

OPERATIONS AND MAINTENANCE MANUAL FOR STORMWATER DETENTION AND TREATMENT FACILITIES

DFI No. 00832

Facility Type: Biofiltration Swale



April, 2018

INDEX

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2. Facility Contact Information
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Operations Plan and Profile Drawing(s)

APPENDIX B:

Project Construction Plans

1. Identification

Facility Types: Water Quality Biofiltration Swale 00832

Location: Oregon Coast Highway 9
Milepost 116.75 – 116.77

2. Facility Contact Information

Chris Carman, ODOT Hydraulics Engineer (503) 986-2691.

3. Construction

Engineer of Record: ODOT Designer - Region 2 Tech. Center,
Chris Carman, (503) 986-2691

Facility construction: 2016

4. Overview

The swale is located between milepost 116.75 and 116.77 on the Oregon Coast highway 9 on the east side of the highway. Treatment of pollutants from the highway are achieved through sedimentation and infiltration through the water quality mix shown in section B-B in the operational plan.

5. Facility Haz Mat Spill Feature

The swale can be used to store a volume of liquid by blocking the outlet of the swale. A barrier such as a temporary berm made of sandbags could be used to prevent liquid from draining from the swale.

6. Auxiliary Outlet (High Flow Bypass)

This facility does not contain an auxiliary outlet feature. The facility was designed to receive runoff from the road and discharge into cross pipes.

7. Maintenance Requirements

Routine maintenance table for non-proprietary stormwater treatment and storage/detention facilities have been incorporated into ODOT's Maintenance Guide. These tables summarize the maintenance requirements for ponds, swales, filter strips, bioslopes, and detention tanks and vaults. Special maintenance requirements in addition to the routine requirements are noted below when applicable.

The ODOT Maintenance Guide can be viewed at the following website:

https://www.oregon.gov/ODOT/HWY/OOM/mg/02/act125_waterqualityfacil_andtables.pdf

The following stormwater facility maintenance table (See ODOT Maintenance Guide) should be used to maintain the facility outlined in this Operation and Maintenance Manual or follow the Maintenance requirements outlined in Appendix C when proprietary structure is selected below:

- Table 1 (general maintenance)
- Table 2 (stormwater ponds)
- Table 3 (water quality biofiltration swales)
- Table 4 (water quality filter strips)
- Table 5 (water quality bioslopes)
- Table 6 (detention tank)
- Table 7 (detention vault)
- Appendix C (proprietary structure)
- Special Maintenance requirements:

8. Waste Material Handling

Material removed from the facility is defined as waste by DEQ. Refer to the roadwaste section 5.18 of the ODOT Maintenance Yard Environmental Management System (EMS) Policy and Procedures Manual for disposal options:

https://www.oregon.gov/ODOT/HWY/OOM/EMSdoc/ems_manual.pdf

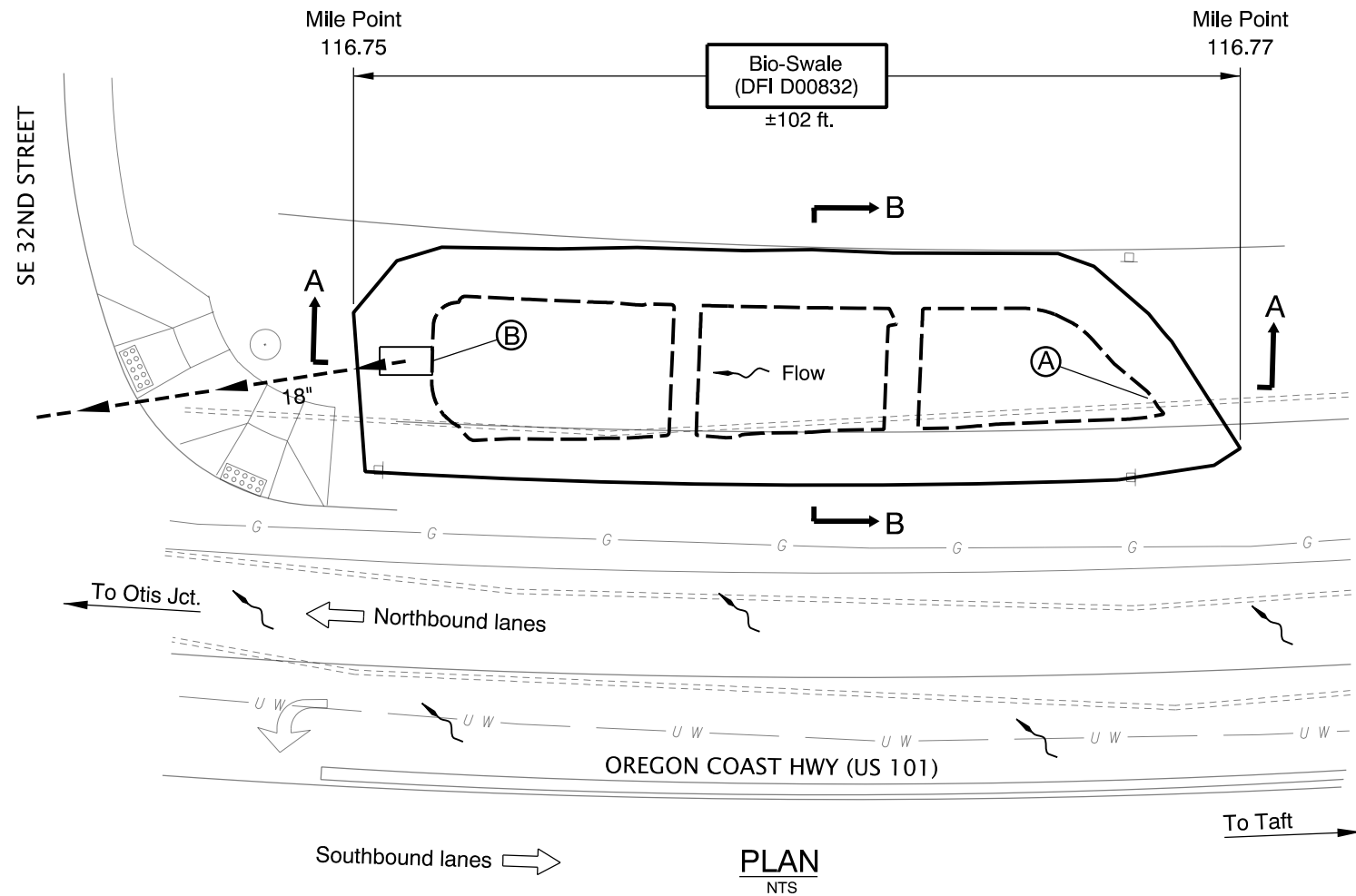
Contact any of the following for more detailed information about management of waste materials found on site:

ODOT Clean Water Unit	(503) 986-3008
ODOT Statewide Hazmat Coordinator	(503) 229-5129
ODOT Region Hazmat Coordinator	(503) 986-2647
ODEQ Northwest Region Office	(503) 229-5263

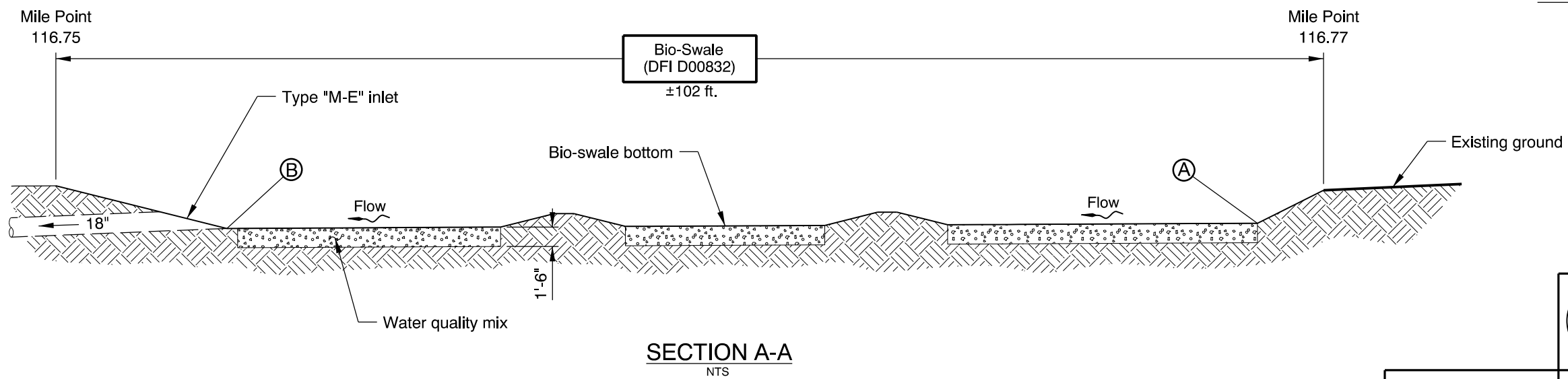
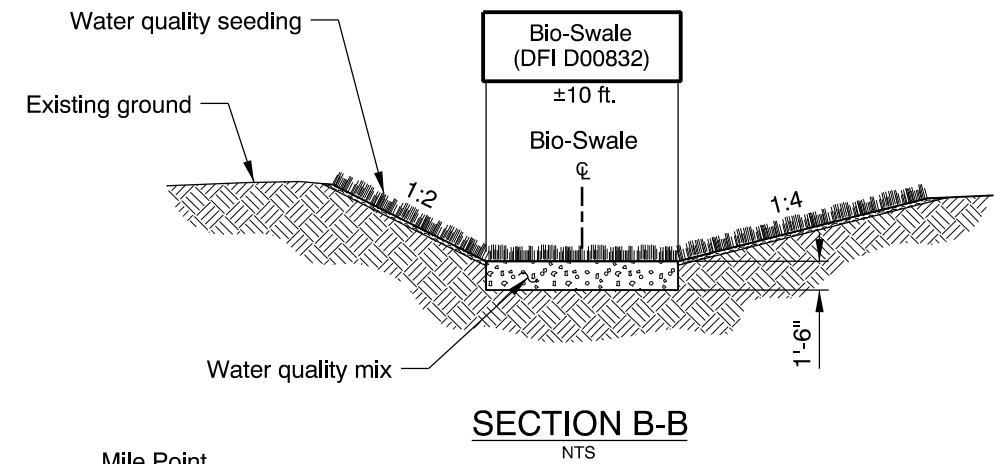
A Appendix A – Site Specific Operational Plan

Contents:

Operational Plan: DFI D00832



- LEGEND:
- (A) Swale Inlet
 - (B) Swale Outlet
 - ~ Pavement / Facility Flow Path
 - Conveyance Direction
 - - - Ditch Line
 - ⋯ Storm Pipe (Facility)
 - ▭ Swale Boundary
 - Traffic Direction
 - ⊙ and ⊗ Manhole
 - and □ Inlet



OREGON DEPARTMENT OF TRANSPORTATION

Prepared By:
Christopher Carman

Drafted By:
Jeff Coon

DFI D00832
MAINTENANCE DISTRICT 4 HWY 101
WATER QUALITY BIOFILTRATION SWALE
OREGON COAST HIGHWAY MP 116.76
LINCOLN COUNTY

B Appendix B – Project Contract Plans

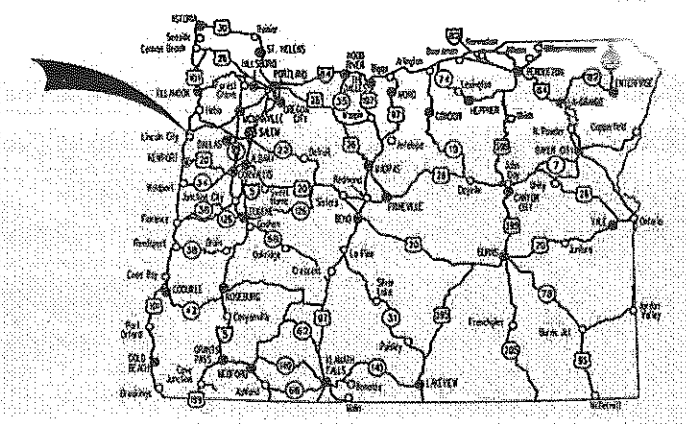
Contents:

Site Specific Subset of Project Contract Plan 47v-025

As Constructed Plans

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	Title Sheet
1A	Index Of Sheets Cont'd.
1A-2	Std. Drg. Nos.

STATE OF OREGON
DEPARTMENT OF TRANSPORTATION
 PLANS FOR PROPOSED PROJECT
**GRADING, DRAINAGE, STRUCTURE, PAVING, SIGNING,
 SIGNALS & ROADSIDE DEVELOPMENT**
FFO - US101: S.E. 23RD DR. - S.W. 35TH ST.
(LINCOLN CITY) SEC.
OREGON COAST HIGHWAY
 LINCOLN COUNTY
 FEBRUARY 2014



Overall Length Of Project - 0.83 Miles

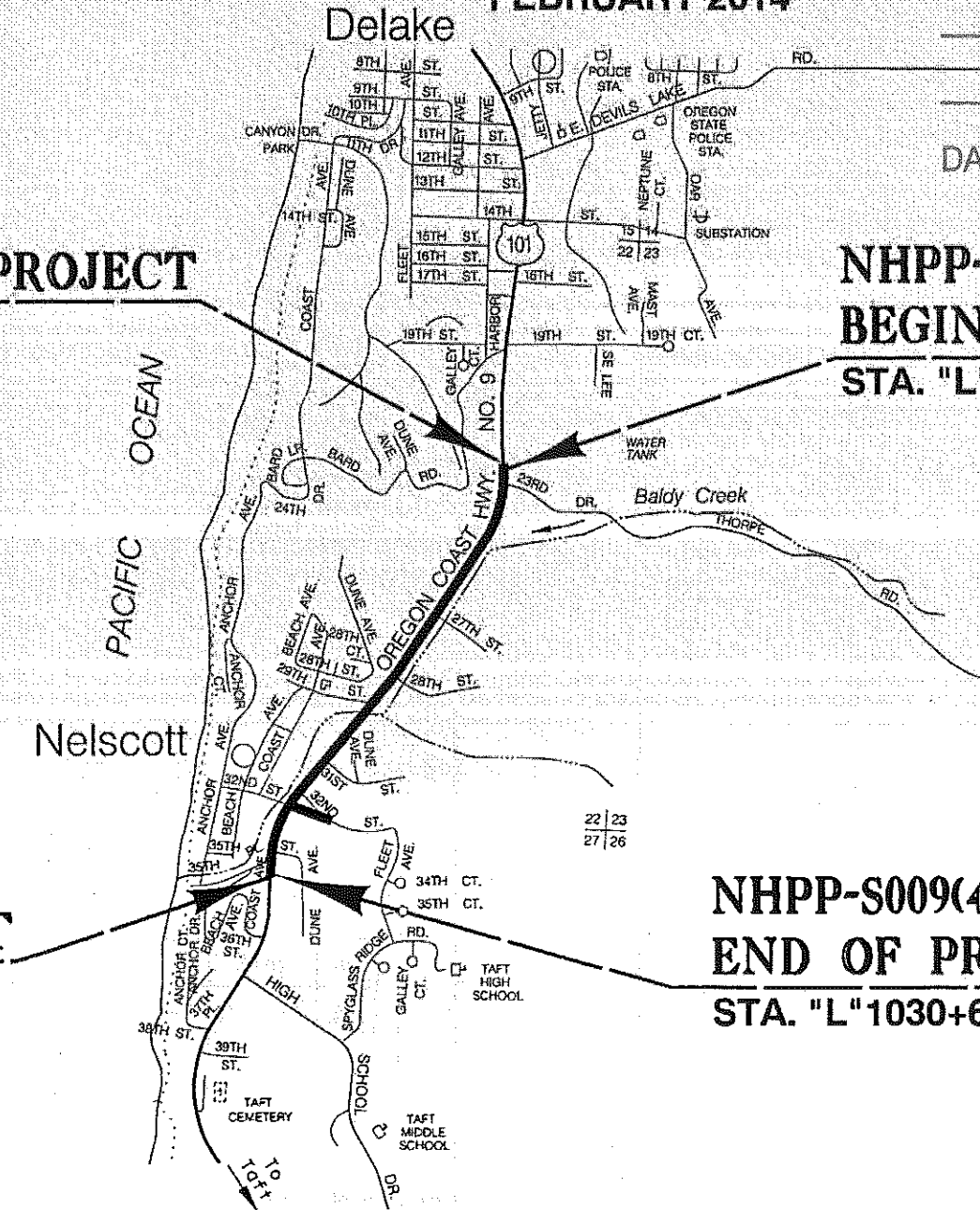
NOT REVISED AS CONSTRUCTED
STEVEN SCHULTZ, PE
 DATE 6/21/16

ATTENTION:
 Oregon Law Requires You To Follow Rules Adopted By The Oregon Utility Notification Center. Those Rules Are Set Forth In OAR 952-001-0010 Through OAR 952-001-0090. You May Obtain Copies Of The Rules By Calling The Center. (Note: The Telephone Number For The Oregon Utility Center Is (503) 232-1987.)



NHPP-S009(419)
BEGINNING OF CONTRACT PROJECT
 STA. "L"986+00 (M.P. 115.93)

NHPP-S009(419)
BEGINNING OF PROJECT
 STA. "L"987+00 (M.P. 115.95)



NHPP-S009(419)
END OF CONTRACT PROJECT
 STA. "L"1031+50 (M.P. 116.79)

NHPP-S009(419)
END OF PROJECT
 STA. "L"1030+61 (M.P. 116.77)

T. 7 S., R. 11 W., W.M.

- OREGON TRANSPORTATION COMMISSION**
- Pat Egan CHAIR
 - Mary F. Olson COMMISSIONER
 - David Lahman COMMISSIONER
 - Mark Frahmayer COMMISSIONER
 - Tommy Barney COMMISSIONER
 - Matthew L. Garrett DIRECTOR OF TRANSPORTATION

These plans were developed using ODOT design standards. Exceptions to these standards, if any, have been submitted and approved by the ODOT Chief Engineer or their delegated authority.

By: Carol A. Cartwright 12/9/13
 Signature & Date

Carol A. Cartwright - R2 Roadway Manager
 Print name and title
[Signature]
 Concurrence by ODOT Chief Engineer

FFO - US101: S.E. 23RD DR. - S.W. 35TH ST.
(LINCOLN CITY) SEC.
OREGON COAST HIGHWAY
 LINCOLN COUNTY

FEDERAL HIGHWAY ADMINISTRATION	PROJECT NUMBER
OREGON DIVISION	NHPP-S009(419)



PE001

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2, 2A Thru 2A-14 Incl.	Typical Sections
2B Thru 2B-12 Incl.	Details
2C Thru 2C-4 Incl.	Traffic Control Details
2C-5 Thru 2C-39 Incl.	Traffic Control Plans
2D Thru 2D-7 Incl.	Pipe Data Sheet
3	Alignment
3A	General Construction
3B	Drainage & Utilities
3B-2	Drainage Notes
3C & 3D	"L", "23RD" & "Dwy1" Profile
4	Alignment
4A	General Construction
4B	Drainage & Utilities
4B-2	Drainage Notes
4C	Diversion Plan
4D & 4E	"L", "Dwy2", "Dwy3" & "Dwy4" Profile
5	Alignment
5A	General Construction
5A-2	Notes
5B	Drainage & Utilities
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5C	Diversion Plan
5D, 5E, 5F & 5G	"L", "Dwy5", "29TH" "31ST" & "Dwy6" Profile
6	Alignment
6A	General Construction
6A-2	Notes
6B	Drainage & Utilities
6B-2	Drainage Notes
6C	Diversion Plan
6D	Alignment
6E	General Construction
6F	Drainage & Utilities
6G, 6H, 6J, 6K & 6L	"L", "32ND", "32e", "P" & "35TH" Profile

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TYLIN INTERNATIONAL	
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RL-8	Waterline Relocation Plan
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RL-15	Sanitary Sewer Relocation Notes
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RL-17	Sanitary Sewer Relocation Plan
RL-18	Sanitary Sewer Relocation Notes
RL-19	Sanitary Sewer Relocation Profile
RL-20	Sanitary Sewer Relocation Plan
RL-21	Sanitary Sewer Relocation Profile
RL-22	Pipe Data Sheet Sanitary Sewer Relocation
GEO/HYDRO	
GA	Erosion And Sediment Control Details
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GB Thru GB-8 Incl.	Geotechnical Data
GC	Retaining Wall Index
GC-2	Retaining Wall MSE Wall Details
GC-3	Retaining Wall MSE Wall Sections
GC-4	Retaining Wall "B" Plan And Elevation
GC-5	Retaining Wall "B" Details
GC-6	Retaining Wall Soldier Pile Details
GC-7	Retaining Wall "E" Plan And Elevation
GC-8	Retaining Wall "E" Plan And Elevation
GC-9	Retaining Wall "F" Details
GC-10	Retaining Wall "G" Plan And Elevation
GC-11	Retaining Wall "H" Plan And Elevation
GC-12	Retaining Wall "J" Plan And Elevation
GC-13	Retaining Wall "K" Plan And Elevation
GC-14	Retaining Wall "L" Plan And Elevation
GC-15	Retaining Wall "L" Details
GC-16	Miscellaneous Details
GC-17	Retaining Wall "M" Plan And Elevation

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GE & GE-2	Culvert Plan And Profile
GE-3	Culvert Details
GE-4	Culvert Plan And Section
GG & GG-2	Temporary Water Management Plans
GJ	Stormwater Plan
GJA	Stormwater Notes
GJ-2	Stormwater Plan
GJ-3 Thru GJ-7 Incl.	Stormwater Details
WHPacific	
GN	Planting Notes
GN-2	Planting Details
GN-3	Planting Material Schedule
GN-4	Planting Plan
GN-4A	Planting Notes
GN-5	Planting Plan
GN-5A	Planting Notes
GN-6	Planting Plan
GN-6A	Planting Notes
GN-7	Planting Plan
GN-7A	Planting Notes
GN-8	Planting Plan
GN-8A	Planting Notes
GN-8B & GN-8C	Planting Details
GN-9	Planting Plan
GN-9A	Planting Notes
GN-10	Planting Plan
GN-10A	Planting Notes
GN-10B	Planting Details
GN-11	Planting Plan
GN-11A	Planting Notes
GN-12	Planting Plan
GN-12A	Planting Notes

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PERMANENT PAVEMENT MARKINGS	
ST Thru ST-5 Incl.	Striping Plans
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S-14364 & S-14365	Sign Details
S-14366 Thru S-14368 Incl.	Sign & Post Data Table
SIGNAL PLANS	
17524	Legend
17525	Signal Plan
17526	Detection Plan
17527	Signal Plan Details
17528	Existing Utilities
17529 & 17530	Signal Plan Details
17531	Flashing Beacon Plan
17532	Flashing Beacon Details

REVISED AS CONSTRUCTED
STEVEN SCHULTZ, PE

DATE 6/21/16

No.	DATE	REVISIONS	BY
4	02-18-14	Added sheet	T.L.M.

FFO - US101: S.E. 23RD DR. - S.W. 35TH ST. (LINCOLN CITY) SEC. OREGON COAST HIGHWAY LINCOLN COUNTY		
FEDERAL HIGHWAY ADMINISTRATION	PROJECT NUMBER	SHEET NO.
OREGON DIVISION		1A

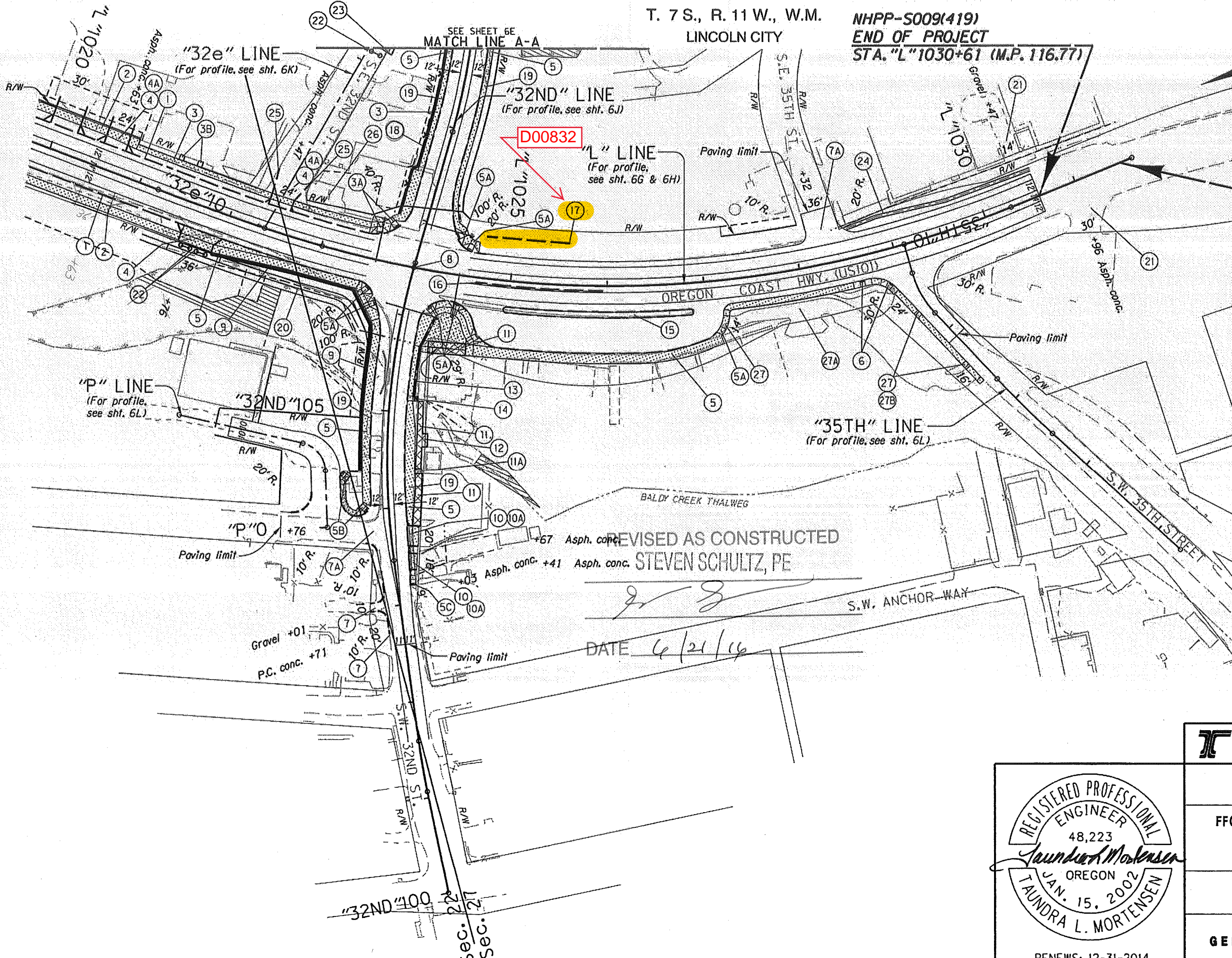
Standard Drawings located on the web at:
http://www.oregon.gov/ODOT/HWY/ENGSEVICES/standard_drawings_home.shtml

T. 7 S., R. 11 W., W.M.
LINCOLN CITY


NHPP-S009(419)
END OF PROJECT
STA. "L"1030+61 (M.P. 116.77)

NHPP-S009(419)
END OF CONTRACT PROJECT
STA. "L"1031+50 (M.P. 116.79)

STRUCTURAL DETAILS CHECKED



REVISED AS CONSTRUCTED
STEVEN SCHULTZ, PE
DATE 6/21/16

No work area shown thus: 

 OREGON DEPARTMENT OF TRANSPORTATION


REGION 2 TECH CENTER

FFO - US101: S.E. 23RD DR. - S.W. 35TH ST.
(LINCOLN CITY) SEC.
OREGON COAST HIGHWAY
LINCOLN COUNTY

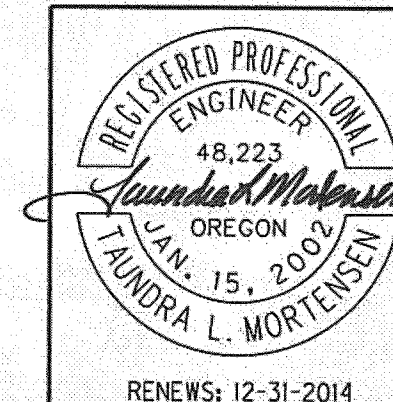
Design Team Leader - Carol Cortwright
Designed By - Taundra Mortensen
Drafted By - Charlotte Jenken


GENERAL CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER
48,223
Taundra Mortensen
OREGON
JAN. 15, 2002
TAUNDR L. MORTENSEN
RENEWS: 12-31-2014

REVISED AS CONSTRUCTED
 STEVEN SCHULTZ, PE

 DATE 6/21/14

- ① Const. standard curb
- ② Const. P.C. conc. sidewalk
Setback - 8'
- ③ Const. P.C. conc. sidewalk
Setback - 5'
- ③A Const. perpendicular sidewalk ramp (Option G) - 2
- ③B Const. sidewalk connection - 2
(For details, see sht. 2B-10)
- ④ Const. P.C. conc. dwy., option (A) - 3
- ④A Const. asph. conc. connection - 2
- ⑤ Const. P.C. conc. sidewalk
- ⑤A Const. perpendicular sidewalk ramp (Option G) - 9
- ⑤B Const. combination sidewalk ramp - 2
- ⑤C Const. sidewalk ramp (Option F)
(See drg. no. RD756)
- ⑥ Const. parallel sidewalk ramp - 2
(See drg. no. RD755)
- ⑦ Const. appr. - 2
- ⑦A Const. street connection - 2
- ⑧ Inst. traffic signal
(For drg. nos., see sht. 1A)
- ⑨ Structure no. 22179
Sta. "L" 1021+94, Rt. to Sta. "32ND" 104+38, Lt.
Const. Type "F" barrier, coping slab - 345'
Const. retaining wall
(For details, see sht. GC-15)
(For drg. nos., see sht. GC)
- ⑩ Const. P.C. conc. dwy., option (M) - 2
- ⑩A Const. asph. conc. connection - 2
(See drg. no. RD750)
- ⑪ Remove extg. P.C. conc. sidewalk - 152 sq. yd.
- ⑪A Connect to extg. P.C. conc. sidewalk
(For details, see sht. 2B-3)
- ⑫ Remove & reinstall extg. bus shelter
(By others)
- ⑬ Structure no. 22178
Sta. "32ND" 105+25 to Sta. "32ND" 106+03, Rt.
Const. retaining wall
Const. pedestrian handrail on structure - 85'
(For drg. nos., see sht. GC)
(See drg. nos. RD770 & RD771)
- ⑭ Sta. "32ND" 105+17, Rt.
Const. conc. stair 6' wide
(See drg. no. RD120)
- ⑮ Sta. "L" 1024+95 to Sta. "L" 1026+87, Rt.
Const. standard curb
- ⑯ Sta. "L" 1024+65 to Sta. "L" 1025+95, Rt.
Const. type "C" traffic separator
with drain opening - 169 sq. ft.
(See drg. no. RD706)
- ⑰ Const. biofiltration swale No. 00832
10' flat bottom, 1:4 slopes
(For details, see sht. GJ-7)
- ⑱ Structure no. 22177
Sta. "32ND" 107+00 to Sta. "32ND" 109+00, Lt.
Const. retaining wall
Const. type CL-4R fence - 200' 153' ("32nd" 107+47 to 109+00)
(For drg. nos., see sht. GC)
2-Rail, Handrail 47' ("32nd" 107+00 to 107+47)
- ⑲ Const. curb and gutter
- ⑳ Const. temp. access road
Remove temp. access road
- ㉑ Retain and protect dwy. - 2
- ㉒ Const. traffic double barricade - 2
(For details, see sht. 2B-12)
- ㉓ Obliterate surfacing - 11,329 sq. ft.
- ㉔ Const. valley gutter - 200'
(See drg. no. RD700)
- ㉕ Match extg. curb - 2
Const. standard curb
- ㉖ Retain and protect extg. private sign
- ㉗ Const. P.C. conc. dwy., option (F) - 3
- ㉗A Const. appr.
(By others)
- ㉗B Const. asph. conc. connection - 2
(See drg. no. RD735)



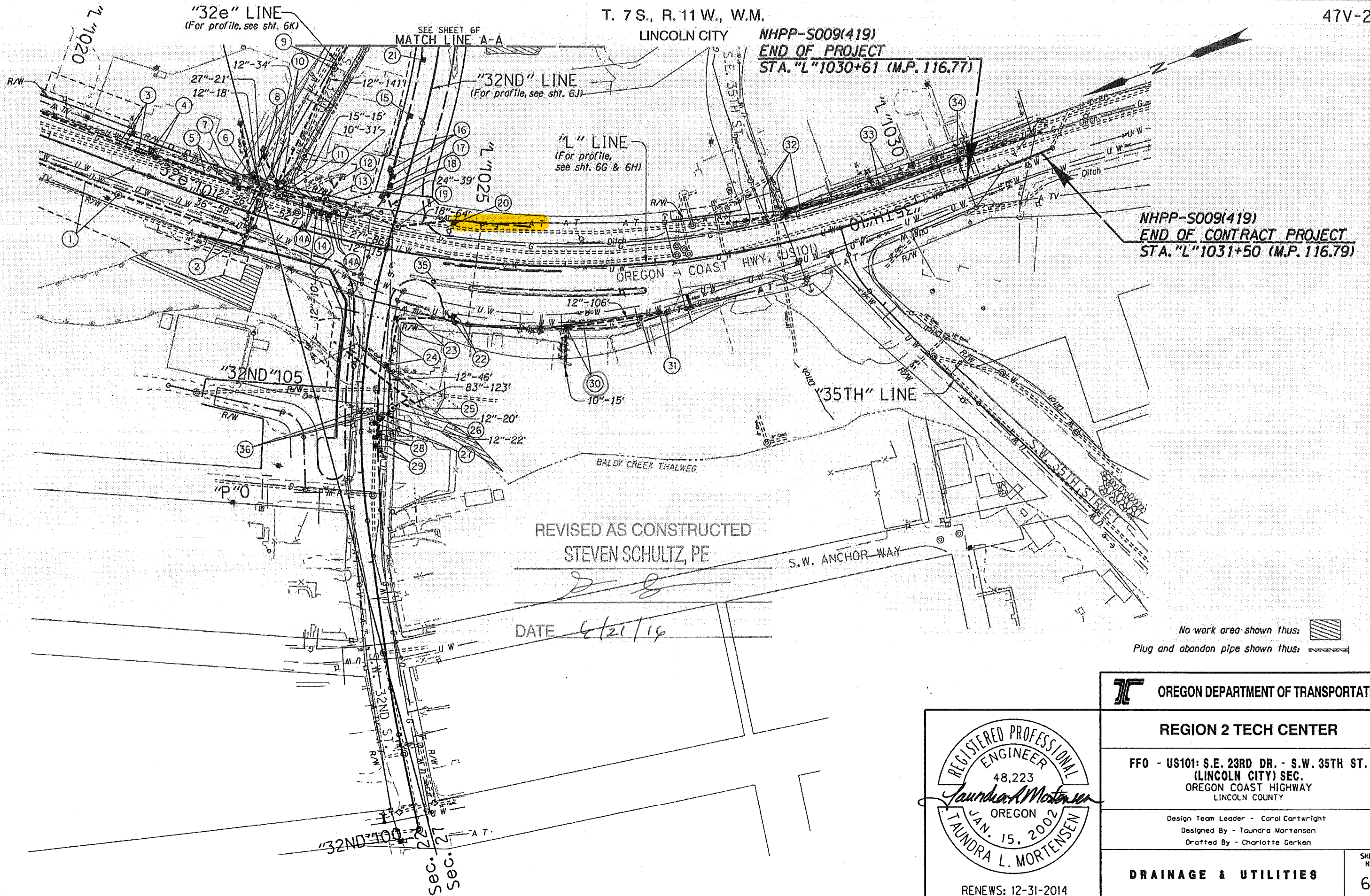
 OREGON DEPARTMENT OF TRANSPORTATION	
REGION 2 TECH CENTER	
FFO - US101: S.E. 23RD DR. - S.W. 35TH ST. (LINCOLN CITY) SEC. OREGON COAST HIGHWAY LINCOLN COUNTY	
Design Team Leader - Carol Cartwright Designed By - Tandra Mortensen Drafted By - Charlotte Gerken	
NOTES	SHEET NO. 6A-2

T. 7 S., R. 11 W., W.M.

LINCOLN CITY


NHPP-S009(419)
END OF PROJECT
STA. "L"1030+61 (M.P. 116.77)

NHPP-S009(419)
END OF CONTRACT PROJECT
STA. "L"1031+50 (M.P. 116.79)



REVISED AS CONSTRUCTED
STEVEN SCHULTZ, PE

DATE 6/21/16

 OREGON DEPARTMENT OF TRANSPORTATION	
REGION 2 TECH CENTER	
FFO - US101: S.E. 23RD DR. - S.W. 35TH ST. (LINCOLN CITY) SEC. OREGON COAST HIGHWAY LINCOLN COUNTY	
Design Team Leader - Carol Cartwright Designed By - Tandra Mortensen Drafted By - Charlotte Gerken	
DRAINAGE & UTILITIES	SHEET NO. 6B

REGISTERED PROFESSIONAL
ENGINEER
48,223
Tandra L. Mortensen
OREGON
JAN. 15, 2002
TAUNDR L. MORTENSEN
RENEWS: 12-31-2014

- ① Sta. "L"1020+95.5, Rt.
Const. large manhole
Inst. 95" x 67" arch pipe - 150'
(For details, see sht. GJ-2)
- ② Sta. "L"1022+44.3, Rt.
Const. diversion manhole
Remove pipe - 63'
Inst. 95" x 67" arch pipe - 150'
Inst. 36" storm sew. pipe - 58'
10' depth
Const. paved end slope, Rt.
Trench resurf. - 49 sq.yd.
(For details, see sht. GJ-2)
(See drg. no. RD320)
- ③ Sta. "L"1021+00, Lt.
Const. manhole
Step orientation - 270°
Inst. 12" storm sew. pipe - 124'
5' depth
- ④ Sta. "L"1021+20, Lt.
Const. type "G-2" inlet
Const. water quality structure #0816
Inst. 12" storm sew. pipe - 20'
5' depth
(For details, see sht. GJ-5)
- ⑤ Sta. "L"1022+20 Lt.
Const. type "G-2" inlet
Const. water quality structure #0817
Inst. 12" storm sew. pipe - 99'
5' depth
(For details, see sht. GJ-5)
- ⑥ Sta. "L"1022+27.9, Lt.
Const. type "G-1" inlet
Connect to extg. 8" storm sew. pipe
- ⑦ Sta. "L"1022+44.8, Lt.
Const. manhole 84" dia.
Step orientation - 180°
Remove pipe - 18'
Inst. 12" storm sew. pipe - 44'
5' depth
Inst. 27" storm sew. pipe - 21'
10' depth
- ⑧ Sta. "32e"10+36.1, Lt.
Const. type "G-1" inlet
Const. water quality structure
(For details, see sht. GJ-5)
- ⑨ Sta. "32e"11+86, Rt.
Const. manhole
Remove pipe - 117'
Inst. 12" storm sew. pipe - 117'
20' depth
Trench resurf. - 39 sq.yd.
- ⑩ Sta. "32e"10+45.3, Rt.
Const. type "G-1" inlet
Const. water quality structure
Inst. 12" storm sew. pipe - 34'
5' depth
Inst. 12" storm sew. pipe - 141'
10' depth
Trench resurf. - 58.3 sq.yd.
(For details, see sht. GJ-5)
- ⑪ Sta. "L"1022+66.3, Lt.
Const. manhole 84" dia.
Step orientation - 205°
Inst. 15" storm sew. pipe - 15'
5' depth
Inst. 27" storm sew. pipe - 52'
10' depth
- ⑫ Sta. "L"1023+31.5, Lt.
Adjust inlet
- ⑬ Sta. "L"1023+18.3, Lt.
Const. manhole 72" dia.
Step orientation - 75°
Inst. 10" storm sew. pipe - 31'
5' depth
Connect to extg. inlet
Inst. 12" storm sew. pipe - 15'
5' depth
Inst. 27" storm sew. pipe - 86'
10' depth
Trench resurf. - 10 sq.yd.
- ⑭ Sta. "L"1023+18, Lt.
Const. type "CG-2" inlet
- ⑭A Const. type "G-2" inlet - 2
Const. water quality structure #0818 & #0819 - 2
Inst. 12" storm sew. pipe - 20'
5' depth
(For details, see sht. GJ-5)
- ⑮ Sta. "32ND"108+00, Lt.
Const. type "CG-1" inlet
- ⑯ Sta. "32ND"107+30, Lt.
Const. type "CG-1" inlet
Const. water quality structure
Inst. 18" storm sew. pipe - 70'
5' depth
(For details, see sht. GJ-5)
- ⑰ Sta. "32ND"107+19.7, Lt.
Const. type "CG-1" inlet
Inst. 18" storm sew. pipe - 10'
5' depth
- ⑱ Sta. "32ND"107+09.7, Lt.
Const. type "CG-1" inlet
Const. water quality structure
Inst. 18" storm sew. pipe - 10'
5' depth
(For details, see sht. GJ-5)
- ⑲ Sta. "L"1024+06.2, Lt.
Const. manhole 84" dia.
Step orientation - 245°
Inst. 18" storm sew. pipe - 64'
10' depth
Inst. 24" storm sew. pipe - 39'
5' depth
- ⑳ Sta. "L"1024+70, Lt.
Const. type "M-E" inlet
(See drg. no. RD368)
- ㉑ Sta. "32ND"108+65.5, Lt.
Const. type "CG-1" inlet
- ㉒ Sta. "L"1024+80.8, Rt.
Const. type "G-2" inlet
Const. water quality structure #0820
(For details, see sht. GJ-5)
- ㉓ Sta. "32ND"105+76, Rt.
Const. area drain
Inst. 12" storm sew. pipe - 61'
5' depth
(For details, see sht. 2B-3)
(See drg. no. RD374)
- ㉔ Sta. "32ND"105+20.3, Rt.
Const. area drain
Inst. 12" storm sew. pipe - 54'
5' depth
(For details, see sht. 2B-3)
- ㉕ Sta. "32ND"105+19, Rt.
Const. 128" x 83" arch pipe - 123'
Inst. 12" storm sew. pipe - 20'
5' depth
Connect to arch pipe with saddle
(For details, see shts. GE-2 & GE-3)
- ㉖ Sta. "32ND"104+72.6, Rt.
Const. manhole 60" dia.
Inst. 12" storm sew. pipe - 68'
5' depth
(For details, see sht. GE-3)
- ㉗ Sta. "32ND"104+55, Rt.
Const. type "CG-3" inlet
Const. water quality structure
Inst. 12" storm sew. pipe - 16'
5' depth
(For details, see sht. GJ-5)
- ㉘ Sta. "32ND"104+38.5, Rt.
Const. type "CG-3" inlet
Const. water quality structure
Inst. 12" storm sew. pipe - 10'
5' depth
(For details, see sht. GJ-5)
- ㉙ Sta. "32ND"104+28.5, Rt.
Const. type "CG-3" inlet
Const. water quality structure
(For details, see sht. GJ-5)
- ㉚ Sta. "L"1026+01, Rt.
Const. type "G-2" inlet
Const. water quality structure #0821
10" storm sew. (In pl.)
Remove pipe - 15'
~~Inst. 10" storm sew. pipe - 15'~~
5' depth
Connect to extg. storm sew.
Inst. 12" ductile iron pipe - 106'
5' depth
Trench resurf. - 35.3 sq.yd.
(For details, see sht. GJ-5)
- ㉛ Sta. "L"1027+00.7, Rt.
Const. type "G-2" inlet
Const. water quality structure #0822
(For details, see sht. GJ-5)
- ㉜ Sta. "L"1028+54.6, Lt.
Const. type "G-1" inlet
Inst. 12" ductile iron pipe - 67'
5' depth
Inst. 15" storm sew. pipe - 109'
5' depth
Connect extg. 12" storm
Inst. flow splitter
(For details, see sht. GE-4)
- ㉝ Sta. "L"1029+66.6, Lt.
Const. type "G-1" inlet
Inst. 15" storm sew. pipe - 93'
5' depth
- ㉞ Sta. "L"1030+61.5, Lt.
Const. type "G-1" inlet
Inst. 15" storm sew. pipe - 97'
5' depth
Const. paved end slope, Lt.
- ㉟ Remove extg. illumination
- ㊱ Remove inlet - 2
Remove pipe - 42'

REVISED AS CONSTRUCTED
STEVEN SCHULTZ, PE

DATE 6/21/14

 OREGON DEPARTMENT OF TRANSPORTATION

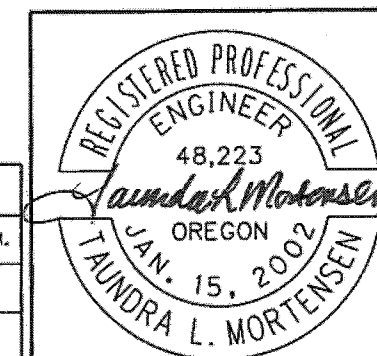
REGION 2 TECH CENTER

FFO - US101: S.E. 23RD DR. - S.W. 35TH ST.
(LINCOLN CITY) SEC.
OREGON COAST HIGHWAY
LINCOLN COUNTY

Design Team Leader - Carol Cartwright
Designed By - Tandra Mortensen
Drafted By - Charlotte Gerken

DRAINAGE NOTES

SHEET NO.
6B-2



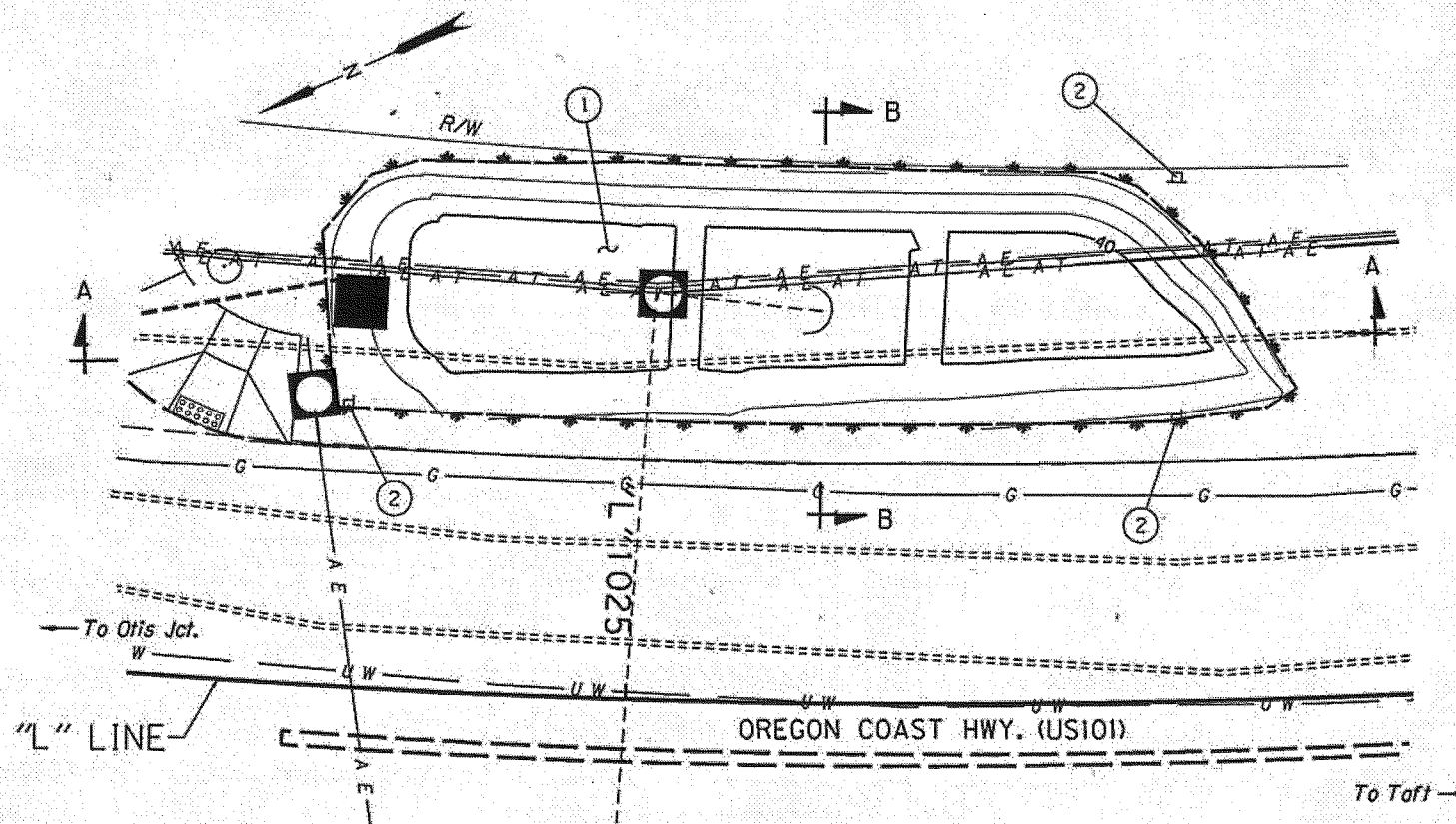
RENEWS: 12-31-2014

No.	DATE	REVISIONS	BY
①	01-27-14	Added 5' depth	T.L.M.

REVISED AS CONSTRUCTED
STEVEN SCHULTZ, PE

SS
DATE 6/21/16

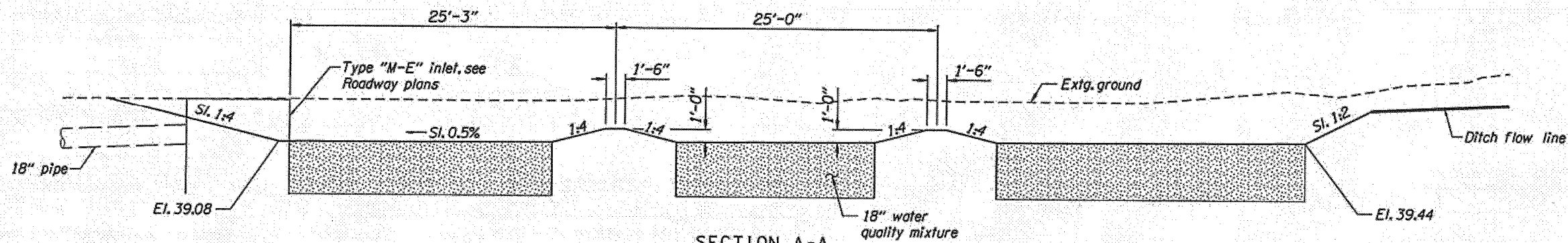
- ① Sta. "L" 1024+65 to "L" 1025+70
Construct water quality bio-filtration
swale 00832
Water Quality Mixture - 55 cu.yd.
Gen. Exc. - 310 cu.yd.
- ② Stormwater facility marker
(See "Swale 00832 Marker Table")
(See dwg. RD399)



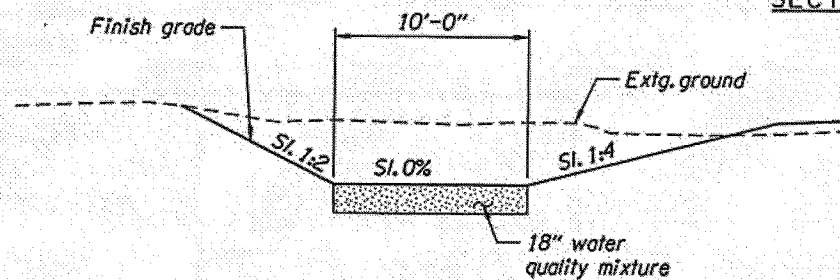
PLAN

SWALE 00832 MARKER TABLE

TYPE		LOCATION			
S1	S2	RED	GREEN	NORTHING	EASTING
	✓			485133.91	7291538.08
✓			✓	485222.35	7291551.88
✓		✓		485144.28	7291515.06



SECTION A-A



SECTION B-B

WATER QUALITY BIO-FILTRATION SWALE DETAILS

NOTE:
Slopes are shown as vertical to horizontal.

OREGON DEPARTMENT OF TRANSPORTATION

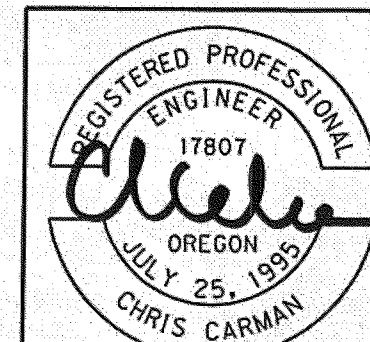
REGION 2 TECH CENTER

FFO - US101: S.E. 23RD DR. - S.W. 35TH ST.
(LINCOLN CITY) SEC.
OREGON COAST HIGHWAY
LINCOLN COUNTY

Reviewed By - Bruce Carmichael, P.E.
Designed By - Chris Carman, P.E.
Drafted By - Julie Rentz

**STORMWATER
DETAILS**

SHEET
NO.
GJ-7



RENEWS: 12-31-2013