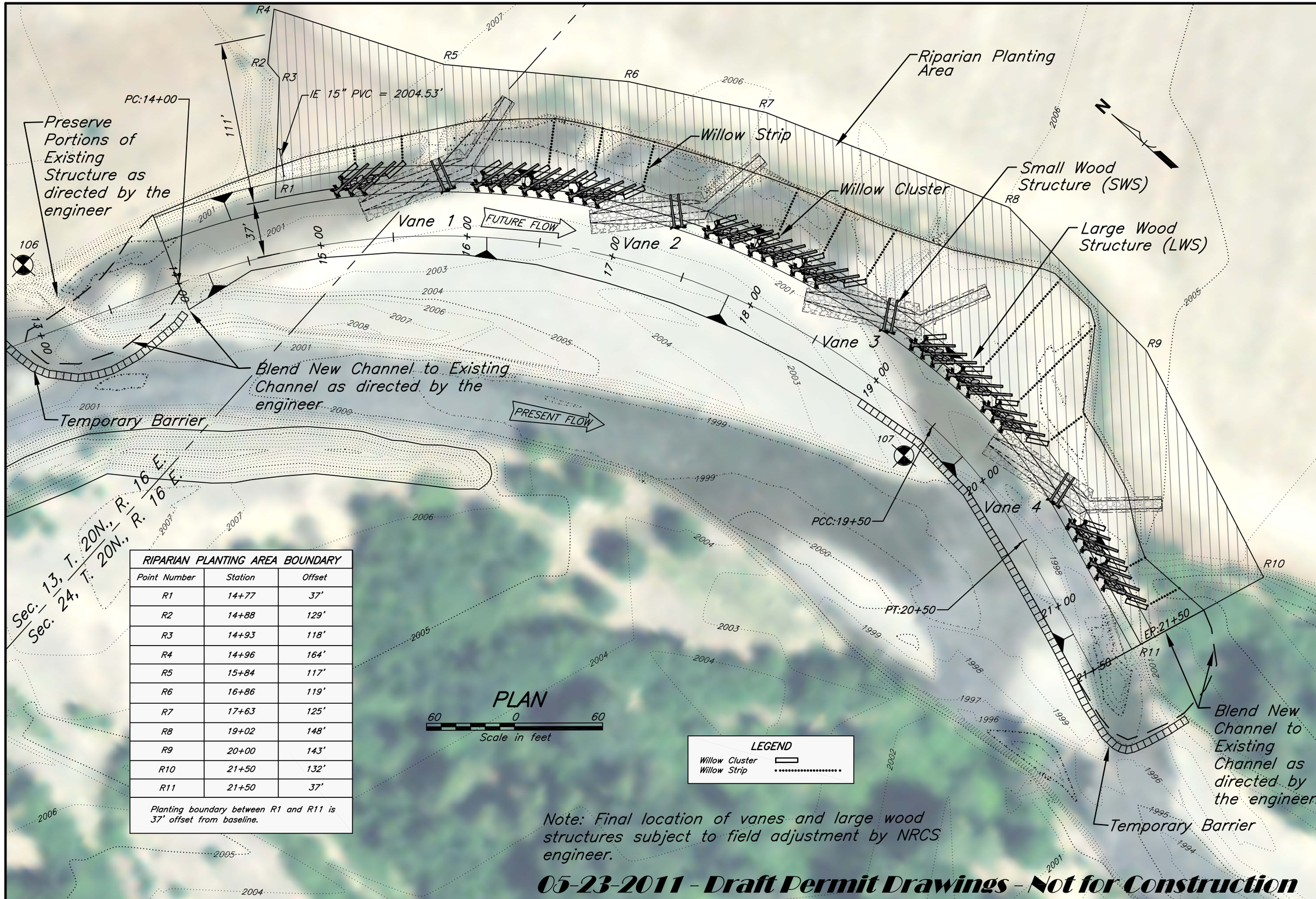

RIPARIAN PLANTING AREA BOUNDARY		
Point Number	Station	Offset
R1	14+77	37'
R2	14+88	129'
R3	14+93	118'
R4	14+96	164'
R5	15+84	117'
R6	16+86	119'
R7	17+63	125'
R8	19+02	148'
R9	20+00	143'
R10	21+50	132'
R11	21+50	37'

Planting boundary between R1 and R11 is 37' offset from baseline.

		Date
Designed	SCD / DLH	5/11
Drawn	RLB	5/11
Checked	KAS	5/11
Approved		

PLAN DETAIL

RIVER CHANNEL/FLOODPLAIN RESTORATION PROJECT

OLIN NICHOLS

Kittitas County, Washington

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Natural Resources Conservation Service
United States Department of Agriculture

File Name

Drawing Name
nichols.dwg

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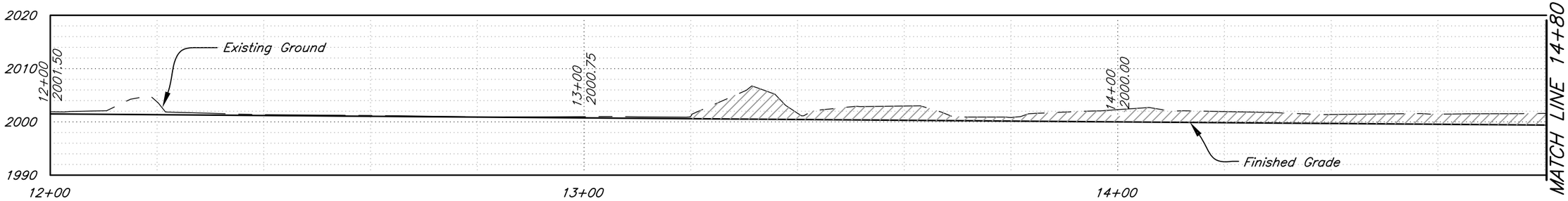

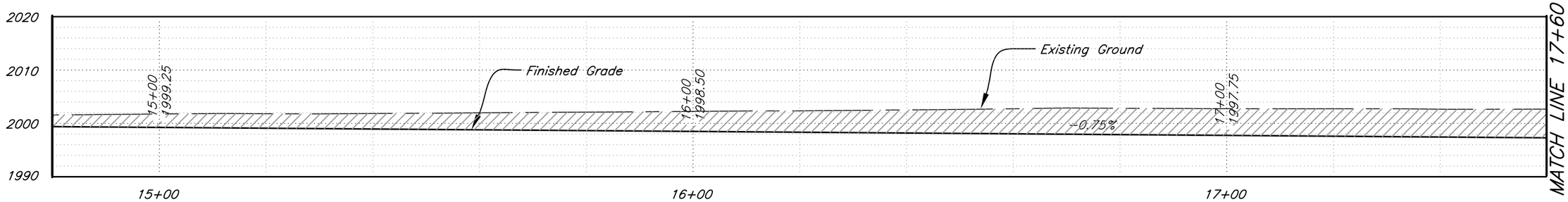

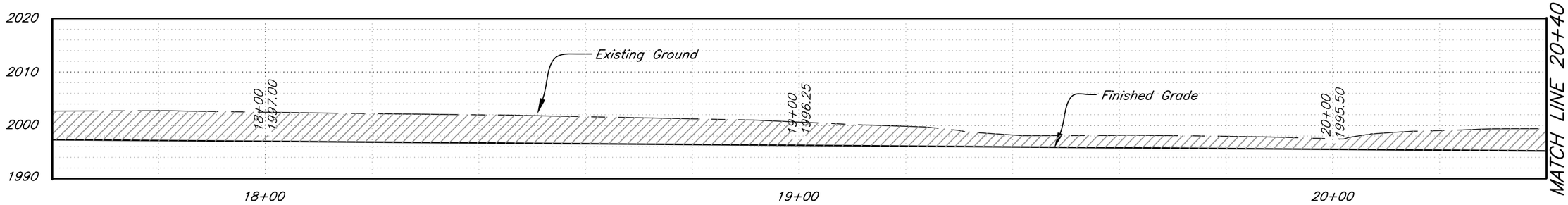

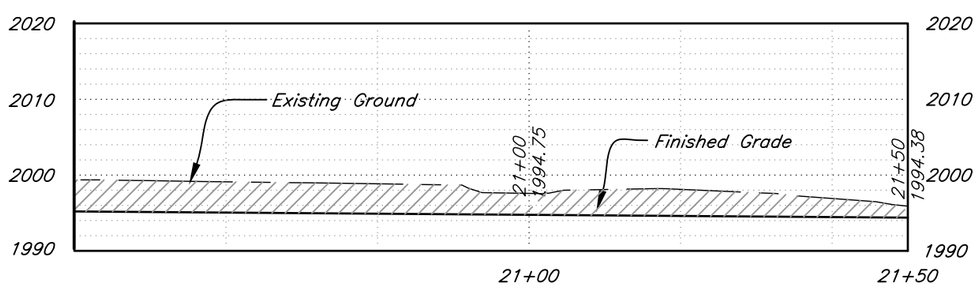

Cut Area

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Designed	SCD / DLH	5/11
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Checked	KAS	5/11
Approved		

BASELINE PROFILE

RIVER CHANNEL/FLOODPLAIN RESTORATION PROJECT

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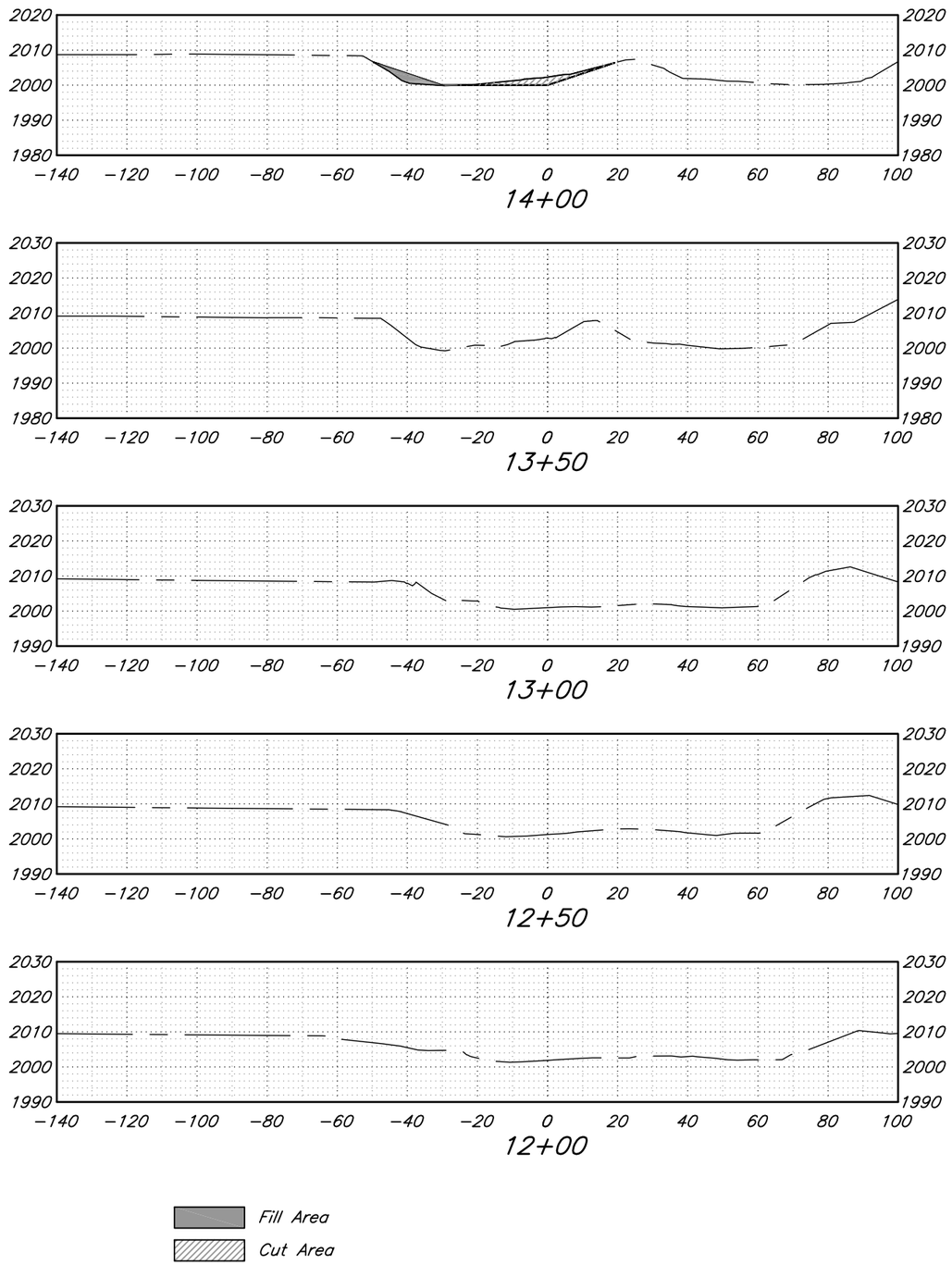

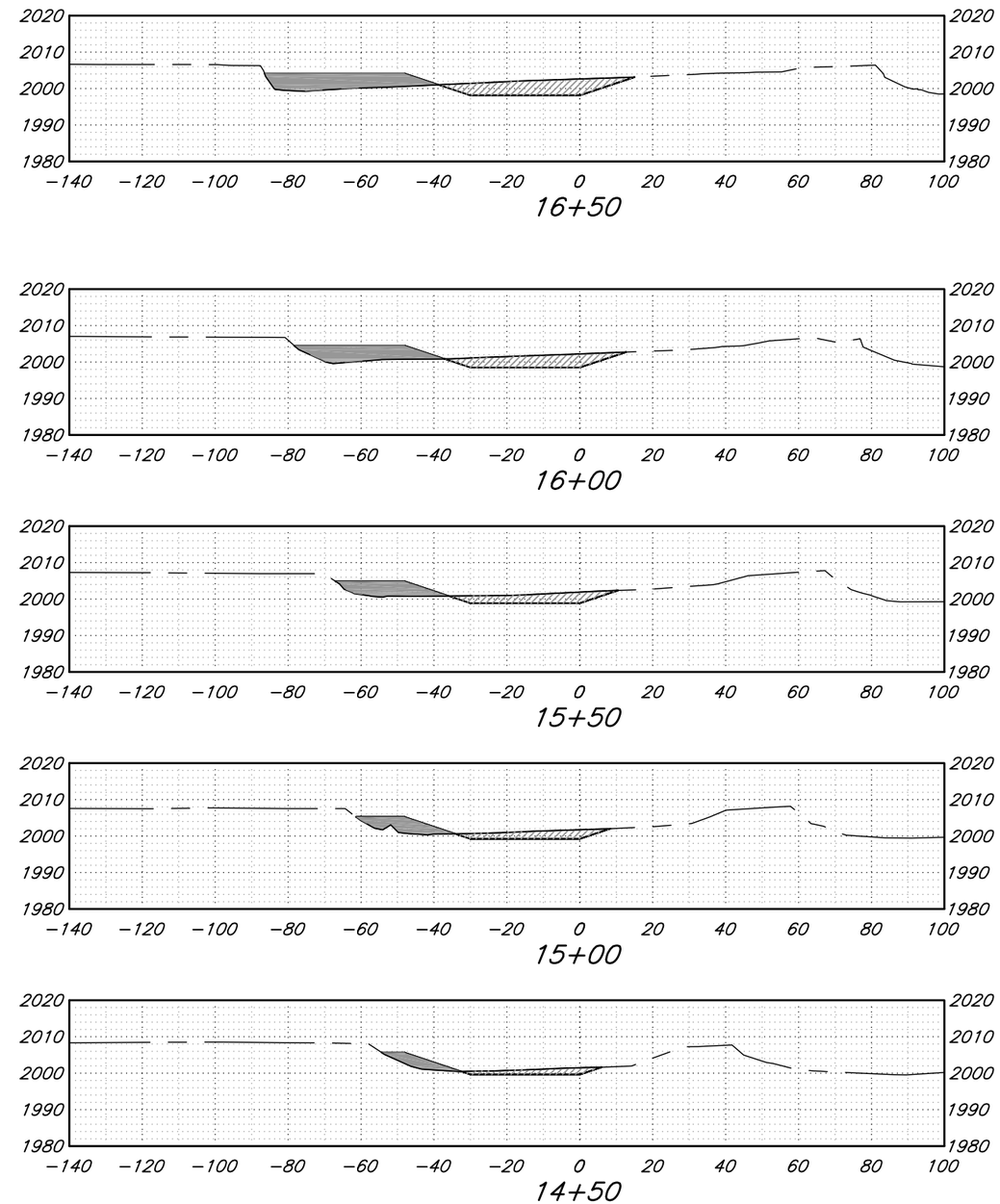

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Drawn	RLB		5/11
Checked			
Approved			

EARTHWORK CROSS SECTIONS

RIVER CHANNEL/FLOODPLAIN RESTORATION PROJECT

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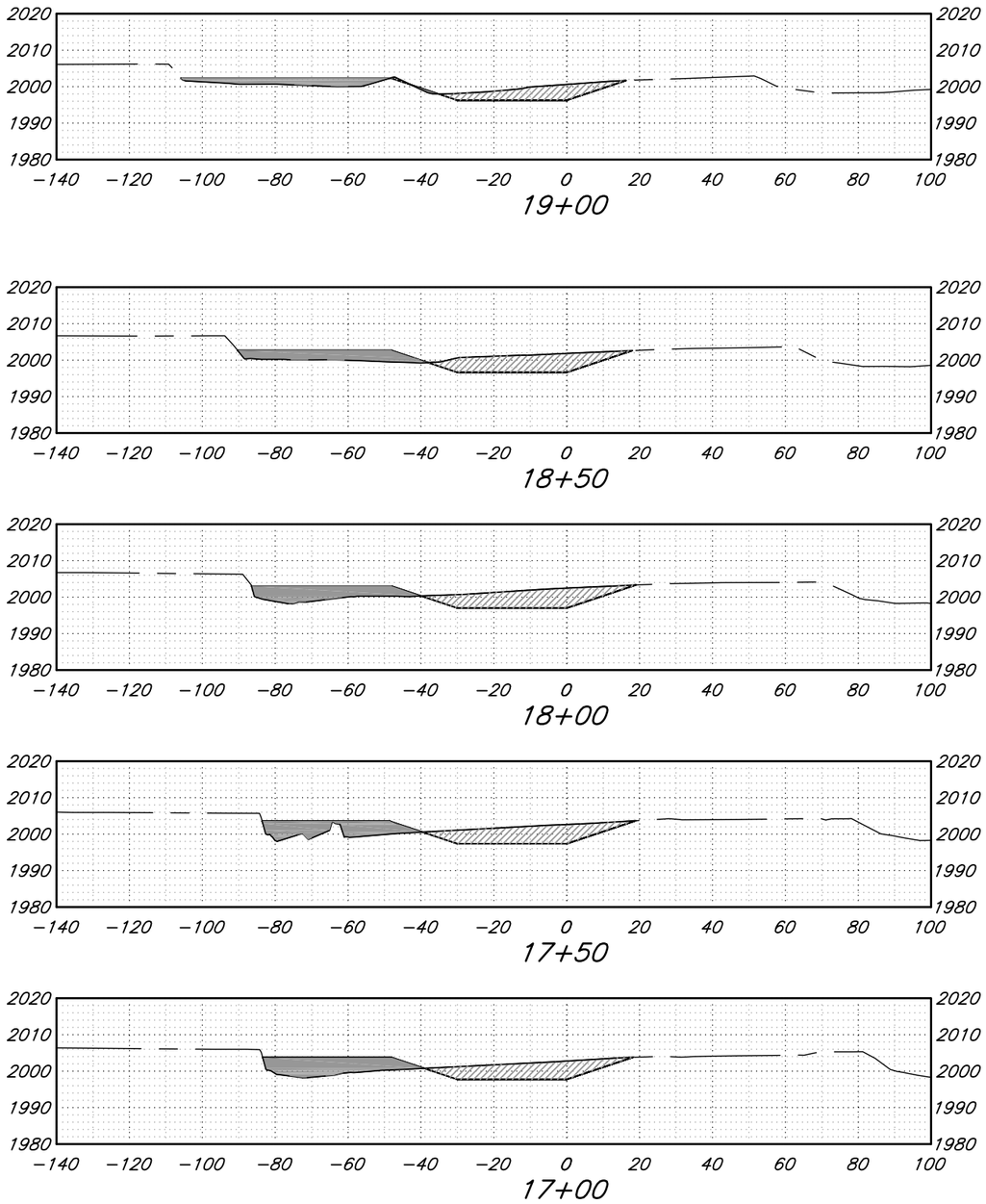

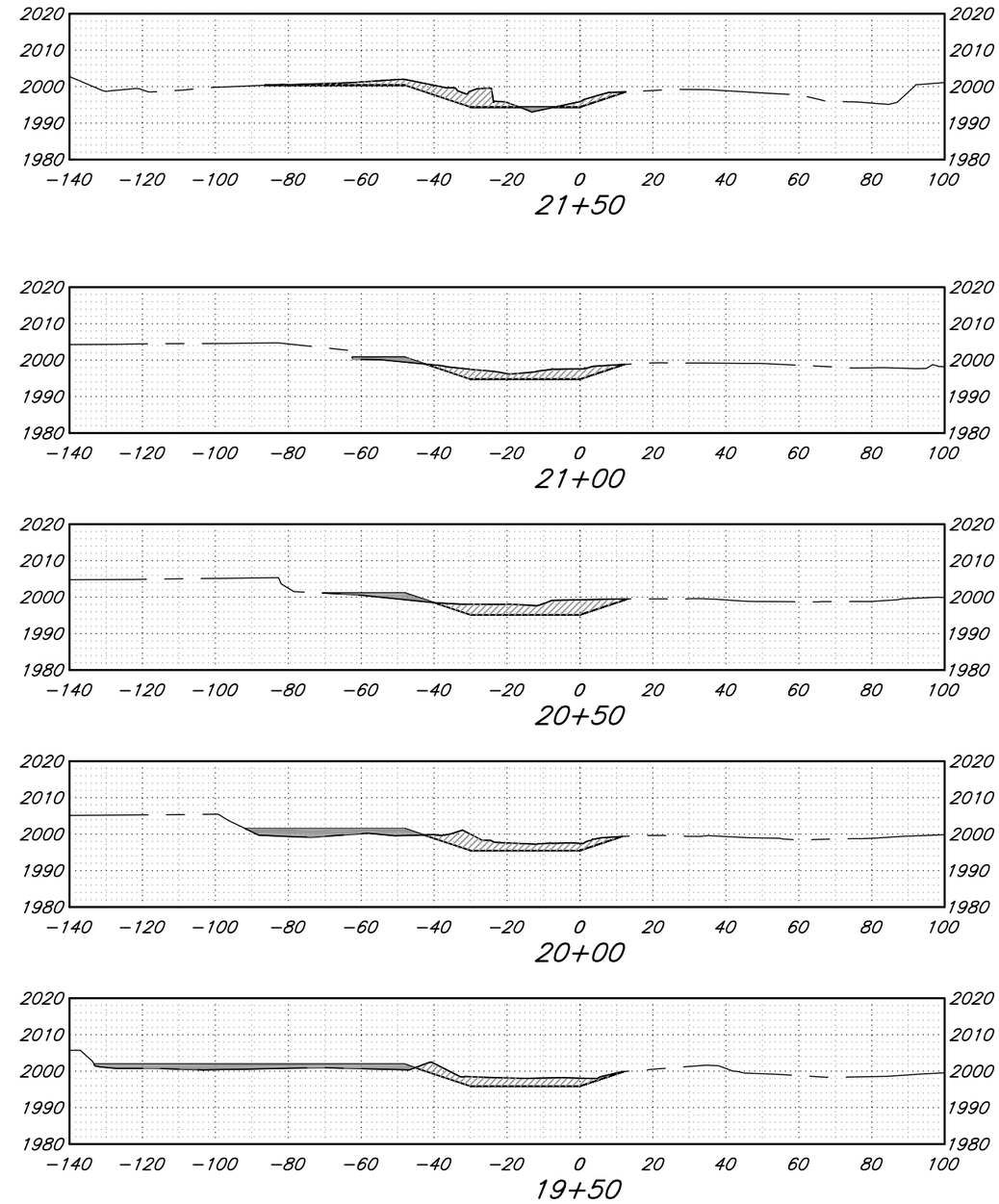

Fill Area

Cut Area

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Approved		

EARTHWORK CROSS SECTIONS

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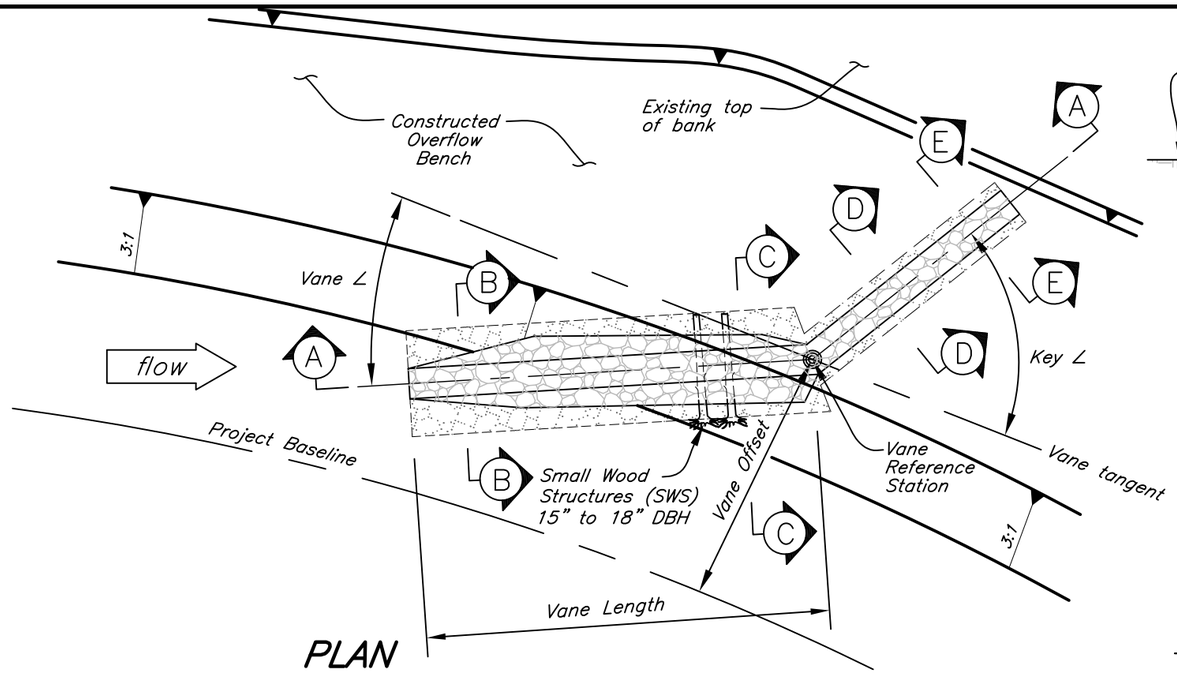
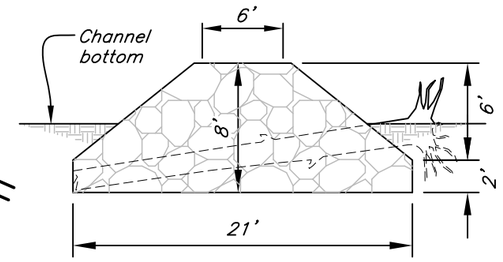
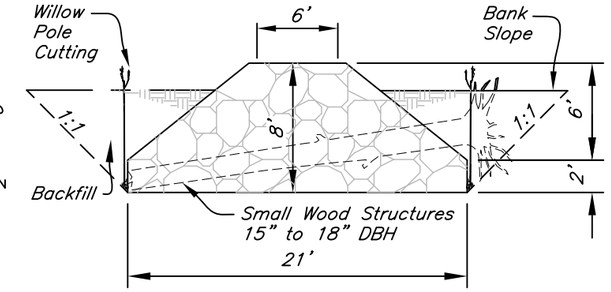


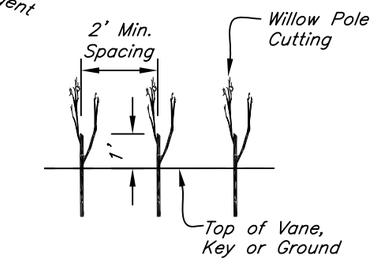
PLAN



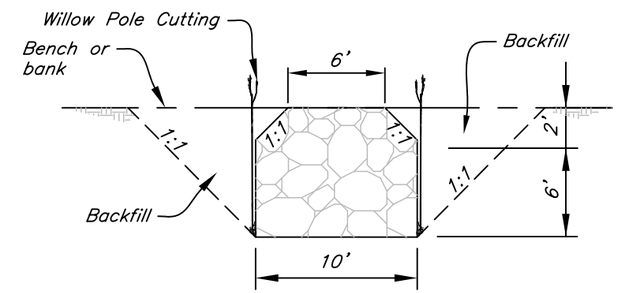
VANE SECTION (B)



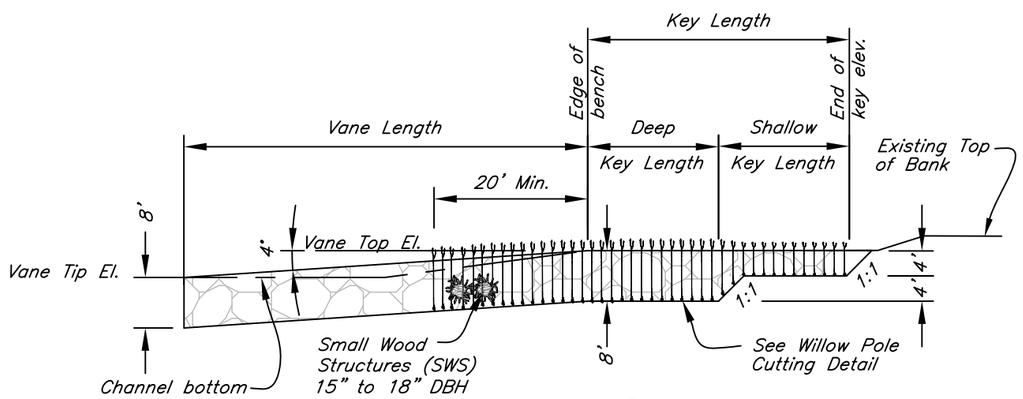
VANE SECTION (C)



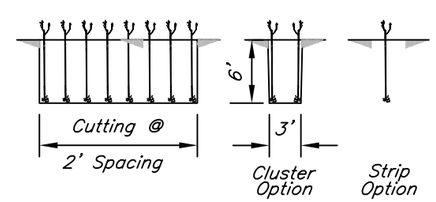
WILLOW POLE CUTTING DETAIL



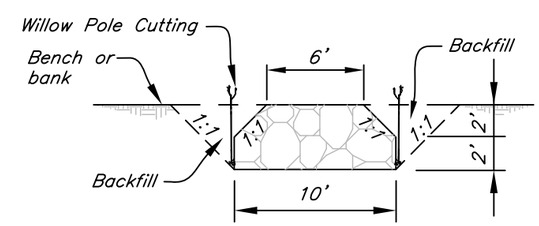
DEEP KEY SECTION (D)



SECTION (A)



WILLOW CLUSTER DETAILS



SHALLOW KEY SECTION (E)

VANE INFORMATION TABLE

STRUCTURE NO.	VANE REFERENCE STATION	VANE OFFSET (feet)	VANE TIP ELEVATION (feet)	VANE TOP ELEVATION (feet)	END OF KEY ELEVATION (feet)	VANE LENGTH (feet)	VANE ∠ (degrees)	KEY ∠ (degrees)	DEEP KEY LENGTH (feet)	SHALLOW KEY LENGTH (feet)	ROCK VOLUME (cy)
Vane 1	16+00	51	1999.01	2004.50	2006.00	80	25	60	25	25	469
Vane 2	17+50	51	1997.88	2003.37	2004.87	80	25	60	25	25	469
Vane 3	19+00	51	1996.76	2002.25	2003.75	80	25	60	25	25	469
Vane 4	20+50	51	1995.64	2001.12	2002.62	80	25	60	25	25	469

ROCK GRADATION

VANE AND DEEP KEY			SHALLOW KEY		
SIZE OPENING (inches)	APPROXIMATE ROCK WEIGHT (lbs)	PASSING BY DRY WEIGHT (%)	SIZE OPENING (inches)	APPROXIMATE ROCK WEIGHT (lbs)	PASSING BY DRY WEIGHT (%)
80	37,000	100	48	8,100	100
60	16,000	50–85	36	3,400	50–85
42	5,400	30–50	30	2,000	30–50
24	1,000	15–30	18	425	15–30
16	300	0–10	12	125	0–10

Note: Final location of vanes subject to field adjustment by NRCS engineer.

Drawings Not to Scale

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Approved		

VANE/SWS & WILLOW DETAILS

RIVER CHANNEL/FLOODPLAIN RESTORATION PROJECT

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NRCS Natural Resources Conservation Service United States Department of Agriculture

File Name

Drawing Name nichols.dwg

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05-23-2011 - Draft Permit Drawings
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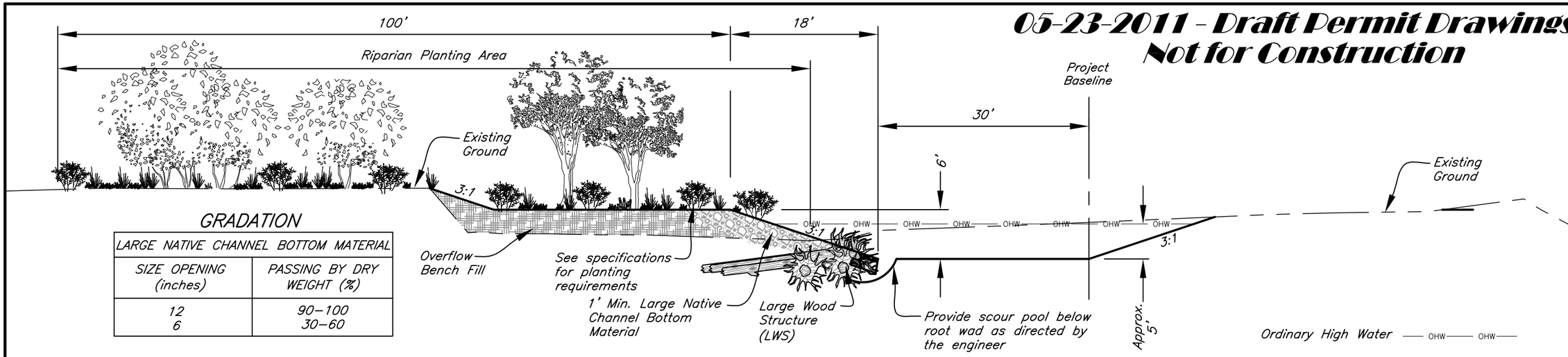


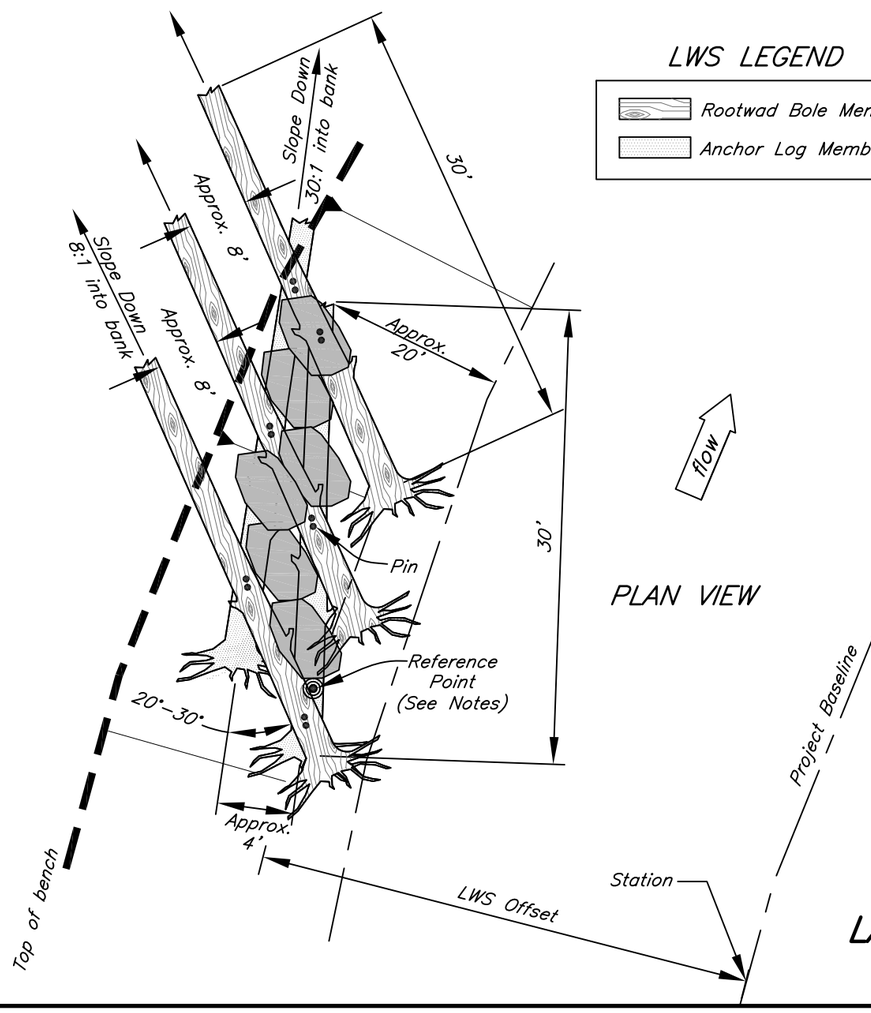
TYPICAL CROSS SECTION

GRADATION

LARGE NATIVE CHANNEL BOTTOM MATERIAL	
SIZE OPENING (inches)	PASSING BY DRY WEIGHT (%)
12	90–100
6	30–60

LWS LEGEND

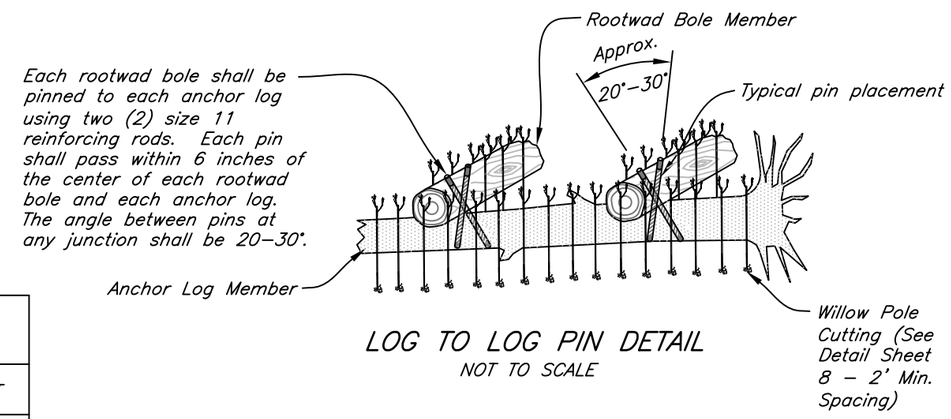
- Rootwad Bole Member
- Anchor Log Member



PLAN VIEW

LWS LOCATION SCHEDULE		
STRUCTURE #	STATION	OFFSET
1	15+20	36'
2	16+10	36'
3	16+40	36'
4	16+70	36'
5	17+60	36'
6	17+90	36'
7	18+20	36'
8	19+10	36'
9	19+40	36'
10	19+70	36'
11	20+60	36'
12	20+90	36'

LARGE WOOD STRUCTURE (LWS)



LOG TO LOG PIN DETAIL

NOT TO SCALE

CONSTRUCTION NOTES:

1. Structure members are to be a minimum of 2' stem diameter (at breast height (DBH), with 6' effective diameter rootwad. Use excavated gravels to backfill around base members. Slope members downward from rootwad as shown on the drawings.
2. Ballast structure with six (6) 3.5' diameter boulders. Boulder ballast shall be placed within and on top of LWS in a stable position as shown in detail. Ballast placement shall be supervised by the NRCS Engineer.
3. Offset is defined as the horizontal distance from the project baseline to the reference point on the nearest anchor log at breast height.
4. The elevation of the reference point on the nearest anchor log at breast height, when installed, shall be equal to the corresponding project baseline elevation.
5. The bole of each rootwad bole member shall rest on the bole of each anchor log member.

Note: Final location of large wood structures subject to field adjustment by NRCS engineer.

		Date
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TYPICAL XS–LARGE WOOD STRUCTURE

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