CONCEPT DESIGN - CAPITAL COST ESTIMATE

I-5 Trade Corridor - Concept 7

Corridor Section: Columbia River Crossing -THREE LANE STR. Date: 27-Mar-02

Arterial included Date of Cost Index: August 2001

		Unit	Quantity	Cost	Total			
I. RIG	GHT OF WAY/REAL ESTATE						\$65,171,329	
1	1.1 Commercial	- SF	1,069,661	\$25	\$26,741,525		400,111,020	
	1.2 Residential	SF	11,396	\$15	\$170,940			
	1.3 Buildings	LS	1	\$12,000,000	\$12,000,000			
	1.3.1 Business Relocation	LS	1	\$20,000,000	\$20,000,000			
	1.4 Open Lands	SF	66,172	\$5.00	\$330,860			
	1.5 Railroad R/W	SF	2,225	\$1.50	\$3,338			
2	Subtotal	SG			\$59,246,663			
3	Engineering & Admin	LS	10%	\$5,924,666	\$5,924,666			
II. CIV	/IL CONSTRUCTION	Unit	Quantity	Cost	Total	_		
1	Utility Relocations		110	A. 	***		\$21,495,160	
	1.1 Urban Corridor1.2 Open Lands	M M	14.2	\$1,500,000.00 \$200,000.00	\$21,267,159 \$228,000			
	1.3 Lane Addition	M	0	\$125,000.00	\$0			
	0 1							
2	General Excavation/Fill 2.1 General Excavation	CY	12,000	\$14.00	\$168,000.00		\$3,036,298	
	2.2 Fill	CY	204,878	\$14.00 \$14.00	\$2,868,297.70			
				*******	+ -,,			
3	Surfacing / Paving	0)/	450.045	#05.00	0.770.000.1 1		\$18,516,707	
	3.1 New Surfacing - ACP (includes wearing course	SY Se hase course a	150,345	\$65.00 30" section depth)	\$9,772,396.11			
	3.2 New Surfacing - PCC	SY SY	86,738	\$92.00	\$7,979,896.00			
	(includes concrete, ago		ection depth)					
	3.3 Overlay Surfacing - AC		117,602	\$6.50	\$764,414.44			
	(includes surface prep, 3.4 Sidewalk - PCC	SY SY	se, and leveling co	ourse)				
	(includes concrete, exc		3,733					
4	Pandaida Davalanment						Ф4 F 700 740	
4	Roadside Development 4.1 Drainage System	М	15.3	\$1,000,000.00	\$15,318,106.06		\$15,792,748	
	4.2 Restoration of Wetland		2.8	\$170,000.00	\$474,641.87			
_	Traffic Convince & Cafety						Ф 7 004 040	
5	Traffic Services & Safety 5.1 Illumination	М	15.3	\$250,000.00	\$3,829,526.52		\$7,901,918	
	5.2 Signage	M	15.3	\$100,000.00	\$1,531,810.61			
	(includes signage, sup			_ ·				
	5.3 Signalized Intersection		8 53.0	\$300,000.00	\$2,400,000.00			
	5.4 Striping	LM	53.0	\$2,650.00	\$140,580.39			
6	Structures						\$418,409,133	
	6.01 Highway overpass	SF	389,040	\$100.00	\$38,904,000.00			
	6.02 Overland Bridge 6.03 Low/Mid level over wat	SF er SF	457,362 731,193	\$150.00 \$275.00	\$68,604,300.00 \$201,078,075.00			
	6.04 High level over water	SF	0	\$325.00	\$0.00			
	6.05 Movable lift span	SF	45,000	\$1,670.00	\$75,150,000.00			
	6.06 Double Deck over water		•	\$438.00	\$0.00			
	6.07 Pedestrian Bridge6.08 Bridge Widening	SF SF	0 59,449	\$140.00 \$154.00	\$0.00 \$9,155,146.00			
	6.09 Bridge Demolition	SF	173,472	\$25.73	\$4,463,434.56			
	6.1 Cut and Cover Box	LF	1,163	4299	\$4,999,737.00			
	6.11 Tunnel	LF	0	\$3,750	\$0.00			
	6.12 Tie-back Retaining Wa	II SF SF	0 10,132	\$90.00 \$29.00	\$0.00 \$293,828.00			
	6.13 MSE Retaining Wall 6.14 CIP wall <10' hgt	SF	110,606	\$35.00	\$3,871,210.00			
	6.15 CIP wall 10'-15' hgt	SF	86,543	\$40.00	\$3,461,720.00			
	6.16 CIP wall 15'-20' hgt	SF	26,295	\$47.00	\$1,235,865.00			
	6.17 CIP wall 20'-25' hgt	SF	75,495	\$55.00	\$4,152,225.00			
	6.18 Soundwalls6.19 Soundwall Relocation	SF SF	34,854 0	\$23.00 \$16.00	\$801,642.00 \$0.00			
	6.2 Soundwall Demolation	SF	0	\$10.00	\$0.00			
	6.21 Concrete Barrier	LF	40,690	\$55.00	\$2,237,950.00			
7	Park and Ride						\$0	
	7.1 Surface Lot	Space		\$2,500.00	\$0.00		•	
	7.2 Garage - 0-3 levels	Space		\$9,000.00	\$0.00			
	7.3 Garage - 4+ levels	Space		\$11,000.00	\$0.00			
8	Civil Construction Subtotal	(Lines 1 through	7)					\$485,151,964
9	Mobilization -			8% c	of Line 8	\$	38,812,157	
10 11	Subtotal (Lines 8 & 9) Construction Contingency			220/ -	of Line 10	\$	167,668,519	\$ 523,964,121
12	Construction Total (Lines 1)	0 & 11)		32% 0	A LINE TO	φ	107,000,019	\$ 691,632,640
	•	•						

III DESIGN ENGINEERING & ADMINISTRATION (25% of Line 12)

IV TOTAL HIGHWAY CAPITAL COST Lines I, 12 and III

\$ 929,712,129

\$ 172,908,160

V. LRT SYSTEM (EXPO TO 5TH ST., VACOUVER)	\$81,690,159

V. LR I	SYSTEM (EXPO TO 5TH ST., VACOUVER)	\$81,690,159					
1	Civil Construction	\$16,300,304.00					
2	Transit Vehicles (4 LRVs)	\$12,057,834.00					
3	Operations Facilities	\$2,007,656.00					
4	Traction Electrification System	\$3,104,967.00					
5	Signals	\$2,991,811.00					
6	Communications	\$844,353.00					
7	Fare Collection	\$496,002.00					
8	Right of way	\$14,779,182.00					
9	Engineering & Admin	\$10,931,325.00					
10	Contingency	\$18,176,725.00					

VITOTAL CAPITAL COST (2001 \$) Lines IV AND V

\$ 1,011,402,288

				CONCEPT	DESIGN -	- CAPITAL COST	ESTIMATE			
LET	rada C	`arridar	Concept 7							
			- Concept 7 Columbia River Cross	sing-THRFF LAN	F STR.	Date:	27-Mar-02			
	<u> </u>		Arterial not included				dex: August 2001			
				Unit	Quantity	Cost	Total			
•	DIOI	T 05 V	MANUEL FOTATE		•					
I.			VAY/REAL ESTATE Commercial	SF	1,069,661	\$25	\$26,741,525	\$65,171,329		
	•		Residential	SF	11,396		\$170,940			
			Buildings	LS	1	\$12,000,000	\$12,000,000			
			Business Relocation Open Lands	LS SF	66,172	\$20,000,000 \$5.00	\$20,000,000 \$330,860			
			Railroad R/W	SF	2,225		\$3,338			
	2		Subtotal	SG			\$59,246,663			
	3		Engineering & Admin	LS	10%	\$5,924,666	\$5,924,666			
II.			TRUCTION	Unit	Quantity	Cost	Total			
			elocations Urban Corridor	M	13.0	\$1,500,000.00	\$19,470,000	\$19,698,000		
		1.2	Open Lands	M	13.0	\$200,000.00	\$228,000			
		1.3	Lane Addition	M	0	\$125,000.00	\$0			
	2	Genera	I Excavation/Fill					\$3,014,831		
			General Excavation	CY	12,000		\$168,000.00			
			Fill	CY	203,345	\$14.00	\$2,846,831.04			
		Surfacir	ng / Paving	CV	440.071	005.00	0.400.045.00	\$17,867,125		
			New Surfacing - ACP (includes wearing course	SY , base course, agg	140,351 base, exca					
		3.2	New Surfacing - PCC	SY	86,738		\$7,979,896.00			
		3.3	(includes concrete, agg b Overlay Surfacing - ACP	SY	117,602		\$764,414.44			
			(includes surface prep, A Sidewalk - PCC		and leveling					
		3.4	(includes concrete, excar		4,280					
	1	Dogalis						M44 F04 045		
	4		de Development Drainage System	M	14.1	\$1,000,000.00		\$14,594,642		
		4.2	Restoration of Wetlands	AC	2.8	\$170,000.00	\$474,641.87			
	5	Traffic S	Services & Safety					\$6,599,185		
			Illumination Signage	M M	14.2 14.2	\$250,000.00 \$100,000.00				
			(includes signage, suppo	rts, sign bridges, ar		nt markings)				
			Signalized Intersection Stripping	EA LM	50.7	\$300,000.00 \$2,650.00				
				LIVI	30.7	Ψ2,000.00	Ψ104,243.00			
	6	Structur 6.01	es Highway overpass	SF	389,040	\$100.00	\$38,904,000.00	\$346,582,466		
		6.02	Overland Bridge	SF	441,228	\$150.00	\$66,184,200.00			
			Low/Mid level over water High level over water	SF SF	563,410 0	\$275.00 \$325.00				
		6.05	Movable lift span	SF	31,200	\$1,670.00	\$52,104,000.00			
			Double Deck over water Pedestrian Bridge	SF SF	0	\$438.00 \$140.00				
		6.08	Bridge Widening	SF	59,449	\$154.00	\$9,155,146.00			
			Bridge Demolition Cut and Cover Box	SF LF	173,472 1,163	\$25.73 4299				
			Tunnel Tie-back Retaining Wall	LF SF	0	\$3,750 \$90.00	\$0.00 \$0.00			
			MSE Retaining Wall	SF	9,232	\$29.00				
			CIP wall <10' hgt CIP wall 10'-15' hgt	SF SF	110,606 86,543	\$35.00 \$40.00				
		6.16	CIP wall 15'-20' hgt	SF	26,295	\$47.00	\$1,235,865.00			
			CIP wall 20'-25' hgt Soundwalls	SF SF	75,495 19,920	\$55.00 \$23.00				
		6.19	Soundwall Relocation	SF	0	\$16.00	\$0.00			
			Soundwall Demolation Concrete Barrier	SF LF	14,934 40,690	\$10.00 \$55.00				
	_	Davida ava	d Did-							
	/	Park an 7.1	Surface Lot	Space		\$2,500.00	\$0.00	\$0		
		7.2	Garage - 0-3 levels	Space		\$9,000.00	\$0.00			
		7.3	Garage - 4+ levels	Space		\$11,000.00	\$0.00			
			nstruction Subtotal (L	ines 1 through 7)					\$408,356,249	
		Mobiliza Subtota	ation - I (Lines 8 & 9)			8%	of Line 8	\$ 32,668,500	\$ 441,024,749	
	11	Constru	iction Contingency			32%	of Line 10	\$ 141,127,920	y 771,024,749	
	12	Constru	ction Total (Lines 10	<u>& 11)</u>					\$ 582,152,669	
III.	DESI	GN FN	 GINEERING & ADMI	NISTRATION (2	5% of I in	ne 12)		\$ 145,538,167		
					,, U UI EII	<u>- </u>				
IV.	TOTA	AL CAP	ITAL COST (2001 \$)	Lines I, 12 and III					\$ 792,862,164	
V.	LRT S	I SYSTEM	 (EXPO TO 5TH ST., \	/ACOUVER)				\$81,690,159		
	1	Civil Co	nstruction	,			\$16,300,304.00			
			Vehicles (4 LRVs) ons Facilities				\$12,057,834.00 \$2,007,656.00			
			ons Facilities i Electrification System				\$3,104,967.00			
	5	Signals	·				\$2,991,811.00			
		Commu	Inications				\$844,353.00			
		Right of					\$496,002.00 \$14,779,182.00			
	9	Engine	ering & Admin				\$10,931,325.00			
	10	Conting	ency				\$18,176,725.00			
VI.	TOTA	AL CAP	 ITAL COST (2001 \$)	Lines IV AND V					\$ 874,552,323	
			(+)	-					, ,	