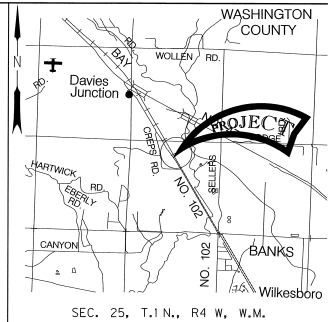


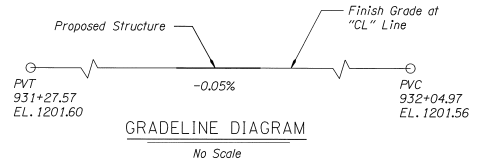
HYDRAULIC DATA				
ITEMS	UNITS	DESIGN FLOOD	BASE FLOOD	ROADWAY OVERTOPPING FLOOD
DISCHARGE	ft. <sup>3</sup> /s	123	500	2100
RECURRENCE INTERVAL	years	50	100	500
HIGH WATER ELEVATION AT UPSTREAM FACE OF BRIDGE ALONG EMBANKMENT	feet*	1195.6	1199.3	1199.8
BACKWATER	feet*	1195.6	1199.4	1201.8

\* Assumed vertical datum (999.78 ft above NAVD 29)



LOCATION MAP  
No Scale

Note:  
Elevations shown are at top of prestressed slab @ C.C. of bents and 20' Lt. and Rt.



GRADELINE DIAGRAM  
No Scale

Note: Elevations shown are based on an assumed elevation

DATE	REVISION	BY	DRAFTER: Tony Johnson
			DESIGNER: Susan Kocher
			CHECKER: Nowzar Ardatan
			REVIEWER: Anthony P. Stratis



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**REGION 1 BRIDGE ENGINEERING**  
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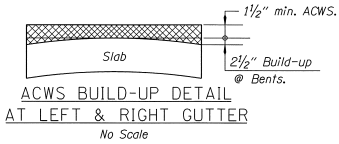
STRUCTURE NO. 20316	DAIRY CREEK OVERFLOW, HWY 102 DAIRY CREEK OVERFLOW SEC. NEHALEM HWY NO. 102 (OR 47) M.P. 81.94 WASHINGTON COUNTY
DATE May 21, 2007	
CALC. BOOK 5359	PLAN AND ELEVATION

SHEET 1 OF 8
DRAWING NO. 74138

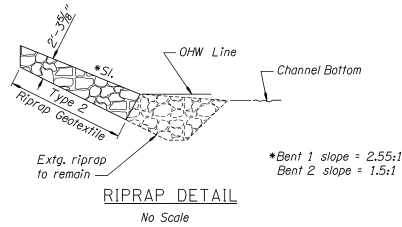
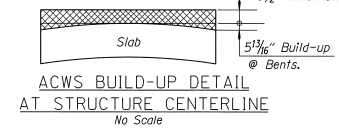
**Notes:**

Deck elevations shown are top of concrete slab at right and left gutter line, 4" below finish grade as calculated below:

- Min. ACWS----- 1 1/2"
- Actual (avg.) camber----- 2 3/4"
- Downward due to ACWS----- -1/4"
- Wearing surface thickness @ Bents--- 4"



- Min. ACWS at gutter line----- 1 1/2"
- Actual (avg.) camber----- 2 3/4"
- Downward due to ACWS----- -9/16"
- Wearing surface thickness @ Bents--- 7 7/16"



**General Notes:**

Provide all materials and perform all work according to the 2002 Oregon Standard Specifications for Construction

Bridge is designed with an allowance of 25 psf for future wearing surface and all of the following Live Loads according to the 2004 AASHTO LFRD Bridge Design Specifications Third Edition, and the ODOT Bridge Design & Drafting Manual (BDDM) 2004 with November 2005 revisions.

Service and Strength - 1 Limit States:

- HL-9.3 Design Truck (for trucks per LFRD 3.6.1.3) or the design tandems and the design lane load

Strength 2 Limit States:

- ODOT OR-STP-5BW permit truck

- ODOT OR-STP-5C permit truck

Seismic design is in accordance with the AASHTO "LFRD Bridge Design Specifications" as modified by the "ODOT Bridge Design & Drafting Manual" for 500 and 1000-year criteria. The site peak bedrock acceleration coefficient (A) for 500-year (serviceable) and 1000-year (no collapse) return periods are 0.19g and 0.27g respectively and assumed site coefficient (S) is 1.5.

The Response Modification Factors used are:

- R=0.8 for superstructure connections

- R=1.0 for other components

See Footing Plan for foundation design notes

Provide structural steel according to ASTM Specifications in accordance with detail plans.

All welding shall be in accordance to AWS D1.1 Structural Welding Code and performed by Welder Certified under AWS D1.1.

**Staging Notes:**

**Stage I:**

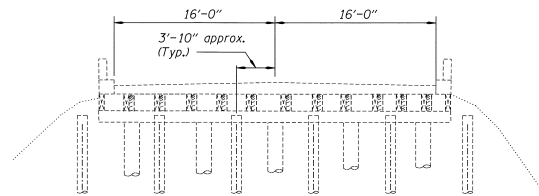
1. Drive piles (Completed, shown for information only).

**Stage II:**

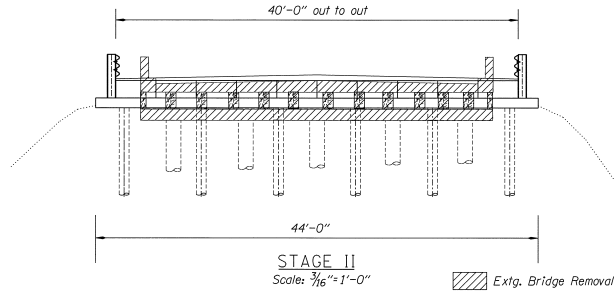
1. Setup detour route and close bridge to traffic.
2. Remove existing bridge and excavate for pile caps.
3. Cut piles to correct elevation add cover plates.
4. Place pile caps.
5. Place slabs and grout keyways.
6. Widen roadway approaches, place guardrail pave new ACWS, and striping.
7. Remove detour route and open bridge to traffic.

**Note:**

1. See Traffic Control Plans for Roadway Staging



**STAGE I**  
Scale: 3/16"=1'-0"



**STAGE II**  
Scale: 3/16"=1'-0"

DATE	REVISION	BY

DRAFTER: Tony Johnson  
 DESIGNER: Susan Kocher  
 CHECKER: Nowzar Ardalan  
 REVIEWER: Anthony P. Stratis, Antony P. Stratis

ACCOMPANIED BY DWGS. See Sheet 1



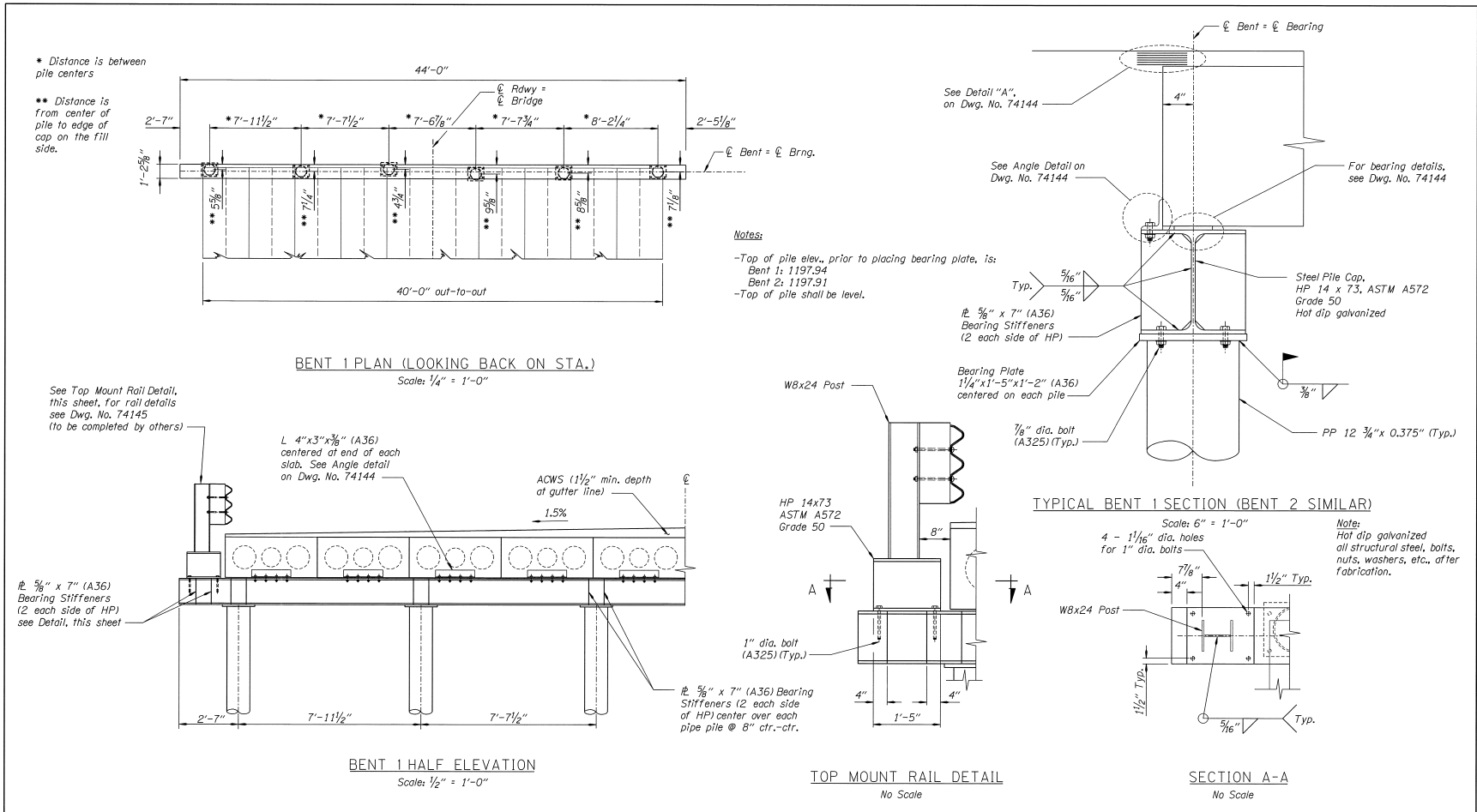
**OREGON DEPARTMENT OF TRANSPORTATION**

**REGION 1 BRIDGE ENGINEERING**  
 123 NW FLANDERS STREET  
 PORTLAND, OR 97209  
 (503) 731-8200

STRUCTURE NO. 20316
DATE May 21, 2007
CALC. BOOK 5359

DAIRY CREEK OVERFLOW, HWY 102 DAIRY CREEK OVERFLOW SEC. NEHALEM HWY NO. 102 (OR 47) M.P. 81.94 WASHINGTON COUNTY
GENERAL NOTES AND STAGING

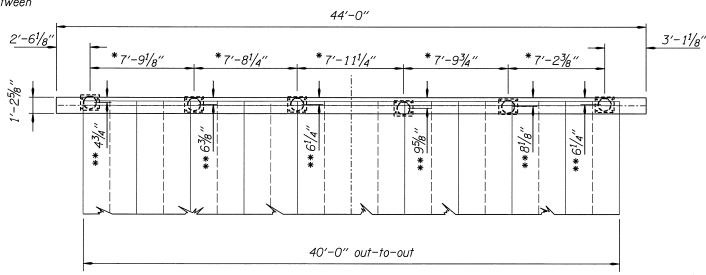
SHEET 2 OF 8
DRAWING NO. 74139



DATE	REVISION	BY	DRAFTER: Tony Johnson	STRUCTURE NO. 20316	DAIRY CREEK OVERFLOW, HWY 102 DAIRY CREEK OVERFLOW SEC. NEHALEM HWY NO. 102 (OR 47) M.P. 81.94 WASHINGTON COUNTY	SHEET 6 OF 8
			DESIGNER: Susan Kocher			
ACCOMPANIED BY DWGS. See Sheet 1			CHECKER: Nowzar Ardalan	CALC. BOOK 5359	BENT DETAILS	DRAWING NO. 74143
			REVIEWER: Anthony P. Stratis			

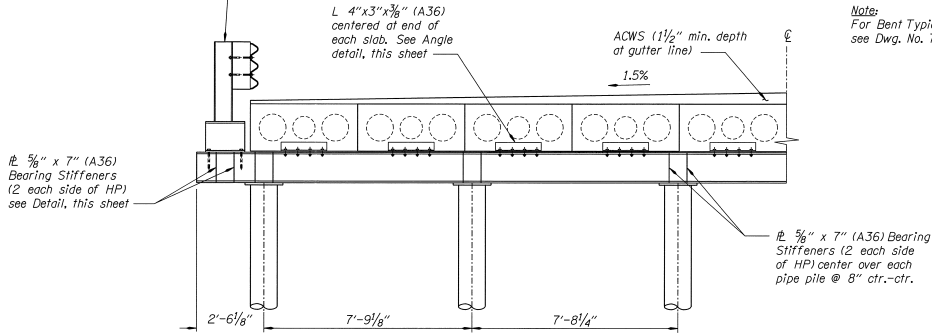
\* Distance is between pile centers

\*\* Distance is from center of pile to edge of cap on the fill side.

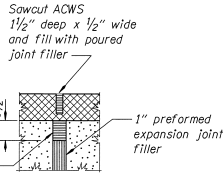
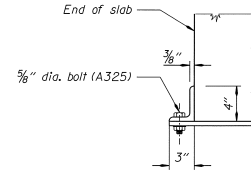


BENT 2 PLAN (LOOKING AHEAD ON STA.)  
Scale: 1/4" = 1'-0"

See Top Mount Rail Detail on Dwg. No. 74143, for rail details see Dwg. No. 74145 (to be completed by others)

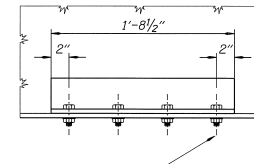


BENT 2 HALF ELEVATION  
Scale: 1/2" = 1'-0"



DETAIL "A"  
No Scale

Note:  
For Bent Typical Section see Dwg. No. 74143



ANGLE DETAIL  
No Scale

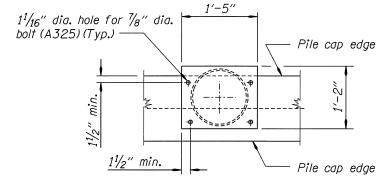
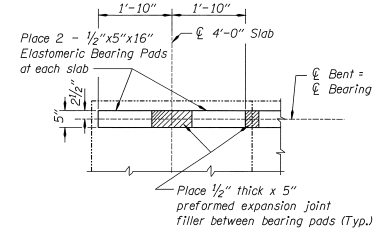


PLATE DETAIL  
No Scale



BEARING DETAIL  
No Scale

DATE	REVISION	BY
ACCOMPANIED BY DWGS. See Sheet 1		

DRAFTER: Tony Johnson
DESIGNER: Susan Kocher
CHECKER: Nowzar Ardalan
REVIEWER: Anthony P. Straits



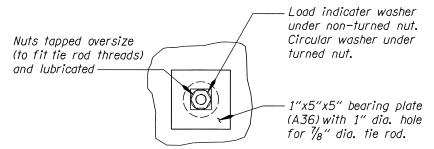
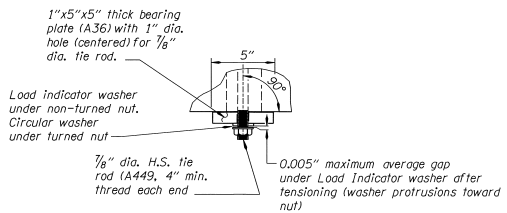
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503.231.8500

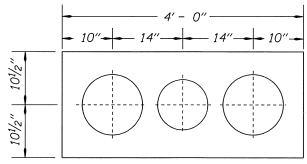
STRUCTURE NO. 20316
DATE April 2007
CALC. BOOK 5359

DAIRY CREEK OVERFLOW, HWY 102 DAIRY CREEK OVERFLOW SEC. NEHALEM HWY NO. 102 (OR 47) M.P. 81.94 WASHINGTON COUNTY
BENT 2 DETAILS

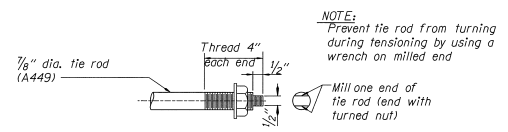
SHEET 7 OF 8
DRAWING NO. 74144



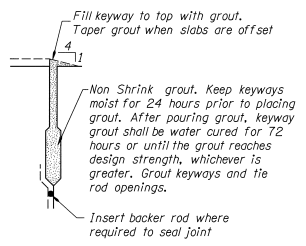
DETAIL - A  
No Scale



TYPICAL EXISTING SLAB



TENSIONING END OF TIE ROD



KEYWAY GROUT DETAIL  
No Scale

**GENERAL NOTES FOR PRESTRESSED SLABS**

Slabs were originally designed using Dwg. No. 19850 and are salvaged from Bridge No. 1962A. Slabs meet live and superimposed dead loading as shown in the General Notes for the Project. Sandblast the keyways to remove foreign material. Use non-shrink grout for filling the keyways, lifting blockouts, tie rod blockouts, and pile voids. Allow traffic on the bridge only after the grout has reached design strength.

Smooth dowels to conform to AASHTO M31, Grade 40 (ASTM A615, Grade 40). Use high strength tie rods that conform to ASTM A449. Use heavy hexagon nuts that conform to ASTM A563. Hot-dip galvanize tie rods, plates nuts and washers (except load indicator washers) after fabrication. Tighten tie rods to a minimum tension of 39.25 kips using mechanically galvanized load indicator washers conforming to ASTM F959.

Tighten all tie rods (per slab) to about one half of the specified tension before proceeding with the final tensioning.

Keep slabs upright at all times. Support them within 3'-0" of the ends during storage (to prevent excessive camber, overstress or failure). Locate the transport supports and lifting devices within 3'-0" of the ends of the slabs at the Contractor's own risk.

DATE	REVISION	BY
ACCOMPANIED BY DWGS. See Sheet 1		

DRAFTER: Tony Johnson  
 DESIGNER: Susan Kocher  
 CHECKER: Nowzar Ardalan  
 REVIEWER: Antony P. Straits



**OREGON DEPARTMENT OF TRANSPORTATION**

REGION 1 BRIDGE ENGINEERING

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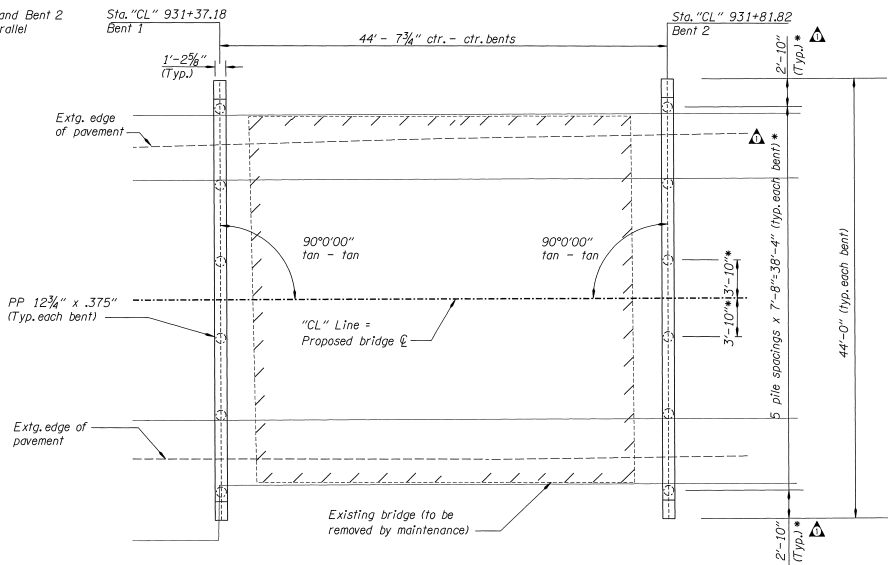
STRUCTURE NO. 20316
DATE April 2007
CALC. BOOK 5359

DAIRY CREEK OVERFLOW, HWY 102  
 DAIRY CREEK OVERFLOW SEC.  
 NEHALEM HWY NO. 102 (OR 47) M.P. 81.94  
 WASHINGTON COUNTY

PRECAST PRESTRESSED SLABS DETAILS

SHEET 4 OF 8
DRAWING NO. 74141

Notes:  
Bents 1 and Bent 2  
CL are parallel



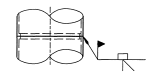
FOOTING PLAN  
Scale: 3/16" = 1'

PILING NOTES:

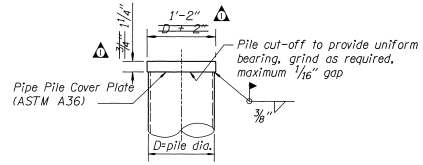
1. All piling shall be PP 12 3/4" x 0.375" ASTM A252 Grade 2, driven open-ended to an ultimate capacity of 540 kips per pile.
2. Pile tip elevations for minimum pile penetration shall be 1105' for Bent 1 and Bent 2.
3. Drive all piling to the specified ultimate capacity using driving criteria developed from the ODOT Gates Equation. A factor of safety of 3.0 should be used with the ODOT Gates Equation.

FOOTING NOTES:

1. Place temporary caps on piles and pave over (by maintenance).
2. Cut existing piles a minimum of 2' below existing ground (by maintenance).



PIPE PILE SPLICE DETAIL  
No Scale



PIPE PILE DETAIL (FINAL, BY MAINTENANCE)  
No Scale

Note:  
\* For actual pile spacing see  
Dwg. Nos. 74143 & 74144

Note: Elevations shown are based on an assumed elevation

DATE	REVISION	BY	DRAFTER: Tany Johnson		STRUCTURE NO.	DAIRY CREEK OVERFLOW, HWY 102 DAIRY CREEK OVERFLOW SEC. NEHALEM HWY NO. 102 (OR 47) M.P. 81.94 WASHINGTON COUNTY	SHEET
	5/07	Actual pile spacings plate thickness			SEK		20316
ACCOMPANIED BY DWGS. See Sheet 1			DESIGNER: Susan Kocher		DATE	DRAWING NO.	
			CHECKER: Nowzar Ardalan		May 21, 2007		74142
			REVIEWER: Anthony P. Stratis	RENEWAL DATE: 6-30-07	CALC. BOOK		
					5359		
						FOOTING PLAN	