



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
SEATTLE DISTRICT, CORPS OF ENGINEERS  
P.O. BOX 3755  
SEATTLE, WASHINGTON 98124-3755

FEB 25 2011

Regulatory Branch

Skamania County Public Works  
Post Office Box 790  
Stevenson, Washington 98648

Reference: NWS-2007-192  
Skamania County Public Works

Dear Ladies and Gentlemen:

Enclosed is a Department of the Army permit which authorizes performance of the work described in your referenced application. You are cautioned that any change in the location or plans of the work will require submittal of revised plans to this office for approval prior to accomplishment. Deviation from the approved plans may result in imposition of criminal or civil penalties.

Your attention is drawn to General Condition 1 of the permit which specifies the expiration date for completion of the work. Upon completing the authorized work, please fill out and return the enclosed *Certificate of Compliance with Department of the Army Permit* form.

We are interested in your experience with our Regulatory Program and encourage you to complete a customer service survey form. This form and information about our program is available on our website at: [www.nws.usace.army.mil](http://www.nws.usace.army.mil) (select "Regulatory" and then "Regulatory/Permits").

If you have any questions, please contact Steve Manlow at (360) 694-1171 or via email at [Steven.W.Manlow@usace.army.mil](mailto:Steven.W.Manlow@usace.army.mil).

Sincerely,

*for* Michelle Walker  
Chief, Regulatory Branch

Enclosure

RECEIVED  
FEB 25 2011  
REGULATORY BRANCH

# DEPARTMENT OF THE ARMY PERMIT

**Permittee:** Skamania County Public Works  
Post Office Box 790  
Stevenson, Washington 98648

**Permit No:** NWS-2007-192

**Issuing Office:** Seattle District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the U.S. Army Corps of Engineers (Corps) having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

**Project Description:** Dredge up to 70,000 cubic yards of accumulated sediment from Rock Creek annually for five years, and authorize previously completed work. This project includes: excavation of 153,500 cubic yards of material from Rock Creek and temporary stockpiling of dredged material below the ordinary high water line, completed in 2007; installation of 16 large wood trap structures consisting of 80 steel piles and 40 brace logs, completed in 2007; excavation of up to 70,000 cubic yards of sediment per year for a period of five years and temporary stockpiling of dredged material below the ordinary high water line; removal of all temporarily stockpiled material and restoration of the site to pre-disposal contours and elevations; and restoration of 1,150 linear feet of Columbia River shoreline as compensatory mitigation for project impacts. All work shall be conducted in accordance with the following plans and drawings, attached hereto, and which are incorporated in and made a part of this permit:

Sheets 1 through 12 of 12 (Rock Creek Dredge 2009), dated April 1, 2010, and

Sheets 1 through 14 of 14 (Rock Creek Dredge Mitigation), dated June 20, 2008.

The purpose of the project is to protect private and public infrastructure in Stevenson from flood-related damage caused by a landslide in Rock Creek.

**Project Location:** In Rock Creek and the Columbia River at Stevenson, Skamania County, Washington.

## Permit Conditions:

### General Conditions:

1. The time limit for completing the work authorized ends on FEB 25 2016. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least 1 month before the above date is reached.
2. You must maintain the activity authorized by this permit in good condition and in accordance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification to this permit from this office, which may require restoration of the area.
3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing

in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.
5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit.
6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.
7. After a detailed and careful review of all the conditions contained in this permit, the permittee acknowledges that, although said conditions were required by the Corps, nonetheless the permittee agreed to those conditions voluntarily to facilitate issuance of the permit; the permittee will comply fully with all the terms of all the permit conditions.

*Special Conditions:*

- a. You must provide a copy of the permit transmittal letter, the permit form, and drawings to all contractors performing any of the authorized work.
- b. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the U.S. Army Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.
- c. This U.S. Army Corps of Engineers (Corps) permit does not authorize you to take a threatened or endangered species. In order to legally take a listed species, you must have a separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit or ESA Section 7 consultation Biological Opinion with non-discretionary "incidental take" provisions). The enclosed BO prepared by the National Marine Fisheries Service (NMFS), dated August 3, 2009, contains mandatory terms and conditions to implement the reasonable and prudent measures that are associated with the specified "incidental take" in the BO (NMFS Reference Number 2007/05692). Your authorization under this Corps permit is conditional upon your compliance with all of the mandatory terms and conditions associated with incidental take of the attached BO. These terms and conditions are incorporated by reference into this permit. Failure to comply with the commitments made in this document constitutes non-compliance with the ESA and your Corps permit. The NMFS is the appropriate authority to determine compliance with ESA.
- d. Prior to expiration of this permit, the permittee shall remove all excavated materials temporarily stockpiled in waters of the U.S. and restore the disposal areas to pre-disposal contours and elevations.

- e. The permittee shall implement and abide by the mitigation plan, *Rock Creek Dredge Mitigation Plan*, dated October 8, 2009, and the associated plans (Sheets 1 through 14 of 14), dated June 20, 2008, prepared by Flowing Solutions, LLC.
- f. To ensure successful implementation of the approved mitigation plan, the applicant shall meet the following performance standards:
  - i. One hundred percent (100%) survival of all planted trees and shrubs is required during the first and second years after planting. During the third through tenth years after planting, eighty percent (80%) survival is required;
  - ii. Until the permittee receives written verification from the U.S. Army Corps of Engineers that the mitigation plan has been successfully implemented and no further monitoring or maintenance is required, the permittee must implement any Corps-required contingency plans (e.g., additional plantings, planting different species) necessary to meet the performance standards for this plan.
- g. A status report on the mitigation construction, including as-built drawings, must be submitted to the Corps, Seattle District, Regulatory Branch and the Southwest Regulatory Field Office no later than 13 months from the date of permit issuance. Annual status reports on mitigation construction are required until mitigation construction is complete.
- h. Mitigation monitoring reports will be due for years 1, 2, 3, 5, 7, and 10 beginning from the date the permittee submits as-built drawings of the mitigation. All reports must be submitted to the Corps, Seattle District, Regulatory Branch and the Southwest Washington Regulatory Field Office, and must prominently display the reference number NWS-2007-192. Mitigation monitoring reports must be prepared as described in *Mitigation Monitoring Report Format*, dated October 10, 2008.
- i. The riparian area restored and enhanced as compensatory mitigation for work authorized by this permit, shall not be made the subject of a future individual or general Department of the Army permit application for fill or other development, except for the purposes of enhancing or restoring the mitigation associated with this project. In addition, a description of the mitigation area identified in the final mitigation plan as approved, and any subsequent permit mitigation area revisions, must be recorded with the Registrar of Deeds or other appropriate official charged with maintaining records on real property. Proof of recording must be provided to the Corps, Seattle District, Regulatory Branch no later than 60 days from the date of permit issuance.
- j. Your responsibility to complete the required compensatory mitigation as set forth in special condition "e" will not be considered fulfilled until you have demonstrated mitigation success and have received written verification from the U.S. Army Corps of Engineers.

**Further Information:**

1. Congressional Authorities. You have been authorized to undertake the activity described above pursuant to:
  - Section 10 of the Rivers and Harbor Act of 1899 (33 U.S.C. 403).
  - Section 404 of the Clean Water Act (33 U.S.C. 1344).
  - Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C 1413).

2. Limits of this authorization.

- a. This permit does not obviate the need to obtain other Federal, State, or local authorization required by law.
- b. This permit does not grant any property rights or exclusive privileges.
- c. This permit does not authorize any injury to the property or rights of others.
- d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

- a. Damages to the permitted project or uses thereof as a result of other permitted activities or from natural causes.
- b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.
- c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.
- d. Design or construction deficiencies associated with the permitted work.
- e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data. The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

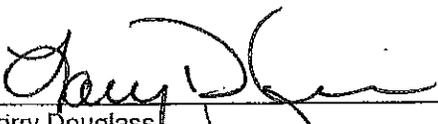
5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require include, but are not limited to, the following:

- a. You fail to comply with the terms and conditions of the permit.
- b. The information provided by you in support of your application proves to have been false, incomplete, or inaccurate (See 4 above).
- c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

  
\_\_\_\_\_  
Larry Douglass  
Skamania County Public Works

11/5/2010  
\_\_\_\_\_  
(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

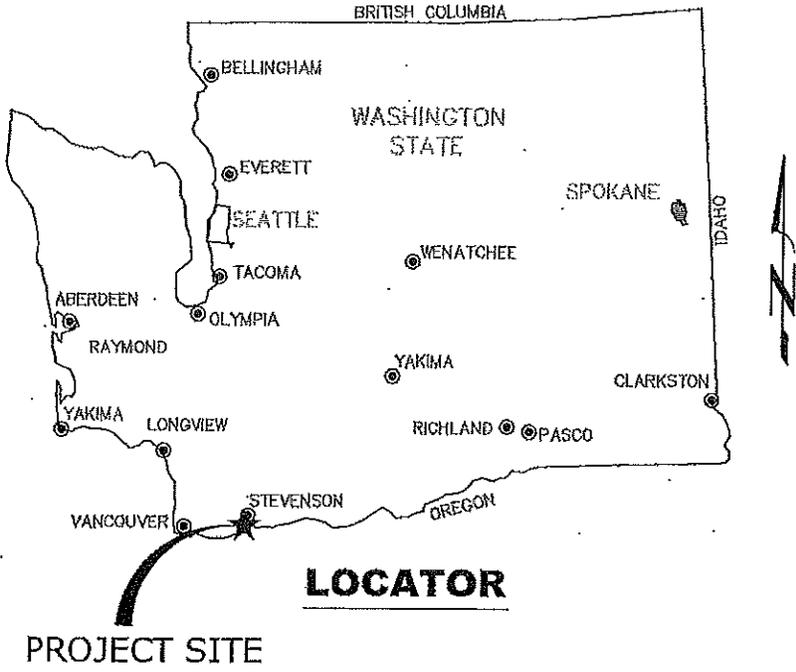
*for*   
\_\_\_\_\_  
Anthony O. Wright  
Colonel, Corps of Engineers  
District Engineer

25 FEBRUARY 2011  
\_\_\_\_\_  
(DATE)

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

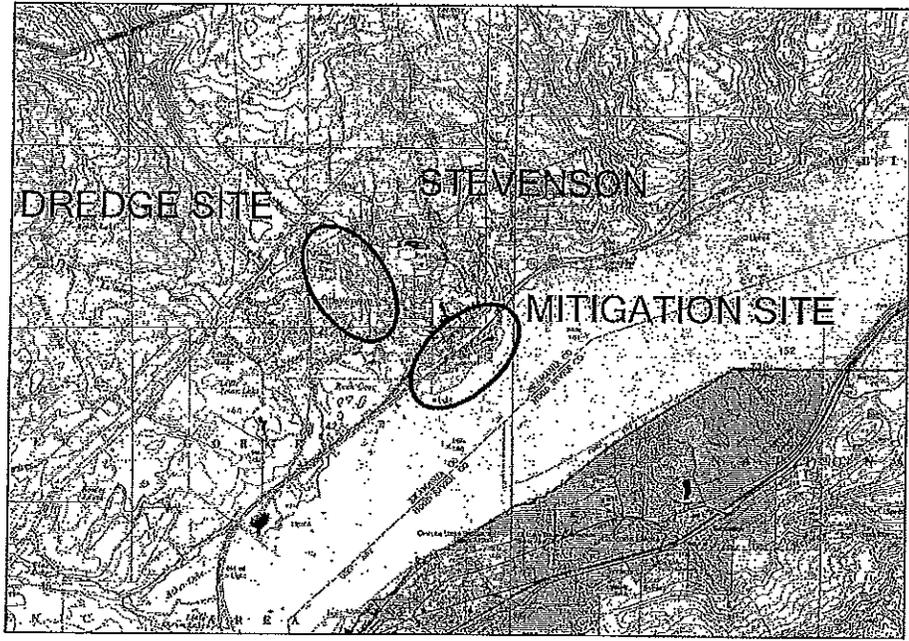
\_\_\_\_\_  
(TRANSFEREE)

\_\_\_\_\_  
(DATE)



**LOCATOR**

PROJECT SITE



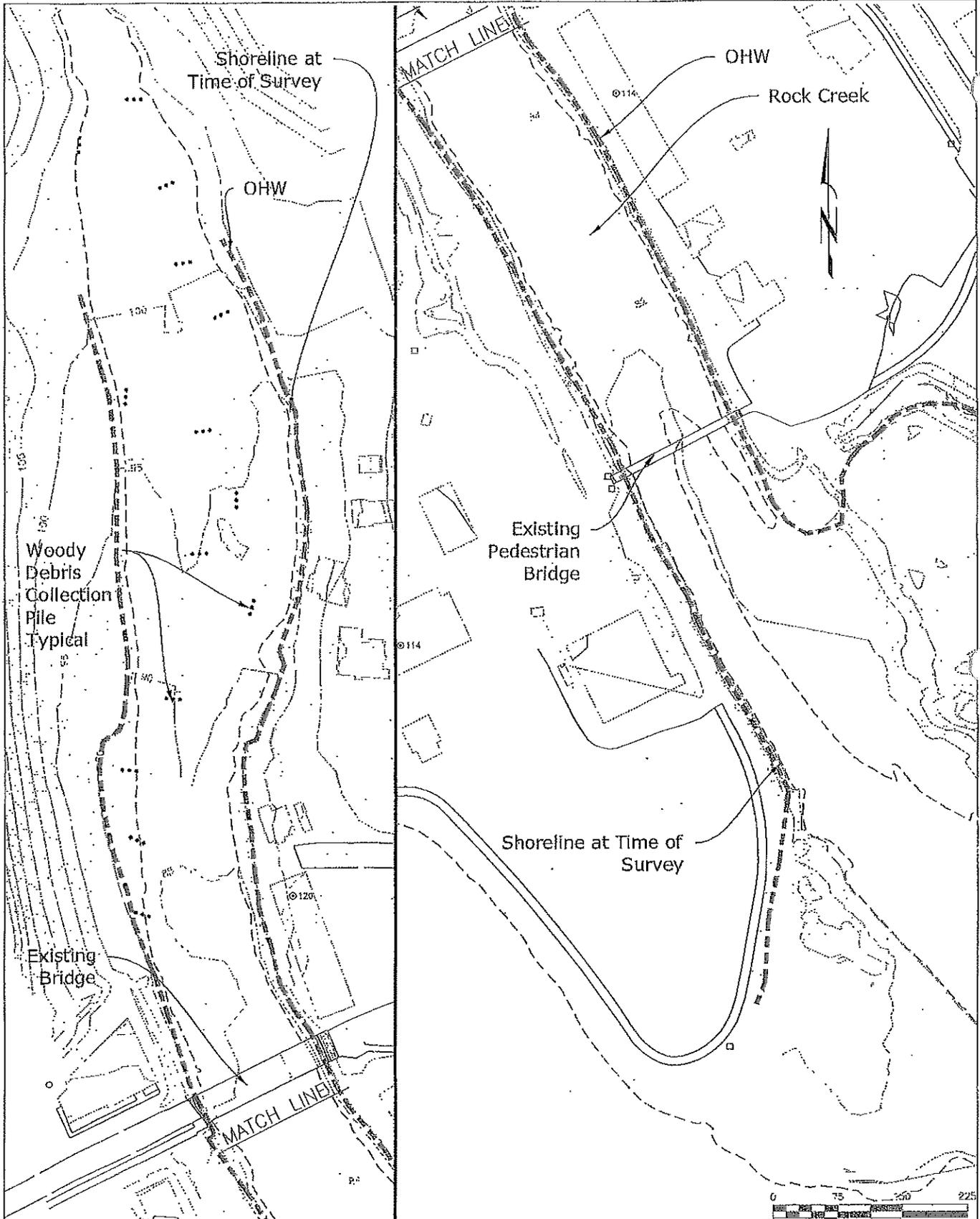
**VICINITY**

SE 1/4 Section 36, Township 03 North, Range 07 East, WM  
 NE 1/4 and NW 1/4 Section 01, Township 02 North, Range 07 East, WM  
 Latitude: 45.69362 Longitude: -121.89219  
 Skamania County

d:\fs\projects\rockcreekdredge\as-dredged\rockcreekdredge2009-coepermit.dwg

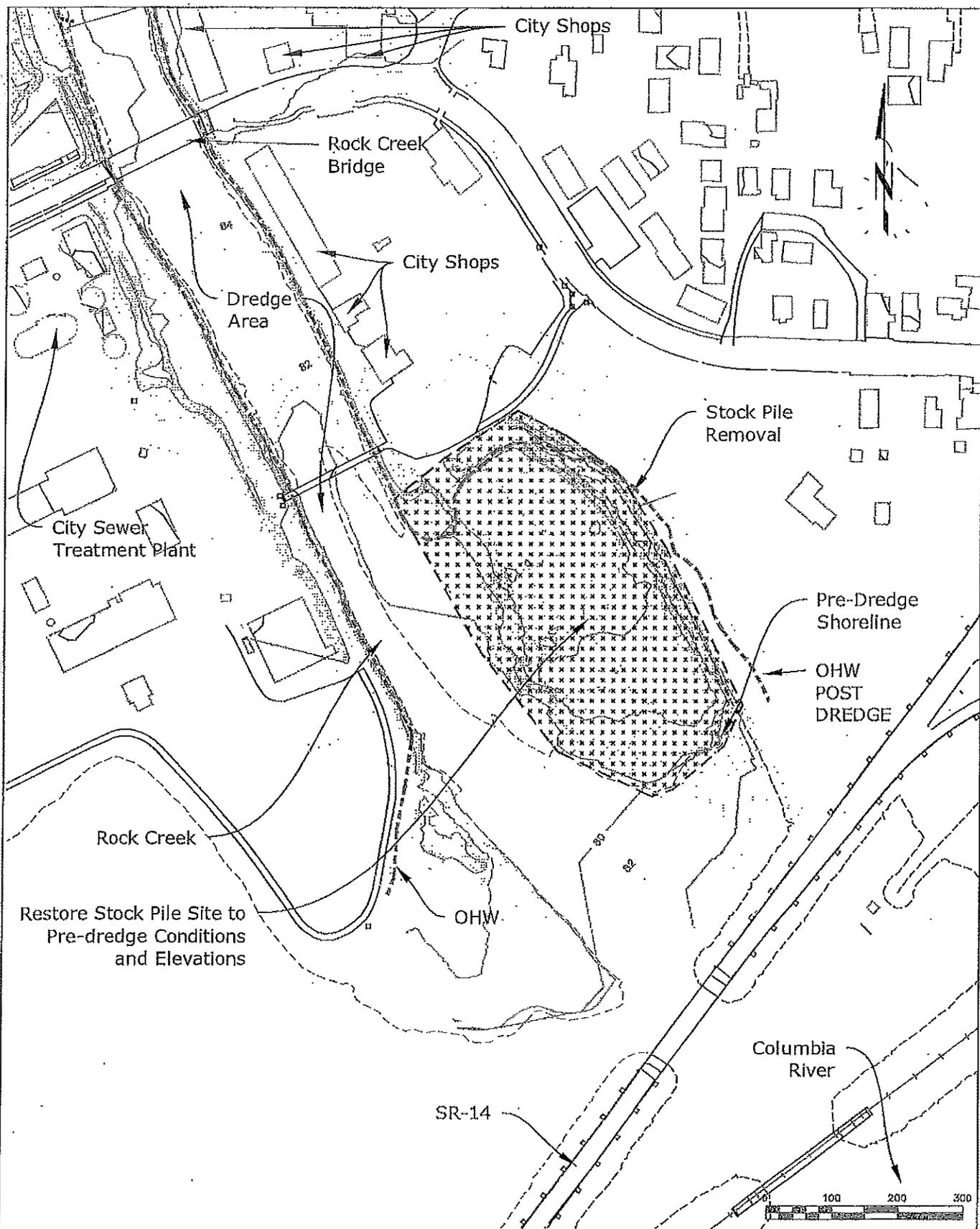
COE REF# NWS-2007-192  Flowing Solutions 3305 SW 87th Avenue Portland, OR 97225 Phone (503) 287-8311 Fax (503) 287-6053	SHEET: LOCATOR MAP	DATE: 4/1/10
	PROJECT: Rock Creek Dredge 2009 Skamania County Public Works P.O. Box 790, Stevenson, WA 98648	RIVER/MILE: Rock Creek, RM 1-2
		DATUM: NGVD

d:\fs\projects\rockcreekdredge\as-dredged\rockcreekdredge2009-coepermit.dwg



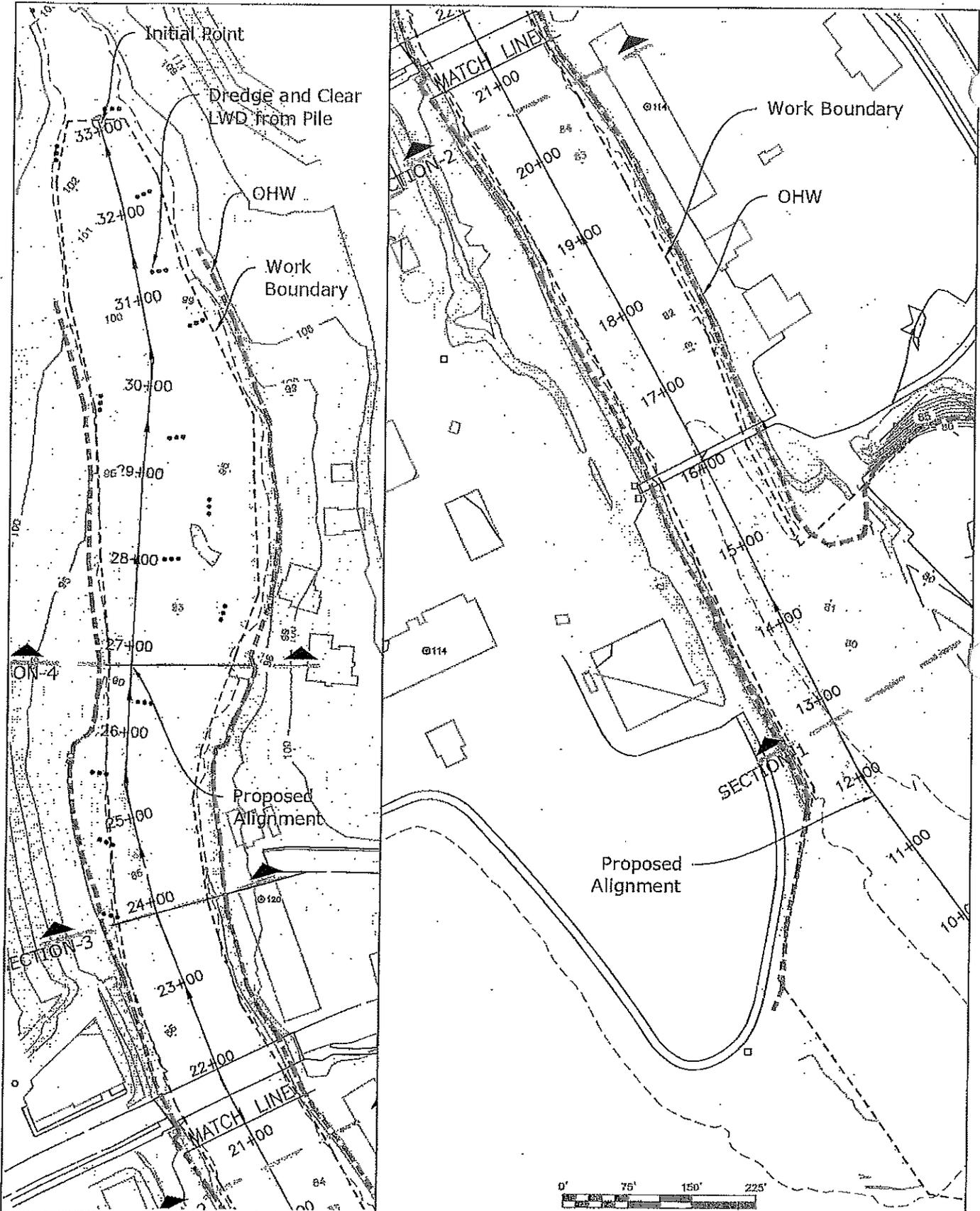
COE REF# NWS-2007-192	SHEET: EXISTING SURVEY - 2007	DATE: 4/1/10
 <p>Flowing Solutions 3305 SW 87th Avenue Portland, OR 97225 Phone (503) 297-6311 Fax (503) 297-6053</p>	<p>PROJECT: Rock Creek Dredge 2009 Skamania County Public Works P.O. Box 790, Stevenson, WA 98648</p> <p>RIVER/MILE: Rock Creek, RM 1-2</p>	<p>SHEET NO. 2/12</p> <p>DATUM: NGVD</p>

d:\fs\proj\s\rockcreekdredge\as-dredged\rockcreekdredge2009-coepermit.dwg



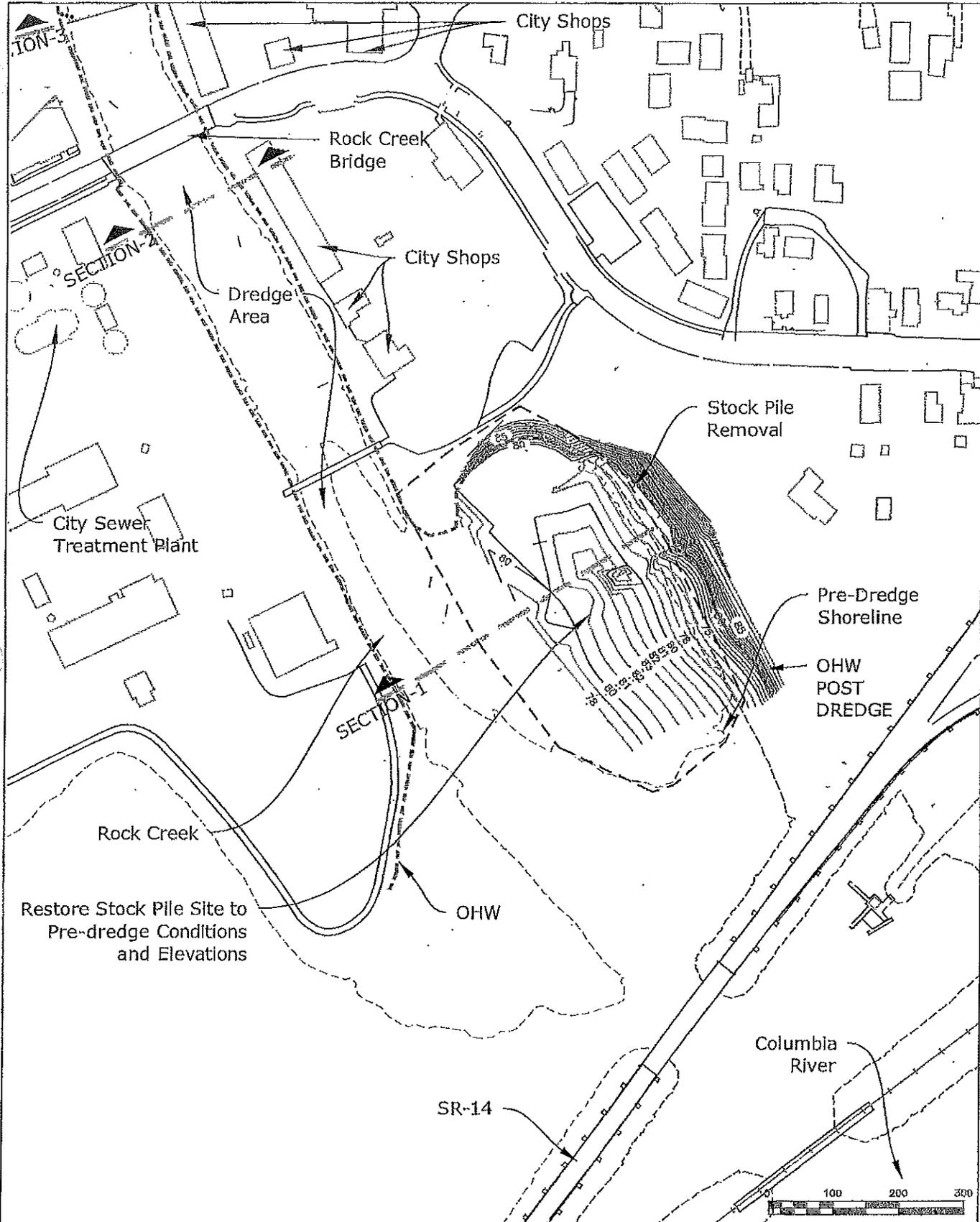
COE REF# NWS-2007-192		SHEET: STOCK PILE - 2007		DATE: 4/1/10	
 <p>Flowing Solutions 3305 SW 87th Avenue Portland, OR 97225 Phone (503) 297-6311 Fax (503) 297-6053</p>		PROJECT: Rock Creek Dredge 2009 Skamania County Public Works P.O. Box 790, Stevenson, WA 98648			
		RIVER/MILE: Rock Creek, RM 1-2		DATUM: NGVD	

d:\fs\projects\rockcreekdrdredge\as-dredged\rockcreekdrdredge2009-ccepermit.dwg



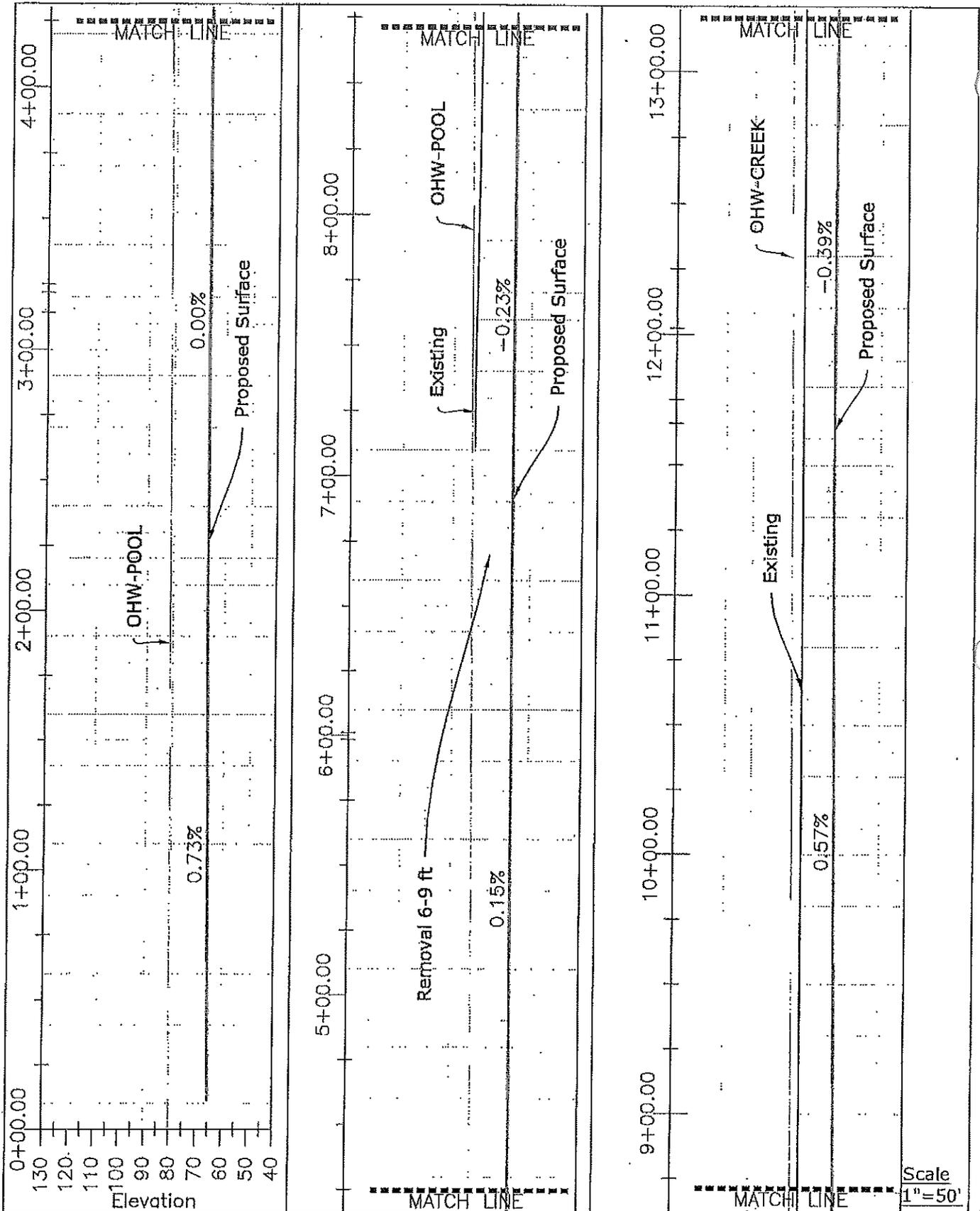
COE REF# NWS-2007-192	SHEET: PROPOSED DREDGE ALIGNMENT--WORK AREA	DATE: 4/1/10
 <p>Flowing Solutions 3305 SW 87th Avenue Portland, OR 97225 Phone (503) 287-6311 Fax (503) 287-8053</p>	PROJECT: Rock Creek Dredge 2009 Skamania County Public Works P.O. Box 790, Stevenson, WA 98648	SHEET NO. 4/12
RIVER/MILE: Rock Creek, RM 1-2	DATUM: NGVD	

d:\fs\apro\s\rockcreekdredge\as-dredged\rockcreekdredge2009-coepermit.dwg



COE REF# NWS-2007-192	SHEET: STOCK PILE -- PROPOSED REMOVAL	DATE: 4/1/10
 <p>Flowing Solutions 3305 SW 87th Avenue Portland, OR 97225 Phone (503) 297-6311 Fax (503) 297-6053</p>	<p>PROJECT: Rock Creek Dredge 2009 Skamania County Public Works P.O. Box 790, Stevenson, WA 98648</p> <p>RIVER/MILE: Rock Creek, RM 1-2</p>	<p>SHEET NO. 5/12</p>
DATUM: NGVD		

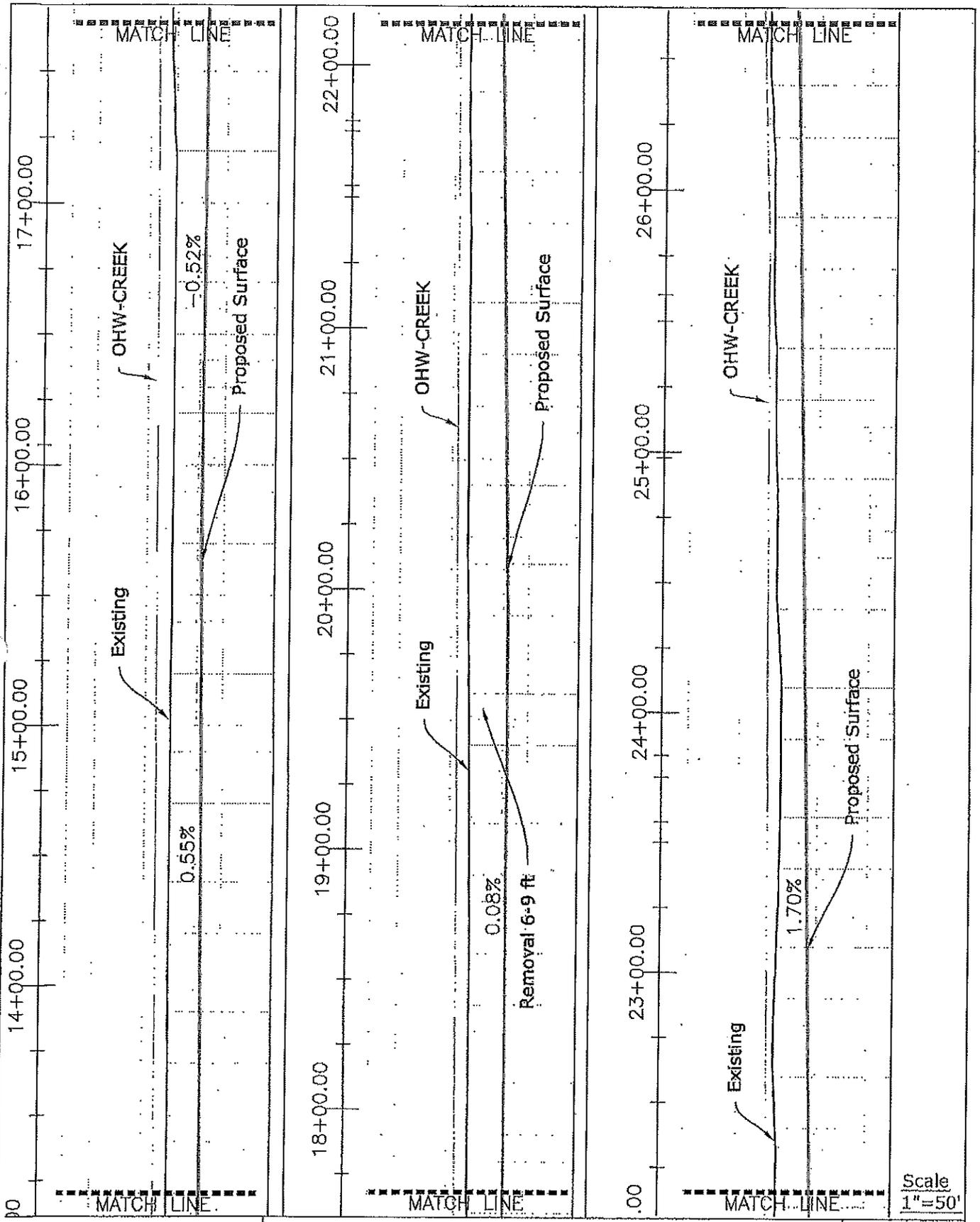
d:\fs\projects\rockcreekdredge\as-dredged\rockcreekdredge2009-coepermit.dwg



Scale  
1"=50'

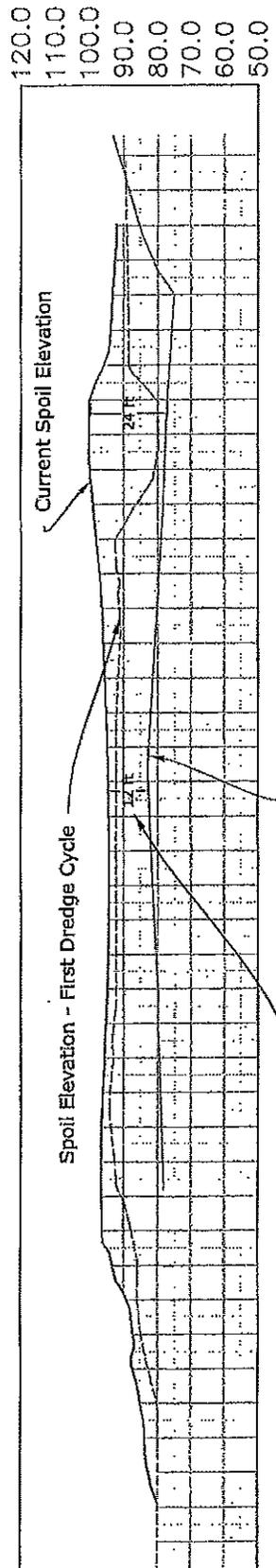
COE REF# NWS-2007-192		SHEET: PROPOSED DREDGE PROFILE-1		DATE: 4/1/10	
 <b>Flowing solutions</b> Flowing Solutions 3305 SW 87th Avenue Portland, OR 97225 Phone (503) 297-6311 Fax (503) 287-8053		PROJECT: Rock Creek Dredge 2009 Skamania County Public Works P.O. Box 790, Stevenson, WA 98648		SHEET NO. 6/12	
		RIVER/MILE: Rock Creek, RM 1-2		DATUM: NGVD	

d:\fs\projects\rockcreekdredge\as-dredged\rockcreekdredge2009-coepermit.dwg



Scale  
1"=50'

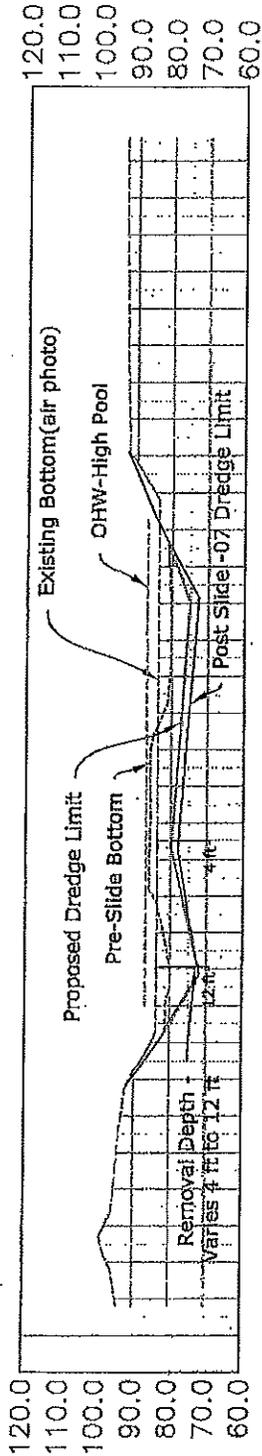
 <p>Flowing solutions 3305 SW 87th Avenue Portland, OR 97225 Phone (503) 297-6311 Fax (503) 297-8053</p>	COE REF# NWS-2007-192	SHEET: PROPOSED DREDGE PROFILE-2	DATE: 4/1/10
	PROJECT: Rock Creek Dredge 2009 Skamania County Public Works P.O. Box 790, Stevenson, WA 98648	RIVER/MILE: Rock Creek, RM 1--2	DATUM: NGVD



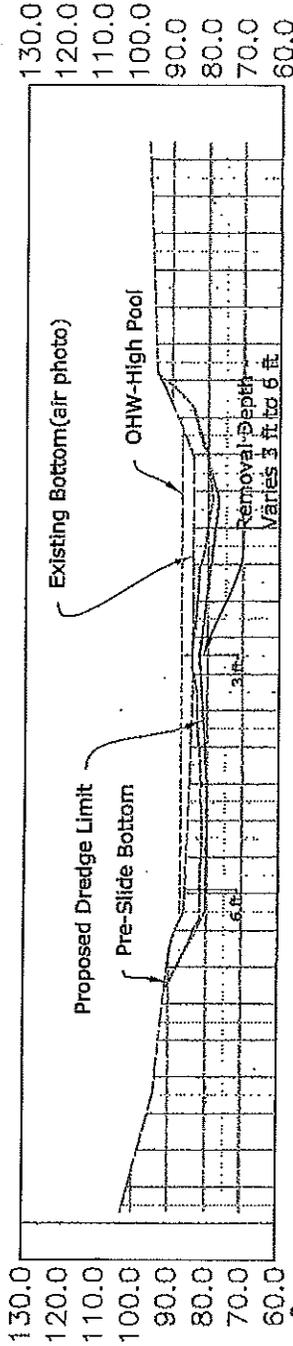
Scale  
1"=50'

COE REF# NWS-2007-192 <b>Flowing solutions</b>  Flowing Solutions 3305 SW 87th Avenue Portland, OR 97225 Phone (503) 297-6311 Fax (503) 297-8053	SHEET: SPOIL REMOVAL SECTION		DATE: 4/1/10
	PROJECT: Rock Creek Dredge 2009 Skamania County Public Works P.O. Box 790, Stevenson, WA 98648		SHEET NO. 8/12
RIVER/MILE: Rock Creek, RM 1-2		DATUM: NGVD	

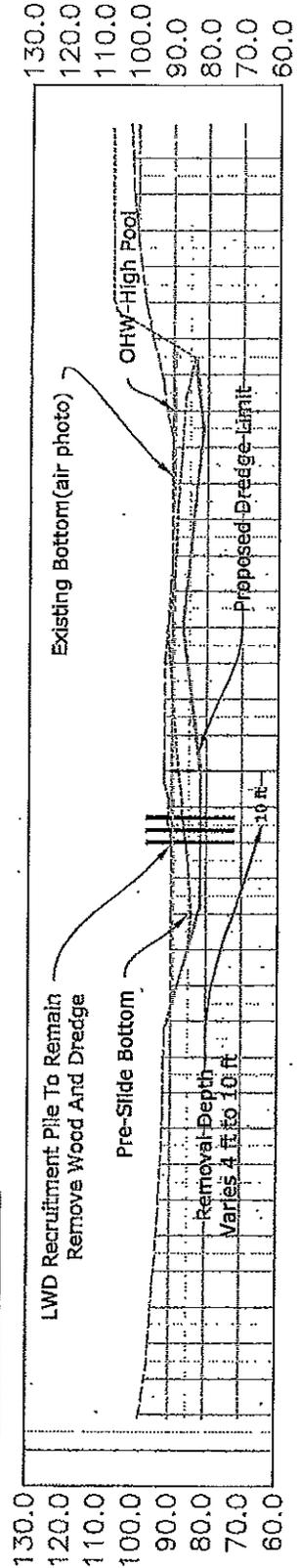
**Section-2 - 20+53.85**



**Section-3 - 23+76.34**



**Section-4 - 26+67.84**



Scale  
 1" = 50'

COE REF# NWS-2007-192



SHEET: PROPOSED DREDGE SECTIONS

PROJECT: Rock Creek Dredge 2009  
 Skamania County Public Works  
 P.O. Box 790, Stevenson, WA 98648

RIVER/MILE: Rock Creek, RM 1-2

DATUM: NGVD

DATE:

4/1/10

SHEET NO.

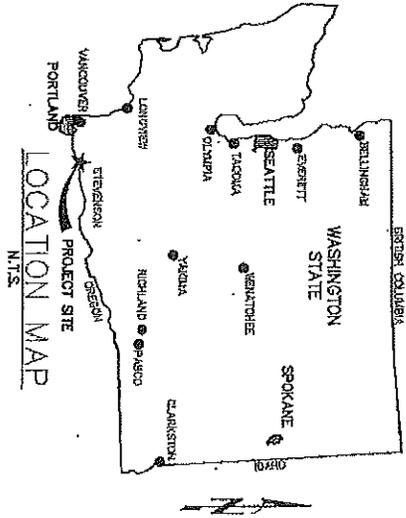
9/12

# ROCK CREEK DREDGE MITIGATION

## STEVENSON SHORELINE ENHANCEMENT

### PORT OF SKAMANIA

JUNE 20, 2008



### GENERAL NOTES

1. ALL WORK IS TO CONFORM WITH PROJECT CONTRACT SPECIFICATIONS.
2. THE COMPLETED INSTALLATION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES, ORDINANCES AND REGULATIONS INCLUDING NECESSARY PERMITS AND INSPECTIONS REQUIRED BY THE GOVERNING AUTHORITIES. THE TERMS OF THE STATE OF WASHINGTON HYDRAULIC PROJECT APPROVAL (HPA) AND THE CORP. OF ENGINEERS PERMIT SHALL BE OBSERVED. ALL IN WATER WORK SHALL BE COMPLETED WITHIN GUIDELINES ESTABLISHED IN THE PERMIT DOCUMENTS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL SCHEDULING AND ALL WORK WITH THE OWNER.
4. THE ENGINEER OR OWNER IS NOT RESPONSIBLE FOR THE SAFETY OF THE CONTRACTOR OR HIS CREW. ALL O.S.H.A. REGULATIONS SHALL BE STRICTLY ADHERED TO IN THE PERFORMANCE OF THE WORK.
5. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL ROADWAYS KEEPING THEM CLEAN AND FREE OF CONSTRUCTION MATERIALS AND DEBRIS, AND PROVIDING NECESSARY DUST CONTROL WHERE REQUIRED.
6. WATER LEVELS ARE FOR REFERENCE ONLY. WATER LEVELS AT THE TIME OF CONSTRUCTION ARE NOT GUARANTEED. CONSTRUCTION MEANS, METHODS, AND MATERIALS TO FACILITATE COMPLETION OF PROJECT ARE THE RESPONSIBILITY OF THE CONTRACTOR.

**PROJECT DESCRIPTION**  
 PLACE OWNER PROVIDED ROUND RIVER ROCK/GRAVEL ALONG SHORELINE TO COVER EXISTING RIP-RAP, EXISTING SHEET PILE WALL AND ERODING BANK, INSTALL ROOT-WAD HABITAT ELEMENTS, AND RIPARIAN PLANTINGS.

### OWNER

PORT OF SKAMANIA COUNTY  
 P.O. BOX 1099  
 70 SE CASCADE AVENUE  
 STEVENSON, WASHINGTON 98648  
 PHONE: (509) 427-5484  
 FAX: (509) 427-7984

### ENGINEER

FLOWING SOLUTIONS  
 3305 SW 87TH  
 PORTLAND, OR 97225  
 PHONE: (503) 297-6311  
 FAX: (503) 297-6053

### SHEET INDEX

1. COVER
2. SITE
3. PLAN WEST
4. PLAN EAST
5. PLANTING
6. BANK DETAIL
7. EROSION CONTROL PLAN
8. SECTIONS 4,5
9. SECTIONS 6,7
10. SECTIONS 8,9
11. SECTIONS 10,11
12. SECTIONS 12,13
13. SECTIONS 14,15

Corps Ref# 2007-192 Skamania County

NOTE: 11x17 AT FULL SCALE

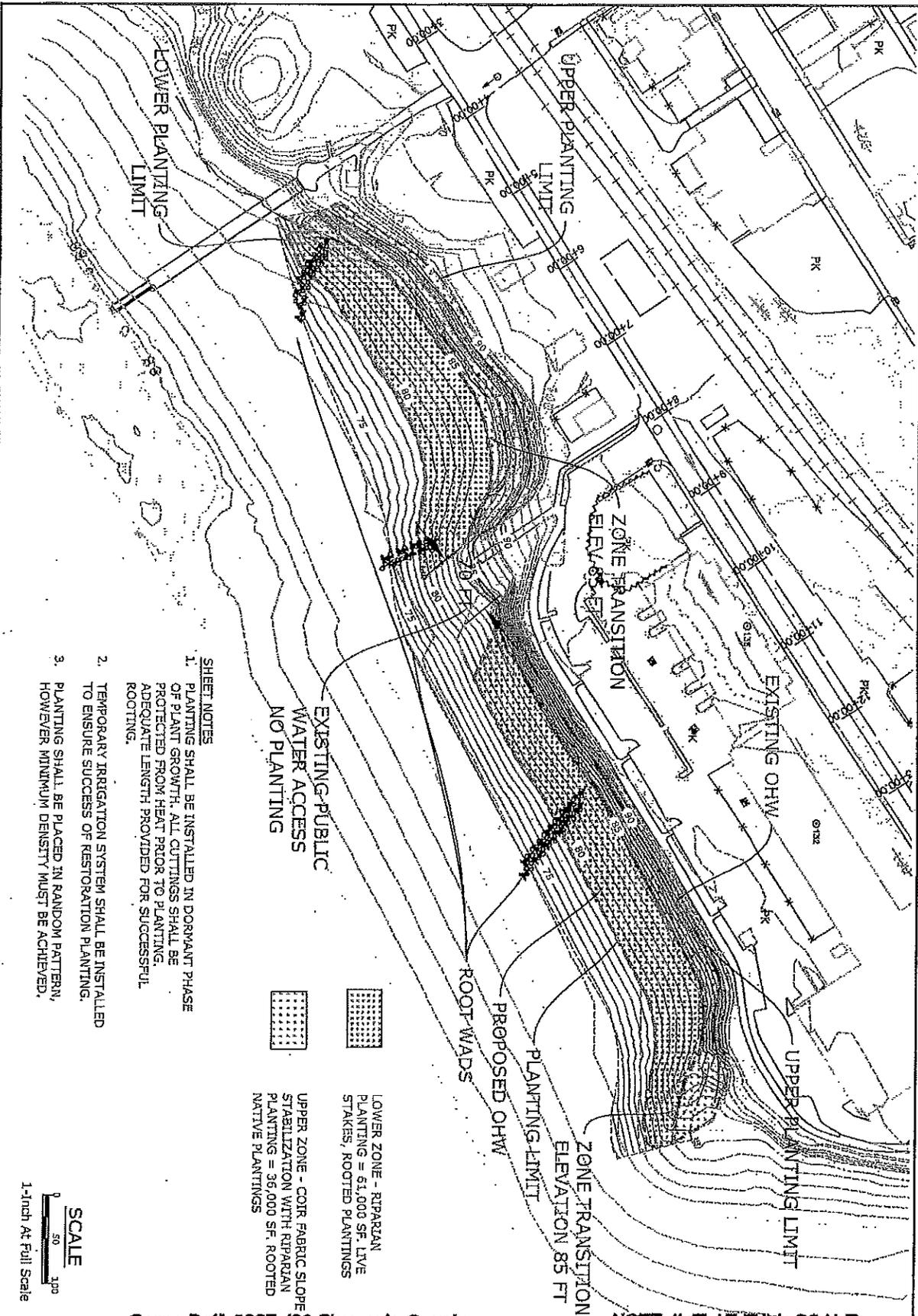
STAVENSON, WASH  
 PORT OF SKAMANIA  
 DATE: 6/20/08

NO.	DATE	BY	APPROVED	SCALE	DESCRIPTION	SHEET
						12

**COVER**

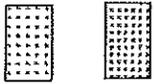
Stavenshon Shoreline Enhancement, Port of Skamania  
 P.O. Box 1099  
 Stevenson, Washington 98648

DATE: 6/20/08 PROJECT: Stavenshon



- SHEET NOTES**
1. PLANTING SHALL BE INSTALLED IN DORMANT PHASE OF PLANT GROWTH. ALL CUTTINGS SHALL BE PROTECTED FROM HEAT PRIOR TO PLANTING. ADEQUATE LENGTH PROVIDED FOR SUCCESSFUL ROOTING.
  2. TEMPORARY IRRIGATION SYSTEM SHALL BE INSTALLED TO ENSURE SUCCESS OF RESTORATION PLANTING.
  3. PLANTING SHALL BE PLACED IN RANDOM PATTERN, HOWEVER MINIMUM DENSITY MUST BE ACHIEVED.

EXISTING PUBLIC WATER ACCESS NO PLANTING



LOWER ZONE - RIPARIAN PLANTING = 61,000 SF. LIVE STAKES, ROOTED PLANTINGS

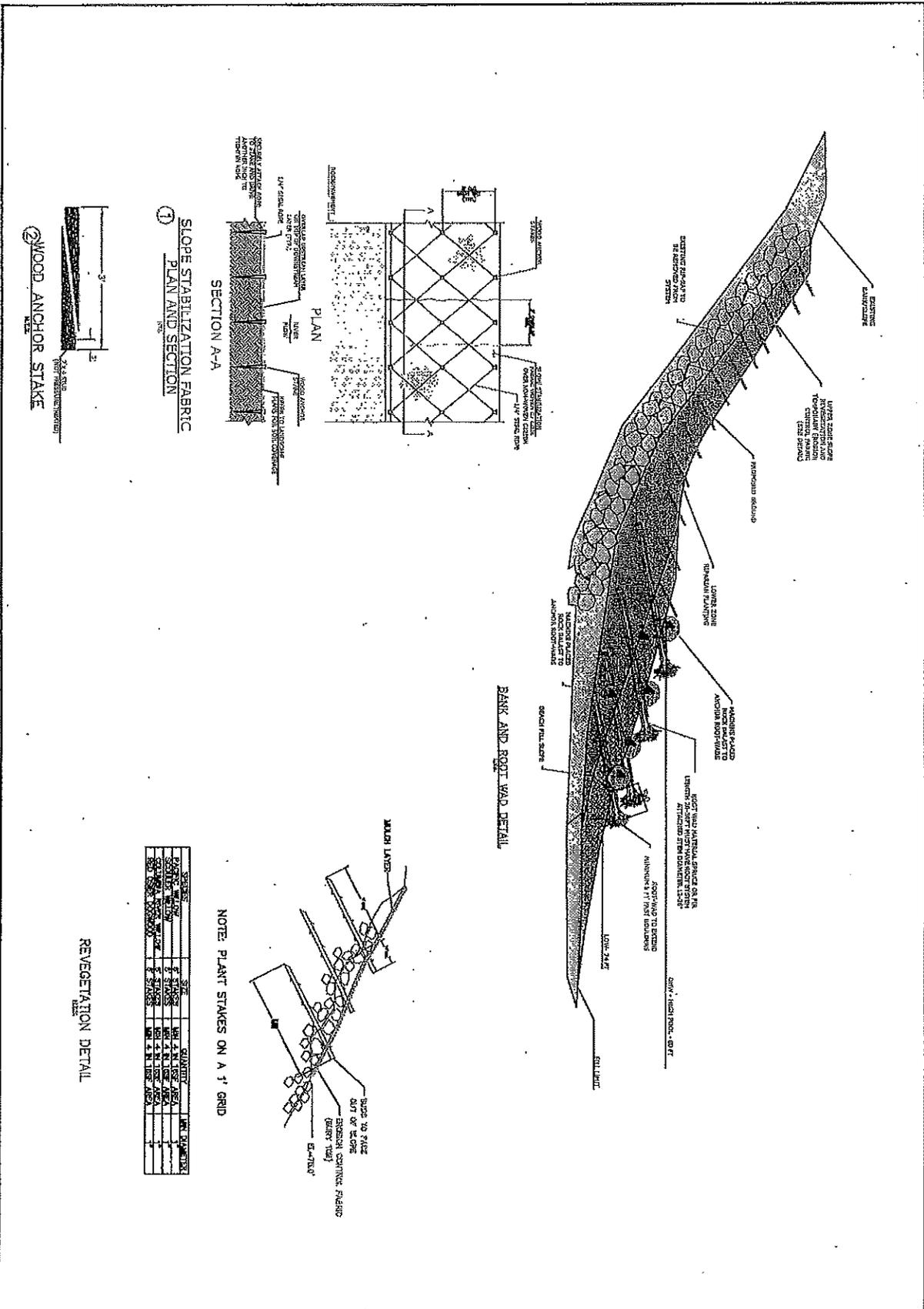
UPPER ZONE - COIR FABRIC SLOPE STABILIZATION WITH RIPARIAN PLANTING = 36,000 SF. ROOTED NATIVE PLANTINGS

**SCALE**  
 0 50 100  
 1-Inch At Full Scale

Corps Ref# 2007-192 Skamania County

NOTE: 11x17 AT FULL SCALE

		<b>PLANTING</b> Meenock Hydroic Enhancement, Port of Skamania P.O. Box 1040 Meenock, Washington 98668		SHEET <b>11</b> OF <b>12</b>
DATE: 4/7/2008 PROJECT:	12 1/2" X 18"	1/2" X 18"	1/2" X 18"	1/2" X 18"

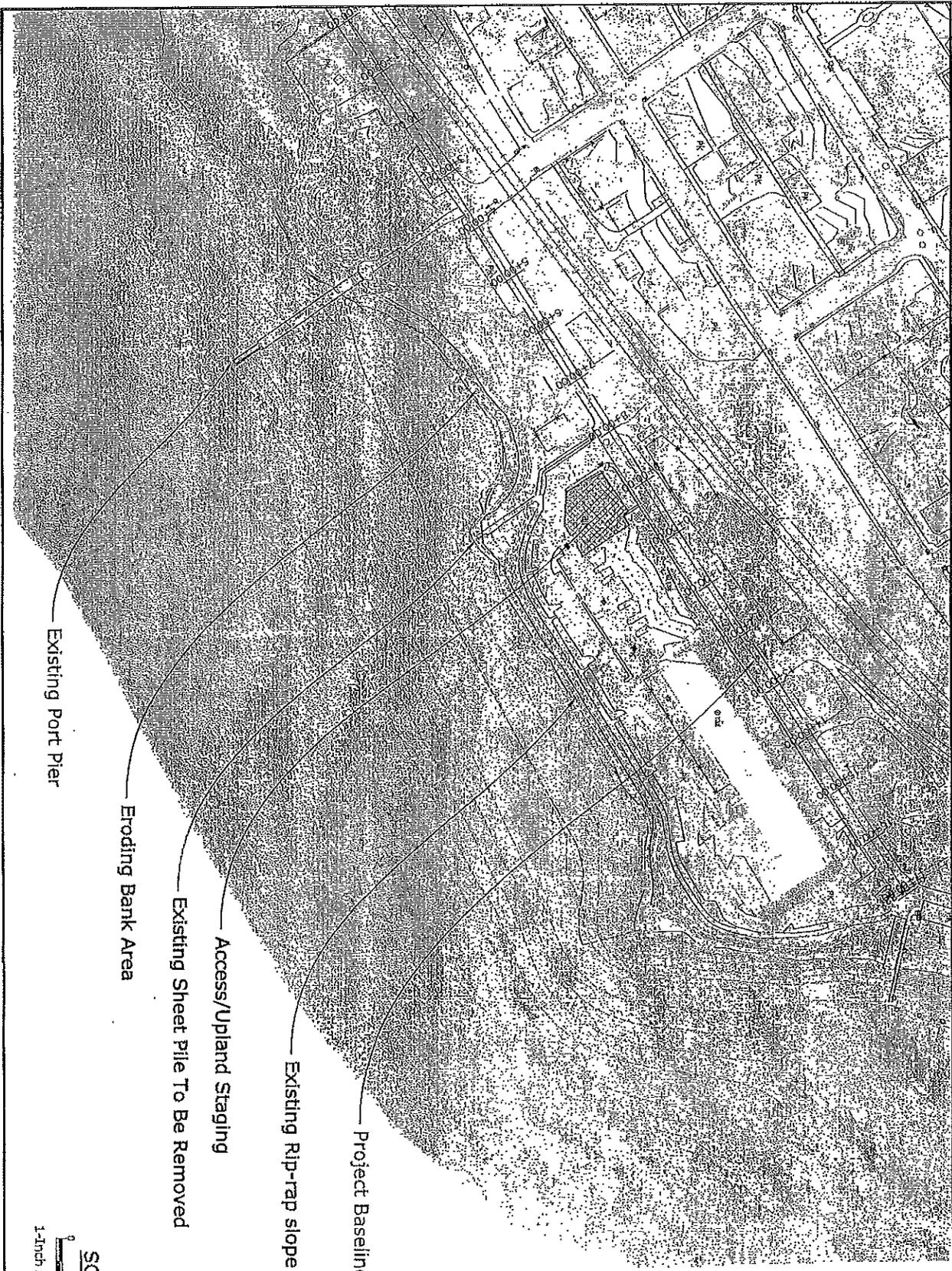


Corps Ref# 2007-192 Skamania County

NOTE: 11x17 AT FULL SCALE

NO.	DATE	REVISION	BY	APP'D.	SCALE	Flowing solutions 	<b>BANK DETAIL</b> Skamania Shoreline Enhancement, Part of Skamania P.O. Box 1000 Skamania, Washington 98641	SHEET
						DATE: 4/1/2008	PROJECT: Skamania	





Existing Port Pier

Eroding Bank Area

Existing Sheet Pile To Be Removed

Access/Upland Staging

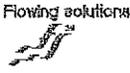
Existing Rip-rap slope

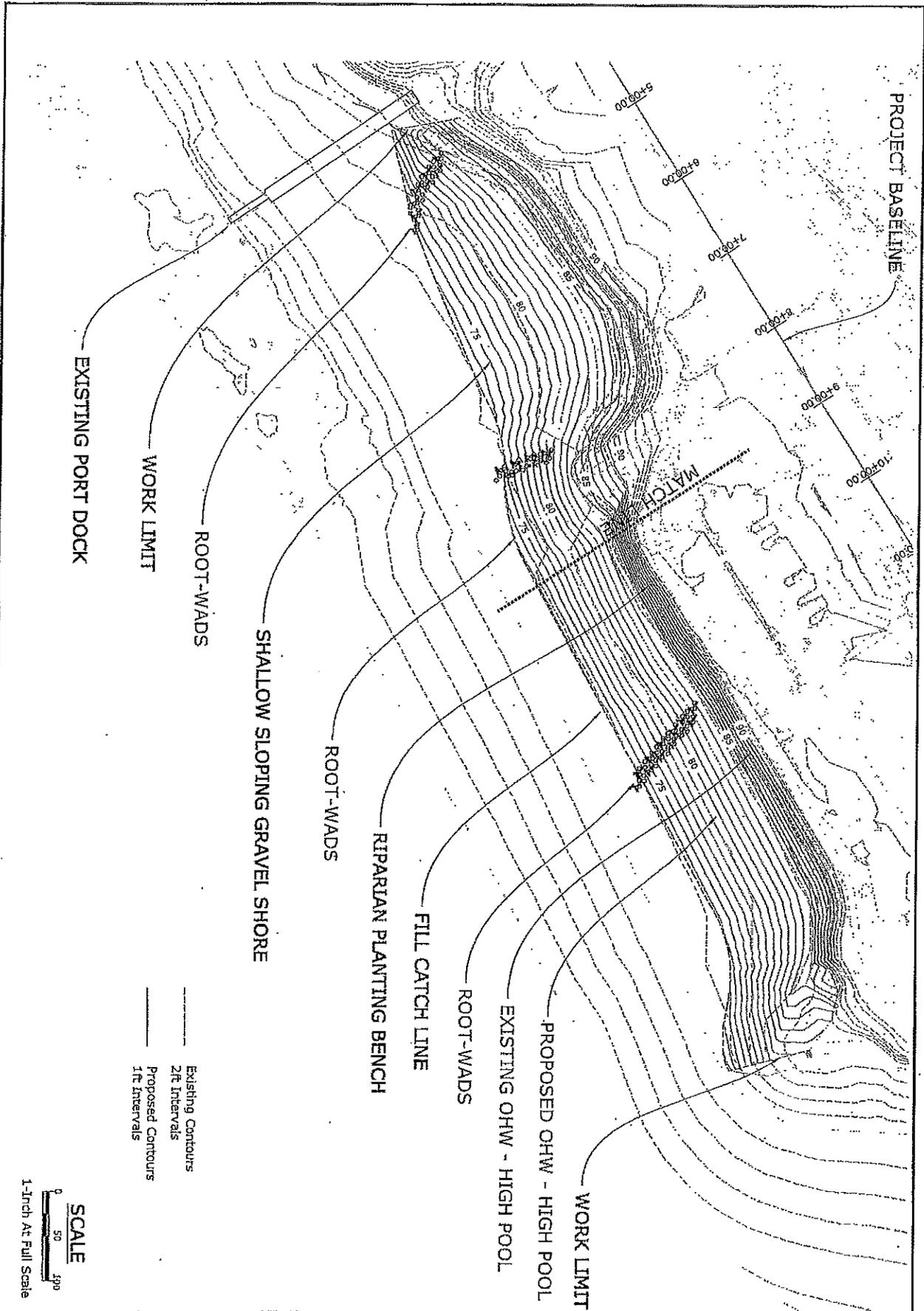
Project Baseline

SCALE  
 0 75 150  
 1-Inch At Full Scale

Corps Ref# 2007-192 Skamania County

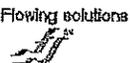
NOTE: 11x17 AT FULL SCALE

NO.	DATE	REVISION	BY	APP'D.	SCALE	 <p>Flowing solutions          David Schiller          1400 3rd Ave. SE          Portland, OR 97202          Phone: (503) 237-4311          Fax: (503) 237-4303</p>	<p>SITE</p> <p>Stevenson Shoreline Enhancement, Part of Skamania          P.O. Box 1000          Stevenson, Washington 98548</p>	<p>SHEET</p> <p>2          OF          14</p>
					PLAN			
					PROFILE			
					1/4" inch (20%)			
						DATE: June 29, 2009	PROJECT: Skamania	

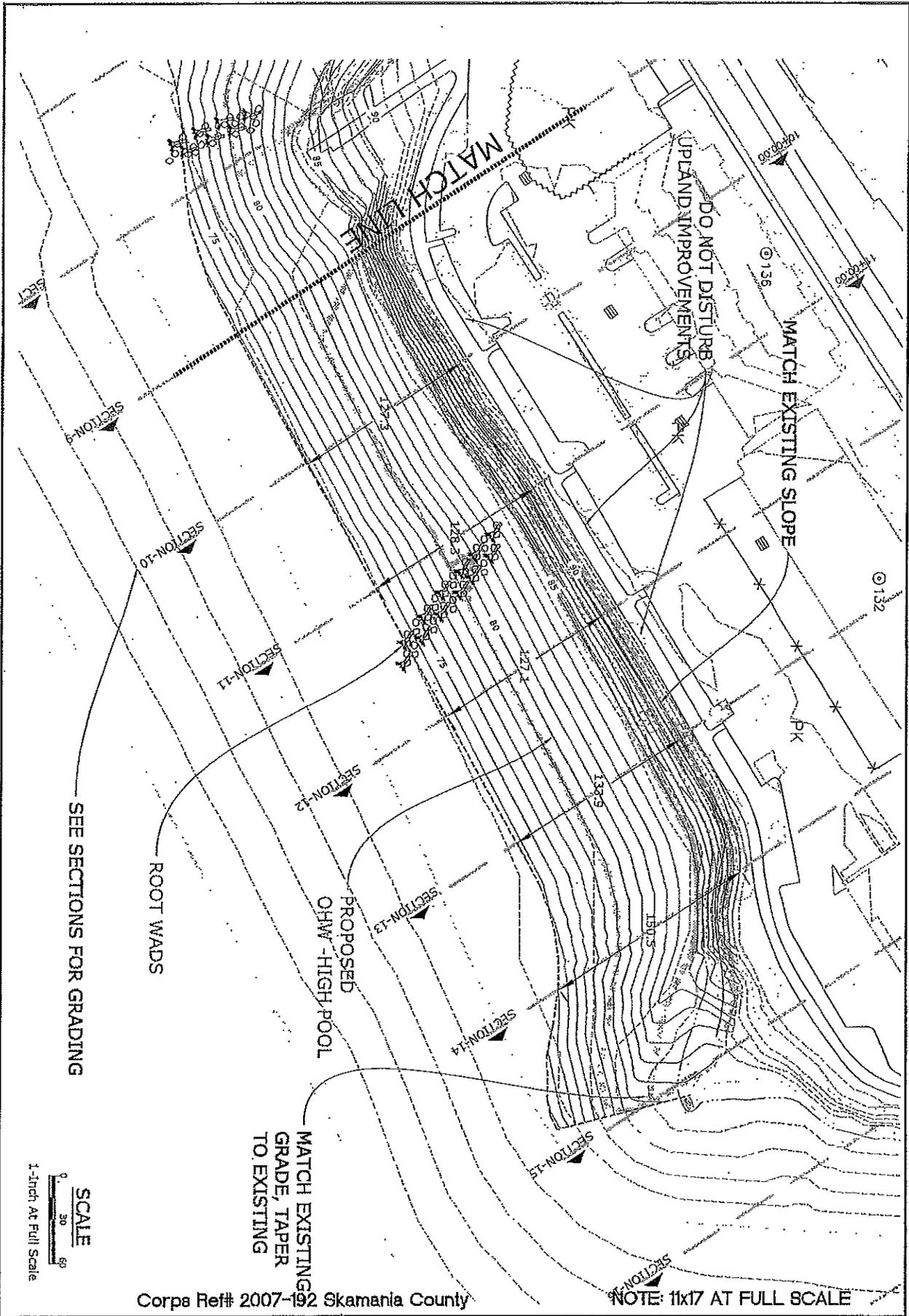


Corps Ref# 2007-192 Skamania County

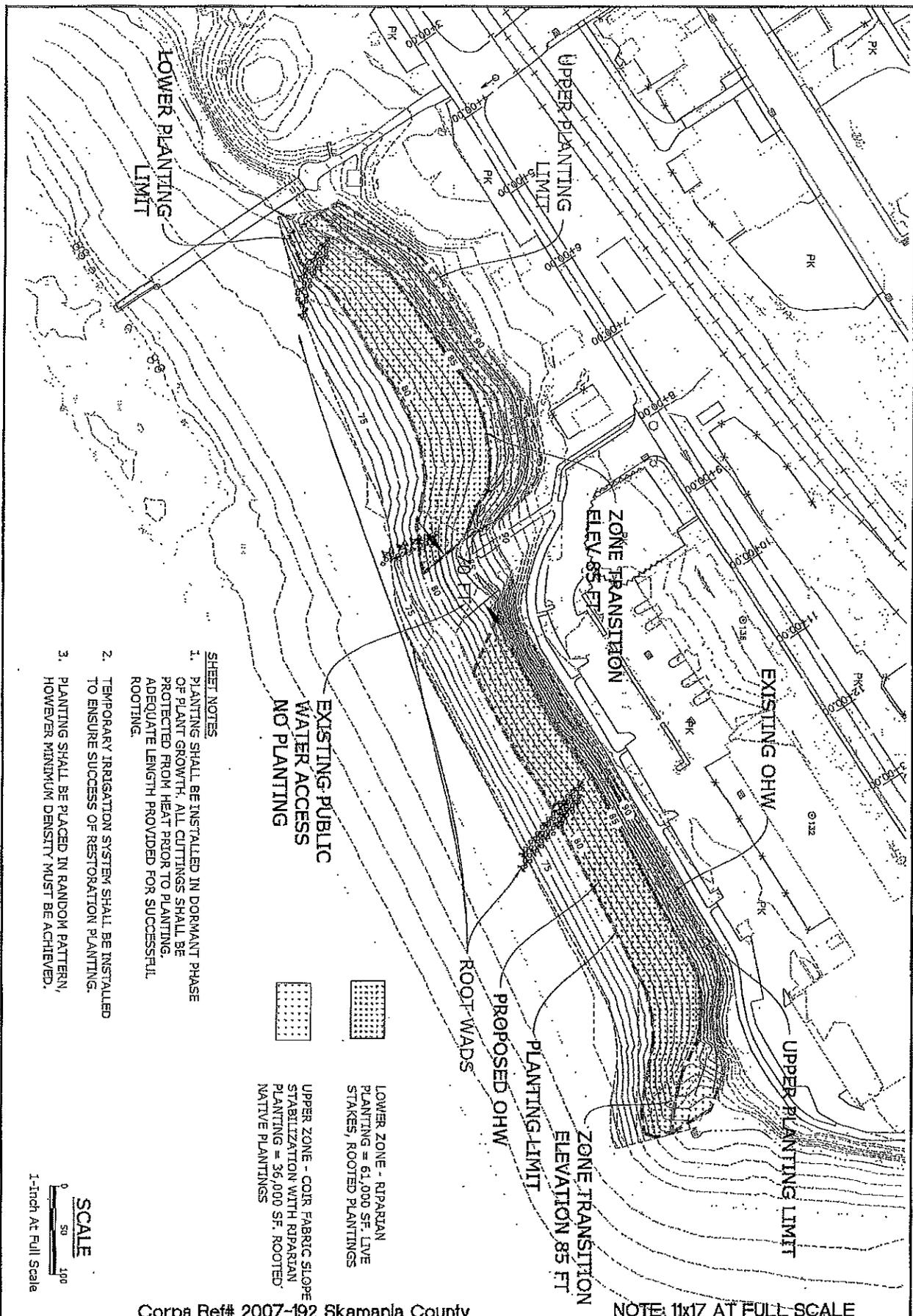
NOTE: 11x17 AT FULL SCALE

NO.	DATE	REVISION	BY	APPROV.	SCALE	 <small>Flowing solutions 2201 1st Ave. SW Seattle, WA 98101 Phone: (206) 247-4222 Fax: (206) 247-4223</small>	<b>PLAN</b> <small>Skamania Shoreline Enhancement, Part of Skamania P.O. Box 3300 Skamania, Washington 98648</small>	SHEET <b>3</b> OF <b>14</b>
					PLAN			
					TITLE			
					1/2" H24 (1/2")			
DATE: June 20, 2008						PROJECT: Sko/07a		



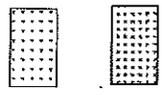


NO.		DATE	REVISION	BY	CHKD.	SCALE	<p>Flowing solutions</p> <p>2007 by 6783 dwp Project: 07-192 Phone: (509) 251-4211 Fax: (509) 251-4211</p>	<p>PLAN-EAST</p> <p>Skamania Riverine Enhancement, Part of Skamania P.O. Box 1000 Skamania, Washington 98648</p>	<p>SHEET</p> <p>5</p> <p>OF</p> <p>14</p>
PLN									
PROP									
REV									
<p>DATE: June 20, 2008</p> <p>PROJECT: Skamania</p>									



- SHEET NOTES**
1. PLANTING SHALL BE INSTALLED IN DORMANT PHASE OF PLANT GROWTH. ALL CUTTINGS SHALL BE PROTECTED FROM HEAT PRIOR TO PLANTING. ADEQUATE LENGTH PROVIDED FOR SUCCESSFUL ROOTING.
  2. TEMPORARY IRRIGATION SYSTEM SHALL BE INSTALLED TO ENSURE SUCCESS OF RESTORATION PLANTING.
  3. PLANTING SHALL BE PLACED IN RANDOM PATTERN, HOWEVER MINIMUM DENSITY MUST BE ACHIEVED.

EXISTING: PUBLIC WATER ACCESS NO PLANTING



LOWER ZONE - RIPARIAN PLANTING = 61,000 SF. LIVE STAKES, ROOTED PLANTINGS

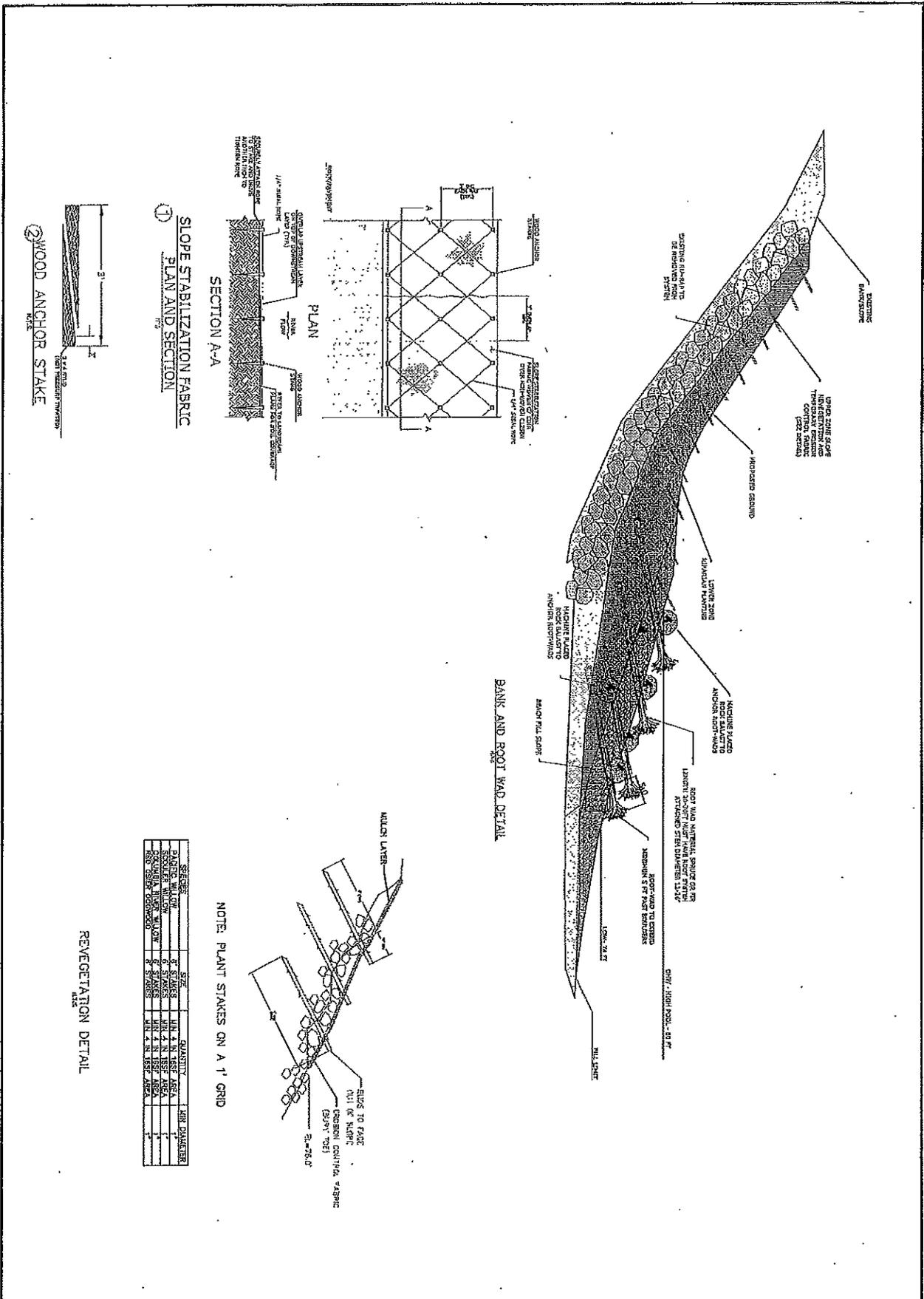
UPPER ZONE - COIR FABRIC SLOPE STABILIZATION WITH RIPARIAN PLANTING = 36,000 SF. ROOTED NATIVE PLANTINGS

**SCALE**  
 0 50 100  
 1-Inch At Full Scale

Corpa Ref# 2007-192 Skamania County

NOTE: 11x17 AT FULL SCALE

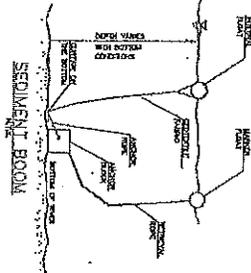
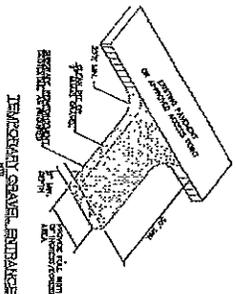
NO.	DATE	BY	SCALE		Project Number: 2007-192 Skamania Project No. 192 4700 NE 21st Street Astoria, OR 97103	<b>PLANTING</b> Skamania Shoreline Enhancement, Part of Skamania P.O. Box 1000 Skamania, Washington 98645	SHEET <b>6</b> OF <b>14</b>
PLM	FORM	DATE	DATE				



Corps Ref# 2007-192 Skamania County

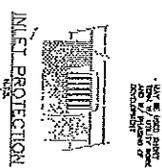
NOTE: 11x17 AT FULL SCALE

NO.	DATE	BY	SCALE	FLOWING SOLUTIONS	Project: Skamania 2007-192 Port of Skamania P.O. Box 1000 Skamania, Washington 98648 Phone: (509) 827-4311 Fax: (509) 827-4303	<b>BANK DETAIL</b> Stevenson Shoreline Enhancement, Port of Skamania P.O. Box 1000 Skamania, Washington 98648	SHEET
							7
DATE: June 26, 2003 PROJECT: Skamania							14



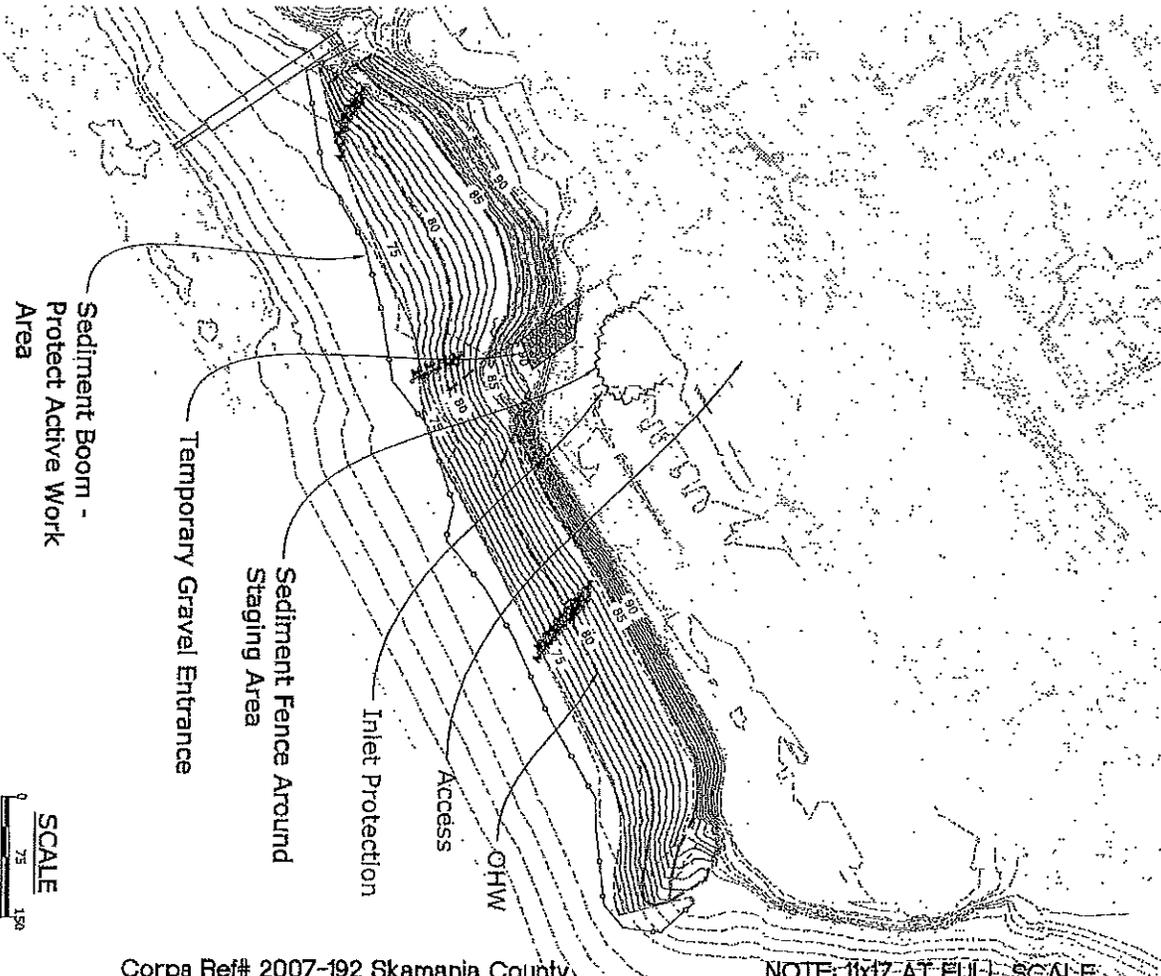
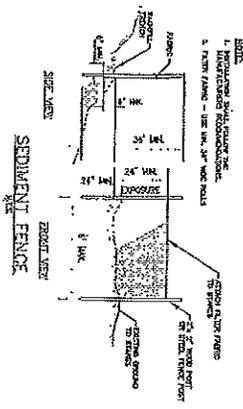
**SEDIMENT BOOM NOTES**

1. PLACE SEDIMENT BOOM DOWNSTREAM OF THE EROSION CONTROL MEASURES TO BE PROTECTED.
2. SEDIMENT BOOM SHALL BE MADE OF 2" X 4" LUMBER AND SHALL BE 12" HIGH.
3. SEDIMENT BOOM SHALL BE SPACED TO ALLOW FOR PROPER FLOW OF WATER.
4. SEDIMENT BOOM SHALL BE MAINTAINED AND REPAIRED AS NEEDED.



**SEDIMENT FENCE NOTES**

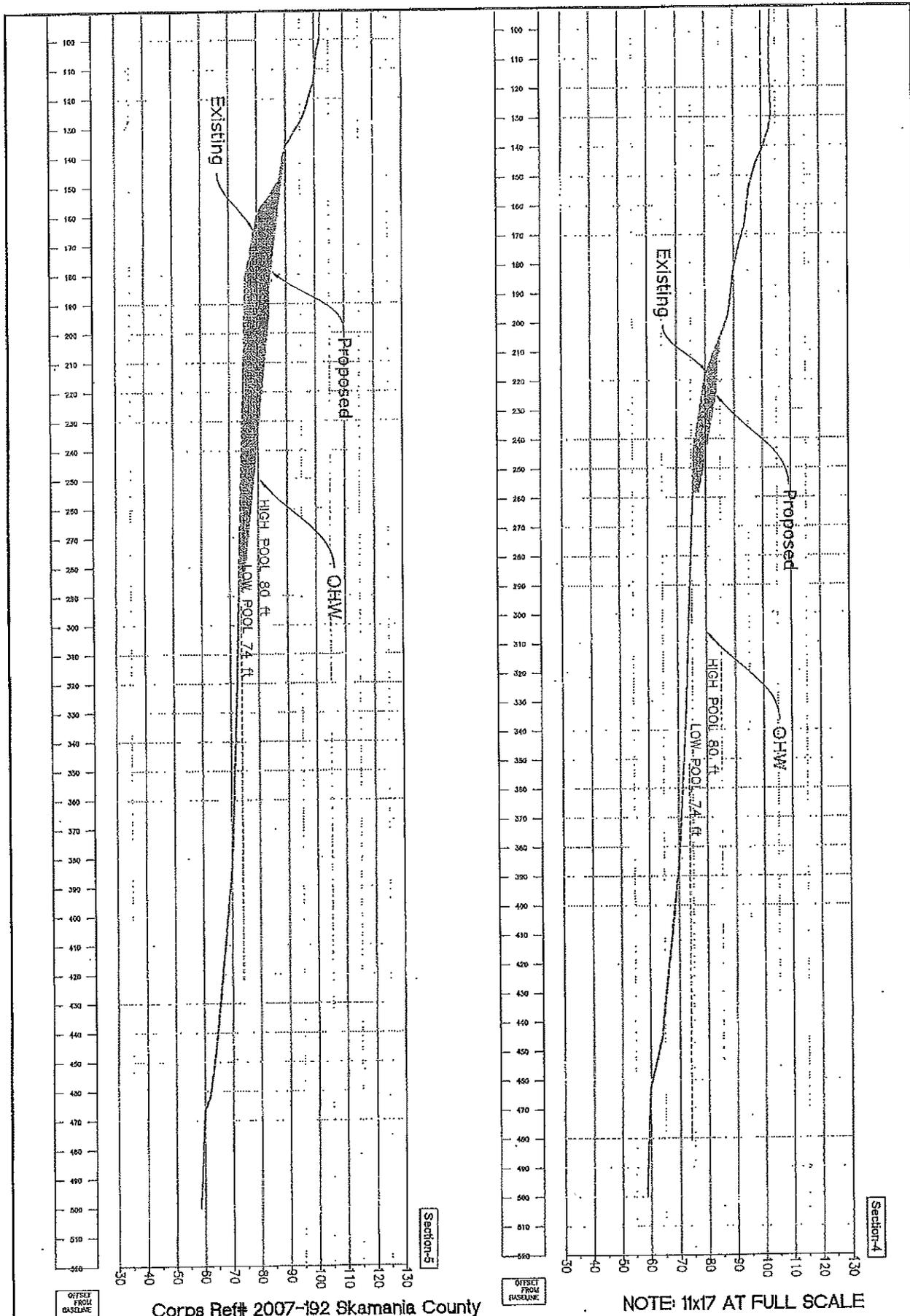
1. THE FENCE SHALL BE CONSTRUCTED IN A ROWS WITH THE FENCE POSTS SPACED AT 10' ON CENTER.
2. THE FENCE SHALL BE MADE OF 2" X 4" LUMBER AND SHALL BE 12" HIGH.
3. THE FENCE SHALL BE SPACED TO ALLOW FOR PROPER FLOW OF WATER.
4. THE FENCE SHALL BE MAINTAINED AND REPAIRED AS NEEDED.



Corpa Ref# 2007-192 Skamania County

NOTE: 1:1x17 AT FULL SCALE

NO.	DATE	REVISION	BY	APPROV.	SCALE	Flowing solutions			PROJECT	SHEET
						PLAN	VERT.	HYD.		
										8
						65000 Shoreline Enhancement, Port of Skamania P.O. Box 1100 Skamania, Washington 98642				14
						DATE: June 20, 2008				PROJECT: Shoreline



Corps Ref# 2007-192 Skamania County

NOTE: 11x17 AT FULL SCALE

NO.	DATE	REVISION	BY	APP'D	SCALE

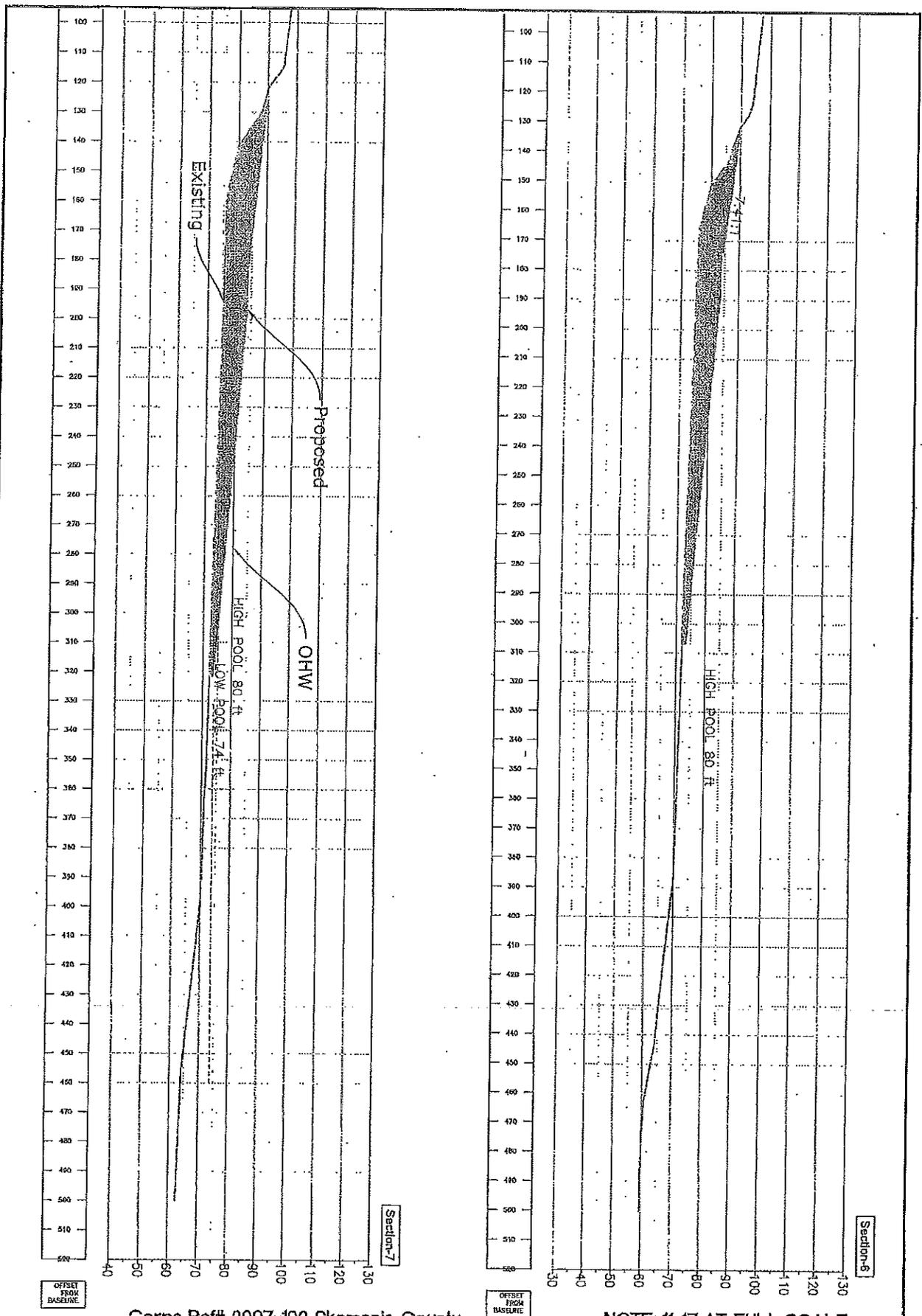
Flowing solutions

Patsy Saklani  
 3011 SW 21st Avenue  
 Portland, OR 97205  
 Phone: (503) 681-1301  
 Fax: (503) 297-4163

SECTION 4, 5

Skamania Shoreline Enhancement, Port of Skamania  
 P.O. Box 1008  
 Stevenson, Washington 98648

DATE: June 20, 2008 PROJECT: Shoreline



Corpa Ref# 2007-192 Skamania County

NOTE: 11x17 AT FULL SCALE

NO.	DATE	REVISION	BY	APP'D	SCALE
					PLAN
					1"=30'
					1/2"=30'

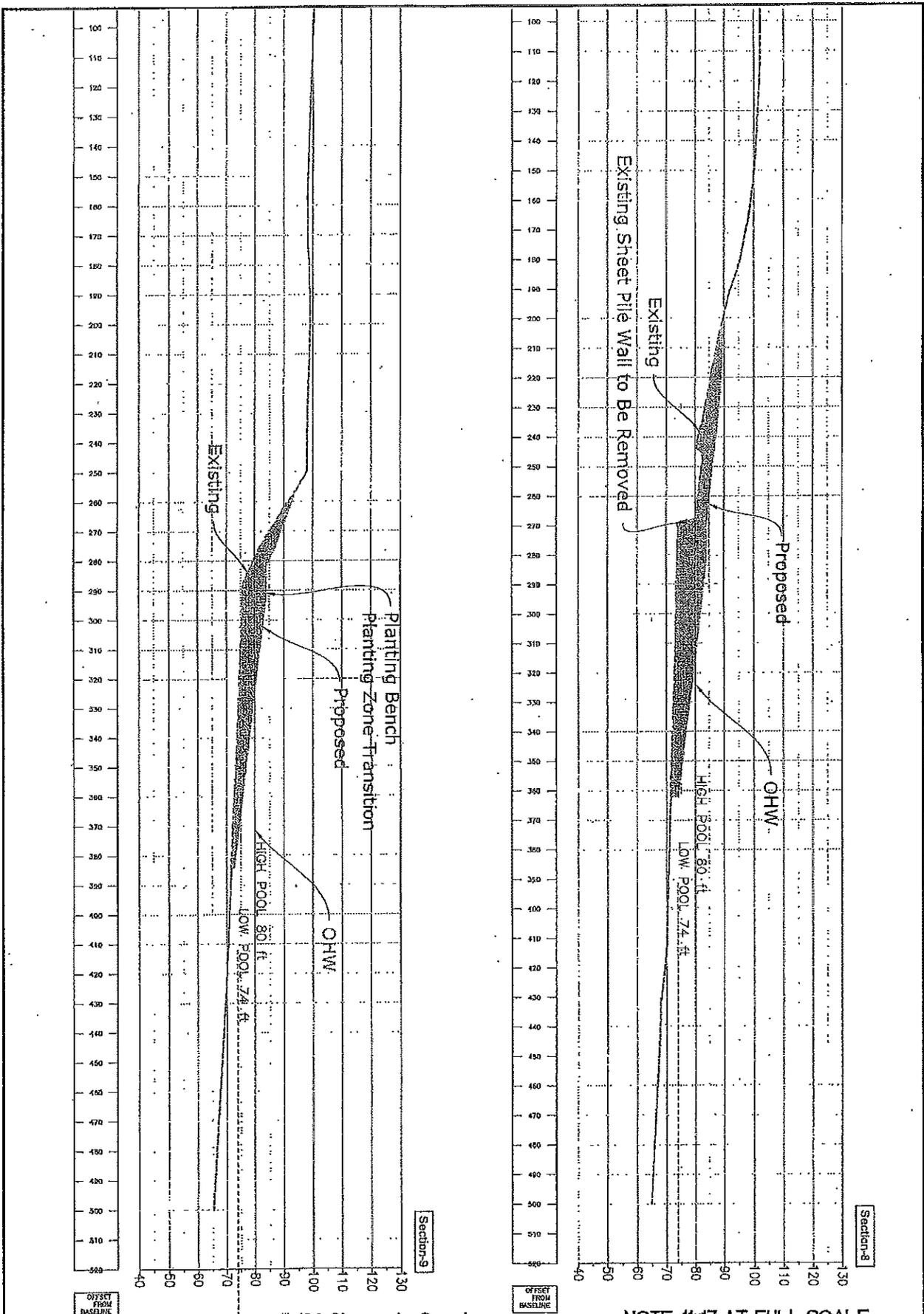
Flowing solutions

Flowing Solutions  
 2001 SW 8th Street  
 Portland, OR 97204  
 Phone: (503) 277-7331  
 Fax: (503) 287-4243

**SECTION 6, 7**  
 Stevenson Chorale Enhancement, Part of Skamania  
 P.O. Box 1099  
 Stevenson, Washington 98648

DATE: June 20, 2008 PROJECT: Skamania

SHEET  
 10  
 OF  
 14



Corpa Ref# 2007-192 Skamania County

NOTE: 11x17 AT FULL SCALE

NO.	DATE	REVISION	BY	APPROV.	SCALE
					PLAN
					1"=30'
					VERT. 1"=20'
					1/2"=10' (VERT.)

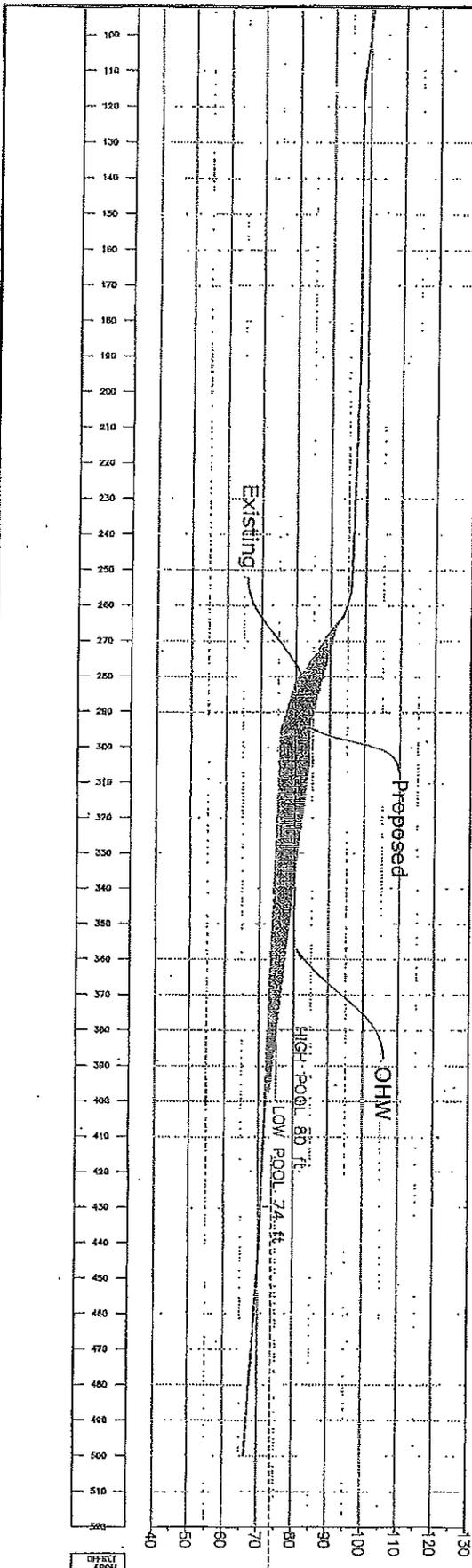
Flowing Solutions

Flowing Solutions  
 10000 1st Avenue  
 Portland, OR 97201  
 Phone: (503) 251-1111  
 Fax: (503) 297-4251

**SECTION 8, 9**

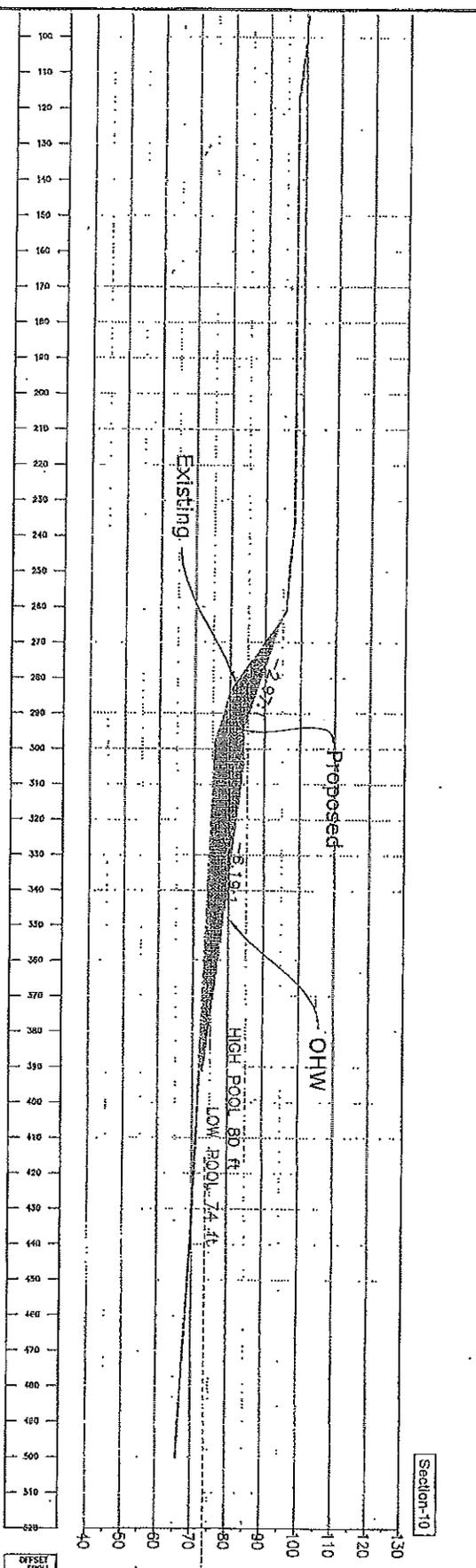
Bonanza Channel Enhancement, Port of Skamania  
 P.O. Box 1000  
 Skamania, Washington 98645

DATE: June 20, 2008 PROJECT: Skanska



Section-11

Corps Ref# 2007-192 Skamania County



Section-10

NOTE: 11x17 AT FULL SCALE

NO.	DATE	REVISION	BY	CHKD.	SCALE
					1"=30'
					1"=30'
					1"=30'
					1"=30'

Flowing solutions

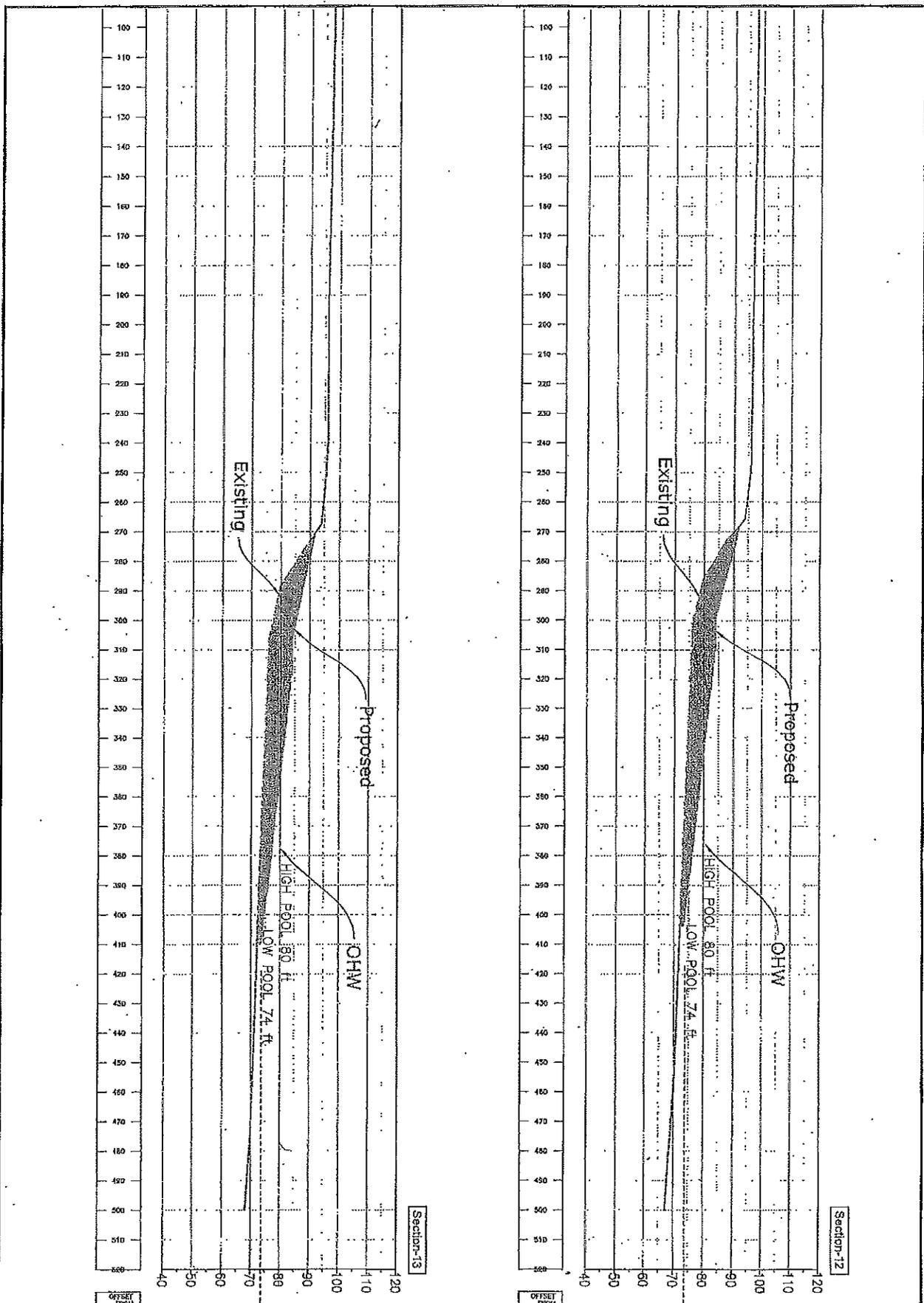
Flowing solutions  
1302 37th Ave SW  
Seattle, WA 98148  
Phone: (206) 263-8311  
Fax: (206) 267-4403

SECTION 10, 11

Cleavonch Shoreline Enhancement, Port of Skamania  
712 Box 500  
Skamania, Washington 98648

DATE: June 20, 2008 PROJECT: Skamania

SHEET  
12  
OF  
14



Corpa Ref# 2007-192 Skamania County

NOTE: 11x17 AT FULL SCALE

NO.	DATE	BY	SCALE
			PLAN 1"=20'
			PROFILE 1"=100'
			1/2"=100' (REV)

Flowing solutions

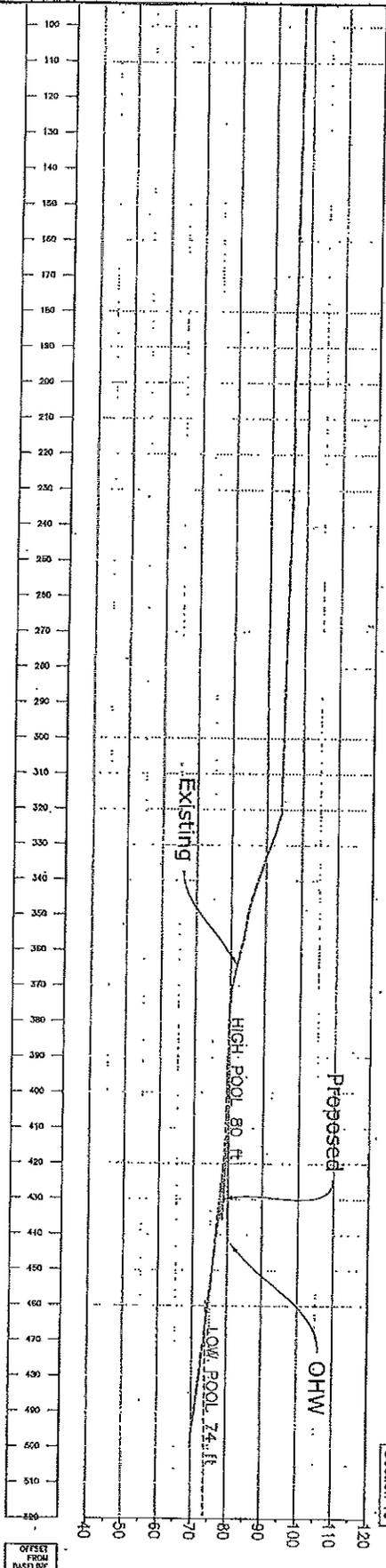
2007 S.A. Road  
 3000 W. 27th Avenue  
 Portland, OR 97223  
 Phone: (503) 287-4311  
 Fax: (503) 287-4303

SECTION 12, 13

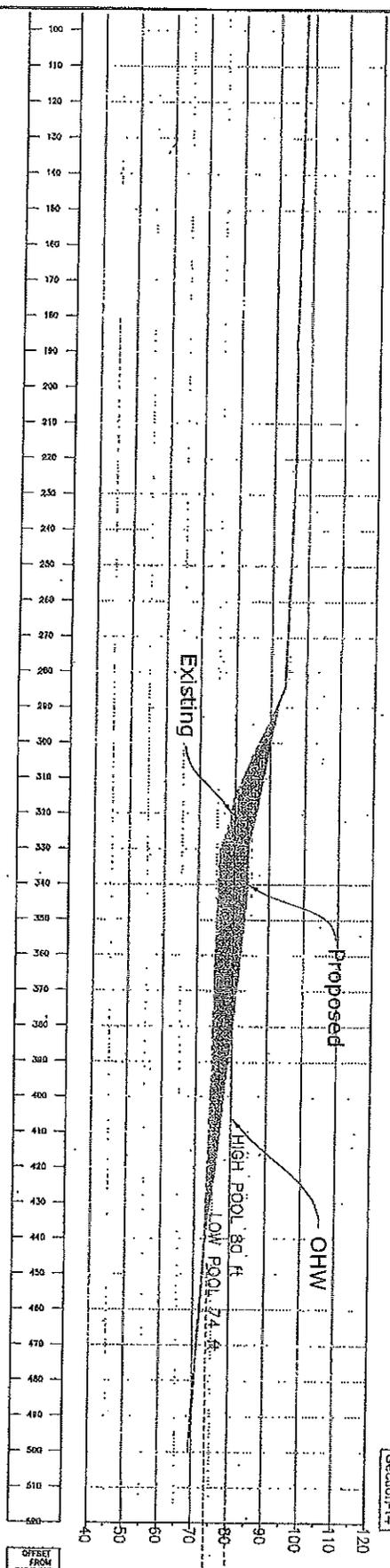
Skamania Electric Enhancement, Part of Skamania  
 #13 Box 800  
 Glenwood, Washington 98548

DATE: Jan 20, 2008 PROJECT Sheets

SHEET	13
OF	14



Section-15



Section-14

Corps Ref# 2007-192 Skamania County

NOTE: 11x17 AT FULL SCALE

NO.	DATE	REVISION	BY	APP'D	SCALE

Flowing solutions

Design Solutions  
3200 SW 20th Street  
Portland, OR 97219  
Phone: (503) 827-4311  
Fax: (503) 297-4327

SECTION 14, 15

Stevenson Shoreline Enhancement, Part of Skamania  
PO Box 3000  
Stevenson, Washington 98648

DATE: June 20, 2008 PROJECT SHEET

SHEET	14
OF	14



US Army Corps  
of Engineers ©  
Seattle District

## CERTIFICATE OF COMPLIANCE WITH DEPARTMENT OF THE ARMY PERMIT



Permit Number:           NWS-2007-192          

Name of Permittee:           Skamania County Public Works          

Date of Issuance:           FEB 25 2011          

Upon completion of the activity authorized by this permit, please check the applicable boxes below, date and sign this certification, and return it to the following address:

Department of the Army  
U.S. Army Corps of Engineers  
Seattle District, Regulatory Branch  
Post Office Box 3755  
Seattle, Washington 98124-3755

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with the terms and conditions of your authorization, your project is subject to suspension, modification, or revocation.

<input type="checkbox"/>	The work authorized by the above-referenced permit has been completed in accordance with the terms and conditions of this permit. Date work complete: _____
<input type="checkbox"/>	Photographs and as-built drawings of the authorized work are attached.

<input type="checkbox"/>	If applicable, the mitigation required (not including monitoring (e.g., construction and plantings) in the above-referenced permit has been completed in accordance with the terms and conditions of this permit. Date work complete: _____
<input type="checkbox"/>	Photographs and as-built drawings of the mitigation are attached.

Printed Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_