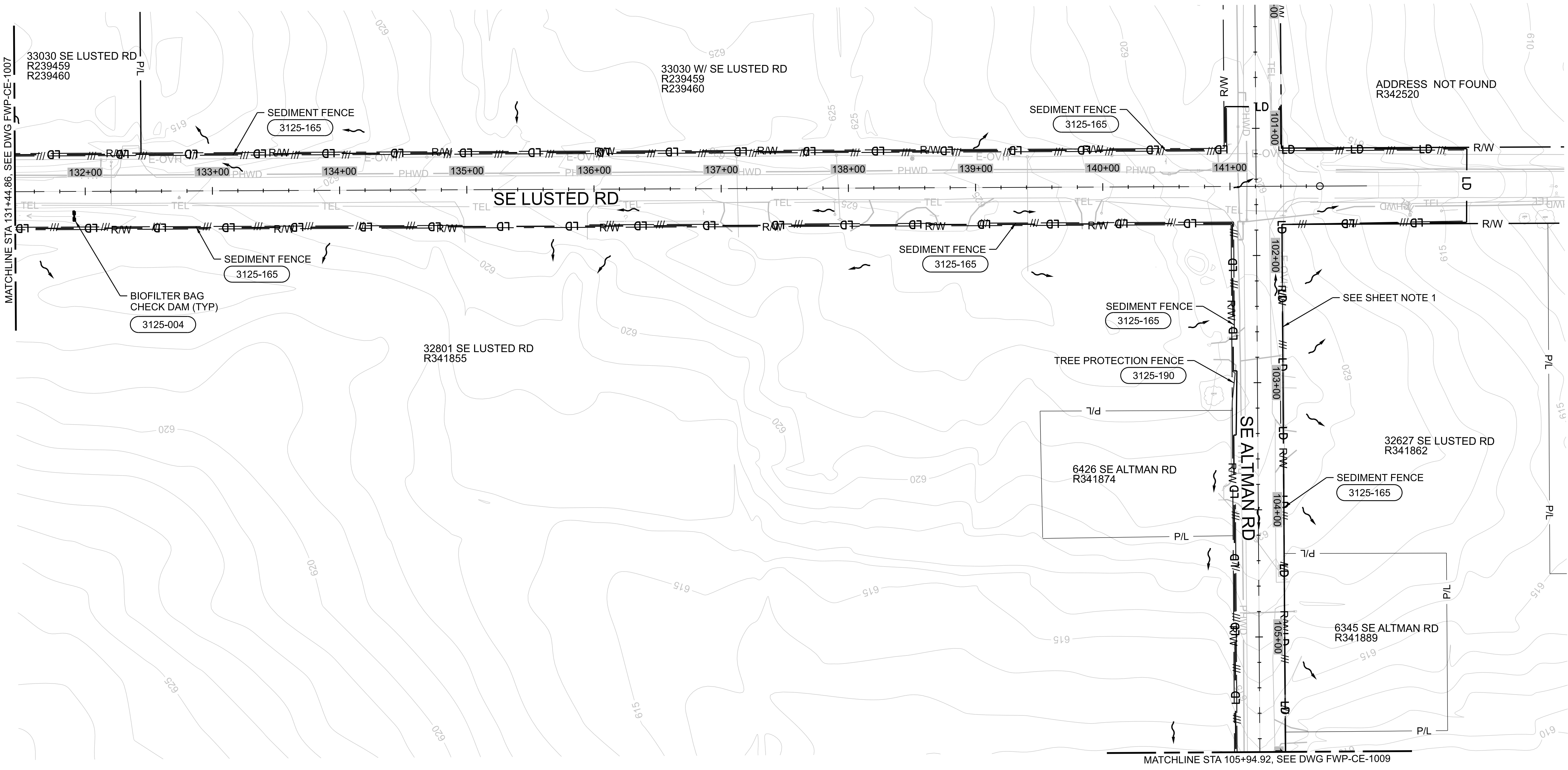
GENERAL SHEET NOTES

1. SEDIMENT FENCE AND LIMIT OF DISTURBANCE LINE ON R/W LINE.

LEGEND



MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



KEYPLAN

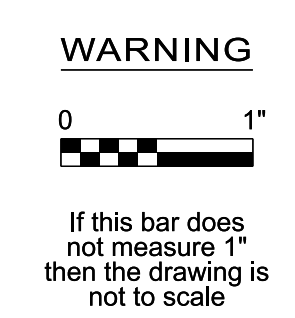
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No	Date	Description	Appd
1	10/2024	DCN-04 - CCD-0004	BJP
Revision			
Survey			



Designed By	RG	Program Mgr	DH
Drawn By	JL	Const Mgr	BN
Checked By	RG	Const Supt	JB
Project Mgr	RG	Date	9/29/23



XXX XXX
Date
XXX XXXX M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424
Date



Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
EXISTING CONDITIONS AND DEMOLITION

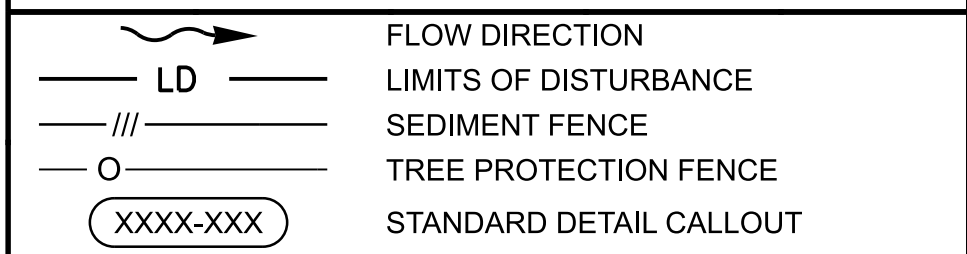
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Sheet No
FWP-CE-1008

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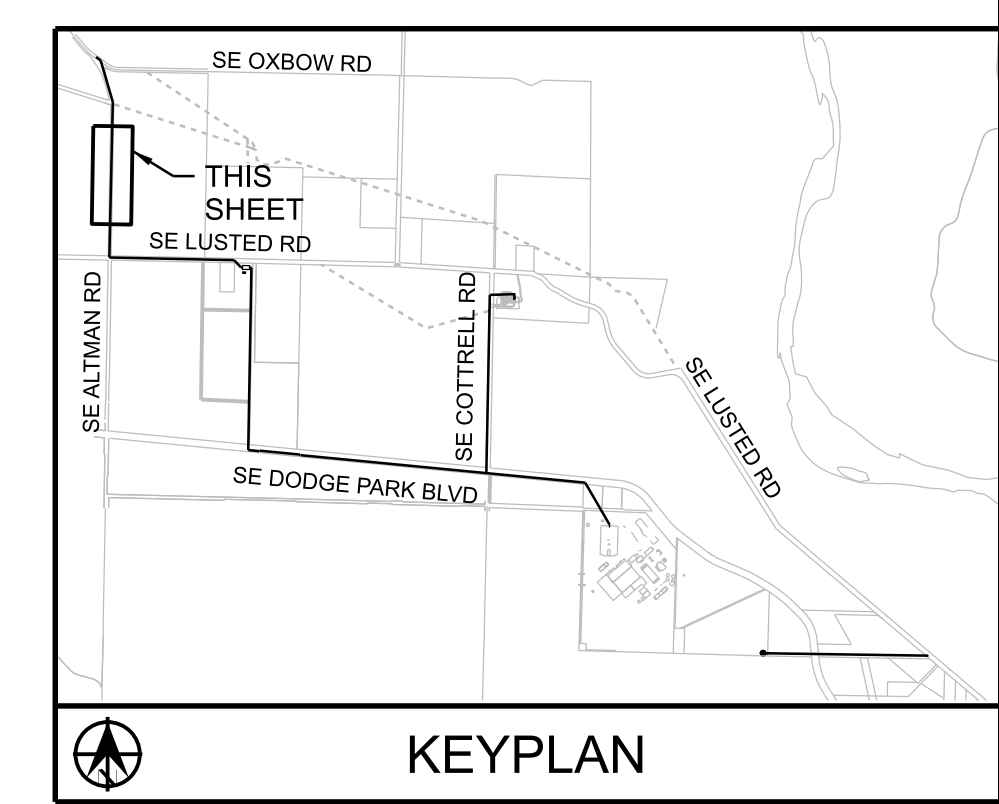
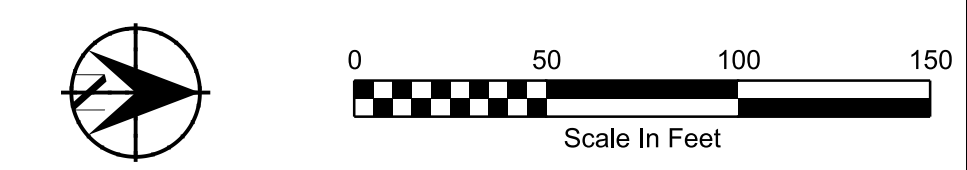
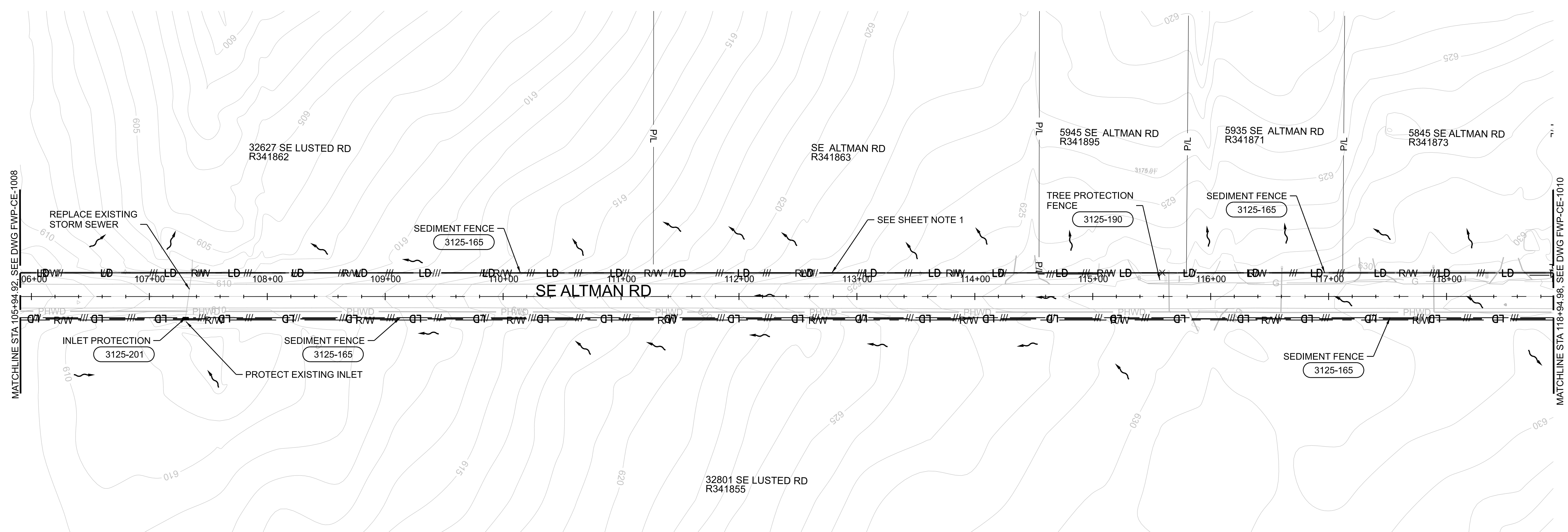
GENERAL SHEET NOTES

1. SEDIMENT FENCE AND LIMIT OF DISTURBANCE LINE ON R/W LINE.

LEGEND



MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571

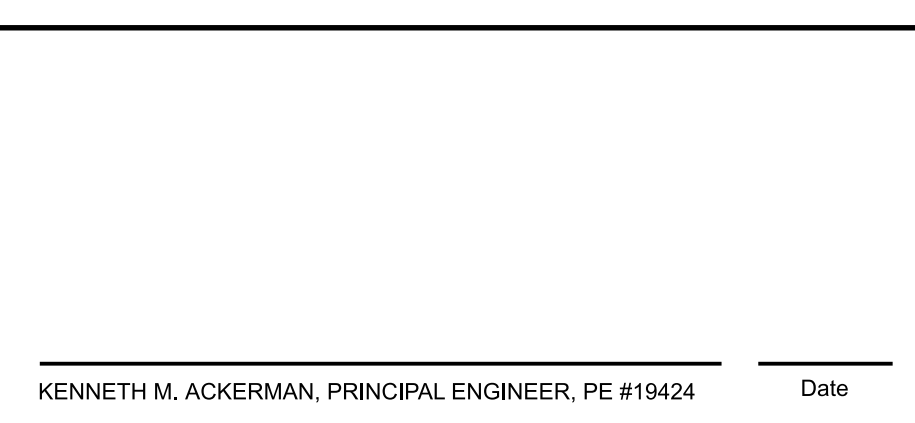
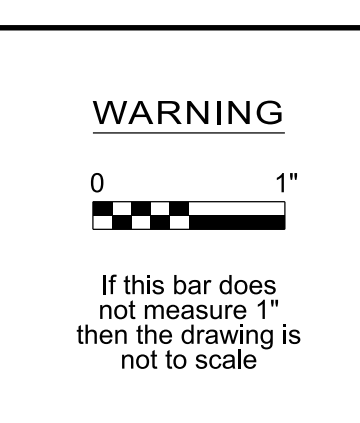


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No	Date	Description	Appd
1	10/2024	DCN-04 - CCD-0004	BJP
Revision			
Survey			



Designed By	Program Mgr
Drawn By	Const Mgr
Checked By	CMII Eng Mgr
Project Mgr	Date
	9/29/23



Bull Run Filtration Pipelines

FINISHED WATER PIPELINE EROSION AND SED. CONTROL

EXISTING CONDITIONS AND DEMOLITION
ALTMAN ROAD

SAP Project No	W02563
Sheet No	FWP-CE-1009

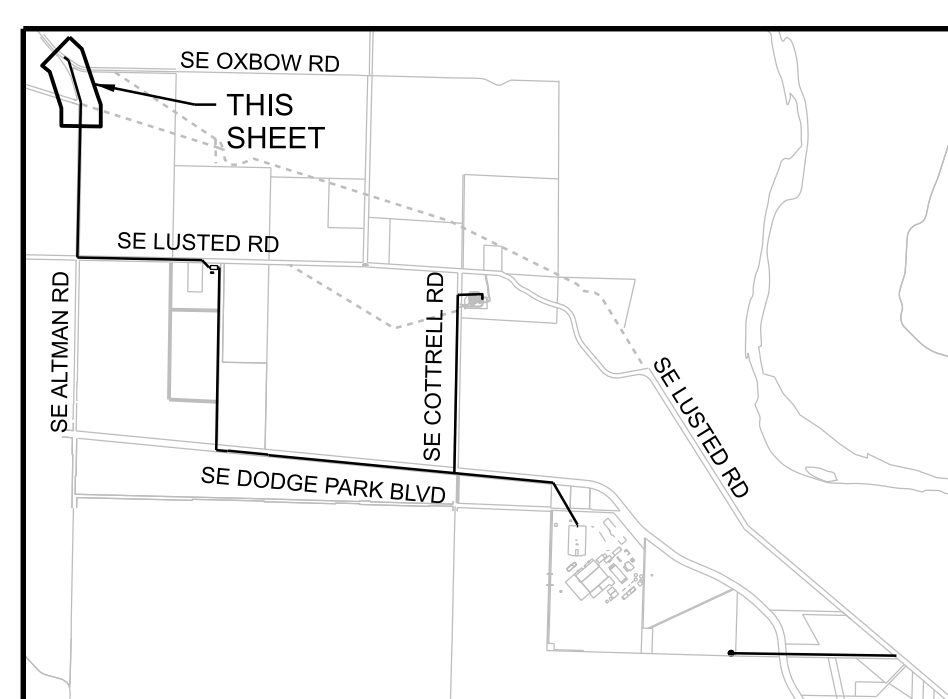
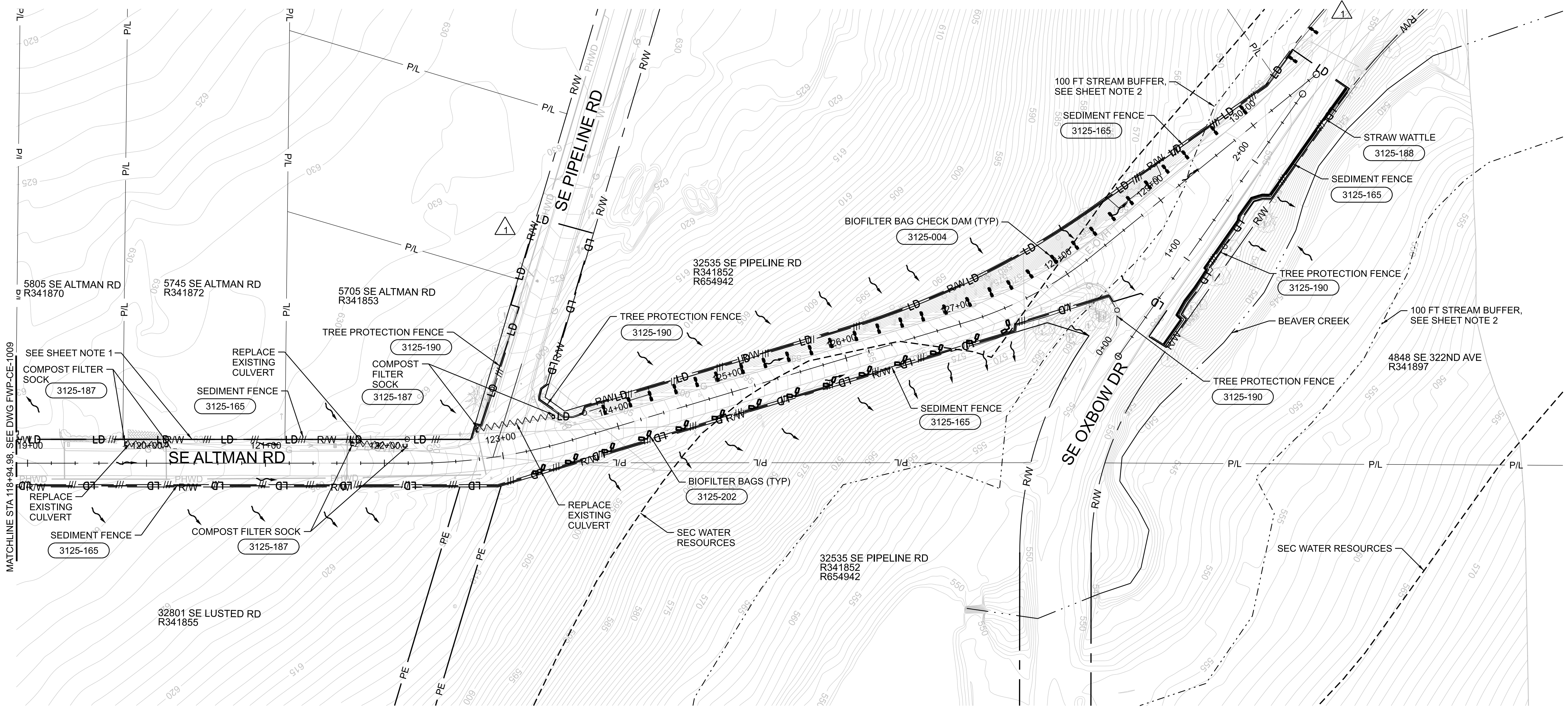
GENERAL SHEET NOTES

1. SEDIMENT FENCE AND LIMIT OF DISTURBANCE LINE ON R/W LINE.
2. FOR CONSTRUCTION WITHIN 100 FOOT BUFFER OF WET AREA, PROVIDE COMPOST FILTER SOCK 1 FOOT DOWNSLOPE OF PROPOSED SEDIMENT FENCE.
3. SEE RUSLE2 CALCULATIONS FOR PROPOSED BMP PERFORMANCE TO REDUCE SEDIMENT TO LESS THAN 1 TON/ACRE/YEAR.

LEGEND

- FLOW DIRECTION
- LD LIMITS OF DISTURBANCE
- SEDIMENT FENCE
- TREE PROTECTION FENCE
- STANDARD DETAIL CALLOUT
- STRAW WATTLE
- COMPOST FILTER SOCK
- BIOFILTER BAG CHECK DAM
- DEMOLITION

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



KEYPLAN

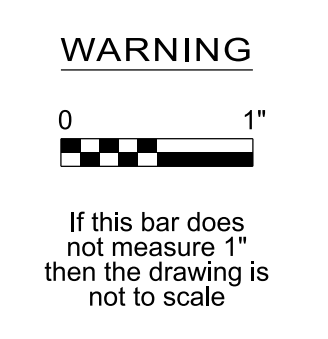
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No	Date	Description	Appd
2	10/2024	DCN-04 - CCD-0004	BJP
1	6/2024	DCN-03 - CCD-0003	BJP
Revision			
Survey			



Designed By	DH
Drawn By	BN
Checked By	JB
Project Mgr	Date: 9/29/23



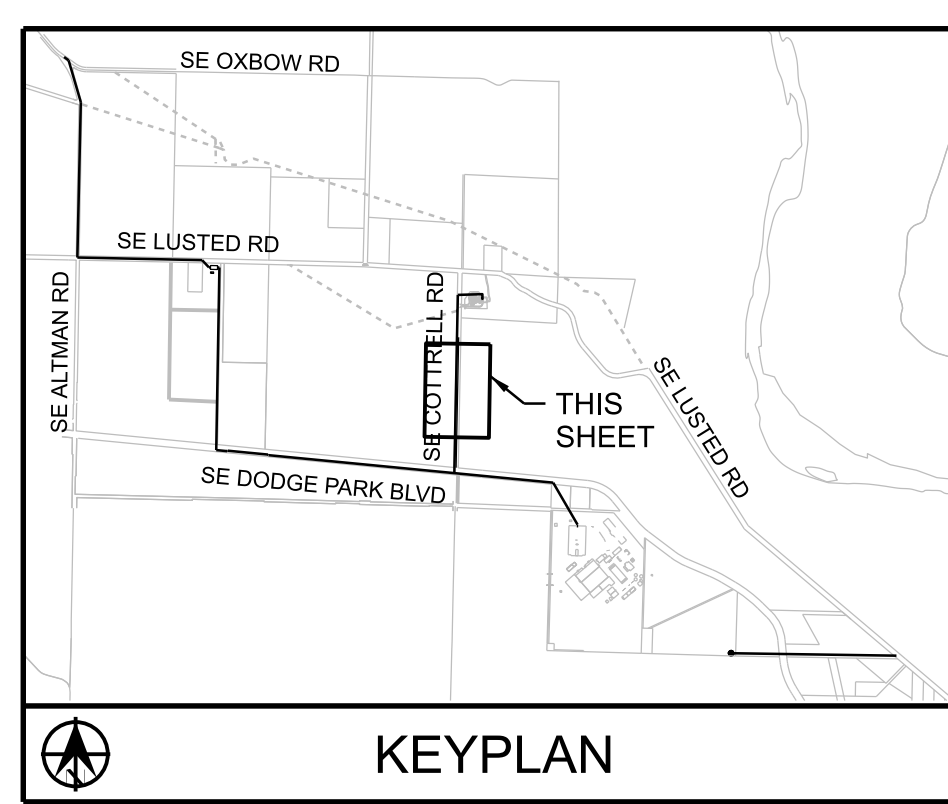
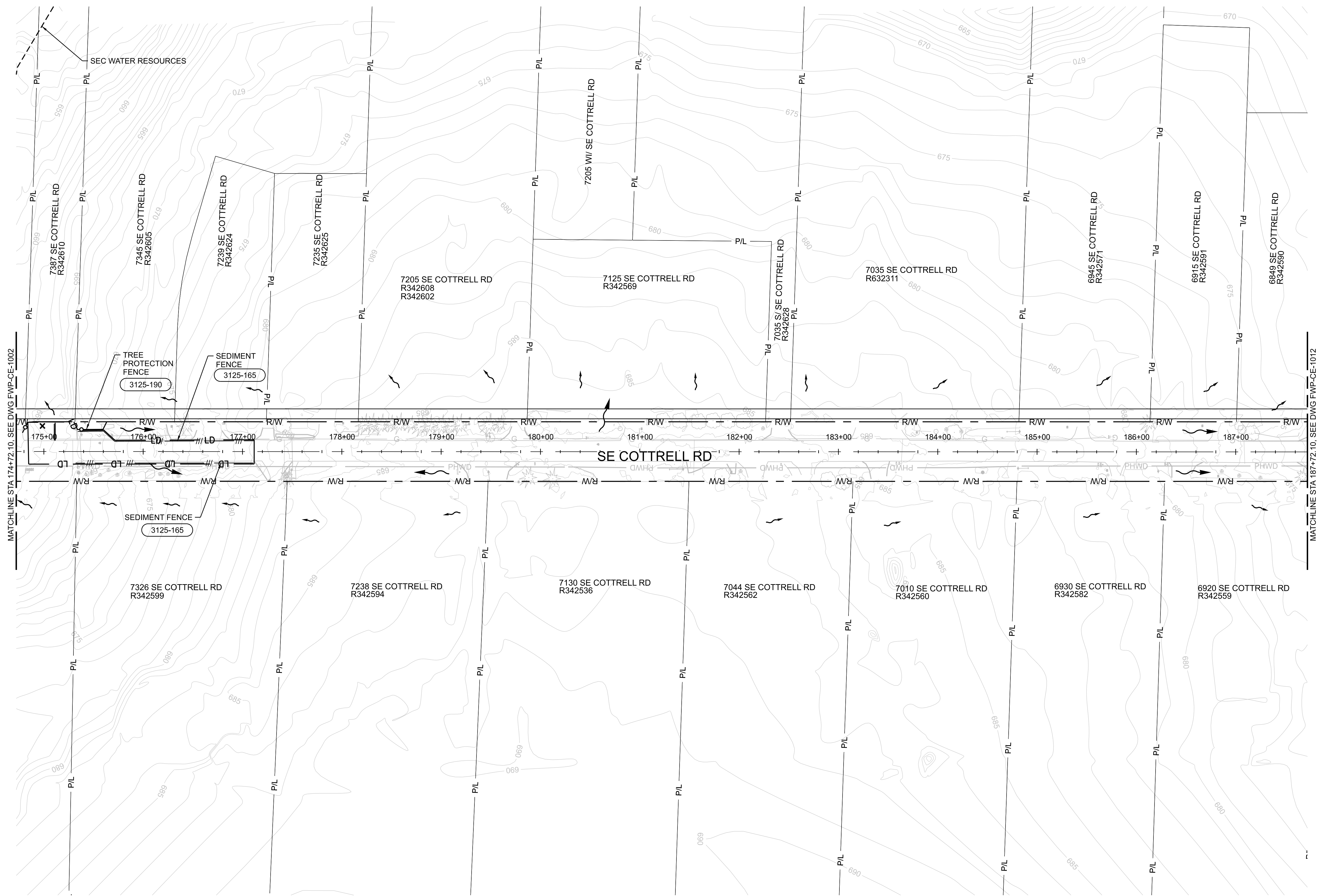
Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
 EXISTING CONDITIONS AND DEMOLITION
 ALTMAN ROAD

SAP Project No
W02563
 1/4 Section
 Sheet No
FWP-CE-1010

LEGEND

- X TREE REMOVAL
- FLOW DIRECTION
- LD LIMITS OF DISTURBANCE
- /// SEDIMENT FENCE
- TREE PROTECTION FENCE
- XXXX-XXX STANDARD DETAIL CALLOUT

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



11-OCT-2024 12:47 W02563_FWP-CE-1011.dgn

No	Date	Description	Appd
1	10/2024	DCN-04 - CCD-0004	BJP
Revision			
Survey			



Designed By	RG	Program Mgr	DH
Drawn By	JL	Const Mgr	BN
Checked By	RG	CMII Eng Mgr	JB
Project Mgr	BJP	Date	9/29/23

WARNING

If this bar does not measure 1" then the drawing is not to scale



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424

Date



Bull Run Filtration Pipelines

FINISHED WATER PIPELINE EROSION AND SED. CONTROL

EXISTING CONDITIONS AND DEMOLITION COTTRELL ROAD

SAP Project No
W02563

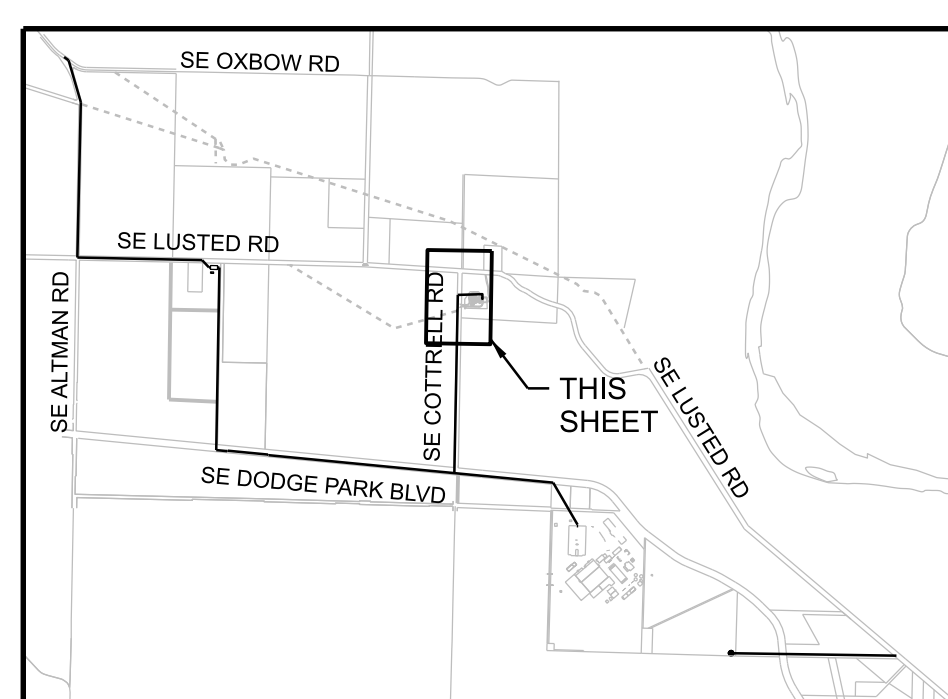
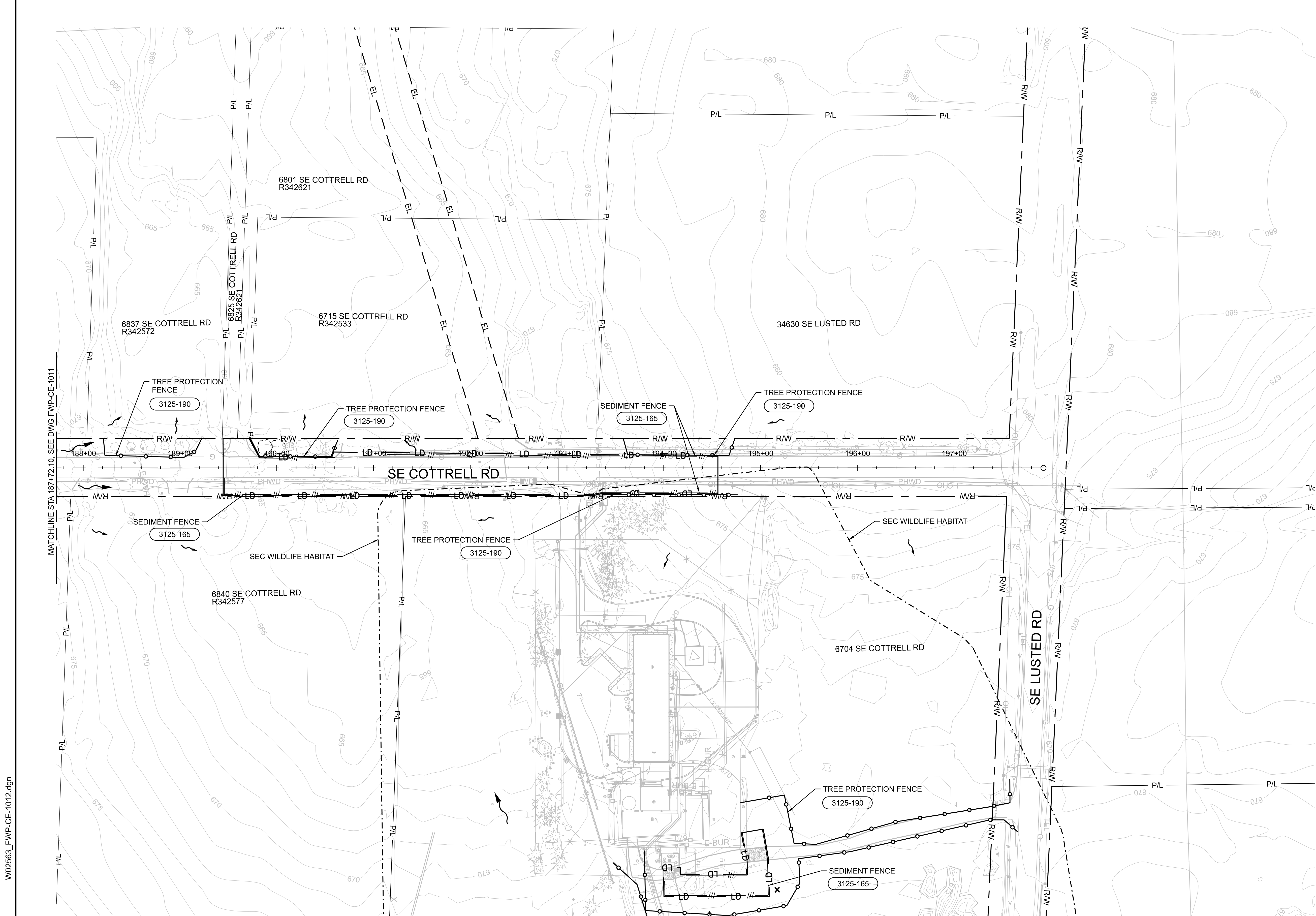
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Sheet No
FWP-CE-1011

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LEGEND	
	TREE REMOVAL
	FLOW DIRECTION
	LIMITS OF DISTURBANCE
	SEDIMENT FENCE
	TREE PROTECTION FENCE
	STANDARD DETAIL CALLOUT

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



KEYPLAN

1	10/2024	DCN-04 - CCD-0004	BJP
No	Date	Description	Appd
Revision			
Survey			



Designed By	Program Mgr
Drawn By	Const Mgr
Checked By	CMII Eng Mgr
Project Mgr	Date
	9/29/23

WARNING

0 1"

If this bar does not measure 1" then the drawing is not to scale



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424

Date



Bull Run Filtration Pipelines

FINISHED WATER PIPELINE

EROSION AND SED. CONTROL

EXISTING CONDITIONS AND DEMOLITION

COTTRELL ROAD

SAP Project No
W02563

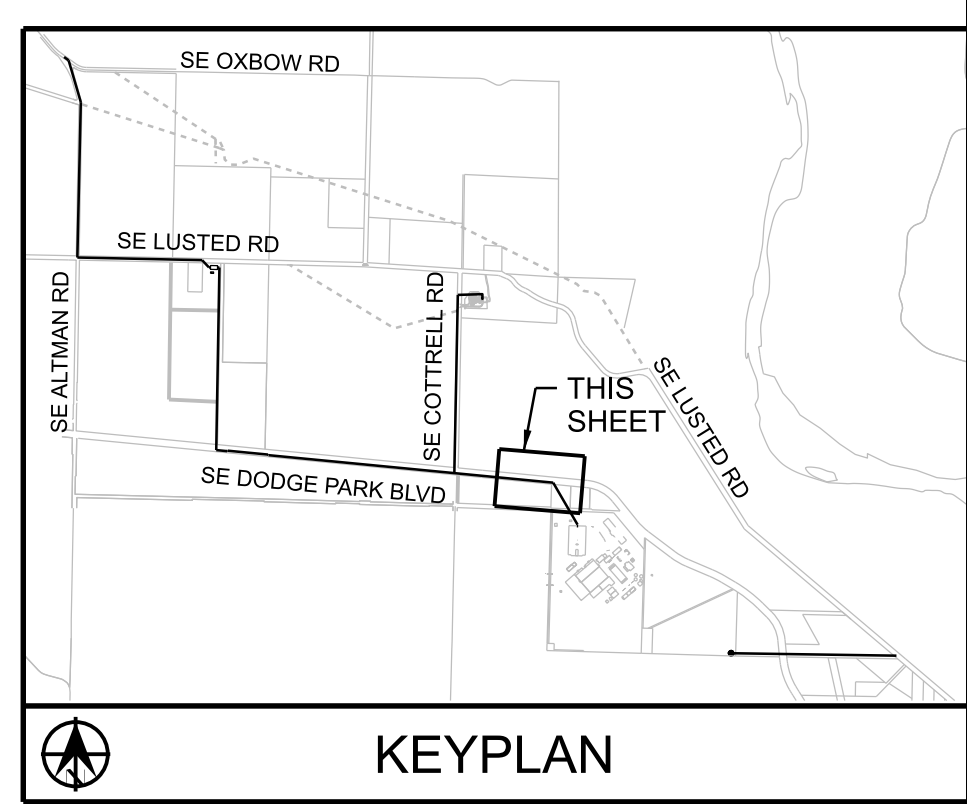
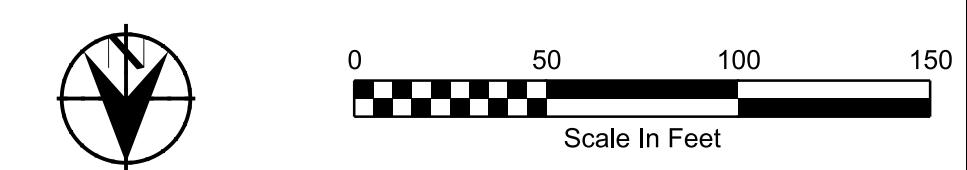
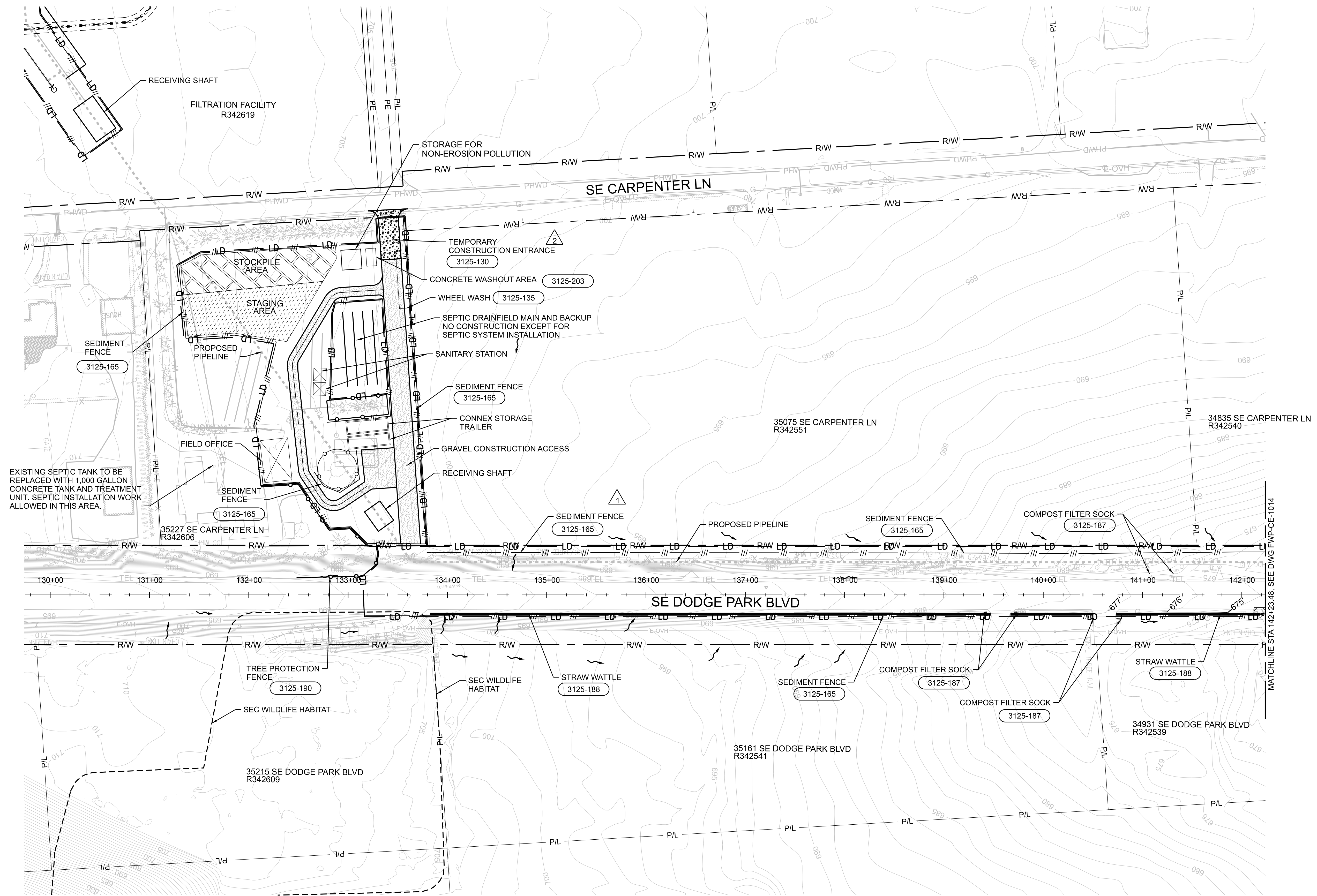
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Sheet No
FWP-CE-1012

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LEGEND	
	CONSTRUCTION ENTRANCE
	FLOW DIRECTION
	LIMITS OF DISTURBANCE
	SEDIMENT FENCE
	TREE PROTECTION FENCE
	STRAW WATTLE
	COMPOST FILTER SOCK
	STANDARD DETAIL CALLOUT
	STOCKPILE AREA
	STAGING AREA
	SANITARY STATION
	FIELD OFFICE
	CONNEX STORAGE TRAILER
	PROPOSED PIPELINE
	PROPOSED CONTOUR

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



11-OCT-2024 12:47 W02563_FWP-CE-1013.dgn

No	Date	Description	Appd
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2	8/2024	DCN-03 - CCD-0003	BJP
1	10/2023	DCN-01 - CCD-0001	BJP



Designed By	RG	Program Mgr	DH
Drawn By	BJP	Const Mgr	BN
Checked By	BJP	CMII Eng Mgr	JB
Project Mgr	BJP	Date	9/29/23



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424 Date



Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
 UTILITY WORK
 DODGE PARK BLVD

SAP Project No	W02563
1/4 Section	
Sheet No	FWP-CE-1013

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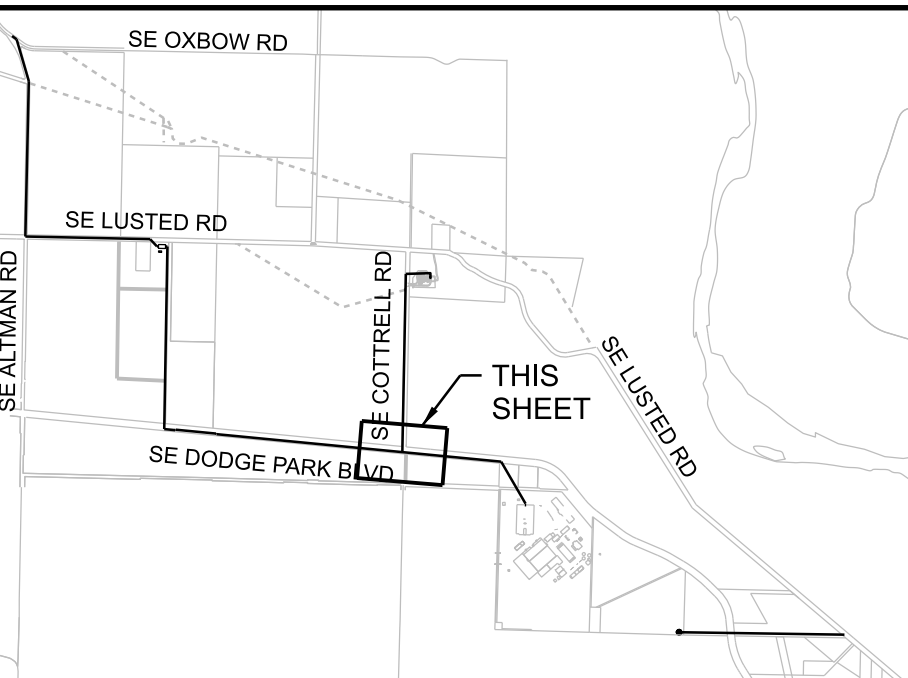
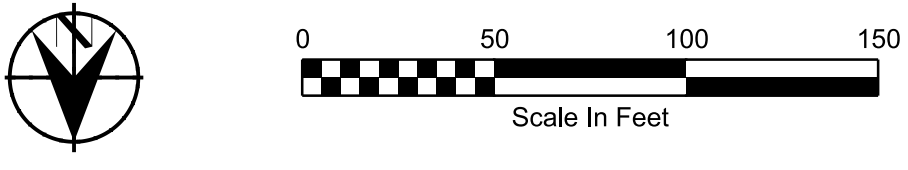
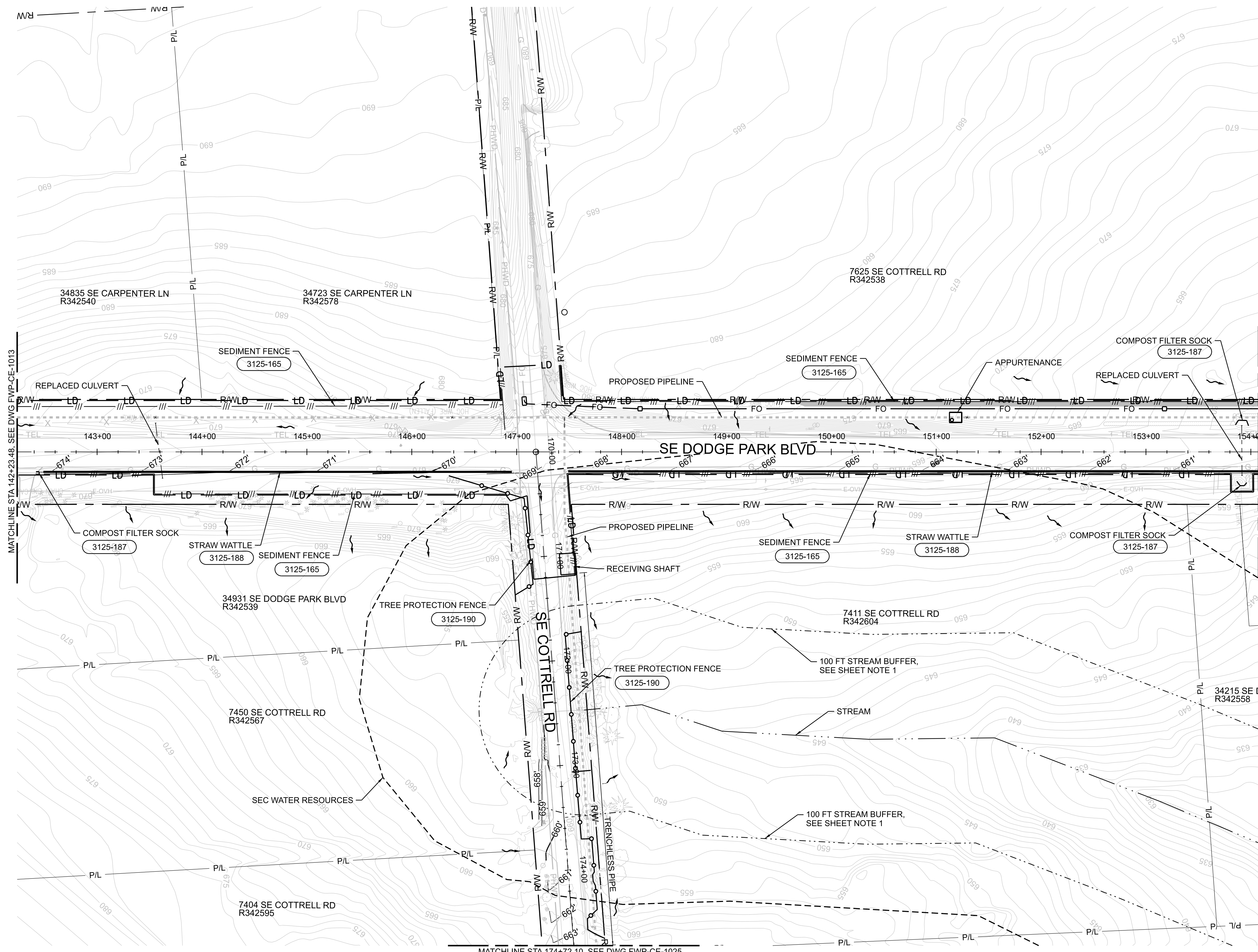
GENERAL SHEET NOTES

- FOR CONSTRUCTION WITHIN 100 FOOT BUFFER OF WET AREA, PROVIDE COMPOST FILTER SOCK 1 FOOT DOWNSLOPE OF PROPOSED SEDIMENT FENCE.
- SEE RUSLE2 CALCULATIONS FOR PROPOSED BMP PERFORMANCE TO REDUCE SEDIMENT TO LESS THAN 1 TON/ACRE/YEAR.

LEGEND

	FLOW DIRECTION
	LIMITS OF DISTURBANCE
	TREE PROTECTION FENCE
	SEDIMENT FENCE
	STRAW WATTLE
	COMPOST FILTER SOCK
	STANDARD DETAIL CALLOUT
	PROPOSED PIPELINE
	PROPOSED FIBER OPTIC
	PROPOSED FIBER OPTIC HANDHOLE
	PROPOSED CONTOUR
	PROPOSED STORM CULVERT

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



11-OCT-2024 12:47 W02563_FWP-CE-1014.dgn

No	Date	Description	Appd
1	10/2024	DCN-04 - CCD-0004	BJP
Revision			
Survey			



Designed By	RG	Program Mgr	DH
Drawn By	BN	Const Mgr	BN
Checked By	JB	CMII Eng Mgr	JB
Project Mgr	BJP	Date	9/29/23

WARNING

If this bar does not measure 1" then the drawing is not to scale



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424

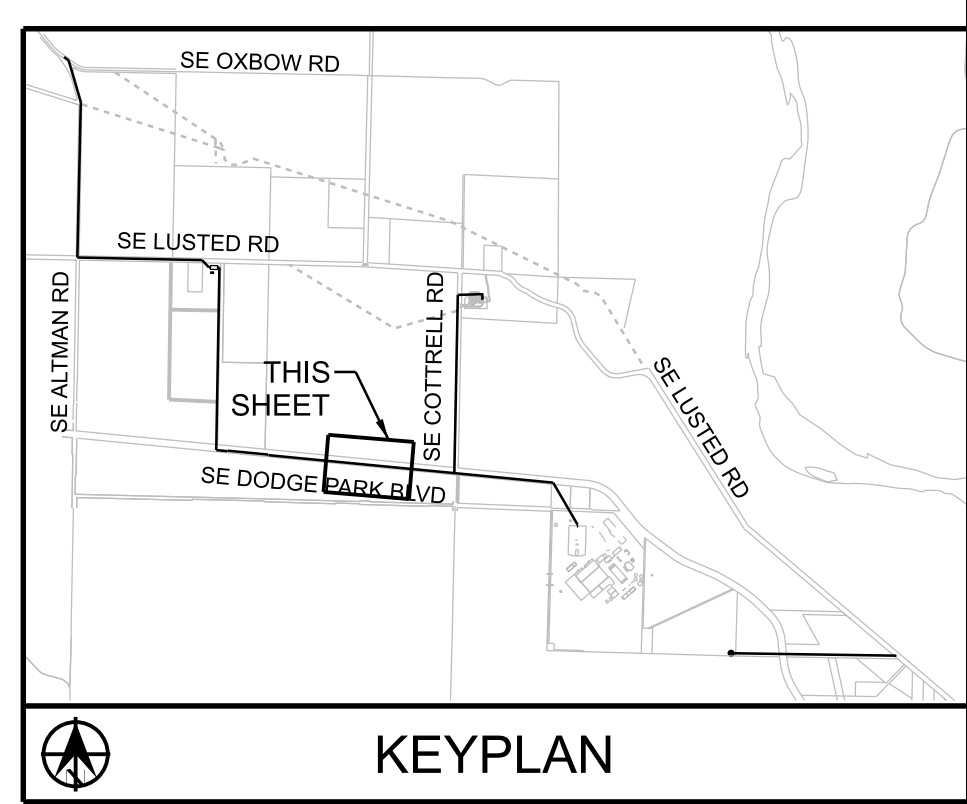
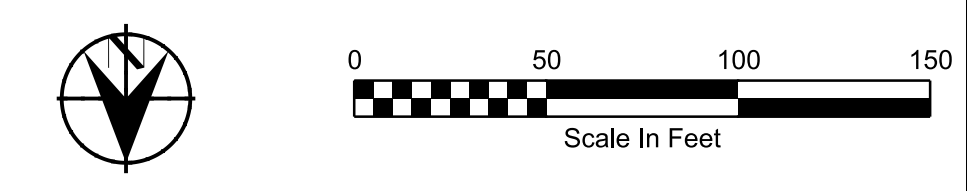
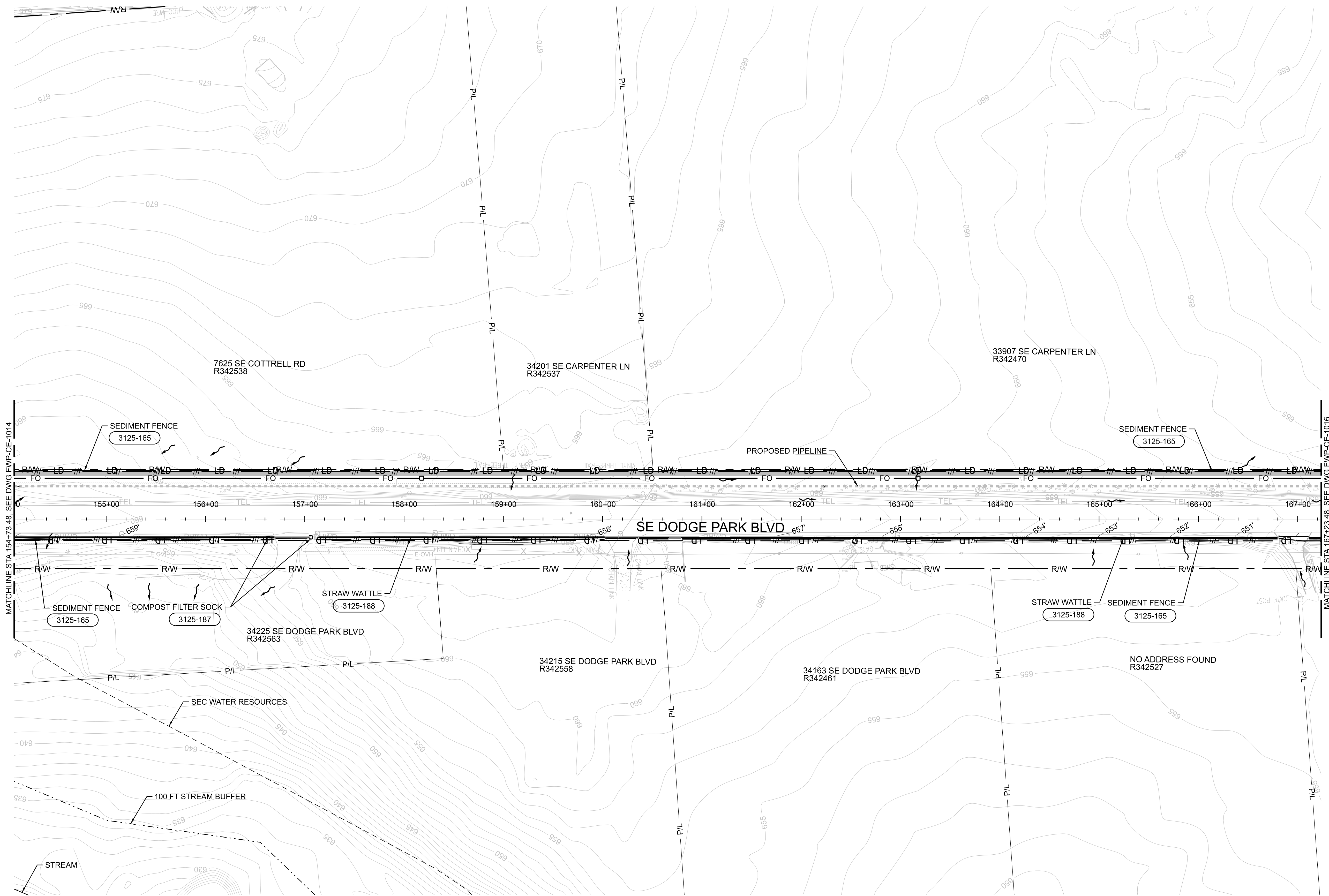


Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
 UTILITY WORK
 DODGE PARK BLVD

SAP Project No	W02563
1/4 Section	
Sheet No	FWP-CE-1014

LEGEND	
	FLOW DIRECTION
	LIMITS OF DISTURBANCE
	SEDIMENT FENCE
	STRAW WATTLE
	COMPOST FILTER SOCK
	STANDARD DETAIL CALLOUT
	PROPOSED FIBER OPTIC
	PROPOSED FIBER OPTIC HANDHOLE
	PROPOSED PIPELINE
	PROPOSED CONTOUR

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571

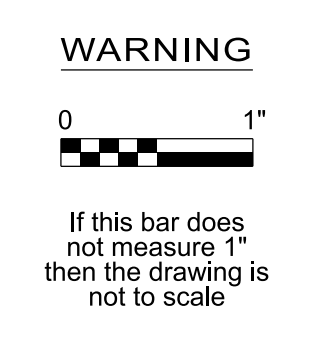


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No	Date	Description	Appd
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Revision			
Survey			



Designed By	DH
Drawn By	BN
Checked By	JB
Project Mgr	JB
Date	9/29/23



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424



Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
 UTILITY WORK
 DODGE PARK BLVD

SAP Project No
W02563
 1/4 Section
 Sheet No
FWP-CE-1015

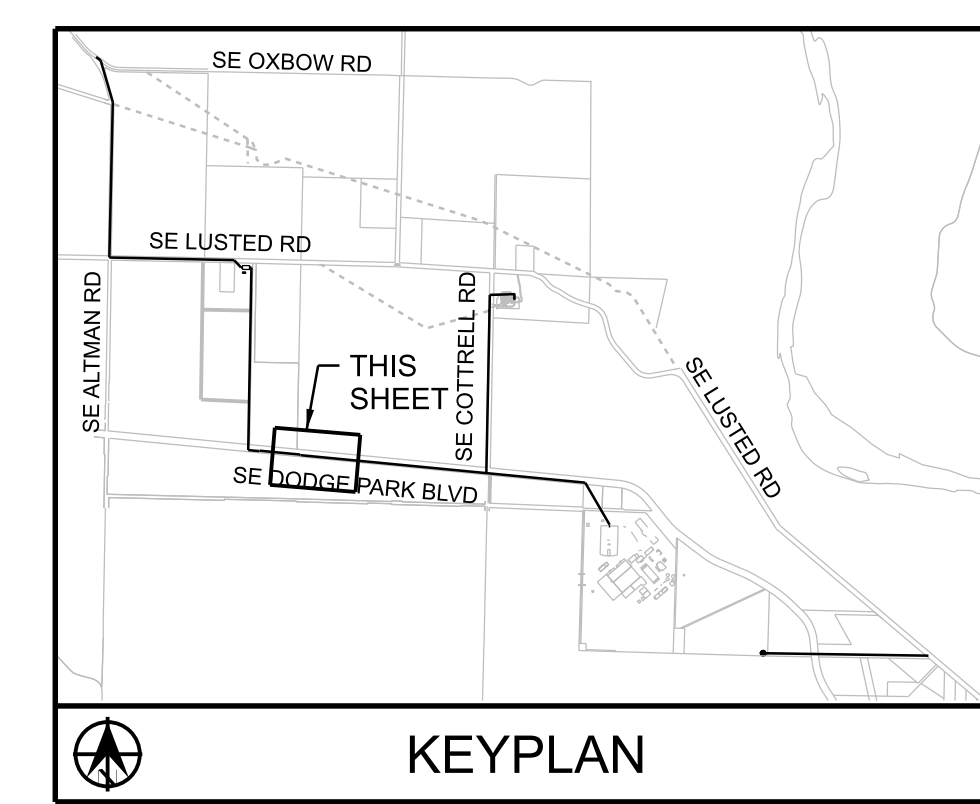
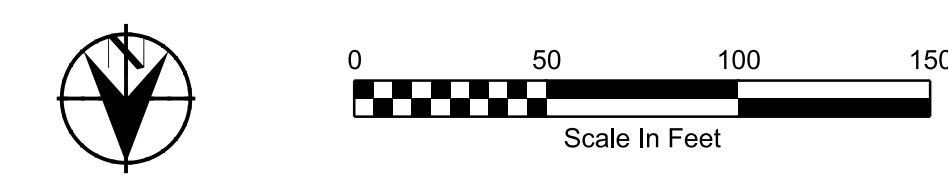
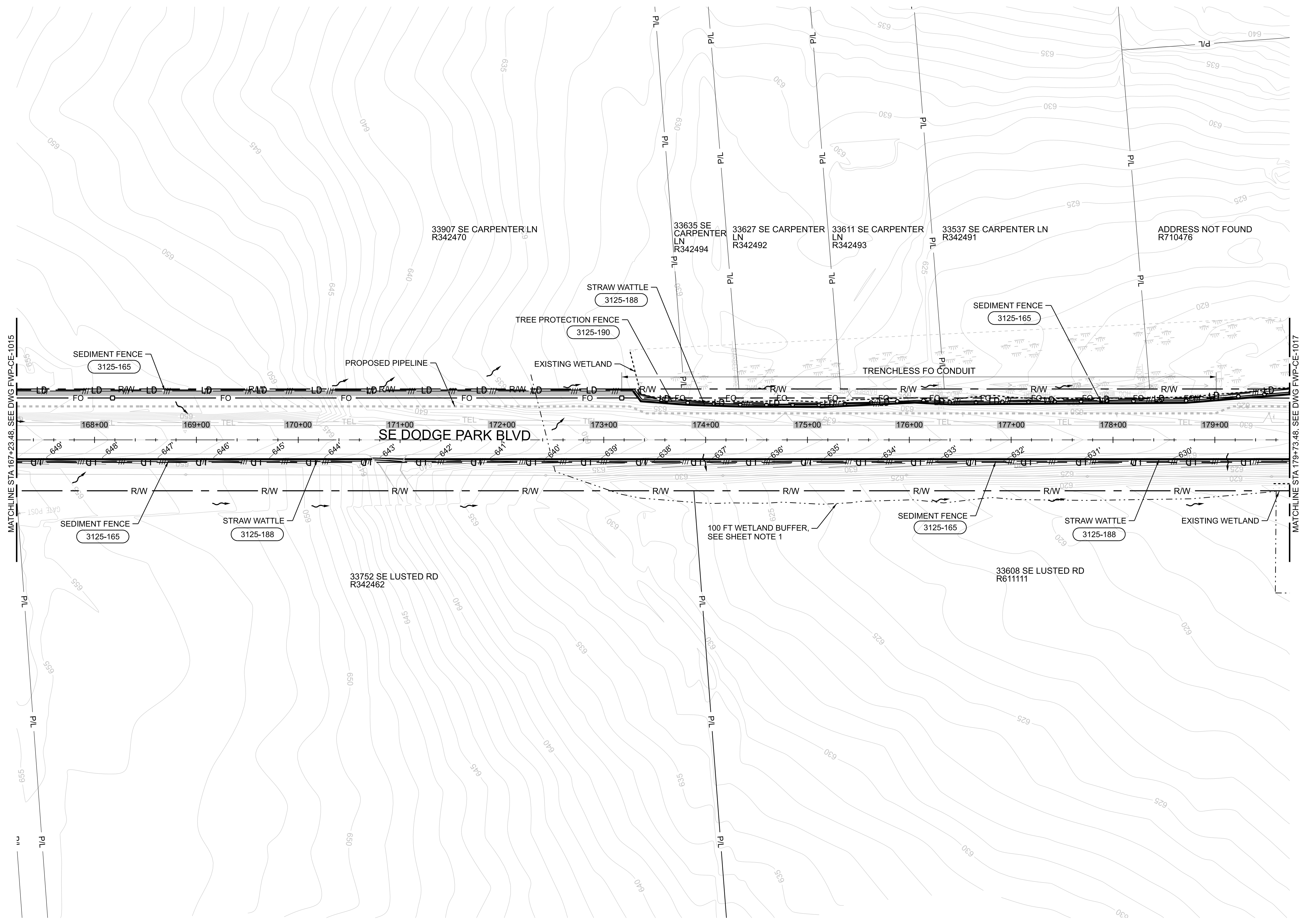
GENERAL SHEET NOTES

- FOR CONSTRUCTION WITHIN 100 FOOT BUFFER OF WET AREA, PROVIDE COMPOST FILTER SOCK 1 FOOT DOWNSLOPE OF PROPOSED SEDIMENT FENCE.
- SEE RUSLE2 CALCULATIONS FOR PROPOSED BMP PERFORMANCE TO REDUCE SEDIMENT TO LESS THAN 1 TON/ACRE/YEAR.

LEGEND

- FLOW DIRECTION
- LD LIMITS OF DISTURBANCE
- SEDIMENT FENCE
- TREE PROTECTION FENCE
- STRAW WATTLE
- STANDARD DETAIL CALLOUT
- PROPOSED PIPELINE
- PROPOSED FIBER OPTIC
- PROPOSED FIBER OPTIC HANDHOLE
- 500' PROPOSED CONTOUR

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



11-OCT-2024 16:38 W02563_FWP-CE-1016.dgn

No	Date	Description	Appd
1	10/2024	DCN-04 - CCD-0004	BJP
Revision			
Survey			



Designed By	Program Mgr
Drawn By	Const Mgr
Checked By	CMII Eng Mgr
Project Mgr	Date



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424
Date



Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
UTILITY WORK
DODGE PARK BLVD

SAP Project No
W02563
1/4 Section
Sheet No
FWP-CE-1016

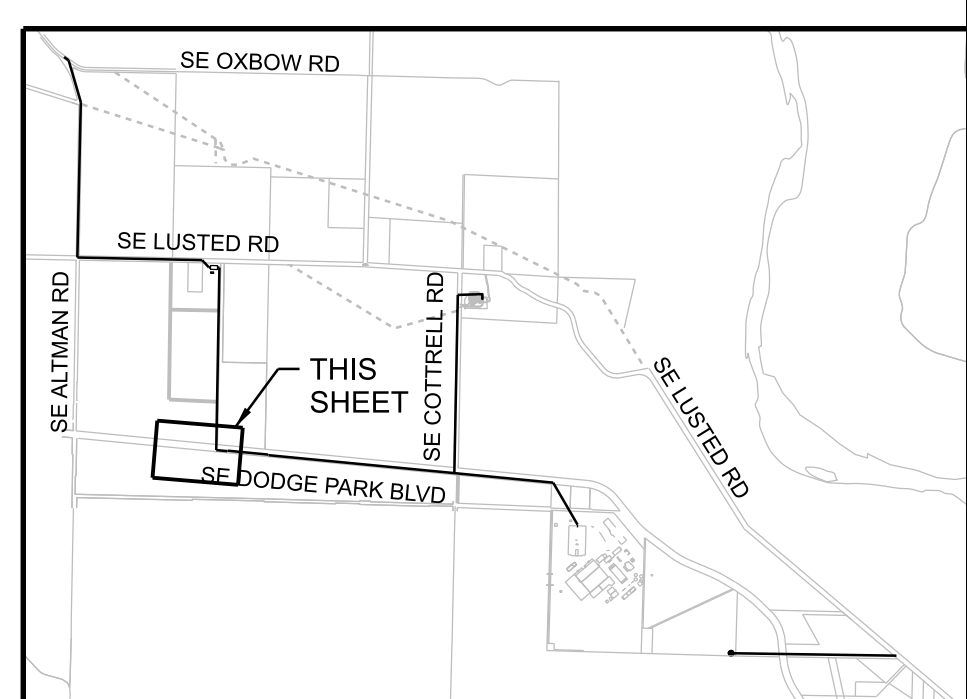
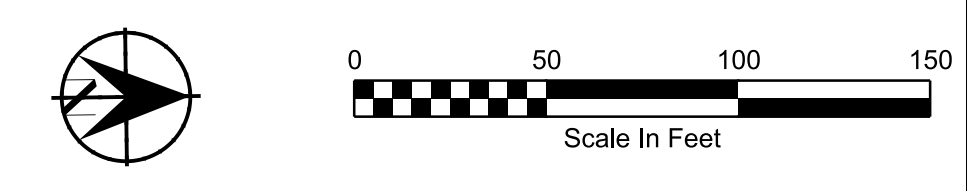
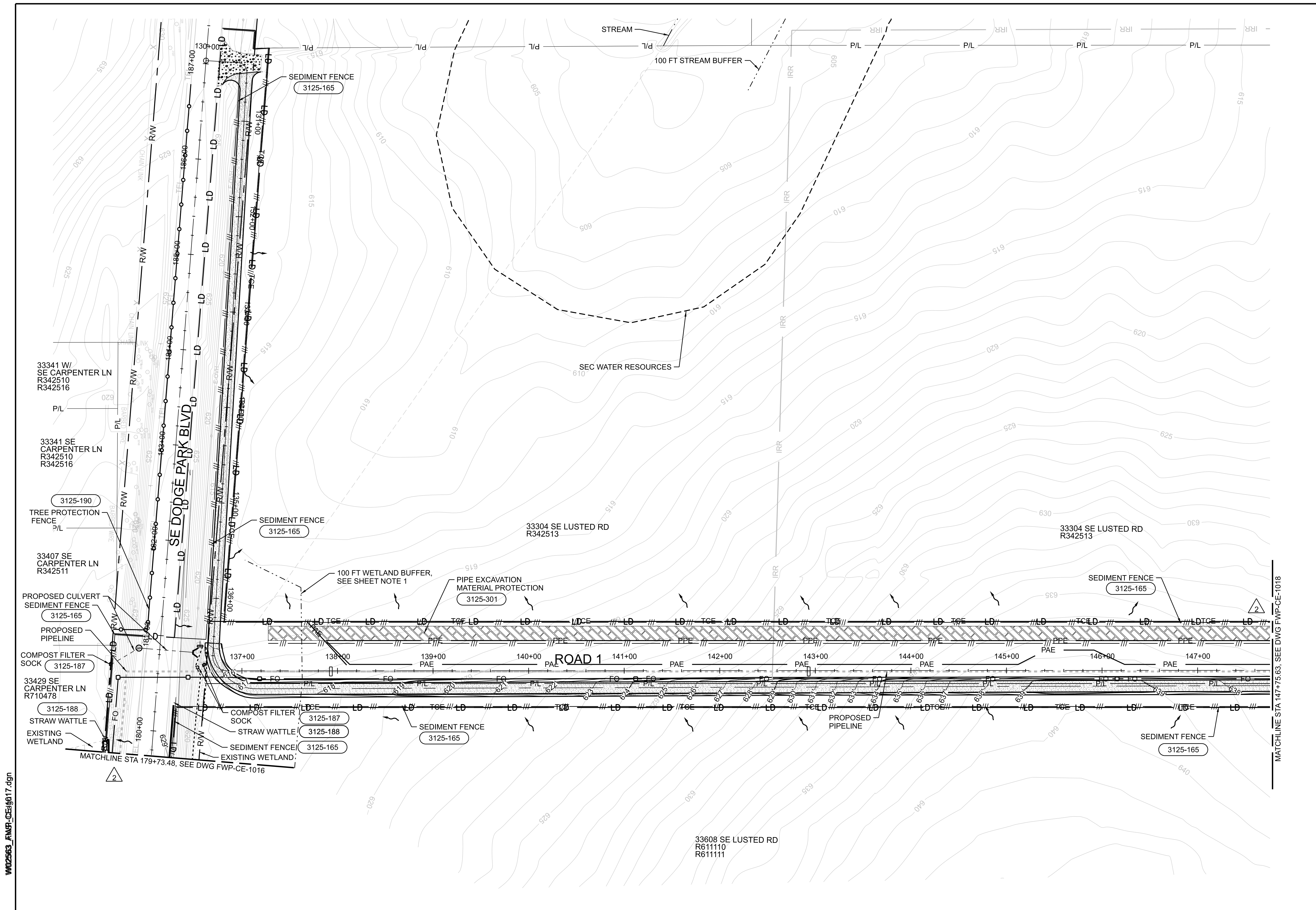
GENERAL SHEET NOTES

- FOR CONSTRUCTION WITHIN 100 FOOT BUFFER OF WET AREA, PROVIDE COMPOST FILTER SOCK 1 FOOT DOWNSLOPE OF PROPOSED SEDIMENT FENCE.
- SEE RUSLE2 CALCULATIONS FOR PROPOSED BMP PERFORMANCE TO REDUCE SEDIMENT TO LESS THAN 1 TON/ACRE/YEAR.

LEGEND

	FLOW DIRECTION
	LIMITS OF DISTURBANCE
	SEDIMENT FENCE
	TREE PROTECTION FENCE
	STRAW WATTLE
	COMPOST FILTER SOCK
	STANDARD DETAIL CALLOUT
	TCE
	TEMPORARY CONSTRUCTION EASEMENT
	PERMANENT PROPERTY EASEMENT
	PUBLIC ACCESS EASEMENT
	PIPE EXCAVATION MATERIAL PROTECTION
	PROPOSED GRAVEL
	PROPOSED PIPELINE
	PROPOSED FIBER OPTIC
	PROPOSED FIBER OPTIC HANDHOLE
	500'
	PROPOSED CONTOUR
	PROPOSED STORM CULVERT
	PROPOSED STORM MANHOLE

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



KEYPLAN

CONFIDENTIAL

No	Date	Description	Appd
3	10/2024	DCN-04 - CCD-0004	BJP
2	1/2024	DCN-01 - CCD-0001	BJP
1	6/7/23	ADDENDA NO. 1 - 100% REVIEW COMMENT UPDATE	BJP



Designed By	Program Mgr
Drawn By	Const Mgr
Checked By	CMII Eng Mgr
Project Mgr	Date



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424



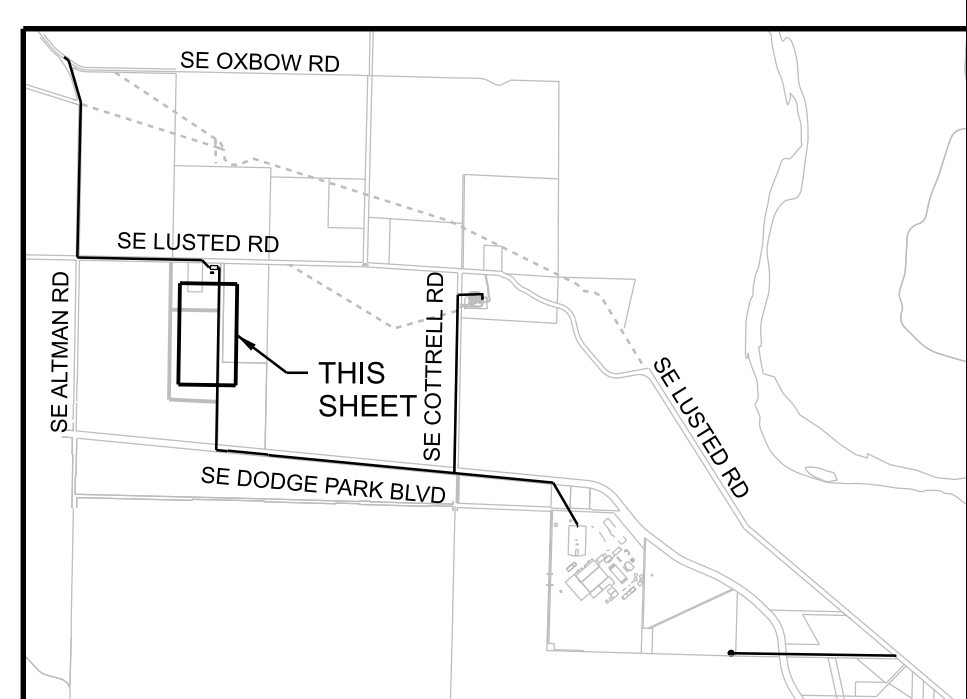
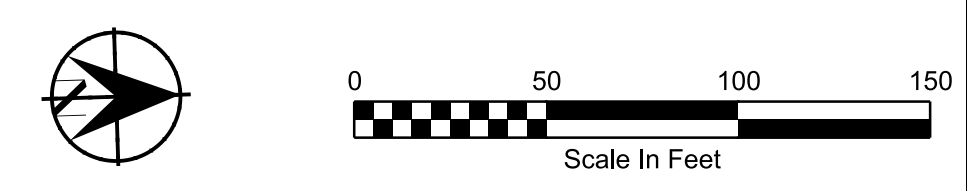
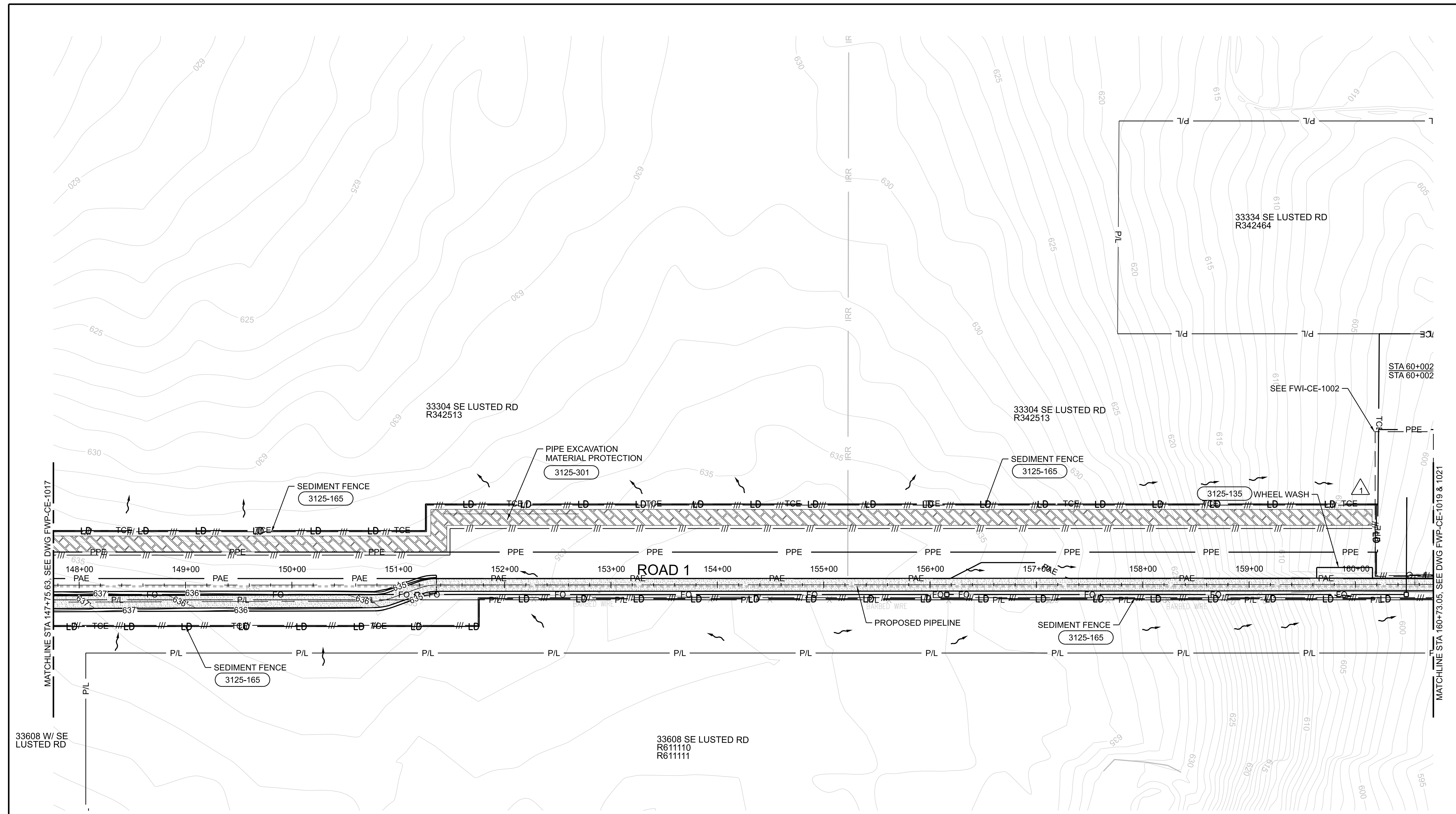
Bull Run Filtration Pipelines
**FINISHED WATER PIPELINE
 EROSION AND SED. CONTROL**
 UTILITY WORK
 ROAD 1

SAP Project No
W02563
 1/4 Section
 Sheet No
FWP-CE-1017

11-OCT-2024 16:38 W02563_FWP-CE-1017.dgn

LEGEND	
	FLOW DIRECTION
	LIMITS OF DISTURBANCE
	SEDIMENT FENCE
	STANDARD DETAIL CALLOUT
	TEMPORARY CONSTRUCTION EASEMENT
	PERMANENT PROPERTY EASEMENT
	PUBLIC ACCESS EASEMENT
	PIPE EXCAVATION MATERIAL PROTECTION
	PROPOSED GRAVEL
	PROPOSED PIPELINE
	PROPOSED FIBER OPTIC
	PROPOSED FIBER OPTIC HANDHOLE
	PROPOSED CONTOUR

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



11-OCT-2024 17:20 W02563_FWP-CE-1018.dgn

No	Date	Description	Appd
2	10/2024	DCN-04 - CCD-0004	BJP
1	10/2023	DCN-01 - CCD-0001	BJP



Designed By	DH
Drawn By	BN
Checked By	JB
Project Mgr	JB
Date	9/29/23

WARNING

 If this bar does not measure 1" then the drawing is not to scale



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424

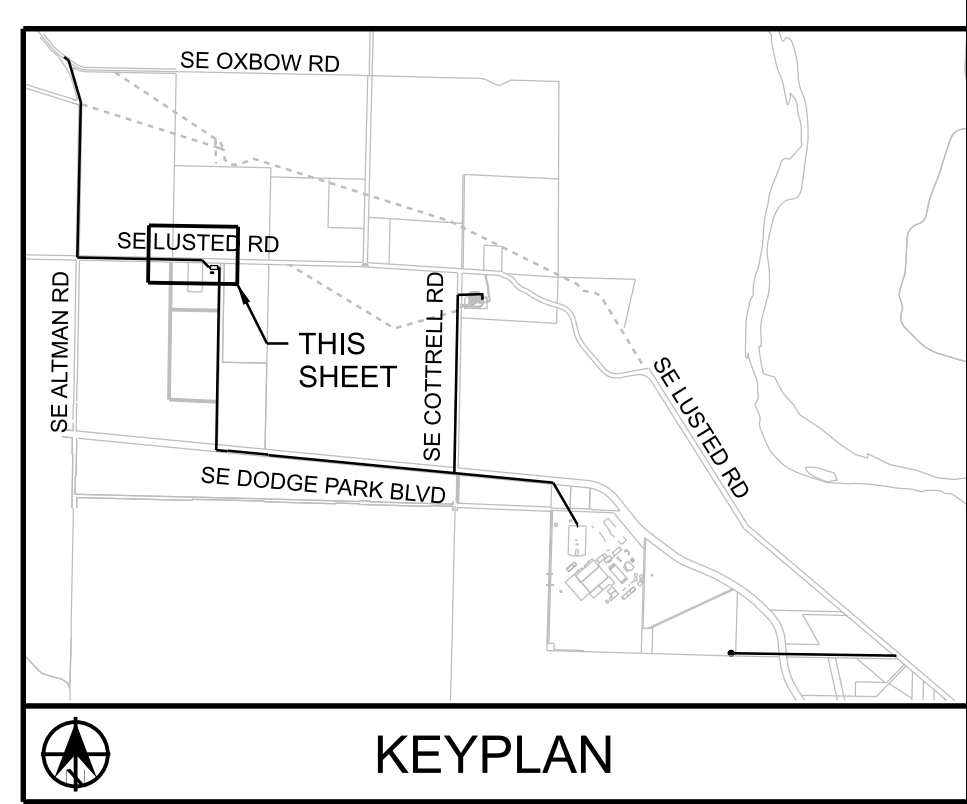
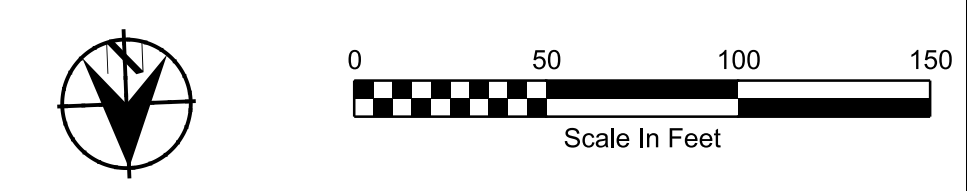
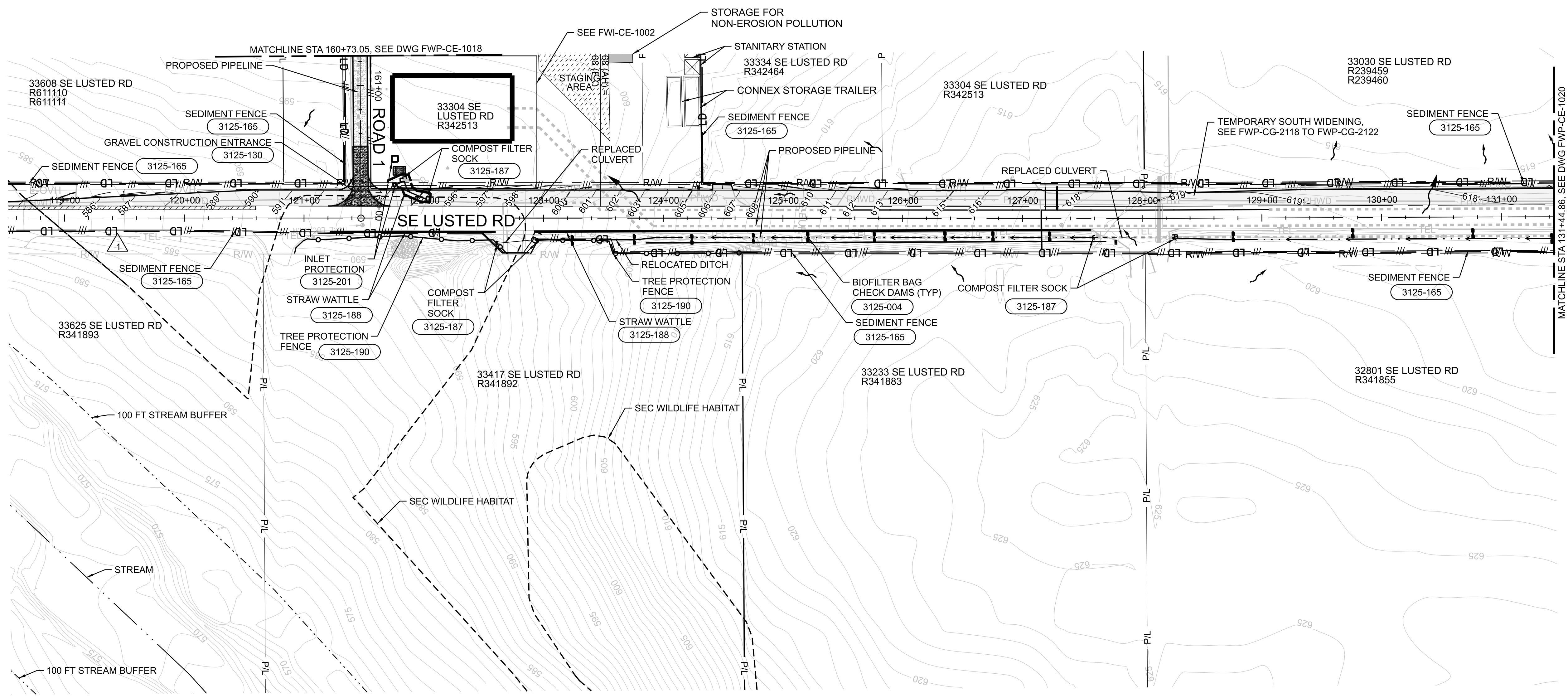


Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
 UTILITY WORK
 ROAD 1

SAP Project No
W02563
 1/4 Section
 Sheet No
FWP-CE-1018

LEGEND	
	FLOW DIRECTION
	LIMITS OF DISTURBANCE
	SEDIMENT FENCE
	TREE PROTECTION FENCE
	STANDARD DETAIL CALLOUT
	STRAW WATTLE
	BIOFILTER BAG CHECK DAM
	COMPOST FILTER SOCK
	PROPOSED MAILBOX
	TCE
	TEMPORARY CONSTRUCTION EASEMENT
	PPE
	PROPOSED PIPELINE
	PROPOSED DRAINAGE DITCH
	PROPOSED STORM CULVERT
	CONSTRUCTION ENTRANCE
	PROPOSED ASPHALT
	PROPOSED GRAVEL
	GRIND & INLAY
	SANITARY STATION
	CONNEX STORAGE TRAILERS

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



11-OCT-2024 17:00 W02563_FWP-CE-1019.dgn

No	Date	Description	Appd
1	10/2024	DCN-04 - CCD-0004	BJP
1	6/2024	DCN-03 - CCD-0003	BJP



Designed By	Program Mgr
Drawn By	Const Mgr
Checked By	CMII Eng Mgr
Project Mgr	Date
	9/29/23



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424

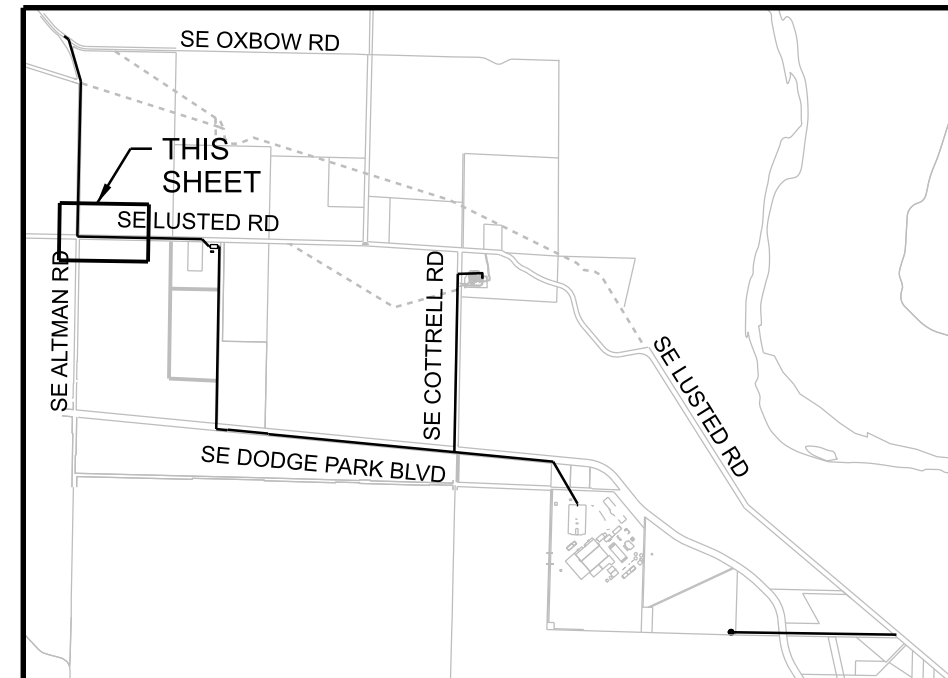
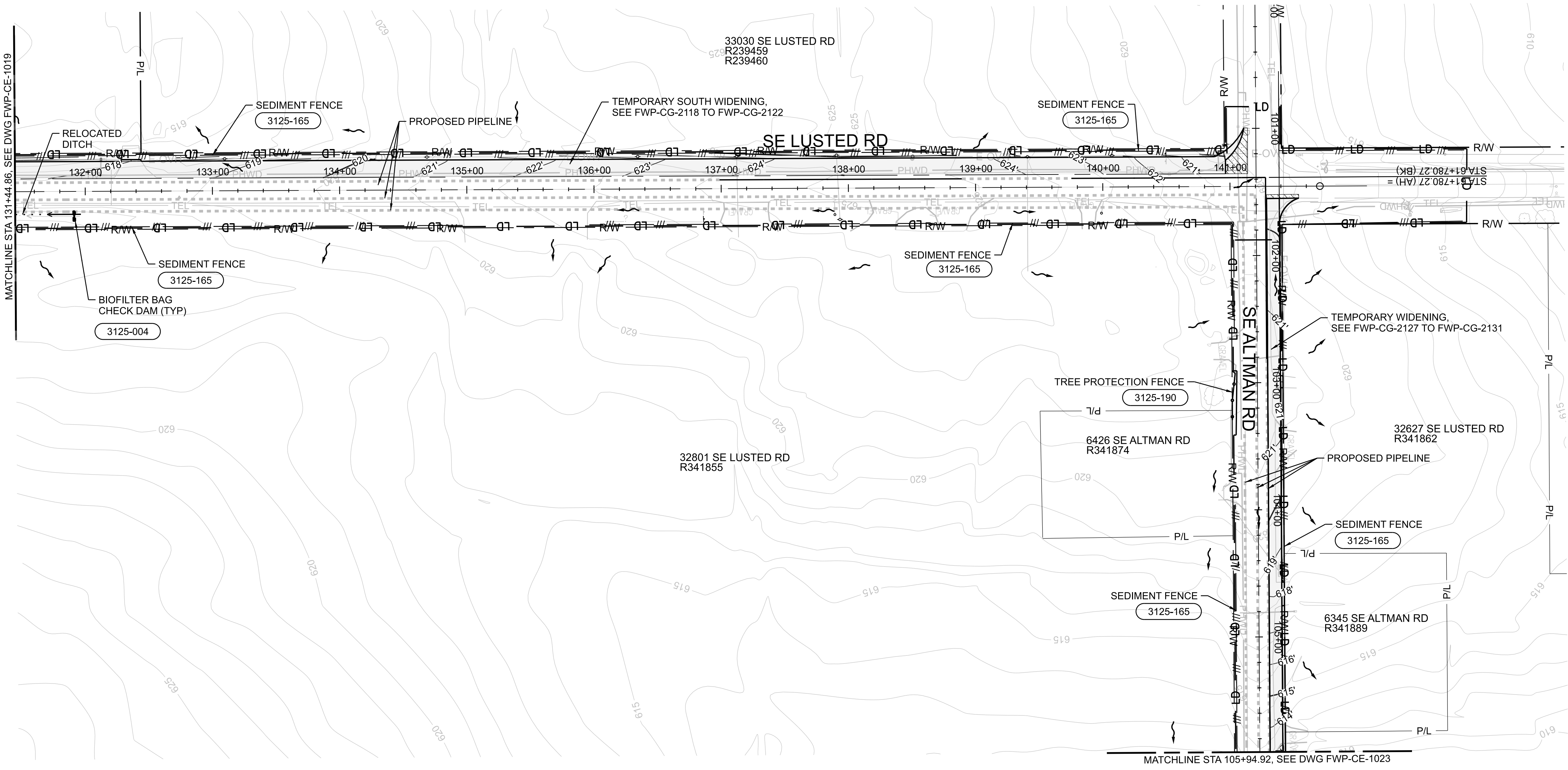


Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
 UTILITY WORK PHASE 1
 LUSTED RD SOUTH WIDENING

SAP Project No
W02563
 1/4 Section
 Sheet No
FWP-CE-1019

LEGEND	
	FLOW DIRECTION
	LIMITS OF DISTURBANCE
	SEDIMENT FENCE
	TREE PROTECTION FENCE
	STANDARD DETAIL CALLOUT
	BIOFILTER BAG CHECK DAM
	PROPOSED PIPELINE
	PROPOSED CONTOUR
	PROPOSED DRAINAGE DITCH
	PROPOSED ASPHALT
	GRIND & INLAY

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



11-OCT-2024 16:37 W02563_FWP-CE-1020.dgn

No	Date	Description	Appd
10/2024		DCN-04 - CCD-0004	BJP
Revision			
Survey			

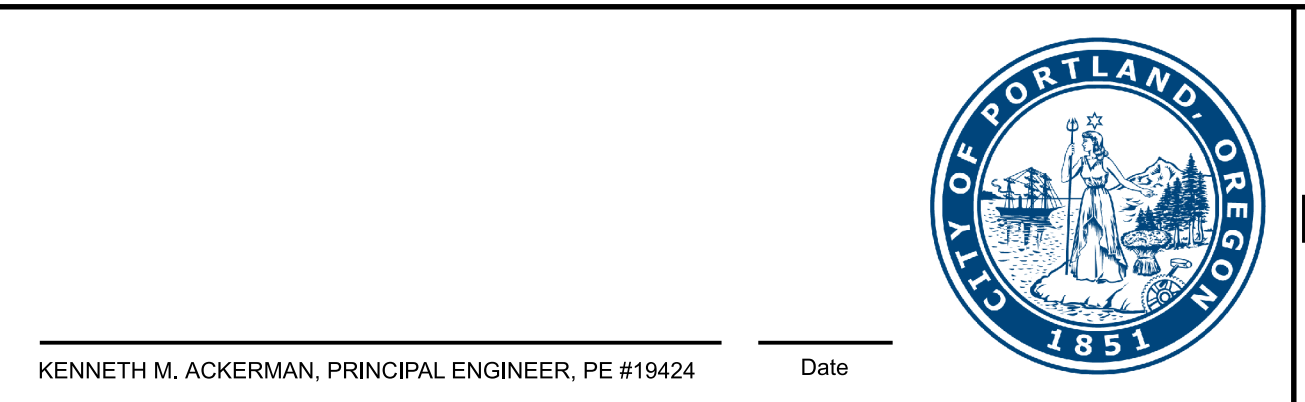


Designed By	RG	Program Mgr	DH
Drawn By	JL	Const Mgr	BN
Checked By	RG	CMII Eng Mgr	JB
Project Mgr	BJP	Date	9/29/23

WARNING

0 1"

If this bar does not measure 1" then the drawing is not to scale



Bull Run Filtration Pipelines

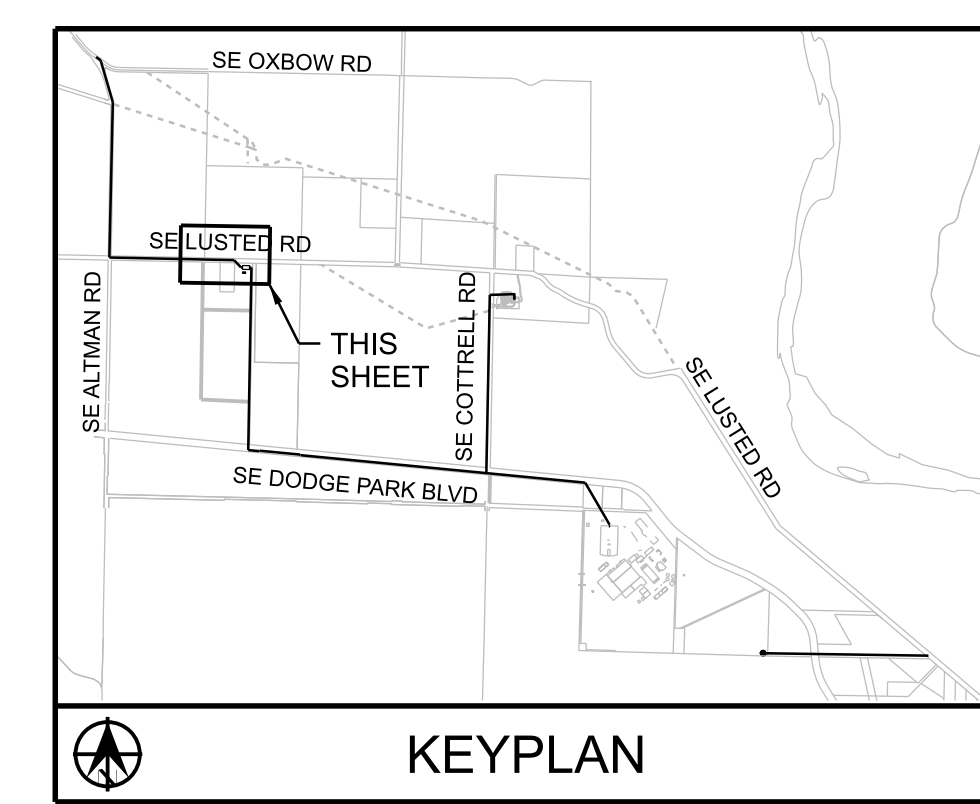
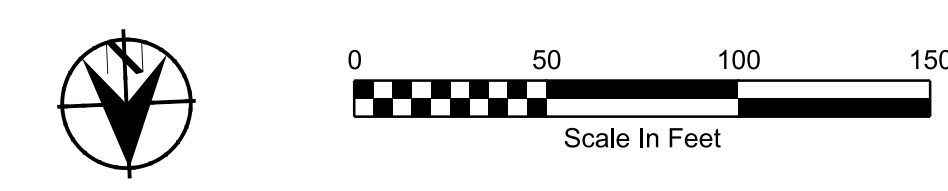
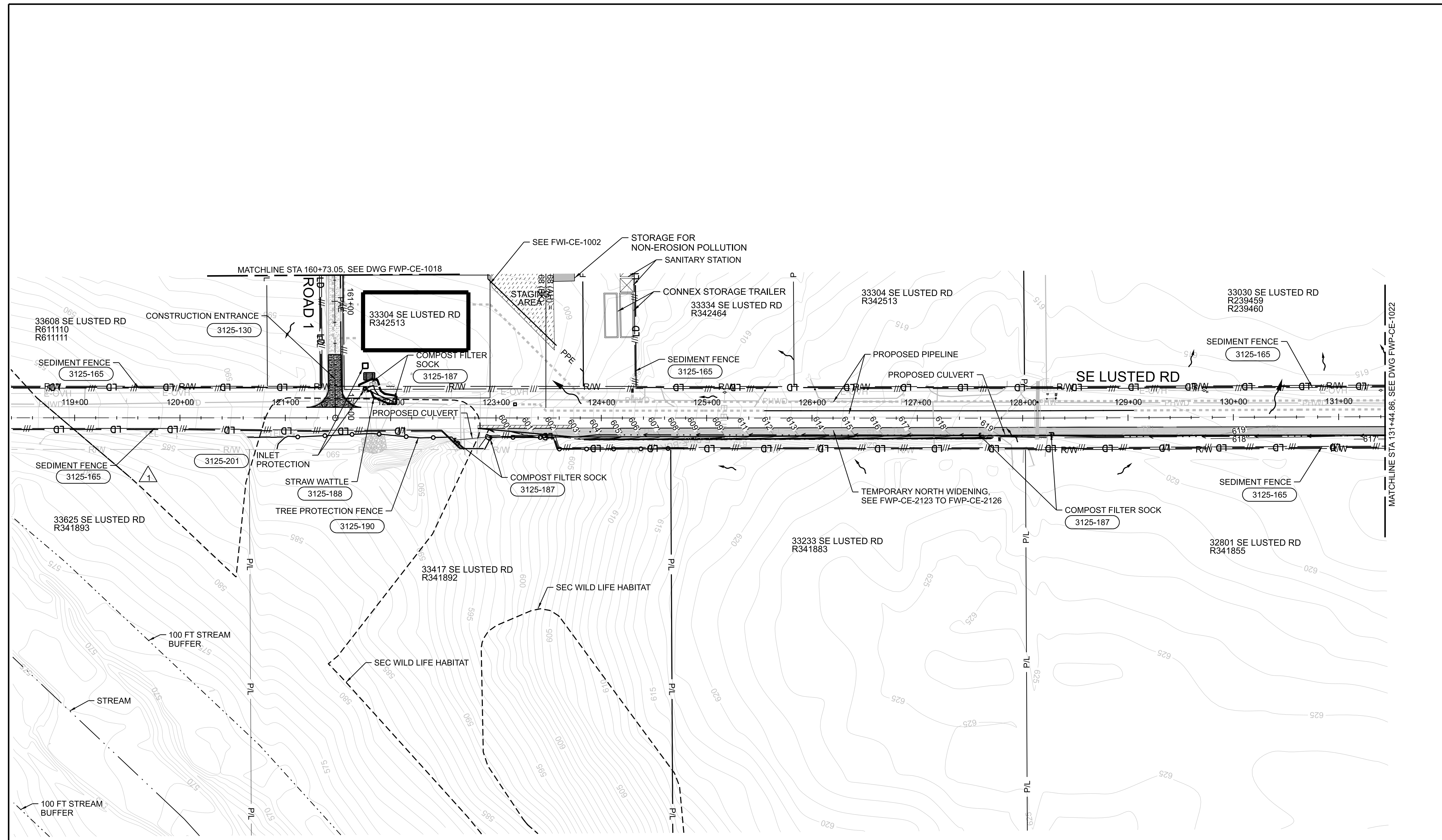
FINISHED WATER PIPELINE EROSION AND SED. CONTROL

UTILITY WORK PHASE 1
LUSTED RD SOUTH WIDENING

SAP Project No	W02563
1/4 Section	
Sheet No	FWP-CE-1020

LEGEND	
	FLOW DIRECTION
	LIMITS OF DISTURBANCE
	SEDIMENT FENCE
	TREE PROTECTION FENCE
	STANDARD DETAIL CALLOUT
	STRAW WATTLE
	COMPOST FILTER SOCK
	PROPOSED MAILBOX
	TCE
	TEMPORARY CONSTRUCTION EASEMENT
	PERMANENT PROPERTY EASEMENT
	DEMOLITION
	PROPOSED PIPELINE
	PROPOSED CONTOUR
	PROPOSED DRAINAGE DITCH
	PROPOSED STORM CULVERT
	CONSTRUCTION ENTRANCE
	PROPOSED ASPHALT
	PROPOSED GRAVEL
	GRIND & INLAY
	STAGING AREA
	SANITARY STATION
	CONNEX STORAGE TRAILERS

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



11-OCT-2024 16:58 W02563_FWP-CE-1021.dgn

No	Date	Description	Appd
2	10/2024	DCN-04 - CCD-0004	BJP
1	6/2024	DNC-03 - CCD-0003	BJP



Designed By	DH
Program Mgr	DH
Drawn By	BN
Const Mgr	BN
Checked By	JB
CMII Eng Mgr	JB
Project Mgr	JB
Date	9/29/23

WARNING

0 1"

If this bar does not measure 1" then the drawing is not to scale



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424



Bull Run Filtration Pipelines

FINISHED WATER PIPELINE EROSION AND SED. CONTROL

UTILITY WORK PHASE 2
LUSTED ROAD NORTH WIDENING

SAP Project No
W02563

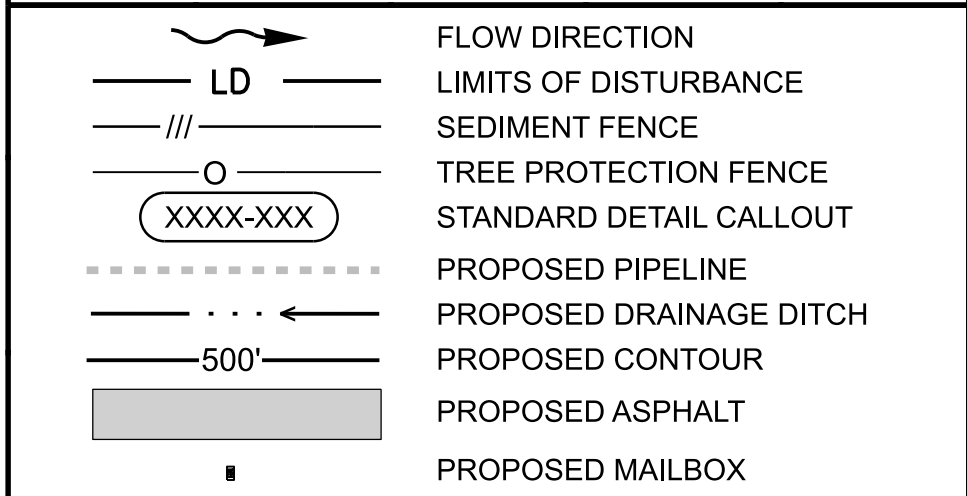
1/4 Section

Sheet No
FWP-CE-1021

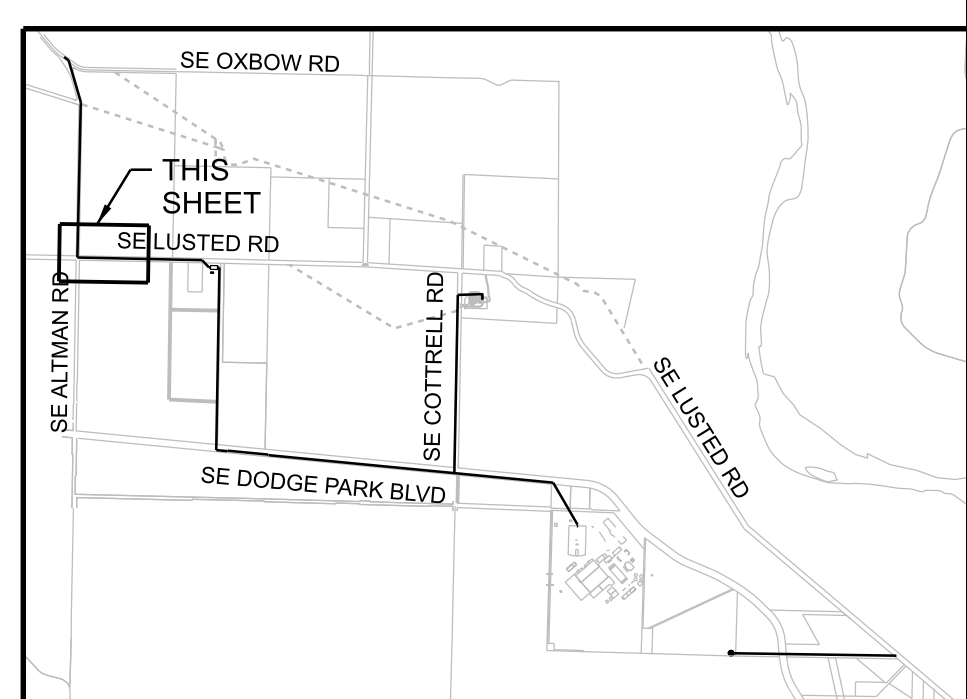
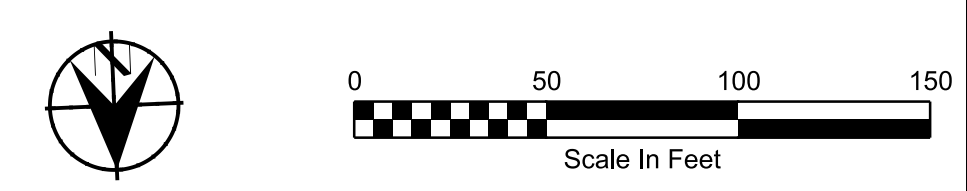
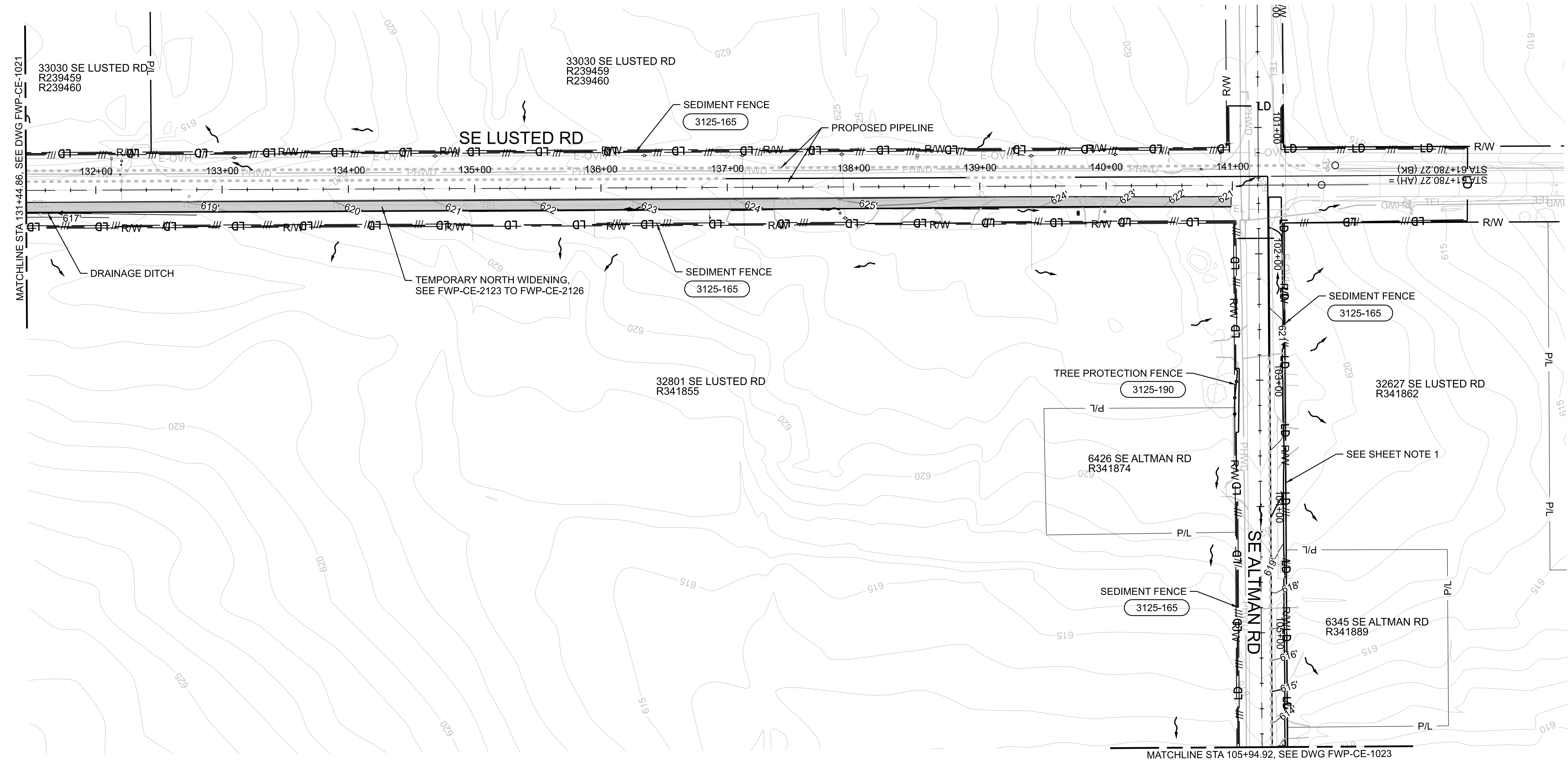
GENERAL SHEET NOTES

- SEDIMENT FENCE AND LIMIT OF DISTURBANCE LINE ON R/W LINE.

LEGEND

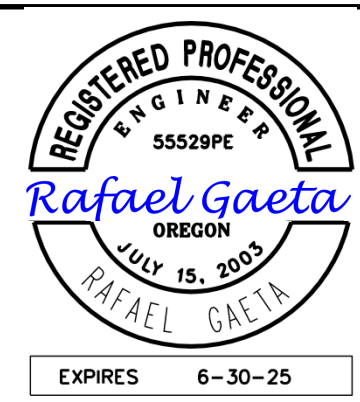


MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571

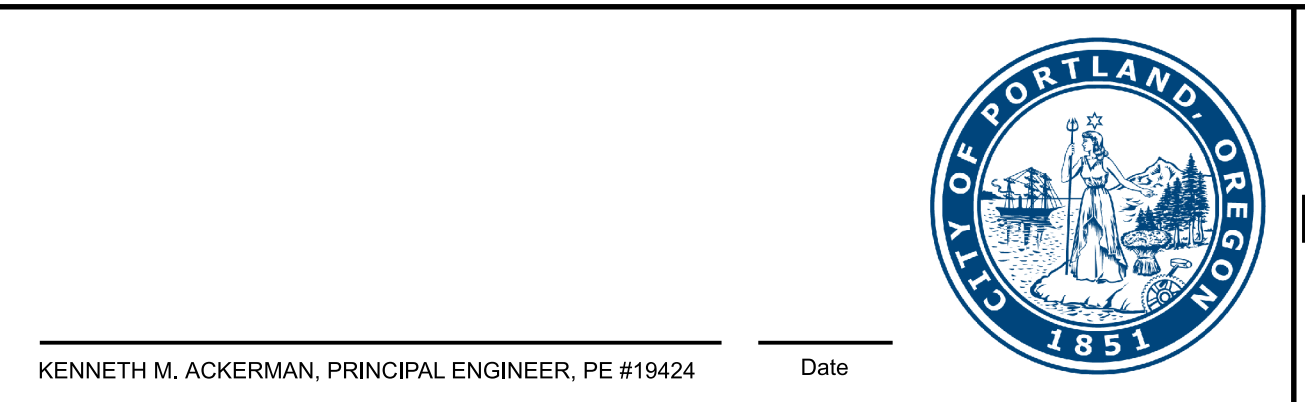
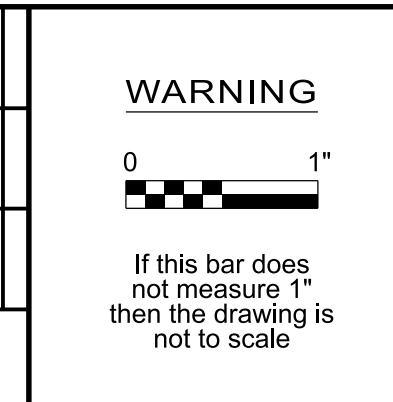


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No	Date	Description	Appd
1	10/2024	DCN-04 - CCD-0004	BJP
Revision			
Survey			



Designed By	RG	Program Mgr	DH
Drawn By	JL	Const Mgr	BN
Checked By	RG	CMII Eng Mgr	JB
Project Mgr	BJP	Date	9/29/23



Bull Run Filtration Pipelines

FINISHED WATER PIPELINE EROSION AND SED. CONTROL

UTILITY WORK PHASE 2
LUSTED RD NORTH WIDENING

Sheet No
FWP-CE-1022

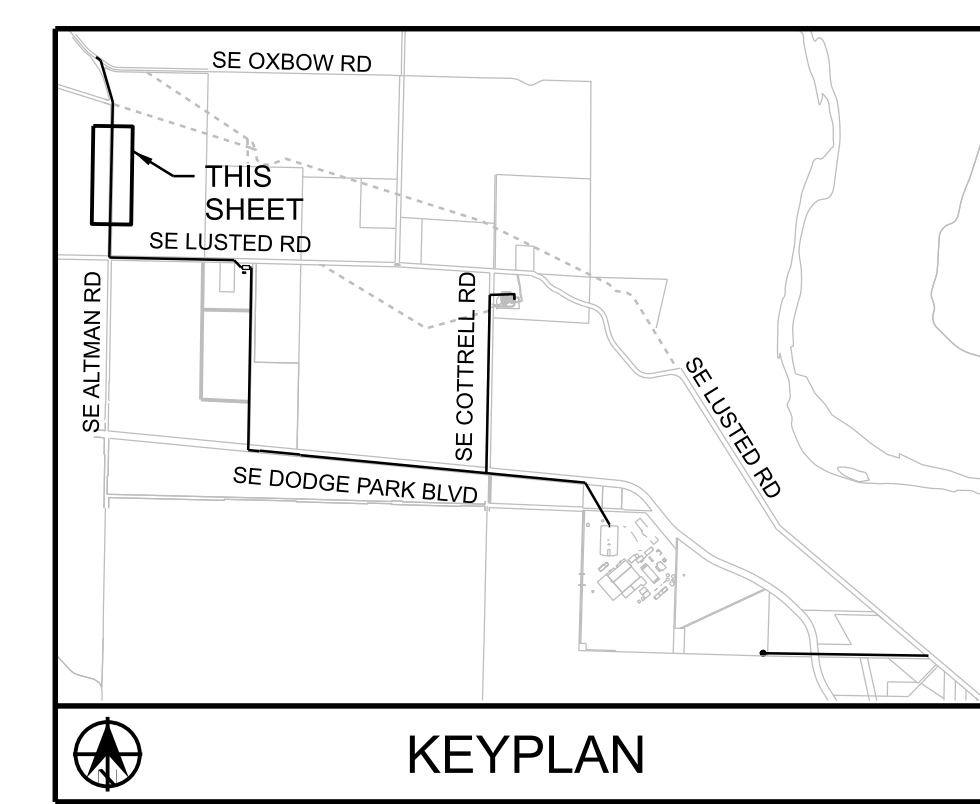
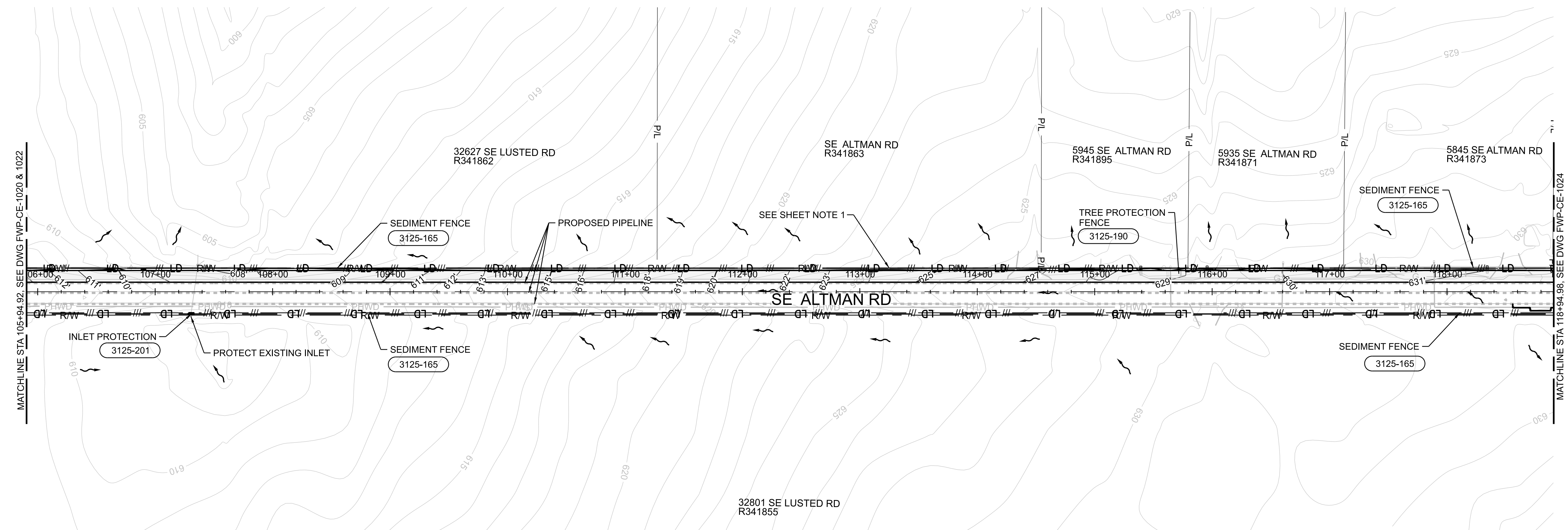
GENERAL SHEET NOTES

1. SEDIMENT FENCE AND LIMIT OF DISTURBANCE LINE ON R/W LINE.

LEGEND

	FLOW DIRECTION
	LIMITS OF DISTURBANCE
	SEDIMENT FENCE
	TREE PROTECTION FENCE
	STANDARD DETAIL CALLOUT
	PROPOSED PIPELINE
	PROPOSED CONTOUR
	PROPOSED ASPHALT
	PROPOSED MAILBOX

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571

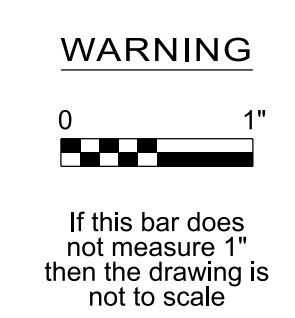


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No	Date	Description	Appd
1	10/2024	DCN-04 - CCD-0004	BJP
Revision			
Survey			



Designed By	RG	Program Mgr	DH
Drawn By	BN	Const Mgr	BN
Checked By	JB	CMII Eng Mgr	JB
Project Mgr	BJP	Date	9/29/23



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424 Date



Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
 UTILITY WORK
 ALTMAN ROAD

SAP Project No
W02563
 1/4 Section
 Sheet No
FWP-CE-1023

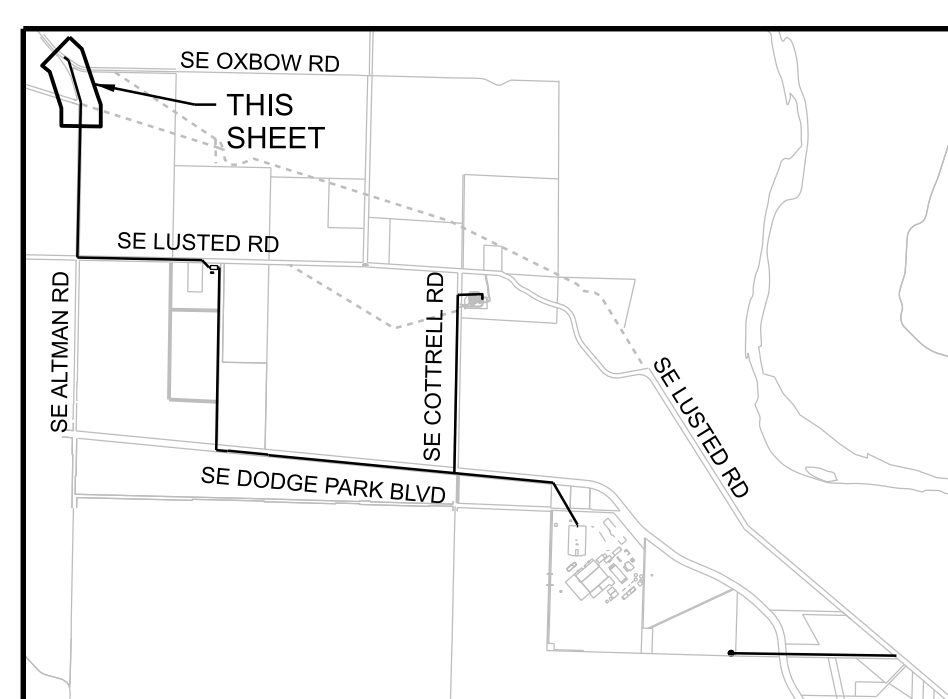
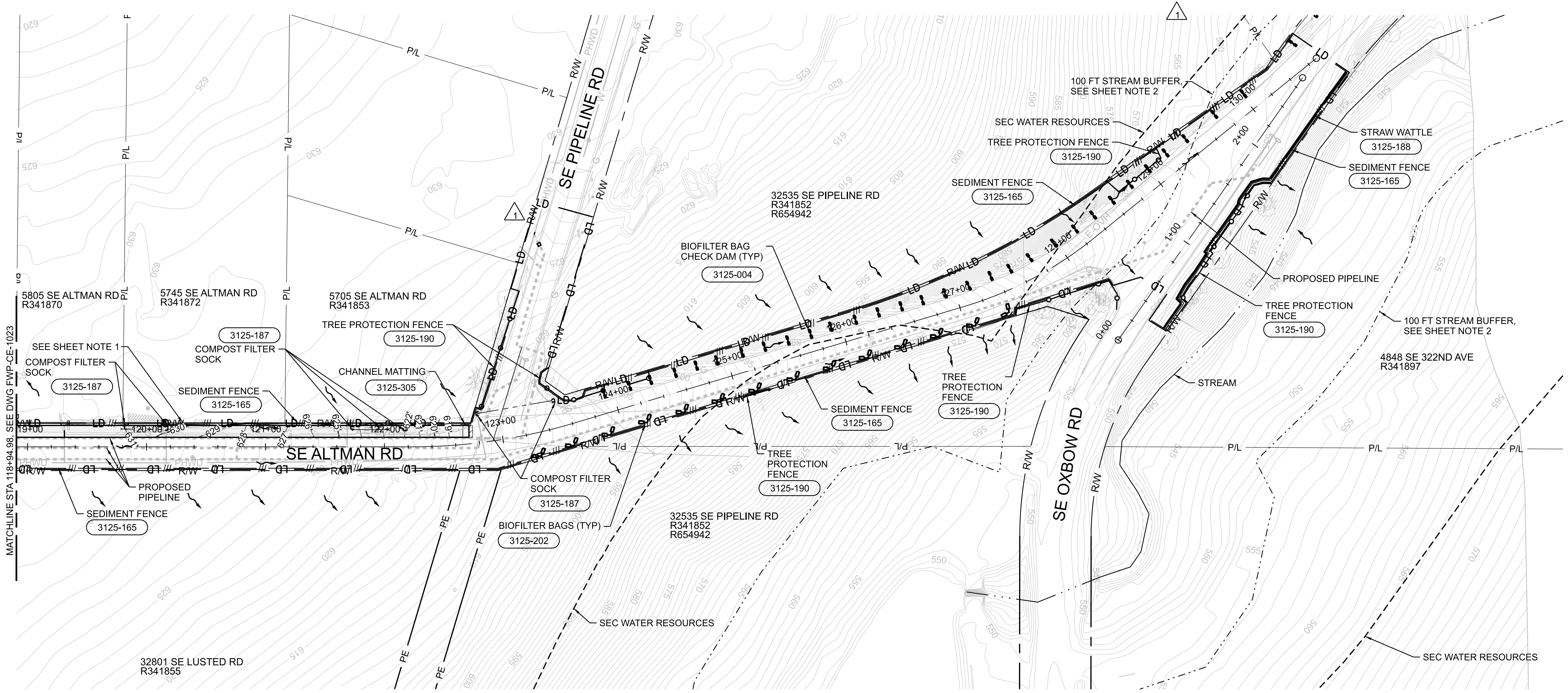
GENERAL SHEET NOTES

1. SEDIMENT FENCE AND LIMIT OF DISTURBANCE LINE ON R/W LINE.
2. FOR CONSTRUCTION WITHIN 100 FOOT BUFFER OF WET AREA, PROVIDE COMPOST FILTER SOCK 1 FOOT DOWNSLOPE OF PROPOSED SEDIMENT FENCE.
3. SEE RUSLE2 CALCULATIONS FOR PROPOSED BMP PERFORMANCE TO REDUCE SEDIMENT TO LESS THAN 1 TON/ACRE/YEAR.

LEGEND

	FLOW DIRECTION
	LIMITS OF DISTURBANCE
	SEDIMENT FENCE
	TREE PROTECTION FENCE
	STANDARD DETAIL CALLOUT
	STRAW WATTLE
	COMPOST FILTER SOCK
	BIOFILTER BAG CHECK DAM
	PROPOSED ASPHALT
	PROPOSED PIPELINE
	PROPOSED STORM CULVERT
	PROPOSED CONTOUR
	PROPOSED MAILBOX
	BMP BIOFILTER BAG

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



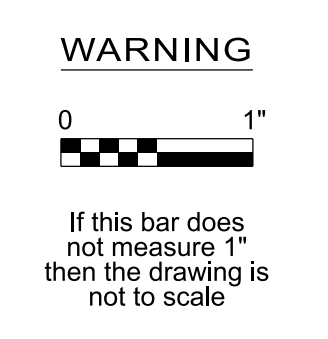
KEYPLAN

11-OCT-2024 16:59 W02563_FWP-CE-1024.dgn

No	Date	Description	Appd
2	10/2024	DNC-04 - CCD-0004	BJP
1	6/2024	DNC-03 - CCD-0003	BJP



Designed By	Program Mgr
Drawn By	Const Mgr
Checked By	CMII Eng Mgr
Project Mgr	Date
	9/29/23



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424



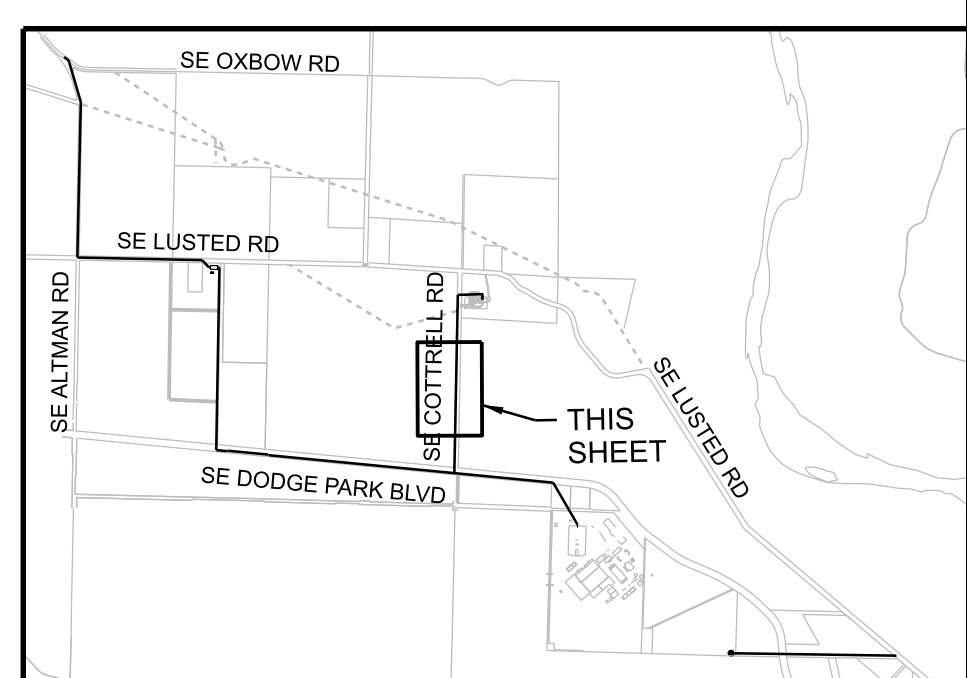
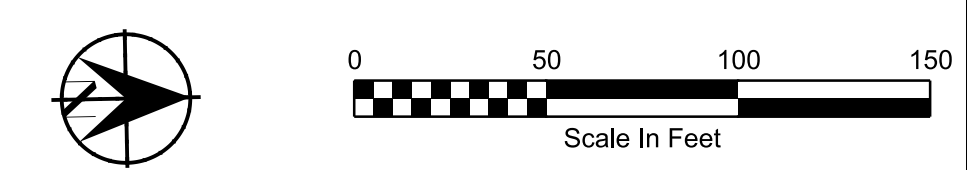
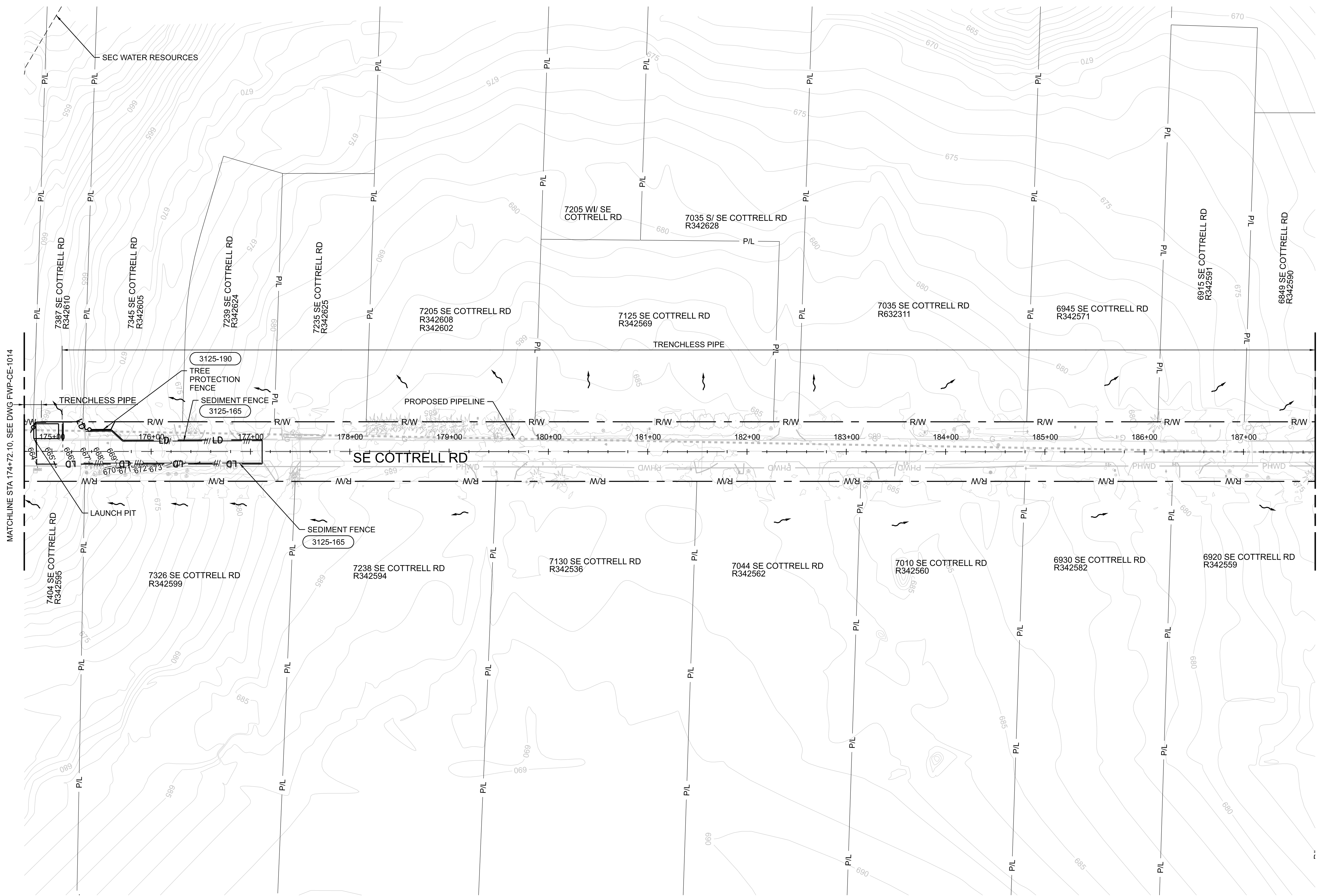
Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
 UTILITY WORK
 ALTMAN ROAD

SAP Project No
W02563
 1/4 Section
 Sheet No
FWP-CE-1024

LEGEND

- FLOW DIRECTION
- LD LIMITS OF DISTURBANCE
- SEDIMENT FENCE
- TREE PROTECTION FENCE
- STANDARD DETAIL CALLOUT
- PROPOSED PIPELINE

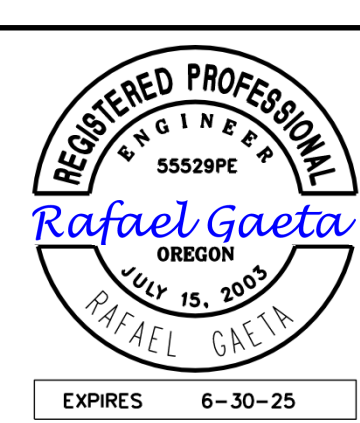
MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



KEYPLAN

11-OCT-2024 16:37 W02563_FWP-CE-1025.dgn

No	Date	Description	Appd
1	10/2024	DNC-04 - CCD-0004	BJP
Revision			
Survey			



Designed By	RG	Program Mgr	DH
Drawn By	JL	Const Mgr	BN
Checked By	RG	CMII Eng Mgr	JB
Project Mgr	BJP	Date	9/29/23

WARNING

If this bar does not measure 1" then the drawing is not to scale



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424



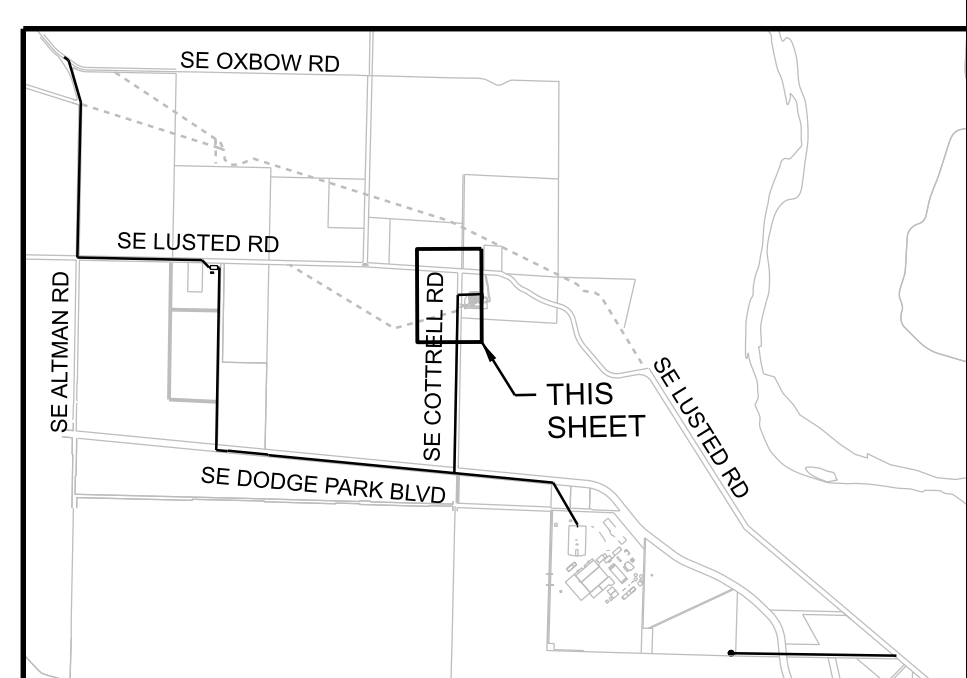
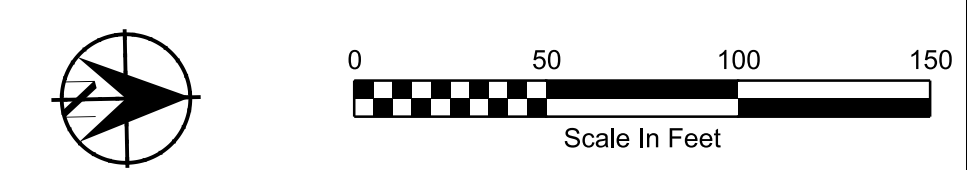
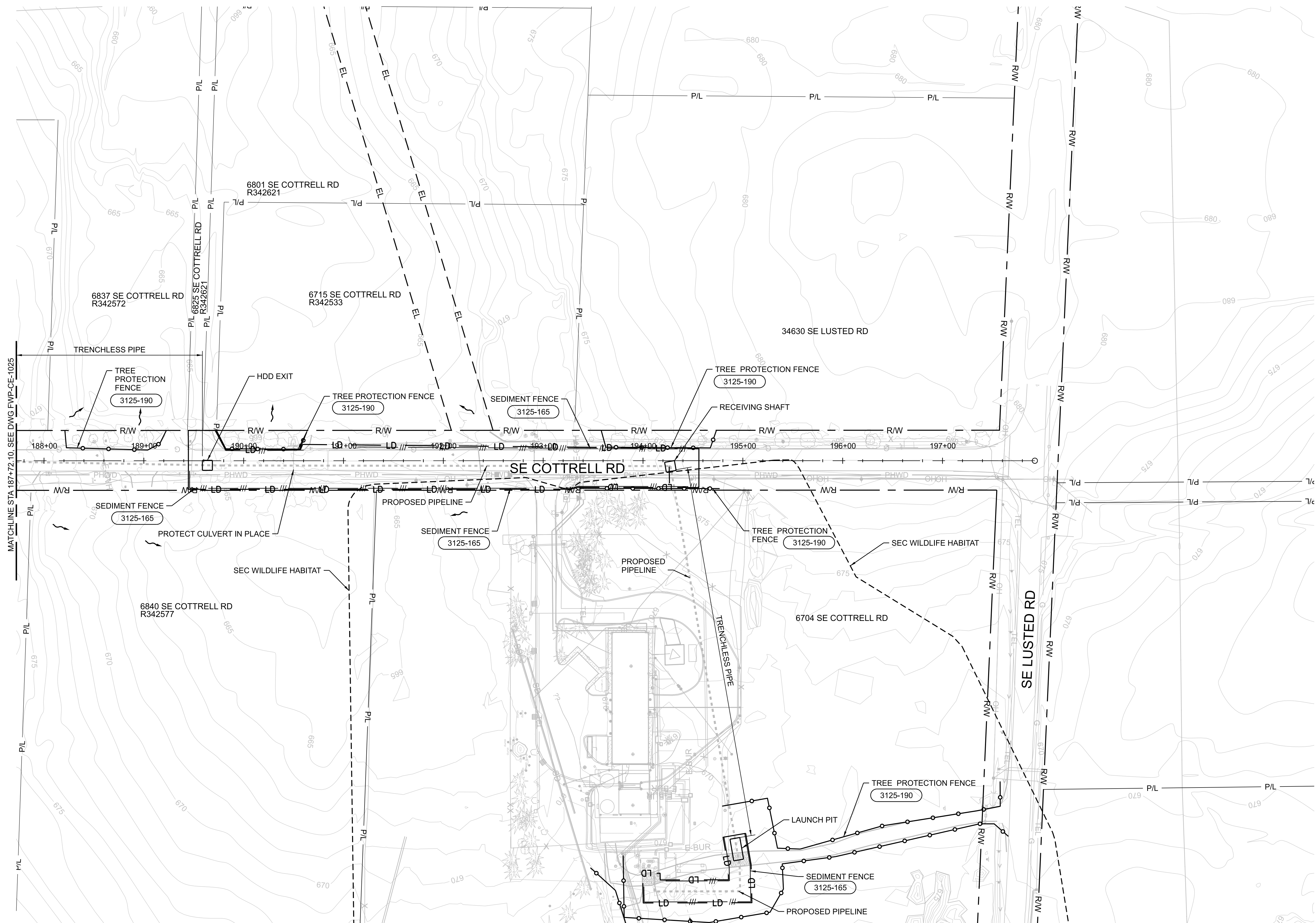
Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
 UTILITY WORK
 COTTRELL ROAD

SAP Project No
W02563
 1/4 Section
 Sheet No
FWP-CE-1025

LEGEND

- FLOW DIRECTION
- LD LIMITS OF DISTURBANCE
- SEDIMENT FENCE
- TREE PROTECTION FENCE
- STANDARD DETAIL CALLOUT
- PROPOSED PIPELINE

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



11-OCT-2024 16:38 W02563_FWP-CE-1026.dgn

No	Date	Description	Appd
1	10/2024	DNC-04 - CCD-0004	BJP
Revision			
Survey			

EMERIO
ENGINEERING • SURVEYING • DESIGN

REGISTERED PROFESSIONAL ENGINEER
55528PE
Rafael Gaeta
OREGON
JULY 15, 2005
RAFAEL GAETA
EXPIRES 6-30-25

Designed By	Program Mgr
Drawn By	Const Mgr
Checked By	CMII Eng Mgr
Project Mgr	Date
	9/29/23

WARNING

If this bar does not measure 1" then the drawing is not to scale

PORTLAND WATER BUREAU
FROM FOREST TO FAUCET

KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424

Date



Bull Run Filtration Pipelines

FINISHED WATER PIPELINE
EROSION AND SED. CONTROL

UTILITY WORK
COTTRELL ROAD

SAP Project No
W02563

1/4 Section

Sheet No
FWP-CE-1026

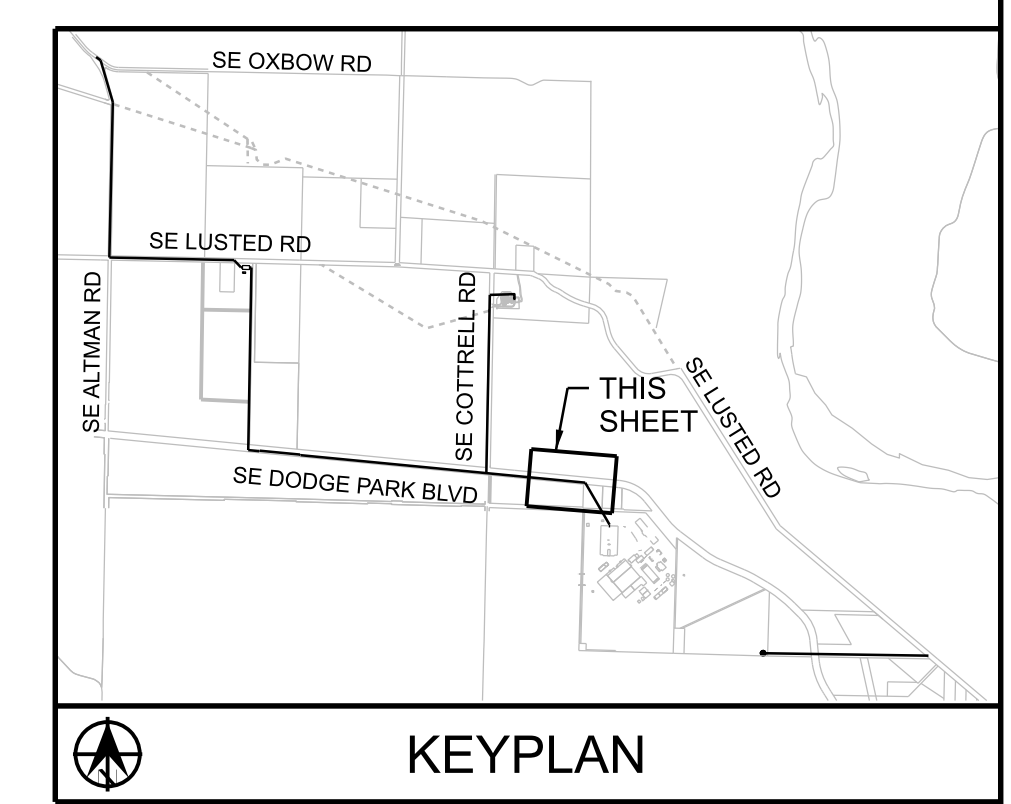
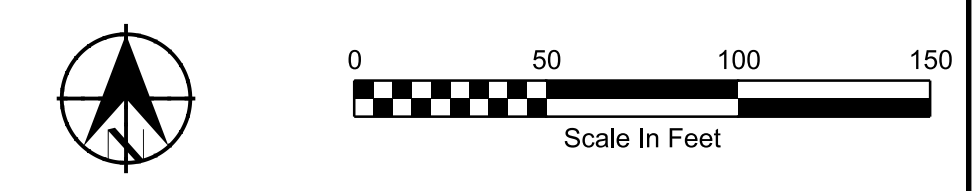
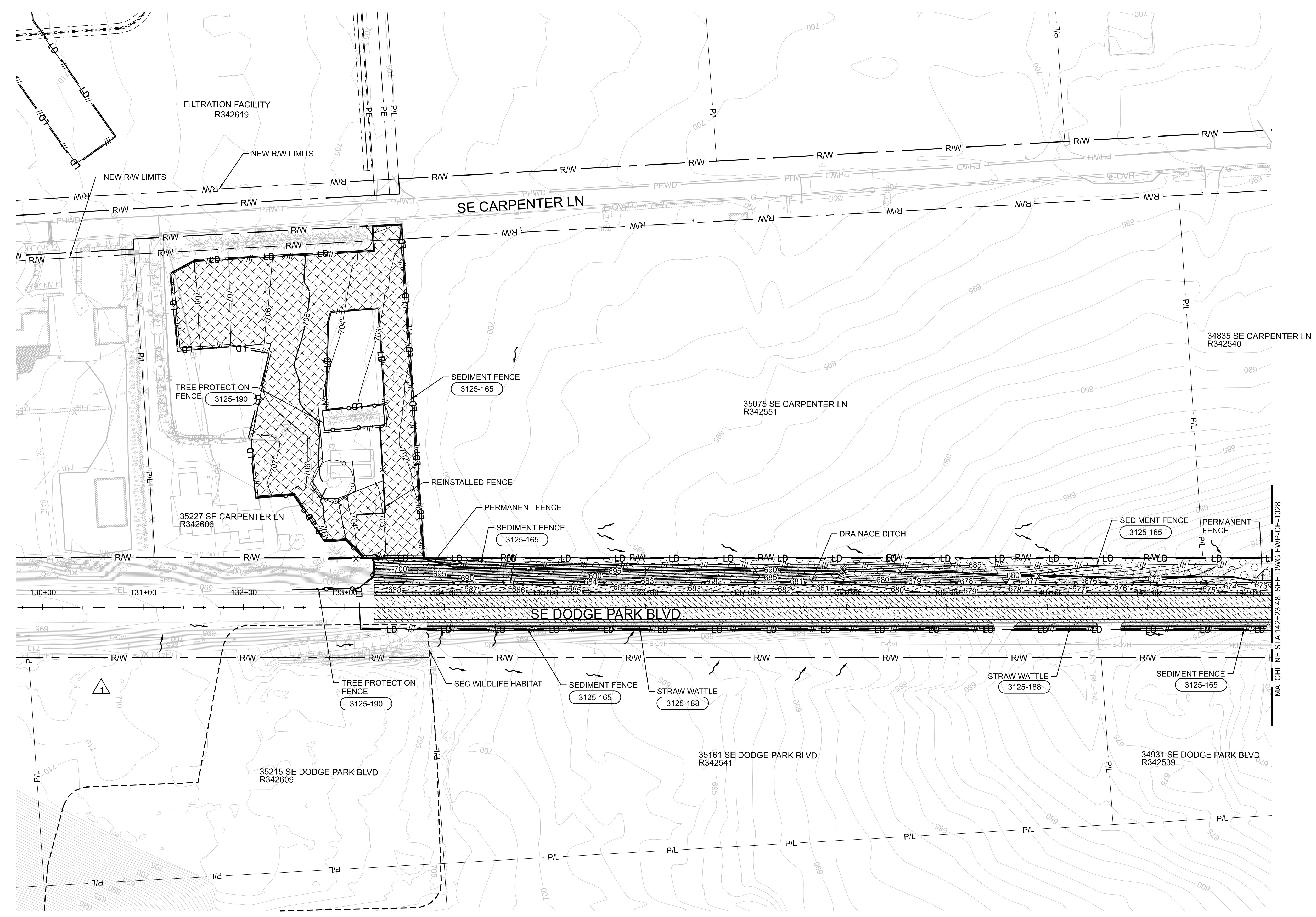
FINAL STABILIZATION PHASE NOTES

1. ALL PERIMETER SEDIMENT FENCING TO BE REMOVED UPON COMPLETION OF THIS PHASE.
2. SEE SEEDING MIX TABLES, SHEET FWP-CE-1000A.

LEGEND

	FLOW DIRECTION
	LIMITS OF DISTURBANCE
	SEDIMENT FENCE
	TREE PROTECTION FENCE
	STRAW WATTLE
	STANDARD DETAIL CALLOUT
	PROPOSED DRAINAGE DITCH
	PROPOSED CONTOUR
	PROPOSED FENCE
	GRIND & INLAY
	STORM FILTER STRIP
	PROTECTED VEGETATED SHOULDER
	ROADSIDE SEEDING
	LAWN SEEDING

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571

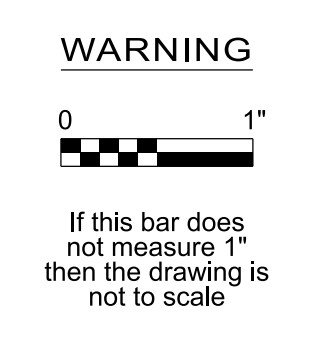


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No	Date	Description	Appd
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1	10/2023	DCN-01 - CCD-0001	BJP



Designed By	DH
Drawn By	BN
Checked By	JB
Project Mgr	JB
Date	9/29/23



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424



Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
 FINAL STABILIZATION AND LANDSCAPE
 DODGE PARK BLVD

SAP Project No
W02563
 1/4 Section
 Sheet No
 FWP-CE-1027

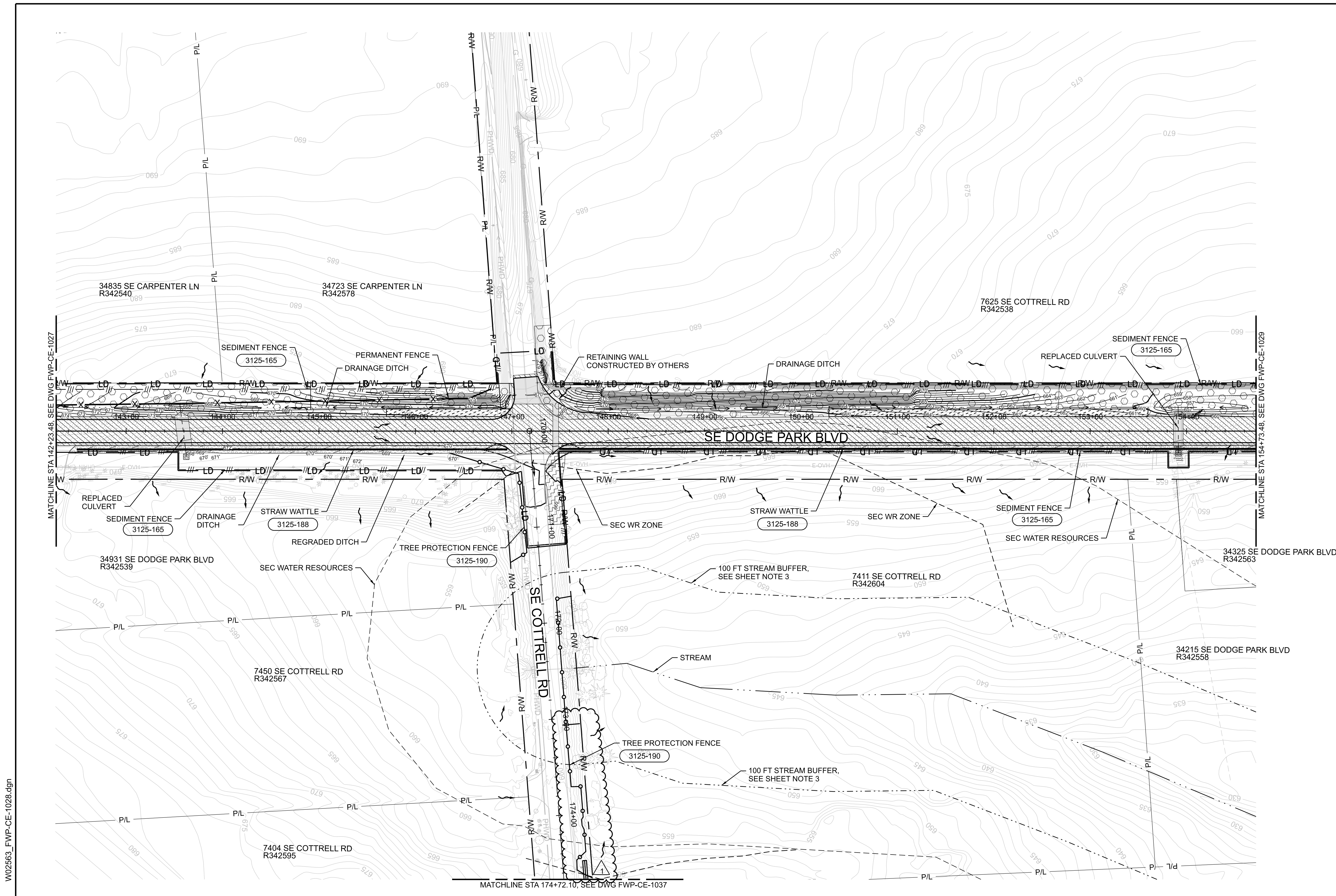
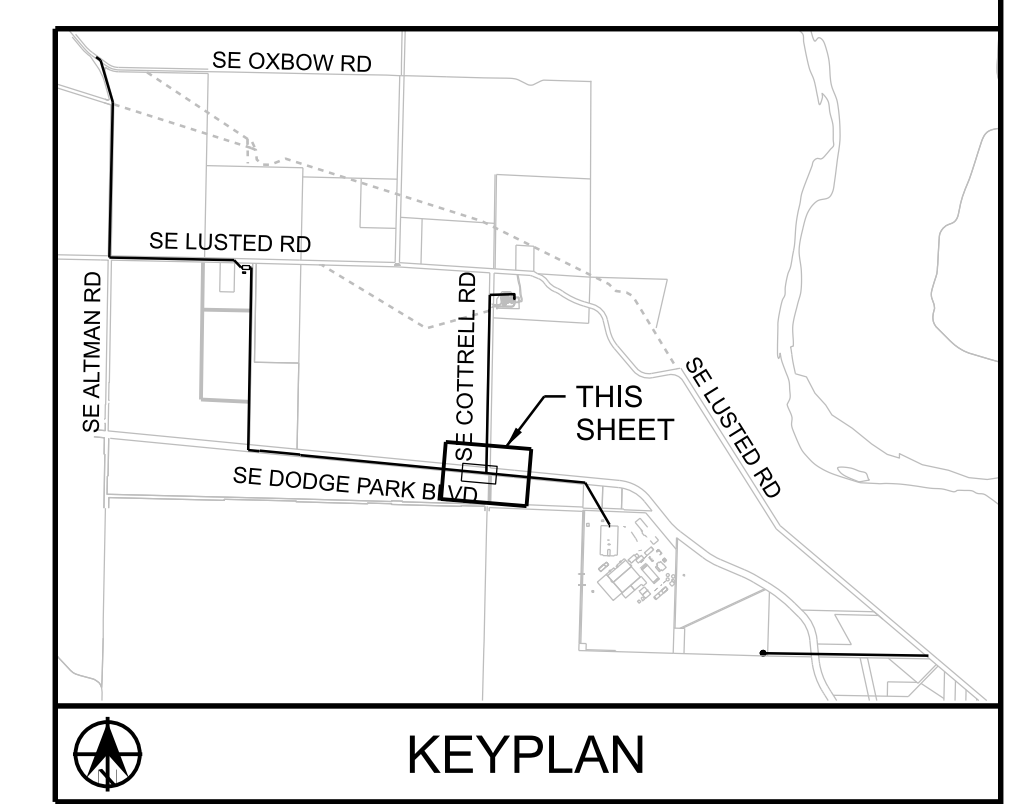
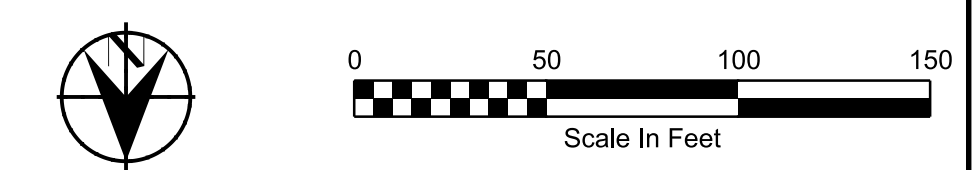
FINAL STABILIZATION PHASE NOTES

1. ALL PERIMETER SEDIMENT FENCING TO BE REMOVED UPON COMPLETION OF THIS PHASE.
2. SEE SEEDING MIX TABLES, SHEET FWP-CE-1000A.
3. FOR CONSTRUCTION WITHIN 100 FOOT BUFFER OF WET AREA, PROVIDE COMPOST FILTER SOCK 1 FOOT DOWNSLOPE OF PROPOSED SEDIMENT FENCE.
4. SEE RUSLE2 CALCULATIONS FOR PROPOSED BMP PERFORMANCE TO REDUCE SEDIMENT TO LESS THAN 1 TON/ACRE/YEAR.

LEGEND

	FLOW DIRECTION
	PROPOSED ASPHALT
	LIMITS OF DISTURBANCE
	SEDIMENT FENCE
	TREE PROTECTION FENCE
	STRAW WATTLE
	STANDARD DETAIL CALLOUT
	PROPOSED DRAINAGE DITCH
	PROPOSED STORM CULVERT
	PROPOSED CONTOUR
	PROPOSED FENCE
	PROPOSED RIPRAP
	GRIND & INLAY
	STORM FILTER STRIP
	PROTECTED VEGETATED SHOULDER
	ROADSIDE SEEDING
	SEC SEEDING

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



11-OCT-2024 16:33 W02563_FWP-CE-1028.dgn

No	Date	Description	Appd
2	10/2024	DCN-04 - CCD-0004	BJP
1	1/17/24	DCN-01 - CCD-0001	BJP

Designed By	RG	Program Mgr	DH
Drawn By	BJP	Const Mgr	BN
Checked By	RG	CMII Eng Mgr	JB
Project Mgr	BJP	Date	1/17/24

WARNING

If this bar does not measure 1" then the drawing is not to scale

KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424



Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
 FINAL STABILIZATION AND LANDSCAPE
 DODGE PARK BLVD

SAP Project No	W02563
1/4 Section	
Sheet No	FWP-CE-1028

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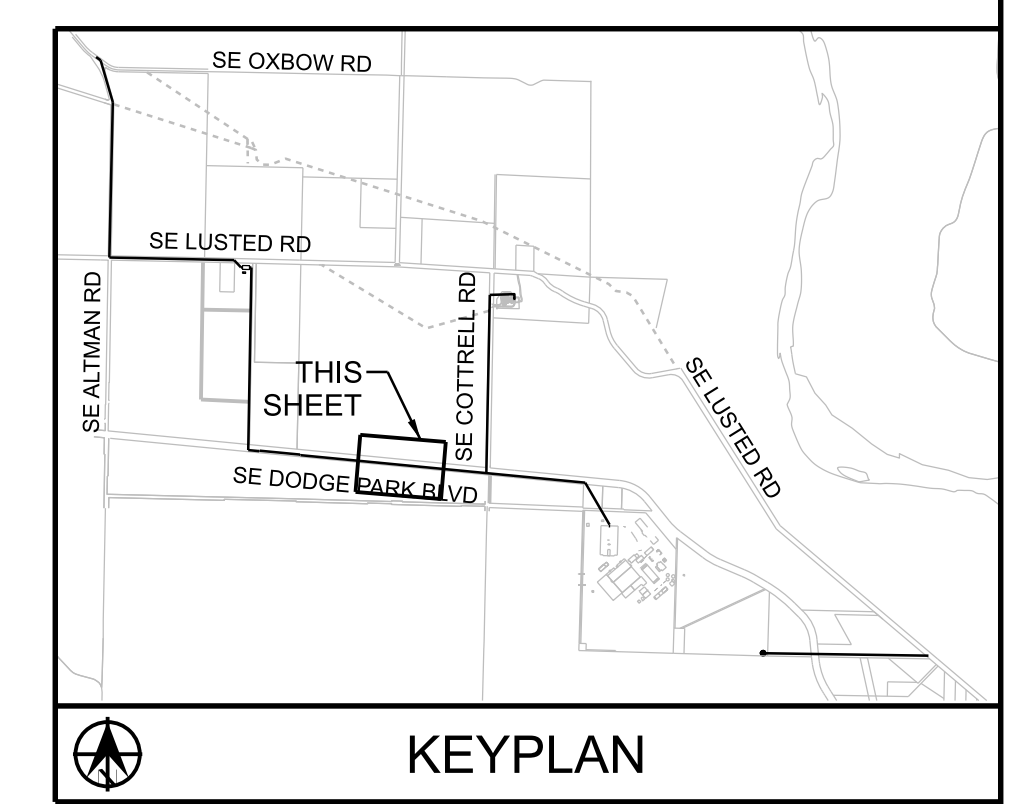
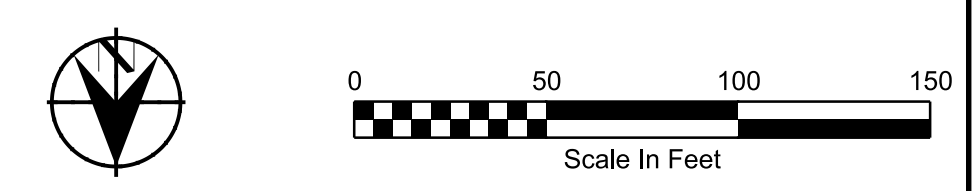
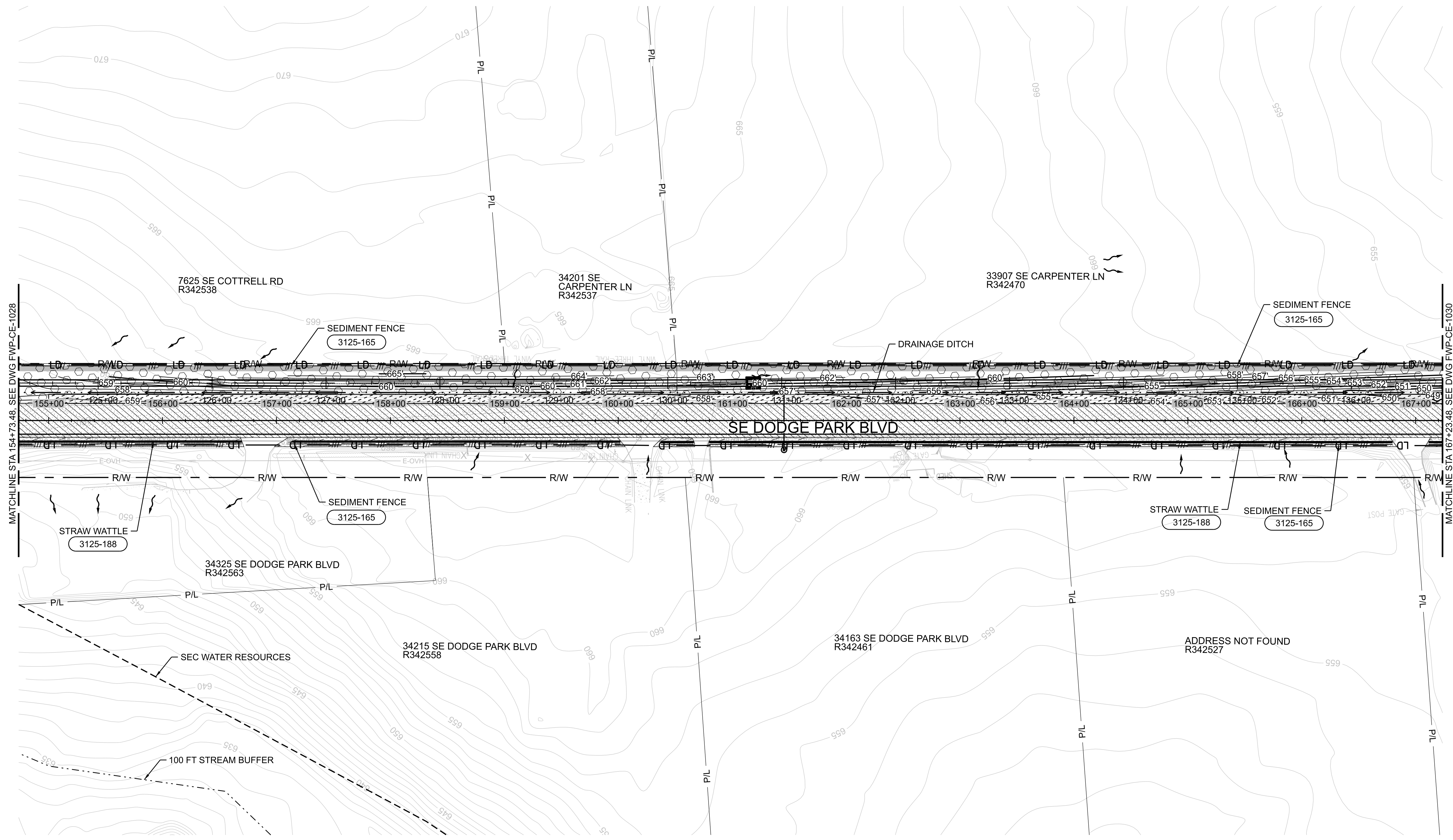
FINAL STABILIZATION PHASE NOTES

1. ALL PERIMETER SEDIMENT FENCING TO BE REMOVED UPON COMPLETION OF THIS PHASE.
2. SEE SEEDING MIX TABLES, SHEET FWP-CE-1000A.

LEGEND

	FLOW DIRECTION
	LIMITS OF DISTURBANCE
	SEDIMENT FENCE
	TREE PROTECTION FENCE
	STRAW WATTLE
	STANDARD DETAIL CALLOUT
	PROPOSED DRAINAGE DITCH
	PROPOSED CONTOUR
	GRIND & INLAY
	STORM FILTER STRIP
	PROTECTED VEGETATED SHOULDER
	ROADSIDE SEEDING

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



11-OCT-2024 16:38 W02563_FWP-CE-1029.dgn

No	Date	Description	Appd
1	10/2024	DCN-04 - CCD-0004	BJP
Revision			
Survey			



Designed By	RG	Program Mgr	DH
Drawn By	BN	Const Mgr	BN
Checked By	JB	CMII Eng Mgr	JB
Project Mgr	BJP	Date	9/29/23

WARNING

 If this bar does not measure 1" then the drawing is not to scale



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424 Date



Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
 FINAL STABILIZATION AND LANDSCAPE
 DODGE PARK BLVD

SAP Project No
W02563
 1/4 Section
 Sheet No
 FWP-CE-1029

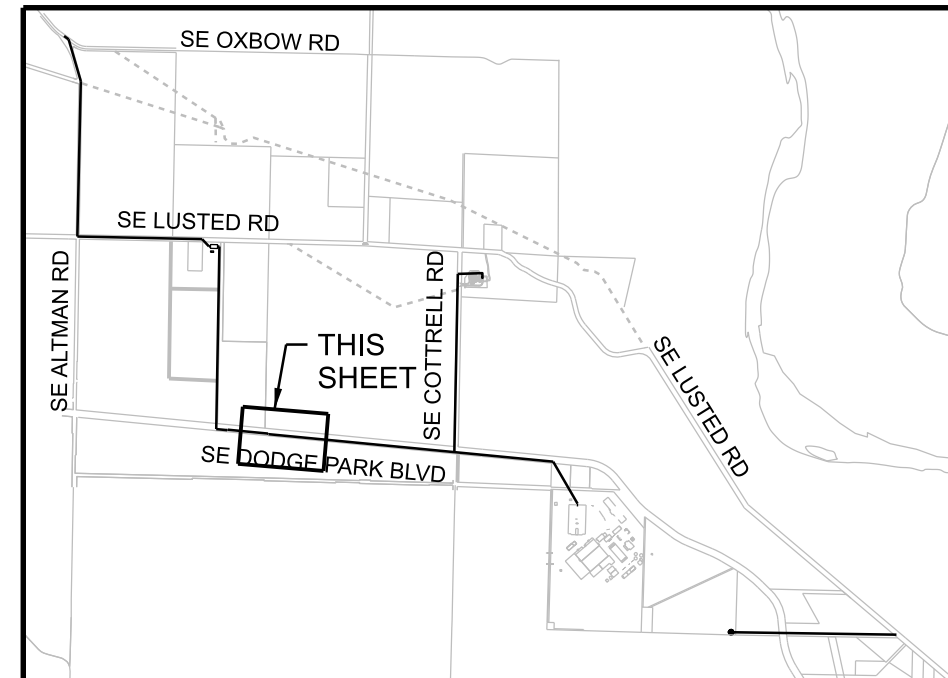
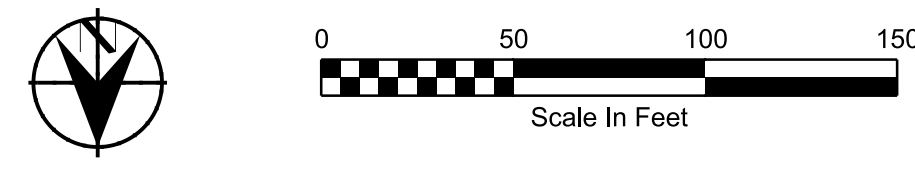
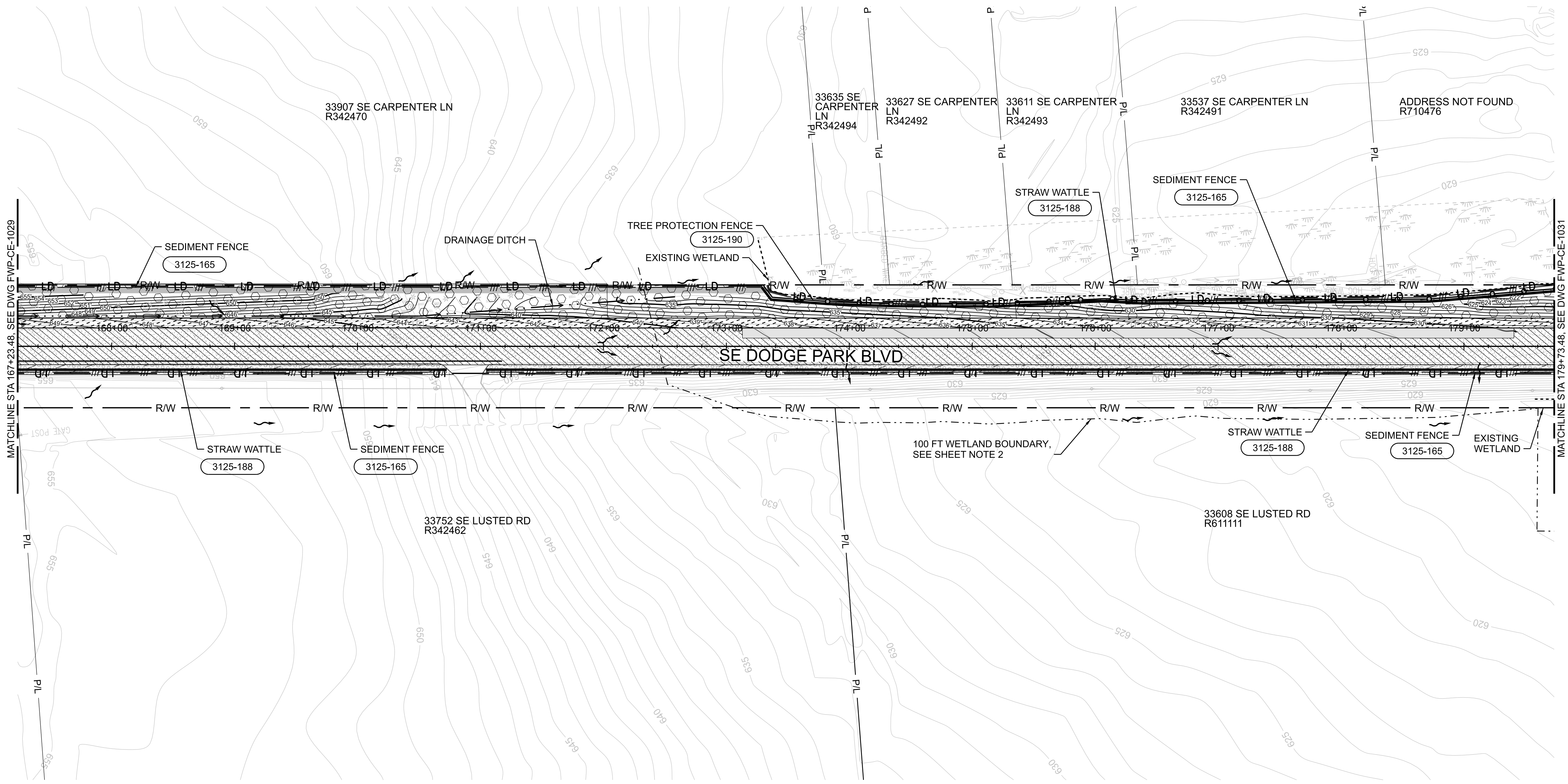
FINAL STABILIZATION PHASE NOTES

1. ALL PERIMETER SEDIMENT FENCING TO BE REMOVED UPON COMPLETION OF THIS PHASE.
2. FOR CONSTRUCTION WITHIN 100 FOOT BUFFER OF WET AREA, PROVIDE COMPOST FILTER SOCK 1 FOOT DOWNSLOPE OF PROPOSED SEDIMENT FENCE.
3. SEE SEEDING MIX TABLES, SHEET FWP-CE-1000A.

LEGEND

	FLOW DIRECTION
	PROPOSED ASPHALT
	LIMITS OF DISTURBANCE
	SEDIMENT FENCE
	TREE PROTECTION FENCE
	STRAW WATTLE
	STANDARD DETAIL CALLOUT
	PROPOSED DRAINAGE DITCH
	PROPOSED CONTOUR
	GRIND & INLAY
	STORM FILTER STRIP
	PROTECTED VEGETATED SHOULDER
	ROADSIDE SEEDING

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



11-OCT-2024 16:38 W02563_FWP-CE-1030.dgn

No	Date	Description	Appd
1	10/20/24	DCN-04 - CCD-0004	BJP
Revision			
Survey			



Designed By	Program Mgr
Drawn By	Const Mgr
Checked By	CMII Eng Mgr
Project Mgr	Date
	9/29/23

WARNING

If this bar does not measure 1" then the drawing is not to scale



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424



Bull Run Filtration Pipelines

FINISHED WATER PIPELINE EROSION AND SED. CONTROL

FINAL STABILIZATION AND LANDSCAPE DODGE PARK BLVD

SAP Project No	W02563
Sheet No	FWP-CE-1030

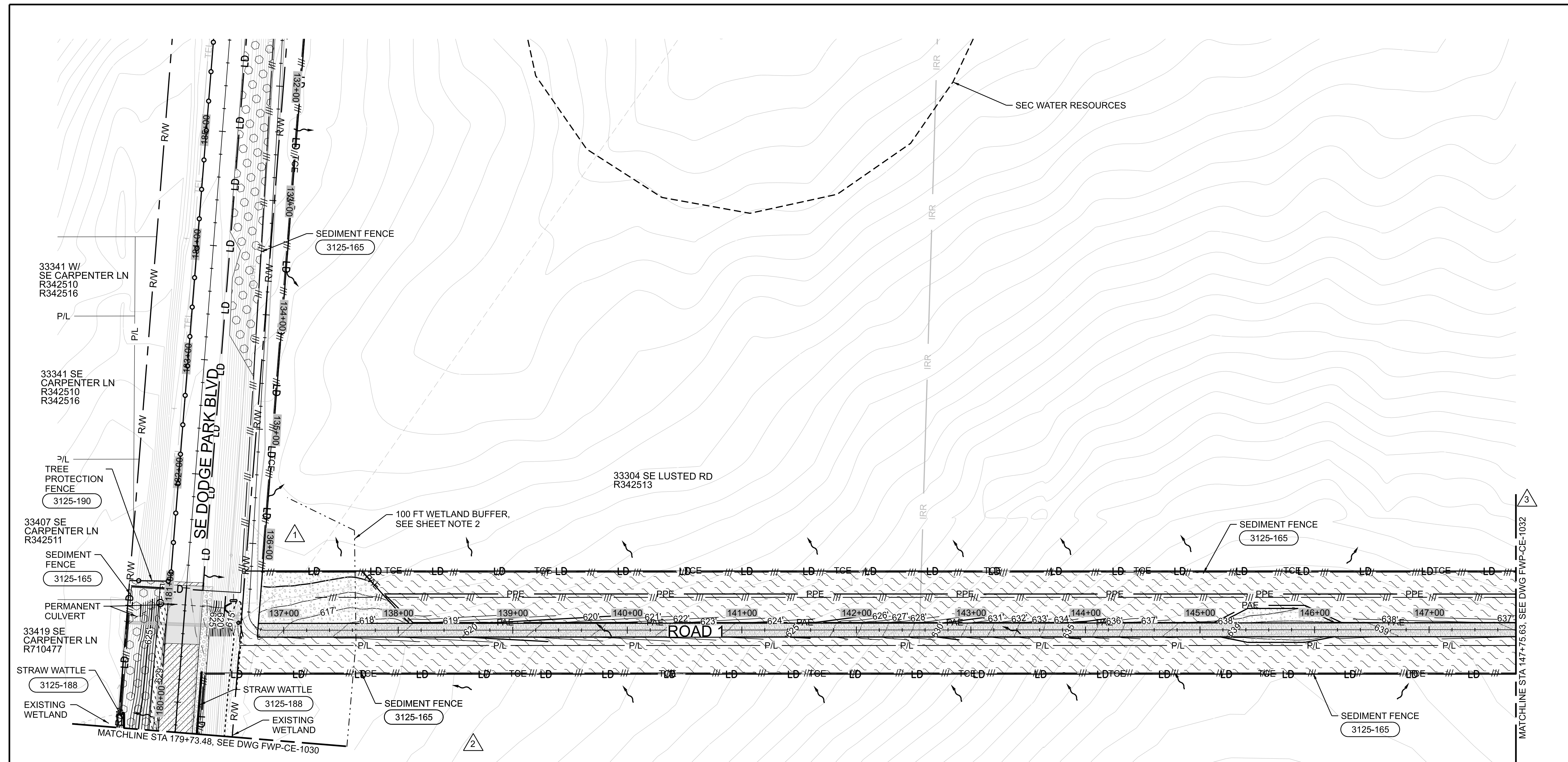
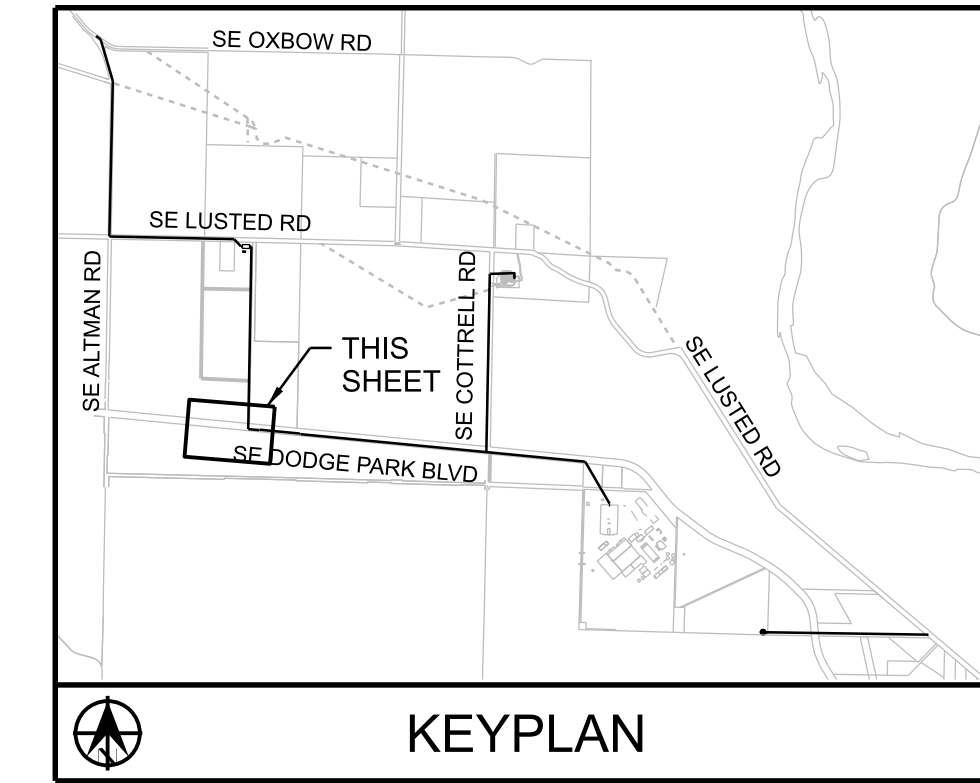
FINAL STABILIZATION PHASE NOTES

1. ALL PERIMETER SEDIMENT FENCING TO BE REMOVED UPON COMPLETION OF THIS PHASE.
2. FOR CONSTRUCTION WITHIN 100 FOOT BUFFER OF WET AREA, PROVIDE COMPOST FILTER SOCK 1 FOOT DOWNSLOPE OF PROPOSED SEDIMENT FENCE.
3. SEE SEEDING MIX TABLES, SHEET FWP-CE-1000A.
4. AGRICULTURAL SOIL TREATMENT AREA TOPSOIL TO BE RETURNED TO ORIGINAL PARCEL AND TO ORIGINAL GRADE. AMEND AS NECESSARY TO RESTORE PRE-CONSTRUCTION NUTRIENT LEVELS AND COMPACTION LEVELS AS DIRECTED BY THE AGRICULTURAL SPECIALIST.

LEGEND

- FLOW DIRECTION
- TCE - TEMPORARY CONSTRUCTION EASEMENT
- PPE - PERMANENT PROPERTY EASEMENT
- PAE - PUBLIC ACCESS EASEMENT
- PROPOSED ASPHALT
- PROPOSED GRAVEL
- LD - LIMITS OF DISTURBANCE
- SEDIMENT FENCE
- TREE PROTECTION FENCE
- STRAW WATTLE
- XXXX-XXX - STANDARD DETAIL CALLOUT
- PROPOSED DRAINAGE DITCH
- PROPOSED STORM CULVERT
- 500' - PROPOSED CONTOUR
- GRIND & INLAY
- PROPOSED RIPRAP
- STORM FILTER STRIP
- PROTECTED VEGETATED SHOULDER
- ROADSIDE SEEDING
- AGRICULTURAL SOIL TREATMENT

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



33341 W SE CARPENTER LN
R342510
R342516

33341 SE CARPENTER LN
R342510
R342516

33407 SE CARPENTER LN
R342511

33419 SE CARPENTER LN
R710477

33304 SE LUSTED RD
R342513

33608 SE LUSTED RD
R611110
R611111

11-OCT-2024 16:38 W02563_ANSI_D.dgn

No	Date	Description	Appd
4	10/2024	DCN-04 - CCD-0004	BJP
3	6/2024	DCN-03 - CCD-0003	BJP
2	1/2024	DCN-01 - CCD-0001	BJP
1	6/7/23	ADDENDA NO. 1 - 100% REVIEW COMMENT UPDATE	BJP
No	Date	Description	Appd



Designed By	Program Mgr
Drawn By	Const Mgr
Checked By	CMII Eng Mgr
Project Mgr	Date

WARNING

0 1"

If this bar does not measure 1" then the drawing is not to scale



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424 Date



Bull Run Filtration Pipelines

**FINISHED WATER PIPELINE
EROSION AND SED. CONTROL**

FINAL STABILIZATION AND LANDSCAPE
ROAD 1

SAP Project No
W02563

1/4 Section

Sheet No
FWP-CE-1031

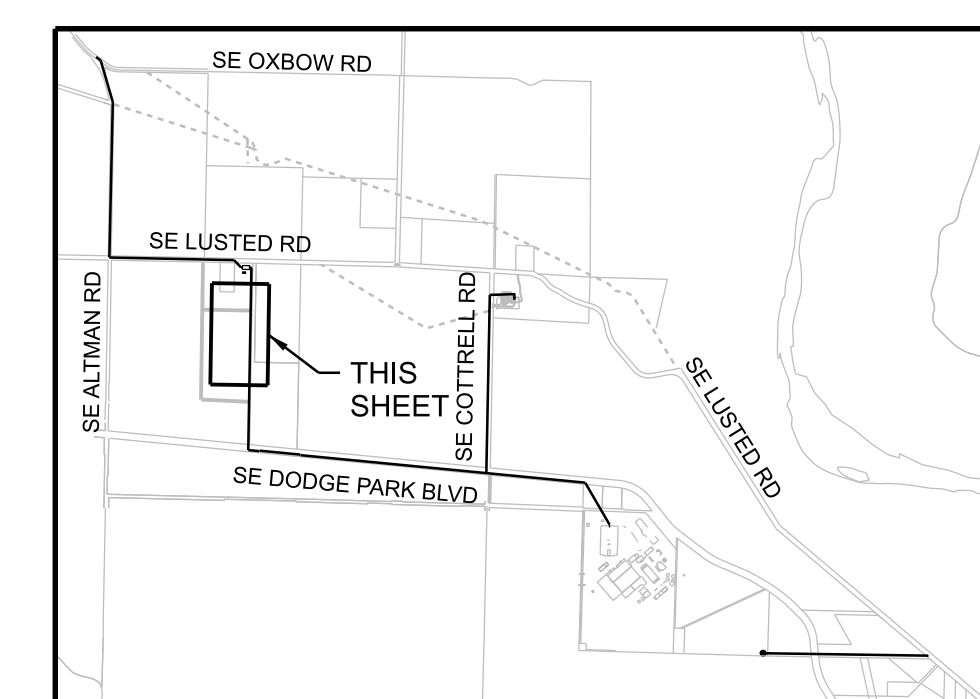
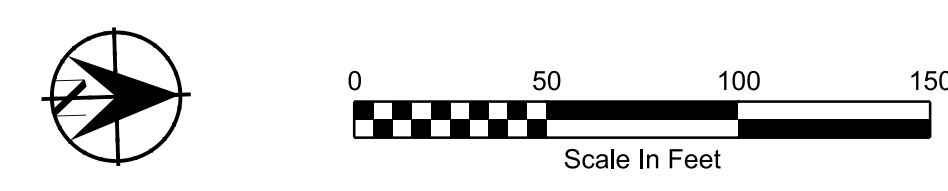
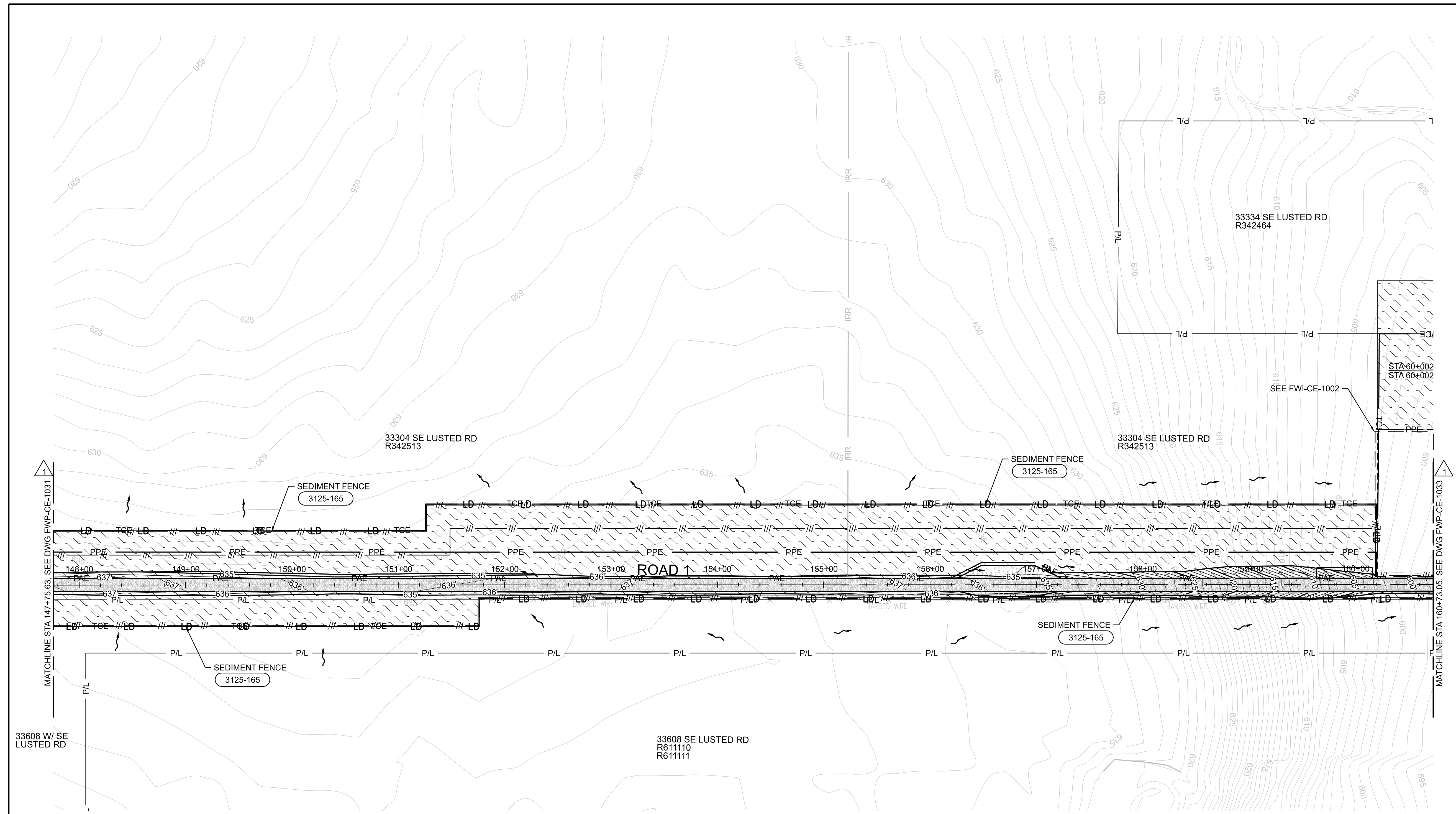
FINAL STABILIZATION PHASE NOTES

- ALL PERIMETER SEDIMENT FENCING TO BE REMOVED UPON COMPLETION OF THIS PHASE.
- SEE SEEDING MIX TABLES, SHEET FWP-CE-1000A.
- AGRICULTURAL SOIL TREATMENT AREA TOPSOIL TO BE RETURNED TO ORIGINAL PARCEL AND TO ORIGINAL GRADE. AMEND AS NECESSARY TO RESTORE PRE-CONSTRUCTION NUTRIENT LEVELS AND COMPACTION LEVELS AS DIRECTED BY THE AGRICULTURAL SPECIALIST.

LEGEND

- FLOW DIRECTION
- LD LIMITS OF DISTURBANCE
- SEDIMENT FENCE
- STANDARD DETAIL CALLOUT
- TCE TEMPORARY CONSTRUCTION EASEMENT
- PPE PERMANENT PROPERTY EASEMENT
- PAE PUBLIC ACCESS EASEMENT
- PROPOSED GRAVEL
- PROPOSED CONTOUR
- AGRICULTURAL SOIL TREATMENT

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571

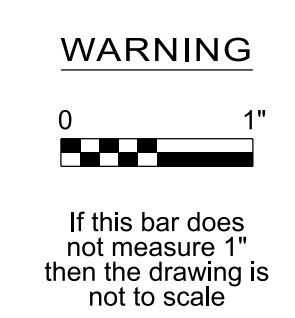


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No	Date	Description	Appd
2	10/2024	DCN-04 - CCD-0004	BJP
1	6/2024	DCN-3 - CCD-0003	BJP
Revision			
Survey			



Designed By	DH
Drawn By	BN
Checked By	JB
Project Mgr	JB
Date	9/29/23



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424



Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
 FINAL STABILIZATION AND LANDSCAPE
 ROAD 1

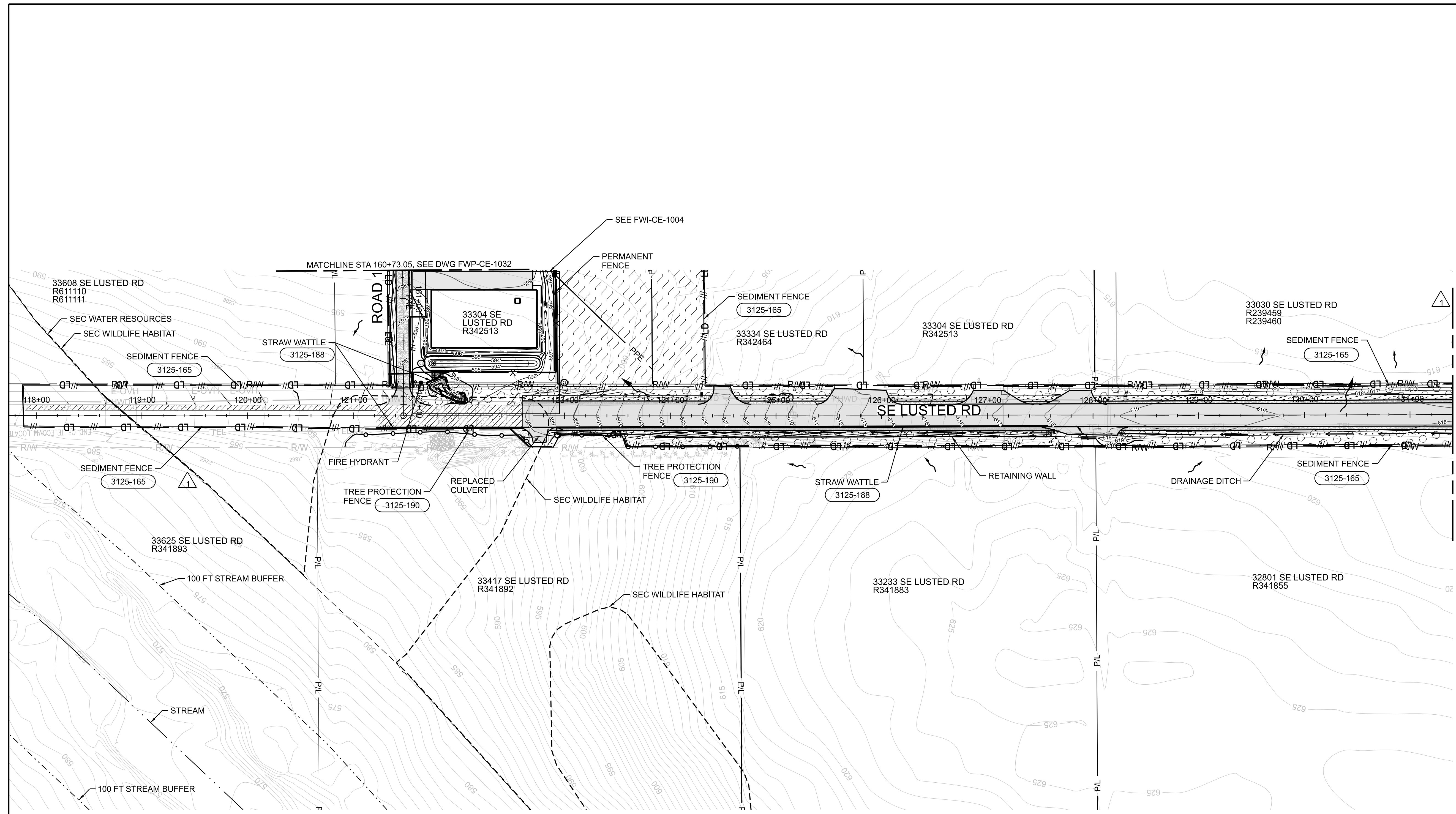
SAP Project No
W02563
 1/4 Section
 Sheet No
FWP-CE-1032

FINAL STABILIZATION PHASE NOTES

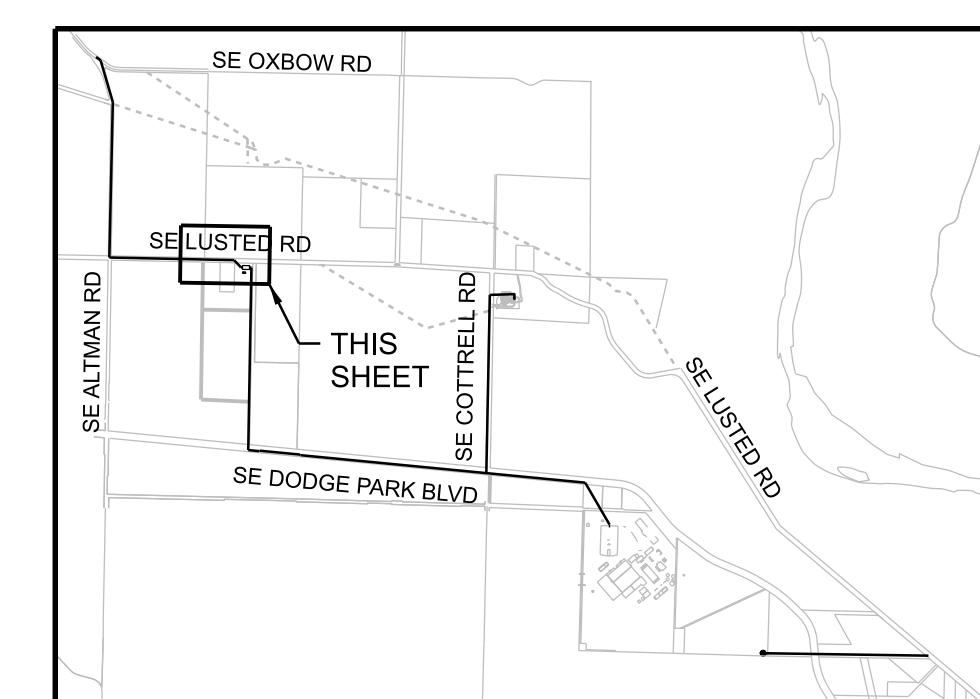
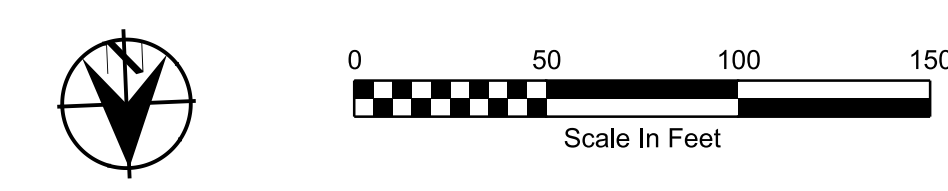
1. ALL PERIMETER SEDIMENT FENCING TO BE REMOVED UPON COMPLETION OF THIS PHASE.
2. SEE SEEDING MIX TABLES, SHEET FWP-CE-1000A.
3. AGRICULTURAL SOIL TREATMENT AREA TOPSOIL TO BE RETURNED TO ORIGINAL PARCEL AND TO ORIGINAL GRADE. AMEND AS NECESSARY TO RESTORE PRE-CONSTRUCTION NUTRIENT LEVELS AND COMPACTION LEVELS AS DIRECTED BY THE AGRICULTURAL SPECIALIST.

LEGEND

	FLOW DIRECTION
	TEMPORARY CONSTRUCTION EASEMENT
	PERMANENT PROPERTY EASEMENT
	PERMANENT EASEMENT
	LIMITS OF DISTURBANCE
	SEDIMENT FENCE
	TREE PROTECTION FENCE
	STRAW WATTLE
	STANDARD DETAIL CALLOUT
	PROPOSED CONTOUR
	PROPOSED DRAINAGE DITCH
	PROPOSED CONVEYANCE SWALE
	PROPOSED STORM CULVERT
	PROPOSED FENCE
	PROPOSED MAILBOX
	PROPOSED ASPHALT
	PROPOSED GRAVEL
	PROPOSED RIPRAP
	GRIND & INLAY
	STORM FILTER STRIP
	ROADSIDE SEEDING
	AGRICULTURAL SOIL TREATMENT
	PROPOSED WATER METER
	PROPOSED WATER VALVE
	PROPOSED STORM MANHOLE
	PROPOSED DRAINAGE STRUCTURE
	PROPOSED FIRE HYDRANT



MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



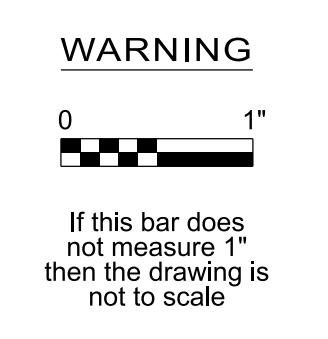
KEYPLAN

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No	Date	Description	Appd
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1	6/2024	DCN-03 - CCD-0003	BJP



Designed By	RG	Program Mgr	DH
Drawn By	JL	Const Mgr	BN
Checked By	RG	CMII Eng Mgr	JB
Project Mgr	BJP	Date	9/29/23



Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
 FINAL STABILIZATION AND LANDSCAPE LUSTED ROAD

SAP Project No	W02563
1/4 Section	
Sheet No	FWP-CE-1033

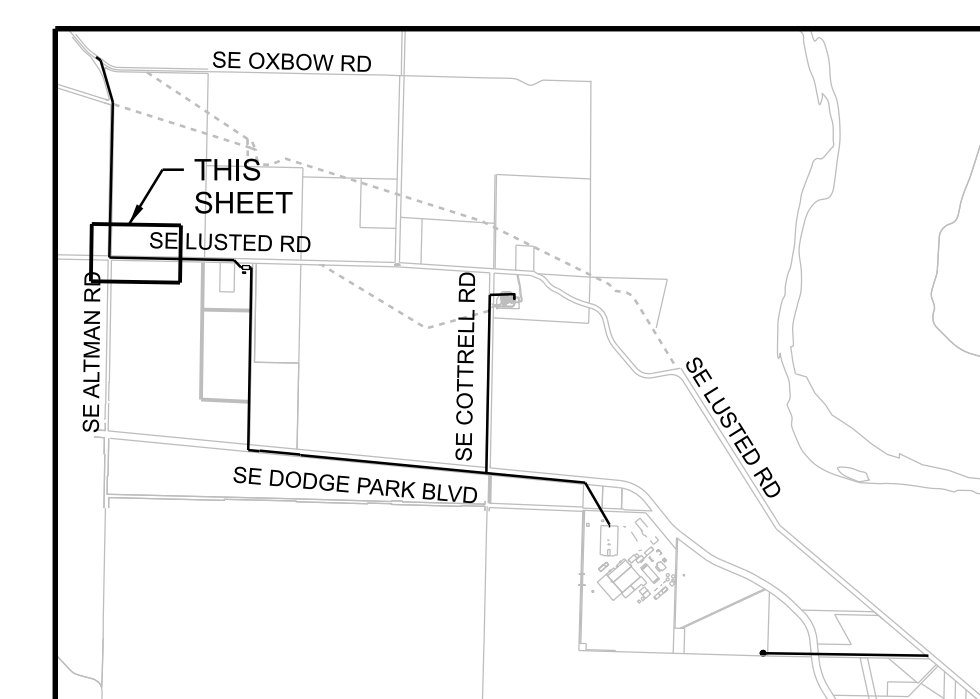
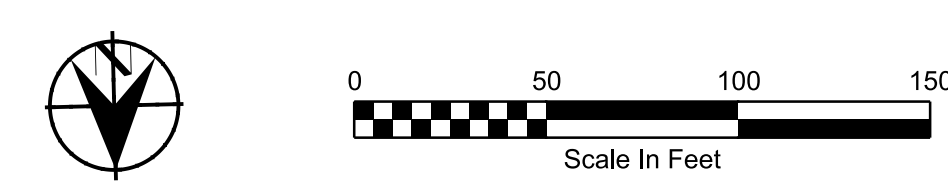
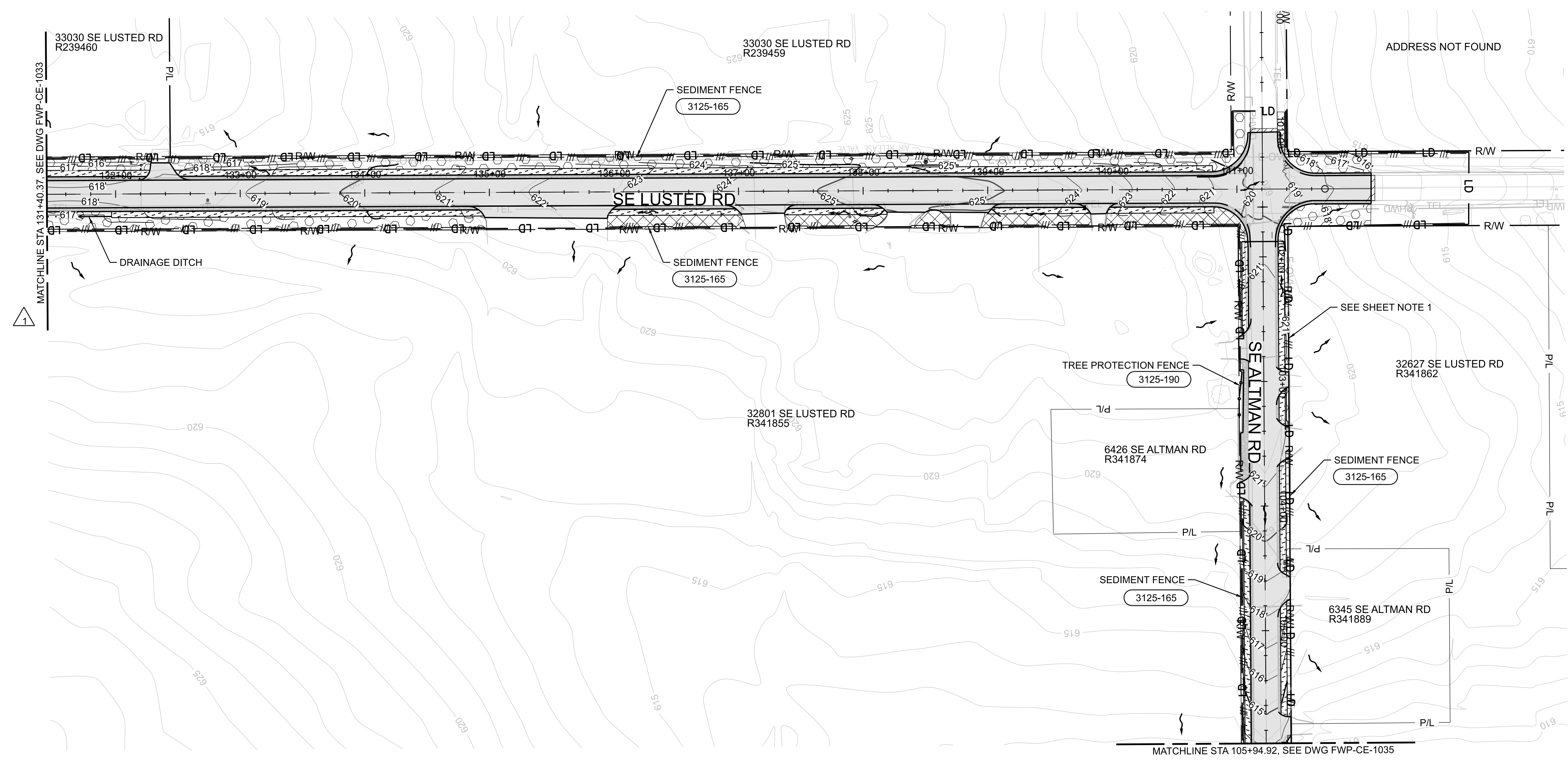
FINAL STABILIZATION PHASE NOTES

1. SEDIMENT FENCE AND LIMIT OF DISTURBANCE LINE ON R/W LINE.
2. ALL PERIMETER SEDIMENT FENCING TO BE REMOVED UPON COMPLETION OF THIS PHASE.
3. SEE SEEDING MIX TABLES, SHEET FWP-CE-1000A.

LEGEND

	FLOW DIRECTION
	LIMITS OF DISTURBANCE
	SEDIMENT FENCE
	TREE PROTECTION FENCE
	STANDARD DETAIL CALLOUT
	PROPOSED CONTOUR
	PROPOSED DRAINAGE DITCH
	PROPOSED ASPHALT
	PROPOSED GRAVEL
	STORM FILTER STRIP
	ROADSIDE SEEDING
	LAWN SEEDING

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



11-OCT-2024 16:39 W02563_FWP-CE-1034.dgn

No	Date	Description	Appd
2	10/2024	DCN-04 - CCD-0004	BJP
1	6/2024	DCN-03 - CCD-0003	Appd
Revision			
Survey			



Designed By	Program Mgr
Drawn By	Const Mgr
Checked By	CMII Eng Mgr
Project Mgr	Date
	9/29/23

WARNING
 0 1"
 If this bar does not measure 1" then the drawing is not to scale



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424
 Date



Bull Run Filtration Pipelines
FINISHED WATER PIPELINE EROSION AND SED. CONTROL
 FINAL STABILIZATION AND LANDSCAPE LUSTED ROAD

SAP Project No
W02563
 1/4 Section
 Sheet No
 FWP-CE-1034

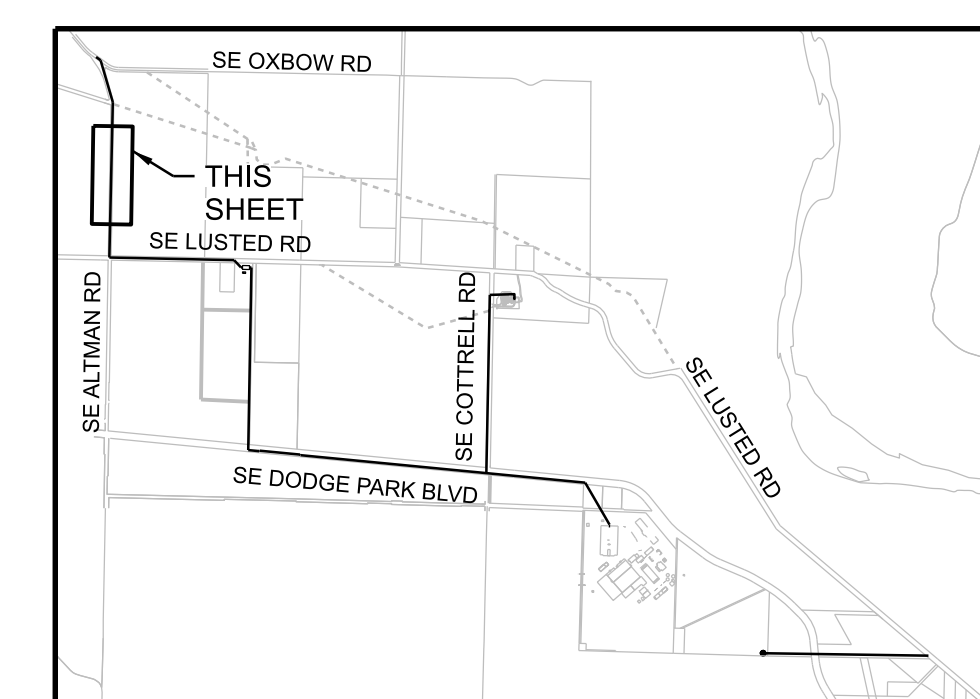
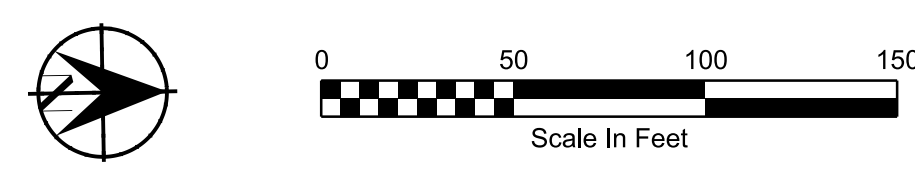
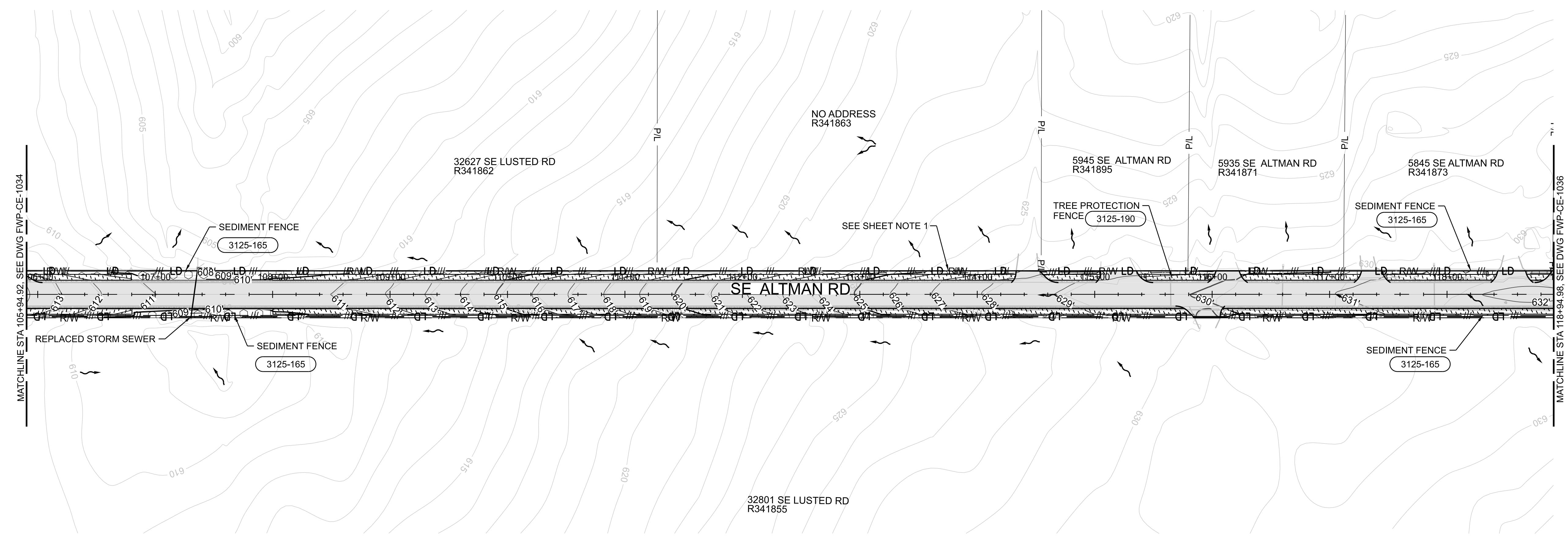
FINAL STABILIZATION PHASE NOTES

1. SEDIMENT FENCE AND LIMIT OF DISTURBANCE LINE ON R/W LINE.
2. ALL PERIMETER SEDIMENT FENCING TO BE REMOVED UPON COMPLETION OF THIS PHASE.
3. SEE SEEDING MIX TABLES, SHEET FWP-CE-1000A.

LEGEND

- FLOW DIRECTION
- LD LIMITS OF DISTURBANCE
- SEDIMENT FENCE
- TREE PROTECTION FENCE
- STANDARD DETAIL CALLOUT
- PROPOSED MAILBOX
- PROPOSED CONTOUR
- PROPOSED ASPHALT
- PROPOSED GRAVEL
- STORM FILTER STRIP
- ROADSIDE SEEDING

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



CONFIDENTIAL

11-OCT-2024 16:37 W02563_FINAL_CED.dwg

No	Date	Description	Appd
1	10/2024	DCN-04 - CCD-0004	BJP
Revision			
Survey			



Designed By	Program Mgr
Drawn By	Const Mgr
Checked By	CMII Eng Mgr
Project Mgr	Date
	9/29/23

WARNING

If this bar does not measure 1" then the drawing is not to scale



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424



Bull Run Filtration Pipelines

FINISHED WATER PIPELINE

EROSION AND SED. CONTROL

FINAL STABILIZATION AND LANDSCAPE ALTMAN ROAD

SAP Project No	W02563
1/4 Section	
Sheet No	FWP-CE-1035

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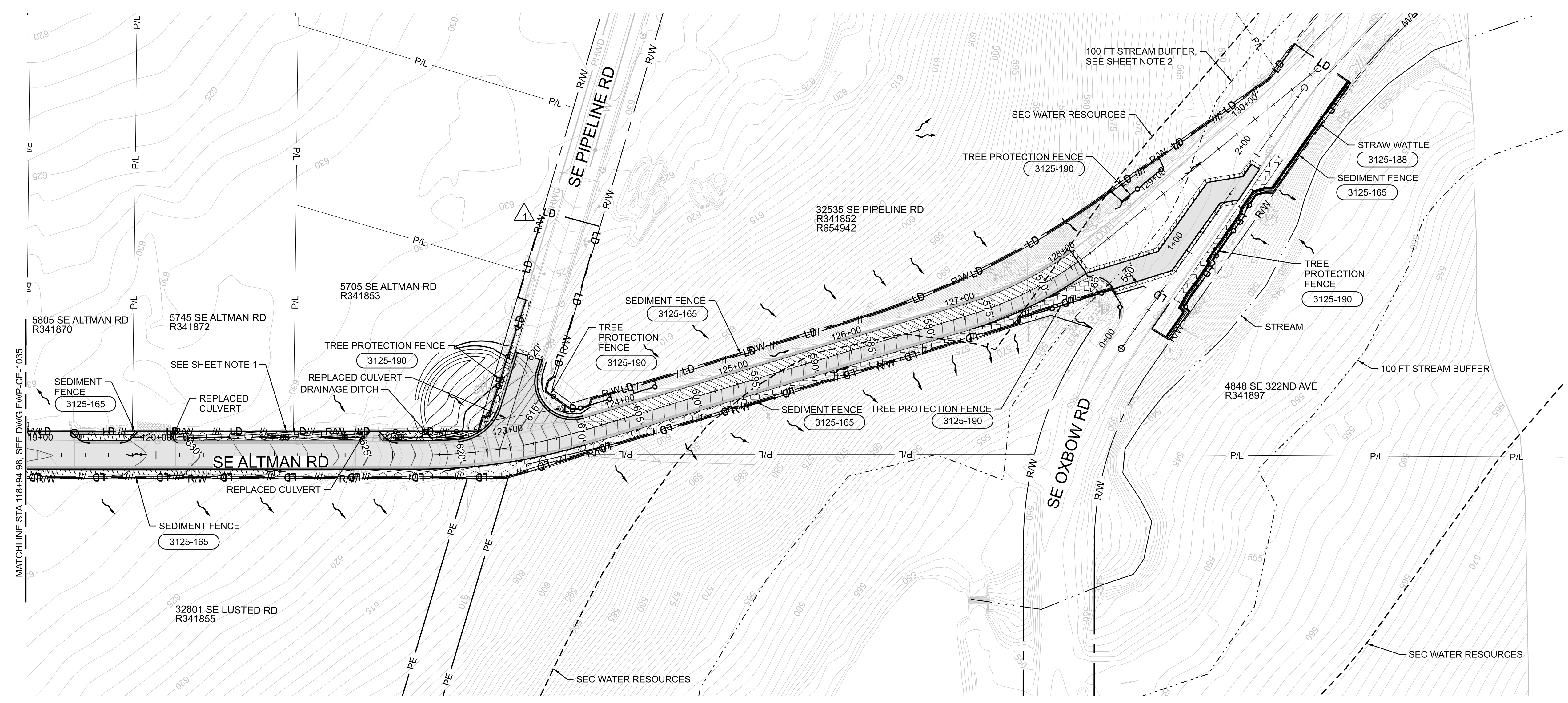
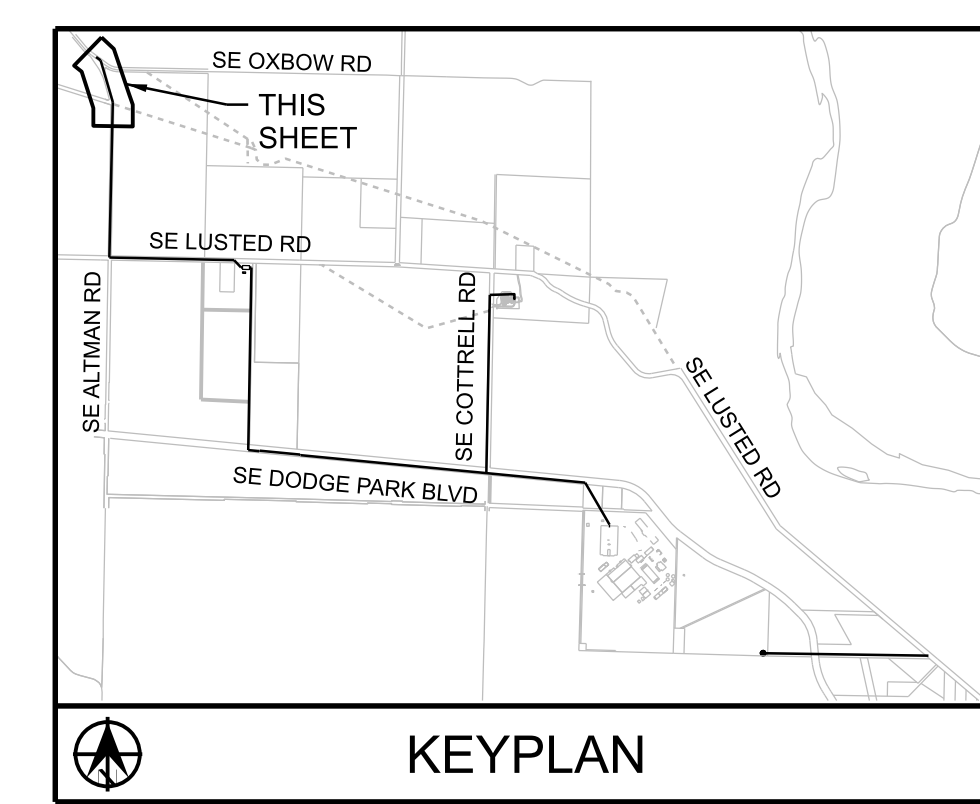
FINAL STABILIZATION PHASE NOTES

1. SEDIMENT FENCE AND LIMIT OF DISTURBANCE LINE ON R/W LINE.
2. FOR CONSTRUCTION WITHIN 100 FOOT BUFFER OF WET AREA, PROVIDE COMPOST FILTER SOCK 1 FOOT DOWNSLOPE OF PROPOSED SEDIMENT FENCE.
3. ALL PERIMETER SEDIMENT FENCING TO BE REMOVED UPON COMPLETION OF THIS PHASE.
4. SEE SEEDING MIX TABLES, SHEET FWP-CE-1000A.

LEGEND

	FLOW DIRECTION
	LIMITS OF DISTURBANCE
	SEDIMENT FENCE
	TREE PROTECTION FENCE
	STANDARD DETAIL CALLOUT
	PROPOSED MAILBOX
	PROPOSED CONTOUR
	PROPOSED DRAINAGE DITCH
	PROPOSED STORM CULVERT
	PROPOSED ASPHALT
	PROPOSED GRAVEL
	PROPOSED RIPRAP
	GRIND & INLAY
	STORM FILTER STRIP
	ROADSIDE SEEDING
	SEC SEEDING

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



11-OCT-2024 16:58 W02563_FWP-CE-1036.dgn

No	Date	Description	Appd
2	10/2024	DCN-04 - CCD-0004	BJP
1	6/2024	DCN-03 - CCD-0003	BJP
No	Date	Description	Appd



Designed By	DH
Program Mgr	DH
Drawn By	BN
Const Mgr	BN
Checked By	JB
CMII Eng Mgr	JB
Project Mgr	JB
Date	9/29/23

WARNING

 If this bar does not measure 1" then the drawing is not to scale



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424



Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
 FINAL STABILIZATION AND LANDSCAPE
 ALTMAN ROAD

SAP Project No
W02563
 1/4 Section
 Sheet No
FWP-CE-1036

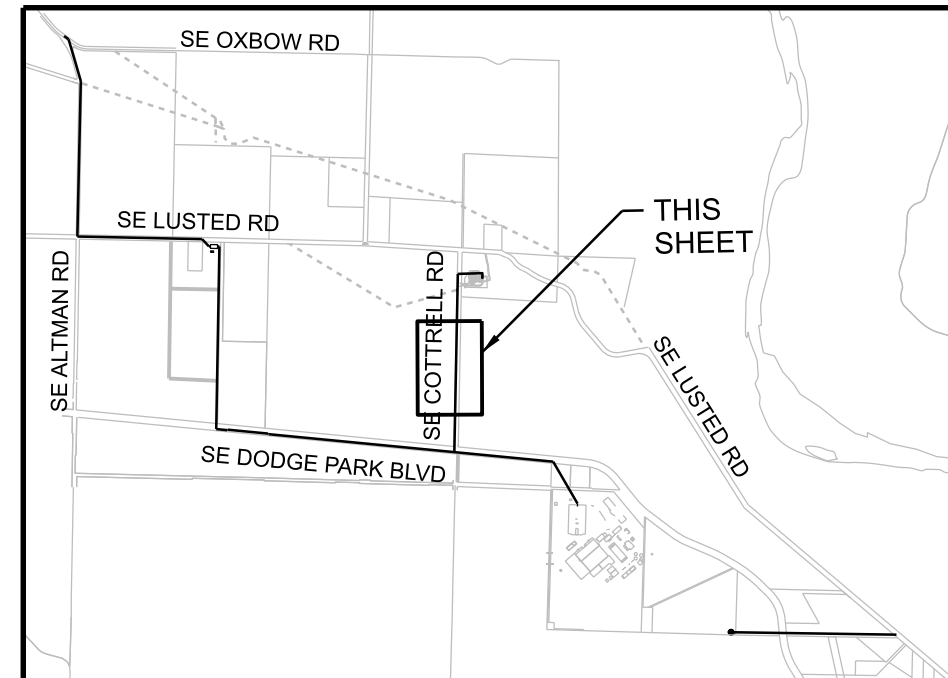
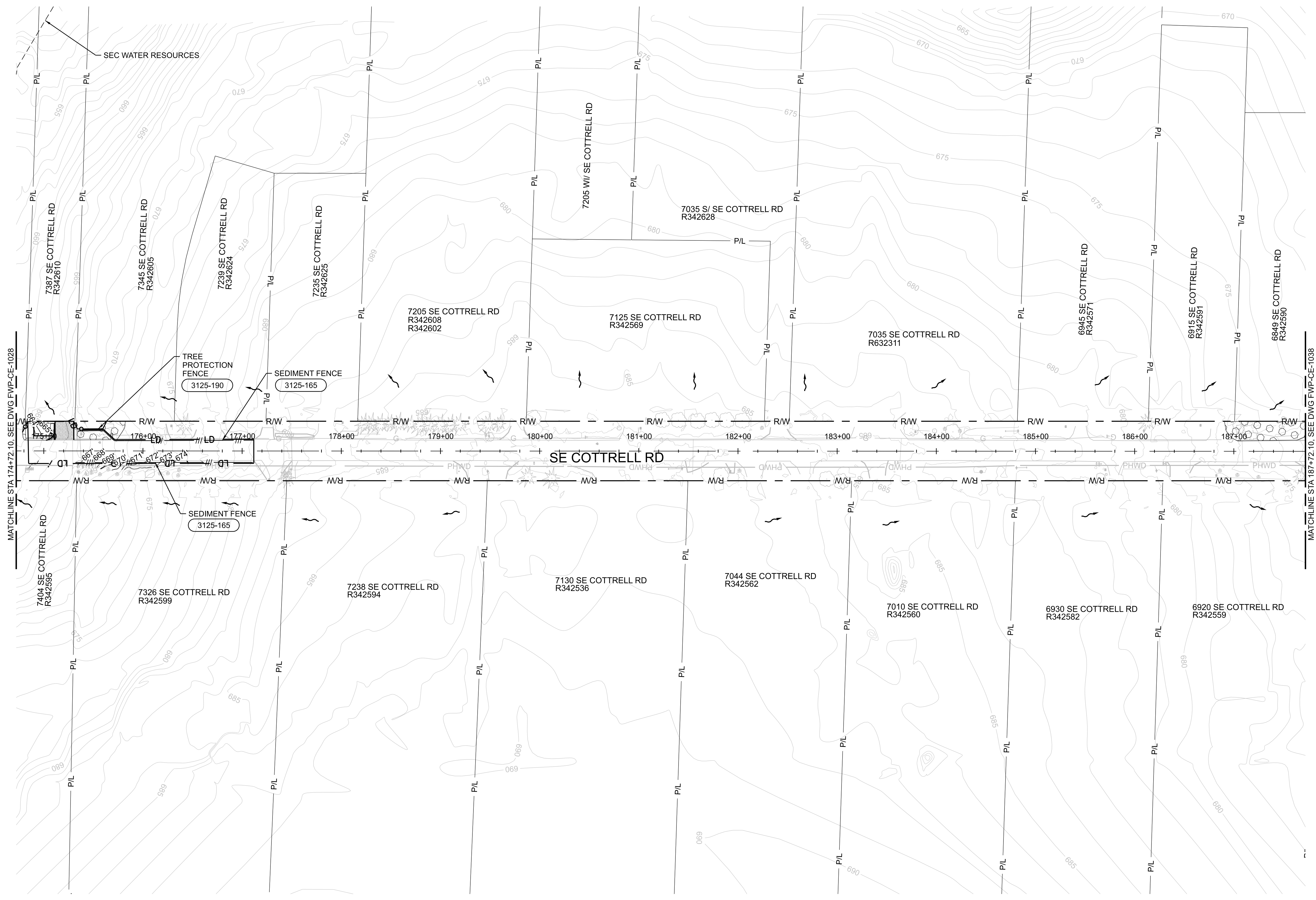
FINAL STABILIZATION PHASE NOTES

1. ALL PERIMETER SEDIMENT FENCING TO BE REMOVED UPON COMPLETION OF THIS PHASE.
2. SEE SEEDING MIX TABLES, SHEET FWP-CE-1000A.

LEGEND

- FLOW DIRECTION
- LD LIMIT OF DISTURBANCE
- SEDIMENT FENCE
- TREE PROTECTION FENCE
- STANDARD DETAIL CALLOUT
- PROPOSED GRAVEL
- ROADSIDE SEEDING

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



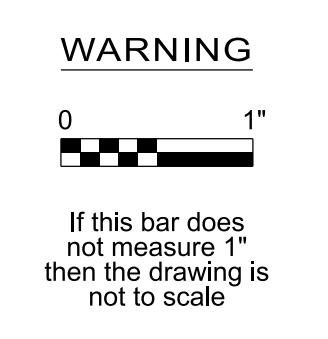
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No	Date	Description	Appd
1	10/2024	DCN-04 - CCD-0004	BJP
Revision			
Survey			



Designed By	RG	Program Mgr	DH
Drawn By	JL	Const Mgr	BN
Checked By	RG	CMII Eng Mgr	JB
Project Mgr	BJP	Date	9/29/23



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424



Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
 FINAL STABILIZATION AND LANDSCAPE
 COTTRELL ROAD

SAP Project No
W02563
 1/4 Section
 Sheet No
 FWP-CE-1037

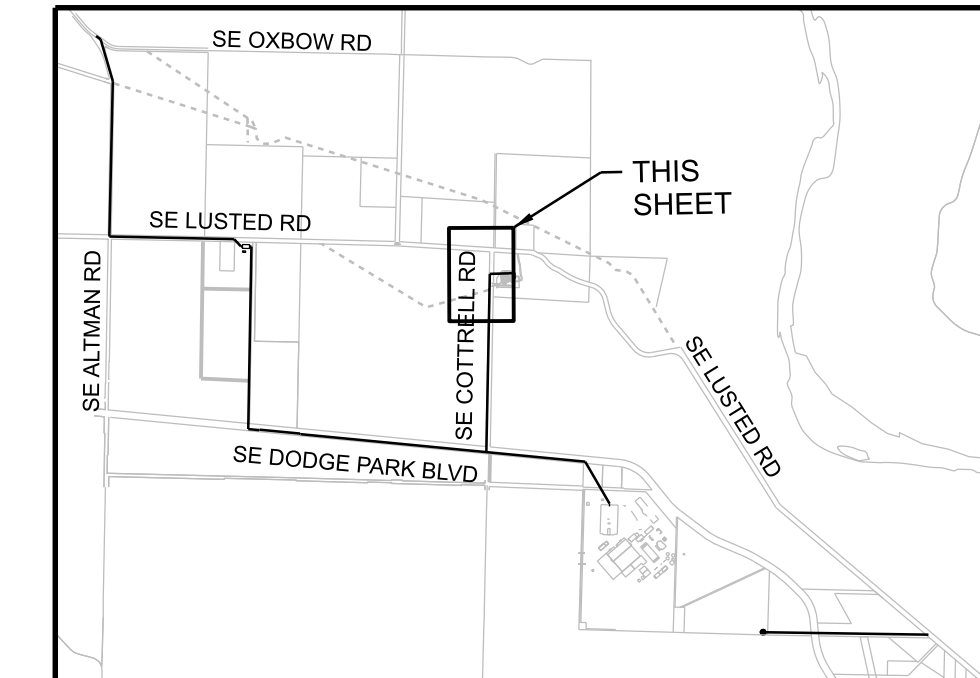
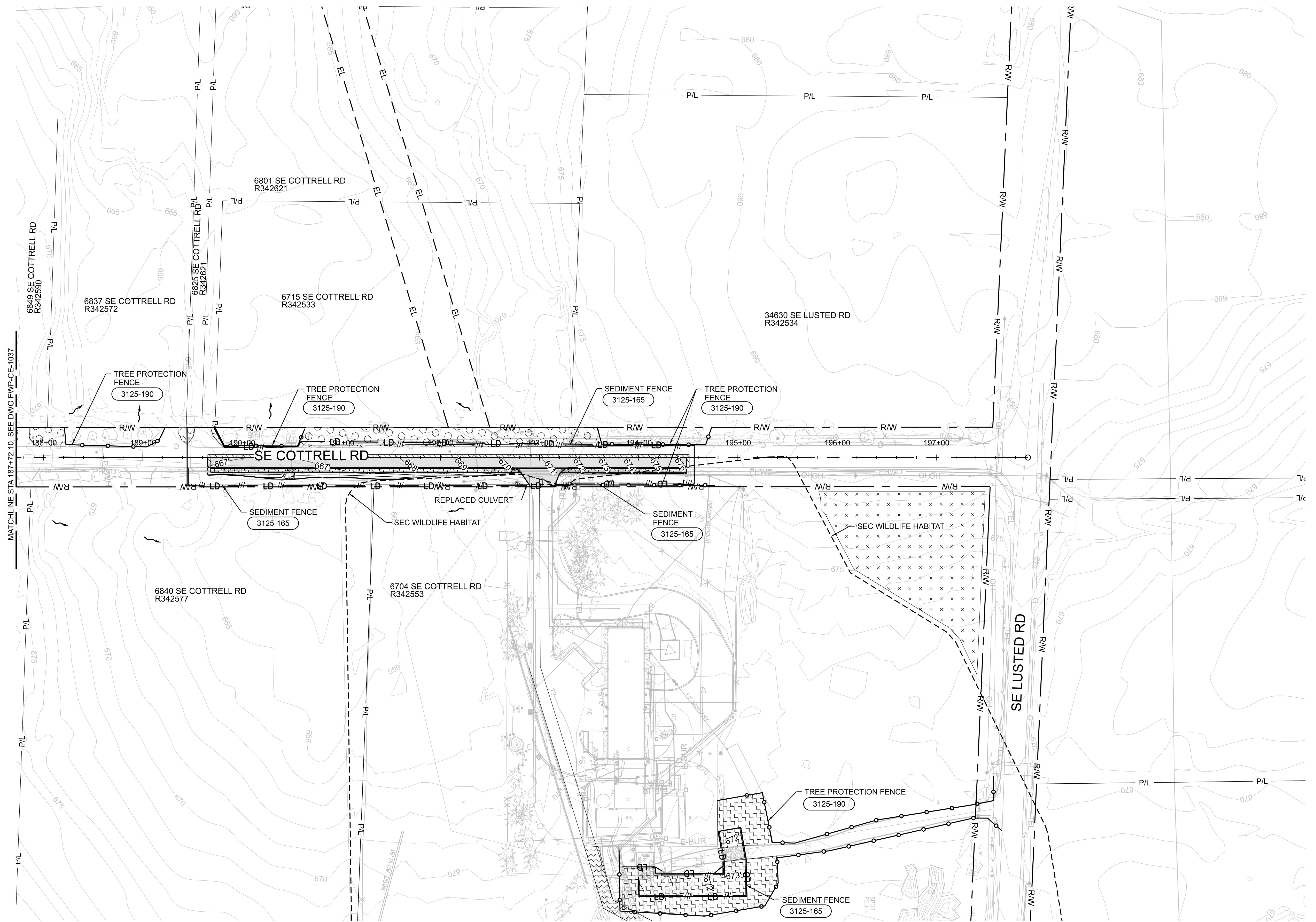
FINAL STABILIZATION PHASE NOTES

1. ALL PERIMETER SEDIMENT FENCING TO BE REMOVED UPON COMPLETION OF THIS PHASE.
2. SEE SEEDING MIX TABLES, SHEET FWP-CE-1000A.

LEGEND

	FLOW DIRECTION
	LIMIT OF DISTURBANCE
	SEDIMENT FENCE
	TREE PROTECTION FENCE
	PROPOSED STORM CULVERT
	PROPOSED CONTOUR
	STANDARD DETAIL CALLOUT
	PROPOSED ASPHALT
	PROPOSED RIPRAP
	GRIND & INLAY
	STORM FILTER STRIP
	ROADSIDE SEEDING
	SEC SEEDING

MULTNOMAH COUNTY PERMIT NUMBER T1-2023-16571



KEYPLAN

11-OCT-2024 16:38 W02563_FWP-CE-1038.dgn

No	Date	Description	Appd
1	10/20/24	DCN-04 - CCD-0004	BJP
Revision			
Survey			



Designed By	Program Mgr
Drawn By	Const Mgr
Checked By	CMII Eng Mgr
Project Mgr	Date
	9/29/23

WARNING

If this bar does not measure 1" then the drawing is not to scale



KENNETH M. ACKERMAN, PRINCIPAL ENGINEER, PE #19424



Bull Run Filtration Pipelines
FINISHED WATER PIPELINE
EROSION AND SED. CONTROL
 FINAL STABILIZATION AND LANDSCAPE
 COTTRELL ROAD

SAP Project No
W02563
 1/4 Section
 Sheet No
 FWP-CE-1038

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