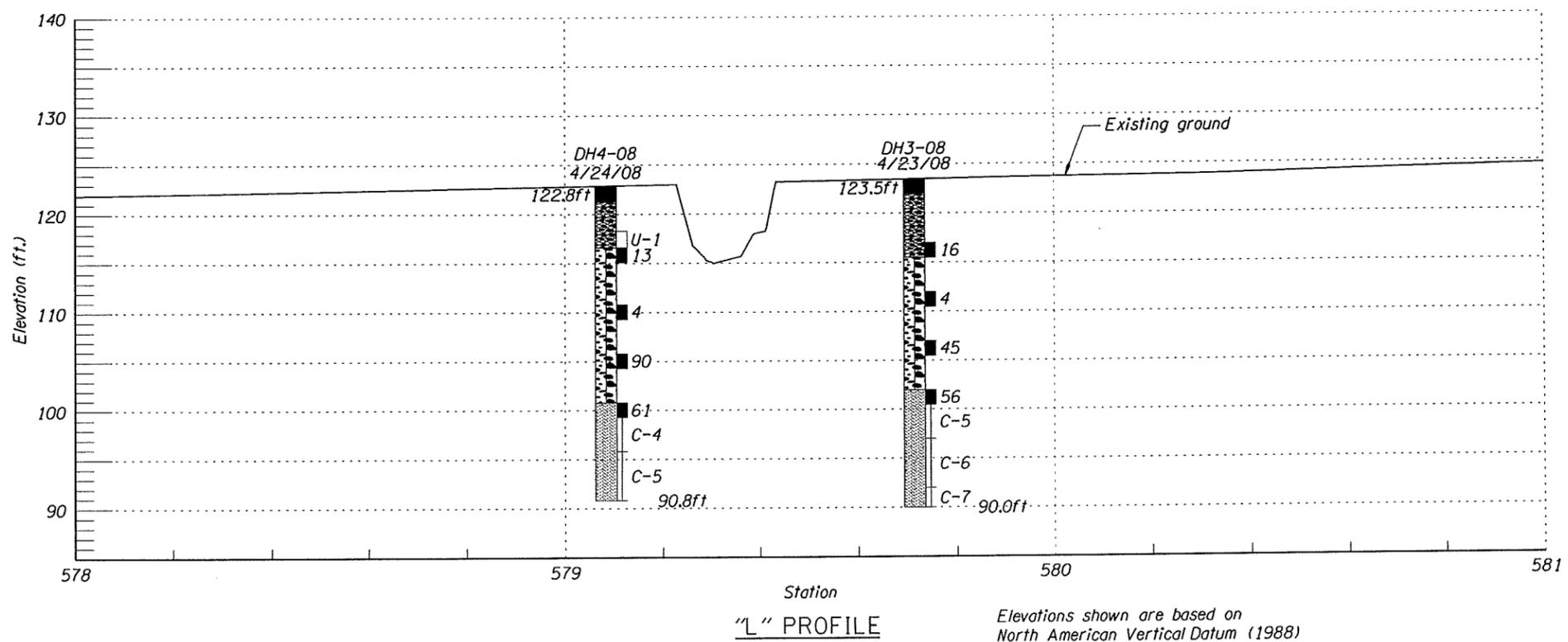


Unit Description

- Asphalt Concrete and Aggregate Base (Fill)
- ▨ Sandy SILT with some gravel to sandy GRAVEL with some silt, MH to GW-GM, grey and brown, nonplastic to medium plasticity, wet, medium dense, gravel to 2" diameter (Fill)
- ▨ Sandy SILT to sandy silty GRAVEL, MH to GW-GM to GM, grey and orange brown, nonplastic to medium plasticity, wet, medium stiff and loose to very dense, gravel and cobbles to 6" diameter (Alluvium)
- ▨ SANDSTONE, grey to grey and light grey, moderately weathered, R0, dark grey clay laminations, grading to Sandy SILTSTONE, grey, moderately weathered to fresh, R1 (Bedrock)



Legend

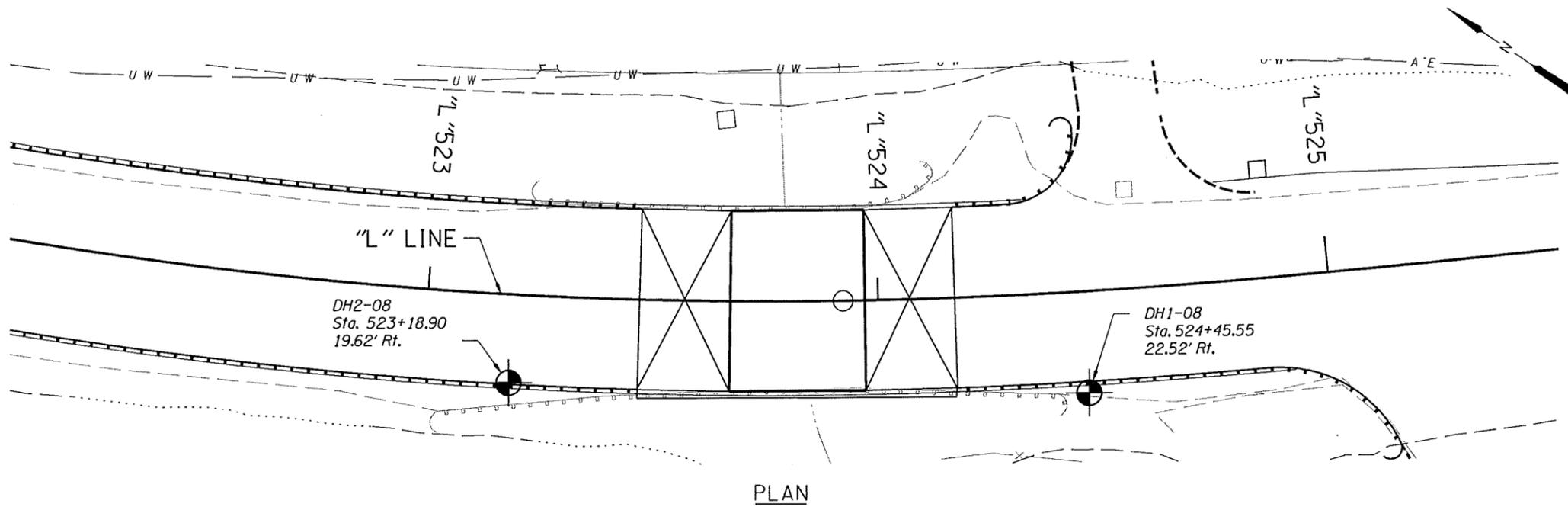
- 24 ■ = Standard Penetration Test - N Value
- C-1 ▨ = Core Sample
- U-1 □ = Undisturbed Sample

DH3-08			
Core	% Rec.	Hardness	R.Q.D.
C5	100	R1	74
C6	100	R1	90
C7	100	R1	67

DH4-08			
Core	% Rec.	Hardness	R.Q.D.
C4	100	R1	52
C5	100	R1	86

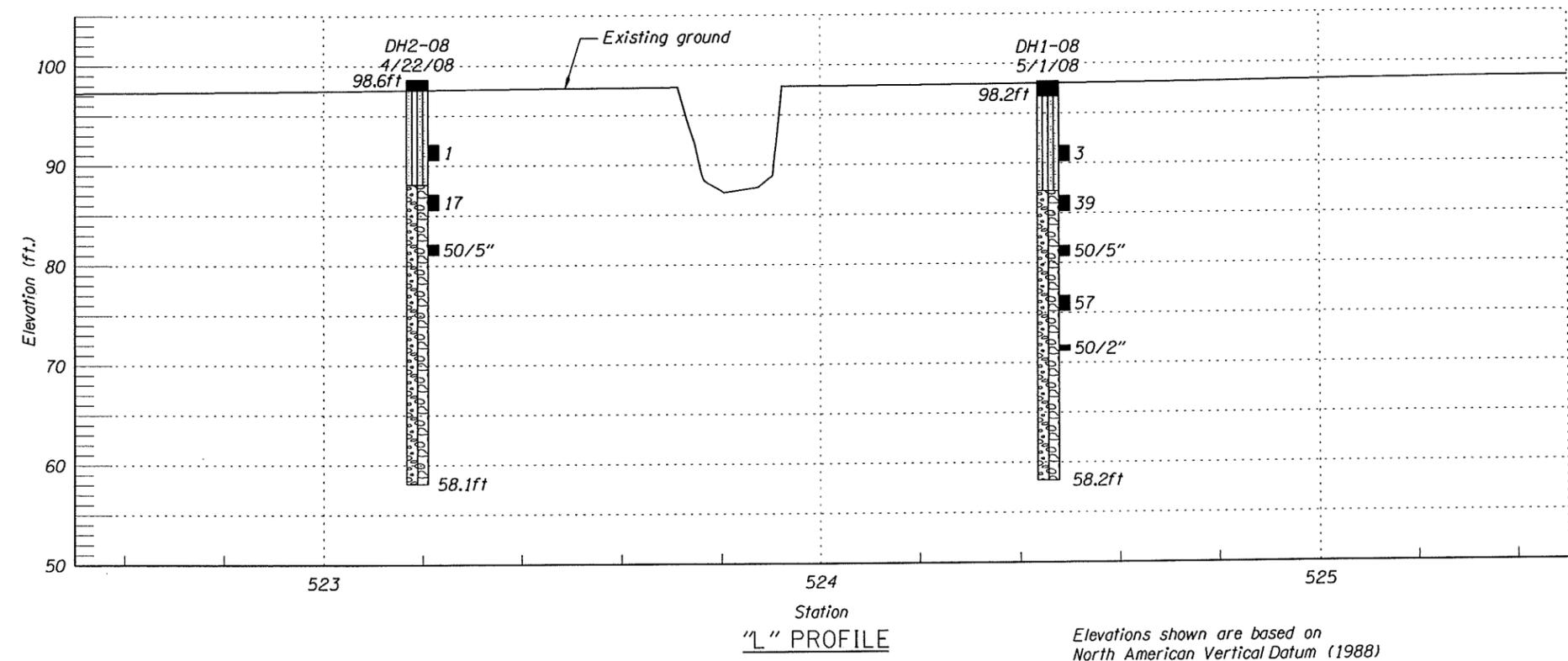
Geotechnical data shown on this drawing are a consolidation of information and/or revision in terminology from the drill logs. The drill logs used in compiling this drawing are available upon request. Contractor shall refer to geotechnical reports and drill logs and information contained therein.

	DATE	REVISION	BY	DRAFTER: Michael Skelton	 OREGON DEPARTMENT OF TRANSPORTATION REGION 2 TECH CENTER	STRUCTURE NO. 21189	JOHNSON CREEK, HWY 47 AT MP 3.26 OR26: VOLMER CREEK BRIDGE & JOHNSON CREEK BRIDGE PROJECT SUNSET HIGHWAY (M.P. 3.26) CLATSOP CO.	SHEET 3 OF 12
				DESIGNER: Michael Tardif		DATE APR 2010		FOUNDATION DATA
ACCOMPANIED BY DWGS. See dwg. 84070				CHECKER: ---		CALC. BOOK ---	84072	
				REVIEWER: Jeff Berry				



Unit Description

- Asphalt Concrete and Aggregate Base (Fill)
- ▨ Silty SAND with some gravel to sandy SILT with some gravel and varying amounts of organics, SM to MH, orange brown and grey, medium plasticity, wet, very soft to medium stiff, gravel to 3" diameter (Fill)
- ▨ GRAVEL with some sand and silt and cobbles to sandy GRAVEL with some silt, GP-GM, grey and orange brown, low plasticity to non plastic, wet, medium dense to very dense, cobbles to 6" diameter (Alluvium)



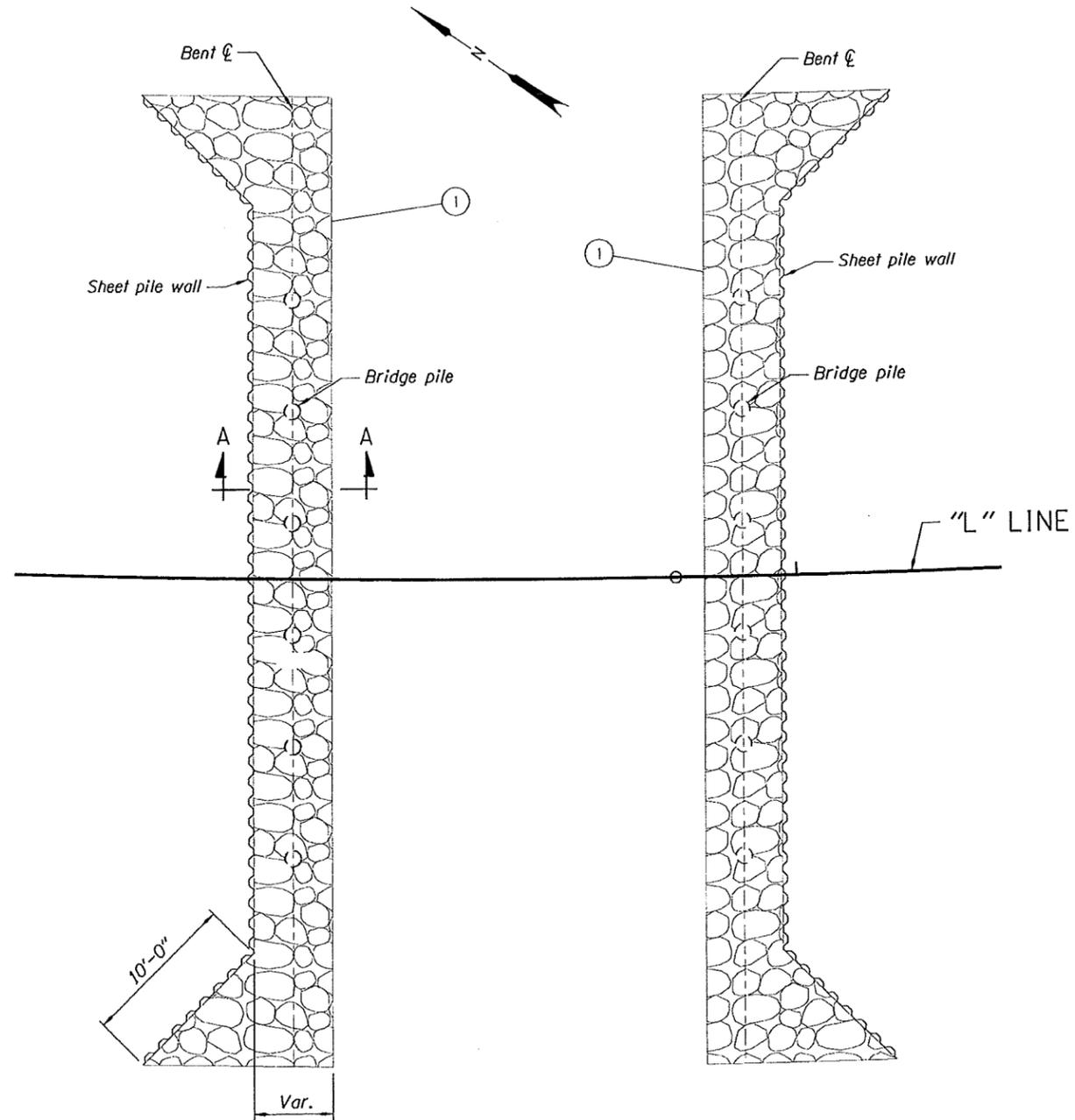
Legend

- 24 ■ = Standard Penetration Test - N Value
- U-1 □ = Undisturbed Sample

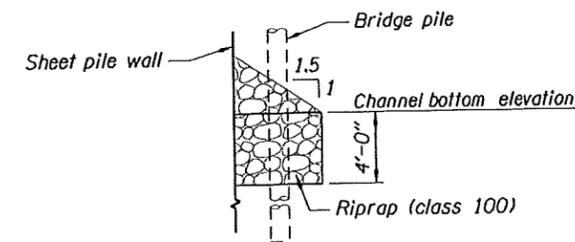
Geotechnical data shown on this drawing are a consolidation of information and/or revision in terminology from the drill logs. The drill logs used in compiling this drawing are available upon request. Contractor shall refer to geotechnical reports and drill logs and information contained therein.

DATE	REVISION	BY	DRAFTER: Michael Skelton			STRUCTURE NO.	VOLMER CREEK, HWY 47	SHEET 3 OF 12
			DESIGNER: Michael Tardif			21188		
ACCOMPANIED BY DWGS. See dwg. 84057			CHECKER: ---	REGION 2 TECH CENTER	APR 2010	OR26: VOLMER CREEK BRIDGE & JOHNSON CREEK BRIDGE PROJECT	SUNSET HIGHWAY (M.P. 2.24) CLATSOP CO.	DRAWING NO.
			REVIEWER: Jeff Berry	EXP. 11-30-2010	---	FOUNDATION DATA		84059

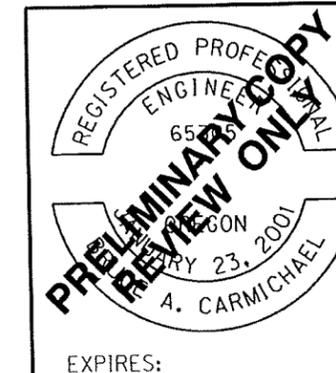
① Const. loose riprap (class 100)
 Volmer Creek Bridge - 143 cu.yds.
 Johnson Creek Bridge - 192 cu.yds.
 (For details, see sht. GP-2)



TYPICAL WALL TOE RIPRAP PLAN



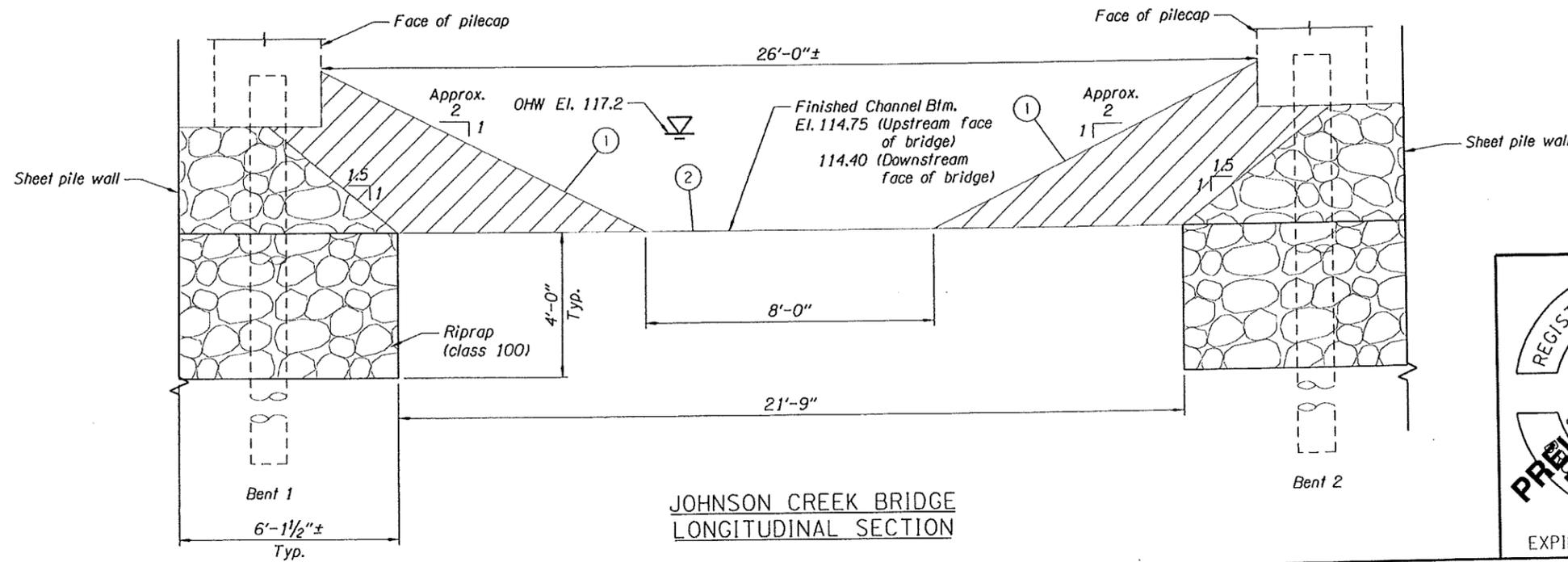
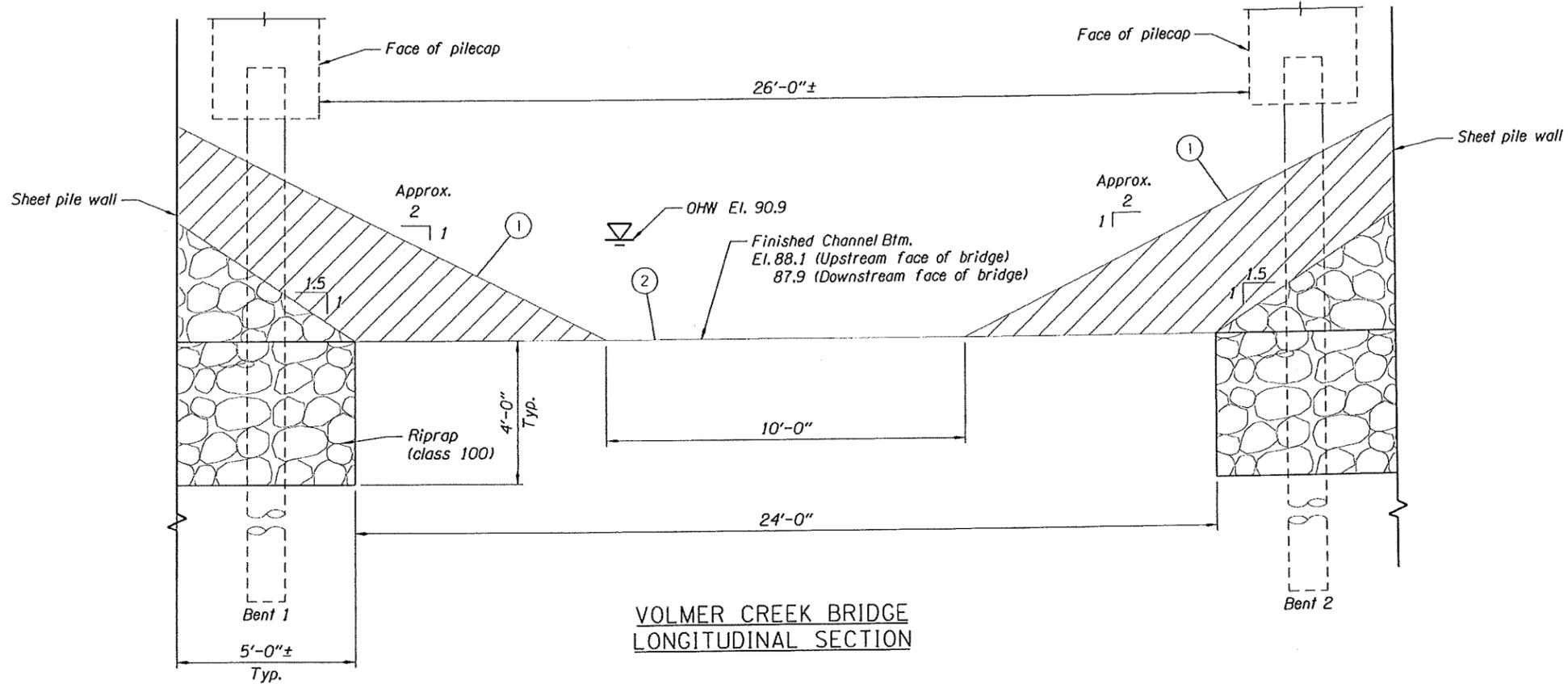
SECTION A-A



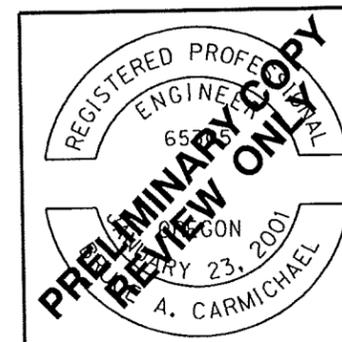
EXPIRES:

 OREGON DEPARTMENT OF TRANSPORTATION	
REGION 2 TECH CENTER	
US26: VOLMER CREEK BRIDGE & JOHNSON CREEK BRIDGE PROJECT SUNSET HIGHWAY CLATSOP COUNTY	
Reviewed By - Chris Carman, P.E. Designed By - Bruce A. Carmichael Drafted By - Sandra Gish	
WATERWAY ENHANCEMENT PLAN	SHEET NO. GP

- ① Construct channel side slopes with material saved from excavation. Slope material a mix of 2 parts sand and finer and 3 parts gravel and cobble.
Volmer Creek Bridge - approx. 100 cu.yds.
Johnson Creek Bridge - approx. 85 cu.yds.
- ② Save channel bottom material (bed load) disturbed by construction of channel under bridge. Place this material on top of re-constructed channel. Do not exceed finished channel bottom elevation.

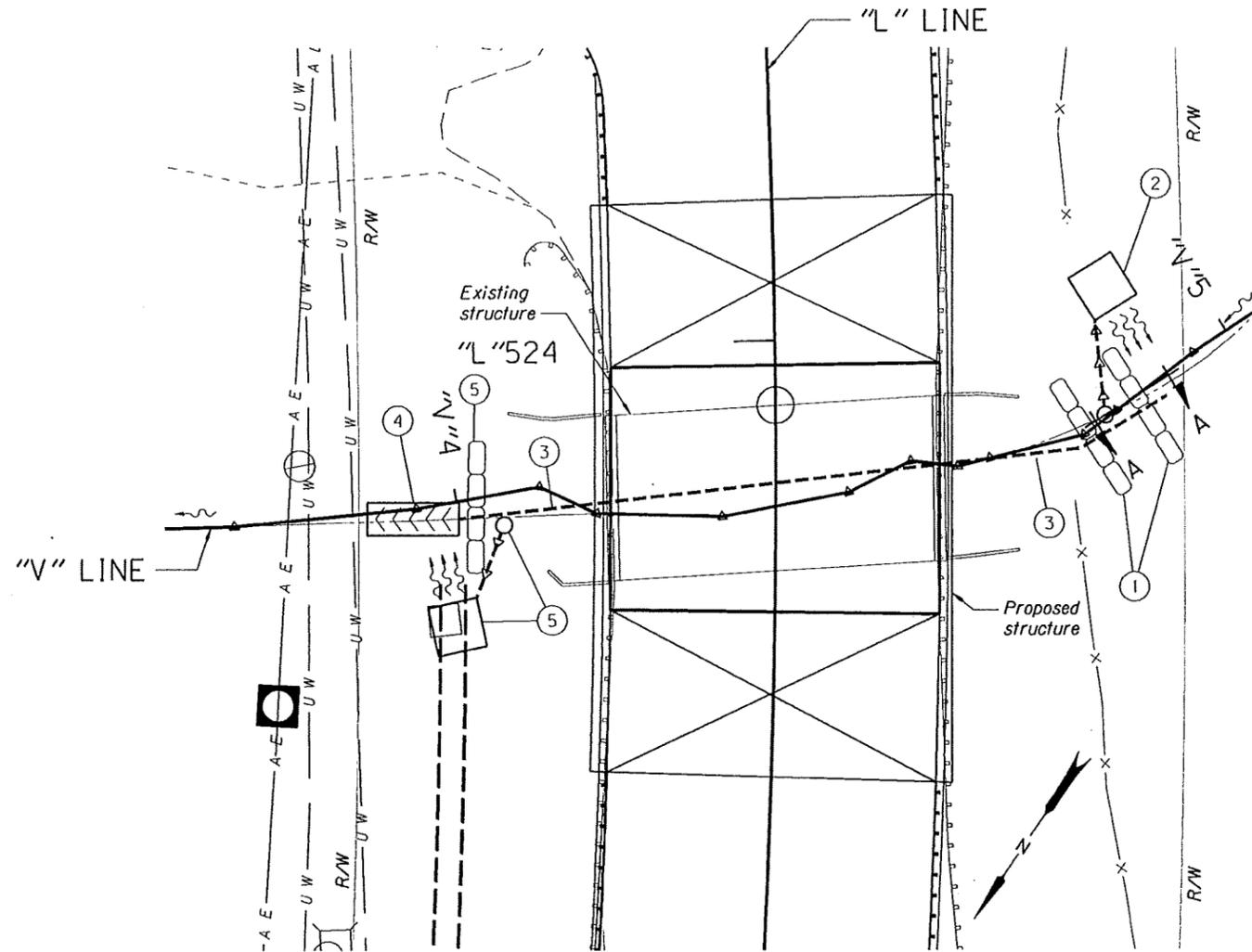


Erodible channel walls



OREGON DEPARTMENT OF TRANSPORTATION	
REGION 2 TECH CENTER	
US26: VOLMER CREEK BRIDGE & JOHNSON CREEK BRIDGE PROJECT SUNSET HIGHWAY CLATSOP COUNTY	
Reviewed By - Chris Carman, P.E. Designed By - Bruce A. Carmichael Drafted By - Sandra Gish	
WATERWAY ENHANCEMENT SECTIONS	SHEET NO. GP-2

VOLMER CREEK



PLAN

- ① Inst. primary sand bag dam across the creek channel, upstream of the work area to be isolated. Inst. secondary sand bag, if needed, to stop water flow into work area.
- ② Inst. pump/filter system. Pump water seeping past upstream sand bag dam to an approved area upstream and filter water to control turbidity.
- ③ Inst. water diversion pipe and size pipe, dams and pump based on "Maximum Predicted Discharge" and based on site conditions. Reposition pipe in work area, as necessary, as work progresses.
- ④ Inst. hydraulic energy dissipator at Temporary Water Management pipe outlet to prevent scour.
- ⑤ Inst. pump/filter and sand bag dam, as necessary, to filter water if turbid.

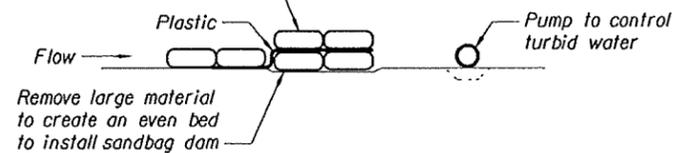
GENERAL NOTES:

The implementation of these Temporary Water Management plans and the construction, maintenance, replacement and upgrading of these facilities are the responsibility of the Contractor until all construction is completed and approved.

The Temporary Water Management facilities shown on this plan are the minimum requirements for anticipated site conditions. During the construction periods, these facilities shall be upgraded for unexpected storm events and to insure that sediment and sediment-laden water does not leave the site.

Fish salvage must be completed prior to the start of Temporary Water Management.

Top of sand bag dam should be a min. of 1 ft. higher than top of pipe



SECTION A-A

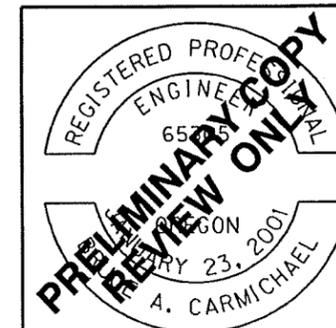
NOTE:
Width and depth of sand bag dam will vary depending on stream elevation contours and discharge rates.

Estimated discharge for temporary water management:

MAXIMUM PREDICTED DISCHARGE	
IN WATER WORK PERIOD	DISCHARGE, CFS (gpm)
JULY 1 - SEPTEMBER 15	4.07 (1,825)

Discharges are not expected to exceed the maximum predicted discharge.

OHW El. 90.9



EXPIRES:

OREGON DEPARTMENT OF TRANSPORTATION

REGION 2 TECH CENTER

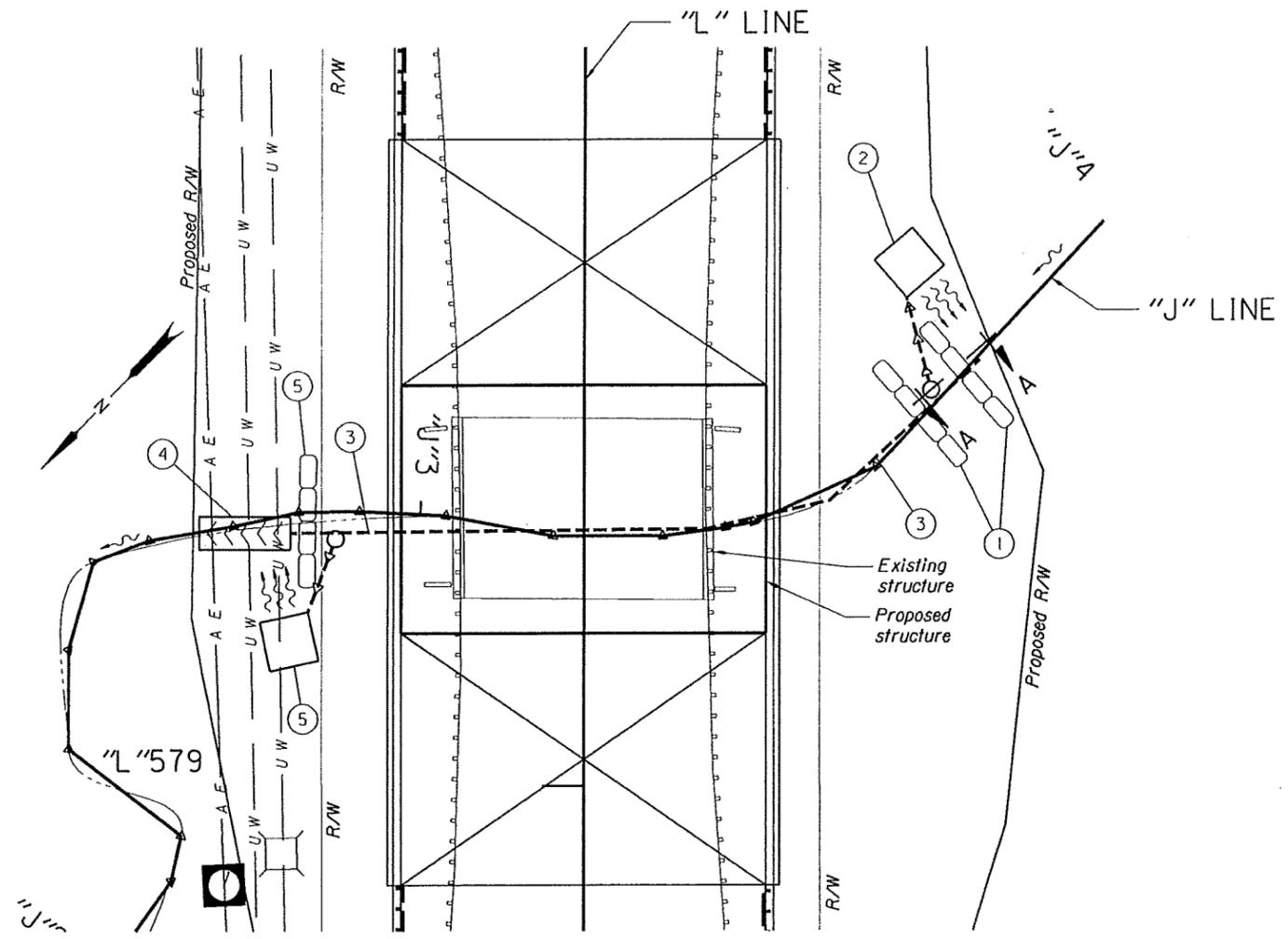
US26: VOLMER CREEK BRIDGE & JOHNSON CREEK BRIDGE PROJECT
SUNSET HIGHWAY
CLATSOP COUNTY

Reviewed By - Chris Corman, P.E.
Designed By - Bruce A. Carmichael
Drafted By - Sandra Gish

TEMPORARY WATER MANAGEMENT

SHEET NO.
GG

JOHNSON CREEK



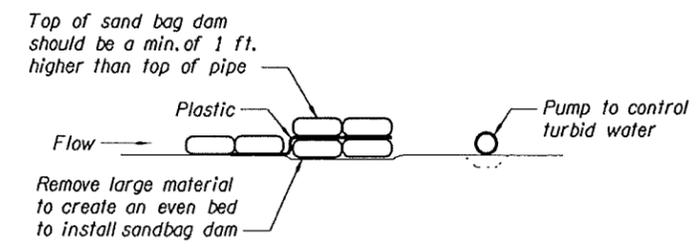
- ① Inst. primary sand bag dam across the creek channel, upstream of the work area to be isolated. Inst. secondary sand bag, if needed, to stop water flow into work area.
- ② Inst. pump/filter system. Pump water seeping past upstream sand bag dam to an approved area upstream and filter water to control turbidity.
- ③ Inst. water diversion pipe and size pipe, dams and pump based on "Maximum Predicted Discharge" and based on site conditions. Reposition pipe in work area, as necessary, as work progresses.
- ④ Inst. hydraulic energy dissipator at Temporary Water Management pipe outlet to prevent scour.
- ⑤ Inst. pump/filter and sand bag dam, as necessary, to filter water if turbid.

GENERAL NOTES:
 The implementation of these Temporary Water Management plans and the construction, maintenance, replacement and upgrading of these facilities are the responsibility of the Contractor until all construction is completed and approved.

The Temporary Water Management facilities shown on this plan are the minimum requirements for anticipated site conditions. During the construction periods, these facilities shall be upgraded for unexpected storm events and to insure that sediment and sediment-laden water does not leave the site.

Fish salvage must be completed prior to the start of Temporary Water Management.

PLAN



NOTE:
 Width and depth of sand bag dam will vary depending on stream elevation contours and discharge rates.

SECTION A-A

Estimated discharge for temporary water management:

MAXIMUM PREDICTED DISCHARGE	
IN WATER WORK PERIOD	DISCHARGE, CFS (gpm)
JULY 1 - SEPTEMBER 15	2.54 (1,140)

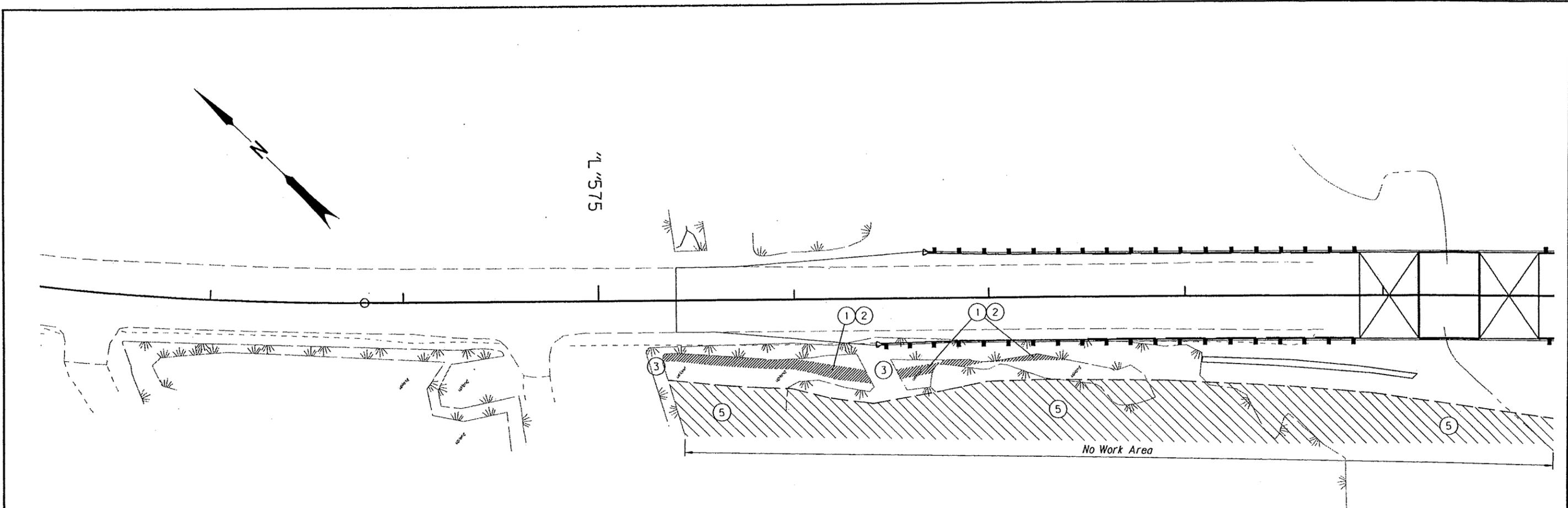
Discharges are not expected to exceed the maximum predicted discharge.

OHW El. 117.2



EXPIRES:

OREGON DEPARTMENT OF TRANSPORTATION	
REGION 2 TECH CENTER	
US26: VOLMER CREEK BRIDGE & JOHNSON CREEK BRIDGE PROJECT SUNSET HIGHWAY CLATSOP COUNTY	
Reviewed By - Chris Carmon, P.E. Designed By - Bruce A. Carmichael Drafted By - Sandra Gish	
TEMPORARY WATER MANAGEMENT	SHEET NO. GG-2



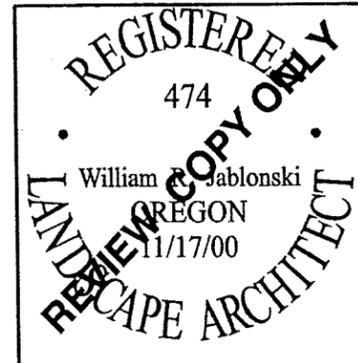
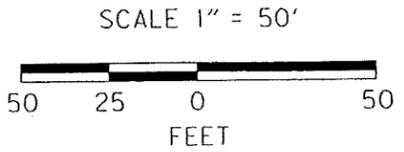
LEGEND:

- Edge of Existing Wetland
- Edge of New Roadside Ditch
- Selected Topsoil
- Planting
- No Work Area

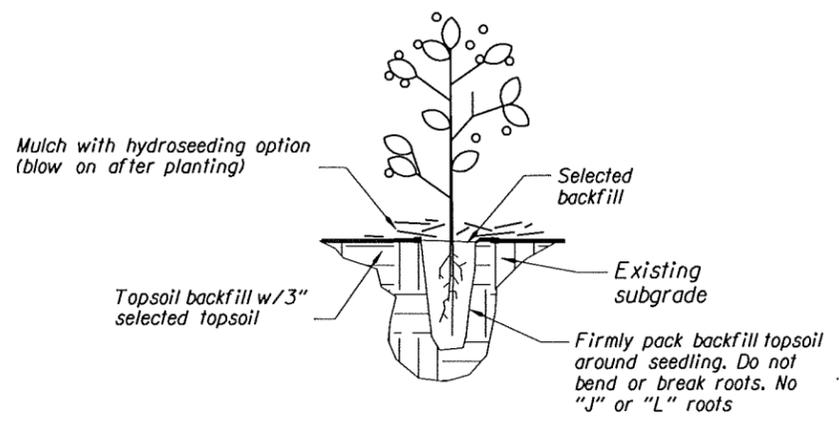
- ① **Wetland Seeding Area**
Provide and place Selected Topsoil to 3" depth above excavated ditch elevation. Review pre -finish grades with Engineers and Wetland Specialist prior to final grading.
- ② **Plant the following :**
Oenanthe sarmentosa - 60
Carex onupta - 100
Scirpis microcarpus - 100
- ③ **Remove existing noxious vegetation including English Ivy (Hedra) & Armenian blackberry (Rabus armeniacus) from with in work limits.**
- ④ **Seed all areas disturbed by construction.**
- ⑤ **Alteration or disturbance of existing forested wetlands outside of project limits is prohibited. See Standard Specifications, 0290.41(b).**

PLANT LIST

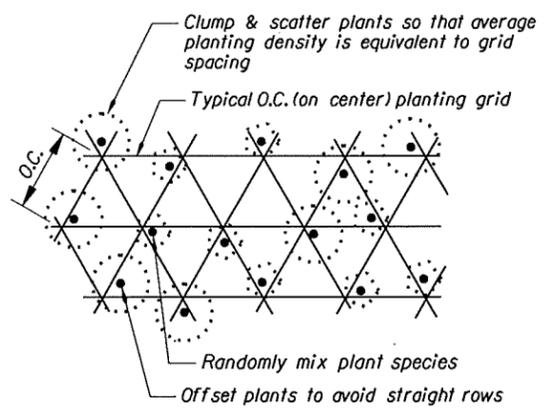
Botanical Name	Common Name	Size & Description	Total
Oenanthe sarmentosa	Water Parsley	Plugs	60
Carex onupta	Slough Sedge	Plugs	100
Scirpis microcarpus	Small-fruited bulrush	Plugs	100



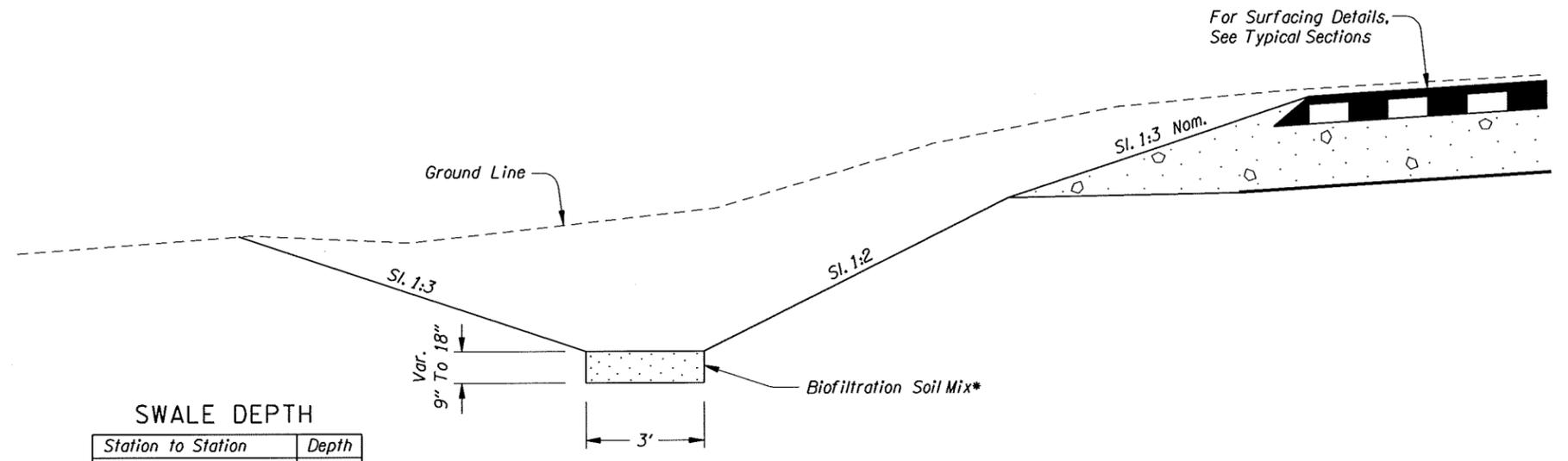
OREGON DEPARTMENT OF TRANSPORTATION	
REGION 2 TECH CENTER	
OR26: VOLMER CREEK BRIDGE & JOHNSON CREEK BRIDGE REPLACEMENT SUNSET HIGHWAY CLATSOP COUNTY	
Design Team Leader - Carol Cortwright Designed By - William R. Jablonski Drafted By - Michael Skelton	
ROADSIDE DEVELOPMENT PLAN	SHEET NO. GN-1



BARE ROOT PLANTING



RANDOM PLANTING PATTERN



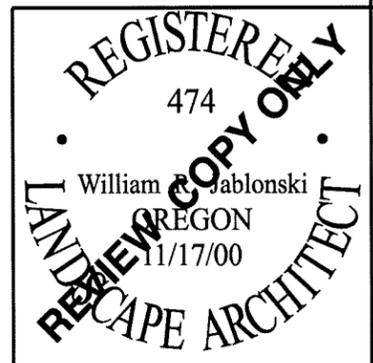
SWALE DEPTH

Station to Station	Depth
522+30 523+70	18"
579+48 580+00	18"
580+00 580+94	9"
581+33 582+80	9"

Sta. "L" 522+30 To Sta. "L" 523+70, Lt.
 "L" 579+48 To "L" 580+94, Lt.
 "L" 581+32.5 To "L" 582+80, Lt.

*Seed biofiltration swale areas with water quality seed mix - 0.5 ac

WATER BIOFILTRATION SWALE



OREGON DEPARTMENT OF TRANSPORTATION

REGION 2 TECH CENTER

OR26: VOLMER CREEK BRIDGE & JOHNSON CREEK BRIDGE REPLACEMENT
 SUNSET HIGHWAY
 CLATSOP COUNTY

Design Team Leader - Carol Cartwright
 Designed By - William R. Jablonski
 Drafted By - Michael Skelton

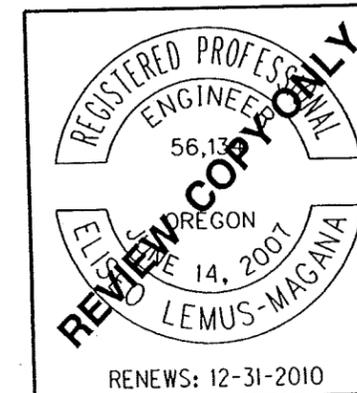
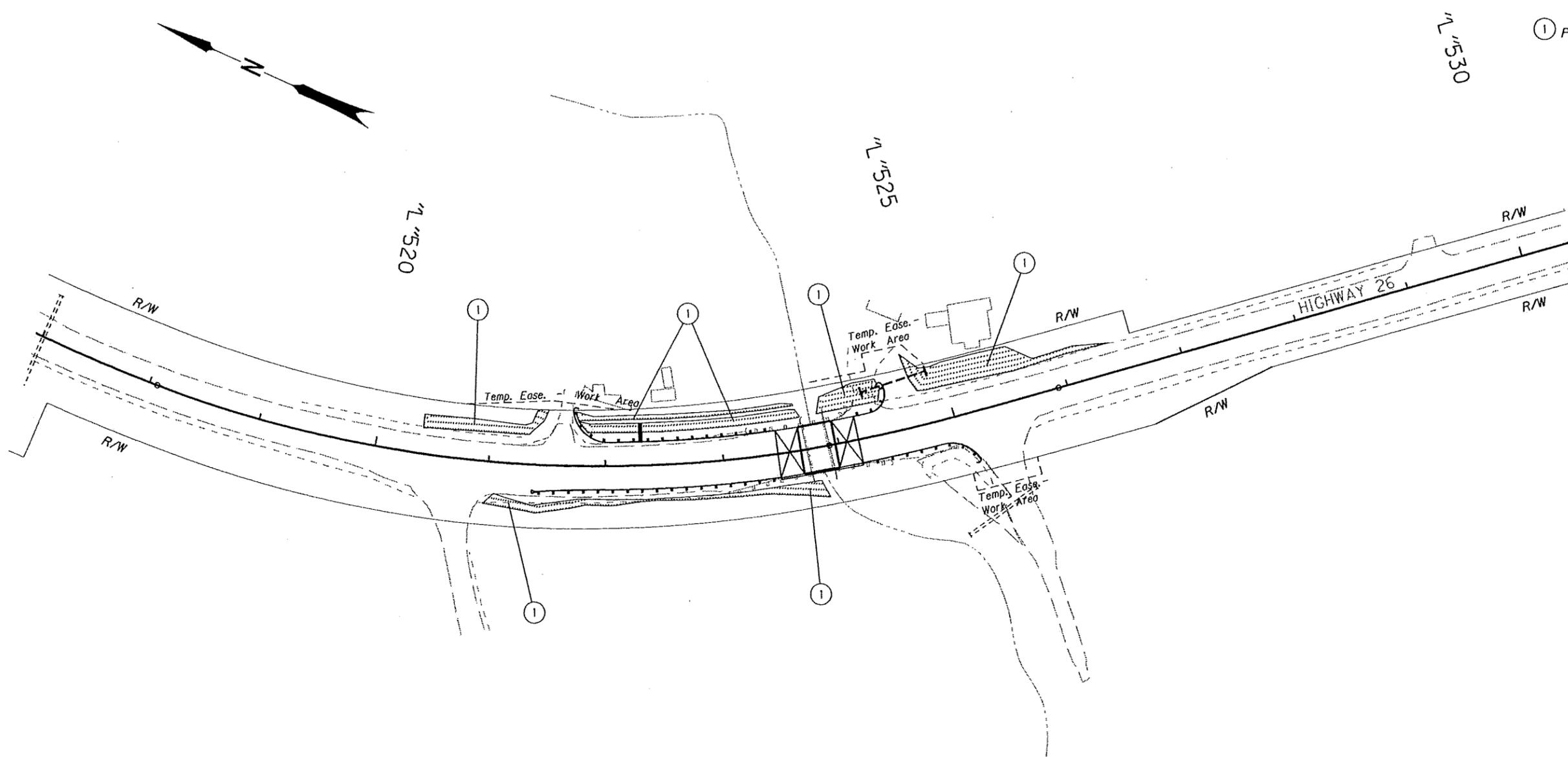
ROADSIDE DEVELOPMENT DETAILS

SHEET NO.
GN-2

Sec. 14, T. 5 N., R. 10 W., W.M.

ADVANCE COPY
SUBJECT TO CHANGE

① Permanent Seed Mix, No. 1
Shown Thus: [Dotted Pattern]

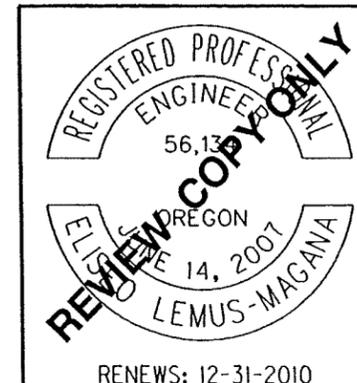
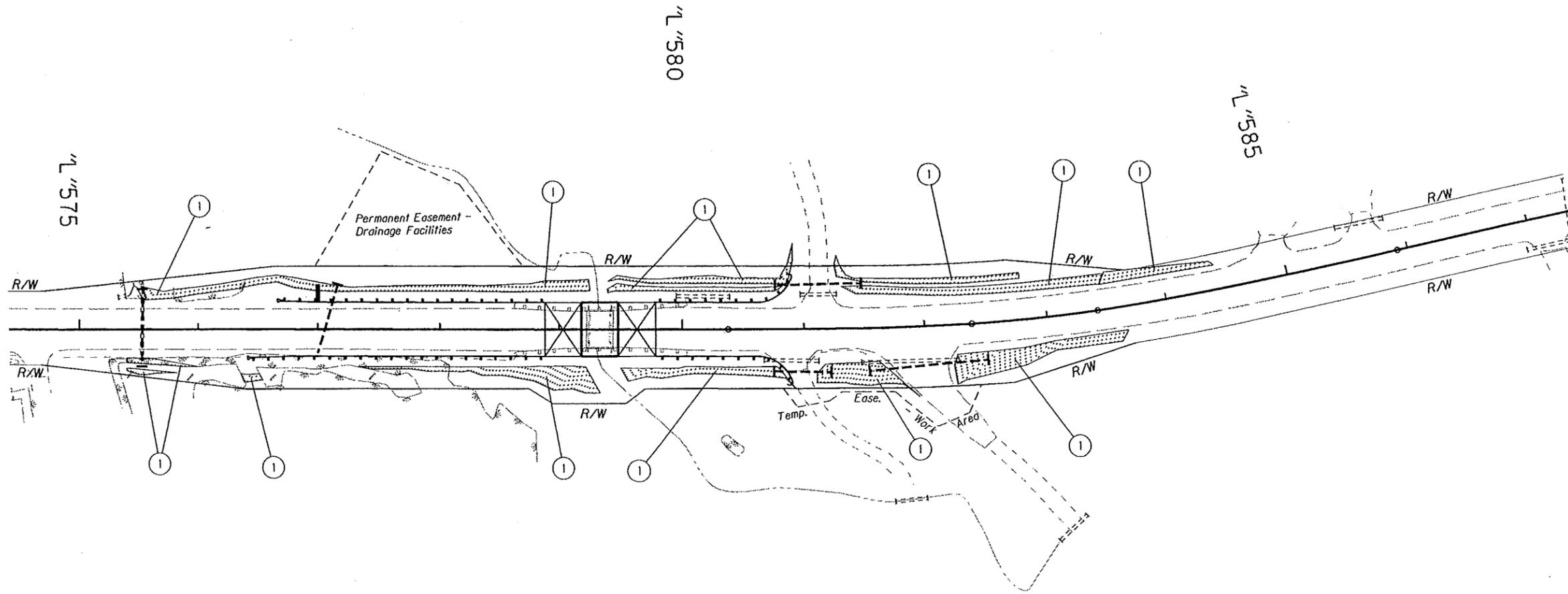
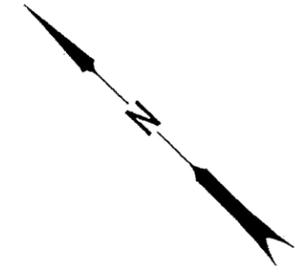


 OREGON DEPARTMENT OF TRANSPORTATION	
REGION 2 TECH CENTER	
US26: VOLMER CREEK BRIDGE & JOHNSON CREEK BRIDGE PROJECT SUNSET HIGHWAY CLATSOP COUNTY	
Design Team Leader - Carol Cartwright Designed By - Eliseo Lemus M. Drafted By - Larry D. Garrison	
ROADSIDE DEVELOPMENT PLAN	SHEET NO. GN-3

Sec. 14, T. 5 N., R. 10 W., W.M.

ADVANCE COPY
SUBJECT TO CHANGE

① Permanent Seed Mix, No. 1
Shown Thus: [hatched box]



RENEWS: 12-31-2010

 OREGON DEPARTMENT OF TRANSPORTATION

REGION 2 TECH CENTER

US26: VOLMER CREEK BRIDGE &
JOHNSON CREEK BRIDGE PROJECT
SUNSET HIGHWAY
CLATSOP COUNTY

Design Team Leader - Carol Cartwright
Designed By - Eliseo Lemus M.
Drafted By - Larry D. Garrison

ROADSIDE DEVELOPMENT PLAN

SHEET NO.
GN-4