Estimate of Probable Construction Cost
Spokane County Regional WWTP
Establishment of Project Baseline

Project	Spokane County	**Date**	01-Feb-03	08-Dec-06
	Representative Project	**Estimator**	CTC	SRB
Task	Cost Summary	**Checked By**	B. Willey	RLG
Task No.	00027-017-102	**Check Date**	14-Mar-03	

HDR Engineering, Inc.

Description		Phase 1 Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Total ($)	Variances Phase 1 (8 mgd)
Influent Junction Box		$ 60,000	$ 105,000	$ 45,000
Septage Handling		$ 296,000	$ 388,000	$ 92,000
Preliminary Treatment		$ 1,548,000	$ 2,016,000	$ 468,000
Primary Treatment		$ 1,973,000	$ 2,889,000	$ 916,000
Fine Screening		$ 1,941,000	$ 2,555,000	$ 614,000
Membrane Bioreactor		$ 17,443,000	$ 17,416,000	$ (27,000)
UV Disinfection (DELETED)		$ 928,000	$ -	$ (928,000)
Disinfection (NEW)		$ -	$ 806,000	$ 806,000
Cascade Aeration		$ 178,000	$ 259,000	$ 81,000
Chemical Feed and Storage		$ 532,000	$ 759,000	$ 227,000
WAS Thickening		$ 553,000	$ 748,000	$ 195,000
Fermentor (NEW)		$ -	$ 1,201,000	$ 1,201,000
Gravity Thickener (NEW)		$ -	$ 1,036,000	$ 1,036,000
Anaerobic Digestion		$ 3,863,000	$ 5,188,000	$ 1,325,000
Solids Dewatering		$ 3,008,000	$ 3,147,000	$ 139,000
Centrate Storage (NEW)		$ -	$ 238,000	$ 238,000
Odor Control		$ 1,004,000	$ 1,316,000	$ 312,000
Administration		$ 1,257,000	$ 1,893,000	$ 636,000
Support Facilities/Site Work		$ 4,142,000	$ 5,627,000	$ 1,485,000
Subtotal		$ 38,726,000	$ 47,587,000	$ 8,861,000
Field General Conditions, Bonds and Insurance	5%	$ 1,936,000	$ 2,379,000	$ 443,000
Contractor's Overhead and Profit	10%	$ 3,873,000	$ 4,759,000	$ 886,000
Subtotal		$ 44,535,000	$ 54,725,000	$ 10,190,000
Undefined Scope of Work Contingency	20%	$ 8,907,000	$ 10,945,000	$ 2,038,000
Subtotal		$ 53,442,000	$ 65,670,000	$ 12,228,000
Washington State Sales Tax	8.1%	$ 4,329,000	$ 5,319,000	$ 990,000
Subtotal		$ 57,771,000	$ 70,989,000	$ 13,218,000
Escalation from Estimate Data Date to Mid Point of Construction	13.33%	$ -	$ 9,464,000	$ 9,464,000
Subtotal		$ 57,771,000	$ 80,453,000	$ 22,682,000
Construction Contingency (Change Orders)	5%	$ 2,889,000	$ 4,023,000	$ 1,134,000
Subtotal		$ 60,660,000	$ 84,476,000	$ 23,816,000
Engineering, Legal and Fiscal	25%	$ 15,165,000	$ 21,119,000	$ 5,954,000
Total Estimated Project Cost		**$ 75,825,000**	**$ 105,595,000**	**$ 29,770,000**

Spokane, WA - RS Means Weighted Average Total

Percent Added to Bring Dollars Current	
RS Means CCI 1st Qtr 2003	125.9
RS Means CCI 4th Qtr 2006	156.5
% Increase from 1st Qtr 2003 to 4th Qtr 2006	**24.31%**

Percent Added to Get Dollars to Mid-Point of Construction	
RS Means CCI 4th Qtr 1996	111.4
RS Means CCI 4th Quarter 2006	156.5
Estimate Data Date	10/1/2006
Bid Date	8/1/2007
Notice to Proceed	8/1/2008
Estimated Construction Time in Calendar Days	1064
Scheduled Substantial Completion Date	7/1/2011
Scheduled Final Completion Date	7/1/2011
Scheduled Mid Point of Construction Date	1/15/2010
Annual Construction Cost Escalation	4.05%
Escalation from Estimate Data Date to Mid Point of Construction	13.33%

Percent Added to Bring Dollars Current	
RS Means CCI 4th Qtr 1996	111.4
RS Means CCI 4th Qtr 2006	156.5
% Increase from 4th Qtr 1996 to 4th Qtr 2006	**40.48%**
% Increase from 4th Qtr 1996 to 4th Qtr 2006 (Yearly Avg)	**4.05%**

Estimate of Probable Construction Cost
Spokane County - Influent Structures

Project	Spokane County	**Date**	23-Jan-03	8-Dec-06
	Representative Project	**Estimator**	D. Harmon	SRB
Task	Influent Junction Box	**Checked By**	B. Willey	RLG
Task No.	10027-017-102	**Check Date**	3/14/2003	

HDR Engineering, Inc.

Description	Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	Variances Phase 1 (8 mgd)
Division 1 - Special Conditions									
General Conditions, Bidding, Submittals, Start-up	1	LS	$ 592	$ 592	1	LS	$ 1,284	$ 1,284	$ 693
Project Equipment- Not Task Specific - 75T Crawler Crane						MO	$ 18,800.00	$ -	$ -
Backhoe/Laoder					0	MO	$ 4,348.00	$ -	$ -
Division 2 - Site Work									
Influent Junction Box									
Excavation	200	CY	$ 8	$ 1,600	200	CY	$ 9.94	$ 1,989	$ 389
Granular Fill	10	CY	$ 20	$ 200	10	CY	$ 24.86	$ 249	$ 49
Backfill	90	CY	$ 12	$ 1,080	90	CY	$ 14.92	$ 1,342	$ 262
Construction Dewatering	1	LS	$ -	$ -	1	LS	$ -	$ -	$ -
Filter Fabric	260	SF	$ 1	$ 260	260	SF	$ 1.24	$ 323	$ 63
Division 3 - Concrete									
Influent Junction Box									
Concrete slab-on-grade	7	CY	$ 250	$ 1,690	7	CY	$ 475	$ 3,211	$ 1,521
Concrete Walls	34	CY	$ 400	$ 13,659	34	CY	$ 750	$ 25,611	$ 11,952
Concrete Encasement	6	CY	$ 250	$ 1,500	6	CY	$ 692	$ 4,152	$ 2,652
Grout Fillets	2	CY	$ 450	$ 900	2	CY	$ 559	$ 1,119	$ 219
Divison 5 - Metals									
Influent Junction Box									
Aluminum Chk'd Plate Covers	179.7	SF	$ 60	$ 10,782	179.7	SF	$ 75	$ 13,403	$ 2,621
Aluminum Weirs	16	LF	$ 50	$ 800	16	LF	$ 62	$ 994	$ 194
Miscellaneous Metals	1	LS	$ 1,000	$ 1,000	1	LS	$ 1,243	$ 1,243	$ 243
Division 7 - Thermal and Moisture Protection									
NOT USED									
Division 8 - Doors and Windows									
NOT USED									
Division 9 - Finishes									
Interior Corrosion Coating	730	SF	$ 12	$ 8,760	730	SF	$ 15	$ 10,889	$ 2,129
Division 11 - Equipment									
NOT USED									

Description	Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	Variances Phase 1 (8 mgd)
Division 13 - Special Construction									
Instrumentation					1	LS	$ 13,000	$ 13,000	$ 13,000
Division 14 - Conveying Systems									
NOT USED									
Division 15 - Mechanical									
Influent Junction Box									
24" INFL FM	28	LF	$ 168.00	$ 4,704	28	LF	$ 209	$ 5,847	$ 1,143
30" INFL FM	14	LF	$ 193.00	$ 2,702	14	LF	$ 240	$ 3,359	$ 657
36" INFL	10	LF	$ 216.00	$ 2,160	10	LF	$ 268	$ 2,685	$ 525
6 " SEPTAGE	3	LF	$ 62.00	$ 186	3	LF	$ 77	$ 231	$ 45
36" Wall Pipe	2	EA	$ 550.00	$ 1,100	2	EA	$ 684	$ 1,367	$ 267
6" DMJ	1	EA	$ 350.00	$ 350	1	EA	$ 435	$ 435	$ 85
1" NPW Piping	15	LF	$ 7	$ 105	15	LF	$ 9	$ 131	$ 26
Hose Bibb	1	EA	$ 250	$ 250	1	EA	$ 311	$ 311	$ 61
Division 16 - Electrical and Instrumentation									
Influent Junction Box									
Electrical Lighting (@10%)	1	LS	$ 5,379	$ 5,379	1	LS	$ 11,423	$ 11,423	$ 6,044
Subtotal				$ 60,000	**Subtotal**			$ 105,000	$ 45,000
Field General Conditions, Bonds and Insurance			5%	$ 3,000			5%	$ 5,000	$ 2,000
Contractor's Overhead and Profit			10%	$ 6,000			10%	$ 11,000	$ 5,000
Subtotal				$ 69,000				$ 121,000	$ 52,000
Undefined Scope of Work Contingency			20%	$ 14,000			15%	$ 18,000	$ 4,000
Subtotal				$ 83,000				$ 139,000	$ 56,000
Washington State Sales Tax			8.1%	$ 7,000			8.1%	$ 11,000	$ 4,000
Subtotal				$ 90,000				$ 150,000	$ 60,000
Escalation from Estimate Data Date to Mid Point of Construction			13.33%	$ -			13.33%	$ 20,000	$ 20,000
Subtotal				$ 90,000				$ 170,000	$ 80,000
Operator Mark-Up on DB Component			1%	$ 1,000			1.00%	$ 2,000	$ 1,000
Subtotal				$ 91,000				$ 172,000	$ 81,000
Construction Contingency (Change Orders)			5%	$ 5,000			5%	$ 9,000	$ 4,000
Subtotal				$ 96,000				$ 181,000	$ 85,000
Engineering, legal and fiscal			25%	$ 24,000			25%	$ 45,250	$ 21,250
Total Estimated Project Cost				$ 120,000				$ 226,250	$ 106,250

Estimate of Probable Construction Cost
Spokane County - Septage Handling Facility

Project	Spokane County	**Date**	23-Jan-03	8-Dec-06
	Representative Project	**Estimator**	C. Caprara	SRB
Task	Septage Handling	**Checked By**	B. Willey	RLG
Task No.	10027-007-102	**Check Date**	14-Mar-03	

HDR Engineering, Inc.

Description	Phase 1 (24,000 gpd))				OPCC - Dec 2006 Phase 1 (8 mgd)				Variances Phase 1 (8 mgd)
	Quantity	Unit	Unit Price ($/unit)	Total ($)	Quantity	Unit	Unit Price ($/unit)	Total ($)	
Division 1 - Special Conditions									
General Conditions, Bidding, Submittals, Start-up	1	LS	$ 295	$ 295	1	LS	$ 477	$ 477	$ 182
Project Equipment- Not Task Specific - 75T Crawler Crane						MO	$ 18,800.00	$ -	$ -
Backhoe/Laoder					1	MO	$ 4,348.00	$ 4,348	$ 4,348
Division 2 - Site Work									
Excavation	600	CY	$ 8	$ 4,800	600	CY	$ 9.94	$ 5,967	$ 1,167
Granular Fill	50	CY	$ 20	$ 1,000	50	CY	$ 24.86	$ 1,243	$ 243
Backfill	250	CY	$ 12	$ 3,000	250	CY	$ 14.92	$ 3,729	$ 729
PVC Membrane	900	SF	$ 1	$ 900	900	SF	$ 1.24	$ 1,119	$ 219
Filter Fabric	1125	SF	$ 1	$ 1,125	1125	SF	$ 1.24	$ 1,398	$ 273
Division 3 - Concrete									
Concrete slab-on-grade	44	CY	$ 250	$ 10,889	44	CY	$ 475	$ 20,689	$ 9,800
Suspended Slab	7	CY	$ 550	$ 3,972	7	CY	$ 692	$ 4,998	$ 1,026
Concrete Wall	38	CY	$ 400	$ 15,215	38	CY	$ 750	$ 28,528	$ 13,313
Concrete Stair	1	CY	$ 550	$ 733	1	CY	$ 684	$ 912	$ 178
Division 4 - Masonry									
CMU	2240	SF	$ 10	$ 22,400	2240	SF	$ 12.43	$ 27,844	$ 5,444
Divison 5 - Metals									
Aluminum Handrail	52	LF	$ 50	$ 2,600	52	LF	$ 62	$ 3,232	$ 632
Miscellaneous Metals	1	LS	$ 1,000	$ 1,000	1	LS	$ 1,243	$ 1,243	$ 243
Architectural Metal Roof	2730	SF	$ 20	$ 54,600	2730	SF	$ 25	$ 67,871	$ 13,271
Hose Rack	2	EA	$ 250	$ 500	2	EA	$ 311	$ 622	$ 122
Sump Pump Cover	1	EA	$ 250	$ 250	1	EA	$ 311	$ 311	$ 61
Architectural Metal Siding	216	SF	$ 10	$ 2,160	216	SF	$ 12.43	$ 2,685	$ 525
Division 6 - Wood and Plastic									
Architectural Finish System	2240	SF	$ 2	$ 4,480	2240	SF	$ 2.49	$ 5,569	$ 1,089
Division 7 - Thermal and Moisture Protection									
Damproofing	450	SF	$ 1	$ 450	450	SF	$ 1.24	$ 559	$ 109
Flashing and Sheet Metal	1	LS	$ 3,000	$ 3,000	1	LS	$ 3,729	$ 3,729	$ 729
Joint Sealant	1	LS	$ 1,000	$ 1,000	1	LS	$ 1,243	$ 1,243	$ 243

Roof Insulation	27.3	SQ	$	300	$	8,190	27.3	SQ	$	373	$	10,181	$	1,991
Exterior Insulation and Finish System	2240	SF	$	10.00	$	22,400	2240	SF	$	12.43	$	27,844	$	5,444
Division 8 - Doors and Windows														
3X7 Fiberglass Door	1	EA	$	3,000	$	3,000	1	EA	$	3,729	$	3,729	$	729
12X15'6" Overhead Door	2	EA	$	5,000	$	10,000	2	EA	$	6,215	$	12,431	$	2,431
Division 9 - Finishes														
Building Painting	2240	SF	$	5	$	11,200	2240	SF	$	6.22	$	13,922	$	2,722
Equipment Painting	2	EA	$	1,000	$	2,000	2	EA	$	1,243	$	2,486	$	486
Pipe Painting	85	LF	$	0.50	$	43	85	LF	$	0.62	$	53	$	10
Division 11 - Equipment														
Horizontal Chopper Pumps	2	EA	$	15,000	$	30,000	2	EA	$	18,646	$	37,292	$	7,292
Sump Pumps	2	EA	$	2,000	$	4,000	2	EA	$	2,486	$	4,972	$	972
Division 13 - Special Construction														
Plastic Liner	312	SF	$	11	$	3,432	312	SF	$	13.67	$	4,266	$	834
Ultrasonic Level transmitter	1	EA	$	3,500	$	3,500	1	EA	$	4,351	$	4,351	$	851
Instrumentation	1	LS	$	7,170	$	7,330	1	LS	$	8,913	$	8,913	$	1,583
Division 15 - Mechanical														
1/2 IN SW	10	LF	$	5.00	$	50	10	LF	$	6.22	$	62	$	12
1 IN NPW	40	LF	$	7	$	280	40	LF	$	8.70	$	348	$	68
2 IN Sump	20	LF	$	14	$	280	20	LF	$	17.40	$	348	$	68
4 IN Septage	30	LF	$	28	$	840	30	LF	$	34.81	$	1,044	$	204
6 IN Septage	20	LF	$	62	$	1,240	20	LF	$	77.07	$	1,541	$	301
6 IN Drain	30	LF	$	36	$	1,080	30	LF	$	44.75	$	1,342	$	262
2 IN Check Valve	2	EA	$	600	$	1,200	2	EA	$	746	$	1,492	$	292
2 IN Plug Valve	2	EA	$	800	$	1,600	2	EA	$	994	$	1,989	$	389
4 IN Check Vavle	2	EA	$	1,200	$	2,400	2	EA	$	1,492	$	2,983	$	583
4 IN Plug Valve	2	EA	$	1,600	$	3,200	2	EA	$	1,989	$	3,978	$	778
6 IN Plug Valve	2	EA	$	2,400	$	4,800	2	EA	$	2,983	$	5,967	$	1,167
Seal Water Stations	2	EA	$	2,000	$	4,000	2	EA	$	2,486	$	4,972	$	972
Floor Drains	2	EA	$	250	$	500	2	EA	$	311	$	622	$	122
Trench Drain	22	LF	$	50	$	1,100	22	LF	$	62.15	$	1,367	$	267
Manhole Ring and Cover	1	EA	$	300	$	300	1	EA	$	373	$	373	$	73
Unit Heater	1	EA	$	2,500	$	2,500	1	EA	$	3,108	$	3,108	$	608
Motor Operated Damper and Louver	1	EA	$	500	$	500	1	EA	$	622	$	622	$	122
Hose Bibb	2	EA	$	250	$	500	2	EA	$	311	$	622	$	122
Division 16 - Electrical and Instrumentation														
Electrical	1	LS	$	29,667	$	29,667	1	LS	$	36,878	$	36,878	$	7,211

Subtotal		$ 296,000	Subtotal		$ 388,000	$ 92,000
Field General Conditions, Bonds and Insurance	5%	$ 15,000		5%	$ 19,000	$ 4,000
Contractor's Overhead and Profit	10%	$ 30,000		10%	$ 39,000	$ 9,000
Subtotal		$ 341,000			$ 446,000	$ 105,000
Undefined Scope of Work Contingency	20%	$ 68,000		15%	$ 67,000	$ (1,000)
Subtotal		$ 409,000			$ 513,000	$ 104,000
Washington State Sales Tax	8.1%	$ 33,000		8.1%	$ 42,000	$ 9,000
Subtotal		$ 442,000			$ 555,000	$ 113,000
Escalation from Estimate Data Date to Mid Point of Construction	13.33%	$ -			$ 74,000	$ 74,000
		$ 442,000			$ 629,000	$ 187,000
Operator Mark-Up on DB Component	1.00%	$ -			$ 6,000	$ 6,000
		$ 442,000			$ 635,000	$ 193,000
Construction Contingency (Change Orders)	5%	$ 22,000		5%	$ 32,000	$ 10,000
Subtotal		$ 464,000			$ 667,000	$ 203,000
Engineering, legal and fiscal	25%	$ 116,000		25%	$ 167,000	$ 51,000
Total Estimated Project Cost		$ 580,000			$ 834,000	$ 254,000

Estimate of Probable Construction Cost
Spokane County - Headworks/Grit Removal

Project	Spokane County	**Date**	24-Jan-03	8-Dec-06
	Representative Project	**Estimator**	C. Caprara	SRB
Task	Headworks/Grit Removal	**Checked By**	B. Willey	RLG
Task No.	10027-007-102	**Check Date**	3/14/2003	

HDR Engineering, Inc.

Description	Phase 1 (26 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	Variances Phase 1 (8 mgd)
Division 1 - Special Conditions									
General Conditions, Bidding, Submittals, Start-up	1	LS	$ 15,324	$ 15,324	1	LS	$ 24,703	$ 24,703	$ 9,379
Project Equipment- Not Task Specific - 75T Crawler Crane						MO	$ 18,800.00	$ -	$ -
Backhoe/Laoder					1	MO	$ 4,348.00	$ 4,348	$ 4,348
Division 2 - Site Work									
Excavation	3900	CY	$ 8	$ 31,200	3900	CY	$ 9.94	$ 38,783	$ 7,583
Granular Fill	160	CY	$ 20	$ 3,200	160	CY	$ 24.86	$ 3,978	$ 778
Backfill	2140	CY	$ 12	$ 25,680	2140	CY	$ 14.92	$ 31,922	$ 6,242
PVC Membrane	2700	SF	$ 1	$ 2,700	2700	SF	$ 1.24	$ 3,356	$ 656
Filter Fabric	2700	SF	$ 1	$ 2,700	2700	SF	$ 1.24	$ 3,356	$ 656
Division 3 - Concrete									
Concrete slab-on-grade	170	CY	$ 250	$ 42,569	170	CY	$ 475	$ 80,882	$ 38,313
Suspended Slab	92	CY	$ 550	$ 50,366	92	CY	$ 692	$ 63,369	$ 13,004
Concrete Wall	313	CY	$ 400	$ 125,378	313	CY	$ 750	$ 235,083	$ 109,706
Concrete Stair	4	CY	$ 550	$ 2,363	4	CY	$ 684	$ 2,937	$ 574
Division 4 - Masonry									
CMU	3744	SF	$ 10	$ 37,440	3744	SF	$ 12.43	$ 46,540	$ 9,100
Divison 5 - Metals									
Aluminum Handrail	220	LF	$ 50	$ 11,000	220	LF	$ 62.15	$ 13,674	$ 2,674
Miscellaneous Metals	1	LS	$ 5,000	$ 5,000	1	LS	$ 6,215	$ 6,215	$ 1,215
Architectural Metal Roof	3000	SF	$ 20	$ 60,000	3000	SF	$ 24.86	$ 74,583	$ 14,583
Hose Rack	5	EA	$ 250	$ 1,250	5	EA	$ 311	$ 1,554	$ 304
Sump Pump Cover	1	EA	$ 250	$ 250	1	EA	$ 311	$ 311	$ 61
Architectural Metal Siding	800	SF	$ 10	$ 8,000	800	SF	$ 12.43	$ 9,944	$ 1,944
Grating	40	SF	$ 60	$ 2,400	40	SF	$ 74.58	$ 2,983	$ 583
Screenings Sluice	1	LS	$ 5,000	$ 5,000	1	LS	$ 6,215	$ 6,215	$ 1,215
Ladder	15	LF	$ 80	$ 1,200	15	LF	$ 99.44	$ 1,492	$ 292
Division 6 - Wood and Plastic									
Architectural Treatment	3456	SF	$ 2	$ 6,912	3456	SF	$ 2.49	$ 8,592	$ 1,680

Division 7 - Thermal and Moisture Protection									
Damproofing	2700	SF	$ 1	$ 2,700	2700	SF	$ 1.24	$ 3,356	$ 656
Flashing and Sheet Metal	1	LS	$ 4,000	$ 4,000	1	LS	$ 4,972	$ 4,972	$ 972
Joint Sealant	1	LS	$ 3,000	$ 3,000	1	LS	$ 3,729	$ 3,729	$ 729
Skylights	200	SF	$ 30.00	$ 6,000	200	SF	$ 37.29	$ 7,458	$ 1,458
Roof Insulation	30	SQ	$ 300	$ 9,000	30	SQ	$ 373	$ 11,187	$ 2,187
Exterior Insulation and Finish System	3456	SF	$ 10.00	$ 34,560	3456	SF	$ 12.43	$ 42,960	$ 8,400
Division 8 - Doors and Windows									
3X7 Fiberglass Door	1	EA	$ 3,000	$ 3,000	1	EA	$ 3,729	$ 3,729	$ 729
12X15'6" Overhead Door	2	EA	$ 5,000	$ 10,000	2	EA	$ 6,215	$ 12,431	$ 2,431
Aluminum Access Hatches (4'X4')	64	SF	$ 100	$ 6,400	64	SF	$ 124	$ 7,956	$ 1,556
Division 9 - Finishes									
Building Paint	3744	SF	$ 5	$ 18,720	3744	SF	$ 6.22	$ 23,270	$ 4,550
Equipment Paint	6	EA	$ 1,000	$ 6,000	6	EA	$ 1,243	$ 7,458	$ 1,458
Pipe Paint	600	LF	$ 0.5	$ 300	600	LF	$ 0.62	$ 373	$ 73
Division 10 - Specialties									
Louvers and vents	1	LS	$ 3,000	$ 3,000	1	LS	$ 3,729	$ 3,729	$ 729
Identification Stenciling and Tagging	1	LS	$ 4,000	$ 4,000	1	LS	$ 4,972	$ 4,972	$ 972
Grit Dumpster	2	EA	$ 2,000	$ 4,000	2	EA	$ 2,486	$ 4,972	$ 972
Screenings Dumpster	2	EA	$ 2,000	$ 4,000	2	EA	$ 2,486	$ 4,972	$ 972
Division 11 - Equipment									
Sump Pumps	2	EA	$ 2,000	$ 4,000	2	EA	$ 2,486	$ 4,972	$ 972
Mechanically Cleaned Bar Screen	2	EA	$ 180,000	$ 360,000	2	EA	$ 212,562	$ 425,123	$ 65,123
Screenings Washer/Compactor	2	EA	$ 66,000	$ 132,000	2	EA	$ 82,041	$ 164,083	$ 32,083
Grit Cyclone	4	EA	$ 4,000	$ 16,000	4	EA	$ 4,972	$ 19,889	$ 3,889
Grit Classifier	2	EA	$ 40,000	$ 80,000	2	EA	$ 49,722	$ 99,444	$ 19,444
Forced Vortex Grit Removal Equipment	2	EA	$ 25,000	$ 50,000	2	EA	$ 29,522	$ 59,045	$ 9,045
Non-Clog Centrifugal Pumps (Recessed Impeller)	3	EA	$ 15,000	$ 45,000	3	EA	$ 18,646	$ 55,937	$ 10,937
Division 13 - Special Construction									
Instrumentation	1	LS	$ 90,000	$ 90,000	1	LS	$ 111,875	$ 111,875	$ 21,875
Ultrasonic Level Transmitter	4	EA	$ 3,500	$ 14,000	4	EA	$ 4,351	$ 17,403	$ 3,403

Division 15 - Mechanical									
1/2 IN SW	16	LF	$ 5.00	$ 80	16	LF	$ 6.22	$ 99	$ 19
1 IN NPW	150	LF	$ 7	$ 1,050	150	LF	$ 8.70	$ 1,305	$ 255
2 IN Sump	40	LF	$ 14	$ 560	40	LF	$ 17.40	$ 696	$ 136
4 IN Grit	230	LF	$ 48	$ 11,040	230	LF	$ 59.67	$ 13,723	$ 2,683
10 IN Drain	42	LF	$ 60	$ 2,520	42	LF	$ 74.58	$ 3,132	$ 612
6 IN Drain	20	LF	$ 36	$ 720	20	LF	$ 44.75	$ 895	$ 175
6 IN Roof Drain Leader	100	LF	$ 36	$ 3,600	100	LF	$ 44.75	$ 4,475	$ 875
1 IN Gate Valve	2	EA	$ 250	$ 500	2	EA	$ 311	$ 622	$ 122
1 IN Motor Operated Ball Valve (NPW)	1	EA	$ 1,500	$ 1,500	1	EA	$ 1,865	$ 1,865	$ 365
2 IN Check Valve	2	EA	$ 600	$ 1,200	2	EA	$ 746	$ 1,492	$ 292
2 IN Plug Valve	2	EA	$ 800	$ 1,600	2	EA	$ 994	$ 1,989	$ 389
4 IN Check Vavle	2	EA	$ 1,200	$ 2,400	2	EA	$ 1,492	$ 2,983	$ 583
4 IN Plug Valve	10	EA	$ 1,600	$ 16,000	10	EA	$ 1,989	$ 19,889	$ 3,889
10 IN Plug Valve	2	EA	$ 4,000	$ 8,000	2	EA	$ 4,972	$ 9,944	$ 1,944
Seal Water Stations	2	EA	$ 2,000	$ 4,000	2	EA	$ 2,486	$ 4,972	$ 972
Floor Drains	4	EA	$ 250	$ 1,000	4	EA	$ 311	$ 1,243	$ 243
Trench Drain	24	LF	$ 50	$ 1,200	24	LF	$ 62	$ 1,492	$ 292
Hose Bibb	6	EA	$ 250	$ 1,500	6	EA	$ 311	$ 1,865	$ 365
Unit Heater	1	EA	$ 2,000	$ 2,000	1	EA	$ 2,486	$ 2,486	$ 486
Make-up Air Unit	1	EA	$ 5,000	$ 5,000	1	EA	$ 6,215	$ 6,215	$ 1,215
Electrical Room Air Cooling Condensing Unit	1	EA	$ 2,500	$ 2,500	1	EA	$ 3,108	$ 3,108	$ 608
Screenings Room Air Cooling Condensing Unit	1	EA	$ 3,000	$ 3,000	1	EA	$ 3,729	$ 3,729	$ 729
Basement Exhaust Fan	1	EA	$ 1,500	$ 1,500	1	EA	$ 1,865	$ 1,865	$ 365
Slide Gates	5	EA	$ 5,000	$ 25,000	5	EA	$ 6,215	$ 31,076	$ 6,076
Ductwork	300	LF	$ 2	$ 600	300	LF	$ 2.49	$ 746	$ 146
Division 16 - Electrical and Instrumentation									
Electrical	1	LS	$ 100,000	$ 100,000	1	LS	$ 124,305	$ 124,305	$ 24,305
		Subtotal		$ 1,548,000		**Subtotal**		$ 2,016,000	$ 468,000
Field General Conditions, Bonds and Insurance			**5%**	$ 77,000			**5%**	$ 101,000	$ 24,000
Contractor's Overhead and Profit			**10%**	$ 155,000			**10%**	$ 202,000	$ 47,000
Subtotal				$ 1,780,000				$ 2,319,000	$ 539,000
Undefined Scope of Work Contingency			**20%**	$ 356,000			**15%**	$ 348,000	$ (8,000)
Subtotal				$ 2,136,000				$ 2,667,000	$ 531,000
Washington State Sales Tax			**8.1%**	$ 173,000			**8.1%**	$ 216,000	$ 43,000
Subtotal				$ 2,309,000				$ 2,883,000	$ 574,000
Escalation from Estimate Data Date to Mid Point of Construction			**13.33%**	$ -			**13.33%**	$ 384,000	$ 384,000
Subtotal				$ 2,309,000				$ 3,267,000	$ 958,000
Operator Mark-Up on DB Component			**1%**	$ -			**1%**	$ 33,000	$ 33,000
Subtotal				$ 2,309,000				$ 3,300,000	$ 991,000
Construction Contingency (Change Orders)			**5%**	$ 115,000			**5%**	$ 165,000	$ 50,000
Subtotal				$ 2,424,000				$ 3,465,000	$ 1,041,000
Engineering, legal and fiscal			**25%**	$ 606,000			**25%**	$ 866,250	$ 260,250
Total Estimated Project Cost				$ 3,030,000				$ 4,331,250	$ 1,301,250

Estimate of Probable Construction Cost
Spokane County - Primary Treatment Structures

Project	Spokane County	**Date**	14-Jan-03	8-Dec-06
	Representative Project	**Estimator**	B. Willey	SRB
Task	Primary Treatment	**Checked By**	C. Caprara	RLG
Task No.	10027-007-102	**Check Date**	01-Mar-03	

HDR Engineering, Inc.

Description	Phase 1 (8 mgd)				OPCC - Dec 2006 Phase 1 (8 mgd)				Variances Phase 1 (8 mgd)
	Quantity	Unit	Unit Price ($/unit)	Total ($)	Quantity	Unit	Unit Price ($/unit)	Total ($)	
Division 1 - Special Conditions									
General Conditions, Bidding, Submittals, Start-up	1	LS	$ 19,534	$ 19,534	1	LS	$ 35,363	$ 35,363	$ 15,829
Project Equipment- Not Task Specific - 75T Crawler Crane						MO	$ 18,800.00	$ -	$ -
Backhoe/Laoder					2	MO	$ 4,348.00	$ 8,696	$ 8,696
Division 2 - Site Work									
Primary Influent Split Box									
Excavation	500	CY	$ 8	$ 4,000	500	CY	$ 9.94	$ 4,972	$ 972
Granular Fill	20	CY	$ 20	$ 400	20	CY	$ 24.86	$ 497	$ 97
Backfill	280	CY	$ 12	$ 3,360	280	CY	$ 14.92	$ 4,177	$ 817
Construction Dewatering	1	LS	$ -	$ -	1	LS	$ -	$ -	$ -
Primary Clarifier No. 1									
Excavation	3600	CY	$ 8	$ 28,800	3600	CY	$ 9.94	$ 35,800	$ 7,000
Granular Fill	220	CY	$ 20	$ 4,400	220	CY	$ 24.86	$ 5,469	$ 1,069
Backfill	780	CY	$ 12	$ 9,360	780	CY	$ 14.92	$ 11,635	$ 2,275
Construction Dewatering	1	LS	$ -	$ -	1	LS	$ -	$ -	$ -
Filter Fabric	5450	SF	$ 1	$ 5,450	5450	SF	$ 1.24	$ 6,775	$ 1,325
PVC Membrane	5450	SF	$ 1	$ 5,450	5450	SF	$ 1.24	$ 6,775	$ 1,325
Primary Clarifier No. 2									
Excavation	3600	CY	$ 8	$ 28,800	3600	CY	$ 9.94	$ 35,800	$ 7,000
Granular Fill	220	CY	$ 20	$ 4,400	220	CY	$ 24.86	$ 5,469	$ 1,069
Backfill	780	CY	$ 12	$ 9,360	780	CY	$ 14.92	$ 11,635	$ 2,275
Construction Dewatering	1	LS	$ -	$ -	1	LS	$ -	$ -	$ -
Filter Fabric	5450	SF	$ 1	$ 5,450	5450	SF	$ 1.24	$ 6,775	$ 1,325
PVC Membrane	5450	SF	$ 1	$ 5,450	5450	SF	$ 1.24	$ 6,775	$ 1,325

Description	Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	Variances Phase 1 (8 mgd)
Primary Sludge Pumping Station									
Excavation	500	CY	$ 8	$ 4,000	500	CY	$ 9.94	$ 4,972	$ 972
Granular Fill	100	CY	$ 20	$ 2,000	100	CY	$ 24.86	$ 2,486	$ 486
Backfill	200	CY	$ 12	$ 2,400	200	CY	$ 14.92	$ 2,983	$ 583
Construction Dewatering	1	LS	$ -	$ -	1	LS	$ -	$ -	$ -
Filter Fabric	2475	SF	$ 1	$ 2,475	2475	SF	$ 1.24	$ 3,077	$ 602
PVC Membrane	2475	SF	$ 1	$ 2,475	2475	SF	$ 1.24	$ 3,077	$ 602
Division 3 - Concrete									
Primary Influent Split Box									
Concrete slab-on-grade	39	CY	$ 250	$ 9,667	39	CY	$ 475	$ 18,367	$ 8,700
Concrete Wall	84	CY	$ 400	$ 33,511	84	CY	$ 750	$ 62,833	$ 29,322
Concrete Stair	10	CY	$ 550	$ 5,500	10	CY	$ 692	$ 6,920	$ 1,420
Concrete Encasement	15	CY	$ 250	$ 3,750	15	CY	$ 475	$ 7,125	$ 3,375
Primary Clarifier No. 1									
Concrete slab-on-grade	225	CY	$ 250	$ 56,218	225	CY	$ 475	$ 106,815	$ 50,596
Concrete Wall	181	CY	$ 400	$ 72,387	181	CY	$ 750	$ 135,727	$ 63,339
Concrete Launder	49	CY	$ 550	$ 27,223	49	CY	$ 750	$ 37,122	$ 9,899
Concrete Influent Box	15	CY	$ 400	$ 6,000	15	CY	$ 692	$ 10,380	$ 4,380
Concrete Topping	56	CY	$ 250	$ 13,980	56	CY	$ 455	$ 25,444	$ 11,464
Concrete Encasement	56	CY	$ 250	$ 13,889	56	CY	$ 475	$ 26,389	$ 12,500
Primary Clarifier No. 2									
Concrete slab-on-grade	225	CY	$ 250	$ 56,218	225	CY	$ 475	$ 106,815	$ 50,596
Concrete Wall	181	CY	$ 400	$ 72,387	181	CY	$ 750	$ 135,727	$ 63,339
Concrete Launder	49	CY	$ 550	$ 27,223	49	CY	$ 750	$ 37,122	$ 9,899
Concrete Influent Box	15	CY	$ 400	$ 6,000	15	CY	$ 750	$ 11,250	$ 5,250
Concrete Topping	56	CY	$ 250	$ 13,980	56	CY	$ 455	$ 25,444	$ 11,464
Concrete Encasement	56	CY	$ 250	$ 13,889	56	CY	$ 475	$ 26,389	$ 12,500

Description	Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	Variances Phase 1 (8 mgd)
Primary Sludge Pumping Station									
Concrete slab-on-grade	152	CY	$ 250	$ 37,917	152	CY	$ 475	$ 72,042	$ 34,125
Concrete Wall	103	CY	$ 400	$ 41,333	103	CY	$ 750	$ 77,500	$ 36,167
Concrete Stairs	15	CY	$ 550	$ 8,250	15	CY	$ 684	$ 10,255	$ 2,005
Concrete Encasement/Equipment Base	30	CY	$ 250	$ 7,500	30	CY	$ 475	$ 14,250	$ 6,750
Hollow-core Roof	2325	SF	$ 10	$ 23,250	2325	SF	$ 12.43	$ 28,901	$ 5,651
Concrete Topping	2325	SF	$ 8	$ 18,600	2325	SF	$ 9.94	$ 23,121	$ 4,521
Divison 5 - Metals									
Primary Influent Split Box									
Aluminum Covers	450	SF	$ 30	$ 13,500	450	SF	$ 37.29	$ 16,781	$ 3,281
Aluminum Handrail	15	LF	$ 50	$ 750	15	LF	$ 62.15	$ 932	$ 182
Miscellaneous Metals	1	LS	$ 1,000	$ 1,000	1	LS	$ 1,243	$ 1,243	$ 243
Primary Clarifier No. 1									
Aluminum Covers & Trusses	4534	SF	$ 35	$ 158,696	4534	SF	$ 43.51	$ 197,267	$ 38,571
Miscellaneous Metals	1	LS	$ 3,000	$ 3,000	1	LS	$ 3,729	$ 3,729	$ 729
Primary Clarifier No. 2									
Aluminum Covers & Trusses	4534	SF	$ 35	$ 158,696	4534	SF	$ 43.51	$ 197,267	$ 38,571
Miscellaneous Metals	1	LS	$ 3,000	$ 3,000	1	LS	$ 3,729	$ 3,729	$ 729
Primary Sludge Pumping Station									
Aluminum Handrail	150	LF	$ 50	$ 7,500	150	LF	$ 62.15	$ 9,323	$ 1,823
Miscellaneous Metals	1	LS	$ 2,000	$ 2,000	1	LS	$ 2,486	$ 2,486	$ 486
Pergola Steel	1	LS	$ 15,000	$ 15,000	1	LS	$ 18,646	$ 18,646	$ 3,646
Architectural Metal Roof	300	SF	$ 20	$ 6,000	300	SF	$ 24.86	$ 7,458	$ 1,458
Division 7 - Thermal and Moisture Protection									
Primary Sludge Pumping Station									
Skylights	16	SF	$ 30	$ 480	16	SF	$ 37.29	$ 597	$ 117
Membrane Roofing	2325	SF	$ 25	$ 58,125	2325	SF	$ 31.08	$ 72,252	$ 14,127

Description	Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	Variances Phase 1 (8 mgd)
Division 8 - Doors and Windows									
Primary Clarifier No. 1									
Access Hatches	30	SF	$ 100	$ 3,000	30	SF	$ 124	$ 3,729	$ 729
Primary Clarifier No. 2									
Access Hatches	30	SF	$ 100	$ 3,000	30	SF	$ 124	$ 3,729	$ 729
Primary Sludge Pumping Station									
Access Hatches	90	SF	$ 100	$ 9,000	90	SF	$ 124	$ 11,187	$ 2,187
Maintenance Access Openings	130	SF	$ 60	$ 7,800	130	SF	$ 75	$ 9,696	$ 1,896
6' X 7" Double Hollow Metal Door	1	EA	$ 3,000	$ 3,000	1	EA	$ 3,729	$ 3,729	$ 729
Division 9 - Finishes									
Primary Clarifier No. 1									
Painting	1	LS	$ 5,000	$ 5,000	1	LS	$ 6,215	$ 6,215	$ 1,215
Primary Clarifier No. 2									
Painting	1	LS	$ 5,000	$ 5,000	1	LS	$ 6,215	$ 6,215	$ 1,215
Primary Sludge Pumping Station									
Painting	1	LS	$ 5,000	$ 5,000	1	LS	$ 6,215	$ 6,215	$ 1,215
Damproofing	1400	SF	$ 1	$ 1,400	1400	SF	$ 1.24	$ 1,740	$ 340

Description	Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	Variances Phase 1 (8 mgd)
Division 11 - Equipment									
Primary Clarifier No. 1									
Clarifier Mechanism	1	LS	$ 150,000	$ 150,000	1	LS	$ 186,458	$ 186,458	$ 36,458
Primary Clarifier No. 2									
Clarifier Mechanism	1	LS	$ 150,000	$ 150,000	1	LS	$ 186,458	$ 186,458	$ 36,458
Primary Clarifier No. 3									
Clarifier Mechanism									
Primary Sludge Pumping Station									
Primary Sludge Pump	3	EA	$ 30,000	$ 90,000	3	EA	$ 46,614	$ 139,843	$ 49,843
Primary Scum Pump	1	EA	$ 30,000	$ 30,000	2	EA	$ 37,292	$ 74,583	$ 44,583
Duplex Sump Pump	1	EA	$ 10,000	$ 10,000	1	EA	$ 12,431	$ 12,431	$ 2,431
Division 13 - Special Construction									
Primary Sludge Pumping Station									
Pressure Switches	4	EA	$ 1,000	$ 4,000	4	EA	$ 1,243	$ 4,972	$ 972
Ultrasonic Level	2	EA	$ 3,500	$ 7,000	2	EA	$ 4,351	$ 8,701	$ 1,701
Instrumentation	1	LS	$ 60,000	$ 60,000	1	LS	$ 119,857	$ 119,857	$ 59,857
Division 14 - Conveying Systems									
Primary Sludge Pumping Station									
Monorail with Hoist	1	LS	$ 15,000	$ 15,000	1	LS	$ 18,646	$ 18,646	$ 3,646
Division 15 - Mechanical									
Primary Influent Split Box									
24 IN Sluice Gate (manual)	3	EA	$ 11,000	$ 33,000	3	EA	$ 13,674	$ 41,021	$ 8,021
Primary Clarifier No.1									
1 IN NPW w/Spray Nozzles	30	LF	$ 10	$ 300	30	LF	$ 12.43	$ 373	$ 73
Hydrostatic Relief Valves	8	EA	$ 250	$ 2,000	8	EA	$ 311	$ 2,486	$ 486
24 IN Primary Influent	40	LF	$ 168	$ 6,720	40	LF	$ 209	$ 8,353	$ 1,633
8 IN PSL	40	LF	$ 76	$ 3,040	40	LF	$ 94.47	$ 3,779	$ 739
Primary Clarifier No. 2									
1 IN NPW w/Spray Nozzles	30	LF	$ 10	$ 300	30	LF	$ 12.43	$ 373	$ 73
Hydrostatic Relief Valves	8	EA	$ 250	$ 2,000	8	EA	$ 311	$ 2,486	$ 486
24 IN Primary Influent	40	LF	$ 168	$ 6,720	40	LF	$ 209	$ 8,353	$ 1,633
8 IN PSL	40	LF	$ 76	$ 3,040	40	LF	$ 94.47	$ 3,779	$ 739

Description	Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	Variances Phase 1 (8 mgd)
Primary Sludge Pumping Station									
Unit Heater	2	EA	$ 1,000	$ 2,000	2	EA	$ 1,243	$ 2,486	$ 486
Ventilation Fan	1	EA	$ 2,500	$ 2,500	1	EA	$ 3,108	$ 3,108	$ 608
HVAC, Ductwork, Louvers, ect.	1	LS	$ 7,000	$ 7,000	1	LS	$ 8,701	$ 8,701	$ 1,701
Miscellaneous Mechanical	1	LS	$ 3,000	$ 3,000	1	LS	$ 3,729	$ 3,729	$ 729
6 IN Perforated Drain Piping	200	LF	$ 36	$ 7,200	200	LF	$ 44.75	$ 8,950	$ 1,750
6 IN Primary Sludge	80	LF	$ 62	$ 4,960	80	LF	$ 77.07	$ 6,166	$ 1,206
8 IN Primary Sludge	80	LF	$ 76	$ 6,080	80	LF	$ 94.47	$ 7,558	$ 1,478
6 IN Primary Scum GlassLined	80	LF	$ 62	$ 4,960	80	LF	$ 135.04	$ 10,803	$ 5,843
8 IN Primary Scum Glasslined	50	LF	$ 76	$ 3,800	50	LF	$ 144.37	$ 7,219	$ 3,419
6 IN Check Valves	4	EA	$ 1,800	$ 7,200	4	EA	$ 2,237	$ 8,950	$ 1,750
6 IN Plug Valve	4	EA	$ 2,400	$ 9,600	4	EA	$ 2,983	$ 11,933	$ 2,333
8 IN Plug Valve	7	EA	$ 3,200	$ 22,400	7	EA	$ 3,978	$ 27,844	$ 5,444
Sump and Drain Piping	1	LS	$ 5,000	$ 5,000	1	LS	$ 6,215	$ 6,215	$ 1,215
Miscellaneous Piping	1	LS	$ 15,000	$ 15,000	1	LS	$ 18,646	$ 18,646	$ 3,646
Hose Bibb	2	EA	$ 250	$ 500	2	EA	$ 311	$ 622	$ 122
Division 16 - Electrical and Instrumentation									
Primary Clarifier No. 1									
Electrical	1	LS	$ 6,194	$ 6,194	1	LS	$ 7,699	$ 7,699	$ 1,505
Primary Clarifier No. 2									
Electrical	1	LS	$ 6,194	$ 6,194	1	LS	$ 7,699	$ 7,699	$ 1,505
Primary Sludge Pumping Station									
Electrical	1	LS	$ 100,000	$ 100,000	1	LS	$ 124,305	$ 124,305	$ 24,305

Description	Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	Variances Phase 1 (8 mgd)
Subtotal				$ 1,973,000	Subtotal			$ 2,889,000	$ 916,000
Field General Conditions, Bonds and Insurance			5%	$ 99,000			5%	$ 144,000	$ 45,000
Contractor's Overhead and Profit			10%	$ 197,000			10%	$ 289,000	$ 92,000
Subtotal				$ 2,269,000				$ 3,322,000	$ 1,053,000
Undefined Scope of Work Contingency			20%	$ 454,000			15%	$ 498,000	$ 44,000
Subtotal				$ 2,723,000				$ 3,820,000	$ 1,097,000
Washington State Sales Tax			8.1%	$ 221,000			8.1%	$ 309,000	$ 88,000
Subtotal				$ 2,944,000				$ 4,129,000	$ 1,185,000
Escalation from Estimate Data Date to Mid Point of Construction			13.33%	$ -			13.33%	$ 550,000	$ 550,000
Subtotal				$ 2,944,000				$ 4,679,000	$ 1,735,000
Operator Mark-Up on DB Component			1.00%	$ -			1%	$ 47,000	$ 47,000
Subtotal				$ 2,944,000				$ 4,726,000	$ 1,782,000
Construction Contingency (Change Orders)			5%	$ 147,000			5%	$ 236,000	$ 89,000
Subtotal				$ 3,091,000				$ 4,962,000	$ 1,871,000
Engineering, legal and fiscal			25%	$ 773,000			25%	$ 1,241,000	$ 468,000
Total Estimated Project Cost				$ 3,864,000				$ 6,203,000	$ 2,339,000

Estimate of Probable Construction Cost

Spokane County - Fine Screens & MBR Split Box

Project	Spokane County	**Date**	30-Jan-03	8-Dec-06
	Representative Project	**Estimator**	RBM	SRB
Task	Fine Screens & MBR Split	**Checked By**	B. Willey	RLG
Task No.	00027-017-102	**Check Date**	30/3/03	

HDR Engineering, Inc.

					OPCC - Dec 2006				Variances
	Phase 1 (8 mgd)				Phase 1 (8 mgd)				Phase 1 (8 mgd)
Description	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	
Division 1 - Special Conditions									
General Conditions, Bidding, Submittals, Start-up	1	LS	$ 19,218	$ 19,218	1	LS	$ 31,261	$ 31,261	$ 12,043
Project Equipment- Not Task Specific - 75T Crawler Crane						MO	$ 18,800.00	$ -	$ -
Backhoe/Laoder					2	MO	$ 4,348.00	$ 8,696	$ 8,696
Division 2 - Site Work									
Excavation	1800	CY	$ 8	$ 14,400	1800	CY	$ 9.94	$ 17,900	$ 3,500
Granular Fill	200	CY	$ 20	$ 4,000	200	CY	$ 24.86	$ 4,972	$ 972
Backfill	800	CY	$ 12	$ 9,600	800	CY	$ 14.92	$ 11,933	$ 2,333
Filter Fabric	3525	SF	$ 1	$ 3,525	3525	SF	$ 1.24	$ 4,382	$ 857
PVC Membrane	3525	SF	$ 1	$ 3,525	3525	SF	$ 1.24	$ 4,382	$ 857
Drain Board	3525	SF	$ 1	$ 3,525	3525	SF	$ 1.24	$ 4,382	$ 857
54" By-Pass	90	LF	$ 324	$ 29,160	90	LF	$ 403	$ 36,247	$ 7,087
Division 3 - Concrete									
Concrete slab-on-grade	360	CY	$ 250	$ 90,000	360	CY	$ 475	$ 171,000	$ 81,000
Concrete Wall	350	CY	$ 400	$ 140,000	350	CY	$ 750	$ 262,500	$ 122,500
Concrete Stairs	10	CY	$ 550	$ 5,500	10	CY	$ 684	$ 6,837	$ 1,337
Divison 4 - Masonry									
CMU (interior)	270	SF	$ 10.00	$ 2,700	270	SF	$ 12.43	$ 3,356	$ 656
CMU (exterior)	3000	SF	$ 10.00	$ 30,000	3000	SF	$ 12.43	$ 37,292	$ 7,292
Divison 5 - Metals									
Aluminum Handrail	140	LF	$ 50	$ 7,000	140	LF	$ 62	$ 8,701	$ 1,701
Aluminum Platform	1	LS	$ 20,000	$ 20,000	1	LS	$ 24,861	$ 24,861	$ 4,861
Aluminum Grating (2.5")	472	SF	$ 60	$ 28,320	472	SF	$ 75	$ 35,203	$ 6,883

Aluminum Checkered Plate (3/8")	350	SF	$ 60	$ 21,000	350	SF	$ 75	$ 26,104	$ 5,104
Architectural Metal Roof	3200	SF	$ 20	$ 64,000	3200	SF	$ 25	$ 79,555	$ 15,555
Miscellaneous Metals	1	LS	$ 6,500	$ 6,500	1	LS	$ 8,080	$ 8,080	$ 1,580
Divison 6 - Wood and Plastic									
Architectural Treatment	3000	LF	$ 2	$ 6,000	3000	LF	$ 2.49	$ 7,458	$ 1,458
Division 7 - Thermal and Moisture Protection									
Damproofing	1000	SF	$ 1	$ 1,000	1000	SF	$ 1.24	$ 1,243	$ 243
Flashing and Sheet Metal	1	LS	$ 4,500	$ 4,500	1	LS	$ 5,594	$ 5,594	$ 1,094
Joint Sealant	1	LS	$ 2,500	$ 2,500	1	LS	$ 3,108	$ 3,108	$ 608
Skylights	300	SF	$ 30	$ 9,000	300	SF	$ 37.29	$ 11,187	$ 2,187
Exterior Insulation and Finish System	3000	SF	$ 10	$ 30,000	3000	SF	$ 12.43	$ 37,292	$ 7,292
Division 8 - Doors and Windows									
3x7 Fiberglass Door	6	EA	$ 3,000	$ 18,000	6	EA	$ 3,729	$ 22,375	$ 4,375
12'x 18' Overhead Door	1	EA	$ 5,000	$ 5,000	1	EA	$ 6,215	$ 6,215	$ 1,215
Division 9 - Finishes									
Building Painting	5500	SF	$ 5	$ 27,500	5500	SF	$ 6.22	$ 34,184	$ 6,684
Equipment Painting	2	EA	$ 1,000	$ 2,000	2	EA	$ 1,243	$ 2,486	$ 486
Piping Painting	300	LF	$ 0.5	$ 150	300	LF	$ 0.62	$ 186	$ 36
Division 11 - Equipment									
Fine Screens	1	LS	$ 773,900	$ 773,900	1	LS	$ 913,897	$ 913,897	$ 139,997
Washwater Return Sump Pumps	2	EA	$ 45,000	$ 90,000	2	EA	$ 55,937	$ 111,875	$ 21,875
Screenings Washer/Compactor	2	EA	$ 66,000	$ 132,000	2	EA	$ 82,041	$ 164,083	$ 32,083
Division 13 - Special Construction									
FRP Weir Plate	40	LF	$ 125	$ 5,000	40	LF	$ 155	$ 6,215	$ 1,215
Instrumentation					1	LS	$ 13,000	$ 13,000	$ 13,000
Division 14 - Conveying Systems									
NOT USED									
Division 15 - Mechanical									
2 IN NPW	200	LF	$ 14	$ 2,800	200	LF	$ 17.40	$ 3,481	$ 681
48" Slide Gates	8	EA	$ 8,000	$ 64,000	8	EA	$ 9,944	$ 79,555	$ 15,555

48" Sluice Gates	2	EA	$ 15,000	$ 30,000	2	EA	$ 18,646	$ 37,292	$ 7,292
HVAC (MCC Room)	1	EA	$ 4,500	$ 4,500	1	EA	$ 5,594	$ 5,594	$ 1,094
4" Washwater Drain	100	LF	$ 28	$ 2,800	100	LF	$ 34.81	$ 3,481	$ 681
Floor Drains System	1	LS	$ 6,000	$ 6,000	1	LS	$ 7,458	$ 7,458	$ 1,458
Duct Work	300	LF	$ 2	$ 600	300	LF	$ 2.49	$ 746	$ 146
6 IN Perforated Drain Piping	274	LF	$ 36	$ 9,864	274	LF	$ 44.75	$ 12,261	$ 2,397
Miscellaneous Piping	1	LS	$ 5,000	$ 5,000	1	LS	$ 6,215	$ 6,215	$ 1,215
Hose Bibb	4	EA	$ 250	$ 1,000	4	EA	$ 311	$ 1,243	$ 243
Division 16 - Electrical									
Electrical	1	LS	$ 205,904	$ 205,904	1	LS	$ 269,449	$ 269,449	$ 63,545
Subtotal				$ 1,941,000	**Subtotal**			$ 2,555,000	$ 614,000
Field General Conditions, Bonds and Insurance			**5%**	$ 97,000			**5%**	$ 128,000	$ 31,000
Contractor's Overhead and Profit			**10%**	$ 194,000			**10%**	$ 256,000	$ 62,000
Subtotal				$ 2,232,000				$ 2,939,000	$ 707,000
Undefined Scope of Work Contingency			**20%**	$ 446,000			**15%**	$ 441,000	$ (5,000)
Subtotal				$ 2,678,000				$ 3,380,000	$ 702,000
Washington State Sales Tax			**8.1%**	$ 217,000			**8.1%**	$ 274,000	$ 57,000
Subtotal				$ 2,895,000				$ 3,654,000	$ 759,000
Escalation from Estimate Data Date to Mid Point of Construction			**13.33%**	$ -			**13.33%**	$ 487,000	$ 487,000
Subtotal				$ 2,895,000				$ 4,141,000	$ 1,246,000
Operator Mark-Up on DB Component			**1.00%**	$ -			**1.00%**	$ 41,000	$ 41,000
Subtotal				$ 2,895,000				$ 4,182,000	$ 1,287,000
Construction Contingency (Change Orders)			**5%**	$ 145,000			**5%**	$ 209,000	$ 64,000
Subtotal				$ 3,040,000				$ 4,391,000	$ 1,351,000
Engineering, legal and fiscal			**25%**	$ 760,000			**25%**	$ 1,098,000	$ 338,000
Total Estimated Project Cost				$ 3,800,000				$ 5,489,000	$ 1,689,000

Estimate of Probable Construction Cost

Spokane County - Membrane Bioreactor Treatment Structures

Project	Spokane County	**Date**	1-Feb-03	8-Dec-06
	Representative Project	**Estimator**	M. Norton	SRB
Task	Membrane Bioreactor	**Checked By**	B. Willey	RLG
Task No.	00027-007-102	**Check Date**	3/16/2003	

HDR Engineering, Inc.

						OPCC - Dec 2006				Variances
	Phase 1 (8 mgd)					Phase 1 (8 mgd)				Phase 1 (8 mgd)
Description	Quantity	Unit	Unit Price ($/unit)	Total ($)		Quantity	Unit	Unit Price ($/unit)	Total ($)	
Division 1 - Special Conditions										
General Conditions, Bidding, Submittals, Start-up 1%	1	LS	$ 174,430	$ 174,430		1	LS	$ 174,160	$ 174,160	$ (270)
Project Equipment- Not Task Specific - 75T Crawler Crane							MO	$ 18,800.00	$ -	$ -
Backhoe/Laoder						15.5	MO	$ 4,348.00	$ 67,394	$ 67,394
Division 2 - Site Work										
Anoxic/Aeration Basins										
Excavation	20000	CY	$ 8	$ 160,000		18068	CY	$ 9.94	$ 179,675	$ 19,675
Granular Fill	530	CY	$ 20	$ 10,600		480	CY	$ 24.86	$ 11,933	$ 1,333
Backfill	7370	CY	$ 12	$ 88,440		6658	CY	$ 14.92	$ 99,315	$ 10,875
Filter Fabric	14383	SF	$ 1	$ 14,383		13017	SF	$ 1.24	$ 16,181	$ 1,798
PVC Membrane (vapor barrier)	14383	SF	$ 1	$ 14,383		13017	SF	$ 1.24	$ 16,181	$ 1,798
Drain Board	1008	SF	$ 1	$ 1,008		912	SF	$ 1.24	$ 1,134	$ 126
Membrane Tanks										
Excavation	3600	CY	$ 8	$ 28,800		3252	CY	$ 9.94	$ 32,339	$ 3,539
Granular Fill	320	CY	$ 20	$ 6,400		290	CY	$ 24.86	$ 7,210	$ 810
Backfill	580	CY	$ 10	$ 5,800		524	CY	$ 12.43	$ 6,514	$ 714
Filter Fabric	8547	SF	$ 1	$ 8,547		7735	SF	$ 1.24	$ 9,615	$ 1,068
PVC Membrane	8547	SF	$ 1	$ 8,547		7735	SF	$ 1.24	$ 9,615	$ 1,068
Permeate Pump Gallery										
Excavation	1700	CY	$ 8	$ 13,600		1700	CY	$ 9.94	$ 16,905	$ 3,305
Granular Fill	130	CY	$ 20	$ 2,600		130	CY	$ 24.86	$ 3,232	$ 632
Backfill	570	CY	$ 10	$ 5,700		570	CY	$ 12.43	$ 7,085	$ 1,385
Filter Fabric	3534	SF	$ 1	$ 3,534		3534	SF	$ 1.24	$ 4,393	$ 859
PVC Membrane	3534	SF	$ 1	$ 3,534		3534	SF	$ 1.24	$ 4,393	$ 859
Drain Board	2183	SF	$ 1	$ 2,183		2183	SF	$ 1.24	$ 2,714	$ 531

Blower Room/Chemical & Other Rooms									
Excavation	400	CY	$ 8	$ 3,200	400	CY	$ 9.94	$ 3,978	$ 778
Granular Fill	120	CY	$ 20	$ 2,400	120	CY	$ 24.86	$ 2,983	$ 583
Backfill	180	CY	$ 10	$ 1,800	180	CY	$ 12.43	$ 2,237	$ 437
Filter Fabric	3224	SF	$ 1	$ 3,224	3224	SF	$ 1.24	$ 4,008	$ 784
PVC Membrane	3224	SF	$ 1	$ 3,224	3224	SF	$ 1.24	$ 4,008	$ 784
Division 3 - Concrete									
Swing Zone Inlet Channel									
Concrete slab-on-grade	21	CY	$ 250	$ 5,250	19	CY	$ 475	$ 9,025	$ 3,775
Concrete Wall	26	CY	$ 400	$ 10,400	25	CY	$ 750	$ 18,750	$ 8,350
Anoxic/Aeration Basins									
Concrete slab-on-grade	961	CY	$ 250	$ 240,370	870	CY	$ 475	$ 413,250	$ 172,880
Concrete Wall	1755	CY	$ 400	$ 702,000	1665	CY	$ 750	$ 1,248,750	$ 546,750
Mixed Liquor Collection Channel									
Concrete slab-on-grade	21	CY	$ 250	$ 5,250	19	CY	$ 475	$ 9,025	$ 3,775
Concrete Wall	31	CY	$ 400	$ 12,400	29	CY	$ 750	$ 21,750	$ 9,350
Mixed Liquor Recirculation Pump Gallery									
Concrete slab-on-grade	105	CY	$ 250	$ 26,250	105	CY	$ 475	$ 49,875	$ 23,625
Concrete Wall	37	CY	$ 400	$ 14,800	37	CY	$ 750	$ 27,750	$ 12,950
Equipment Base	3	CY	$ 250	$ 750	3	CY	$ 455	$ 1,365	$ 615
Membrane Tank Inlet Channel									
Concrete slab-on-grade	19	CY	$ 250	$ 4,750	18	CY	$ 475	$ 8,550	$ 3,800
Concrete Wall	20	CY	$ 400	$ 8,000	19	CY	$ 750	$ 14,250	$ 6,250
Membrane Tanks									
Concrete slab-on-grade	229	CY	$ 250	$ 57,361	207	CY	$ 475	$ 98,325	$ 40,964
Concrete Wall	328	CY	$ 400	$ 131,200	311	CY	$ 750	$ 233,250	$ 102,050
Mixed Liquor Recirculation Channel									
Suspended Slab	27	CY	$ 550	$ 14,850	25	CY	$ 692	$ 17,300	$ 2,450
Concrete slab-on-grade	48	CY	$ 250	$ 12,000	44	CY	$ 475	$ 20,900	$ 8,900
Concrete Wall	115	CY	$ 400	$ 46,000	109	CY	$ 750	$ 81,750	$ 35,750

Permeate Pump Gallery										
Concrete slab-on-grade	111	CY	$ 250	$ 27,750	111	CY	$ 475	$ 52,725	$	24,975
Concrete Wall	80	CY	$ 400	$ 32,000	80	CY	$ 750	$ 60,000	$	28,000
Equipment Base	6	CY	$ 250	$ 1,500	6	CY	$ 455	$ 2,730	$	1,230
Blower Room/Chemical & Other Rooms										
Concrete slab-on-grade	140	CY	$ 250	$ 35,000	140	CY	$ 475	$ 66,500	$	31,500
Concrete Wall	0	CY	$ 400	-	0	CY	$ 750	-		#VALUE!
Equipment Base	6	CY	$ 250	$ 1,500	6	CY	$ 455	$ 2,730	$	1,230
Miscellaneous Concrete Items										
Suspended Slab	8	CY	$ 550	$ 4,400	8	CY	$ 692	$ 5,536	$	1,136
Concrete slab-on-grade	13	CY	$ 250	$ 3,250	13	CY	$ 475	$ 6,175	$	2,925
Concrete Wall	31	CY	$ 400	$ 12,400	31	CY	$ 750	$ 23,250	$	10,850
Flock Liner (foul air plenum)	930	SF	$ 12	$ 11,160	930	SF	$ 14.92	$ 13,872	$	2,712
Division 4 - Masonry										
CMU (8")	2968	SF	$ 8	$ 23,744	2968	SF	$ 9.94	$ 29,515	$	5,771
CMU(12")	10295	SF	$ 10	$ 102,950	10295	SF	$ 12.43	$ 127,972	$	25,022
Divison 5 - Metals										
Swing Zone Inlet Channel										
Aluminum Covers	685	SF	$ 25	$ 17,125	620	SF	$ 31.08	$ 19,267	$	2,142
Aluminum Handrail	120	LF	$ 50	$ 6,000	114	LF	$ 62.15	$ 7,085	$	1,085
Anoxic/Aeration Basins										
Aluminum Covers	12980	SF	$ 25	$ 324,500	11747	SF	$ 31.08	$ 365,050	$	40,550
Outlet Weirs	12	LF	$ 100	$ 1,200	12	LF	$ 124.31	$ 1,492	$	292
Mixed Liquor Collection Channel										
Aluminum Covers	685	SF	$ 25	$ 17,125	620	SF	$ 31.08	$ 19,265	$	2,140
Aluminum Handrail	6	LF	$ 50	$ 300	6	LF	$ 62.15	$ 373	$	73
Mixed Liquor Recirculation Pump Gallery										
Stairs	90	SF	$ 55	$ 4,950	90	SF	$ 68.37	$ 6,153	$	1,203
Aluminum Handrail	44	LF	$ 50	$ 2,200	44	LF	$ 62.15	$ 2,735	$	535
Membrane Tank Inlet Channel										
Aluminum Covers	685	SF	$ 25	$ 17,125	620	SF	$ 31.08	$ 19,265	$	2,140

Aluminum Handrail	120	LF	$ 50	$ 6,000	120	LF	$ 62.15	$ 7,458	$ 1,458
Membrane Tanks									
Aluminum Covers	6195	SF	$ 25	$ 154,875	5606	SF	$ 31.08	$ 174,228	$ 19,353
Mixed Liquor Recirculation Channel									
Aluminum Covers	720	SF	$ 25	$ 18,000	652	SF	$ 31.08	$ 20,249	$ 2,249
Aluminum Handrail	218	LF	$ 50	$ 10,900	218	LF	$ 62.15	$ 13,549	$ 2,649
Permeate Pump Gallery									
Stairs	162	SF	$ 55	$ 8,910	162	SF	$ 68.37	$ 11,076	$ 2,166
Aluminum Handrail	66	LF	$ 50	$ 3,300	66	LF	$ 62.15	$ 4,102	$ 802
Building									
Architectural Metal Roof	19071	SF	$ 20	$ 381,420	19071	SF	$ 24.86	$ 474,124	$ 92,704
Miscellaneous Metals	1	LS	$ 15,000	$ 15,000	1	LS	$ 18,646	$ 18,646	$ 3,646
Division 7 - Thermal and Moisture Protection									
Damproofing									
Flashing and Sheet Metal	1	LS	$ 15,000	$ 15,000	1	LS	$ 18,646	$ 18,646	$ 3,646
Roof Insulation	191	SQ	$ 300	$ 57,300	191	SQ	$ 373	$ 71,227	$ 13,927
Exterior Finish Insulation System (EFIS)	8373	SF	$ 10	$ 83,730	8373	SF	$ 12.43	$ 104,081	$ 20,351
Division 8 - Doors and Windows									
Swing Zones									
Aluminum Access Hatches (4' x 4')	6	EA	$ 1,000	$ 6,000	6	EA	$ 1,243	$ 7,458	$ 1,458
Aeration Basins									
Aluminum Access Hatches (4' x 4')	6	EA	$ 1,000	$ 6,000	6	EA	$ 1,243	$ 7,458	$ 1,458
Membrane Tanks									
Aluminum Access Hatches (4' x 4')	8	EA	$ 1,000	$ 8,000	8	EA	$ 1,243	$ 9,944	$ 1,944
MBR Building									
3' X 7" Single Hollow Metal Door	2	EA	$ 1,500	$ 3,000	2	EA	$ 1,865	$ 3,729	$ 729
6' X 7" Double Hollow Metal Door	7	EA	$ 3,000	$ 21,000	7	EA	$ 3,729	$ 26,104	$ 5,104
12 x 15'-6" Overhead Door	1		$ 5,000	$ 5,000	1		$ 6,215	$ 6,215	$ 1,215

Division 9 - Finishes										
Painting		1	LS	$ 20,000	$ 20,000	1	LS	$ 24,861	$ 24,861	$ 4,861
Damproofing		3200	SF	$ 1	$ 3,200	3100	SF	$ 1.24	$ 3,853	$ 653
Division 11 - Equipment										
Anoxic Mixers (Swing Zones)		6	EA	$ 40,000	$ 240,000	6	EA	$ 49,722	$ 298,332	$ 58,332
Fine Bubble Diffuser Equipment (Swing Zones & Aeration Basins)		1	LS	$ 270,000	$ 270,000	1	LS	$ 335,624	$ 335,624	$ 65,624
(Sanitaire Quote + 50% markup for installaion)										
Anaerobic ML Recycle Pumps	Vendor Supplied					3	EA	$ -	$ -	$ -
Anoxic Mixed Liquor Rirculation Pumps	Vendor Supplied	5	EA	$ -	$ -	6	EA	$ -	$ -	$ -
Membrane Cassettes	Vendor Supplied	512	EA	$ -	$ -	512	EA	$ -	$ -	$ -
Return Activated Sludge Pumps	Vendor Supplied	3	EA	$ -	$ -	4	EA	$ -	$ -	$ -
Permeate Pumps	Vendor Supplied	9	EA	$ -	$ -	8	EA	$ -	$ -	$ -
WAS Pumps (Membrane Tank Drain Pumps)	Vendor Supplied	2	EA	$ -	$ -	2	EA	$ -	$ -	$ -
Backpulse Pumps	Vendor Supplied	2	EA	$ -	$ -	2	EA	$ -	$ -	$ -
Process Air Blowers	Vendor Supplied	3	EA	$ -	$ -	4	EA	$ -	$ -	$ -
Membrane Air Scour Blowers	Vendor Supplied	5	EA	$ -	$ -	5	EA	$ -	$ -	$ -
Vacuum System	Vendor Supplied	1	LS	$ -	$ -	1	LS	$ -	$ -	$ -
Compressed Air System	Vendor Supplied	1	LS	$ -	$ -	1	LS	$ -	$ -	$ -
Maintenance Clean System										
Sodium Hypochlorite Metering Pumps	Vendor Supplied	2	EA	$ -	$ -	2	EA	$ -	$ -	$ -
Sodium Hypochlorite Tank	Vendor Supplied	1	EA	$ -	$ -	1	EA	$ -	$ -	$ -
Citric Acid Metering Pumps	Vendor Supplied	2	EA	$ -	$ -	2	EA	$ -	$ -	$ -
Citric Acid Tank	Vendor Supplied	1	EA	$ -	$ -	1	EA	$ -	$ -	$ -

Recovery Clean System											
Sodium Hydroxide Metering Pumps	Vendor Supplied	2	EA	$ -	$ -	2	EA	$ -	$ -	$ -
Sodium Hydroxide Tank	Vendor Supplied	1	EA	$ -	$ -	1	EA	$ -	$ -	$ -
Sodium Bisulfite Metering Pumps	Vendor Supplied	2	EA	$ -	$ -	2	EA	$ -	$ -	$ -
Sodium Bisulfite Tank	Vendor Supplied	1	EA	$ -	$ -	1	EA	$ -	$ -	$ -
Hotwater Supply System		1	LS	$ 5,000	$ 5,000	1	LS	$ 6,215	$ 6,215	$ 1,215
Division 13 - Special Construction										
Swing Zone										
Air Flow Meters (annubar)		6	EA	$ 3,000	$ 18,000	6	EA	$ 3,729	$ 22,375	$ 4,375
Instrumentation						1	LS	$ 113,735	$ 113,735	$ 113,735
Aeration Basins										
Air Flow Meters (annubar)		6	EA	$ 3,000	$ 18,000	6	EA	$ 3,729	$ 22,375	$ 4,375
Instrumentation						1	LS	$ 113,735	$ 113,735	$ 113,735
Vendor MBR Suppied Instrumentation										
Membrane Tank DO Probes	Vendor Supplied	8	EA	$ -	$ -	8	EA	$ -	$ -	$ -
Tank Level Transmitters	Vendor Supplied	8	EA	$ -	$ -	8	EA	$ -	$ -	$ -
Tank Level Switches	Vendor Supplied	32	EA	$ -	$ -	32	EA	$ -	$ -	$ -
Pemeate Flow Meters	Vendor Supplied	8	EA	$ -	$ -	8	EA	$ -	$ -	$ -
BP Flow Meter	Vendor Supplied	2	EA	$ -	$ -	2	EA	$ -	$ -	$ -
Air Flow Switches	Vendor Supplied	Lot	EA	$ -	$ -	Lot	EA	$ -	$ -	$ -
TMP Transmitters	Vendor Supplied	8	EA	$ -	$ -	8	EA	$ -	$ -	$ -
Division 14 - Conveying Systems										
Mixed Liquor Recirculation Pump Gallery										
Monorail with Hoist		1	LS	$ 18,000	$ 18,000	1	LS	$ 22,375	$ 22,375	$ 4,375
Membrane Cassette Travelling Bridge Crane										
Bridge Crane		1	LS	$ 43,500	$ 43,500	1	LS	$ 54,073	$ 54,073	$ 10,573
Permeate Pump Gallery										
Monorail with Hoist		1	LS	$ 15,000	$ 15,000	1	LS	$ 18,646	$ 18,646	$ 3,646
Blower Room										
Monorail with Hoist		1	LS	$ 20,000	$ 20,000	1	LS	$ 24,861	$ 24,861	$ 4,861
Division 15 - Mechanical										

MBR Supply Piping (from fine screens)									
24 IN	100	EA	$ 149	$ 14,900	100	EA	$ 185	$ 18,521	$ 3,621
Swing Zones									
42 IN Slide Gates	6	EA	$ 7,000	$ 42,000	6	EA	$ 8,701	$ 52,208	$ 10,208
1 IN NPW	160	LF	$ 7	$ 1,120	160	LF	$ 8.70	$ 1,392	$ 272
Hose Bibb	4	EA	$ 250	$ 1,000	4	EA	$ 311	$ 1,243	$ 243
I IN Gate Valve	2	EA	$ 250	$ 500	2	EA	$ 311	$ 622	$ 122
(Process Air Piping)									
12 IN Sch 10 SS LPA									
16 IN Sch 10 SS (LPA)	40	LF	$ 144	$ 5,760	40	LF	$ 179	$ 7,160	$ 1,400
20 IN Sch 10 SS (LPA)	130	LF	$ 180	$ 23,400	130	LF	$ 224	$ 29,087	$ 5,687
6 IN BF Valve (top of basin drop legs)	6	EA	$ 600	$ 3,600	6	EA	$ 746	$ 4,475	$ 875
20 IN BF Valve (isolate Swing Zone LPA)	1	EA	$ 4,000	$ 4,000	1	EA	$ 4,972	$ 4,972	$ 972
24 IN Slide Gates (scum sump)	1	EA	$ 4,000	$ 4,000	1	EA	$ 4,972	$ 4,972	$ 972
Aeration Basins									
42 IN Slide Gates	6	EA	$ 7,000	$ 42,000	6	EA	$ 8,701	$ 52,208	$ 10,208
1 IN NPW	75	LF	$ 7	$ 525	75	LF	$ 8.70	$ 653	$ 128
Hose Bibb	2	EA	$ 250	$ 500	2	EA	$ 311	$ 622	$ 122
I IN Gate Valve	2	EA	$ 250	$ 500	2	EA	$ 311	$ 622	$ 122
(Process Air Piping)									
16 IN Sch 10 SS (LPA)	25	LF	$ 144	$ 3,600	25	LF	$ 179	$ 4,475	$ 875
20 IN Sch 10 SS (LPA)	40	LF	$ 180	$ 7,200	40	LF	$ 224	$ 8,950	$ 1,750
24 IN Sch 10 SS (LPA)	70	LF	$ 216	$ 15,120	70	LF	$ 268	$ 18,795	$ 3,675
8 IN BF Valve (top of basin drop legs)	6	EA	$ 800	$ 4,800	6	EA	$ 994	$ 5,967	$ 1,167
Mixed Liquor Recirculation Pump Gallery									
1 IN NPW	35	LF	$ 7	$ 245	35	LF	$ 8.70	$ 305	$ 60
Hose Bibb	1	EA	$ 250	$ 250	1	EA	$ 311	$ 311	$ 61
1/2 IN SW	120	LF	$ 5	$ 600	120	LF	$ 6.22	$ 746	$ 146
(Process Air Piping)									
24 IN Sch 10 SS (LPA)	35	LF	$ 216	$ 7,560	35	LF	$ 268	$ 9,397	$ 1,837
(Recirc Pump inlet/outlet piping)									
30 IN	220		$ 210	$ 46,200	220		$ 261	$ 57,429	$ 11,229
30 IN Gate Valve	10	EA	$ 6,000	$ 60,000	10	EA	$ 7,458	$ 74,583	$ 14,583
30 IN Check Valve	5	EA	$ 6,000	$ 30,000	5	EA	$ 7,458	$ 37,292	$ 7,292
Membrane Tanks									
1 IN NPW	65	LF	$ 7	$ 455	65	LF	$ 8.70	$ 566	$ 111
Hose Bibb	2	EA	$ 250	$ 500	2	EA	$ 311	$ 622	$ 122
I IN Gate Valve	2	EA	$ 250	$ 500	2	EA	$ 311	$ 622	$ 122

(Process Air Piping)									
24 IN Sch 10 SS (LPA)	70	LF	$ 216	$ 15,120	70	LF	$ 268	$ 18,795	$ 3,675
(Membrane Air Scour Piping)									
18 IN Sch 10 SS (LPA)	30	LF	$ 162	$ 4,860	30	LF	$ 201	$ 6,041	$ 1,181
24 IN Sch 10 SS (LPA)	120	LF	$ 216	$ 25,920	120	LF	$ 268	$ 32,220	$ 6,300
24 IN Slide Gates (scum sump)	1	EA	$ 4,000	$ 4,000	1	EA	$ 4,972	$ 4,972	$ 972
Permeate Pump Gallery									
1/2 IN SW	150	LF	$ 5	$ 750	150	LF	$ 6.22	$ 932	$ 182
(Process Air Piping)									
24 IN Sch 10 SS (LPA)	30	LF	$ 216	$ 6,480	30	LF	$ 268	$ 8,055	$ 1,575
(Membrane Air Scour Piping)									
24 IN Sch 10 SS (LPA)	25	LF	$ 216	$ 5,400	25	LF	$ 268	$ 6,712	$ 1,312
(Permeate Pumpe Inlet/Outlet Piping)									
18 IN (suction piping)	320	LF	$ 126	$ 40,320	320	LF	$ 157	$ 50,120	$ 9,800
14 IN (discharge header)	15	LF	$ 98	$ 1,470	15	LF	$ 122	$ 1,827	$ 357
24 IN (discharge header)	25	LF	$ 168	$ 4,200	25	LF	$ 209	$ 5,221	$ 1,021
36 IN (discharge header)	25	LF	$ 252	$ 6,300	25	LF	$ 313	$ 7,831	$ 1,531
42 IN (discharge header)	35	LF	$ 294	$ 10,290	35	LF	$ 365	$ 12,791	$ 2,501
48 IN (discharge header)									
18 IN Gate Valve	16	EA	$ 3,600	$ 57,600	16	EA	$ 4,475	$ 71,600	$ 14,000
18 IN Check Valve	8	EA	$ 3,600	$ 28,800	8	EA	$ 4,475	$ 35,800	$ 7,000
(Backpulse Pumps Inlet/Outlet Piping)									
12 IN (suction piping)	30	LF	$ 84	$ 2,520	30	LF	$ 104	$ 3,132	$ 612
12 IN (discharge piping)	140	LF	$ 84	$ 11,760	140	LF	$ 104	$ 14,618	$ 2,858
12 IN Gate Valve	4	EA	$ 2,400	$ 9,600	4	EA	$ 2,983	$ 11,933	$ 2,333
12 IN Check Valve	2	EA	$ 2,400	$ 4,800	2	EA	$ 2,983	$ 5,967	$ 1,167
(WAS Inlet/Outlet Piping)									
8 IN (suction piping)	200	LF	$ 56	$ 11,200	200	LF	$ 70	$ 13,922	$ 2,722
8 IN (discharge piping)	30	LF	$ 56	$ 1,680	30	LF	$ 70	$ 2,088	$ 408
8 IN Gate Valve	20	EA	$ 800	$ 16,000	20	EA	$ 994	$ 19,889	$ 3,889
8 IN Check Valve	2	EA	$ 800	$ 1,600	2	EA	$ 994	$ 1,989	$ 389
(WAS Inlet/Outlet Piping)									
(Vacuum System Piping)									
1 IN Copper	150	LF	$ 15	$ 2,250	150	LF	$ 19	$ 2,797	$ 547
(Compressed Air Piping)									
1 IN Copper	650	LF	$ 15	$ 9,750	650	LF	$ 19	$ 12,120	$ 2,370
(Caustic & Sodium Bisulfite piping)									
1/2 IN	1	LS	$ 2,000	$ 2,000	1	LS	$ 2,486	$ 2,486	$ 486

Blower Room									
(Process Air Piping)									
18 IN Sch 10 SS (LPA)	20	LF	$ 162	$ 3,240	20	LF	$ 201	$ 4,027	$ 787
24 IN Sch 10 SS (LPA)	100	LF	$ 216	$ 21,600	100	LF	$ 268	$ 26,850	$ 5,250
18 IN Blower Discharge Isolation & Check Valves Vendor Supplied	3	EA	$ -	$ -	3	EA	$ -	$ -	$ -
(Membrane Air Scour Piping)									
18 IN Sch 10 SS (LPA)	50	LF	$ 162	$ 8,100	50	LF	$ 201	$ 10,069	$ 1,969
24 IN Sch 10 SS (LPA)	60	LF	$ 216	$ 12,960	60	LF	$ 268	$ 16,110	$ 3,150
18 IN Blower Discharge Isolation & Check Valves Vendor Supplied	5	EA	$ -	$ -	5	EA	$ -	$ -	$ -
(Foul Air Supply)									
18 IN Sch 10 SS (LPA)	70	LF	$ 162	$ 11,340	70	LF	$ 201	$ 14,096	$ 2,756
24 IN Sch 10 SS (LPA)	50	LF	$ 216	$ 10,800	50	LF	$ 268	$ 13,425	$ 2,625
30 IN Sch 10 SS (LPA)	200	LF	$ 270	$ 54,000	200	LF	$ 336	$ 67,125	$ 13,125
24 IN BF Valve	1	EA	$ 4,800	$ 4,800	1	EA	$ 5,967	$ 5,967	$ 1,167
MBR Building									
Membrane Tank Area HVAC, Ventilation, Ductwork, Louv	1	EA	$ 30,000	$ 30,000	1	EA	$ 37,292	$ 37,292	$ 7,292
Rest of Building HVAC, Ventilation, Ductwork, Louvers, et	1	EA	$ 20,000		1	EA	$ 24,861	$ 24,861	$ 24,861
Other									
Miscellaneous Mechanical	1	LS	$ 15,000	$ 15,000	1	LS	$ 18,646	$ 18,646	$ 3,646
6 IN Scum Drain Piping	350	LF	$ 36	$ 12,600	350	LF	$ 45	$ 15,662	$ 3,062
6 IN Gate Valve	2	EA	$ 600	$ 1,200	2	EA	$ 746	$ 1,492	$ 292
Swing Zone/Aeration Basin Drain Pump System	1	LS	$ 20,000	$ 20,000	1	LS	$ 24,861	$ 24,861	$ 4,861
MBR VENDOR QUOTE									
Equipment Zenon	1	LS	$ 9,435,000	$ 9,435,000	1	LS	$ 7,890,000	$ 7,890,000	$ (1,545,000)
Installation	1	LS	$ 943,500	$ 943,500	1	LS	$ 389,000	$ 389,000	$ (554,500)
Division 16 - Electrical									
Electrical & Instrumentation (@15%)	1	LS	$ 2,275,189	$ 2,275,189	1	LS	$ 2,271,640	$ 2,271,640	$ (3,549)
		Subtotal		$ 17,443,000		**Subtotal**		$ 17,416,000	$ (27,000)
Field General Conditions, Bonds and Insurance			5%	$ 872,000			5%	$ 871,000	$ (1,000)
		Contractor's Overhead and Profit	10%	$ 1,744,000			10%	$ 1,742,000	$ (2,000)
		Subtotal		$ 20,059,000				$ 20,029,000	$ (30,000)

Undefined Scope of Work Contingency	**20%**	$ 4,012,000	**15%**	$ 3,004,000	$ (1,008,000)
Subtotal		$ 24,071,000		$ 23,033,000	$ (1,038,000)
Washington State Sales Tax	**8.1%**	$ 1,950,000	**8.1%**	$ 1,866,000	$ (84,000)
Subtotal		$ 26,021,000		$ 24,899,000	$ (1,122,000)
Escalation from Estimate Data Date to Mid Point of Construction	**13.33%**	$ -	**13.33%**	$ 3,320,000	$ 3,320,000
Subtotal		$ 26,021,000		$ 28,219,000	$ 2,198,000
Operator Mark-Up on DB Component	**1.00%**	$ -	**1.00%**	$ 282,000	$ 282,000
Subtotal		$ 26,021,000		$ 28,501,000	$ 2,480,000
Construction Contingency (Change Orders)	**5%**	$ 1,301,000	**5%**	$ 1,425,000	$ 124,000
Subtotal		$ 27,322,000		$ 29,926,000	$ 2,604,000
Engineering, legal and fiscal	**25%**	$ 6,830,500	**25%**	$ 7,481,500	$ 651,000
Total Estimated Project Cost		$ 34,152,500		$ 37,407,500	$ 3,255,000

Estimate of Probable Construction Cost
Spokane County - Ultraviolet Disinfection

Project	Spokane County	**Date**	8-Dec-06
	Representative Project	**Estimator**	SRB
Task	Chlorine Contact Chamber	**Checked By**	RLG
Task No.	10027-007-102	**Check Date**	

HDR Engineering, Inc.

	Phase 1 (26 mgd)				OPCC - Dec 2006 Phase 1 (8 mgd)				Variances Phase 1 (8 mgd)
Description	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	
Division 1 - Special Conditions									
General Conditions, Bidding, Submittals, Start-up					1	LS	$ 7,961	$ 7,961	$ 7,961
Project Equipment- Not Task Specific - 75T Crawler Crane						MO	$ 18,800.00	$ -	$ -
Backhoe/Laoder					0.5	MO	$ 4,348.00	$ 2,174	$ 2,174
Division 2 - Site Work									
Chlorine Contact Chamber									
Excavation					1338	CY	$ 9.94	$ 13,306	$ 13,306
Granular Fill					134	CY	$ 24.86	$ 3,331	$ 3,331
Backfill					406	CY	$ 14.92	$ 6,056	$ 6,056
PVC Membrane					0	SF	$ 1.24	$ -	$ -
Filter Fabric					0	SF	$ 1.24	$ -	$ -
Reuse Pump Station									
Excavation					236	CY	$ 9.94	$ 2,347	$ 2,347
Granular Fill					26	CY	$ 24.86	$ 641	$ 641
Backfill					164	CY	$ 14.92	$ 2,446	$ 2,446
PVC Membrane					696	SF	$ 1.24	$ 865	$ 865
Filter Fabric					696	SF	$ 1.24	$ 865	$ 865
Hypo Storage									
Excavation					100	CY	$ 9.94	$ 994	$ 994
Granular Fill					56	CY	$ 24.86	$ 1,392	$ 1,392
Backfill					100	CY	$ 14.92	$ 1,492	$ 1,492
PVC Membrane					1300	SF	$ 1.24	$ 1,616	$ 1,616
Filter Fabric					1300	SF	$ 1.24	$ 1,616	$ 1,616
Division 3 - Concrete									
Chlorine Contact Chamber									
Concrete slab-on-grade					117	CY	$ 475	$ 55,575	$ 55,575

	Concrete Wall					179	CY	$	850	$ 152,150	$ 152,150
Reuse Pump Station											
	Concrete slab-on-grade					13	CY	$	475	$ 6,175	$ 6,175
	Concrete Wall					31	CY	$	850	$ 26,350	$ 26,350
	Pump Slab					5	CY	$	692	$ 3,460	$ 3,460
	Concrete Columns					3	CY	$	950	$ 2,850	$ 2,850
Hypo Storage											
	Concrete slab-on-grade					36	CY	$	475	$ 17,100	$ 17,100
	Concrete Wall					14	CY	$	850	$ 11,900	$ 11,900
	Division 4 - Masonry										
Hypo Storage											
	CMU					2729	SF	$	12.43	$ 33,923	$ 33,923
	Divison 5 - Metals										
CCC/Reuse PS	Miscellaneous Metal					1	LS	$	15,250.00	$ 15,250	$ 15,250
Hypo Storage											
	Miscellaneous Metals					1	LS	$	7,215	$ 7,215	$ 7,215
	Architectural Metal Roof					1188	SF	$	24.86	$ 29,535	$ 29,535
	Metal Rood Trusses					1188	SF	$	12.50	$ 14,850	$ 14,850
	Hose Rack					2	EA	$	311	$ 622	$ 622
	Division 6 - Wood and Plastic										
Hypo Storage											
	Architectural Treatment					2729	SF	$	2.49	$ 6,785	$ 6,785
	Division 7 - Thermal and Moisture Protection										
Hypo Storage											
	Flashing and Sheet Metal					1	LS	$	5,972	$ 5,972	$ 5,972
	Joint Sealant					1	LS	$	3,729	$ 3,729	$ 3,729
	Roof Insulation					11.9	SQ	$	373	$ 4,430	$ 4,430
	Division 8 - Doors and Windows										
Hypo Storage											
	3X7 Steel Door					1	EA	$	1,865	$ 1,865	$ 1,865
	6X7 steel double door					2	EA	$	3,729	$ 7,458	$ 7,458

Division 9 - Finishes										
Hypo Storage										
Building Paint					2729	SF	$	6.22	$ 16,962	$ 16,962
Equipment Paint					6	EA	$	1,243	$ 7,458	$ 7,458
Pipe Paint					320	LF	$	0.62	$ 199	$ 199
Plywood Ceiling					540	SF			$ -	$ -
Division 10 - Specialties										
Hypo Storage										
Louvers and vents					1	LS	$	3,729	$ 3,729	$ 3,729
Identification Stenciling and Tagging					1	LS	$	6,215	$ 6,215	$ 6,215
Division 11 - Equipment										
Chlorine Contact Chamber										
Hypo Cl Diffuser					2	EA	$	2,250	$ 4,500	$ 4,500
Bisulfate Diffuser					2	EA	$	2,250	$ 4,500	$ 4,500
Reuse Pumps										
1000 gpm @ 120' TDH, VT, 50 HP VFD capable					2	EA	$	15,875	$ 31,750	$ 31,750
100 gpm @80" TDH, VT, 5 HP, VFD's capable					1	EA	$	5,625	$ 5,625	$ 5,625
Hypo/Bisulfide Feed										
Hypo Storage - 10,000 gal FRP Tanks					2	EA	$	16,000	$ 32,000	$ 32,000
Sod Bisul Storage - 10,000 FRP Tank					1	EA	$	16,000	$ 16,000	$ 16,000
Hypo Feed Pumps					2	EA	$	5,625	$ 11,250	$ 11,250
Bisul Feed Pump					2	EA	$	5,625	$ 11,250	$ 11,250
Hypo Transfer Pump					1	EA	$	4,351	$ 4,351	$ 4,351
NPW Booster Pump					1	EA	$	8,431	$ 8,431	$ 8,431
Division 13 - Special Construction										
Instrumentation					1	LS	$	25,000.00	$ 25,000	$ 25,000
Division 15 - Mechanical										
Chlorine Contact Chamber										
Slide gates					1	EA	$	9,000.00	$ 9,000	$ 9,000
Hydrostatic Relief Valves					6	EA	$	311	$ 1,865	$ 1,865
30 " Wall Pipe					1	EA	$	9,852	$ 9,852	$ 9,852
Reuse PS										
Hydrostatic Relief Valves					3	EA	$	311	$ 932	$ 932
30 " Wall Pipe					1	EA	$	9,852	$ 9,852	$ 9,852
Slide gates					1	EA	$	9,000.00	$ 9,000	$ 9,000

8 F CHK V					2	EA	$ 2,078.75	$ 4,158	$ 4,158
4 F CHK V					1	EA	$ 1,020.00	$ 1,020	$ 1,020
8 F RW GV					2	EA	$ 1,426.25	$ 2,853	$ 2,853
4 F RW GV					1	EA	$ 430.00	$ 430	$ 430
8 FMJ ADPT					2	EA	$ 2,400.00	$ 4,800	$ 4,800
4 FMJ ADPT					1	EA	$ 1,200.00	$ 1,200	$ 1,200
8 FPE 2'					2	EA	$ 282.50	$ 565	$ 565
4 FPE 2'					1	EA	$ 205.00	$ 205	$ 205
8 FF 5'					2	EA	$ 345.00	$ 690	$ 690
4 FF 5'					1	EA	$ 243.75	$ 244	$ 244
8 F 90					2	EA	$ 255.00	$ 510	$ 510
4 F 90					1	EA	$ 121.25	$ 121	$ 121
8 FPE 15'					2	EA	$ 468.75	$ 938	$ 938
4 FPE 15'					1	EA	$ 312.50	$ 313	$ 313
Pipe supports, B&G sets, etc @ 12%					1	LS	$ 2,165.00	$ 2,165	$ 2,165
Hypo Storage									
Hypo Piping and valves					1	LS	$ 6,500.00	$ 6,500	$ 6,500
Bisulate Piping and Valves					1	LS	$ 5,500.00	$ 5,500	$ 5,500
NPW Piping and valves					1	LS	$ 4,500.00	$ 4,500	$ 4,500
1 ton Wall Heat Pump					1	LS	$ 1,250.00	$ 1,250	$ 1,250
Eyewash Station					1	EA	$ 1,150.00	$ 1,150	$ 1,150
Division 16 - Electrical									
Electrical					1	LS	$ 83,078	$ 83,078	$ 83,078
			Subtotal	$ -			**Subtotal**	$ 806,000	$ 806,000
			Field General Conditions, Bonds and Insurance	$ -			**5%**	$ 40,000	$ 40,000
			Contractor's Overhead and Profit **10%**	$ -			**10%**	$ 81,000	$ 81,000
			Subtotal	$ -				$ 927,000	$ 927,000
			Undefined Scope of Work Contingency **20%**	$ -			**15%**	$ 139,000	$ 139,000
			Subtotal	$ -				$ 1,066,000	$ 1,066,000
			Washington State Sales Tax **8.1%**	$ -			**8.1%**	$ 86,000	$ 86,000
			Subtotal	$ -				$ 1,152,000	$ 1,152,000
			Escalation from Estimate Data Date to Mid Point of Construction **13.33%**	$ -			**13.33%**	$ 154,000	$ 154,000
			Subtotal	$ -				$ 1,306,000	$ 1,306,000
			Operator Mark-Up on DB Component **1.00%**	$ -			**1.00%**	$ 13,000	$ 13,000
			Subtotal	$ -				$ 1,319,000	$ 1,319,000

Construction Contingency (Change Orders)	**5%**	$ -	**5%**	$ 66,000	$ 66,000
Subtotal		$ -		$ 1,385,000	$ 1,385,000
Engineering, legal and fiscal	**25%**	$ -	**25%**	$ 346,250	$ 346,250
Total Estimated Project Cost		$ -		$ 1,731,250	$ 1,731,250

Estimate of Probable Construction Cost
Spokane County - Cascade Re-Aeration

Project	Spokane County	**Date**	24-Jan-03	8-Dec-06
	Representative Project	**Estimator**	B. Martin	SRB
Task	Cascade Re-Aeration	**Checked By**	B. Willey	RLG
Task No.	10027-007-102	**Check Date**	14-Mar-03	

HDR Engineering, Inc.

	Phase 1 (8 mgd)				OPCC - Dec 2006 Phase 1 (8 mgd)				Variances Phase 1 (8 mgd)
Description	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	
Division 1 - Special Conditions									
General Conditions, Bidding, Submittals, Start-up	1	LS	$ 1,764	$ 1,764	1	LS	$ 2,565	$ 2,565	$ 800
Project Equipment- Not Task Specific - 75T Crawler Crane						MO	$ 18,800.00	$ -	$ -
Backhoe/Laoder					0	MO	$ 4,348.00	$ -	$ -
Division 2 - Site Work									
Excavation	1800	CY	$ 12	$ 21,600	1800	CY	$ 14.92	$ 26,850	$ 5,250
Granular Fill	80	CY	$ 20	$ 1,600	80	CY	$ 24.86	$ 1,989	$ 389
Backfill	750	CY	$ 12	$ 9,000	750	CY	$ 14.92	$ 11,187	$ 2,187
Filter Fabric	2220	SF	$ 1	$ 2,220	2220	SF	$ 1.24	$ 2,760	$ 540
PVC Membrane	2220	SF	$ 1	$ 2,220	2220	SF	$ 1.24	$ 2,760	$ 540
Drain Board	2200	SF	$ 1	$ 2,200	2200	SF	$ 1.24	$ 2,735	$ 535
Division 3 - Concrete									
Concrete slab-on-grade	33	CY	$ 250	$ 8,250	33	CY	$ 475	$ 15,675	$ 7,425
Concrete Wall	82	CY	$ 400	$ 32,800	82	CY	$ 750	$ 61,500	$ 28,700
Concrete Stairs (assume cascade as stairs)	73	CY	$ 550	$ 40,150	73	CY	$ 684	$ 49,908	$ 9,758
Concrete Topping	27	CY	$ 250	$ 6,780	27	CY	$ 455	$ 12,339	$ 5,559
Concrete Encasement	2	CY	$ 250	$ 500	2	CY	$ 475	$ 950	$ 450
Divison 5 - Metals									
Aluminum Handrail	200	LF	$ 50	$ 10,000	200	LF	$ 62.15	$ 12,431	$ 2,431
Aluminum Ladder	2	EA	$ 1,500	$ 3,000	2	EA	$ 1,865	$ 3,729	$ 729
36 IN Wall Pipe	2	EA	$ 750	$ 1,500	2	EA	$ 932	$ 1,865	$ 365
Miscellaneous Metals	1	LS	$ 1,000	$ 1,000	1	LS	$ 1,243	$ 1,243	$ 243
Division 7 - Thermal and Moisture Protection									
Damproofing	4425	SF	$ 1	$ 4,425	4425	SF	$ 1.24	$ 5,500	$ 1,075

Division 8 - Doors and Windows									
None									
Division 9 - Finishes									
Painting	1	LS	$ 1,000	$ 1,000	1	LS	$ 1,243	$ 1,243	$ 243
Division 11 - Equipment									
None									
Division 13 - Special Construction									
FRP Weir Plate	3	EA	$ 800	$ 2,400	3	EA	$ 994	$ 2,983	$ 583
Instrumentation					1	LS	$ 5,000	$ 5,000	$ 5,000
Division 14 - Conveying Systems									
Division 15 - Mechanical									
1 IN NPW w/Spray Nozzles	150	LF	$ 6	$ 900	150	LF	$ 7.46	$ 1,119	$ 219
Hydrostatic Relief Valves	6	EA	$ 250	$ 1,500	6	EA	$ 311	$ 1,865	$ 365
36 IN Influent/Effluent	None under the structure - Included in Yard Piping				None under the structure - Included in Yard Piping				$ -
6 IN Perforated Drain Piping	200	LF	$ 60	$ 12,000	200	LF	$ 75	$ 14,917	$ 2,917
Miscellaneous Piping	1	LS	$ 2,000	$ 2,000	1	LS	$ 2,486	$ 2,486	$ 486
Hose Bibb	4	EA	$ 250	$ 1,000	4	EA	$ 311	$ 1,243	$ 243
Division 16 - Electrical									
Electrical & Instrumentation	1	LS	$ 8,402	$ 8,402	1	LS	$ 12,214	$ 12,214	$ 3,812
Subtotal				$ 178,000	**Subtotal**			$ 259,000	$ 81,000
Field General Conditions, Bonds and Insurance			5%	$ 9,000			5%	$ 13,000	$ 4,000
Contractor's Overhead and Profit			10%	$ 18,000			10%	$ 26,000	$ 8,000
Subtotal				$ 205,000				$ 298,000	$ 93,000
Undefined Scope of Work Contingency			20%	$ 41,000			15%	$ 45,000	$ 4,000
Subtotal				$ 246,000				$ 343,000	$ 97,000
Washington State Sales Tax			8.1%	$ 20,000			8.1%	$ 28,000	$ 8,000
Subtotal				$ 266,000				$ 371,000	$ 105,000
Escalation from Estimate Data Date to Mid Point of Construction			13.33%	$ -			13.33%	$ 49,000	$ 49,000
Subtotal				$ 266,000				$ 420,000	$ 154,000
Operator Mark-Up on DB Component			1.00%	$ -			1.00%	$ 4,000	$ 4,000
Subtotal				$ 266,000				$ 424,000	$ 158,000
Construction Contingency (Change Orders)			5%	$ 13,000			5%	$ 21,000	$ 8,000
Subtotal				$ 279,000				$ 445,000	$ 166,000

Engineering, legal and fiscal	25%	$ 69,750	25%	$ 111,250	$ 41,500
Total Estimated Project Cost		$ 348,750		$ 556,250	$ 207,500

Estimate of Probable Construction Cost
Spokane County - Chemical Feed and Storage

Project	Spokane County	**Date**	31-Jan-03	8-Dec-06
	Representative Project	**Estimator**	C. Caprara	SRB
Task	Chemical Feed and Storage	**Checked By**	B. Willey	RLG
Task No.	10027-007-102	**Check Date**	3/14/2003	

HDR Engineering, Inc.

					OPCC - Dec 2006				Variances
	Phase 1 (12 mgd)				Phase 1 (8 mgd)				Phase 1 (8 mgd)
Description	Quantity	Unit	Unit Price ($/unit)	Total ($)	Quantity	Unit	Unit Price ($/unit)	Total ($)	
Division 1 - Special Conditions									
General Conditions, Bidding, Submittals, Start-up	1	LS	$ 5,272	$ 5,272	1	LS	$ 7,496	$ 7,496	$ 2,224
Project Equipment- Not Task Specific - 75T Crawler Crane						MO	$ 18,800.00	$ -	$ -
Backhoe/Laoder					0.5	MO	$ 4,348.00	$ 2,174	$ 2,174
Division 2 - Site Work									
Excavation	670	CY	$ 8	$ 5,360	670	CY	$ 9.94	$ 6,663	$ 1,303
Granular Fill	50	CY	$ 20	$ 1,000	50	CY	$ 24.86	$ 1,243	$ 243
Backfill	470	CY	$ 12	$ 5,640	470	CY	$ 14.92	$ 7,011	$ 1,371
PVC Membrane	1640	SF	$ 1	$ 1,640	1640	SF	$ 1.24	$ 2,039	$ 399
Filter Fabric	1640	SF	$ 1	$ 1,640	1640	SF	$ 1.24	$ 2,039	$ 399
Division 3 - Concrete									
Concrete slab-on-grade	150	CY	$ 250	$ 37,500	150	CY	$ 475	$ 71,250	$ 33,750
Concrete Wall	30	CY	$ 400	$ 12,000	30	CY	$ 750	$ 22,500	$ 10,500
Equipment Base	1	CY	$ 250	$ 250	1	CY	$ 455	$ 455	$ 205
Division 4 - Masonry									
8" Hollow Core Roof	204	SF	$ 8	$ 1,632	204	SF	$ 9.94	$ 2,029	$ 397
CMU Wall	4016	SF	$ 10.00	$ 40,160	4016	SF	$ 12.43	$ 49,921	$ 9,761
Divison 5 - Metals									
Miscellaneous Metals	1	LS	$ 5,000	$ 5,000	1	LS	$ 6,215	$ 6,215	$ 1,215
Hose Rack	5	EA	$ 250	$ 1,250	5	EA	$ 311	$ 1,554	$ 304
Architectural Metal Roof	2550	SF	$ 20	$ 51,000	2550	SF	$ 25	$ 63,396	$ 12,396
Architectural Metal Siding	803	SF	$ 10	$ 8,032	803	SF	$ 12	$ 9,984	$ 1,952

Division 6 - Wood and Plastic									
Alum Storage Tanks (5000 gal EA)	2	EA	$ 10,000	$ 20,000	4	EA	$ 8,000	$ 32,000	$ 12,000
Sodium Hypochlorite Storage Tanks (2500 gal EA)	2	EA	$ 6,000	$ 12,000	2	EA	$ 4,996	$ 9,992	$ (2,008)
Archetectural Treatment	3610	SF	$ 2.00	$ 7,220	3610	SF	$ 2.49	$ 8,975	$ 1,755
Division 7 - Thermal and Moisture Protection									
Flashing and Sheet Metal	1	LS	$ 5,000	$ 5,000	1	LS	$ 6,215	$ 6,215	$ 1,215
Joint Sealant	1	LS	$ 3,000	$ 3,000	1	LS	$ 3,729	$ 3,729	$ 729
Roof Insulation	25.5	SQ	$ 300	$ 7,650	25.5	SQ	$ 373	$ 9,509	$ 1,859
Exterior Insulation and Finish System	3610	SF	$ 10.00	$ 36,100	3610	SF	$ 12.43	$ 44,874	$ 8,774
Division 8 - Doors and Windows									
3X7 Steel Door	3	EA	$ 1,500	$ 4,500	3	EA	$ 1,865	$ 5,594	$ 1,094
Windows	3	EA	$ 2,000	$ 6,000	3	EA	$ 2,486	$ 7,458	$ 1,458
Division 9 - Finishes									
Building Painting	3610	SF	$ 5	$ 18,050	3610	SF	$ 6.22	$ 22,437	$ 4,387
Equipment Painting	7	EA	$ 1,000	$ 7,000	7	EA	$ 1,243	$ 8,701	$ 1,701
Pipe Painting	1110	LF	$ 0.5	$ 555	1110	LF	$ 0.62	$ 690	$ 135
Division 10 - Specialties									
Louvers and vents	1	LS	$ 5,000	$ 5,000	1	LS	$ 6,215	$ 6,215	$ 1,215
Identification Stenciling and Tagging	1	LS	$ 6,000	$ 6,000	1	LS	$ 7,458	$ 7,458	$ 1,458
Division 11 - Equipment									
Non-potable Water Booster Pumps	1	EA	$ 10,000	$ 10,000	1	EA	$ 8,431	$ 8,431	$ (1,569)
Alum Metering Pumps P Removal	2	EA	$ 2,500	$ 5,000	2	EA	$ 10,625	$ 21,250	$ 16,250
Alum Metering Pumps Chemical Polishing	0	EA	$ -	$ -	2	EA	$ 10,625	$ 21,250	$ 21,250
Hypochlorite Transfer Pumps	2	EA	$ 3,500	$ 7,000	2	EA	$ 4,351	$ 8,701	$ 1,701
Division 13 - Special Construction									
Instrumentation	1	LS	$ 50,000	$ 50,000	1	LS	$ 62,153	$ 62,153	$ 12,153
Division 15 - Mechanical									
1/2 IN SW	25	LF	$ 5	$ 125	25	LF	$ 6.22	$ 155	$ 30
3/4 IN SW	20	LF	$ 6	$ 120	20	LF	$ 7.46	$ 149	$ 29
1 IN NPW	235	LF	$ 7	$ 1,645	235	LF	$ 8.70	$ 2,045	$ 400

1 IN Alum	150	LF	$ 7	$ 1,050	300	LF	$ 8.70	$ 2,610	$ 1,560
1 IN Hypochlorite	130	LF	$ 7	$ 910	130	LF	$ 8.70	$ 1,131	$ 221
6 IN Drain	50	LF	$ 36	$ 1,800	50	LF	$ 45	$ 2,237	$ 437
10 IN Drain	90	LF	$ 60	$ 5,400	90	LF	$ 75	$ 6,712	$ 1,312
2 IN Alum	100	LF	$ 36	$ 3,600	200	LF	$ 45	$ 8,950	$ 5,350
2 IN Hypochlorite	100	LF	$ 62	$ 6,200	100	LF	$ 77	$ 7,707	$ 1,507
1 IN Ball Valve	20	EA	$ 300	$ 6,000	30	EA	$ 373	$ 11,187	$ 5,187
1 IN Check Valve	6	EA	$ 300	$ 1,800	12	EA	$ 373	$ 4,475	$ 2,675
2 IN Ball Valve	6	EA	$ 900	$ 5,400	12	EA	$ 1,119	$ 13,425	$ 8,025
2 IN Check Valve	6	EA	$ 1,200	$ 7,200	12	EA	$ 1,492	$ 17,900	$ 10,700
Seal Water Stations	2	EA	$ 2,000	$ 4,000	2	EA	$ 2,486	$ 4,972	$ 972
Floor Drains	9	EA	$ 250	$ 2,250	9	EA	$ 311	$ 2,797	$ 547
Hose Bibb	6	EA	$ 250	$ 1,500	6	EA	$ 311	$ 1,865	$ 365
Make-up Air Unit	1	EA	$ 10,000	$ 10,000	1	EA	$ 12,431	$ 12,431	$ 2,431
Electrical Room Air Cooling Condensing Unit	1	EA	$ 1,500	$ 1,500	1	EA	$ 1,865	$ 1,865	$ 365
Chemical Room Air Cooling Condensing Unit	1	EA	$ 3,000	$ 3,000	1	EA	$ 3,729	$ 3,729	$ 729
Electrical Room Exhaust Fan	1	EA	$ 1,000	$ 1,000	1	EA	$ 1,243	$ 1,243	$ 243
Ductwork	250	LF	$ 2	$ 500	250	LF	$ 2.49	$ 622	$ 122
Division 16 - Electrical									
Electrical	1	LS	$ 80,000	$ 80,000	1	LS	$ 99,444	$ 99,444	$ 19,444
Subtotal				$ 532,000	**Subtotal**			$ 759,000	$ 227,000
Field General Conditions, Bonds and Insurance			**5%**	$ 27,000			**5%**	$ 38,000	$ 11,000
Contractor's Overhead and Profit			**10%**	$ 53,000			**10%**	$ 76,000	$ 23,000
Subtotal				$ 612,000				$ 873,000	$ 261,000
Undefined Scope of Work Contingency			**20%**	$ 122,000			**15%**	$ 131,000	$ 9,000
Subtotal				$ 734,000				$ 1,004,000	$ 270,000
Washington State Sales Tax			**8.1%**	$ 59,000			**8.1%**	$ 81,000	$ 22,000
Subtotal				$ 793,000				$ 1,085,000	$ 292,000
Escalation from Estimate Data Date to Mid Point of Construction			**13.33%**	$ -			**13.33%**	$ 145,000	$ 145,000
Subtotal				$ 793,000				$ 1,230,000	$ 437,000
Operator Mark-Up on DB Component			**1.00%**	$ -			**1.00%**	$ 12,000	$ 12,000
Subtotal				$ 793,000				$ 1,242,000	$ 449,000

Construction Contingency (Change Orders)	**5%**	$ 40,000	**5%**	$ 62,000	$ 22,000
Subtotal		$ 833,000		$ 1,304,000	$ 471,000
Engineering, legal and fiscal	**25%**	$ 208,000	**25%**	$ 326,000	$ 118,000
Total Estimated Project Cost		$ 1,041,000		$ 1,630,000	$ 589,000

Estimate of Probable Construction Cost
Spokane County - WAS Thickening

Project	Spokane County	**Date**	26-Jan-03	8-Dec-06
	Representative Project	**Estimator**	D. Harmon	SRB
Task	WAS (DAFT) Thickening	**Checked By**	B. Willey	RLG
Task No.	10027-007-102	**Check Date**	14-Mar-03	

HDR Engineering, Inc.

					OPCC - Dec 2006				Variances
	Phase 1 (8 mgd)				Phase 1 (8 mgd)				Phase 1 (8 mgd)
Description	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	
Division 1 - Special Conditions									
General Conditions, Bidding, Submittals, Start-up	1	LS	$ 5,474	$ 5,474	1	LS	$ 7,387	$ 7,387	$ 1,913
Project Equipment- Not Task Specific - 75T Crawler Crane						MO	$ 18,800.00	$ -	$ -
Backhoe/Laoder					0.5	MO	$ 4,348.00	$ 2,174	$ 2,174
Division 2 - Site Work									
DAFT No. 1									
Excavation	400	CY	$ 8	$ 3,200	400	CY	$ 9.94	$ 3,978	$ 778
Granular Fill	20	CY	$ 20	$ 400	20	CY	$ 24.86	$ 497	$ 97
Backfill	180	CY	$ 12	$ 2,160	180	CY	$ 14.92	$ 2,685	$ 525
Construction Dewatering	0	LS	$ -	$ -	0	LS	$ -	$ -	$ -
Filter Fabric	450	SF	$ 1	$ 450	450	SF	$ 1.24	$ 559	$ 109
PVC Membrane	450	SF	$ 1	$ 450	450	SF	$ 1.24	$ 559	$ 109
DAFT Support Facilty									
Excavation	150	CY	$ 8	$ 1,200	150	CY	$ 9.94	$ 1,492	$ 292
Granular Fill	30	CY	$ 20	$ 600	30	CY	$ 24.86	$ 746	$ 146
Backfill	40	CY	$ 12	$ 480	40	CY	$ 14.92	$ 597	$ 117
Construction Dewatering	0	LS	$ -	$ -	0	LS	$ -	$ -	$ -
Filter Fabric	748	SF	$ 1	$ 748	748	SF	$ 1.24	$ 930	$ 182
DAFT TWAS (Float) Pit									
Excavation	40	CY	$ 8	$ 320	40	CY	$ 9.94	$ 398	$ 78
Backfill	29	CY	$ 12	$ 348	29	CY	$ 14.92	$ 433	$ 85
Granular Fill	1	CY	$ 20	$ 20	1	CY	$ 24.86	$ 25	$ 5
Division 3 - Concrete									

Precast Manhole TWAS (Float) Storage/Pumping Pit, 3,000 gal.	1	EA	$ 6,000.00	$ 6,000	1	EA	$ 7,458.30	$ 7,458	$ 1,458
DAFT No. 1									
Concrete slab-on-grade	14	CY	$ 250	$ 3,518	14	CY	$ 475	$ 6,684	$ 3,166
Sidewalk Concrete	40	SF	$ 5	$ 200	40	SF	$ 6.22	$ 249	$ 49
Concrete Wall	30	CY	$ 400	$ 11,847	30	CY	$ 750	$ 22,214	$ 10,366
Concrete Encasement	3	CY	$ 250	$ 741	3	CY	$ 475	$ 1,407	$ 667
DAFT Support Facility									
Concrete slab-on-grade	20	CY	$ 250	$ 5,082	20	CY	$ 475	$ 9,656	$ 4,574
Concrete Walls	35	CY	$ 400	$ 13,807	35	CY	$ 750	$ 25,889	$ 12,081
Concrete Suspended Slabs and Stairs	12	CY	$ 550	$ 6,600	12	CY	$ 692	$ 8,304	$ 1,704
Concrete Equipment Bases	1	CY	$ 250	$ 250	1	CY	$ 475	$ 475	$ 225
Divison 4 - Masonry									
DAFT Support Facility									
8" CMU Walls	902	SF	$ 8	$ 7,213	902	SF	$ 10	$ 8,967	$ 1,753
Divison 5 - Metals									
DAFT No. 1									
Aluminum Covers & Supports	415	SF	$ 75	$ 31,125	415	SF	$ 93	$ 38,690	$ 7,565
Handrail	80	LF	$ 50	$ 4,000	80	LF	$ 62	$ 4,972	$ 972
Steel Platforms	100	SF	$ 75	$ 7,500	100	SF	$ 93	$ 9,323	$ 1,823
Miscellaneous Metals	1	LS	$ 1,500	$ 1,500	1	LS	$ 1,865	$ 1,865	$ 365
DAFT Support Facility									
Miscellaneous Metals	1	LS	$ 2,500	$ 2,500	1	LS	$ 3,108	$ 3,108	$ 608
Architectural Metal Roof	612	SF	$ 20	$ 12,240	612	SF	$ 25	$ 15,215	$ 2,975
Division 6 - Wood and Plastic									
DAFT No. 1									
Fiberglass Weirs	63	LF	$ 50	$ 3,150	63	LF	$ 62	$ 3,916	$ 766
DAFT Support Facility									
Architectural Wood Treatment	890	SF	$ 2	$ 1,780	890	SF	$ 2	$ 2,213	$ 433
Division 7 - Thermal and Moisture Protection									
DAFT Support Facility									
Exterior Insulation and Finish System	890	SF	$ 10	$ 8,900	890	SF	$ 12	$ 11,063	$ 2,163
Insulation	6.1	SQ	$ 300	$ 1,830	6.1	SQ	$ 373	$ 2,275	$ 445

Vapor Barrier/Dampproofing	660	SF	$ 2	$ 1,320	660	SF	$ 2	$ 1,641	$ 321
Division 8 - Doors and Windows									
DAFT Support Facility									
Access Hatches	5	SF	$ 100	$ 500	5	SF	$ 124	$ 622	$ 122
Access Door (6'x7')	1	EA	$ 3,000.00	$ 3,000	1	EA	$ 3,729.15	$ 3,729	$ 729
DAFT TWAS (Float) Pit									
Access Hatch	12	SF	$ 100	$ 1,200	12	SF	$ 124	$ 1,492	$ 292
Division 9 - Finishes									
DAFT Support Facility									
Painting	1	LS	$ 4,000	$ 4,000	1	LS	$ 4,972	$ 4,972	$ 972
DAFT No. 1									
Painting	1	LS	$ 6,500	$ 6,500	1	LS	$ 8,080	$ 8,080	$ 1,580
DAFT TWAS (Float) Pit									
Dampproofing	1	LS	$ 250	$ 250	1	LS	$ 311	$ 311	$ 61
Division 11 - Equipment									
DAFT No. 1									
DAFT Recycle Tank, Bridge.	1	LS	$ 175,000	$ 175,000	1	LS	$ 217,534	$ 217,534	$ 42,534
DAR Pump	2	EA	$ 7,500	$ 15,000	2	EA	$ 9,323	$ 18,646	$ 3,646
Air Compressor	1	EA	$ 10,000	$ 10,000	1	EA	$ 12,431	$ 12,431	$ 2,431
Underflow Recycle Retrun Pumps					2	EA	$ 8,323	$ 16,646	$ 16,646
DAFT TWAS Pit									
TWAS Air Operated Diaphragm Float Pumps	2	EA	$ 14,000	$ 28,000	3	EA	$ 13,922	$ 41,766	$ 13,766
DAFT Support Facility									
Polymer Feed Station (Tap Only)	1	EA	$ 500	$ 500	1	EA	$ 622	$ 622	$ 122
DAFT Bottom Sludge (SSL) Pumps	1	EA	$ 10,000	$ 10,000	1	EA	$ 12,431	$ 12,431	$ 2,431
Division 13 - Special Construction									
Daft Support Facility									

Pressure Switches	2	EA	$ 1,000	$ 2,000	2	EA	$ 1,243	$ 2,486	$ 486
3 IN Magnetic Flowmeter	1	EA	$ 4,000	$ 4,000	1	EA	$ 4,972	$ 4,972	$ 972
DAFT TWAS (Float) pit									
Ultrasonic Level	1	EA	$ 3,500	$ 3,500	1	EA	$ 4,351	$ 4,351	$ 851
Instrumentation	1	LS	$ 33,275	$ 33,275	1	LS	$ 48,999	$ 48,999	$ 15,724
Division 14 - Conveying Systems									
NOT USED									
Division 15 - Mechanical									
DAFT No. 1									
1 1/2 IN NPW	40	LF	$ 10	$ 400	40	LF	$ 12	$ 497	$ 97
4 IN DAR	60	LF	$ 28	$ 1,680	60	LF	$ 35	$ 2,088	$ 408
4 IN WAS	20	LF	$ 28	$ 560	20	LF	$ 35	$ 696	$ 136
8 IN TWAS/Undrfow Recycle, glass lined	14	LF	$ 76	$ 1,064	28	LF	$ 94	$ 2,645	$ 1,581
Hose Bibb	1	EA	$ 250	$ 250	1	EA	$ 311	$ 311	$ 61
DAFT No. 2 1 1/2 IN NPW									
4 IN DAR									
4 IN WAS									
8 IN TWAS, glass lined									
Hose Bibb									
DAFT Support Facility									
Unit Heater	1	EA	$ 1,500	$ 1,500	1	EA	$ 1,865	$ 1,865	$ 365
Ventilation Fan	1	EA	$ 2,500	$ 2,500	1	EA	$ 3,108	$ 3,108	$ 608
HVAC Ductwork, Louvers, ect.	1	LS	$ 5,000	$ 5,000	1	LS	$ 6,215	$ 6,215	$ 1,215
Miscellaneous Mechanical	1	LS	$ 1,500	$ 1,500	1	LS	$ 1,865	$ 1,865	$ 365
8 IN SUBNATANT	105	LF	$ 56	$ 5,880	105	LF	$ 70	$ 7,309	$ 1,429
4 IN DAR	80	LF	$ 28	$ 2,240	80	LF	$ 35	$ 2,784	$ 544
6 IN WAS, glass lined	30	LF	$ 62	$ 1,860	30	LF	$ 77	$ 2,312	$ 452
6 IN TWAS/Undrfow Recycle, glass lined	40	LF	$ 62	$ 2,480	80	LF	$ 77	$ 6,166	$ 3,686
4 IN PV	10	LF	$ 1,600	$ 16,000	10	LF	$ 1,989	$ 19,889	$ 3,889

4 IN CV	4	EA	$ 1,200	$ 4,800	4	EA	$ 1,492	$ 5,967	$ 1,167
Miscellaneous Plumbing Piping	1	EA	$ 15,000	$ 15,000	1	EA	$ 18,646	$ 18,646	$ 3,646
Hose Bibbs	2	EA	$ 250	$ 500	2	EA	$ 311	$ 622	$ 122
DAFT TWAS (Float) Pit									
6 IN TWAS (Float)	20	LF	$ 56	$ 1,120	20	LF	$ 70	$ 1,392	$ 272
1 1/2 IN NPW	12	LF	$ 10	$ 120	12	LF	$ 12	$ 149	$ 29
Hose Bibb	1	EA	$ 250	$ 250	1	EA	$ 311	$ 311	$ 61
Division 16 - Electrical									
DAFT No. 1, DAFT No. 2 & DAFT Support Facility									
Electrical	1	LS	$ 44,518	$ 44,518	1	LS	$ 55,338	$ 55,338	$ 10,820
Subtotal				$ 553,000	**Subtotal**			$ 748,000	$ 195,000
Field General Conditions, Bonds and Insurance			**5%**	$ 28,000			**5%**	$ 37,000	$ 9,000
Contractor's Overhead and Profit			**10%**	$ 55,000			**10%**	$ 75,000	$ 20,000
Subtotal				$ 636,000				$ 860,000	$ 224,000
Undefined Scope of Work Contingency			**20%**	$ 127,000			**15%**	$ 129,000	$ 2,000
Subtotal				$ 763,000				$ 989,000	$ 226,000
Washington State Sales Tax			**8.1%**	$ 62,000			**8.1%**	$ 80,000	$ 18,000
Subtotal				$ 825,000				$ 1,069,000	$ 244,000
Escalation from Estimate Data Date to Mid Point of Construction			**13.33%**	$ -			**13.33%**	$ 143,000	$ 143,000
Subtotal				$ 825,000				$ 1,212,000	$ 387,000
Operator Mark-Up on DB Component			**1.00%**	$ -			**1.00%**	$ 12,000	$ 12,000
Subtotal				$ 825,000				$ 1,224,000	$ 399,000
Construction Contingency (Change Orders)			**5%**	$ 41,000			**5%**	$ 61,000	$ 20,000
Subtotal				$ 866,000				$ 1,285,000	$ 419,000
Engineering, legal and fiscal			**25%**	$ 217,000			**25%**	$ 321,000	$ 104,000
Total Estimated Project Cost				$ 1,083,000				$ 1,606,000	$ 523,000

Estimate of Probable Construction Cost

Spokane County - Digestion and Sludge Storage Facilities

Project	Spokane County	**Date**	30-Jan-03	8-Dec-06
	Representative Project	**Estimator**	D. Harmon	SRB
Task	Digesters & Sludge Storage	**Checked By**	B. Willey	RLG
Task No.	10027-007-102	**Check Date**	3/14/2003	

HDR Engineering, Inc.

					OPCC - Dec 2006				Variances
	Phase 1 (8 mgd)				Phase 1 (8 mgd)				Phase 1 (8 mgd)
Description	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	
Division 1 - Special Conditions									
General Conditions, Bidding, Submittals, Start-up	1	LS	$ 38,243	$ 38,243	1	LS	$ 51,198	$ 51,198	$ 12,954
Project Equipment- Not Task Specific - 75T Crawler Crane						MO	$ 18,800.00	$ -	$ -
Backhoe/Laoder					4	MO	$ 4,348.00	$ 17,392	$ 17,392
Division 2 - Site Work									
Digester No. 1									
Excavation	3800	CY	$ 8	$ 30,400	3000	CY	$ 9.94	$ 29,830	$ (570)
Granular Fill	140	CY	$ 20	$ 2,800	#############	CY	$ 24.86	$ 2,748	$ (52)
Backfill	1260	CY	$ 12	$ 15,120	995	CY	$ 14.92	$ 14,837	$ (283)
Construction Dewatering	0	LS	$ -	$ -	0	LS	$ -	$ -	$ -
Filter Fabric	3850	SF	$ 1	$ 3,850	3039	SF	$ 1.24	$ 3,778	$ (72)
PVC Membrane	3850	SF	$ 1	$ 3,850	3039	SF	$ 1.24	$ 3,778	$ (72)
Digester No. 2									
Excavation	3800	CY	$ 8	$ 30,400	3000	CY	$ 9.94	$ 29,830	$ (570)
Granular Fill	140	CY	$ 20	$ 2,800	#############	CY	$ 24.86	$ 2,748	$ (52)
Backfill	1260	CY	$ 12	$ 15,120	995	CY	$ 14.92	$ 14,837	$ (283)
Construction Dewatering	0	LS	$ -	$ -	0	LS	$ -	$ -	$ -

Filter Fabric	3850	SF	$	1	$	3,850	3039	SF	$	1.24	$	3,778	$	(72)
PVC Membrane	3850	SF	$	1	$	3,850	3039	SF	$	1.24	$	3,778	$	(72)
Digester No. 3														
Excavation														
Granular Fill														
Backfill														
Construction Dewatering														
Filter Fabric														
PVC Membrane														
Sludge Storage Tank														
Excavation	3800	CY	$	8	$	30,400	3000	CY	$	9.94	$	29,830	$	(570)
Granular Fill	140	CY	$	10	$	1,400	############	CY	$	12.43	$	1,374	$	(26)
Backfill	1260	CY	$	20	$	25,200	995	CY	$	24.86	$	24,728	$	(472)
Construction Dewatering	0	LS	$	-	$	-	0	LS	$	-	$	-	$	-
Filter Fabric	3850	SF	$	1	$	3,850	3039	SF	$	1.24	$	3,778	$	(72)
PVC Membrane	3850	SF	$	1	$	3,850	3039	SF	$	1.24	$	3,778	$	(72)
Digester Control Bulding														
Excavation	3300	CY	$	8	$	26,400	3300	CY	$	9.94	$	32,817	$	6,417
Granular Fill	130	CY	$	20	$	2,600	130	CY	$	24.86	$	3,232	$	632
Backfill	1500	CY	$	10	$	15,000	1500	CY	$	12.43	$	18,646	$	3,646
Construction Dewatering	0	LS	$	-	$	-	0	LS	$	-	$	-	$	-
Filter Fabric	3600	SF	$	1	$	3,600	3600	SF	$	1.24	$	4,475	$	875
PVC Membrane	3600	SF	$	1	$	3,600	3600	SF	$	1.24	$	4,475	$	875
Division 3 - Concrete														
Digester No. 1														
Concrete slab-on-grade	285	CY	$	250	$	71,231	225	CY	$	475	$	106,837	$	35,606
Concrete Walls	589	CY	$	400	$	235,693	520	CY	$	750	$	389,909	$	154,217

Concrete Suspended Slabs and Beams	160	CY	$	500	$	80,092	126	CY	$	692	$	87,503	$	7,411
Core Drills	1	EA	$	2,000	$	2,000	1	EA	$	2,486	$	2,486	$	486
Concrete Encasement	5	CY	$	250	$	1,250	5	CY	$	475	$	2,375	$	1,125
Equipment Base	6	CY	$	250	$	1,500	6	CY	$	455	$	2,730	$	1,230
Digester No. 2														
Concrete slab-on-grade	285	CY	$	250	$	71,231	225	CY	$	475	$	106,837	$	35,606
Concrete Walls	589	CY	$	400	$	235,693	520	CY	$	750	$	389,909	$	154,217
Concrete Suspended Slabs and Beams	160	CY	$	500	$	80,092	126	CY	$	692	$	87,503	$	7,411
Core Drills	1	EA	$	2,000	$	2,000	1	EA	$	2,486	$	2,486	$	486
Concrete Encasement	5	CY	$	250	$	1,250	5	CY	$	475	$	2,375	$	1,125
Equipment Base	6	CY	$	250	$	1,500	6	CY	$	455	$	2,730	$	1,230
Sludge Storage Tank														
Concrete slab-on-grade	285	CY	$	250	$	71,231	225	CY	$	475	$	106,837	$	35,606
Concrete Walls	589	CY	$	400	$	235,693	520	CY	$	750	$	389,909	$	154,217
Concrete Suspended Slabs and Beams	160	CY	$	500	$	80,092	126	CY	$	692	$	87,503	$	7,411
Core Drills	1	EA	$	2,000	$	2,000	1	EA	$	2,486	$	2,486	$	486
Concrete Encasement	6	CY	$	250	$	1,500	6	CY	$	475	$	2,850	$	1,350
Equipment Base	6	CY	$	250	$	1,500	6	CY	$	455	$	2,730	$	1,230
Digester Control Building														
Concrete slab-on-grade	250	CY	$	250	$	62,546	250	CY	$	475	$	118,838	$	56,292
Concrete Walls	163	CY	$	400	$	65,185	163	CY	$	750	$	122,222	$	57,037
Precast Wall Panels	2688	SF	$	20	$	53,760	2688	SF	$	25	$	66,826	$	13,066
Precast Hollow Core Panels	2244	SF	$	10	$	22,440	2244	SF	$	12	$	27,894	$	5,454
Concrete Suspended Slabs and Beams	120	CY	$	500	$	60,000	120	CY	$	692	$	83,040	$	23,040
Concrete Topping	2244	SF	$	8	$	17,952	2244	SF	$	10	$	22,315	$	4,363
Concrete Encasement	69	CY	$	250	$	17,361	69	CY	$	475	$	32,986	$	15,625
Equipment Base	6	CY	$	250	$	1,500	6	CY	$	455	$	2,730	$	1,230
Divison 4 - Masonry														
Digester Control Building														
8" CMU Walls	832	SF	$	10	$	8,320	832	SF	$	12	$	10,342	$	2,022

12" CMU Walls	992	SF	$ 12	$ 11,904	992	SF	$ 15	$ 14,797	$ 2,893
Divison 5 - Metals									
Digester No. 1									
Handrail	120	LF	$ 50	$ 6,000	106	LF	$ 62	$ 6,581	$ 581
Aluminum Platforms/Grating	48	SF	$ 75	$ 3,600	48	SF	$ 93	$ 4,475	$ 875
Metal Stairs	48	SF	$ 55	$ 2,640	48	SF	$ 68	$ 3,282	$ 642
Miscellaneous Metals	1	LS	$ 1,500	$ 1,500	1	LS	$ 1,865	$ 1,865	$ 365
Digester Side Access Hatches	2	EA	$ 2,000	$ 4,000	2	EA	$ 2,486	$ 4,972	$ 972
60 IN Roof Access Hatch	1	EA	$ 1,500	$ 1,500	1	EA	$ 1,865	$ 1,865	$ 365
Digester No. 2									
Handrail	120	LF	$ 50	$ 6,000	106	LF	$ 62	$ 6,588	$ 588
Aluminum Platforms/Grating	48	SF	$ 75	$ 3,600	48	SF	$ 93	$ 4,475	$ 875
Metal Stairs	48	SF	$ 55	$ 2,640	48	SF	$ 68	$ 3,282	$ 642
Miscellaneous Metals	1	LS	$ 1,500	$ 1,500	1	LS	$ 1,865	$ 1,865	$ 365
Digester Side Access Hatches	2	EA	$ 2,000	$ 4,000	2	EA	$ 2,486	$ 4,972	$ 972
60 IN Roof Access Hatch	1	EA	$ 1,500	$ 1,500	1	EA	$ 1,865	$ 1,865	$ 365
Sludge Storage Tank									
Handrail	120	LF	$ 50	$ 6,000	106	LF	$ 62	$ 6,588	$ 588
Aluminum Platforms/Grating	48	SF	$ 75	$ 3,600	48	SF	$ 93	$ 4,475	$ 875
Metal Stairs	48	SF	$ 55	$ 2,640	48	SF	$ 68	$ 3,282	$ 642
Miscellaneous Metals	1	LS	$ 1,500	$ 1,500	1	LS	$ 1,865	$ 1,865	$ 365
Storage Side Tank Access Hatches	2	EA	$ 2,000	$ 4,000	2	EA	$ 2,486	$ 4,972	$ 972
60 IN Roof Access Hatch	1	EA	$ 1,500	$ 1,500	1	EA	$ 1,865	$ 1,865	$ 365
Digester Control Building									
Handrails	164	LF	$ 50	$ 8,200	164	LF	$ 62	$ 10,193	$ 1,993
Metal Stairs	128	SF	$ 55	$ 7,040	128	SF	$ 68	$ 8,751	$ 1,711
Miscellaneous Metals	1	LS	$ 2,500	$ 2,500	1	LS	$ 3,108	$ 3,108	$ 608
Architectural Metal Roof	612	SF	$ 20	$ 12,240	612	SF	$ 25	$ 15,215	$ 2,975
Anchor Bolts	1	LS	$ 500	$ 500	1	LS	$ 622	$ 622	$ 122
Monorail	20	LF	$ 50	$ 1,000	20	LF	$ 62	$ 1,243	$ 243
6'x4' Access Floor Hatch	35	SF	$ 75	$ 2,625	35	SF	$ 93	$ 3,263	$ 638
Division 6 - Wood and Plastic									
Digester Control Building									

Architectural Wood Treatment	3520	SF	$ 2	$ 7,040	3520	SF	$ 2	$ 8,751	$ 1,711
FRP Odor Covers	144	SF	$ 25	$ 3,600	144	SF	$ 31	$ 4,475	$ 875
Division 7 - Thermal and Moisture Protection									
Digester No. 1									
Vapor Barrier/Dampproofing	3730	SF	$ 1.00	$ 3,730	2944	SF	$ 1.24	$ 3,660	$ (70)
Sealants and Caulking	1	LS	$ 500	$ 500	1	LS	$ 622	$ 622	$ 122
Digester No. 2									
Vapor Barrier/Dampproofing	3730	SF	$ 1.00	$ 3,730	2944	SF	$ 1.24	$ 3,660	$ (70)
Sealants and Caulking	1	LS	$ 500	$ 500	1	LS	$ 622	$ 622	$ 122
Sludge Storage Tank									
Vapor Barrier/Dampproofing	3730	SF	$ 1.00	$ 3,730	2944	SF	$ 1.24	$ 3,660	$ (70)
Sealants and Caulking	1	LS	$ 500	$ 500	1	LS	$ 622	$ 622	$ 122
Digester Control Building									
Vapor Barrier/Dampproofing	3344	SF	$ 1.00	$ 3,344	3344	SF	$ 1.24	$ 4,157	$ 813
Exterior Insulation and Finish System	3520	SF	$ 10	$ 35,200	3520	SF	$ 12	$ 43,755	$ 8,555
Roof Insulation	22.4	SQ	$ 300	$ 6,720	22.4	SQ	$ 373	$ 8,353	$ 1,633
Sealants and Caulking	1	LS	$ 500	$ 500	1	LS	$ 622	$ 622	$ 122
Membrane Roofing System	1600	SF	$ 25	$ 40,000	1600	SF	$ 31	$ 49,722	$ 9,722
Division 8 - Doors and Windows									
Digester Control Building									
3x7 Doors	6	EA	$ 1,500	$ 9,000	6	EA	$ 1,865	$ 11,187	$ 2,187
Skylights/Windows	2	EA	$ 1,000	$ 2,000	2	EA	$ 1,243	$ 2,486	$ 486
Overhead Coiling Doors	2	EA	$ 5,000	$ 10,000	2	EA	$ 6,215	$ 12,431	$ 2,431
Division 9 - Finishes									
Digester No. 1									
Painting	1	LS	$ 1,500	$ 1,500	1	LS	$ 1,865	$ 1,865	$ 365
Digester No. 2									
Painting	1	LS	$ 1,500	$ 1,500	1	LS	$ 1,865	$ 1,865	$ 365
Sludge Storage Tank									
Painting	1	LS	$ 1,500	$ 1,500	1	LS	$ 1,865	$ 1,865	$ 365

Digester Control Building									
Surface Painting	1	LS	$ 10,000	$ 10,000	1	LS	$ 12,431	$ 12,431	$ 2,431
Equipment Painting	1	LS	$ 10,000	$ 10,000	1	LS	$ 12,431	$ 12,431	$ 2,431
Division 10 - Specialties									
Louvers and Vents	20	SF	$ 25.00	$ 500	20	SF	$ 31.08	$ 622	$ 122
Identification, Stenciling and Tagging	1	LS	$ 5,000.00	$ 5,000	1	LS	$ 6,215.25	$ 6,215	$ 1,215
Division 11 - Equipment									
Digester No. 1									
Digester Mixer	1	EA	$ 200,000	$ 200,000	1	EA	$ 248,610	$ 248,610	$ 48,610
Mixer Oil Pump & Lube System	1	EA	$ 700	$ 700	1	EA	$ 870	$ 870	$ 170
Digester No. 2									
Digester Mixer	1	EA	$ 200,000	$ 200,000	1	EA	$ 248,610	$ 248,610	$ 48,610
Mixer Oil Pump & Lube System	1	EA	$ 7,000	$ 7,000	1	EA	$ 8,701	$ 8,701	$ 1,701
Sludge Storage Tank									
Storage Mixer			$ 200,000	$ -			$ 248,610	$ -	$ -
Mixer Oil Pump & Lube System			$ 7,000	$ -			$ 8,701	$ -	$ -
Digester Control Building									
Digester Recirculation Pumps	2		$ 20,000	$ 40,000	2		$ 24,861	$ 49,722	$ 9,722
Centrifuge Feed Pumps	2	EA	$ 20,000	$ 40,000	2	EA	$ 24,861	$ 49,722	$ 9,722
Sludge Grinders	3	EA	$ 15,000	$ 45,000	3	EA	$ 18,646	$ 55,937	$ 10,937
Sludge Heat Exchangers	2	EA	$ 45,000	$ 90,000	2	EA	$ 55,937	$ 111,875	$ 21,875
Boilers	2	EA	$ 90,000	$ 180,000	2	EA	$ 111,875	$ 223,749	$ 43,749
Hot Water Recirculation Pumps	2	EA	$ 4,000	$ 8,000	2	EA	$ 4,972	$ 9,944	$ 1,944
Hot Water Loop Pumps	2	EA	$ 3,000	$ 6,000	2	EA	$ 3,729	$ 7,458	$ 1,458
Duplex Sump Pumps	1	EA	$ 10,000	$ 10,000	1	EA	$ 12,431	$ 12,431	$ 2,431
Air Compressor	1	EA	$ 5,000	$ 5,000	1	EA	$ 6,215	$ 6,215	$ 1,215
Division 13 - Special Construction									
Digester No. 1									
Pressure Level Transmitter	1	EA	$ 3,500	$ 3,500	1	EA	$ 4,351	$ 4,351	$ 851
Gas Moisture Separator	1	EA	$ 4,000	$ 4,000	1	EA	$ 4,972	$ 4,972	$ 972
Digester Gas Flame Arrestor	2	EA	$ 1,500	$ 3,000	2	EA	$ 1,865	$ 3,729	$ 729
Digester Gas PRV	2	EA	$ 2,000	$ 4,000	2	EA	$ 2,486	$ 4,972	$ 972
Foam Suppression Unit	1	EA	$ 2,000	$ 2,000	1	EA	$ 2,486	$ 2,486	$ 486

	Plastic Liner	3210	SF	$	12	$	38,520	3210	SF	$	15	$ 47,882	$ 9,362
Digester No. 2	Pressure Level Transmitter	1	EA	$	3,500	$	3,500	1	EA	$	4,351	$ 4,351	$ 851
	Gas Moisture Separator	1	EA	$	4,000	$	4,000	1	EA	$	4,972	$ 4,972	$ 972
	Digester Gas Flame Arrestor	2	EA	$	1,500	$	3,000	2	EA	$	1,865	$ 3,729	$ 729
	Digester Gas PRV	2	EA	$	2,000	$	4,000	2	EA	$	2,486	$ 4,972	$ 972
	Foam Suppression Unit	1	EA	$	2,000	$	2,000	1	EA	$	2,486	$ 2,486	$ 486
	Plastic Liner	3210	SF	$	12	$	38,520	3210	SF	$	15	$ 47,882	$ 9,362
Sludge Storage Tank													
	Pressure Level Transmitter	1	EA	$	3,500	$	3,500	1	EA	$	4,351	$ 4,351	$ 851
	Gas Moisture Separator	1	EA	$	4,000	$	4,000	1	EA	$	4,972	$ 4,972	$ 972
	Digester Gas Flame Arrestor	2	EA	$	1,500	$	3,000	2	EA	$	1,865	$ 3,729	$ 729
	Digester Gas PRV	2	EA	$	2,000	$	4,000	2	EA	$	2,486	$ 4,972	$ 972
	Foam Suppression Unit	1	EA	$	2,000	$	2,000	1	EA	$	2,486	$ 2,486	$ 486
	Plastic Liner	9830	SF	$	12	$	117,960	9830	SF	$	15	$ 146,630	$ 28,670
Digester Control Building													
	Centrifuge Feed Pump VFDs	1	EA	$	12,000	$	12,000	1	EA	$	14,917	$ 14,917	$ 2,917
	Digester Gas Control Valves	1	EA	$	2,000	$	2,000	1	EA	$	2,486	$ 2,486	$ 486
	Digester Gas Flame Arrestors	2	EA	$	1,500	$	3,000	2	EA	$	1,865	$ 3,729	$ 729
	Digester Gas Meter	1	EA	$	7,500	$	7,500	1	EA	$	9,323	$ 9,323	$ 1,823
	Waste Gas Burner	1	EA	$	15,000	$	15,000	1	EA	$	18,646	$ 18,646	$ 3,646
	Sludge Flow Meters	1	EA	$	3,500	$	3,500	1	EA	$	4,351	$ 4,351	$ 851
	3-Way Temperature Control Valves	2	EA	$	500	$	1,000	2	EA	$	622	$ 1,243	$ 243
	Temperature Sensor	2	EA	$	1,000	$	2,000	2	EA	$	1,243	$ 2,486	$ 486
	Hot Water Tank	1	EA	$	1,500	$	1,500	1	EA	$	1,865	$ 1,865	$ 365
	NG Meter	1	EA	$	1,500	$	1,500	1	EA	$	1,865	$ 1,865	$ 365
	Temperature Transmitter	1	EA	$	1,000	$	1,000	1	EA	$	1,243	$ 1,243	$ 243
Instrumentation		1	LS	$	100,000	$	100,000	1	LS	$	124,305	$ 124,305	$ 24,305
	Division 14 - Conveying Systems												
	Monorail Hoist	1	EA	$	2,000	$	2,000	1	EA	$	2,486	$ 2,486	$ 486
	Division 15 - Mechanical												
Digester No. 1													
	6 IN DF, glass lined	55	LF	$	65	$	3,575	55	LF	$	81	$ 4,444	$ 869
	6 IN DSL, glass lined	140	LF	$	65	$	9,100	140	LF	$	81	$ 11,312	$ 2,212
	8 IN DSL/OF	55	LF	$	60	$	3,300	55	LF	$	75	$ 4,102	$ 802

4 IN DG	35	LF	$	30	$	1,050	35	LF	$	37	$	1,305	$	255
6 IN PV	4	EA	$	1,500	$	6,000	4	EA	$	1,865	$	7,458	$	1,458
4 IN PV	1	EA	$	1,200	$	1,200	1	EA	$	1,492	$	1,492	$	292
Telescoping Valve	1	EA	$	1,500	$	1,500	1	EA	$	1,865	$	1,865	$	365
Hose Bibb	1	EA	$	250	$	250	1	EA	$	311	$	311	$	61
Miscellaneous Plumbing	1	LS	$	1,500	$	1,500	1	LS	$	1,865	$	1,865	$	365
Sampling Well	1	EA	$	500	$	500	1	EA	$	622	$	622	$	122
Digester No. 2														
6 IN DF, glass lined	55	LF	$	65	$	3,575	55	LF	$	81	$	4,444	$	869
6 IN DSL, glass lined	140	LF	$	65	$	9,100	140	LF	$	81	$	11,312	$	2,212
8 IN DSL/OF	55	LF	$	60	$	3,300	55	LF	$	75	$	4,102	$	802
4 IN DG	35	LF	$	30	$	1,050	35	LF	$	37	$	1,305	$	255
6 IN PV	4	EA	$	1,500	$	6,000	4	EA	$	1,865	$	7,458	$	1,458
4 IN PV	1	EA	$	1,200	$	1,200	1	EA	$	1,492	$	1,492	$	292
Telescoping Valve	1	EA	$	1,500	$	1,500	1	EA	$	1,865	$	1,865	$	365
Hose Bibb	1	EA	$	250	$	250	1	EA	$	311	$	311	$	61
Miscellaneous Plumbing	1	LS	$	1,500	$	1,500	1	LS	$	1,865	$	1,865	$	365
Sampling Well	1	EA	$	500	$	500	1	EA	$	622	$	622	$	122
Sludge Storage Tank														
6 IN DF, glass lined	55	LF	$	65	$	3,575	55	LF	$	81	$	4,444	$	869
6 IN DSL, glass lined	140	LF	$	65	$	9,100	140	LF	$	81	$	11,312	$	2,212
8 IN DSL/OF	55	LF	$	60	$	3,300	55	LF	$	75	$	4,102	$	802
4 IN DG	35	LF	$	30	$	1,050	35	LF	$	37	$	1,305	$	255
6 IN PV	4	EA	$	1,500	$	6,000	4	EA	$	1,865	$	7,458	$	1,458
4 IN PV	1	EA	$	1,200	$	1,200	1	EA	$	1,492	$	1,492	$	292
Telescoping Valve	1	EA	$	1,500	$	1,500	1	EA	$	1,865	$	1,865	$	365
Hose Bibb	1	EA	$	250	$	250	1	EA	$	311	$	311	$	61
Miscellaneous Plumbing	1	LS	$	1,500	$	1,500	1	LS	$	1,865	$	1,865	$	365
Sampling Well	1	EA	$	500	$	500	1	EA	$	622	$	622	$	122
Digester Control Building														
Makeup Air Unit	2	EA	$	5,000	$	10,000	2	EA	$	6,215	$	12,431	$	2,431
Ventilation Fan	2	EA	$	3,000	$	6,000	2	EA	$	3,729	$	7,458	$	1,458
HVAC Ductwork, Louvers, ect.	1	LS	$	5,000	$	5,000	1	LS	$	6,215	$	6,215	$	1,215
Miscellaneous Mechanical	1	LS	$	15,000	$	15,000	1	LS	$	18,646	$	18,646	$	3,646
8 IN DSL	105	LF	$	60	$	6,300	105	LF	$	75	$	7,831	$	1,531
8 IN DSL/OF	120	LF	$	60	$	7,200	120	LF	$	75	$	8,950	$	1,750
6 IN TSL	80	LF	$	55	$	4,400	80	LF	$	68	$	5,469	$	1,069
6 IN RSL	30	LF	$	75	$	2,250	30	LF	$	93	$	2,797	$	547

6 IN TWAs, GLASS LINED	40	LF	$ 75	$ 3,000	40	LF	$ 93	$ 3,729	$ 729
6 IN HWS/HWR	96	LF	$ 45	$ 4,320	96	LF	$ 56	$ 5,370	$ 1,050
4 IN HWS/HWR	60	LF	$ 45	$ 2,700	60	LF	$ 56	$ 3,356	$ 656
4 IN DG	170	LF	$ 30	$ 5,100	170	LF	$ 37	$ 6,340	$ 1,240
4 IN NG	20	LF	$ 30	$ 600	20	LF	$ 37	$ 746	$ 146
4 IN NPW	120	LF	$ 28	$ 3,360	120	LF	$ 35	$ 4,177	$ 817
8 IN PV	24	EA	$ 1,500	$ 36,000	24	EA	$ 1,865	$ 44,750	$ 8,750
6 IN PV	8	EA	$ 1,500	$ 12,000	8	EA	$ 1,865	$ 14,917	$ 2,917
6 IN Control Plug Valves (Feed)	2	EA	$ 3,000	$ 6,000	2	EA	$ 3,729	$ 7,458	$ 1,458
6 IN CV	5	LF	$ 800	$ 4,000	5	LF	$ 994	$ 4,972	$ 972
4 IN PV	10	EA	$ 1,200	$ 12,000	10	EA	$ 1,492	$ 14,917	$ 2,917
4 IN CV	4	EA	$ 600	$ 2,400	4	EA	$ 746	$ 2,983	$ 583
4 IN BFV	12	EA	$ 600	$ 7,200	12	EA	$ 746	$ 8,950	$ 1,750
Miscellaneous Plumbing Piping	1	EA	$ 25,000	$ 25,000	1	EA	$ 31,076	$ 31,076	$ 6,076
Hose Bibbs	2	EA	$ 250	$ 500	2	EA	$ 311	$ 622	$ 122
Air Tool Assemblies	2	EA	$ 1,500	$ 3,000	2	EA	$ 1,865	$ 3,729	$ 729
Backflow Preventer	1	EA	$ 2,500	$ 2,500	1	EA	$ 3,108	$ 3,108	$ 608
Division 16 - Electrical									
Digestion and Sludge Storage Facilities									
Electrical	1	LS	$ 350,000	$ 350,000	1	LS	$ 435,068	$ 435,068	$ 85,068
Subtotal				$ 3,863,000	**Subtotal**			$ 5,188,000	$ 1,325,000
Field General Conditions, Bonds and Insurance			5%	$ 193,000			5%	$ 259,000	$ 66,000
Contractor's Overhead and Profit			10%	$ 386,000			10%	$ 519,000	$ 133,000
Subtotal				$ 4,442,000				$ 5,966,000	$ 1,524,000
Undefined Scope of Work Contingency			20%	$ 888,000			15%	$ 895,000	$ 7,000
Subtotal				$ 5,330,000				$ 6,861,000	$ 1,531,000
Washington State Sales Tax			8.1%	$ 432,000			8.1%	$ 556,000	$ 124,000
Subtotal				$ 5,762,000				$ 7,417,000	$ 1,655,000
Escalation from Estimate Data Date to Mid Point of Construction			13.33%	$ -			13.33%	$ 989,000	$ 989,000
Subtotal				$ 5,762,000				$ 8,406,000	$ 2,644,000
Operator Mark-Up on DB Component			1.00%	$ -			1.00%	$ 84,000	$ 84,000
Subtotal				$ 5,762,000				$ 8,490,000	$ 2,728,000
Construction Contingency (Change Orders)			5%	$ 288,000			5%	$ 425,000	$ 137,000
Subtotal				$ 6,050,000				$ 8,915,000	$ 2,865,000
Engineering, legal and fiscal			25%	$ 1,512,500			25%	$ 2,228,750	$ 716,250
Total Estimated Project Cost				$ 7,562,500				$ 11,143,750	$ 3,581,250

Estimate of Probable Construction Cost
Spokane County - Fermentor Facilities

Project	Spokane County	**Date**	8-Dec-06
	Representative Project	**Estimator**	SRB
Task	Fermentor	**Checked By**	RLG
Task No.	10027-007-102	**Check Date**	

HDR Engineering, Inc.

					OPCC - Dec 2006				Variances
	Phase 1 (8 mgd)				Phase 1 (8 mgd)				Phase 1 (8 mgd)
Description	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	
Division 1 - Special Conditions									
General Conditions, Bidding, Submittals, Start-up					1	LS	$ 14,695	$ 14,695	$ 14,695
Project Equipment- Not Task Specific - 75T Crawler Crane						MO	$ 18,800.00	$ -	$ -
Backhoe/Laoder					1	MO	$ 4,348.00	$ 4,348	$ 4,348
Division 2 - Site Work									
Fermentor Tank									
Excavation					1943	CY	$ 9.94	$ 19,322	$ 19,322
Granular Fill					64	CY	$ 24.86	$ 1,591	$ 1,591
Backfill					1212	CY	$ 14.92	$ 18,079	$ 18,079
Construction Dewatering					1	LS	$ -	$ -	$ -
Underflow/Overflow Pumping Station									
Excavation					500	CY	$ 9.94	$ 4,972	$ 4,972
Granular Fill					100	CY	$ 24.86	$ 2,486	$ 2,486
Backfill					200	CY	$ 14.92	$ 2,983	$ 2,983
Construction Dewatering					1	LS	$ -	$ -	$ -
Filter Fabric					2475	SF	$ 1.24	$ 3,077	$ 3,077
PVC Membrane					2475	SF	$ 1.24	$ 3,077	$ 3,077
Division 3 - Concrete									
Fermentor Tank									
Concrete slab-on-grade					58	CY	$ 475	$ 27,550	$ 27,550
Concrete Wall					103	CY	$ 850	$ 87,550	$ 87,550
Underflow/Overflow Pumping Station									
Concrete slab-on-grade					152	CY	$ 475	$ 72,042	$ 72,042
Concrete Wall					103	CY	$ 750	$ 77,500	$ 77,500
Concrete Stairs					15	CY	$ 684	$ 10,255	$ 10,255

Concrete Encasement/Equipment Base					30	CY	$	475	$	14,250	$ 14,250
Hollow-core Roof					2325	SF	$	12	$	28,901	$ 28,901
Concrete Topping					2325	SF	$	10	$	23,121	$ 23,121
Division 4 - Masonry											
NOT USED											
Divison 5 - Metals											
Fermentor Tank											
Miscellaneous Metals					1	LS	$	3,729	$	3,729	$ 3,729
Aluminum Handrail					150	LF	$	62.15	$	9,323	$ 9,323
Underflow/Overflow Pumping Station											
Aluminum Handrail					150	LF	$	62.15	$	9,323	$ 9,323
Miscellaneous Metals					1	LS	$	2,486	$	2,486	$ 2,486
Pergola Steel					1	LS	$	18,646	$	18,646	$ 18,646
Architectural Metal Roof					300	SF	$	24.86	$	7,458	$ 7,458
Division 7 - Thermal and Moisture Protection											
Underflow/Overflow Pumping Station											
Skylights					16	SF	$	37.29	$	597	$ 597
Membrane Roofing					2325	SF	$	31.08	$	72,252	$ 72,252
Division 8 - Doors and Windows											
Underflow/Overflow Pumping Station											
Access Hatches					90	SF	$	124	$	11,187	$ 11,187
Maintenance Access Openings					130	SF	$	75	$	9,696	$ 9,696
6' X 7" Double Hollow Metal Door					1	EA	$	3,729	$	3,729	$ 3,729
Division 9 - Finishes											
Fermentor Tank											
Painting					1	LS	$	5,354	$	5,354	$ 5,354
Underflow/Overflow Pumping Station											
Painting					1	LS	$	6,215	$	6,215	$ 6,215
Damproofing					1400	SF	$	1.24	$	1,740	$ 1,740
Division 10 - Specialties											
NOT USED											

Division 11 - Equipment									
Fermetor Tank									
Mechanism 40' dia					1	LS	$ 130,521	$ 130,521	$ 130,521
Overflow/Underflow PS									
Underflow Sludge (SSL) Pumps					1	EA	$ 8,323	$ 8,323	$ 8,323
Overflow Recycle Pumps					1	EA	$ 9,323	$ 9,323	$ 9,323
Division 13 - Special Construction									
Overflow/Underflow PS									
Pressure Switches					4	EA	$ 1,243	$ 4,972	$ 4,972
Ultrasonic Level					2	EA	$ 4,351	$ 8,701	$ 8,701
Instrumentation					1	LS	$ 155,428	$ 155,428	$ 155,428
Division 14 - Conveying Systems									
Overflow/Underflow PS									
Monorail with Hoist					1	LS	$ 18,646	$ 18,646	$ 18,646
Division 15 - Mechanical									
Fermentor Tank									
1 IN NPW w/Spray Nozzles					20	EA	$ 12.43	$ 249	$ 249
Hydrostatic Relief Valves					6	LS	$ 311	$ 1,865	$ 1,865
24 IN Primary Influent					25	LF	$ 209	$ 5,221	$ 5,221
8 IN PSL					25	EA	$ 94.47	$ 2,362	$ 2,362
Overflow/Underflow PS									
Unit Heater					2	EA	$ 1,243	$ 2,486	$ 2,486
Ventilation Fan					1	EA	$ 3,108	$ 3,108	$ 3,108
HVAC, Ductwork, Louvers, ect.					1	LS	$ 8,701	$ 8,701	$ 8,701
Miscellaneous Mechanical					1	LS	$ 3,729	$ 3,729	$ 3,729
6 IN Perforated Drain Piping					200	LF	$ 44.75	$ 8,950	$ 8,950
6 IN Underflow piping					80	LF	$ 77.07	$ 6,166	$ 6,166
8 IN Underflow piping					80	LF	$ 94.47	$ 7,558	$ 7,558
6 IN Primary Overflow piping					80	LF	$ 77.07	$ 6,166	$ 6,166
8 IN Overflow piping					50	LF	$ 94.47	$ 4,724	$ 4,724
6 IN Check Valves					4	EA	$ 2,237	$ 8,950	$ 8,950
6 IN Plug Valve					4	EA	$ 2,983	$ 11,933	$ 11,933
8 IN Plug Valve					7	EA	$ 3,978	$ 27,844	$ 27,844
Sump and Drain Piping					1	LS	$ 6,215	$ 6,215	$ 6,215

Miscellaneous Piping					1	LS	$ 18,646	$ 18,646	$ 18,646
Hose Bibb					2	EA	$ 311	$ 622	$ 622
Division 16 - Electrical									
Fermentor Tank									
Electrical					1	LS	$ 8,881	$ 8,881	$ 8,881
Overflow/Underflow PS									
Electrical					1	LS	$ 143,396	$ 143,396	$ 143,396
			Subtotal	$ -			**Subtotal**	$ 1,201,000	$ 1,201,000
			Field General Conditions, Bonds and Insurance	5% $ -			5%	$ 60,000	$ 60,000
			Contractor's Overhead and Profit	10% $ -			10%	$ 120,000	$ 120,000
			Subtotal	$ -				$ 1,381,000	$ 1,381,000
			Undefined Scope of Work Contingency	20% $ -			15%	$ 207,000	$ 207,000
			Subtotal	$ -				$ 1,588,000	$ 1,588,000
			Washington State Sales Tax	8.1% $ -			8.1%	$ 129,000	$ 129,000
			Subtotal	$ -				$ 1,717,000	$ 1,717,000
			Escalation from Estimate Data Date to Mid Point of Construction	13.33% $ -			13.33%	$ 229,000	$ 229,000
			Subtotal	$ -				$ 1,946,000	$ 1,946,000
			Operator Mark-Up on DB Component	1.00% $ -			1%	$ 19,000	$ 19,000
			Subtotal	$ -				$ 1,965,000	$ 1,965,000
			Construction Contingency (Change Orders)	5% $ -			5%	$ 98,000	$ 98,000
			Subtotal	$ -				$ 2,063,000	$ 2,063,000
			Engineering, legal and fiscal	25% $ -			25%	$ 516,000	$ 516,000
			Total Estimated Project Cost	$ -				$ 2,579,000	$ 2,579,000

Estimate of Probable Construction Cost

Spokane County - Digestion and Sludge Storage Facilities

Project	Spokane County	**Date**	8-Dec-06
	Representative Project	**Estimator**	SRB
Task	Gravity Thickener	**Checked By**	RLG
Task No.	10027-007-102	**Check Date**	

HDR Engineering, Inc.

	Phase 1 (8 mgd)				OPCC - Dec 2006 Phase 1 (8 mgd)				Variances Phase 1 (8 mgd)
Description	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	
Division 1 - Special Conditions									
General Conditions, Bidding, Submittals, Start-up					1	LS	$ 10,215	$ 10,215	$ 10,215
Project Equipment- Not Task Specific - 75T Crawler Crane						MO	$ 18,800.00	$ -	$ -
Backhoe/Laoder					1	MO	$ 4,348.00	$ 4,348	$ 4,348
Division 2 - Site Work									
Gravity Thickener									
Excavation					1093	CY	$ 9.94	$ 10,869	$ 10,869
Granular Fill					30	CY	$ 24.86	$ 746	$ 746
Backfill					774	CY	$ 14.92	$ 11,545	$ 11,545
Construction Dewatering					0	LS	$ -	$ -	$ -
Filter Fabric					891	SF	$ 1.24	$ 1,108	$ 1,108
PVC Membrane					891	SF	$ 1.24	$ 1,108	$ 1,108
Underflow/Overflow Pumping Station									
Excavation					500	CY	$ 9.94	$ 4,972	$ 4,972
Granular Fill					100	CY	$ 24.86	$ 2,486	$ 2,486
Backfill					200	CY	$ 14.92	$ 2,983	$ 2,983
Construction Dewatering					1	LS	$ -	$ -	$ -
Filter Fabric					2475	SF	$ 1.24	$ 3,077	$ 3,077
PVC Membrane					2475	SF	$ 1.24	$ 3,077	$ 3,077
Division 3 - Concrete									
Gravity Thickener									
Concrete slab-on-grade					27	CY	$ 475	$ 12,825	$ 12,825
Concrete Walls					66	CY	$ 850	$ 56,100	$ 56,100
Concrete Suspended Slabs and Beams					0	CY		$ -	$ -
Core Drills					1	EA	$ 2,486	$ 2,486	$ 2,486
Concrete Encasement					5	CY		$ -	$ -

Equipment Base					0	CY		$	-	$ -
Underflow/Overflow Pumping Station										
Concrete slab-on-grade					152	CY	$	475	$ 72,042	$ 72,042
Concrete Wall					103	CY	$	750	$ 77,500	$ 77,500
Concrete Stairs					15	CY	$	684	$ 10,255	$ 10,255
Concrete Encasement/Equipment Base					30	CY	$	475	$ 14,250	$ 14,250
Hollow-core Roof					2325	SF	$	12	$ 28,901	$ 28,901
Concrete Topping					2325	SF	$	10	$ 23,121	$ 23,121
Divison 4 - Masonry										
NOT USED										
Divison 5 - Metals										
Gravity Thickener										
Miscellaneous Metals					1	LS	$	3,729	$ 3,729	$ 3,729
Handrail					103	LF	$	62.15	$ 6,401	$ 6,401
Underflow/Overflow Pumping Station										
Aluminum Handrail					150	LF	$	62.15	$ 9,323	$ 9,323
Miscellaneous Metals					1	LS	$	2,486	$ 2,486	$ 2,486
Pergola Steel					1	LS	$	18,646	$ 18,646	$ 18,646
Architectural Metal Roof					300	SF	$	24.86	$ 7,458	$ 7,458
Division 6 - Wood and Plastic										
NOT USED										
Division 7 - Thermal and Moisture Protection										
Underflow/Overflow Pumping Station										
Skylights					16	SF	$	37.29	$ 597	$ 597
Membrane Roofing					2325	SF	$	31.08	$ 72,252	$ 72,252
Division 8 - Doors and Windows										
Underflow/Overflow Pumping Station										
Access Hatches					90	SF	$	124	$ 11,187	$ 11,187
Maintenance Access Openings					130	SF	$	75	$ 9,696	$ 9,696
6' X 7" Double Hollow Metal Door					1	EA	$	3,729	$ 3,729	$ 3,729
Division 9 - Finishes										
Gravity Thickener										
Painting					1	LS	$	5,354	$ 5,354	$ 5,354
Underflow/Overflow Pumping Station										

Painting						1	LS	$	6,215	$	6,215	$ 6,215
Damproofing						1400	SF	$	1.24	$	1,740	$ 1,740
Division 10 - Specialties												
NOT USED												
Division 11 - Equipment												
Gravity Thickener												
Mechanism 25' Dia						1	LS	$	110,943	$	110,943	$ 110,943
Overflow/Underflow PS												
Underflow Sludge (SSL) Pumps						1	EA	$	8,323	$	8,323	$ 8,323
Overflow Recycle Pumps						1	EA	$	9,323	$	9,323	$ 9,323
Division 13 - Special Construction												
Overflow/Underflow PS												
Pressure Switches						4	EA	$	1,243	$	4,972	$ 4,972
Ultrasonic Level						2	EA	$	4,351	$	8,701	$ 8,701
Instrumentation						1	LS	$	74,583	$	74,583	$ 74,583
Division 14 - Conveying Systems												
Overflow/Underflow PS												
Monorail with Hoist						1	LS	$	18,646	$	18,646	$ 18,646
Division 15 - Mechanical												
Gravity Thickener												
1 IN NPW w/Spray Nozzles						20	EA	$	12.43	$	249	$ 249
Hydrostatic Relief Valves						6	LS	$	311	$	1,865	$ 1,865
24 IN Primary Influent						25	LF	$	209	$	5,221	$ 5,221
8 IN PSL						25	EA	$	94.47	$	2,362	$ 2,362
Overflow/Underflow PS												
Unit Heater						2	EA	$	1,243	$	2,486	$ 2,486
Ventilation Fan						1	EA	$	3,108	$	3,108	$ 3,108
HVAC, Ductwork, Louvers, ect.						1	LS	$	8,701	$	8,701	$ 8,701
Miscellaneous Mechanical						1	LS	$	3,729	$	3,729	$ 3,729
6 IN Perforated Drain Piping						200	LF	$	44.75	$	8,950	$ 8,950
6 IN Underflow piping						80	LF	$	77.07	$	6,166	$ 6,166
8 IN Underflow piping						80	LF	$	94.47	$	7,558	$ 7,558
6 IN Primary Overflow piping						80	LF	$	77.07	$	6,166	$ 6,166
8 IN Overflow piping						50	LF	$	94.47	$	4,724	$ 4,724

6 IN Check Valves					4	EA	$ 2,237	$ 8,950	$ 8,950	
6 IN Plug Valve					4	EA	$ 2,983	$ 11,933	$ 11,933	
8 IN Plug Valve					7	EA	$ 3,978	$ 27,844	$ 27,844	
Sump and Drain Piping					1	LS	$ 6,215	$ 6,215	$ 6,215	
Miscellaneous Piping					1	LS	$ 18,646	$ 18,646	$ 18,646	
Hose Bibb					2	EA	$ 311	$ 622	$ 622	
Division 16 - Electrical										
Gravity Thickeer										
Electrical					1	LS	$ 8,881	$ 8,881	$ 8,881	
Overflow/Underflow PS										
Electrical					1	LS	$ 143,396	$ 143,396	$ 143,396	
Subtotal				$ -	**Subtotal**			$ 1,036,000	$ 1,036,000	
Field General Conditions, Bonds and Insurance			5%	$ -			5%	$ 52,000	$ 52,000	
Contractor's Overhead and Profit			10%	$ -			10%	$ 104,000	$ 104,000	
Subtotal				$ -				$ 1,192,000	$ 1,192,000	
Undefined Scope of Work Contingency			20%	$ -			15%	$ 179,000	$ 179,000	
Subtotal				$ -				$ 1,371,000	$ 1,371,000	
Washington State Sales Tax			8.1%	$ -			8.1%	$ 111,000	$ 111,000	
Subtotal				$ -				$ 1,482,000	$ 1,482,000	
Escalation from Estimate Data Date to Mid Point of Construction			13.33%	$ -			13.33%	$ 198,000	$ 198,000	
Subtotal				$ -				$ 1,680,000	$ 1,680,000	
Operator Mark-Up on DB Component			1.00%	$ -			1.00%	$ 17,000	$ 17,000	
Subtotal				$ -				$ 1,697,000	$ 1,697,000	
Construction Contingency (Change Orders)			5%	$ -			5%	$ 85,000	$ 85,000	
Subtotal				$ -				$ 1,782,000	$ 1,782,000	
Engineering, legal and fiscal			25%	$ -			25%	$ 445,500	$ 445,500	
Total Estimated Project Cost				$ -				$ 2,227,500	$ 2,227,500	

Estimate of Probable Construction Cost

Spokane County - Solids Dewatering, Conveyance and Storage

Project	Spokane County	**Date**	27-Jan-03	8-Dec-06
	Representative Project	**Estimator**	C. Caprara	SRB
Task	Solids Dewatering	**Checked By**	B. Willey	RLG
Task No.	10027-007-102	**Check Date**	14-Mar-03	

HDR Engineering, Inc.

					OPCC - Dec 2006				Variances
	Phase 1 (26 mgd)				Phase 1 (8 mgd)				Phase 1 (8 mgd)
Description	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	
Division 1 - Special Conditions									
General Conditions, Bidding, Submittals, Start-up	1	LS	$ 29,778	$ 29,778	1	LS	$ 31,076	$ 31,076	$ 1,298
Project Equipment- Not Task Specific - 75T Crawler Crane						MO	$ 18,800.00	$ -	$ -
Backhoe/Laoder					2	MO	$ 4,348.00	$ 8,696	$ 8,696
Division 2 - Site Work									
Excavation	1440	CY	$ 8	$ 11,520	1440	CY	$ 9.94	$ 14,320	$ 2,800
Granular Fill	190	CY	$ 20	$ 3,800	190	CY	$ 24.86	$ 4,724	$ 924
Backfill	1060	CY	$ 12	$ 12,720	1060	CY	$ 14.92	$ 15,812	$ 3,092
PVC Membrane	3100	SF	$ 1	$ 3,100	3100	SF	$ 1.24	$ 3,853	$ 753
Filter Fabric	4500	SF	$ 1	$ 4,500	4500	SF	$ 1.24	$ 5,594	$ 1,094
Division 3 - Concrete									
Concrete slab-on-grade	230	CY	$ 250	$ 57,500	230	CY	$ 475	$ 109,250	$ 51,750
Suspended Slab	150	CY	$ 550	$ 82,500	150	CY	$ 692	$ 103,800	$ 21,300
Concrete Wall	120	CY	$ 400	$ 48,000	120	CY	$ 750	$ 90,000	$ 42,000
Concrete Stair	10	CY	$ 550	$ 5,500	10	CY	$ 684	$ 6,837	$ 1,337
Concrete Beam	10	CY	$ 550	$ 5,500	10	CY	$ 1,298	$ 12,980	$ 7,480
Concrete Column	10	CY	$ 550	$ 5,500	10	CY	$ 750	$ 7,500	$ 2,000
Equipment Base	10	CY	$ 250	$ 2,500	10	CY	$ 475	$ 4,750	$ 2,250
Division 4 - Masonry									
Precast wall	12880	SF	$ 20	$ 257,600	12880	SF	$ 25	$ 320,210	$ 62,610
Precast Hollow Core Roof (12 IN)	4539	SF	$ 10	$ 45,390	4539	SF	$ 12	$ 56,422	$ 11,032
Precast Hollow Core Roof (8 IN)	250	SF	$ 8	$ 2,000	250	SF	$ 10	$ 2,486	$ 486
Concrete Topping	4780	SF	$ 8	$ 38,240	4780	SF	$ 10	$ 47,534	$ 9,294
CMU Wall	250	SF	$ 10.00	$ 2,500	250	SF	$ 12.43	$ 3,108	$ 608
Divison 5 - Metals									

Aluminum Handrail	215	LF	$ 50	$ 10,750	215	LF	$ 62	$ 13,363	$ 2,613
Miscellaneous Metals	1	LS	$ 5,000	$ 5,000	1	LS	$ 6,215	$ 6,215	$ 1,215
Hose Rack	13	EA	$ 250	$ 3,250	13	EA	$ 311	$ 4,040	$ 790
Dewatered Cake Hopper	1	LS	$ 5,000	$ 5,000	1	LS	$ 6,215	$ 6,215	$ 1,215
Division 6 - Wood and Plastic									
Polymer Aging Tanks (4000 gal)	2	EA	$ 10,000	$ 20,000	2	EA	$ 12,431	$ 24,861	$ 4,861
Neat Polymer Storage Tank (4000 gal)	1	EA	$ 10,000	$ 10,000	1	EA	$ 12,431	$ 12,431	$ 2,431
Architectural Treatment	12880	SF	$ 2.00	$ 25,760	12880	SF	$ 2.49	$ 32,021	$ 6,261
Division 7 - Thermal and Moisture Protection									
Flashing and Sheet Metal	1	LS	$ 5,000	$ 5,000	1	LS	$ 6,215	$ 6,215	$ 1,215
Joint Sealant	1	LS	$ 3,000	$ 3,000	1	LS	$ 3,729	$ 3,729	$ 729
Membrane Roofing System	4540	SF	$ 25.00	$ 113,500	4540	SF	$ 31.08	$ 141,086	$ 27,586
Roof Insulation	45.4	SQ	$ 300.00	$ 13,620	45.4	SQ	$ 372.92	$ 16,930	$ 3,310
Exterior Insulation and Finish System	12880	SF	$ 10.00	$ 128,800	12880	SF	$ 12.43	$ 160,105	$ 31,305
Division 8 - Doors and Windows									
3X7 Steel Door	5	EA	$ 1,500.00	$ 7,500	5	EA	$ 1,864.58	$ 9,323	$ 1,823
12X15'6" Overhead Door	2	EA	$ 5,000	$ 10,000	2	EA	$ 6,215	$ 12,431	$ 2,431
Aluminum Access Hatches (4'X4')	32	SF	$ 100	$ 3,200	32	SF	$ 124	$ 3,978	$ 778
Windows	3	EA	$ 2,000	$ 6,000	3	EA	$ 2,486	$ 7,458	$ 1,458
Division 9 - Finishes									
Building Painting	12880	SF	$ 5	$ 64,400	12880	SF	$ 6.22	$ 80,052	$ 15,652
Equipment Painting	11	EA	$ 1,000	$ 11,000	11	EA	$ 1,243	$ 13,674	$ 2,674
Pipe Painting	1700	LF	$ 0.5	$ 850	1700	LF	$ 0.62	$ 1,057	$ 207
Division 10 - Specialties									
Louvers and vents	1	LS	$ 3,000	$ 3,000	1	LS	$ 3,729	$ 3,729	$ 729
Identification Stenciling and Tagging	1	LS	$ 4,000	$ 4,000	1	LS	$ 4,972	$ 4,972	$ 972
Division 11 - Equipment									
Non-Clog to PC Centrifugal Feed Pumps	2	EA	$ 15,000	$ 30,000	2	EA	$ 55,937	$ 111,874	$ 81,874
Polymer Metering Pumps	2	EA	$ 3,000	$ 6,000	2	EA	$ 3,729	$ 7,458	$ 1,458
Neat Polymer transfer pumps	2	EA	$ 4,000	$ 8,000	2	EA	$ 4,972	$ 9,944	$ 1,944
Centrate Mixers	2	EA	$ 60,000	$ 120,000	2	EA	$ 74,583	$ 149,166	$ 29,166

Centrifuge	2	EA	$ 600,000	$ 1,200,000	2	EA	$ 372,600	$ 745,200	$ (454,800)
Spiral Conveyor	1	EA	$ 40,000	$ 40,000	1	EA	$ 49,722	$ 49,722	$ 9,722
Polymer Mixers	2	EA	$ 2,000	$ 4,000	2	EA	$ 2,486	$ 4,972	$ 972
Hot Water Heater	1	EA	$ 1,000	$ 1,000	1	EA	$ 1,243	$ 1,243	$ 243
Division 13 - Special Construction									
Bridge Crane	1	EA	$ 25,000	$ 25,000	1	EA	$ 31,076	$ 31,076	$ 6,076
Ultrasonic Level Transmitter	2	EA	$ 3,500	$ 7,000	2	EA	$ 4,351	$ 8,701	$ 1,701
Magnetic Flow Meter	2	EA	$ 5,000	$ 10,000	2	EA	$ 6,215	$ 12,431	$ 2,431
Instrumentation	1	LS	$ 150,000	$ 150,000	1	LS	$ 186,458	$ 186,458	$ 36,458
Division 15 - Mechanical									
1/2 IN SW	100	LF	$ 5.00	$ 500	100	LF	$ 6.22	$ 622	$ 122
1 IN NPW	170	LF	$ 7	$ 1,190	170	LF	$ 8.70	$ 1,479	$ 289
1 IN HWS	20	LF	$ 7	$ 140	20	LF	$ 8.70	$ 174	$ 34
1 IN Polymer	200	LF	$ 7	$ 1,400	200	LF	$ 8.70	$ 1,740	$ 340
2 IN NPW	450	LF	$ 15	$ 6,750	450	LF	$ 18.65	$ 8,391	$ 1,641
12 IN Plant Drain	100	LF	$ 72	$ 7,200	100	LF	$ 90.74	$ 9,074	$ 1,874
10 IN Centrate	35	LF	$ 60	$ 2,100	35	LF	$ 74.58	$ 2,610	$ 510
6 IN Drain	150	LF	$ 36	$ 5,400	150	LF	$ 44.75	$ 6,712	$ 1,312
6 IN Roof Drain Leader	280	LF	$ 36	$ 10,080	280	LF	$ 44.75	$ 12,530	$ 2,450
6 IN Digester Feed	95	LF	$ 62	$ 5,890	95	LF	$ 77.07	$ 7,322	$ 1,432
3 IN Centrate	10	LF	$ 18	$ 180	10	LF	$ 22.37	$ 224	$ 44
4 IN Centrate	85	LF	$ 24	$ 2,040	85	LF	$ 29.83	$ 2,536	$ 496
1 IN Ball Valve	15	EA	$ 300	$ 4,500	15	EA	$ 373	$ 5,594	$ 1,094
1 IN Check Valve	4	EA	$ 300	$ 1,200	4	EA	$ 373	$ 1,492	$ 292
3 IN Check Valve	2	EA	$ 900	$ 1,800	2	EA	$ 1,119	$ 2,237	$ 437
3 IN Plug Valve	2	EA	$ 1,200	$ 2,400	2	EA	$ 1,492	$ 2,983	$ 583
4 IN Plug Valve	4	EA	$ 1,500	$ 6,000	4	EA	$ 1,865	$ 7,458	$ 1,458
10 IN Plug Valve	4	EA	$ 4,000	$ 16,000	4	EA	$ 4,972	$ 19,889	$ 3,889
Seal Water Stations	6	EA	$ 2,000	$ 12,000	6	EA	$ 2,486	$ 14,917	$ 2,917
Floor Drains	9	EA	$ 250	$ 2,250	9	EA	$ 311	$ 2,797	$ 547
Trench Drain	40	LF	$ 50	$ 2,000	40	LF	$ 62	$ 2,486	$ 486
Hose Bibb	13	EA	$ 250	$ 3,250	13	EA	$ 311	$ 4,040	$ 790
Motor Operated knife gate valve	3	EA	$ 8,000	$ 24,000	3	EA	$ 9,944	$ 29,833	$ 5,833
Make-up Air Unit	1	EA	$ 10,000	$ 10,000	1	EA	$ 12,431	$ 12,431	$ 2,431
Electrical Room Air Cooling Condensing Unit	1	EA	$ 1,500	$ 1,500	1	EA	$ 1,865	$ 1,865	$ 365
Dewatering Room Air Cooling Condensing Unit	1	EA	$ 3,000	$ 3,000	1	EA	$ 3,729	$ 3,729	$ 729

Electrical Room Exhaust Fan	1	EA	$ 1,000	$ 1,000	1	EA	$ 1,243	$ 1,243	$ 243
Ductwork	500	LF	$ 2	$ 1,000	500	LF	$ 2.49	$ 1,243	$ 243
Division 16 - Electrical and Instrumentation									
Electrical	1	LS	$ 200,000	$ 200,000	1	LS	$ 248,610	$ 248,610	$ 48,610
Subtotal				$ 3,008,000	**Subtotal**			$ 3,147,000	$ 139,000
Field General Conditions, Bonds and Insurance			5%	$ 150,000			5%	$ 157,000	$ 7,000
Contractor's Overhead and Profit			10%	$ 301,000			10%	$ 315,000	$ 14,000
Subtotal				$ 3,459,000				$ 3,619,000	$ 160,000
Undefined Scope of Work Contingency			20%	$ 692,000			15%	$ 543,000	$ (149,000)
Subtotal				$ 4,151,000				$ 4,162,000	$ 11,000
Washington State Sales Tax			8.1%	$ 336,000			8.1%	$ 337,000	$ 1,000
Subtotal				$ 4,487,000				$ 4,499,000	$ 12,000
Escalation from Estimate Data Date to Mid Point of Construction			13.33%	$ -			13.33%	$ 600,000	$ 600,000
Subtotal				$ 4,487,000				$ 5,099,000	$ 612,000
Operator Mark-Up on DB Component			1%	$ -			1.00%	$ 51,000	$ 51,000
Subtotal				$ 4,487,000				$ 5,150,000	$ 663,000
Construction Contingency (Change Orders)			5%	$ 224,000			5%	$ 258,000	$ 34,000
Subtotal				$ 4,711,000				$ 5,408,000	$ 697,000
Engineering, legal and fiscal			25%	$ 1,177,750			25%	$ 1,352,000	$ 174,250
Total Estimated Project Cost				$ 5,888,750				$ 6,760,000	$ 871,250

Estimate of Probable Construction Cost
Spokane County - Centrate Storage Facilities

Project	Spokane County	**Date**	8-Dec-06
	Representative Project	**Estimator**	SRB
Task	Centrate Storage	**Checked By**	RLG
Task No.	10027-007-102	**Check Date**	3/14/2003

HDR Engineering, Inc.

	Phase 1 (8 mgd)				OPCC - Dec 2006 Phase 1 (8 mgd)				Variances Phase 1 (8 mgd)
Description	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	
Division 1 - Special Conditions									
General Conditions, Bidding, Submittals, Start-up					1	LS	$ 2,352	$ 2,352	$ 2,352
Project Equipment- Not Task Specific - 75T Crawler Crane						MO	$ 18,800.00	$ -	$ -
Backhoe/Laoder					0	MO	$ 4,348.00	$ -	$ -
Division 2 - Site Work									
Cenrate Storage Tank									
Excavation					460	CY	$ 9.94	$ 4,574	$ 4,574
Granular Fill					114	CY	$ 24.86	$ 2,834	$ 2,834
Backfill					102	CY	$ 14.92	$ 1,521	$ 1,521
Construction Dewatering					0	LS	$ -	$ -	$ -
Filter Fabric					3624	SF	$ 1.24	$ 4,505	$ 4,505
PVC Membrane					3624	SF	$ 1.24	$ 4,505	$ 4,505
Division 3 - Concrete									
Centrate Storage Tank									
Concrete slab-on-grade					98	CY	$ 475	$ 46,550	$ 46,550
Concrete Walls					136	CY	$ 850	$ 115,600	$ 115,600
Concrete Suspended Slabs and Beams					0	CY		$ -	$ -
Core Drills					2	EA	$ 2,486	$ 4,972	$ 4,972
Concrete Encasement					7	CY		$ -	$ -
Equipment Base					0	CY		$ -	$ -
Divison 4 - Masonry									
NOT USED									
Divison 5 - Metals									
Centrate Storage Tank									
Handrail					40	LF	$ 62	$ 2,486	$ 2,486
Aluminum Platforms/Grating					96	SF	$ 93	$ 8,950	$ 8,950
Metal Stairs					96	SF	$ 68	$ 6,563	$ 6,563
Miscellaneous Metals					2	EA	$ 2,500	$ 5,000	$ 5,000

Description	Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	Variances Phase 1 (8 mgd)
Division 6 - Wood and Plastic									
NOT USED									
Division 7 - Thermal and Moisture Protection									
NOT USED									
Division 8 - Doors and Windows									
NOT USED									
Division 9 - Finishes	-								
Centrate Storage Tank									
Painting Decant Piping					2	LS	$ 2,000	$ 4,000	$ 4,000
Division 10 - Specialties									
NOT USED									
Division 11 - Equipment									
Centrate Storage Tank									
Equipment None					2	EA	$ -	$ -	$ -
Division 13 - Special Construction									
Instrumentation					1	LS	$ 5,000	$ 5,000	$ 5,000
Division 14 - Conveying Systems									
NOT USED									
Division 15 - Mechanical									
Centrate Storage Tank									
8 WP					2	EA	$ 440	$ 880	$ 880
8 FF 4' LG					12	EA	$ 345	$ 4,140	$ 4,140
8 FPE 5' LG					2	EA	$ 314	$ 628	$ 628
8 FPV					6	EA	$ 1,318	$ 7,908	$ 7,908
8 MJ 90 W RG					2	EA	$ 545	$ 1,090	$ 1,090
Division 16 - Electrical and Instrumentation									
Electrical					1	LS	$ 3,500	$ 3,500	$ 3,500

Description	Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	Variances Phase 1 (8 mgd)
Subtotal				$ -	Subtotal			$ 238,000	$ 238,000
Field General Conditions, Bonds and Insurance			5%	$ -			5%	$ 12,000	$ 12,000
Contractor's Overhead and Profit			10%	$ -			10%	$ 24,000	$ 24,000
Subtotal				$ -				$ 274,000	$ 274,000
Undefined Scope of Work Contingency			20%	$ -			15%	$ 41,000	$ 41,000
Subtotal				$ -				$ 315,000	$ 315,000
Washington State Sales Tax			8.1%	$ -			8.1%	$ 26,000	$ 26,000
Subtotal				$ -				$ 341,000	$ 341,000
Escalation from Estimate Data Date to Mid Point of Construction			13.33%	$ -			13.33%	$ 45,000	$ 45,000
Subtotal				$ -				$ 386,000	$ 386,000
Operator Mark-Up on DB Component			1.00%	$ -			1.00%	$ 4,000	$ 4,000
Subtotal				$ -				$ 390,000	$ 390,000
Construction Contingency (Change Orders)			5%	$ -			5%	$ 20,000	$ 20,000
Subtotal				$ -				$ 410,000	$ 410,000
Engineering, legal and fiscal			25%	$ -			25%	$ 102,500	$ 102,500
Total Estimated Project Cost				$ -				$ 512,500	$ 512,500

Estimate of Probable Construction Cost
Spokane County - Odor Control Facilities

Project	Spokane County	**Date**	14-Jan-03	8-Dec-06
	Representative Project	**Estimator**	D. Harmon	SRB
Task	Odor Control	**Checked By**	B. Willey	RLG
Task No.	10027-007-102	**Check Date**	14-Mar-03	

HDR Engineering, Inc.

Description	Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	Variances Phase 1 (8 mgd)
Division 1 - Special Conditions									
General Conditions, Bidding, Submittals, Start-up	1	LS	$ 9,010	$ 9,010	1	LS	$ 11,835	$ 11,835	$ 2,825
Project Equipment- Not Task Specific - 75T Crawler Crane						MO	$ 18,800.00	$ -	$ -
Backhoe/Laoder					1	MO	$ 4,348.00	$ 4,348	$ 4,348
Division 2 - Site Work									
Yard Piping									
Excavation	4470	CY	$ 8	$ 35,760	4470	CY	$ 9.94	$ 44,451	$ 8,691
Granular Fill	450	CY	$ 20	$ 9,000	450	CY	$ 24.86	$ 11,187	$ 2,187
Backfill	4020	CY	$ 12	$ 48,240	4020	CY	$ 14.92	$ 59,965	$ 11,725
Blower Station and Sump				$ -					
Excavation	40	CY	$ 8	$ 320	40	CY	$ 9.94	$ 398	$ 78
Granular Fill	8	CY	$ 20	$ 160	8	CY	$ 24.86	$ 199	$ 39
Backfill	2	CY	$ 12	$ 24	2	CY	$ 14.92	$ 30	$ 6
Compost Bed No. 1									
Excavation	250	CY	$ 10	$ 2,500	250	CY	$ 12.43	$ 3,108	$ 608
Filter Fabric	3300	SF	$ 1	$ 3,300	3300	SF	$ 1.24	$ 4,102	$ 802
Drain Rock	140	CY	$ 20	$ 2,800	140	CY	$ 20.00	$ 2,800	$ -
Compost Media	500	CY	$ 30	$ 15,000	500	CY	$ 30.00	$ 15,000	$ -
PVC Membrane	3300	SF	$ 1	$ 3,300	3300	SF	$ 1.00	$ 3,300	$ -
Bark	60	CY	$ 15	$ 900	60	CY	$ 15.00	$ 900	$ -
Wood Chips	60	CY	$ 15	$ 900	60	CY	$ 15.00	$ 900	$ -
Sand	45	CY	$ 20	$ 900	45	CY	$ 20.00	$ 900	$ -
Compost Bed No. 2									
Excavation	250	CY	$ 10	$ 2,500	250	CY	$ 12.43	$ 3,108	$ 608

Description	Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	Variances Phase 1 (8 mgd)
Filter Fabric	3300	SF	$ 1	$ 3,300	3300	SF	$ 1.24	$ 4,102	$ 802
Drain Rock	140	CY	$ 20	$ 2,800	140	CY	$ 20.00	$ 2,800	$ -
Compost Media	500	CY	$ 30	$ 15,000	500	CY	$ 30.00	$ 15,000	$ -
PVC Membrane	3300	SF	$ 1	$ 3,300	3300	SF	$ 1.00	$ 3,300	$ -
Bark	60	CY	$ 15	$ 900	60	CY	$ 15.00	$ 900	$ -
Wood Chips	60	CY	$ 15	$ 900	60	CY	$ 15.00	$ 900	$ -
Sand	45	CY	$ 20	$ 900	45	CY	$ 20.00	$ 900	$ -
Division 3 - Concrete									
Blower Station and Sump									
Precast Concrete Manhole Sump	1	EA	$ 4,000	$ 4,000	1	EA	$ 4,972	$ 4,972	$ 972
Concrete Slab-on-grade	28	CY	$ 250	$ 7,000	28	CY	$ 475	$ 13,300	$ 6,300
Concrete Walls	14	CY	$ 400	$ 5,600	14	CY	$ 750	$ 10,500	$ 4,900
Concrete Equipment Base	1	CY	$ 250	$ 250	1	CY	$ 455	$ 455	$ 205
Compost Bed No. 1									
Concrete Duct Supports	2	CY	$ 400	$ 800	2	CY	$ 750	$ 1,500	$ 700
Compost Bed No. 2									
Concrete Duct Supports	2	CY	$ 400	$ 800	2	CY	$ 750	$ 1,500	$ 700
Divison 5 - Metals									
Buildings Duct Supports	40	EA	$ 450.00	$ 18,000	40	EA	$ 559.37	$ 22,375	$ 4,375
Blower Station									
Duct Supports	2	EA	$ 450.00	$ 900	2	EA	$ 559.37	$ 1,119	$ 219
Compost Bed No. 1									
Duct Supports	3	EA	$ 450.00	$ 1,350	3	EA	$ 559.37	$ 1,678	$ 328
Compost Bed No. 2									
Duct Supports	3	EA	$ 450.00	$ 1,350	3	EA	$ 559.37	$ 1,678	$ 328
Division 7 - Thermal and Moisture Protection									
NOT USED									

Description	Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	Variances Phase 1 (8 mgd)
Division 8 - Doors and Windows									
Blower Station									
Access Hatch	1	EA	$ 500.00	$ 500	1	EA	$ 621.53	$ 622	$ 122
Division 9 - Finishes									
NOT USED									
Division 11 - Equipment									
Blower Station									
Odor Control Bed Blowers, 15,000CFM	2	EA	$ 10,000	$ 20,000	3	EA	$ 20,000	$ 60,000	$ 40,000
Duplex Sump Pumps	1	LS	$ 5,000	$ 5,000	1	LS	$ 5,000	$ 5,000	$ -
Septage Receiving									
Odor Control Fan	1	EA	$ 6,000	$ 6,000	1	EA	$ 7,458	$ 7,458	$ 1,458
Headworks									
Odor Control Fan	1	EA	$ 7,500	$ 7,500	1	EA	$ 9,323	$ 9,323	$ 1,823
Digesters/WAS Thickening									
Odor Control Fan	1	EA	$ 3,500	$ 3,500	1	EA	$ 4,351	$ 4,351	$ 851
Fine Screening									
Odor Control Fan	1	EA	$ 6,000	$ 6,000	1	EA	$ 7,458	$ 7,458	$ 1,458
Primary Treatment									
Odor Control Fan	1	EA	$ 7,500	$ 7,500	1	EA	$ 9,323	$ 9,323	$ 1,823
Solids Handling/Dewatering									
Odor Control Fan	1	EA	$ 10,000	$ 10,000	1	EA	$ 12,431	$ 12,431	$ 2,431
Compost Bed No. 1									
Irrigation System	1	LS	$ 12,000	$ 12,000	1	LS	$ 14,917	$ 14,917	$ 2,917
Compost Bed No. 2									
Irrigation System	1	LS	$ 12,000	$ 12,000	1	LS	$ 14,917	$ 14,917	$ 2,917

Description	Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	Variances Phase 1 (8 mgd)
Division 13 - Special Construction									
Instrumentation	1	LS	$ 11,920	$ 11,920	1	LS	$ 14,817	$ 14,817	$ 2,897
Division 14 - Conveying Systems									
NOT USED									
Division 15 - Mechanical									
Yard Ductwork									
54" FRP FAD	500	LF	$ 175	$ 87,500	500	LF	$ 218	$ 108,767	$ 21,267
42" FRP FAD	940	LF	$ 140	$ 131,600	940	LF	$ 174	$ 163,585	$ 31,985
30" FRP FAD	30	LF	$ 115	$ 3,450	30	LF	$ 143	$ 4,289	$ 839
24" FRP FAD	100	LF	$ 80	$ 8,000	100	LF	$ 99	$ 9,944	$ 1,944
18" FRP FAD	50	LF	$ 75	$ 3,750	50	LF	$ 93	$ 4,661	$ 911
10" FRP FAD	280	LF	$ 25	$ 7,000	280	LF	$ 31	$ 8,701	$ 1,701
8" FRP FAD	150	LF	$ 25	$ 3,750	150	LF	$ 31	$ 4,661	$ 911
54" FRP "Y"	3	EA	$ 2,100	$ 6,300	3	EA	$ 2,610	$ 7,831	$ 1,531
54" FRP 90 Deg Bend	1	EA	$ 2,100	$ 2,100	1	EA	$ 2,610	$ 2,610	$ 510
42" FRP 45 Deg Bend	4	EA	$ 2,080	$ 8,320	4	EA	$ 2,586	$ 10,342	$ 2,022
42" FRP 90 Deg Bend	4	EA	$ 2,080	$ 8,320	4	EA	$ 2,586	$ 10,342	$ 2,022
4" & 6" Drain	300	LF	$ 25	$ 7,500	300	LF	$ 31	$ 9,323	$ 1,823
Sampling Cleanout	2	EA	$ 800	$ 1,600	2	EA	$ 994	$ 1,989	$ 389
2" NPW	50	LF	$ 25	$ 1,250	50	LF	$ 31	$ 1,554	$ 304
Septage Receiving									
8" FRP FAD	12	LF	$ 25	$ 294	12	LF	$ 31	$ 373	$ 79
18" FRP FAD	16	LF	$ 60	$ 963	16	LF	$ 75	$ 1,193	$ 230
18" FRP Elbow	2	EA	$ 1,020	$ 2,040	2	EA	$ 1,268	$ 2,536	$ 496
18" FRP "Y"	1	EA	$ 1,020	$ 1,020	1	EA	$ 1,268	$ 1,268	$ 248
18" FRP Backdraft Damper	1	EA	$ 1,500	$ 1,500	1	EA	$ 1,865	$ 1,865	$ 365
18" FRP Volume Damper	1	EA	$ 1,500	$ 1,500	1	EA	$ 1,865	$ 1,865	$ 365
18" Flange	2	EA	$ 560	$ 1,120	2	EA	$ 696	$ 1,392	$ 272
8" Flange	2	EA	$ 235	$ 470	2	EA	$ 292	$ 584	$ 114
Headworks									

Description	Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	Variances Phase 1 (8 mgd)
Grease Filter	1	EA	$ 2,000	$ 2,000	1	EA	$ 2,486	$ 2,486	$ 486
6" FRP FAD	16	LF	$ 25	$ 400	16	LF	$ 31	$ 497	$ 97
10" FRP FAD	28	LF	$ 25	$ 686	28	LF	$ 31	$ 870	$ 184
30" FRP FAD	20	LF	$ 115	$ 2,300	20	LF	$ 143	$ 2,859	$ 559
30" FRP Elbow	2	EA	$ 1,020	$ 2,040	2	EA	$ 1,268	$ 2,536	$ 496
30" FRP Backdraft Damper	1	EA	$ 1,500	$ 1,500	1	EA	$ 1,865	$ 1,865	$ 365
30" FRP Volume Damper	1	EA	$ 1,500	$ 1,500	1	EA	$ 1,865	$ 1,865	$ 365
24" FRP FAD	30	LF	$ 115	$ 3,450	30	LF	$ 143	$ 4,289	$ 839
24" FRP 90 Deg Bend	2	EA	$ 1,020	$ 2,040	2	EA	$ 1,268	$ 2,536	$ 496
24" FRP Volume Damper	3	EA	$ 1,500	$ 4,500	3	EA	$ 1,865	$ 5,594	$ 1,094
10" FRP Volume Damper	2	EA	$ 900	$ 1,800	2	EA	$ 1,119	$ 2,237	$ 437
6" FRP Volume Damper	2	EA	$ 550	$ 1,100	2	EA	$ 684	$ 1,367	$ 267
24" Flange	4	EA	$ 560	$ 2,240	4	EA	$ 696	$ 2,784	$ 544
10" Flange	4	EA	$ 235	$ 940	4	EA	$ 292	$ 1,168	$ 228
6" Flange	4	EA	$ 190	$ 760	4	EA	$ 236	$ 945	$ 185
Primary Treatment									
Grease Filter	1	EA	$ 2,000	$ 2,000	1	EA	$ 2,486	$ 2,486	$ 486
14" FRP FAD	50	LF	$ 100	$ 5,000	50	LF	$ 124	$ 6,215	$ 1,215
14" FRP Elbow	4	EA	$ 1,000	$ 4,000	4	EA	$ 1,243	$ 4,972	$ 972
14" FRP 45 Deg Bend	1	EA	$ 1,000	$ 1,000	1	EA	$ 1,243	$ 1,243	$ 243
18" FRP FAD	12	LF	$ 115	$ 1,380	12	LF	$ 143	$ 1,715	$ 335
18" FRP Elbow	2	EA	$ 1,020	$ 2,040	2	EA	$ 1,268	$ 2,536	$ 496
18" FRP Backdraft Damper	1	EA	$ 1,500	$ 1,500	1	EA	$ 1,865	$ 1,865	$ 365
18" FRP Volume Damper	1	EA	$ 1,500	$ 1,500	1	EA	$ 1,865	$ 1,865	$ 365
10" FRP Volume Damper	4	EA	$ 900	$ 3,600	4	EA	$ 1,119	$ 4,475	$ 875
Fine Screening									
24" FRP FAD	45	LF	$ 115	$ 5,175	45	LF	$ 143	$ 6,433	$ 1,258
24" FRP Elbow	6	EA	$ 1,020	$ 6,120	6	EA	$ 1,268	$ 7,607	$ 1,487
24" FRP Backdraft Damper	1	EA	$ 1,500	$ 1,500	1	EA	$ 1,865	$ 1,865	$ 365
24" FRP Volume Damper	1	EA	$ 1,500	$ 1,500	1	EA	$ 1,865	$ 1,865	$ 365
Solids Handling/Biosolids Loadout									
Grease Filter	1	EA	$ 2,000	$ 2,000	1	EA	$ 2,486	$ 2,486	$ 486
12" & 14" FRP FAD	16	LF	$ 25	$ 400	16	LF	$ 31	$ 497	$ 97

Description	Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	Variances Phase 1 (8 mgd)
18" FRP FAD	40	LF	$ 115	$ 4,600	40	LF	$ 143	$ 5,718	$ 1,118
20" FRP FAD	20	LF	$ 115	$ 2,300	20	LF	$ 143	$ 2,859	$ 559
24" FRP FAD	50	LF	$ 115	$ 5,750	50	LF	$ 143	$ 7,148	$ 1,398
28" FRP FAD	16	LF	$ 130	$ 2,080	16	LF	$ 162	$ 2,586	$ 506
42" FRP FAD	40	LF	$ 140	$ 5,600	40	LF	$ 174	$ 6,961	$ 1,361
42" FRP Elbow	3	EA	$ 2,080	$ 6,240	3	EA	$ 2,586	$ 7,757	$ 1,517
42" FRP Backdraft Damper	1	EA	$ 2,080	$ 2,080	1	EA	$ 2,586	$ 2,586	$ 506
42" FRP Volume Damper	1	EA	$ 2,080	$ 2,080	1	EA	$ 2,586	$ 2,586	$ 506
24" FRP Elbow	1	EA	$ 1,020	$ 1,020	1	EA	$ 1,268	$ 1,268	$ 248
24" FRP Volume Damper	1	EA	$ 1,500	$ 1,500	1	EA	$ 1,865	$ 1,865	$ 365
20" FRP Volume Damper	45	EA	$ 1,500	$ 67,500	45	EA	$ 1,865	$ 83,906	$ 16,406
18" FRP Elbow	2	EA	$ 1,020	$ 2,040	2	EA	$ 1,268	$ 2,536	$ 496
18" FRP Volume Damper	2	EA	$ 1,500	$ 3,000	2	EA	$ 1,865	$ 3,729	$ 729
Thickening/Digesters									
6" &8" FRP FAD	120	LF	$ 25	$ 3,000	120	LF	$ 31	$ 3,729	$ 729
10" FRP FAD	30	LF	$ 25	$ 735	30	LF	$ 31	$ 932	$ 197
10" FRP Volume Damper	1	EA	$ 900	$ 900	1	EA	$ 1,119	$ 1,119	$ 219
10" FRP Backdraft Damper	1	EA	$ 1,000	$ 1,000	1	EA	$ 1,243	$ 1,243	$ 243
6" & *" Volume Damper	3	EA	$ 800	$ 2,400	3	EA	$ 994	$ 2,983	$ 583
MBR Facilities									
MBR FRP Plenum	1	EA	$ 30,000	$ 30,000	1	EA	$ 37,292	$ 37,292	$ 7,292
42" FRP FAD	240	LF	$ 140	$ 33,600	240	LF	$ 174	$ 41,766	$ 8,166
42" FRP Elbow		EA	$ 2,080	$ -		EA	$ 2,586	$ -	$ -
42" FRP 45 Deg Bend		EA	$ 2,080	$ -		EA	$ 2,586	$ -	$ -
42" FRP Volume Damper	4	EA	$ 2,080	$ 8,320	4	EA	$ 2,586	$ 10,342	$ 2,022
42" FRP Relief	1	EA	$ 1,500	$ 1,500	1	EA	$ 1,865	$ 1,865	$ 365
42" Bypass Fittings	2	EA	$ 2,080	$ 4,160	2	EA	$ 2,586	$ 5,171	$ 1,011
Compost Bed No. 1									
42" FRP FAD	40	LF	$ 140	$ 5,600	40	LF	$ 174	$ 6,961	$ 1,361
42" Flange	3	EA	$ 2,080	$ 6,240	3	EA	$ 2,586	$ 7,757	$ 1,517
42" FRP Elb & 45	1	EA	$ 2,080	$ 2,080	1	EA	$ 2,586	$ 2,586	$ 506
42" HDPE FAD Supply Manifold	50	LF	$ 150	$ 7,500	50	LF	$ 186	$ 9,323	$ 1,823
4" Perforated Drain	500	LF	$ 10	$ 5,000	500	LF	$ 12	$ 6,215	$ 1,215

Description	Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	Variances Phase 1 (8 mgd)
6" Drain	80	LF	$ 36	$ 2,880	80	LF	$ 45	$ 3,580	$ 700
10" Perforated HDPE FAD	64	LF	$ 14	$ 864	64	LF	$ 17	$ 1,114	$ 250
8" & 10" HDPE Fittings	16	EA	$ 40	$ 640	16	EA	$ 50	$ 796	$ 156
Compost Bed No. 2									
42" FRP FAD	22	LF	$ 140	$ 3,080	22	LF	$ 174	$ 3,829	$ 749
42" Flange	3	EA	$ 2,080	$ 6,240	3	EA	$ 2,586	$ 7,757	$ 1,517
42" FRP Elb & 45	1	EA	$ 2,080	$ 2,080	1	EA	$ 2,586	$ 2,586	$ 506
42" HDPE FAD Supply Manifold	110	LF	$ 150	$ 16,500	110	LF	$ 186	$ 20,510	$ 4,010
4" Perforated Drain	500	LF	$ 10	$ 5,000	500	LF	$ 12	$ 6,215	$ 1,215
6" Drain	0	LF	$ 36	$ -	0	LF	$ 45	$ -	$ -
10" Perforated HDPE FAD	64	LF	$ 14	$ 864	64	LF	$ 17	$ 1,114	$ 250
8" & 10" HDPE Fittings	16	EA	$ 40	$ 640	16	EA	$ 50	$ 796	$ 156
Division 16 - Electrical and Instrumentation									
Electrical 12%	1	LS	$ 87,925	$ 87,925	1	LS	$ 140,989	$ 140,989	$ 53,064
Subtotal				$ 1,004,000	**Subtotal**			$ 1,316,000	$ 312,000
Field General Conditions, Bonds and Insurance			**5%**	$ 50,000			**5%**	$ 66,000	$ 16,000
Contractor's Overhead and Profit			**10%**	$ 100,000			**10%**	$ 132,000	$ 32,000
Subtotal				$ 1,154,000				$ 1,514,000	$ 360,000
Undefined Scope of Work Contingency			**20%**	$ 231,000			**15%**	$ 227,000	$ (4,000)
Subtotal				$ 1,385,000				$ 1,741,000	$ 356,000
Washington State Sales Tax			**8.1%**	$ 112,000			**8.1%**	$ 141,000	$ 29,000
Subtotal				$ 1,497,000				$ 1,882,000	$ 385,000
Escalation from Estimate Data Date to Mid Point of Construction			**13.33%**	$ -			**13.33%**	$ 251,000	$ 251,000
Subtotal				$ 1,497,000				$ 2,133,000	$ 636,000
Operator Mark-Up on DB Component			**1.00%**	$ -			**1.00%**	$ 21,000	$ 21,000
Subtotal				$ 1,497,000				$ 2,154,000	$ 657,000
Construction Contingency (Change Orders)			**5%**	$ 75,000			**5%**	$ 108,000	$ 33,000
Subtotal				$ 1,572,000				$ 2,262,000	$ 690,000
Engineering, legal and fiscal			**25%**	$ 346,000			**25%**	$ 435,000	$ 89,000
Total Estimated Project Cost				$ 1,918,000				$ 2,697,000	$ 779,000

Estimate of Probable Construction Cost

Spokane County - Administration, Laboratory and Maintenance Structures

Project	Spokane County	**Date**	20-Jan-03	11-Feb-03	8-Dec-06
	Representative Project	**Estimator**	D. Harmon	T.Hunter	SRB
Task	Admin/Maint./Lab	**Checked By**	B. Willey	***Revised***	RLG
Task No.	10027-007-102	**Check Date**	3/14/2003		**HDR Engineering, Inc.**

*SF Area Cost Source - 2002 Means Building Construction Cost Data. (75% Greater Than Median Costs with Limited Site Work) Includes Equipment Allowances at Approximately 4.5%

	Phase 1 (8 mgd)				OPCC - Dec 2006 Phase 1 (8 mgd)				Variances Phase 1 (8 mgd)
Description	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	
Division 1 - Special Conditions									
General Conditions, Bidding, Submittals, Start-up	1	LS	$ 12,447	$ 12,447	1	LS	$ 18,743	$ 18,743	$ 6,297
Division 2 - Site Work									
Admin./Lab Building (1/4 Median - Limited, 5.3%)	1	LS	$ 29,984	$ 29,984	1	LS	$ 37,271	$ 37,271	$ 7,288
Maintenance Building (1/4 Median - Limited, 5.3%)	1	LS	$ 19,412	$ 19,412	1	LS	$ 24,130	$ 24,130	$ 4,718
Divisions 3-13 (*Program SF Area Estimate Method)									
Administration/Laboratory Building									
Reception/Waiting	312	SF	$ 77.50	$ 24,180	312	SF	$ 96.34	$ 30,057	$ 5,877
Handicap Restroom	110	SF	$ 77.50	$ 8,525	110	SF	$ 96.34	$ 10,597	$ 2,072
Men's Locker Room/Restroom	500	SF	$ 81.50	$ 40,750	500	SF	$ 101.31	$ 50,654	$ 9,904
Women's Locker Room/Restroom	500	SF	$ 81.50	$ 40,750	500	SF	$ 101.31	$ 50,654	$ 9,904
Mechanical Room	209	SF	$ 77.50	$ 16,198	209	SF	$ 96.34	$ 20,134	$ 3,937
Storage/Closets/Janitor	250	SF	$ 77.50	$ 19,375	250	SF	$ 96.34	$ 24,084	$ 4,709
Electrical Room	80	SF	$ 77.50	$ 6,200	80	SF	$ 96.34	$ 7,707	$ 1,507
Control/SCADA Room	454	SF	$ 77.50	$ 35,185	454	SF	$ 96.34	$ 43,737	$ 8,552
Meeting/Training Room	528	SF	$ 77.50	$ 40,920	528	SF	$ 96.34	$ 50,866	$ 9,946
Library/Archive/Storage	247	SF	$ 77.50	$ 19,143	247	SF	$ 96.34	$ 23,795	$ 4,653
Office Areas 10' x 12'	572	SF	$ 77.50	$ 44,330	572	SF	$ 96.34	$ 55,104	$ 10,774
Corridor Areas	670	SF	$ 77.50	$ 51,925	670	SF	$ 96.34	$ 64,545	$ 12,620
Wet Chemistry Lab Area	1,000	SF	$ 195.00	$ 195,000	1,000	SF	$ 242.39	$ 242,395	$ 47,395
Sample Receiving/Pretreatment Area	150	SF	$ 77.50	$ 11,625	150	SF	$ 96.34	$ 14,450	$ 2,825
Data Entry and Technician Office Area	150	SF	$ 77.50	$ 11,625	150	SF	$ 96.34	$ 14,450	$ 2,825

Description	Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	Variances Phase 1 (8 mgd)
Average Base Admin/Lab Building Area Unit Cost	5,732		$ 126.58		5,732		$ 160.22		With HVAC and Electr
Maintenance Building									
Office - PM Supervisor	120	SF	$ 77.50	$ 9,300	120	SF	$ 96.34	$ 11,560	$ 2,260
Preventive Maintenance Area	900	SF	$ 81.50	$ 73,350	900	SF	$ 101.31	$ 91,178	$ 17,828
Disassembly/Vehicle Maintenance Area	2,500	SF	$ 81.50	$ 203,750	2,500	SF	$ 101.31	$ 253,271	$ 49,521
Tool Room	250	SF	$ 81.50	$ 20,375	250	SF	$ 101.31	$ 25,327	$ 4,952
Oil Storage	230	SF	$ 81.50	$ 18,745	230	SF	$ 101.31	$ 23,301	$ 4,556
Gas Storage	100	SF	$ 81.50	$ 8,150	100	SF	$ 101.31	$ 10,131	$ 1,981
Welding Area	400	SF	$ 81.50	$ 32,600	400	SF	$ 101.31	$ 40,523	$ 7,923
Average Base Maintenance Building Area Unit Cost	4,500		$ 104.39		4,500		$ 132.13		With HVAC and Electr
Division 15 - Mechanical									
Admin./Lab Building (3/4 Median, 13%)	1	LS	$ 73,545	$ 73,545	1	LS	$ 91,420	$ 91,420	$ 17,875
Maintenance Building (3/4 Median, 13%)	1	LS	$ 47,615	$ 47,615	1	LS	$ 59,188	$ 59,188	$ 11,573
Division 16 - Electrical and Instrumentation									
Instrumentation					1	LS	$ 300,000	$ 300,000	$ 300,000
Admin./Lab Building (Median 3/4, 15.25%)	1	LS	$ 86,274	$ 86,274	1	LS	$ 123,713	$ 123,713	$ 37,439
Maintenance Building (3/4 Median, 15.25%)	1	LS	$ 55,856	$ 55,856	1	LS	$ 80,095	$ 80,095	$ 24,239
Subtotal				$ 1,257,000	**Subtotal**			$ 1,893,000	$ 636,000.00
Field General Conditions, Bonds and Insurance			5%	$ 63,000			5%	$ 95,000	$ 32,000.00
Contractor's Overhead and Profit			10%	$ 126,000			10%	$ 189,000	$ 63,000.00
Subtotal				$ 1,446,000				$ 2,177,000	$ 731,000.00
Undefined Scope of Work Contingency			20%	$ 289,000			15%	$ 327,000	$ 38,000.00
Subtotal				$ 1,735,000				$ 2,504,000	$ 769,000.00
Washington State Sales Tax			8.1%	$ 141,000			8.1%	$ 203,000	$ 62,000.00
Subtotal				$ 1,876,000				$ 2,707,000	$ 831,000.00
Escalation from Estimate Data Date to Mid Point of Construction			13.33%	$ -			13.33%	$ 361,000	$ 361,000.00
Subtotal				$ 1,876,000				$ 3,068,000	$ 1,192,000.00
Operator Mark-Up on DB Component			1.00%	$ -			1.00%	$ 31,000	$ 31,000.00
Subtotal				$ 1,876,000				$ 3,099,000	$ 1,223,000.00
Construction Contingency (Change Orders)			5%	$ 94,000			5%	$ 155,000	$ 61,000.00

Description	Phase 1 (8 mgd)				OPCC - Dec 2006 Phase 1 (8 mgd)				Variances Phase 1 (8 mgd)
	Quantity	Unit	Unit Price ($/unit)	Total ($)	Quantity	Unit	Unit Price ($/unit)	Total ($)	
Subtotal				$ 1,970,000				$ 3,254,000	$ 1,284,000.00
Engineering, legal and fiscal			25%	$ 492,500			25%	$ 813,500	$ 321,000.00
Total Estimated Project Cost				$ 2,462,500				$ 4,067,500	$ 1,605,000.00

Estimate of Probable Construction Cost

Spokane County - Sitework

Project	Spokane County	**Date**	24-Jan-03	8-Dec-06
	Representative Project	**Estimator**	A. Kirkpatric	SRB
Task	Sitework	**Checked By**	B. Willey	RLG
Task No.	10027-007-102	**Check Date**	3/16/2003	

HDR Engineering, Inc.

	Phase 1 (8 mgd)				OPCC - Dec 2006 Phase 1 (8 mgd)				Variances Phase 1 (8 mgd)
Description	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	**Quantity**	**Unit**	**Unit Price ($/unit)**	**Total ($)**	
Division 1 - Special Conditions									
General Conditions, Bidding, Submittals, Start-up	1	LS	$ 27,600	$ 27,600	1	LS	$ 36,300	$ 36,300	$ 8,700
Project Equipment- Not Task Specific - 75T Crawler Crane						MO	$ 18,800.00	$ -	$ -
Backhoe/Laoder					4	MO	$ 4,348.00	$ 17,392	$ 17,392
Division 2 - Site Work									
General Site Earthwork									
Clearing and Grubbing	1	LS	$ 10,000	$ 10,000	1	LS	$ 12,431	$ 12,431	$ 2,431
Erosion Control	1	LS	$ 25,000	$ 25,000	1	LS	$ 31,076	$ 31,076	$ 6,076
Miscellaneous Excavation	1	LS	$ 20,000	$ 20,000	1	LS	$ 24,861	$ 24,861	$ 4,861
Spoil, Excess Material	1	LS	$ 300,000	$ 300,000	1	LS	$ 372,915	$ 372,915	$ 72,915
Finish Grading & Topsoil Replacement	1	LS	$ 10,000	$ 10,000	1	LS	$ 12,431	$ 12,431	$ 2,431
Asphalt Pavement road (includes base)	8500	SY	$ 30	$ 255,000	8500	SY	$ 37	$ 316,978	$ 61,978
Asphalt Pavement (includes base)	2000	SY	$ 30	$ 60,000	2000	SY	$ 37	$ 74,583	$ 14,583
Stormwater Improvements	1	LS	$ 100,000	$ 100,000	1	LS	$ 124,305	$ 124,305	$ 24,305
Low Intensity Landscaping (including irrigation)	11	ACRE	$ 10,000	$ 110,000	11	ACRE	$ 12,431	$ 136,736	$ 26,736
Moderate Intensity Landscaping (including irrigation)	5	ACRE	$ 40,000	$ 200,000	5	ACRE	$ 49,722	$ 248,610	$ 48,610
High Intensity Landscaping (including irrigation)	2	ACRE	$ 100,000	$ 200,000	2	ACRE	$ 124,305	$ 248,610	$ 48,610
Fencing	4500	LF	$ 15	$ 67,500	4500	LF	$ 19	$ 83,906	$ 16,406
Gates									$ -
Manual	2	EA	$ 1,500	$ 3,000	2	EA	$ 1,865	$ 3,729	$ 729
Automated	2	EA	$ 8,000	$ 16,000	2	EA	$ 9,944	$ 19,889	$ 3,889
Division 3 - Concrete									
Concrete Curb & Gutter	10,000	LF	$ 10	$ 100,000	10,000	LF	$ 12.43	$ 124,305	$ 24,305
Concrete Walks	2800	SF	$ 5	$ 14,000	2800	SF	$ 6.22	$ 17,403	$ 3,403
Divison 5 - Metals									
Division 7 - Thermal and Moisture Protection									
Division 8 - Doors and Windows									

Description	Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	Variances Phase 1 (8 mgd)
Division 9 - Finishes									
Division 11 - Equipment									
Division 13 - Special Construction									
Instrumentation					1	LS	$ 200,000.00	$ 200,000	$ 200,000
Division 14 - Conveying Systems									
Division 15 - Mechanical									
Yard Piping & Mechanical									
24 IN Influent Force Mains	475	LF	$ 144	$ 68,400	475	LF	$ 179	$ 85,025	$ 16,625
30 IN Influent Force Mains	475	LF	$ 180	$ 85,500	475	LF	$ 224	$ 106,281	$ 20,781
42 IN Headworks Influent	100	LF	$ 252	$ 25,200	100	LF	$ 313	$ 31,325	$ 6,125
48 IN Headworks Effluent	30	LF	$ 288	$ 8,640	30	LF	$ 358	$ 10,740	$ 2,100
36 IN Primary Clarifier Influent	160	LF	$ 216	$ 34,560	160	LF	$ 268	$ 42,960	$ 8,400
36 IN Primary Clarifier Effluent	180	LF	$ 216	$ 38,880	180	LF	$ 268	$ 48,330	$ 9,450
54 IN Mixed Liquor Influent	80	LF	$ 324	$ 25,920	80	LF	$ 403	$ 32,220	$ 6,300
36 IN Emergenct Bypass	640	LF	$ 216	$ 138,240	640	LF	$ 268	$ 171,839	$ 33,599
36 IN MBR Permeate Force Main	280	LF	$ 216	$ 60,480	280	LF	$ 268	$ 75,180	$ 14,700
36 IN Outfall	1000	LF	$ 216	$ 216,000	1000	LF	$ 268	$ 268,499	$ 52,499
8 IN Subnatant	300	LF	$ 48	$ 14,400	300	LF	$ 60	$ 17,900	$ 3,500
6 IN TWAS (glass lined)	180	LF	$ 62	$ 11,160	180	LF	$ 77	$ 13,872	$ 2,712
6 IN Primary Sludge & Scum (glass lined)	500	LF	$ 62	$ 31,000	500	LF	$ 77	$ 38,535	$ 7,535
8 IN Digested Sludge	500	LF	$ 80	$ 40,000	500	LF	$ 99	$ 49,722	$ 9,722
6 IN Centrate	250	LF	$ 45	$ 11,250	250	LF	$ 56	$ 13,984	$ 2,734
6 IN Secondary Scum/WAS	750	LF	$ 62	$ 46,500	750	LF	$ 77	$ 57,802	$ 11,302
6 IN Drain (Plant Sewer)	500	LF	$ 45	$ 22,500	500	LF	$ 56	$ 27,969	$ 5,469
12 IN Drain (Plant Sewer)	2000	LF	$ 85	$ 170,000	2000	LF	$ 106	$ 211,319	$ 41,319
6 IN Potable Water	2500	LF	$ 36	$ 90,000	2500	LF	$ 45	$ 111,875	$ 21,875
6 IN Non-potable Water	2500	LF	$ 36	$ 90,000	2500	LF	$ 45	$ 111,875	$ 21,875
4 IN Septage	90	LF	$ 44	$ 3,960	90	LF	$ 55	$ 4,922	$ 962
1 IN Alum	500	LF	$ 6	$ 3,000	500	LF	$ 7	$ 3,729	$ 729
1 IN Citric Acid	500	LF	$ 6	$ 3,000	500	LF	$ 7	$ 3,729	$ 729
1 IN Hypochlorite	1000	LF	$ 6	$ 6,000	1000	LF	$ 7	$ 7,458	$ 1,458
2 IN NG	1000	LF	$ 20	$ 20,000	1000	LF	$ 25	$ 24,861	$ 4,861
Yard Hydrants& Hose Bibbs	8	EA	$ 250	$ 2,000	8	EA	$ 311	$ 2,486	$ 486
Division 16 - Electrical and Instrumentation									

Description	Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	OPCC - Dec 2006 Phase 1 (8 mgd) Quantity	Unit	Unit Price ($/unit)	Total ($)	Variances Phase 1 (8 mgd)
Electrical Duct Banks	1	LS	$ 690,960	$ 690,960	1	LS	$ 990,807	$ 990,807	$ 299,847
Electrical Service Entrance Switchboard	1	LS	$ 612,000	$ 612,000	1	LS	$ 877,582	$ 877,582	$ 265,582
Site Lighting	1	LS	$ 54,150	$ 54,150	1	LS	$ 77,649	$ 77,649	$ 23,499
Subtotal				$ 4,142,000	**Subtotal**			$ 5,627,000	$ 1,485,000
Field General Conditions, Bonds and Insurance			**5%**	$ 207,000			**5%**	$ 281,000	$ 74,000
Contractor's Overhead and Profit			**10%**	$ 414,000			**10%**	$ 563,000	$ 149,000
Subtotal				$ 4,763,000				$ 6,471,000	$ 1,708,000
Undefined Scope of Work Contingency			**20%**	$ 953,000			**15%**	$ 971,000	$ 18,000
Subtotal				$ 5,716,000				$ 7,442,000	$ 1,726,000
Washignton State Sales Tax			**8.1%**	$ 463,000			**8.1%**	$ 603,000	$ 140,000
Subtotal				$ 6,179,000				$ 8,045,000	$ 1,866,000
Escalation from Estimate Data Date to Mid Point of Construction			**13.33%**	$ -			**13.33%**	$ 1,073,000	$ 1,073,000
Subtotal				$ 6,179,000				$ 9,118,000	$ 2,939,000
Operator Mark-Up on DB Component			**1.00%**	$ -			**1.00%**	$ 91,000	$ 91,000
Subtotal				$ 6,179,000				$ 9,209,000	$ 3,030,000
Construction Contingency (Change Orders)			**5%**	$ 309,000			**5%**	$ 460,000	$ 151,000
Subtotal				$ 6,488,000				$ 9,669,000	$ 3,181,000
Engineering, legal and fiscal			**25%**	$ 1,622,000			**25%**	$ 2,417,000	$ 795,000
Total Estimated Project Cost				$ 8,110,000				$ 12,086,000	$ 3,976,000