

APPENDIX E

DETAILED ENGINEERS OPINION OF PROBABLE COST TO CONSTRUCT BST ROADWAY OVER EXISTING GRAVEL ROAD

ENGINEER'S OPINION OF PROBABLE COST

PROJECT: Palouse Regional Transportation Plan Upd **DATE:** 4/14/2010

PROJECT DESCRIPTION: Construct BST roadway over existing gravel road -- 26' wide
Cost per mile of Road

CLIENT: SEWEDA

Sheet: 1 of 1

CLIENT PROJ. NO. n/a

J-U-B PROJ. NO.: 70-10-002

ITEM NO.	DESCRIPTION	SCHEDULE OF VALUES			
		QUANTITY	UNIT	UNIT PRICE	TOTAL COST
ROADWAY/STORM DRAINAGE					
1	Processing and Finishing	1.00	Mile	\$1,500.00	\$1,500.00
2	Furnishing and Placing Crushed Screening 3/4 to 1/2	224	CY	\$45.00	\$10,080.00
3	Furnishing and Placing Crushed Screening 1/2 to No. 4	161	CY	\$45.00	\$7,245.00
4	Furnishing and Placing Crushed Screening No. 4 to 0	26	CY	\$45.00	\$1,170.00
5	Additional Brooming	1	HOUR	\$150.00	\$150.00
6	Asphalt MC-250	29.1	TON	\$600.00	\$17,460.00
7	Asphalt CRS-2	27.0	TON	\$570.00	\$15,390.00
8	Paint Line	5280	LF	\$0.10	\$528.00
SUBTOTAL					\$53,523.00
	Sales Tax			0.00%	\$0.00
	Engineering/Administration Fees			20.00%	\$10,704.60
	Contingency			20.00%	\$10,704.60
Total					\$74,932.20

J-U-B ENGINEERS, INC.

SUITE 201, 2810 WEST CLEARWATER AVE., KENNEWICK, WASHINGTON 99336 (509) 783-2144

Detailed Engineers Opinion of Probable Cost to Add Shoulders to meet Design Standards

Item Name	Unit	Unit Cost	Quantities per 0.10 mile													Cost per 0.10 mile												
			Widths													Widths												
			2	4	6	8	10	12	14	16	18	20	22	24	26	2	4	6	8	10	12	14	16	18	20	22	24	26
HMA -- 4"	SF	\$ 2	1056	2112	3168	4224	5280	6336	7392	8448	9504	10560	11616	12672	13728	\$ 1,869.12	\$ 3,738.24	\$ 5,607.36	\$ 7,476.48	\$ 9,345.60	\$ 11,214.72	\$ 13,083.84	\$ 14,952.96	\$ 16,822.08	\$ 18,691.20	\$ 20,560.32	\$ 22,429.44	\$ 24,298.56
CSTC	TON	\$ 30	75	99	122	146	170	194	218	242	266	290	314	337	361	\$ 2,242.08	\$ 2,958.40	\$ 3,674.72	\$ 4,391.04	\$ 5,107.36	\$ 5,823.68	\$ 6,540.00	\$ 7,256.32	\$ 7,972.64	\$ 8,688.96	\$ 9,405.28	\$ 10,121.60	\$ 10,837.92
CSBC	TON	\$ 20	141	177	213	249	285	322	358	394	430	466	503	539	575	\$ 2,814.63	\$ 3,538.19	\$ 4,261.74	\$ 4,985.30	\$ 5,708.85	\$ 6,432.41	\$ 7,155.96	\$ 7,879.52	\$ 8,603.08	\$ 9,326.63	\$ 10,050.19	\$ 10,773.74	\$ 11,497.30
Roadway Excavation	CY	\$ 15	84	134	184	234	284	334	384	434	484	534	584	634	684	\$ 1,258.99	\$ 2,008.99	\$ 2,758.99	\$ 3,508.99	\$ 4,258.99	\$ 5,008.99	\$ 5,758.99	\$ 6,508.99	\$ 7,258.99	\$ 8,008.99	\$ 8,758.99	\$ 9,508.99	\$ 10,258.99
Embankment Compactio	CY	\$ 2	50	100	150	200	250	300	350	400	450	500	550	600	650	\$ 100.00	\$ 200.00	\$ 300.00	\$ 400.00	\$ 500.00	\$ 600.00	\$ 700.00	\$ 800.00	\$ 900.00	\$ 1,000.00	\$ 1,100.00	\$ 1,200.00	\$ 1,300.00
Clearing & Grubbing	ACRE	\$ 1,800	0.02	0.05	0.07	0.10	0.12	0.14	0.17	0.19	0.22	0.24	0.27	0.29	0.31	\$ 43.47	\$ 86.94	\$ 130.41	\$ 173.88	\$ 217.36	\$ 260.83	\$ 304.30	\$ 347.77	\$ 391.24	\$ 434.71	\$ 478.18	\$ 521.65	\$ 565.12
Sawcutting	LF	\$ 3	1056	1056	1056	1056	1056	1056	1056	1056	1056	1056	1056	1056	1056	\$ 2,640.00	\$ 2,640.00	\$ 2,640.00	\$ 2,640.00	\$ 2,640.00	\$ 2,640.00	\$ 2,640.00	\$ 2,640.00	\$ 2,640.00	\$ 2,640.00	\$ 2,640.00	\$ 2,640.00	\$ 2,640.00
Roadside Seeding	ACRE	\$ 3,000	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	\$ 1,090.91	\$ 1,090.91	\$ 1,090.91	\$ 1,090.91	\$ 1,090.91	\$ 1,090.91	\$ 1,090.91	\$ 1,090.91	\$ 1,090.91	\$ 1,090.91	\$ 1,090.91	\$ 1,090.91	\$ 1,090.91
Soil Sterilant	ACRE	\$ 700	0.14	0.19	0.24	0.28	0.33	0.38	0.43	0.48	0.53	0.57	0.62	0.67	0.72	\$ 96.73	\$ 130.67	\$ 164.61	\$ 198.55	\$ 232.48	\$ 266.42	\$ 300.36	\$ 334.30	\$ 368.24	\$ 402.18	\$ 436.12	\$ 470.06	\$ 504.00
			Item Totals													\$ 12,155.93	\$ 16,392.33	\$ 20,628.74	\$ 24,865.14	\$ 29,101.55	\$ 33,337.96	\$ 37,574.36	\$ 41,810.77	\$ 46,047.18	\$ 50,283.58	\$ 54,519.99	\$ 58,756.39	\$ 62,992.80
Traffic Control		15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	\$ 1,823.39	\$ 2,458.85	\$ 3,094.31	\$ 3,729.77	\$ 4,365.23	\$ 5,000.69	\$ 5,636.15	\$ 6,271.62	\$ 6,907.08	\$ 7,542.54	\$ 8,178.00	\$ 8,813.46	\$ 9,448.92
Engineering/Administrative Fees		20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	\$ 2,431.19	\$ 3,278.47	\$ 4,125.75	\$ 4,973.03	\$ 5,820.31	\$ 6,667.59	\$ 7,514.87	\$ 8,362.15	\$ 9,209.44	\$ 10,056.72	\$ 10,904.00	\$ 11,751.28	\$ 12,598.56
Contingency		20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	\$ 2,431.19	\$ 3,278.47	\$ 4,125.75	\$ 4,973.03	\$ 5,820.31	\$ 6,667.59	\$ 7,514.87	\$ 8,362.15	\$ 9,209.44	\$ 10,056.72	\$ 10,904.00	\$ 11,751.28	\$ 12,598.56
			Total Cost per 0.10 Miles													\$ 18,841.69	\$ 25,408.12	\$ 31,974.55	\$ 38,540.97	\$ 45,107.40	\$ 51,673.83	\$ 58,240.26	\$ 64,806.69	\$ 71,373.12	\$ 77,939.55	\$ 84,505.98	\$ 91,072.41	\$ 97,638.84
			Total Cost Rounded to nearest 100													\$ 19,000	\$ 25,000	\$ 32,000	\$ 39,000	\$ 45,000	\$ 52,000	\$ 58,000	\$ 65,000	\$ 71,000	\$ 78,000	\$ 85,000	\$ 91,000	\$ 98,000

Basic Information

Length: 0.10 mile 528 ft.
 Width: Variable
 Depth: HMA 0.33 ft.
 CSTC 0.33 ft.
 CSBC 0.50 ft.
 Exc. 1.16 ft.
 Emb.

* 2010 Costs are based on WSDOT Unit Bid Analysis for North Central, South Central, and Eastern Regions from 2008-2010.