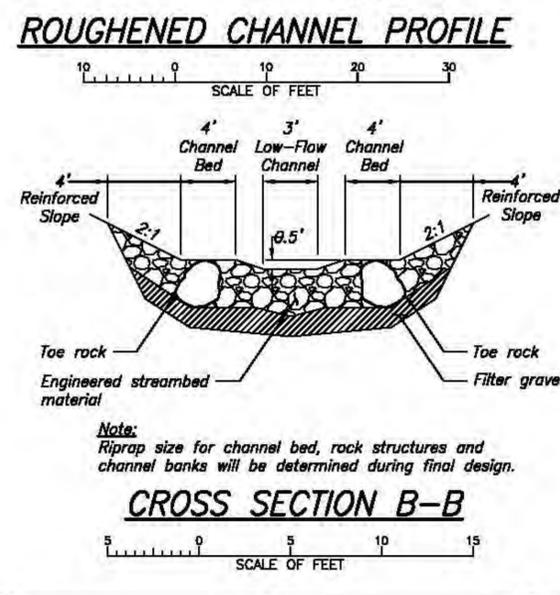
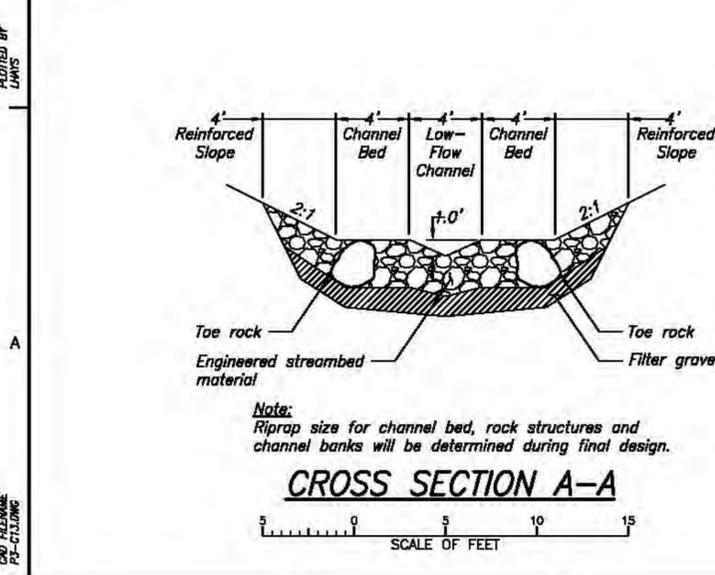
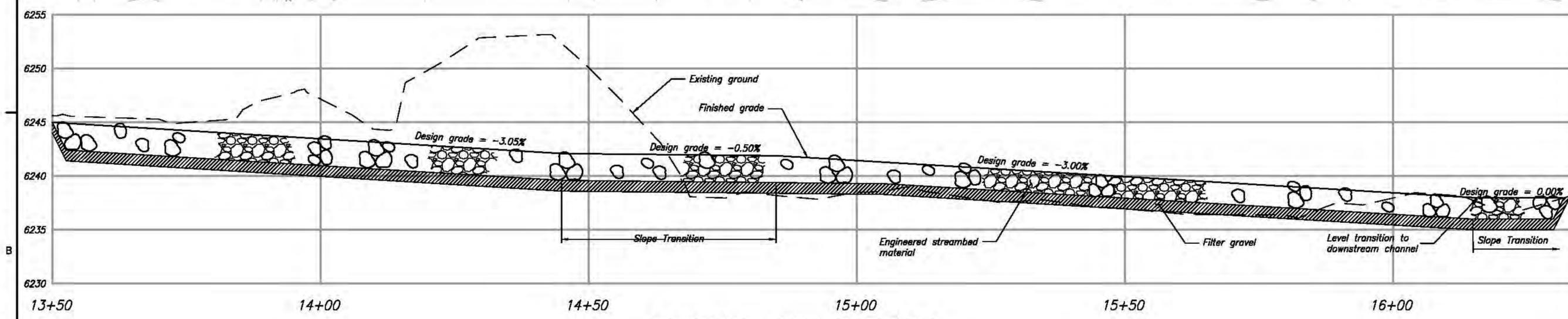
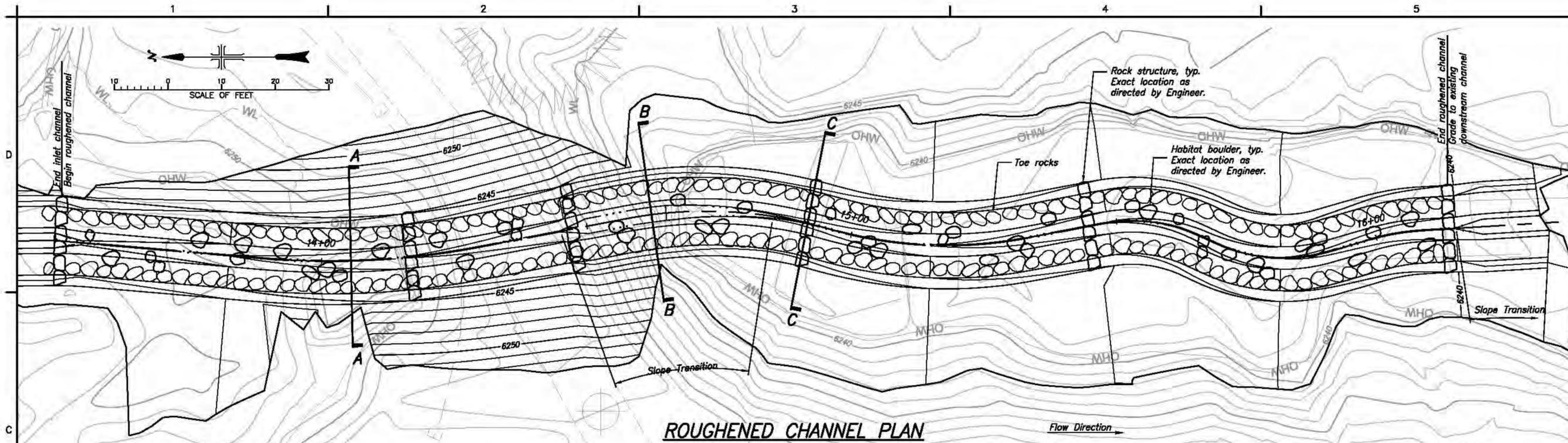


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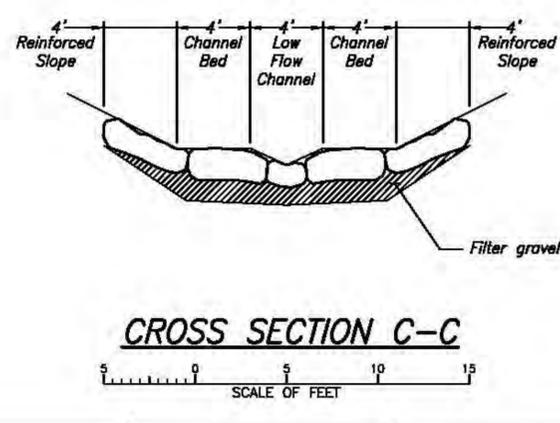
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COLUMBIA SNAKE RIVER SALMON RECOVERY PROGRAM
FORPS HABITAT IMPROVEMENT PROGRAM - IDAHO
UPPER SALMON RIVER SUBBASIN
YANKEE FORK PROJECT: PS3 SIDE CHANNEL
DETAILS - 1



Permit No. HWY-2012-125
PROJECT: Yankee Fork Habitat Improvement
APPLICANTS: USFS and J.R. Simplot Company
WATERBODY: Yankee Fork
COUNTY/STATE: Custer, Idaho
DATE: 12 June 2012
SHEET 15 of 20



DESIGNED	CONTRACTOR
DRAWN	
CHECKED	
TECH. ACCEPTANCE	NAME - TITLE
ACCEPTED	NAME - TITLE

BOISE, IDAHO 2012-03-28

DETAILS - 1

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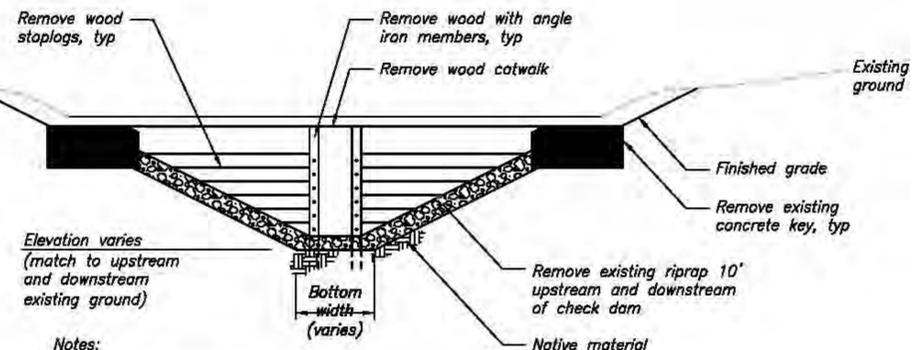
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UPPER SALMON SUBBASIN
YANKEE FORK PROJECT: PS3 SIDE CHANNEL
DETAILS - 2

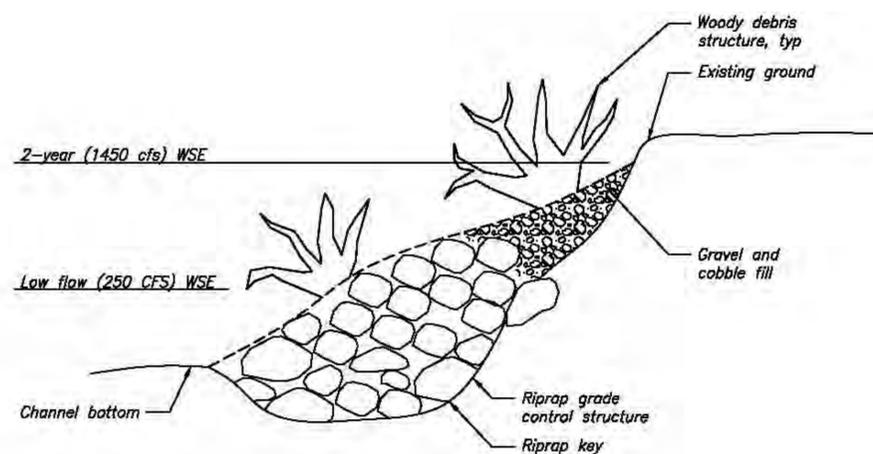


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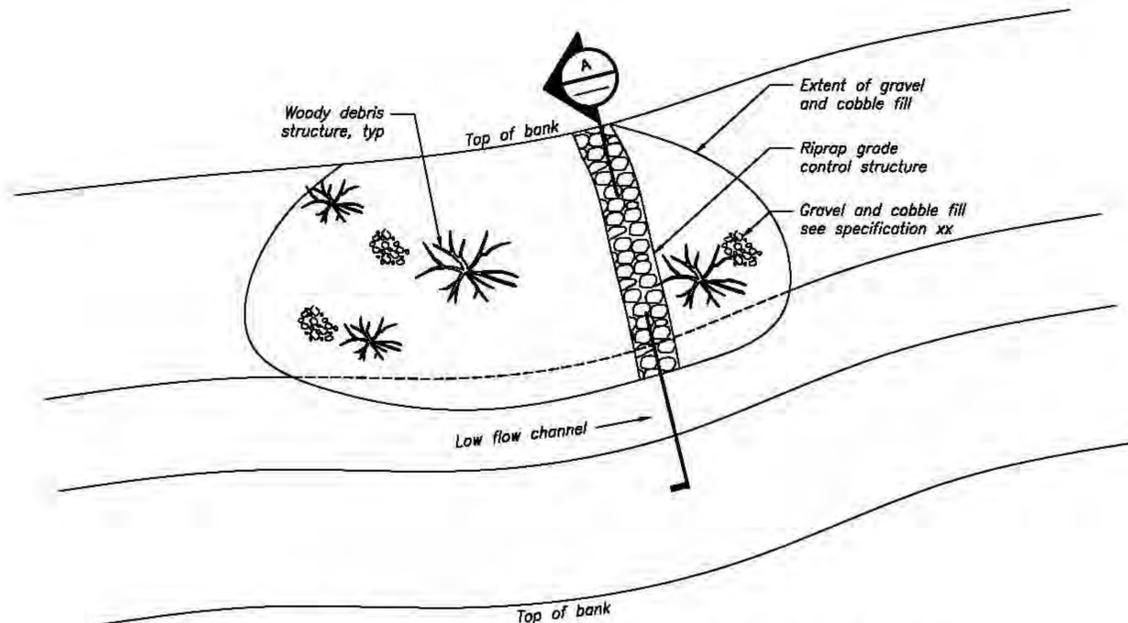
1. Depth of existing riprap unknown
2. Extent of existing concrete key unknown
3. Maintain Check Dam 3 for several years following construction to manage water levels and water quality and to increase riparian vegetation recruitment
4. Excavate tailings piles near Check Dam 3 above 1-year flow-elevation to maintain portion of tailings piles near Check Dam 3
5. Excavate remaining tailings piles near Check Dam 3 to match surrounding floodplain when Check Dam 3 is removed

REMOVE CHECK DAM 1, 2, AND 3

NTS



A GRADE CONTROL AND GRAVEL BAR SECTION
NTS



GRADE CONTROL AND GRAVEL BAR SCHEMATIC

NTS

Permit No. NYWV-2012-125
PROJECT: Yankee Fork Habitat Improvement
APPLICANTS: USFS and J.R. Simplot Company
WATERBODY: Yankee Fork
COUNTY/STATE: Custer, Idaho
DATE: 12 June 2012
SHEET 16 of 20

DESIGNED	CONTRACTOR
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ACCEPTED	NAME - TITLE
BOISE, IDAHO	2012-03-23

DETAILS - 2

1678-100-1645

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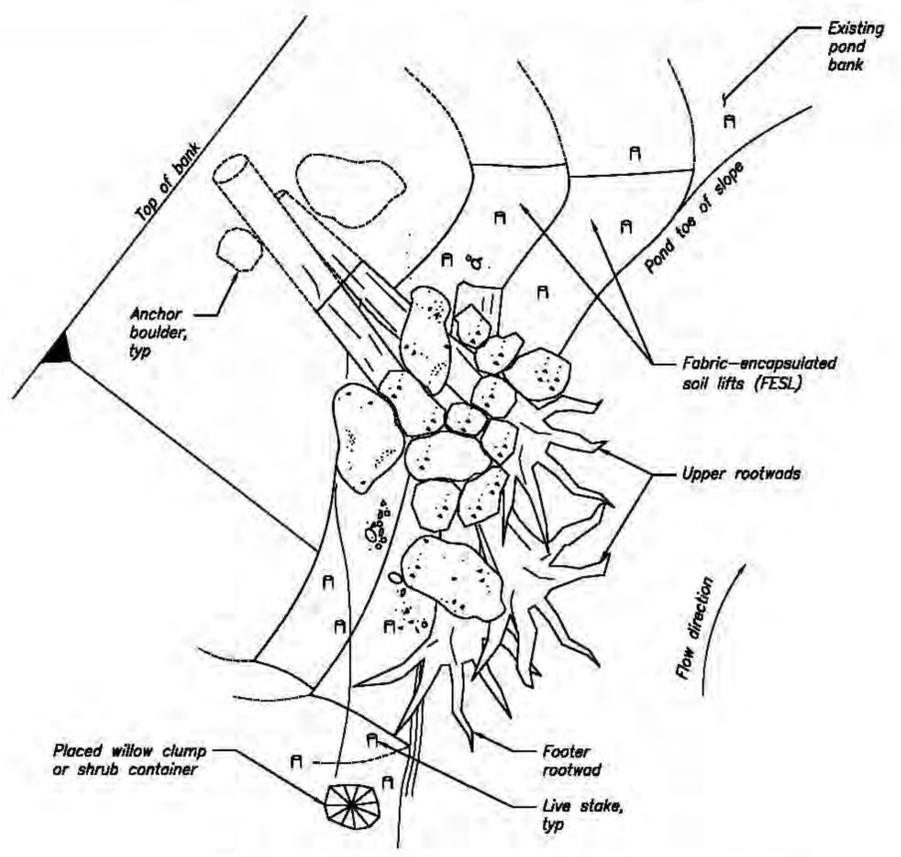
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FORPS HABITAT IMPROVEMENT PROGRAM - IDAHO
UPPER FORK SUBBASIN
YANKEE FORK PROJECT: PS3 SIDE CHANNEL
DETAILS - 3

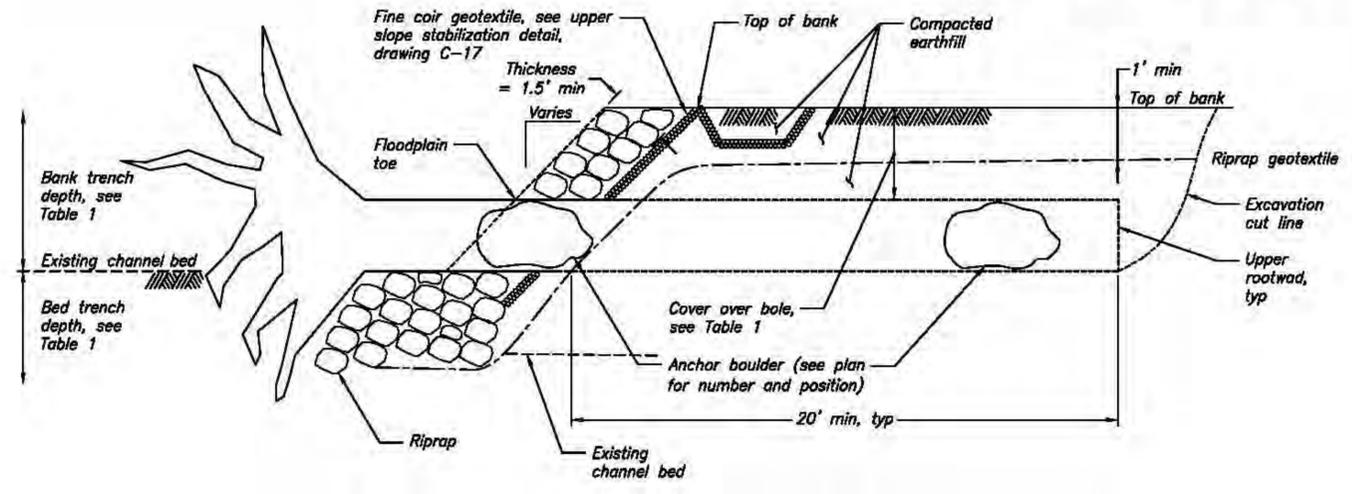
NOTES:

1. Key pieces to be Spruce, Douglas Fir, large Cottonwood, or Ponderosa Pine with total (combined bole and rootwad) length of 30' (min) and bole and rootwad diameters as specified in Table 1.
2. Anchor boulders to have intermediate diameter and mass as specified in Table 1.
3. Gravel backfill not shown for clarity. On-site source to be approved by field engineer.
4. Dewatering required for placement.
5. Refer to specifications for additional requirements.
6. Treatment not continuous. Expected at eight sites selected by field engineer or as shown on drawings C-5 and C-6.

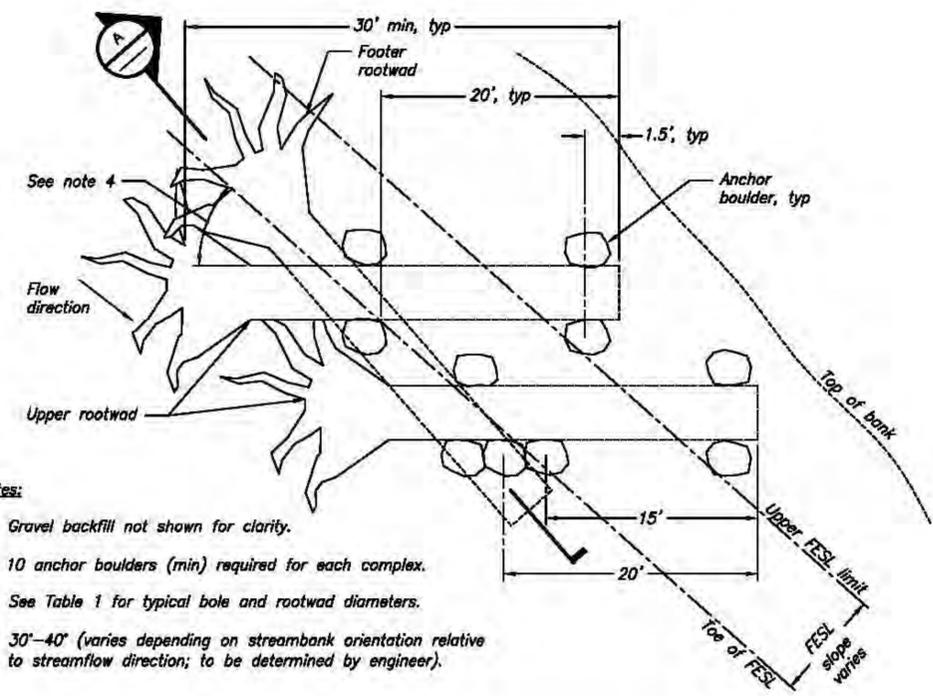
Bole Diameter (ft)	Rootwad Diameter (ft) Min Acceptable	Bed Trench Depth (ft) Min	Bank Trench Depth (ft) Min	Cover Over Bole (ft) Min	Anchor Boulder Diameter (ft) Min	Anchor Boulder Mass (lb) Min
xx	xx	xx	xx	xx	xx	xx
xx	xx	xx	xx	xx	xx	xx
xx	xx	xx	xx	xx	xx	xx



WOOD HABITAT STRUCTURE/RIPARIAN VEGETATION ESTABLISHMENT SCHEMATIC
NTS

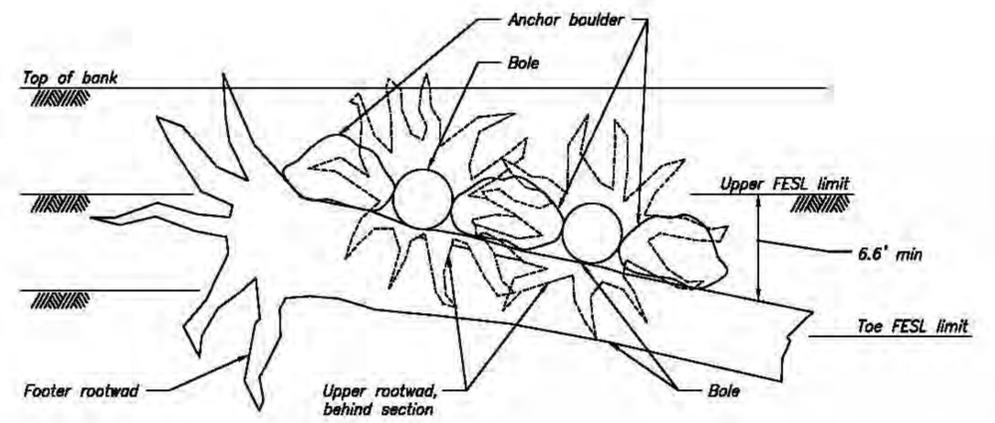


WOOD HABITAT STRUCTURE ELEVATION
NTS



- Notes:
1. Gravel backfill not shown for clarity.
 2. 10 anchor boulders (min) required for each complex.
 3. See Table 1 for typical bole and rootwad diameters.
 4. 30'-40' (varies depending on streambank orientation relative to streamflow direction; to be determined by engineer).

WOOD HABITAT STRUCTURE PLAN
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WOOD HABITAT STRUCTURE SECTION
NTS

Permit No. NWWY-2012-125
PROJECT: Yankee Fork Habitat Improvement
APPLICANTS: USFS and J.R. Simplot Company
WATERBODY: Yankee Fork
COUNTY/STATE: Ouster, Idaho
DATE: 12 June 2012
SHEET 17 of 20

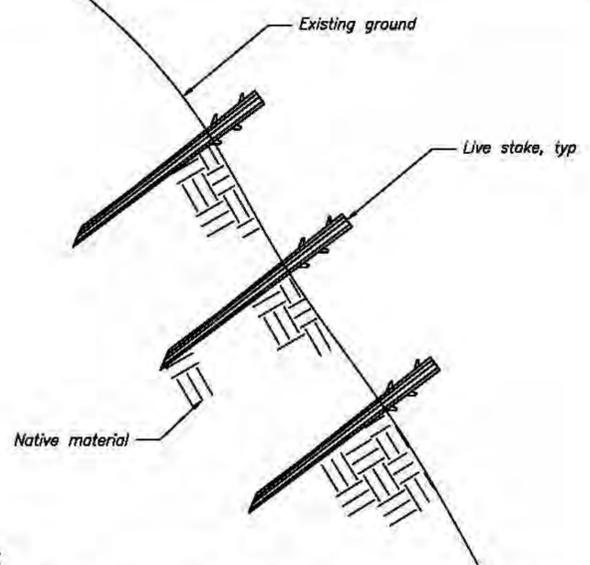
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BOISE, IDAHO	2012-03-23

DETAILS - 3
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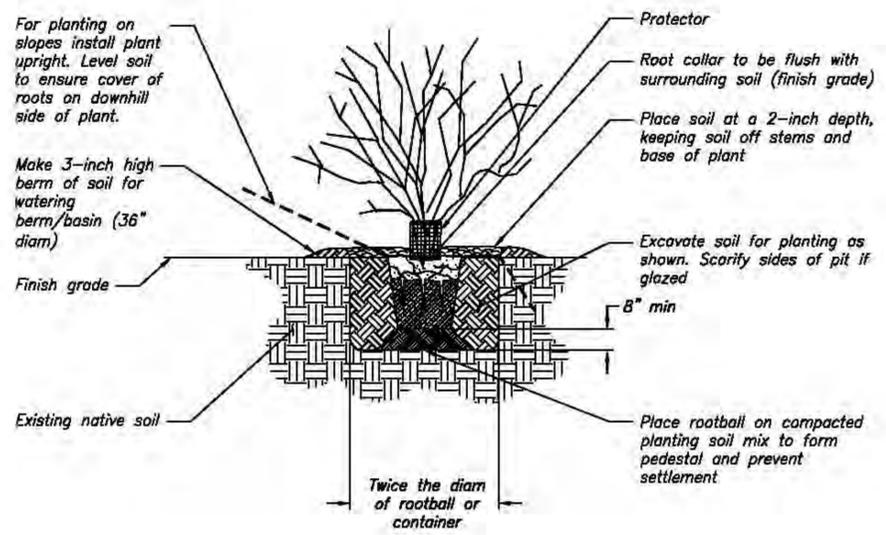


Notes:

1. Place live stakes in a random species configuration with 3-ft on center triangular spacing.
2. Install live stakes with top oriented upward.
3. Tamp live stakes into the slope as shown, oriented perpendicular to the surface using a dead blow hammer to avoid damage to the stake. First create a pilot hole in the riprap layer if necessary.
4. Length of live stakes shall be 4 ft to 6 ft.
5. Bottom of live stake must be within 0.5 ft of channel bed elevation.

LIVE STAKE INSTALLATION DETAIL

NTS



SHRUB PLANTING

NTS

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FORPS HABITAT IMPROVEMENT PROGRAM
UPPER SALMON SUBBASIN
YANKEE FORK PROJECT: PS3 SIDE CHANNEL
DETAILS - 4

DESIGNED	CONTRACTOR
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TECH. ACCEPTANCE	NAME - TITLE
ACCEPTED	NAME - TITLE
BOISE, IDAHO	2012-03-23

Permit No. HWY-2012-125
PROJECT: Yankee Fork Habitat Improvement
APPLICANTS: USFS and LR Simplot Company
WATERBODY: Yankee Fork
COUNTY/STATE: Custer, Idaho
DATE: 12 June 2012
SHEET 18 of 20

DETAILS - 4

1678-100-1647
SHEET OF

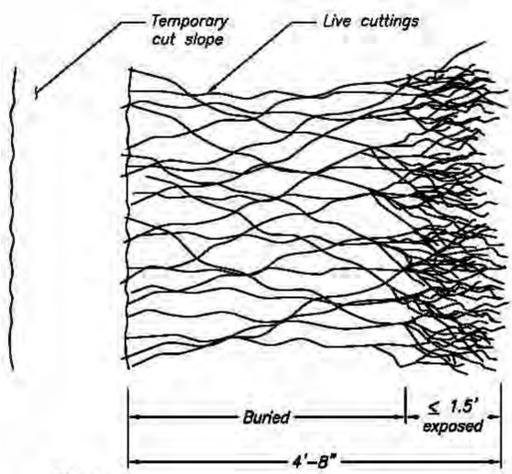
1 2 3 4 5

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CONTRACTOR DRAWING NO C-17

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FCRPS HABITAT IMPROVEMENT PROGRAM
UPPER SALMON SUBBASIN
YANKEE FORK PROJECT: PSJ SIDE CHANNEL
DETAILS - 5

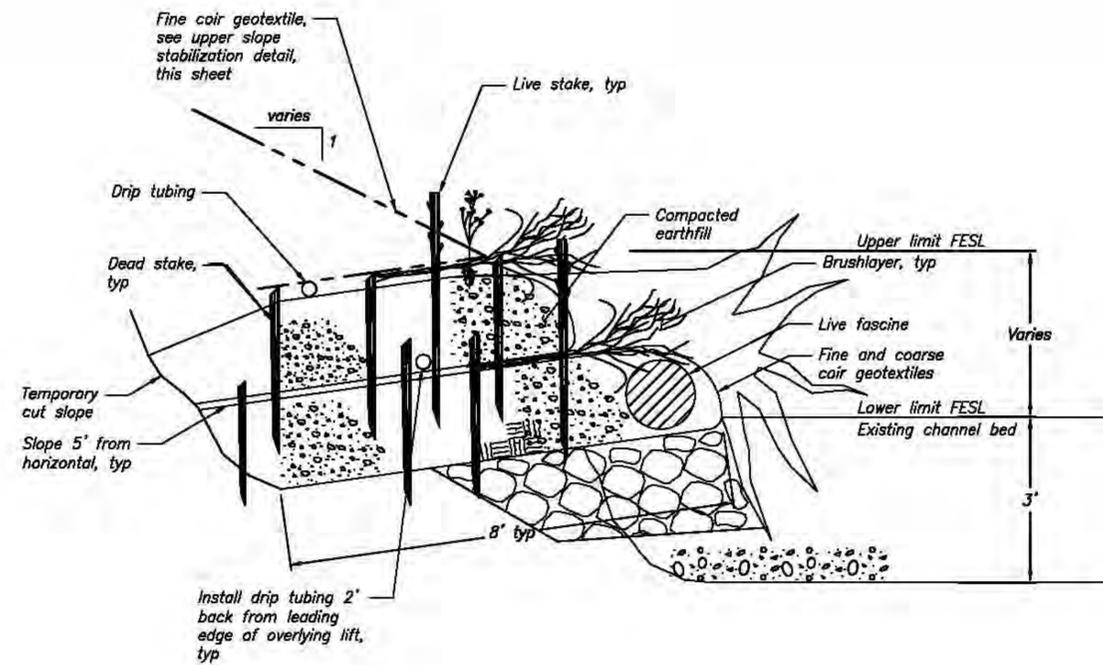


Notes:

1. See live cuttings table for species selection.
2. Orient live cuttings with growing tips extending out of slope face.
3. Place live cuttings at a density of 20 to 25 cuttings per foot within each brushlayer row, in accordance with specification xx planting.
4. Compact topsoil on top of live cuttings, back to finish grade (or to form a base for the next successive soil lift in areas with FESL).

BRUSHLAYER PLAN VIEW

NTS

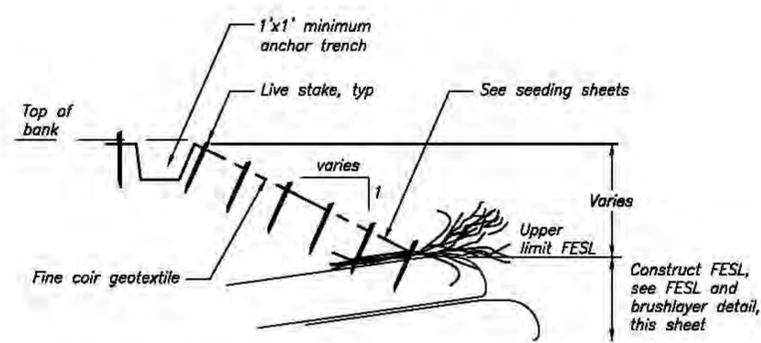


FABRIC-ENCAPSULATED SOIL LIFT (FESL) AND BRUSHLAYER DETAIL

NTS

Notes:

1. Construct FESL in accordance with specification xx earthwork. Excavate slope according to plans. Place fine and coarse coir geotextiles, and backfill with soil to finish grades. Use a form or buttress at the face of each FESL lift to achieve the dimensions shown. Contractor shall compact backfill to approximately 80% of maximum density. Pull each layer of geotextile snug but not tight, and anchor with dead and live stakes. Remove form at face of lifts.
2. Harvest of material for live stakes, fascines, and brushlayers shall occur at times and locations approved by the contracting officer. See live cuttings table for selection of acceptable species for this application. Nursery stock may be substituted with contracting officer approval. Install live and dead stakes in accordance with the specification xx planting.
3. Prepare live fascine in accordance with the specification xx planting and place inside leading edge of lowest lift.
4. For each lift, place fabric with rolls oriented perpendicular to the channel. Start at downstream end of treatment and work upstream, ensuring the edge of each upstream piece overlaps (is "shingled" over) the edge of adjacent downstream piece by 1' minimum.
5. Drip tubing to be installed in accordance with specification xx irrigation hose ends to be extended above ground surface. Cap all tube ends.
6. Construct FESL with 1' maximum thickness. If local grading and geometry requires a variation in the number of lifts or in lift thickness, the variation must be approved by the contracting officer.

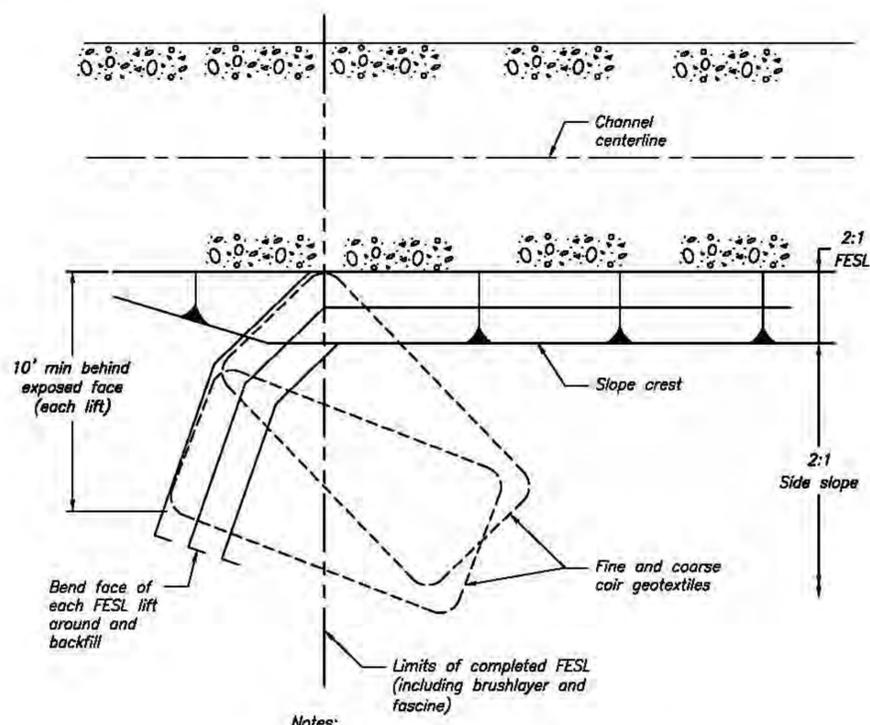


Notes:

1. Wood stakes to be made of Spruce or Fir, having a minimum dimension of 1"x2"x18". Space wood stakes per geotextile manufacturer's recommendations.
2. Ensure each edge of fine coir pieces overlap (is "shingled" over) the edge of the adjacent downstream piece by 1' minimum.
3. Backfill anchor trench with native material.

UPPER SLOPE STABILIZATION DETAIL

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Notes:

1. Key in FESL ends (upstream and downstream) as shown at all limits where it is constructed.

FESL END DETAIL

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Scientific Name	Common Name	Approximate %
<i>Salix sitchensis</i>	Sitka Willow	35-40
<i>Salix lucida ssp. lasiandra</i>	Pacific Willow	20-30
<i>Salix exigua</i>	Coyote Willow	35-40

Notes:

1. The number of cuttings required to construct FESL (including brushlayer, live fascine, and live stakes incidental to FESL) is estimated to be xxx live cuttings. Size varies based on application (see specification xx planting).
2. Dead stakes required to construct FESL estimated to be xx (see specification xx planting).

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Permit No. NWN-2012-125
PROJECT: Yankee Fork Habitat Improvement
APPLICANTS: USFS and LR Simplot Company
WATERBODY: Yankee Fork
COUNTY/STATE: Ouster, Idaho
DATE: 12 June 2012
SHEET 19 of 20

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BOISE, IDAHO 2012-03-23

DETAILS - 5

1678-100-1648

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