

IN-CHANNEL IMPROVEMENTS

Item #	Description	Quantity	Unit	Unit Cost	Total Cost	Totals	Notes / Assumptions
Site Preparation							
1	Erosion and Sediment Control	1	LS	\$15,000	\$15,000		
2	Site Access	1	LS	\$25,000	\$25,000		Assume access road will be regraded and ditch can be blocked during construction
3	Care of water	1	LS	\$125,000	\$125,000		Assume river will need to be diverted to left then right
4	Site Restoration	1	LS	\$15,000	\$15,000		Regrade and replant bank access points, restore ditch, refurbish curb at start of access
					Sub Total:	\$180,000	
Weaver Ditch Headgate Structure and "Island" Rebuild							
5	Removal, Haul and Disposal of Old Gates	1	LS	\$2,500	\$2,500		
6	Furnish and Install Sluice Gate	1	LS	\$25,000	\$25,000		
7	Furnish and Install Diversion Gate	1	LS	\$25,000	\$25,000		
8	Reinforced Concrete Wall and Concrete Access Steps	6	CY	\$1,500	\$9,000		
9	Aggregate Base	4	CY	\$100	\$400		
10	Channel Excavation	37	CY	\$17	\$632		
11	Removal, Haul and Disposal of Existing Concrete Barriers	1	LS	\$1,000	\$1,000		
12	Furnish and Install Filter Fabric	90	SY	\$8	\$720		
13	Furnish, Deliver and Place "Island" Boulders	126	TON	\$125	\$15,810		
14	Erosion Control Matting	60	SY	\$8	\$480		
15	Import and Install Topsoil	10	CY	\$70	\$700		
16	Access Ramp Restoration Seed Mix	60	SY	\$5	\$300		
17	Furnish, Deliver and Place Inlet "Filter" Boulders	10	TON	\$120	\$1,161		
					Sub Total:	\$82,703	
Maintenance Access Ramp							
18	Access Ramp Excavation	179	CY	\$17	\$3,035		
19	Haul and Disposal of Alluvial Bank Material offsite	179	CY	\$52	\$9,285		
20	Furnish, Deliver and Place Access Ramp Surface Material	31	CY	\$60	\$1,833		6"-0 minimum 1' thickness
21	Furnish, Deliver and Place Access Ramp Boulder	35	TON	\$120	\$4,200		
22	Furnish and Install Filter Fabric	101	SY	\$8	\$807		
23	Import and Install Topsoil	15	CY	\$70	\$1,050		
24	Access Ramp Restoration Seed Mix	90	SY	\$5	\$450		
					Sub Total:	\$20,660	
In-channel Improvements							
25	Channel Excavation	2,299	CY	\$17	\$39,082		
26	Cutoff Wall	1	LS	\$80,000	\$80,000		rough estimate from Structures, Inc. Denver
27	Regrade Riffle	2,384	CY	\$12	\$28,608		
28	Furnish, Deliver and Place Boulder	93	TON	\$120	\$11,150		
29	Furnish, Deliver and Place Select Boulder	113	TON	\$160	\$18,053		assume 1/3 total structure boulder
30	Rework Existing Boulder	68	TON	\$69	\$4,671		assume 1/5 structure will be reworked existing boulder
31	Riffle Boulder Clusters	41	TON	\$120	\$4,896		
32	Alluvial Backfill	0	CY	\$12	\$0		
33	Haul and Disposal of Alluvial Material offsite	610	CY	\$50	\$30,517		
34	Furnish and Install Filter Fabric	227	SY	\$8	\$1,816		
					Sub Total:	\$218,793	
West Bank Improvements							
35	Haul and Disposal of Alluvial Bank Material offsite	422	CY	\$52	\$21,944		
36	Channel Excavation	163	CY	\$17	\$2,769		
37	Furnish Deliver and Place Boulder - Type C Bank (625' total length)	142	TON	\$120	\$17,000		
38	Furnish Deliver and Place Boulder - Type D Bank (205' total length)	310	TON	\$130	\$40,271		
39	Furnish, Deliver and Place Jetty Boulder @ Outdoor Classroom	39	TON	\$130	\$5,108		
40	Furnish, Deliver and Place Boulder Clusters	78	TON	\$120	\$9,302		
41	Furnish and Install Erosion Control Matting	1,500	SY	\$8	\$11,250		
42	Furnish and Install Filter Fabric	1020	SY	\$8	\$8,160		
					Sub Total:	\$115,804	
INCHANNEL IMPROVEMENTS - TOTAL COST OPINION						\$617,960	

UPLAND IMPROVEMENTS							
	Description	Quantity	Unit	Unit Cost	Total Cost	Totals	Notes / Assumptions
Site Improvements Paving							
43	Road Base	2,293	SF	\$4	\$9,172		Includes roadbase under concrete
44	Concrete Path	1,137	SF	\$12	\$13,644		
45	Compacted Earth Trail	2,231	LF	\$1	\$2,231		
					Sub Total:	\$25,047	
Site Walls & Other Features							
46	Timber Walls	210	LF	\$50	\$10,500		
47	Concrete Stairs	35	LF	\$36	\$1,260		
48	Steel Handrail	1	LS	\$3,000	\$3,000		
49	Beamstone Walls	300	LF	\$190	\$57,000		At outdoor classroom and beamstone fishing access
50	Boulder Seats	10	EA	\$500	\$5,000		
51	Boardwalk	97	LF	\$125	\$12,125		
52	Timber Stairs	1	EA	\$1,000	\$1,000		
53	Boulder Fishing Access Type A	3	EA	\$1,000	\$3,000		
54	Boulder Fishing Access Type B	1	EA	\$2,500	\$2,500		
					Sub Total:	\$95,385	
Landscape							
55	Import Topsoil	494	CY	\$70	\$34,580		
56	Supply Mulch (10 sf per planting)	21,770	SF	\$0.33	\$7,184		
57	<i>Acer Glabrum / Rocky Mountain Maple (5 Gal)</i>	6	EA	\$80	\$480		
58	<i>Alnus Tenuifolia / Thinleaf Alder (5 Gal)</i>	175	EA	\$80	\$14,000		
59	<i>Artemisia Tridentata / Big Sagebrush (5 Gal)</i>	6	EA	\$80	\$480		
60	<i>Betula Occidentalis / Water Birch (5 Gal)</i>	175	EA	\$80	\$14,000		
61	<i>Chrysothamnus Nauseosus / Rubber Rabbitbrush (5 Gal)</i>	6	EA	\$80	\$480		
62	<i>Cornus Sericea / Red Twig Dogwood (5 Gal)</i>	175	EA	\$80	\$14,000		
63	<i>Populus Angustifolia / Narrowleaf Poplar (5 Gal)</i>	181	EA	\$80	\$14,480		
64	<i>Prunus Virginiana Melanocarpa / Western Chokeberry (5 Gal)</i>	6	EA	\$80	\$480		
65	<i>Salix Bebbiana / Bebb'S Willow (5 Gal)</i>	314	EA	\$80	\$25,120		
66	<i>Salix Drummondiana / Drummond'S Willow (5 Gal)</i>	314	EA	\$80	\$25,120		
67	<i>Salix Lasiandra / Whiplash Willow (5 Gal)</i>	314	EA	\$80	\$25,120		
68	<i>Salix Monticola / Rocky Mountain Willow (5 Gal)</i>	314	EA	\$80	\$25,120		
69	<i>Shepherdia Argentea / Silver Buffaloberry (5 Gal)</i>	191	EA	\$80	\$15,280		
70	10 Cl Wetlands Plug Grass	2137	EA	\$2	\$4,274		
71	Willow and Cottonwood Cuttings	1149	EA	\$2	\$2,298		
72	Seeding & Revegetation	30240	SF	\$0.35	\$10,584		
					Sub Total:	\$233,080	
Site Furnishings							
73	Closure Gates	3	EA	\$300	\$900		
74	Closure Gate Posts & Bases	3	EA	\$800	\$2,400		
75	Gate Installation	1	LS	\$1,500	\$1,500		
76	Kiosk Signs	2	EA	\$5,000	\$10,000		
77	Interpretive Signs	1	LS	\$20,000	\$20,000		
					Sub Total:	\$34,800	
UPLAND IMPROVEMENTS - TOTAL COST OPINION						\$388,312	
ITEMIZED CONSTRUCTION SUBTOTAL						\$1,006,273	
Contingency (15%)						\$150,941	
A1	Land Survey (LS)						Included in current or future contracts
A2	Geotechnical Engineering						Included in current or future contracts
A3	Structural Engineering						Included in current or future contracts
A4	Utility Relocations						n/a
A5	Traffic Control				\$5,000		
A6	Hydrographic Survey						Included in current or future contracts
A7	Cultural Resource Survey and Report						n/a
A8	Full Wetland Delineation						Included in current or future contracts
A9	Lands and Easements (Permanent)						n/a
A10	Lands and Easements (Construction)						Included in current or future contracts
A11	Lands and Easements Processing						
A12	Construction Bonding/Ins (5%)				\$50,314		5% construction
A13	Mob and Demob (5%)				\$50,314		5% construction
A14	Environmental Assessment Recovery Prgm						n/a
A15	Public Outreach and Coordination						Included in current or future contracts
A16	Engineering Design						Included in current or future contracts
A17	Hydraulic Modeling						Included in current or future contracts
A18	Permitting 404, 401						Included in current or future contracts
A19	CDOT ROW License						n/a
A20	Permitting Floodplain						Included in current or future contracts
A21	Plans and Specifications for bid						Included in current or future contracts
A22	Construction Stakeout				\$8,000		
A23	Construction Review Observations				\$25,000		
A24	Vegetation Replacement YR 2						
TOTAL PROJECT COST OPINION						\$1,295,841	