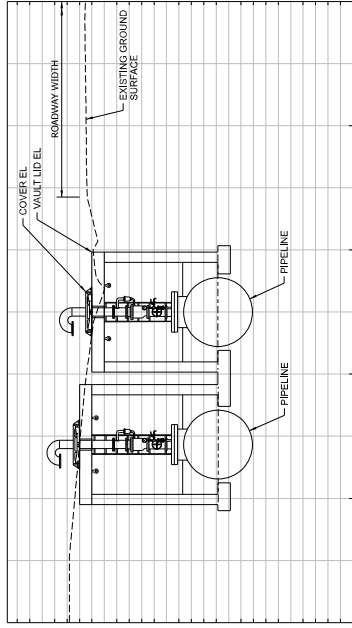


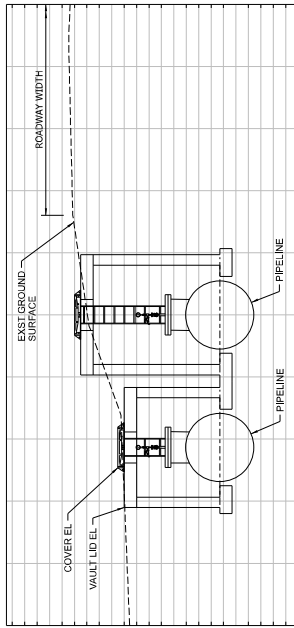
## **Attachment H.1**

### **Appurtenances and Grading Drawing Sheets (LU-208, -504)**

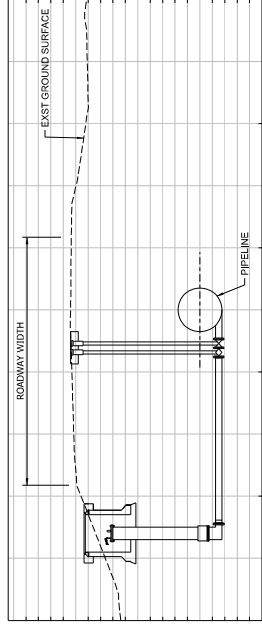
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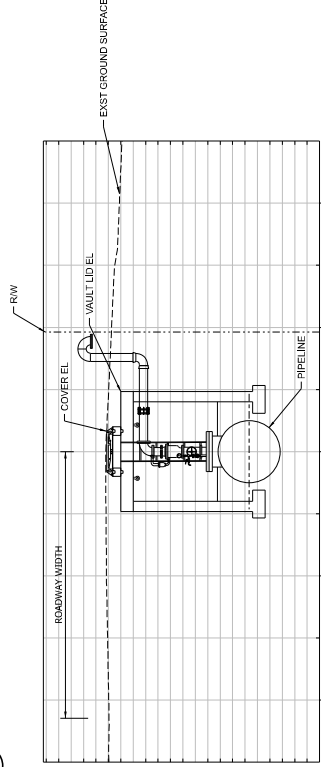
1 TYPICAL APPURTENANCE DETAIL - STANDARD AIR VALVE  
1"=5'-0"



2 TYPICAL APPURTENANCE DETAIL - ACCESSWAY  
1"=5'-0"



3 TYPICAL APPURTENANCE DETAIL - DRAIN  
1"=5'-0"



4 TYPICAL APPURTENANCE DETAIL - OFFSET AIR VALVE  
1"=5'-0"

**CONFIDENTIAL**  
SHEET NUMBER: W02563  
SHEET TITLE: FINISHED WATER PIPELINES TYPICAL APPURTENANCE CROSS SECTIONS

Bull Run Filtration Pipelines

DATE: \_\_\_\_\_

NO. \_\_\_\_\_

DESCRIPTION: \_\_\_\_\_

REV: \_\_\_\_\_

APPD: \_\_\_\_\_

DATE: \_\_\_\_\_

NO. \_\_\_\_\_

DESCRIPTION: \_\_\_\_\_

REV: \_\_\_\_\_

APPD: \_\_\_\_\_



**PORTLAND WATER BUREAU**  
FROM FOREST TO FAUCET



DESIGNED BY: \_\_\_\_\_

DRAWN BY: \_\_\_\_\_

CHECKED BY: \_\_\_\_\_

PROJECT MGR: \_\_\_\_\_

PROGRAM MGR: \_\_\_\_\_

DATE: 12/22/22

**WARNING**

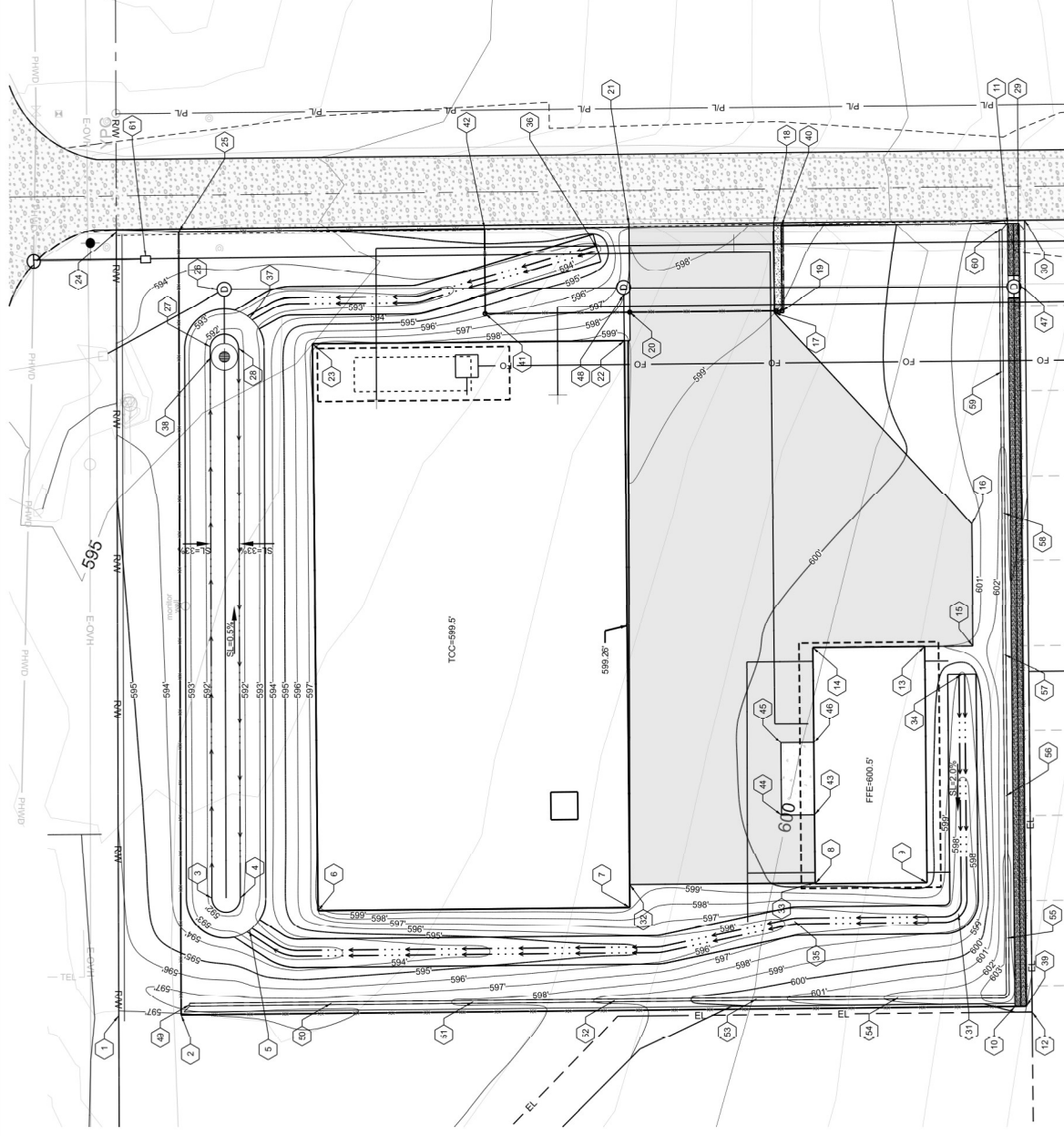
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**LAYOUT COORDINATES**

POINT NUMBER	ELEVATION	DESCRIPTION
1	597.03	NW SITE CORNER
2	597.01	PERIMETER FENCE-NW CORNER
3	597.04	NW CORNER
4	591.74	BIORETENTION BASIN
5	592.38	END OF CONVEYANCE SWALE
6	598.50	INTERTIE E, NW CORNER
7	598.50	INTERTIE E, SW CORNER
8	600.30	EDGE OF BUILDING
9	600.50	EDGE OF BUILDING
10	600.50	EDGE OF BUILDING
11	601.63	CUTOFF TRENCH DRAIN
12	603.08	SW SITE CORNER
13	603.50	EDGE OF BUILDING
14	600.30	EDGE OF BUILDING
15	601.72	EDGE OF ASPHALT
16	600.50	EDGE OF ASPHALT
17	598.71	EDGE OF ASPHALT
18	598.71	EDGE OF ASPHALT
19	598.04	FENCE GATE POST
20	598.47	FENCE GATE POST
21	598.59	EDGE OF ASPHALT
22	598.50	INTERTIE E, SE CORNER
23	598.50	INTERTIE E, SE CORNER
24	594.21	NE SITE CORNER
25	594.21	NE SITE CORNER
26	593.59	MANHOLE
27	591.74	BIORETENTION BASIN
28	591.74	BIORETENTION BASIN
29	601.78	PERIMETER FENCE-SE CORNER
30	602.00	SE SITE CORNER
31	597.10	CONVEYANCE SWALE
32	600.30	CONVEYANCE SWALE
33	603.30	EDGE OF ASPHALT
34	598.71	START OF CONVEYANCE SWALE
35	596.01	CONVEYANCE SWALE
36	593.48	START OF CONVEYANCE SWALE
37	592.38	END OF CONVEYANCE SWALE
38	591.55	BIASIN EMERGENCY OVERFLOW
39	591.55	BIASIN EMERGENCY OVERFLOW
40	598.42	PERIMETER FENCE-CORNER
41	595.89	PERIMETER FENCE-CORNER
42	595.66	PERIMETER FENCE-CORNER
43	600.30	EDGE OF ASPHALT
44	600.35	EDGE OF ASPHALT
45	600.35	EDGE OF ASPHALT
46	601.21	MANHOLE
47	601.21	MANHOLE
48	597.50	TOP OF BERM
49	597.48	TOP OF BERM
50	597.45	TOP OF BERM
51	598.10	TOP OF BERM
52	598.21	TOP OF BERM
53	602.16	TOP OF BERM
54	602.14	TOP OF BERM
55	603.21	TOP OF BERM
56	602.86	TOP OF BERM
57	602.51	TOP OF BERM
58	602.16	TOP OF BERM
59	601.81	TOP OF BERM
60	601.81	TOP OF BERM
61	594.45	WATER METER

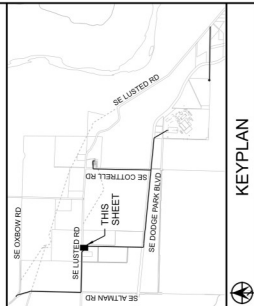
**LEGEND**

ASPHALT	---
GRAVEL	---
CONCRETE	---
CONVEYANCE SWALE	---
DITCH	---
STORM DRAINAGE PIPE	---
STORM DRAINAGE CULVERT	---
SEC. ZONE	---
PROPERTY LINE	---
RIGHT-OF-WAY	---
EXISTING EASEMENT LINE	---
PROPOSED EASEMENT LINE	---
PROPOSED FENCE	---
BASIN EMERGENCY OVERFLOW	---
STORMWATER MANHOLE	---
FIRE HYDRANT	---
WATER METER	---
WATER VALVE	---
CONIFEROUS TREE	---
DECIDUOUS TREE	---



**GRADING NOTES**

1. CONTRACTOR SHALL REVIEW GEOTECHNICAL REPORT AND ENSURE SOIL RECOMMENDATIONS ARE MET.
2. CONTRACTOR SHALL MAINTAIN POSITIVE TOWARD ALL DRAINAGE STRUCTURES.



**CONFIDENTIAL**

SEAL Project No: **W02563**  
 1st Edition  
 3866  
 Sheet No

**Bull Run Filtration Pipelines**  
**FINISHED WATER INTERTIE**  
**GRADING PLAN**

LU-504

**PORTLAND WATER BUREAU**  
 FROM FOREST TO FAUCET

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DATE: XXX XXXX  
 DATE: XXX XXXX

**WARNING**

If this seal stamp is present, then the drawing is NOT FOR CONSTRUCTION.

Program Mgr	XXX
Design By	XXX
Checked By	XXX
Project Mgr	122222

**PRELIMINARY NOT FOR CONSTRUCTION**

No.	Date	Revision	By