

**Gilboa Dam: East and West Overlook, Wall Cladding Repairs
Estimate**

Description	Qty	Unit	Unit Cost Material and Equipment	Unit Cost Labor	Total Unit Price	Total Item Cost
GENERAL CONDITIONS						
10% of all associate costs of the project	1	LS	N/A	N/A	#####	\$ 255,000
Not Included: Temporary site utilities, trailer(s) or storage facilities, preperation of temporary work areas for stone fabrication and staging, toilets, perimeter fencing, security, surveying, scaffolding or lifts to access areas above 8 feet above grade.	1	LS	N/A	N/A	\$ -	\$ -
Not Included: General Contractors costs / O&P or CM costs.	1	LS	N/A	N/A	\$ -	\$ -
Temporary pole building with tarp roof and sides for stone working	1	EA	\$ 7,500.00	\$ 6,400.00	\$ 13,900.00	\$ 13,900
DEMOLITIONS / REMOVALS / EXCAVATION / GRADING / SITEWORK / REMOVALS						
Not included: Demolitions, removals, excavation, fill, backfill, tamping, grading, sitework, removals, road paving, curbs, parking lines and text, parking signs unless otherwise specifically noted.	1	LS	\$ -	\$ -	\$ -	\$ -
CONCRETE						
Not Included: Footings, Pylons, Retaining Walls, and Core of Interperative Center Wall	1	LS	\$ -	\$ -	\$ -	\$ -
Sidewalk Paving	3,120	SF	\$ 1.38	\$ 2.46	\$ 3.84	\$ 11,981
Sidewalk Paving, Tinting, Premium Custom	5,200	LB	\$ 3.52	\$ -	\$ 3.52	\$ 18,304
Curb at East Training Wall	19	CY	\$ 91.80	\$ 77.72	\$ 169.52	\$ 3,202
Curb, Tinting, Premium Custom	3,400	LB	\$ 3.20	\$ -	\$ 3.20	\$ 10,880
6 inch gravel fill and tamping under sidewalk paving	116	SY	\$ 11.13	\$ 1.76	\$ 12.89	\$ 1,490
MASONRY AND STONE						
Rake and point joints (other than overlooks)	61,615	SF	\$ 1.00	\$ 9.38	\$ 10.38	\$ 639,256
Mortaring Repair Compounds (Materials, mixing, delivery to working face)	235	CF	\$ 40.00	\$ 7.50	\$ 47.50	\$ 11,178
Salvage Stone: Existing Stone accumulated at site or debries created from removals from work being performed at site. Includes labor only, trucks and lifts assumed provided from other projects at site (Assumed 1 CF per SF of face stone required or CF of stone required plus 20% for wastage).	596	CF	\$ -	\$ 240.00	\$ 240.00	\$ 142,923
Cleaning Salvaged Stone	596	CF	\$ 1.00	\$ 0.94	\$ 1.94	\$ 1,154
Sawcut joints at areas of tie backs	2,820	LF	\$ 0.90	\$ 7.28	\$ 8.18	\$ 23,068
Sawcut joints at areas of tie backs Min Setup Per Location and Allowance for short irregular cuts, working on scaffolding and other site conditions	47	EA	\$ -	\$ 300.00	\$ 300.00	\$ 14,100

Do Not Print Below

confirmed

extrapolate or good guess from experience

in between

10 lb per sack of cement one sack per 6 sf, max cost
75% void and wastage 0.0277778
10 lb per sack of cement one sack per 6 sf, max cost

Ref Table R042110-50

2 cu yd per person per day
4x8 sheet of stone pieces per hour

Demolish with hand power tools, stone blocks to facilitate removal of adjacent blocks.	141	CF	\$ 2.00	\$ 45.00	\$ 47.00	\$ 6,627
Cut and remove min. 4 inch thick stone facing from in situ blocks	1,175	SF	\$ 2.00	\$ 45.00	\$ 47.00	\$ 55,225
Face Stone 4 inch thick at tie back caps	1,175	SF	\$ 14.01	\$ 26.62	\$ 40.63	\$ 47,745
Mortaring Repair Compounds (Materials, mixing, delivery to working face)	212	CF	\$ 40.00	\$ 7.50	\$ 47.50	\$ 10,072
Stone pins and anchors	588	EA	\$ 8.50	\$ 7.50	\$ 16.00	\$ 9,400
Face Stone 4 inch thick at existing wall areas (other than overlooks)	9,940	SF	\$ 14.01	\$ 26.62	\$ 40.63	\$ 403,902
Mortaring Repair Compounds (Materials, mixing, delivery to working face)	1,794	CF	\$ 40.00	\$ 7.50	\$ 47.50	\$ 85,208
Stone pins and anchors	4,970	EA	\$ 8.50	\$ 7.50	\$ 16.00	\$ 79,520
Overlooks						
Coping Stone, 8 inch thick, 1'2" wide	470	LF	\$ 208.62	\$ 103.60	\$ 312.22	\$ 146,745
Face Stone 4 inch thick	700	SF	\$ 14.01	\$ 26.62	\$ 40.63	\$ 28,444
Face Stone 18 inch thick	1,050	SF	\$ 51.53	\$ 66.84	\$ 118.37	\$ 124,289
Stone blocks approximately 18 inches square, sizes to vary from plus or minus 50%	64	CF	\$ 45.86	\$ 59.48	\$ 105.34	\$ 6,742
Mortaring Repair Compounds (Materials, mixing, delivery to working face)	541	CF	\$ 40.00	\$ 15.00	\$ 55.00	\$ 29,741
Stone pins and anchors	1,150	EA	\$ 8.50	\$ 7.50	\$ 16.00	\$ 18,400
CMU app. 8 x 16 x 14 wide	2,025	SF	\$ 9.53	\$ 8.48	\$ 18.01	\$ 36,470
CMU Face Brick app. 8 x 16	1,040	SF	\$ 0.68	\$ 3.84	\$ 4.52	\$ 4,701
Rebar each core	2,047	LB	\$ 0.80	\$ 2.44	\$ 3.24	\$ 6,632
Grout solid all CMU masonry, insert continuous #4 rebar in each cell.	56	CY	\$ 91.80	\$ 77.72	\$ 169.52	\$ 9,493
Crushed Bluestone	256	SF	\$ 1.10	\$ 2.81	\$ 3.91	\$ 1,000
Landscape fabric under crushed bluestone	768	SF	\$ 1.00	\$ 1.00	\$ 2.00	\$ 1,536
SS Cap along wall at lifting points	65	LF	\$ 7.50	\$ 10.00	\$ 17.50	\$ 1,138
SS Cap at Interperative Center Wall	32	LF	\$ 6.50	\$ 10.00	\$ 16.50	\$ 528
Base Flashing in wall app. 12 inch wide	140	LF	\$ 10.00	\$ 10.00	\$ 20.00	\$ 2,800
Salvage, remove, restore, and reset historic plaques, app. 3' x 2'	4	EA	\$ 300.00	\$ 900.00	\$ 1,200.00	\$ 4,800
Eye bolts at lifting points	24	EA	\$ 25.00	\$ 12.50	\$ 37.50	\$ 900
Trash Receptacle	1	EA	\$ 1,250.00	\$ 360.00	\$ 1,610.00	\$ 1,610
SS Lettering app 18" high set on pins	9	EA	\$ 95.00	\$ 75.00	\$ 170.00	\$ 1,530
Caulking at SS caps	194	LF	\$ 1.00	\$ 1.00	\$ 2.00	\$ 388
Total Architecturals						\$ 2,272,019
METALS						
Not included: Footings, Pylons, Retaining Walls, or Crane for unloading or placement of steel structure and fabrications.	NA	NA	NA	NA	NA	NA
2 inch dia SS pipe	545	LF	\$ 30.34	\$ 15.84	\$ 46.18	\$ 25,166
Perforated metal panels, SS	1,546	LF	\$ 46.00	\$ 26.12	\$ 72.12	\$ 111,461
Bar Stock, 2 1/2" by 1/2", SS	954	LF	\$ 20.25	\$ 21.02	\$ 41.27	\$ 39,361
Bar Stock, 1 1/2" by 1/4" SS	477	LF	\$ 8.80	\$ 10.51	\$ 19.31	\$ 9,208
Tube, 3/4" Square, SS	1,948	LF	\$ 7.54	\$ 7.01	\$ 14.55	\$ 28,342
Tube, 2" x 3", SS	26	LF	\$ 51.00	\$ 9.11	\$ 60.11	\$ 1,587
"T" shapes, 2 inch, SS	40	LF	\$ 28.66	\$ 14.01	\$ 42.67	\$ 1,690

2.2 mult for 4 inch and fewer cut plains

Ref Table R042110-5(211.50

2.2 mult for 4 inch and fewer cut plains

Ref Table R042110-5(1,789.20 Assumed rough surface of stone will take more mortar than block jo

5.6 multiple for 14 inch vs 12 inch and 8 inch vs 2 inch less 50% for fewer cut surfaces, in "stac

2.2 mult for 4 inch and fewer cut plains

8.9 mult for 18 inch and fewer cut plins

7.92 mult for 18 inch and fewer cut plins

Ref Table R042110-5(399.60 Assumed rough surface of stone will take more mortar than block jo

inc 12 inch in means to 14 inch 1.28 multiplier inc 1.1 for heavier weight lower productivity 45% more for special color

Ref Table R032110-1(0.668 lb per ft 2,047

75% void and wastage 56.25

mult means cost by 5 for 5 inches, and added 10% for wastage

All nos extrapolated from means comparison of lf cost of pipe rail to material costs found retail on internet for unfinished SS shapes

See notes on PDF backup sheets

Metal Grate, SS, very small penetrations, suitable for high heels.	300	LF	\$ 142.68	\$ 8.30	\$ 150.98	\$ 45,293
IPE Bench Slats	24	LF	\$ 50.00	\$ 25.00	\$ 75.00	\$ 1,800
Interpretative Plaques	1	EA	\$ 1,000.00	\$ 200.00	\$ 1,200.00	\$ 1,200
Steel wire railing	80	LF	\$ 35.67	\$ 55.54	\$ 91.21	\$ 7,297
Total Metals						\$ 185,196
LABOR PRICING			No. Of Days	Hrly Rate	Per Day	
Project Foreman	1	EA	120	\$75	\$600	\$ 72,000
Stonemason	Included in work items above					
Stone Laborer	Included in work items above					
General Laborer	Included in work items above					
Total Labor Cost						\$ 72,000
Total Estimated Cost of Project*						\$ 2,529,215
*Cost Estimate does not include labor premiums, overtime, accelerated schedules, utility costs, or housing of workmen. This is meant only as a means to evaluate the base cost of the project. Actual bids from contractors will vary .						

