Spokane Regional Light Rail Project Conceptual Design Estimate Board Approved Alignment

Summary Costs of the Board Approved Alignment								
Description	Year 2001\$	Escalated to MPE 2005\$						
Alternate 3 - Base Alignment less ten selected items. Line is shortened to Liberty Lake Transit Center.	\$499,888,171	\$584,798,456						

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Summary of Board Approved Align

Spokane Regional				
Light Rail Project				
Order of Magnitude				
Board Approved Alignment (Alignment 3)		82,000 FT	15.5 mile	15.5 mile
Alignment stops at Liberty Lake Transit Center				ESCALATED
Description			2001\$	2005\$
1-Civil Construction			\$79,534,853	\$93,044,529
2 - Insurance - Included other in Items				
3 - Utilities			\$10,200,000	\$11,932,557
4 - Track Materials - Included in the Rail Items				
5 - Structures			\$20,343,800	\$23,799,369
6 - Stations			\$11,150,000	\$13,043,923
7 - Park & Rides			\$10,535,000	\$12,324,460
8 - Operations Facility (All Yard elements Included)			\$39,284,820	\$45,957,683
9 - Traction Power System			\$24,062,822	\$28,150,098
10 - Signal System			\$23,687,832	\$27,711,413
11 - Communications			\$10,424,086	
12 - Fare Collection			\$2,832,500	\$3,313,624
Subtotal - Infrastructure	Subtotal		\$232,055,713	\$271,472,363
13. Right of Way			\$32,914,712	\$38,505,558
14. Vehicles			\$70,000,000	
15 - Engineering & Administration	Subtotal		\$84,719,500	. , ,
16 - Contingencies	Subtotal		\$58,071,143	
17 - Washington State Sales Tax and Real Estate Tax	Subtotal		\$22,127,104	. , , ,
11 - Washington State Sales Tax and Real Estate Tax			ΨΖΖ, 1Ζ1, 104	Ψ20,000,302
		Total	\$499,888,171	\$584,798,456
		Cost Per mile	32.2 M/Mi	37.7 M/Mi

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Board Approved Alignment Est

3	pokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta		
				Start Sta	Ena Sia	Length	45.5 !!-
		Board Approved Alignment (Alignment 3)				82,000 FT	15.5 mile
		Alignment stops at Liberty Lake Transit Center	0	11	11-24 04	F	0004#
	Civil Comet	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	Civil Const	Site Preparation - Clearing & Grubbing	82,000	LF	\$10.00	\$820,000	\$79,534,853
2		Grade Preparation to Top of subballast.	82,000		\$35.00		
3		Curb & Gutter Allowance	12,800		\$35.00		
4		Common Excavation	131,614	CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)	124,028	CY	\$15.00	\$1,860,420	
6		Common Backfill (From Project Excavation)	242,665	CY	\$4.00		
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)	41,080		\$16.00		
10		Chain Link Fencing 6'	83,345		\$22.00		
11 12		Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance	31,730 82,000		\$22.00 \$6.00		
13		Transition Slab Ballasted to Embedded /Bridge /Structure	7	EA	\$8,000	\$56,000	
14		Ballasted Track at Grade or Structure	152,880		\$223	\$34,092,240	
15		Embedded (Paved) Track at Grade	7,000	TF	\$312	\$2,184,000	
16		Direct Fixation (DF) Track, Elevated Structure	5,270	TF	\$280		
19		LRT Siding or Pocket Track	1,500	TF	\$230	\$345,000	
20		Double Crossover	4	EA	\$300,000		
21		Single Crossover	4		\$150,000		<u></u>
22		Turnout	8		\$75,000		
23		Impact Attenuators	4	EA	\$35,000		
24		Minor Street Closures Allowance	11	EA	\$25,000		
25 26		Minor Intersection Rebuild (2 Lanes)	15 18	EA EA	\$100,000		
27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)	18	EA	\$200,000 \$100,000		
28		Major Traffic Signal (4 Lanes)	13		\$200,000		
29		Complex Major Intersection Rebuild	1	EA	\$300,000	\$300,000	
30		Roadway Construction	148,200		\$9.00		
31		Sidewalk Construction	157,080	SF	\$6.00		
32		Off Alignment Signal Modifications	4	EA	\$75,000.00	\$300,000	
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -	2	LF	\$35.00	Ø420.000	
34 35		HDR Relocate UPRR Yard Lead or Branch Line	9,750	EA TF	\$65,000.00 \$100.00		
36		Remove & Relocate Industrial Spur HDR	2,330		\$100.00		
37		Provide Team Track and Loading Dock (HDR)	2,330	LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)	1	LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	15	EA	\$60,000.00		
40		OCS Pole Foundations LTK120	82,000	RF	\$15.06	\$1,234,510	
41		Signal Communication Building LTK130	13		\$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140	4,000		\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	78,000		\$110.00		
45		Corrosion Mitigation LTK150	82,000	RF	\$10.73	\$880,106	
		- Included other in Items			-		#40.000.00
	- Utilities	Htility Allowance - High	3 500	DE	¢600.00	¢2 100 000	\$10,200,000
59 60		Utility Allowance - High Utility Allowance - Medium	3,500 1,000		\$600.00 \$350.00		
61		Utility Allowance - Low	77,500	RF	\$100.00		
	- Track Mate	erials - Included in the Rail Items	77,500	iXi	ψ100.00	ψι,ιου,υυυ	
	- Structures						\$20,343,800
75		Bridge Structures DEA	14,078,000	LS	\$1.00	\$14,078,000	,,500
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall)	8,400		\$32.00		
78		MSE Retaining Wall - Typical DEA	199,900	SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
	- Stations						\$11,150,000
105		Stations Stations Name	1	LS	\$9,650,000	\$9,650,000	
106		Station Name	# 200 000	1.0	64.00	¢000 000	
107		Artwork (*Subject to Board Policy) Platform Electrical LTK610	\$200,000	LS LS	\$1.00		
108 115 7	- Park & Ric		13	LO	\$100,000	φ1,300,000	\$10,535,000
116		Park & Ride	2,450	Space	\$4,300	\$10,535,000	φ τυ,535,000
117		Park & Ride Location	2,430	Space	ψ4,500	Ψ10,000,000	
		s Facility (All Yard elements Included)				+	\$39,284,820
123		Bldg & Yard Site Prep, Grading & Utilities LTK811	1.0	LS	\$18,551,516	\$18,551,516	, .,
124		Operations Facility Building LTK	75,000		\$171.00		
125		Yard Maintenance Equipment LTK	1		\$4,160,844	\$4,160,844	
126		Maintenance of Way Vehicles LTK	1	LS	\$1,847,460	\$1,847,460	

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Board Approved Alignment Est

	Spokane Regional					
	Light Rail Project			Estima	ate Basics	
	Order of Magnitude		Start Sta	End Sta	Length	
	Board Approved Alignment (Alignment 3)		Otal Cota	2.1.4 014	82,000 FT	15.5 mile
	Alignment stops at Liberty Lake Transit Center				02,000 : :	
	Description	Quantity	Unit	Unit Cost	Extension	2001\$
127	Communications Control Center/ Hardware/ Software LTK	1		\$1,900,000		200.4
133	9 - Traction Power System			, , , , , , , , , , , , , , , , , , , ,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	\$24,062,822
136	Sub-Station Type 3 LTK 910	15	EA	\$750,000		
138	OCS Single Contact Wire LTK920	4,000	RF	\$123.00		
139	OCS Simple Catenary LTK930	78,000	RF	\$109.00		
141	Lighting LTK940	82,000	RF	\$8.11		
142	Spare Parts/ System support LTK950	82,000	LS	\$38.47	\$3,154,130	
147	10 - Signal System					\$23,687,832
148	Signal (Alt 2 & Alt 3)	82,000	RF	\$288.88	. , ,	
149	Signal (Alt 4)		RF	\$331		
151	11 - Communications	20.000	5-	A107.10	* 40.404.000	\$10,424,086
152	Communications (Alt 2 & Alt 3)	82,000	RF	\$127.12		
153	Communications (Alt 4)		RF	\$140		#0.000 F00
157	12 - Fare Collection	14	1.0	#000 004	₽0 000 500	\$2,832,500
158 160	Fare Collection Vending/ Validator & Spares LTK1200 Subtotal - Infrastructure		LS	\$202,321 Subtotal	\$2,832,500	\$232,055,713
161	Subtotal - Illifastructure			Subiolai		\$232,055,713
162	13. Right of Way					\$32,914,712
102	Alternate 2 DEA Right of Way Acquisition Budget					\$32,914,712
163	Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
103	Alternate 2 HazMat Demo & Disposal (Tanks, Waste		LO	ψ30,000,000		
164	Mitigation etc.) - Allowance		LS	\$5,000,000.00		
104	Alternate 3 DEA Right of Way Acquisition Budget		LO	ψ5,000,000.00		
165	Estimate (Including Railroads & Operation Facility)	1	LS	\$27,914,712.00	\$27,914,712	
	Alternate 3 HazMat Demo & Disposal (Tanks, Waste			Ψ2.,σ.,,	Ψ2.,0,2	
166	Mitigation etc.) - Allowance	1	LS	\$5,000,000.00	\$5,000,000	
	Alternate 4 DEA Right of Way Acquisition Budget			φο,σοσ,σοσ.σο	ψο,σοσ,σοσ	
167	Estimate (Including Railroads & Operation Facility)		LS	\$26,771,815.00		
	Alternate 4 HazMat Demo & Disposal (Tanks, Waste			+== ,,		
168	Mitigation etc.) - Allowance		LS	\$5,000,000.00		
174	14. Vehicles			, , , , , , , , , , , , , , , , , , , ,		\$70,000,000
175	Low Floor Light Rail Vehicles - Base Cost LTK 1600	22	EA	\$2,500,000.00	\$55,000,000	
	Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2					
176	& 3)	22	EA	\$681,818.18	\$15,000,000	
177	Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineering & Administration			Subtotal		\$84,719,500
180	Infrastructure E & A 35.00%				\$81,219,500	
181	Vehicle E & A 5.00%				\$3,500,000	
185	16 - Contingencies			Subtotal		\$58,071,143
187	Vehicles Contingency 5.00%				\$3,500,000	
189	Infrastructure Contingency 20.00%				\$44,371,143	
191	Utilities Contingency 100.00%	1			\$10,200,000	
194	17 - Washington State Sales Tax and Real Estate Tax					\$22,127,104
195	Sales Tax 8.40%	1			\$22,127,103.93	
196	Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
				1	Total	# 400 000 17
				1	Total	\$499,888,171
				1	Cost Por mile	32.2 M/M
		1			Cost Per mile	32.Z IVI/IVI

	Spokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Lincoln to Convention Center		5+00	25+00	2,000 FT	0.4 mile
	C -201	Downtown Section		3+00	25+00	2,000 F1	0.4 111116
	C -201	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const	·	Quantity	Ullit	Unit Cost	Extension	\$6,220,602
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,000	LF	\$10.00	\$20,000	\$0,220,002
2		Grade Preparation to Top of subballast.	2,000		\$35.00		
3		Curb & Gutter Allowance	4,000		\$35.00		
4		Common Excavation	14,815	CY	\$15.00	\$222,222	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)		CY	\$4.00		
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	40,000	SF LF	\$2.00 \$16.00	\$80,000	
10		Chain Link Fencing 4 (on waits of Ballast Curb)		LF	\$22.00		
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,000	LF	\$6.00	\$12,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	1	EA	\$8,000		
14		Ballasted Track at Grade or Structure		TF	\$223		
15		Embedded (Paved) Track at Grade	4,000	TF	\$312	\$1,248,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230	#200.000	
20 21	1	Double Crossover Single Crossover	1	EA EA	\$300,000 \$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators	2	EA	\$35,000	\$70,000	
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)	6	EA	\$200,000	\$1,200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)	6		\$200,000	\$1,200,000	
29		Complex Major Intersection Rebuild	05.000	EA	\$300,000	A 700.000	
30 31		Roadway Construction Sidewalk Construction	85,200	SF SF	\$9.00 \$6.00	\$766,800	
32		Off Alignment Signal Modifications	72,000	EA EA	\$75,000.00	\$432,000	
32		Construct Maintenance Road Assume All Weather Gravel -		LA	Ψ13,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110		LS EA	\$476,000.00 \$120,000.00		
40		OCS Pole Foundations LTK120	2,000	RF	\$120,000.00	\$30,120	
41		Signal Communication Building LTK130	2,000	EA	\$100,000.00	Ψ30,120	
42		Systems wide Ductbank/ Conduit LTK140	2,000	RF	\$200.00	\$400,000	
43		Corrosion Mitigation LTK150	2,000		\$10.73	\$21,460	
50	2 - Insurance	e - Included other in Items					
57	3 - Utilities						\$1,200,000
59		Utility Allowance - High	2,000		\$600.00		
60		Utility Allowance - Medium		RF	\$350.00		
61	4 Treals Mad	Utility Allowance - Low terials - Included in the Rail Items		RF	\$100.00		
70 74	5 - Structure				1		
75	J - Su ucture	Bridge Structures DEA		LS	\$1.00		
76		Bridge Structures DEA			ψ1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						\$850,000
105		Stations	1	LS	\$700,000	\$700,000	
106	1	Station Name		Side-by-Side F		#F0.000	
107		Allowance for Art at Stations & Park & Rides Platform Electrical LTK610	\$50,000	LS LS	\$1.00		
108 115	7 - Park & Ri		1	LO	\$100,000	\$100,000	
116	r - raik ox Ki	Park & Ride		Space	\$4,300		
117		Park & Ride Location		Орасс	ψ+,300		
119	8 - Operation	s Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		
124	1	Operations Facility Building LTK	1	SF	\$171.00		-

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Lincoln to Convention Center		5+00	25+00		0.4 mile
	C -201	Downtown Section				_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	• • • • • • • • • • • • • • • • • • • •
	0 201	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Quantity	LS	\$4.160.844	Extonoion	200.4
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			\$1,000,000		\$338,36
136		Sub-Station Type 3 LTK 910		EA	\$750,000		φοσο,σο
138		OCS Single Contact Wire LTK920	2,000	RF	\$123.00		
139		OCS Simple Catenary LTK930	2,000	RF	\$109.00		
141		Lighting LTK940	2.000	RF	\$11.58		
142		Spare Parts/ System support LTK950	2,000	LS	\$34.60		
147	10 - Signal S		2,000		ψ54.00	\$09,200	\$574,63
148	10 - Signal S	Signal	2,000	RF	\$287.32	\$574,630	Ψ574,05
151	11 - Commur		2,000	IXI	Ψ201.32	\$374,030	\$262,860
152	11 - Commu	Communications	2,000	RF	\$131.43	\$262,860	\$202,00
157	12 - Fare Col		2,000	ΝΓ	\$131.43	\$202,000	\$212,32
158	12 - Fare Coi	Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$212,321	\$212,321	\$212,32
160		Subtotal - Infrastructure	- '	LO	Subtotal	\$212,321	\$9,658,77
161		Subtotal - Infrastructure			Subiolai		ф9,000,773
162	40 Dimbs -61	M					
102	13. Right of V	DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	¢20,000,000		
163		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -		LS	\$30,000,000		
405					# F 000 000 00		
165	44 1/-1-1	Allowance		LS	\$5,000,000.00		
174	14. Vehicles	Lease Flores Links De Wylekisker Bross Const LTK 4000			#0 F00 000 00		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		00.000.55
179		ring & Administration			Subtotal	A0 000 F74	\$3,380,57
180	Infrastructure	E & A 35.00%				\$3,380,571	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$2,891,75
187	Vehicles	Contingency 5.00%				A	
189	Infrastructure	Contingency 20.00%				\$1,691,755	
191	Utilities	Contingency 100.00%				\$1,200,000	
194	17 - Washing	ton State Sales Tax					\$702,830
195		Sales Tax 8.40%				\$702,829.67	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$16,633,93°
	1				1		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Convention Center to Trent Station		25+00	50+00	2,500 FT	0.5 mile
	C -202	Downtown Section		23100	30100	2,50011	0.5 111110
	C -202	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Cons	•	Quantity	Oilit	Onit Oost	Exterision	\$4,958,937
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$ 1,000,001
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	3,200	LF	\$35.00	\$112,000	
4		Common Excavation	13,074	CY	\$15.00	\$196,110	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	463	CY	\$15.00 \$4.00	\$1,852	
8		Landscaping Allowance	50,000	SF	\$2.00	\$100,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00	,	
10		Chain Link Fencing 6'		LF	\$22.00		
11		Ballast Walls (Curb-no drainage)	0.500	LF	\$22.00	045.000	
12 13		Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	LF EA	\$6.00 \$8,000	\$15,000	
14		Ballasted Track at Grade or Structure	2,000	TF	\$223	\$446,000	
15		Embedded (Paved) Track at Grade	3,000	TF	\$312	\$936,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280	, -	
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover	1	EA	\$300,000	\$300,000	
21 22		Single Crossover Turnout	+	EA EA	\$150,000 \$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)	3	EA	\$200,000	\$600,000	
27 28		Minor Traffic Signal (2 Lanes)	3	EA EA	\$100,000 \$200,000	\$600,000	
29		Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild	3	EA	\$300,000	\$600,000	
30		Roadway Construction	63,000	SF	\$9.00	\$567,000	
31		Sidewalk Construction	48,000	SF	\$6.00	\$288,000	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
00		Construct Maintenance Road Assume All Weather Gravel -			#05.00		
33		12 FT Wide		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110	1	LS	\$476,000.00 \$120,000.00	\$120,000	
40	+	OCS Pole Foundations LTK120	2,500	EA RF	\$120,000.00	\$37,650	
41		Signal Communication Building LTK130	2,300	EA	\$100,000.00	ψ37,030	
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00	\$500,000	
43		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,825	
50		e - Included other in Items					A. 050 000
57	3 - Utilities	Litility Allowance High	1 500	RF	00.002	000 0002	\$1,250,000
59 60		Utility Allowance - High Utility Allowance - Medium	1,500 1,000	RF	\$600.00 \$350.00	\$900,000 \$350,000	
61	1	Utility Allowance - Low	.,550	RF	\$100.00	+555,556	
70		terials - Included in the Rail Items					
74	5 - Structure				*		
75	1	Bridge Structures DEA	1	LS	\$1.00		
76 77		Bridge Location Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	1	SF	\$30.00		
79	1	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						\$850,000
105		Stations	1	LS	\$700,000	\$700,000	
106 107	1	Station Name	Convention Ce			\$50,000	
107		Allowance for Art at Stations & Park & Rides Platform Electrical LTK610	\$50,000 1	LS LS	\$1.00 \$100,000	\$50,000 \$100,000	
115	7 - Park & Ri		<u> </u>		ψ100,000	ψ100,000	
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location		•			
119	8 - Operation	ns Facility (All Yard elements Included)			440		
123		Bldg & Yard Site Prep, Grading & Utilities LTK811	-	LS	\$18,611,516		
124		Operations Facility Building LTK		SF	\$171.00		

ignal S	Signal nications Communications lection Fare Collection Vending/ Validator & Spares LTK1200	Quantity 1 2,000 500 2,500 2,500 2,500 2,500	Start Sta 25+00 Unit LS LS LS EA RF RF RF RF RF RF RF	Estima End Sta 50+00 Unit Cost \$4,160,844 \$4,307,460 \$1,900,000 \$123.00 \$123.00 \$115.8 \$34.60 \$287.32	\$750,000 \$246,000 \$54,500 \$28,952 \$86,500 \$718,288	0.5 mile 2001\$ \$1,165,952 \$718,286
-202 action F	Convention Center to Trent Station Downtown Section Pard Maintenance Equipment LTK Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK Power System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930 Lighting LTK940 Spare Parts/ System support LTK950 ystem Signal ilications Communications lection Fare Collection Vending/ Validator & Spares LTK1200	1 2,000 500 2,500 2,500 2,500 2,500	Unit LS LS LS EA RF RF RF LS	50+00 Unit Cost \$4,160,844 \$4,307,460 \$1,900,000 \$750,000 \$123.00 \$109.00 \$11.58 \$34.60	2,500 FT Extension \$750,000 \$246,000 \$54,500 \$28,952 \$86,500 \$718,288	2001\$ \$1,165,953 \$718,286
-202 action F	Convention Center to Trent Station Downtown Section Pard Maintenance Equipment LTK Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK Power System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930 Lighting LTK940 Spare Parts/ System support LTK950 ystem Signal ilications Communications lection Fare Collection Vending/ Validator & Spares LTK1200	1 2,000 500 2,500 2,500 2,500 2,500	Unit LS LS LS EA RF RF RF LS	50+00 Unit Cost \$4,160,844 \$4,307,460 \$1,900,000 \$750,000 \$123.00 \$109.00 \$11.58 \$34.60	2,500 FT Extension \$750,000 \$246,000 \$54,500 \$28,952 \$86,500 \$718,288	2001 \$ \$1,165,95
-202 action F	Downtown Section Description Yard Maintenance Equipment LTK Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK Owner System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930 Lighting LTK940 Spare Parts/ System support LTK950 ystem Signal ilications Communications lection Fare Collection Vending/ Validator & Spares LTK1200	1 2,000 500 2,500 2,500 2,500 2,500	Unit LS LS LS EA RF RF RF RF RF LS	\$4,160,844 \$4,307,460 \$1,900,000 \$750,000 \$123.00 \$109.00 \$11.58 \$34.60	\$750,000 \$246,000 \$54,500 \$28,952 \$86,500 \$718,288	2001 \$ \$1,165,95
action F Signal S	Pard Maintenance Equipment LTK Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK Power System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930 Lighting LTK940 Spare Parts/ System support LTK950 ystem Signal ilications Communications lection Fare Collection Vending/ Validator & Spares LTK1200	1 2,000 500 2,500 2,500 2,500 2,500	LS LS LS EA RF RF RF LS	\$4,160,844 \$4,307,460 \$1,900,000 \$750,000 \$123.00 \$109.00 \$11.58 \$34.60	\$750,000 \$246,000 \$54,500 \$28,952 \$86,500 \$718,288	\$1,165,95. \$718,28
signal S	Yard Maintenance Equipment LTK Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK Power System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930 Lighting LTK940 Spare Parts/ System support LTK950 ystem Signal ilications Communications lection Fare Collection Vending/ Validator & Spares LTK1200	1 2,000 500 2,500 2,500 2,500 2,500	LS LS LS EA RF RF RF LS	\$4,160,844 \$4,307,460 \$1,900,000 \$750,000 \$123.00 \$109.00 \$11.58 \$34.60	\$750,000 \$246,000 \$54,500 \$28,952 \$86,500 \$718,288	\$1,165,95 \$718,28
signal S	Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK Power System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930 Lighting LTK940 Spare Parts/ System support LTK950 ystem Signal ilications Communications lection Fare Collection Vending/ Validator & Spares LTK1200	2,000 500 2,500 2,500 2,500 2,500	LS LS EA RF RF RF LS	\$4,307,460 \$1,900,000 \$750,000 \$123.00 \$109.00 \$11.58 \$34.60	\$750,000 \$246,000 \$54,500 \$28,952 \$86,500 \$718,288	\$718,28
signal S	Communications Control Center/ Hardware/ Software LTK Power System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930 Lighting LTK940 Spare Parts/ System support LTK950 ystem Signal hications Communications lection Fare Collection Vending/ Validator & Spares LTK1200	2,000 500 2,500 2,500 2,500 2,500	EA RF RF RF LS	\$1,900,000 \$750,000 \$123.00 \$109.00 \$11.58 \$34.60	\$750,000 \$246,000 \$54,500 \$28,952 \$86,500 \$718,288	\$718,28
signal S	Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930 Lighting LTK940 Spare Parts/ System support LTK950 ystem Signal ilications Communications lection Fare Collection Vending/ Validator & Spares LTK1200	2,000 500 2,500 2,500 2,500 2,500	EA RF RF RF LS	\$750,000 \$123.00 \$109.00 \$11.58 \$34.60	\$750,000 \$246,000 \$54,500 \$28,952 \$86,500 \$718,288	\$718,28
signal S	Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930 Lighting LTK940 Spare Parts/ System support LTK950 ystem Signal ilications Communications lection Fare Collection Vending/ Validator & Spares LTK1200	2,000 500 2,500 2,500 2,500 2,500	RF RF RF LS	\$123.00 \$109.00 \$11.58 \$34.60 \$287.32	\$246,000 \$54,500 \$28,952 \$86,500 \$718,288	\$718,28
ommur	OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930 Lighting LTK940 Spare Parts/ System support LTK950 ystem Signal ilications Communications lection Fare Collection Vending/ Validator & Spares LTK1200	2,000 500 2,500 2,500 2,500 2,500	RF RF RF LS	\$123.00 \$109.00 \$11.58 \$34.60 \$287.32	\$246,000 \$54,500 \$28,952 \$86,500 \$718,288	
ommur	OCS Simple Catenary LTK930 Lighting LTK940 Spare Parts/ System support LTK950 ystem Signal inications Communications lection Fare Collection Vending/ Validator & Spares LTK1200	2,500 2,500 2,500 2,500 2,500	RF RF LS	\$109.00 \$11.58 \$34.60 \$287.32	\$54,500 \$28,952 \$86,500 \$718,288	
ommur	Lighting LTK940 Spare Parts/ System support LTK950 ystem Signal iccations Communications lection Fare Collection Vending/ Validator & Spares LTK1200	2,500 2,500 2,500 2,500	RF LS RF	\$11.58 \$34.60 \$287.32	\$28,952 \$86,500 \$718,288	
ommur	Spare Parts/ System support LTK950 ystem Signal hications Communications lection Fare Collection Vending/ Validator & Spares LTK1200	2,500 2,500 2,500	LS RF	\$34.60 \$287.32	\$86,500 \$718,288	
ommur	ystem Signal Ications Communications lection Fare Collection Vending/ Validator & Spares LTK1200	2,500	RF	\$287.32	\$718,288	
ommur	Signal nications Communications lection Fare Collection Vending/ Validator & Spares LTK1200	2,500				
	itications Communications lection Fare Collection Vending/ Validator & Spares LTK1200	2,500				
	Communications lection Fare Collection Vending/ Validator & Spares LTK1200	·	RF	\$131.43	****	#220 F7
are Col	lection Fare Collection Vending/ Validator & Spares LTK1200	·	RF.			\$328,57
are Col	Fare Collection Vending/ Validator & Spares LTK1200			Ψ101.10	\$328,575	# 040.00
			1.0	0040.004	MO40 004	\$212,32
		1	LS	\$212,321	\$212,321	A0 101 07
	Subtotal - Infrastructure			Subtotal		\$9,484,07
ight of \						
	DEA Right of Way Acquisition Budget Estimate (Including					
	Railroads & Operation Facility)		LS	\$30,000,000		
	HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
	Allowance		LS	\$5,000,000.00		
ehicles						
	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
	Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
	ring & Administration			Subtotal		\$3,319,42
tructure	E & A 35.00%				\$3,319,425	
le	E & A 5.00%					
ontinge				Subtotal		\$2,896,81
les	Contingency 5.00%					
tructure	Contingency 20.00%				\$1,646,814	
es	Contingency 100.00%				\$1,250,000	
Vashing	ton State Sales Tax					\$693,33
	Sales Tax 8.40%				\$693,329.67	
	Sales Tax has been applied to 2/3 of Infrastructure &					
	Contingency (Reduced to eliminate tax on Labor) and 100%					
	of the vehicle's estimated total.					
					Total	\$16,393,642
	shing	Sales Tax 8.40% Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100%	Sales Tax 8.40% Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100%	Sales Tax 8.40% Sales Tax 8.40% Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100%	Sales Tax 8.40% Sales Tax 8.40% Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100%	Sales Tax Sales Tax Sales Tax 8.40% \$693,329.67 Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Trent Station to Hamilton St Bridge Area		50+00	75+00	2,500 FT	0.5 mile
	C -203	BN Section		30+00	73+00	2,50011	0.5 111116
	C -203	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Oilit	Onit Cost	LAGIISIOII	\$2,519,955
1	. GIVII GOIIG	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ2,010,000
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation	21,044	CY	\$15.00	\$315,660	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	7,330	CY	\$15.00 \$4.00	¢20, 220	
8		Landscaping Allowance	7,330	SF	\$2.00	\$29,320	
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00		
10		Chain Link Fencing 6'	4,500	LF	\$22.00	\$99,000	
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500		\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	F 000	EA TF	\$8,000	£4.445.000	
14 15		Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade	5,000	TF	\$223 \$312	\$1,115,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23 24		Impact Attenuators		EA	\$35,000		
25		Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes)		EA EA	\$25,000 \$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31 32		Sidewalk Construction Off Alignment Signal Modifications		SF EA	\$6.00 \$75,000.00		
32		Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide	1,400	LF	\$35.00	\$49,000	
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36 37		Remove & Relocate Industrial Spur HDR Provide Team Track and Loading Dock (HDR)		TF LS	\$130.00 \$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$120,000.00	\$120,000	
40		OCS Pole Foundations LTK120	2,500		\$15.06	\$37,650	
41		Signal Communication Building LTK130	1	EA	\$100,000.00	\$100,000	
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00	\$500,000	
43 50	2 Incurance	Corrosion Mitigation LTK150 e - Included other in Items	2,500	RF	\$10.73	\$26,825	
57	3 - Utilities	- included other in items					\$250,000
59		Utility Allowance - High		RF	\$600.00		Ψ200,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		terials - Included in the Rail Items					
74 75	5 - Structure	s Bridge Structures DEA		LS	\$1.00		
75 76		Bridge Structures DEA Bridge Location		LO	\$1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
	6 - Stations					0	\$850,000
105		Stations Station Name	Trant Station (LS Contar Blotforn	\$700,000	\$700,000	
106 107		Station Name Allowance for Art at Stations & Park & Rides	1 rent Station (\$50,000	Center Platforr LS	m \$1.00	\$50,000	
107		Platform Electrical LTK610	\$50,000		\$100,000		
	7 - Park & Ri		<u> </u>		ψ100,000	\$100,000	
115				Space	\$4,300		
115 116		Park & Ride	<u> </u>	Space	Ψ+,500		
115 116 117		Park & Ride Location	Trent Station	Space	ψ4,500		
115 116	8 - Operation		Trent Station	LS	\$18,611,516		

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Trent Station to Hamilton St Bridge Area		50+00	75+00		0.5 mile
	C -203	BN Section				_,	
	0 200	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Quantity	LS	\$4.160.844	Exterioren	200.4
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			\$1,000,000		\$1,137,95
136	o muonom	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	Ψ1,101,00
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$11.58		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60		
147	10 - Signal S		2,300		ψ54.00	φου,500	\$718,28
148	10 - Signal S	Signal	2,500	RF	\$287.32	\$718,288	Ψ1 10,20
151	11 - Commur		2,300	IXI	Ψ201.32	Ψ110,200	\$328,57
152	11 - Commu	Communications	2,500	RF	\$131.43	\$328,575	φ320,37
157	12 - Fare Col		2,300	ΝΓ	\$131.43	φ320,373	\$212,32
158	12 - Fare Col	Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$212,321	\$212,321	\$212,32
160		Subtotal - Infrastructure	- '	LO	Subtotal	ΦΖ1Ζ,3Ζ1	\$6,017,09
161		Subtotal - Infrastructure			Subtotal		\$6,017,09
	40 Dimbs of 1	M					
162	13. Right of \	DEA Right of Way Acquisition Budget Estimate (Including					
400					# 00 000 000		
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -			^=		
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles	I FI I I I I P II V I I I P P P P P P P P P			*** *** *** *** ***		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ring & Administration			Subtotal		\$2,105,98
180	Infrastructure	E & A 35.00%				\$2,105,982	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,403,41
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,153,418	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$415,54
195		Sales Tax 8.40%				\$415,548.48	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$9,942,03
					1		

	oponanc	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Hamiliton St Bridge Area to Helena Street		75+00	100+00	2,500 FT	0.5 mile
	C -204	BN Section		73+00	100+00	2,30011	0.5 111116
	C -204	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const	•	Quantity	Oilit	Onit Oost	Extension	\$2,396,310
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	ΨΞ,000,01.
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation	2,088	CY	\$15.00	\$31,320	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	13,697 36,640	CY	\$15.00 \$4.00	\$205,455 \$146,560	
8		Landscaping Allowance	30,640	SF	\$2.00	\$140,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00		
10		Chain Link Fencing 6'	200	LF	\$22.00	\$4,400	
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	5.000	EA	\$8,000	* 445 000	
14 15		Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade	5,000	TF TF	\$223 \$312	\$1,115,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24 25		Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes)		EA EA	\$25,000 \$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide	560	LF	\$35.00	\$19,600	
- 55		Industrial Railroad Turnouts East Side Syndicate Spur -	300		ψ33.00	Ψ13,000	
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR	1,400	TF	\$130.00	\$182,000	
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110		LS EA	\$476,000.00 \$120,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$120,000.00	\$37,650	
41		Signal Communication Building LTK130	2,000	EA	\$100,000.00	ψον,000	
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00	\$500,000	
43		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,825	
50		- Included other in Items					
57	3 - Utilities	LICEC Allows and LP-1		55	# 000.00		\$250,00
59 60		Utility Allowance - High Utility Allowance - Medium		RF RF	\$600.00 \$350.00		
61		Utility Allowance - Neddum Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70	4 - Track Mat	terials - Included in the Rail Items	2,000	. 41	ψ100.00	\$250,000	
74	5 - Structure	s					\$1,596,00
75		Bridge Structures DEA	891,000	LS	\$1.00	\$891,000	
76		Bridge Location	Erie & Helena		* *		
77		Retaining Wall 4' Max (Low Gravity Wall)	00.500	SF	\$32.00	\$70F 000	
78 79		MSE Retaining Wall - Typical DEA Cut & Cover Box/ Tunnel to Pine Road Aerial Station	23,500	SF LF	\$30.00 \$3,500.00	\$705,000	
104	6 - Stations	Cat a Cover Bow Turnier to Fine Road Aerial Station		LI	ψυ,υυυ.υυ		
105		Stations	1	LS			
106		Station Name					
107		Allowance for Art at Stations & Park & Rides		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ri			0	01.000		
116 117		Park & Ride Park & Ride Location		Space	\$4,300		
117	8 - Operation	ns Facility (All Yard elements Included)					
123	- Operation	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		
124		Operations Facility Building LTK		SF	\$171.00		

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Hamiliton St Bridge Area to Helena Street		75+00	100+00		0.5 mile
	C -204	BN Section		70.00	100100	2,00011	0.0 11111
	0 204	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Quantity	LS	\$4.160.844	LAGIISIOII	20019
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	0 Traction F	Power System		LO	\$1,900,000		\$387,95
136	9 - Traction F	Sub-Station Type 3 LTK 910		Ε.Δ.	Ф 7 ГО 000		\$307,93.
		OCS Single Contact Wire LTK920		EA RF	\$750,000		
138			0.500		\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	. ,	
141		Lighting LTK940	2,500	RF	\$11.58		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60	\$86,500	
147	10 - Signal S						\$718,28
148		Signal	2,500	RF	\$287.32	\$718,288	
151	11 - Commun	nications					\$328,57
152		Communications	2,500	RF	\$131.43	\$328,575	
157	12 - Fare Col	lection					
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		
160		Subtotal - Infrastructure			Subtotal		\$5,677,12
161							4 0,011,12
162	13. Right of \	Nav					
102	10. Right of 1	DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
103		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -		LO	\$30,000,000		
405		Allowance			ΦE 000 000 00		
165	44 Weblete	Allowance		LS	\$5,000,000.00		
174	14. Vehicles	L EL LILE IIVILIA D. O. METICAGO			*** *** *** ***		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ring & Administration			Subtotal		\$1,986,99
180	Infrastructure	E & A 35.00%				\$1,986,994	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,335,42
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,085,425	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$392,703
195		Sales Tax 8.40%				\$392,702.76	
		Sales Tax has been applied to 2/3 of Infrastructure &				, ,	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
100		or the vernore a commuted total.					
						Total	\$9,392,246
						roidi	φ5,352,246

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drowing	Helena Street to New BN Yard Bridge				J	0 E mile
	Drawing			100+00	125+00	2,500 FT	0.5 mile
	C -205	BN Section	0	1124	11-24 04	F. 4	00046
	1.01.11.0	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Cons	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,641,368
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	2,300	LF	\$35.00	ψ07,300	
4		Common Excavation		CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)	35,831	CY	\$15.00		
6		Common Backfill (From Project Excavation)	58,932	CY	\$4.00		
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00		
10		Chain Link Fencing 6'	500	LF	\$22.00	\$11,000	
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2	EA	\$8,000	\$16,000	
14		Ballasted Track at Grade or Structure	4,400	TF	\$223	\$981,200	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure	600	TF	\$280	\$168,000	
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)		EA	\$200,000		
27 28		Major Traffic Signal (4 Lanes)		EA EA	\$100,000 \$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
02		Construct Maintenance Road Assume All Weather Gravel -		L/(ψ10,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -			700.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$120,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06		
41		Signal Communication Building LTK130		EA	\$100,000.00		
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00		
43		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,825	
50		- Included other in Items					
57	3 - Utilities						\$250,00
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		terials - Included in the Rail Items					A 0.400.00
74	5 - Structure		0.040.000		# 4.00	#0.040.000	\$3,168,00
75		Bridge Structures DEA	2,046,000		\$1.00	\$2,046,000	
76 77		Bridge Location Retaining Wall 4' Max (Low Gravity Wall)	Madelia, Napa	SF	\$20.00		
78		MSE Retaining Wall - Typical DEA	37,400	SF SF	\$32.00		
78 79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station	37,400	LF	\$30.00 \$3,500.00		
104	6 - Stations	Out a Cover Dow Turnier to Fille Nodu Aeriai Station		LF	φ3,500.00		
105	J - GLALIUIIS	Stations	1	LS			
106		Station Name	<u>'</u>				
107		Allowance for Art at Stations & Park & Rides		LS	\$1.00		
108		Platform Electrical LTK610	+	LS	\$100,000		
115	7 - Park & Ri		+		ψ100,000		
116	and and	Park & Ride	1	Space	\$4,300		
117		Park & Ride Location	1	Эриос	ψ+,500		
119	8 - Operation	ns Facility (All Yard elements Included)	 				
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		
124		Operations Facility Building LTK		SF	\$171.00		

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Helena Street to New BN Yard Bridge		100+00	125+00		0.5 mil
	C -205	BN Section			1=0.00	_,000	
	0 200	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Quantity	LS	\$4.160.844	Extonoion	
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			\$1,000,000		\$387,95
136	o muonom	Sub-Station Type 3 LTK 910		EA	\$750,000		ΨΟΟ1,00
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$11.58		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60		
147	10 - Signal S		2,300		ψ04.00	ψου,500	\$718,28
148	10 - Signal S	Signal	2,500	RF	\$287.32	\$718,288	Ψ7 10,20
151	11 - Commun		2,300	IXI	Ψ201.32	Ψ7 10,200	\$328,57
152	11 - Commu	Communications	2,500	RF	\$131.43	\$328,575	φ320,37
157	12 - Fare Col		2,300	ΝΓ	\$131.43	φ320,373	
158	12 - Fare Con	Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		
160		Subtotal - Infrastructure		LO	Subtotal		\$7,494,18
161		Subtotal - Infrastructure			Subiolai		Φ1, 494 ,10
	42 Dialet of V	Ma					
162	13. Right of V	DEA Right of Way Acquisition Budget Estimate (Including					
400					# 00 000 000		
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -			A = 000 000 00		
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles				***		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ring & Administration			Subtotal		\$2,622,96
180	Infrastructure	E & A 35.00%				\$2,622,964	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,698,83
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,448,836	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$514,80
195		Sales Tax 8.40%				\$514,809.06	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$12,330,79
			-		1		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	New BN Yard Bridge to Regal Street		125+00	150+00	2,500 FT	0.5 mile
	C -206	UP Section		120100	100100	2,00011	0.0 111110
	0 200	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const	·	quantity	0	Oint Goot	Extension	\$2,739,317
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3 4		Curb & Gutter Allowance Common Excavation	2,078	LF CY	\$35.00 \$15.00	\$31,170	
5		Select Backfill (MSE Retaining Walls)	21,120	CY	\$15.00	\$31,170	
6		Common Backfill (From Project Excavation)	568	CY	\$4.00	\$2,272	
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)	2,850	LF	\$16.00	\$45,600	
10 11		Chain Link Fencing 6' Ballast Walls (Curb-no drainage)	2,000 1,250	LF LF	\$22.00 \$22.00	\$44,000 \$27,500	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,000	EA	\$8,000	ψ.ο,οσο	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16 19		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF TF	\$280 \$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover	1	EA	\$150,000	\$150,000	
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24 25		Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes)		EA EA	\$25,000 \$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30 31		Roadway Construction Sidewalk Construction		SF SF	\$9.00 \$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
34		Industrial Railroad Turnouts East Side Syndicate Spur - HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line	950	TF	\$65,000.00	\$95,000	
36		Remove & Relocate Industrial Spur HDR	550	TF	\$130.00	φου,ουσ	
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39 40		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2,500	EA RF	\$120,000.00 \$15.06	\$120,000 \$37,650	
41		Signal Communication Building LTK130	2,300	EA	\$100,000.00	\$100,000	
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00	\$500,000	
43		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,825	
50		e - Included other in Items					0050.000
57 59	3 - Utilities	Utility Allowance - High		RF	\$600.00		\$250,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74	5 - Structure:		200 500	10	Φ4 00	¢000 500	\$775,500
75 76		Bridge Structures DEA Bridge Location	280,500 Altamont	LS	\$1.00	\$280,500	
77		Retaining Wall 4' Max (Low Gravity Wall)	, marron	SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	16,500	SF	\$30.00	\$495,000	
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station	1	LF	\$3,500.00		0.5====
104 105	6 - Stations	Stations	1	LS	\$700,000	\$700,000	\$850,000
105		Stations Station Name	Altamont Stati			\$700,000	
107		Allowance for Art at Stations & Park & Rides	\$50,000		\$1.00	\$50,000	
108		Platform Electrical LTK610	1	LS	\$100,000	\$100,000	
115	7 - Park & Ri			0	0.000		
116 117		Park & Ride Park & Ride Location		Space	\$4,300		
117	8 - Operation	is Facility (All Yard elements Included)	+				
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		
124		Operations Facility Building LTK		SF	\$171.00		<u>-</u>

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	New BN Yard Bridge to Regal Street		125+00	150+00		0.5 mil
	C -206	UP Section			100.00	_,000	
	0 200	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Quantity	LS	\$4.160.844	Extonoion	
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,000,000		\$1,137,95
136	J - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,107,50
138		OCS Single Contact Wire LTK920	-	RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$11.58		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60		
147	10 - Signal S		2,300	LO	\$34.00	\$60,500	\$718,28
148	iu - Signai S	Signal	2,500	RF	\$287.32	\$718,288	φ/ 10,20
151	11 - Commur		2,500	KF	\$201.32	\$7.10,200	\$328,57
152	11 - Commu	Communications	2.500	RF	\$131.43	\$328,575	Φ3∠0,3 7
	12 - Fare Col		2,500	KF	\$131.43	\$328,575	#040.00
157 158	12 - Fare Coi	Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$212,321	\$212,321	\$212,32
160		Subtotal - Infrastructure	1	LS	\$212,321 Subtotal	\$212,321	Φ7.044.0F
		Subtotal - Infrastructure			Subtotal		\$7,011,95
161	40 Diale (1	V					
162	13. Right of V						
		DEA Right of Way Acquisition Budget Estimate (Including			****		
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ing & Administration			Subtotal		\$2,454,18
180	Infrastructure	E & A 35.00%				\$2,454,183	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,602,39
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,352,390	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$482,40
195		Sales Tax 8.40%				\$482,403.20	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$11,550,93

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

	Spokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Regal Street to Freya Street		150+00	175+00	2,500 FT	0.5 mile
	C -207	UP Section		130100	173100	2,00011	0.5 111110
	0 -201	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const	•	Quantity	Onic	Omit Gost	Exterior	\$2,766,122
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	+ , ,
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	5 700	LF CY	\$35.00		
5		Common Excavation Select Backfill (MSE Retaining Walls)	5,709	CY CY	\$15.00 \$15.00	\$85,635	
6		Common Backfill (From Project Excavation)	28	CY	\$4.00		
8		Landscaping Allowance		SF	\$2.00	·	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	2,100	LF	\$16.00		
10		Chain Link Fencing 6'	2,850	LF	\$22.00		
11 12		Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance	4,600 2,500	LF LF	\$22.00 \$6.00	\$101,200 \$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	EA	\$8,000	\$13,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19 20		LRT Siding or Pocket Track Double Crossover		TF EA	\$230 \$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance	3	EA	\$25,000	\$75,000	
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)		EA EA	\$200,000 \$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
- 00		Industrial Railroad Turnouts East Side Syndicate Spur -			φοσ.σσ		
34		HDR	2	EA	\$65,000.00	\$130,000	
35		Relocate UPRR Yard Lead or Branch Line	2,500	TF	\$100.00	\$250,000	
36		Remove & Relocate Industrial Spur HDR	930	TF	\$130.00	\$120,900	
37 38		Provide Team Track and Loading Dock (HDR) Lake Rd Industrial Spur Modifications (HDR)		LS LS	\$208,000.00 \$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$120,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,650	
41		Signal Communication Building LTK130		EA	\$100,000.00		
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00	\$500,000	
43 50	2 Incurance	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,825	
57	3 - Utilities	; - included other in items					\$250.000
59		Utility Allowance - High		RF	\$600.00		Ψ=00,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		terials - Included in the Rail Items					
74 75	5 - Structure	s Bridge Structures DEA		LS	\$1.00		
76	 	Bridge Structures DEA Bridge Location			ψ1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79	0.00-11	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104 105	6 - Stations	Stations	1	LS			
106		Stations Station Name	1	LO			
107		Allowance for Art at Stations & Park & Rides		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ri						
116		Park & Ride		Space	\$4,300		
117 119	8 - Operation	Park & Ride Location as Facility (All Yard elements Included)					
123	o - Operation	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		
124	1	Operations Facility Building LTK	 	SF	\$171.00		

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Regal Street to Freya Street		150+00	175+00		0.5 mile
	C -207	UP Section				_,	
	0 20.	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Quantity	LS	\$4.160.844	Exterioreri	200.0
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,000,000		\$387,95
136	J - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ501,55
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$11.58		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60		
	10 - Signal S		2,500	LS	\$34.00	Φ00,000	Ф 7 40 00
147 148	10 - Signai S	Signal	2,500	RF	\$287.32	\$718,288	\$718,28
	11 - Commur		2,500	KF	\$287.32	\$718,288	#220 F7
151	11 - Commun		0.500	DE	0 404.40	#000 F7F	\$328,57
152		Communications	2,500	RF	\$131.43	\$328,575	
157	12 - Fare Col				2010.001		
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		
160		Subtotal - Infrastructure			Subtotal		\$4,450,93
161							
162	13. Right of \						
		DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ring & Administration			Subtotal		\$1,557,82
180	Infrastructure	E & A 35.00%				\$1,557,828	
181	Vehicle	E & A 5.00%					
185	16 - Continge	encies			Subtotal		\$1,090,18
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$840,187	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$310,30
195		Sales Tax 8.40%				\$310,302.93	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
	1				1	Total	\$7,409,25
	1						ψ.,.σσ,2σ
	+						

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Freya Street to Havana Street Area		175+00	200+00	2,500 FT	0.5 mile
	C -208	UP Section		173+00	200+00	2,50011	0.5 111116
	C -208	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Oilit	Offic Cost	LAGIISIOII	\$3,144,634
1	1-OIVII OOIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	ψυ, 174,00-
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation	5,861	CY	\$15.00	\$87,915	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	486	CY	\$15.00 \$4.00	£1 044	
8		Landscaping Allowance	486	SF	\$2.00	\$1,944	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	4,700	LF	\$16.00	\$75,200	
10		Chain Link Fencing 6'	300	LF	\$22.00	\$6,600	
11		Ballast Walls (Curb-no drainage)	4,000	LF	\$22.00	\$88,000	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	5 000	EA	\$8,000	04.445.000	
14 15		Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade	5,000	TF TF	\$223 \$312	\$1,115,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$312		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout	1	EA	\$75,000	\$75,000	
23 24		Impact Attenuators	2	EA EA	\$35,000	\$ 50,000	
25		Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes)		EA	\$25,000 \$100,000	\$50,000	
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000	7=11,111	
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31 32		Sidewalk Construction Off Alignment Signal Modifications	1	SF EA	\$6.00 \$75,000.00	\$75,000	
32		Construct Maintenance Road Assume All Weather Gravel -	1	EA	\$75,000.00	\$75,000	
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line	2,500	TF	\$100.00	\$250,000	
36 37		Remove & Relocate Industrial Spur HDR Provide Team Track and Loading Dock (HDR)	1	TF LS	\$130.00 \$208,000.00	\$208,000	
38		Lake Rd Industrial Spur Modifications (HDR)	1	LS	\$476,000.00	\$208,000	
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$120,000.00	\$120,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,650	
41		Signal Communication Building LTK130	1	EA	\$100,000.00	\$100,000	
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00	\$500,000	
43 50	2 Incurance	Corrosion Mitigation LTK150 - Included other in Items	2,500	RF	\$10.73	\$26,825	
57	3 - Utilities	- moladed other in items					\$250,000
59		Utility Allowance - High		RF	\$600.00		\$200,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					#
74 75	5 - Structure:	s Bridge Structures DEA		LS	\$1.00		\$105,000
76		Bridge Location		LO	Ψ1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	3,500	SF	\$30.00	\$105,000	
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Out the same of th			AT00.00	#	\$850,000
105		Stations Station Name	Control Station	LS Contor Blotfe	\$700,000	\$700,000	
106 107		Station Name Allowance for Art at Stations & Park & Rides	Central Station \$50,000	LS	5rm \$1.00	\$50,000	
107		Platform Electrical LTK610	\$30,000	LS	\$100,000	\$100,000	
115	7 - Park & Ri		<u>'</u>		\$.55,500	Ţ.00,000	
116		Park & Ride		Space	\$4,300		
		Park & Ride Location					-
117							
117 119 123	8 - Operation	s Facility (All Yard elements Included) Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Freya Street to Havana Street Area		175+00	200+00		0.5 mile
	C -208	UP Section		110100	200100	2,000 1 1	0.0 11111
	0 200	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Qualitity	LS	\$4.160.844	LATERISION	2001φ
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	Q - Traction E	Power System		LO	\$1,300,000		\$1,137,95
136	9 - Haction F	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	\$1,137,93
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Contact Wire LTR920	2,500	RF	\$123.00		
141		,	,	RF			
		Lighting LTK940 Spare Parts/ System support LTK950	2,500	LS	\$11.58 \$34.60		
142	40. 0'		2,500	LS	\$34.60	\$86,500	#740.00
147	10 - Signal S		0.500	RF	\$287.32	\$718,288	\$718,28
148	44 0	Signal	2,500	KF	\$287.32	\$718,288	#000 F7
151	11 - Commun		0.500		*	A000 575	\$328,57
152		Communications	2,500	RF	\$131.43	\$328,575	***
157	12 - Fare Col				2010.001	2010.001	\$212,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$212,321	\$212,321	00 7 10 70
160		Subtotal - Infrastructure			Subtotal		\$6,746,76
161							
162	13. Right of V						
		DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ing & Administration			Subtotal		\$2,361,36
180	Infrastructure	E & A 35.00%				\$2,361,369	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,549,35
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,299,354	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$464,58
195		Sales Tax 8.40%				\$464,582.91	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$11,122,07

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

	Spokane	Regional					
	•	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Havana Street Area toUPRR Spokane Yard					
	Drawing	Area		200+00	225+00	2,500 FT	0.5 mile
		UP Section				,,,,,,	
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const						\$3,594,707
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	
2		Grade Preparation to Top of subballast. Curb & Gutter Allowance	2,500	LF LF	\$35.00 \$35.00	+ - ,	
4		Common Excavation	1,322	CY	\$15.00	\$19,830	
5		Select Backfill (MSE Retaining Walls)	1,000	CY	\$15.00	4.0,000	
6		Common Backfill (From Project Excavation)	16,413	CY	\$4.00		
8		Landscaping Allowance		SF	\$2.00		
9 10		Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6'	700 4,300	LF LF	\$16.00 \$22.00	\$11,200 \$94,600	
11		Ballast Walls (Curb-no drainage)	4,300	LF	\$22.00	\$94,000	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	,	EA	\$8,000		
14		Ballasted Track at Grade or Structure	6,150	TF	\$223	\$1,371,450	
15		Embedded (Paved) Track at Grade		TF	\$312		
16 19		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track	1,500	TF TF	\$280 \$230	\$345,000	
20		Double Crossover	1,500	EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout	6		\$75,000	\$450,000	
23		Impact Attenuators		EA	\$35,000		
24 25		Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes)		EA EA	\$25,000 \$100,000		
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000	Ψ200,000	
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31 32		Sidewalk Construction Off Alignment Signal Modifications	1	SF EA	\$6.00 \$75,000.00	\$75,000	
52		Construct Maintenance Road Assume All Weather Gravel -		LA	Ψ13,000.00	Ψ13,000	
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR	500	EA	\$65,000.00	# 50.000	
35 36		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR	500	TF TF	\$100.00 \$130.00	\$50,000	
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$120,000.00	\$120,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06		
41 42		Signal Communication Building LTK130 Systems wide Ductbank/ Conduit LTK140	2,500	EA RF	\$100,000.00 \$200.00	\$100,000 \$500,000	
42		Corrosion Mitigation LTK150	2,500	RF	\$200.00	\$26,825	
	2 - Insurance	- Included other in Items	2,000		ψ10.70	Ψ20,020	
	3 - Utilities						\$250,000
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium Utility Allowance - Low	2 500	RF RF	\$350.00 \$100.00	\$250,000	
61 70	4 - Track Mat	erials - Included in the Rail Items	2,500	KF	\$100.00	φ∠50,000	
	5 - Structures						\$285,000
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78 79		MSE Retaining Wall - Typical DEA Cut & Cover Box/ Tunnel to Pine Road Aerial Station	9,500	SF LF	\$30.00 \$3,500.00		
	6 - Stations	Cut & Cover Dow Turiner to Fine Road Aeriai Station		LF	φ3,500.00		\$1,650,000
105		Stations	1		\$1,500,000	\$1,500,000	Ţ.,000,000
106		Station Name	Fairgrounds V	V Station Triple	Platform		
107		Allowance for Art at Stations & Park & Rides	\$50,000	LS	\$1.00	\$50,000	
108	7 Dark 9 Di	Platform Electrical LTK610	1	LS	\$100,000	\$100,000	¢060,000
115 116	7 - Park & Ric	Park & Ride	200	Space	\$4,300	\$860,000	\$860,000
117		Park & Ride Location	Fairgrounds V		ψ+,500	ψουσ,σου	
			J				
	8 - Operation	s Facility (All Yard elements Included) Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Havana Street Area toUPRR Spokane Yard				- 5	
	Drawing	Area		200+00	225+00	2,500 FT	0.5 mile
	C -209	UP Section		200:00	220.00	2,000	0.0
	0 200	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	quantity	SF	\$171.00		200.4
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,500,000		\$1,137,95
136	J - Haction I	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,107,00
138		OCS Single Contact Wire LTK920	'	RF	\$123.00		
139		OCS Simple Contact Wire LTK920 OCS Simple Catenary LTK930	2.500	RF	\$123.00		
141		Lighting LTK940	2,500	RF	\$109.00		
141		Spare Parts/ System support LTK950	2,500	LS	\$34.60		
	10 - Signal S		2,500	LS	\$34.00	\$60,300	Ф 7 40 00
147	iu - Signai S		2.500	DE	¢007.00	₾740.000	\$718,28
148	44 . С	Signal	2,500	RF	\$287.32	\$718,288	#200 F7
151	11 - Commun		0.500	-	0101 10	\$000 F7F	\$328,57
152		Communications	2,500	RF	\$131.43	\$328,575	001000
157	12 - Fare Col						\$212,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$212,321	\$212,321	
160		Subtotal - Infrastructure			Subtotal		\$9,036,84
161							
162	13. Right of V						
		DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179	15 - Engineer	ring & Administration			Subtotal		\$3,162,89
180	Infrastructure	E & A 35.00%				\$3,162,895	
181	Vehicle	E&A 5.00%					
185	16 - Continge	encies			Subtotal		\$2,007,36
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,757,368	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax				, , , , , , ,	\$618,470
195		Sales Tax 8.40%				\$618,475.81	
		Sales Tax has been applied to 2/3 of Infrastructure &				4 0.10, 110.101	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
100		o. a.o romano o odimicio diciali					
						Total	\$14,825,58
						1 Otal	Ψ17,020,002

	opokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	UPRR Spokane Yard Area		225+00	250+00	2,500 FT	0.5 mile
	C -210	UP Section		223+00	250+00	2,500 FT	0.5 111116
	C-210	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Offic	Unit Cost	Extension	\$2,258,253
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	φ2,200,20
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	, , , , , ,	LF	\$35.00		
4		Common Excavation	393	CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)	17,333	CY	\$15.00		
6		Common Backfill (From Project Excavation)	1,722	CY	\$4.00	\$6,888	
<u>8</u> 9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	3,600	SF LF	\$2.00 \$16.00	\$57,600	
10		Chain Link Fencing 4 (on waits of Ballast Culb)	1,400	LF	\$22.00		
11		Ballast Walls (Curb-no drainage)	1,100	LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2	EA	\$8,000		
14		Ballasted Track at Grade or Structure	3,700	TF	\$223	\$825,100	
15		Embedded (Paved) Track at Grade		TF	\$312	0001005	
16		Direct Fixation (DF) Track, Elevated Structure	1,300	TF TF	\$280	\$364,000	
19 20		LRT Siding or Pocket Track Double Crossover	+	EA	\$230 \$300,000		
21		Single Crossover	+	EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28 29		Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild		EA EA	\$200,000 \$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35 36		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR		TF TF	\$100.00 \$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$120,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,650	
41		Signal Communication Building LTK130		EA	\$100,000.00		
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00	\$500,000	
43 50	2 Incurence	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,825	
57	3 - Utilities	- moraded other in items	1				\$250,000
59	- Junios	Utility Allowance - High	1	RF	\$600.00		Ψ200,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500		\$100.00		
70		terials - Included in the Rail Items					
74	5 - Structure		0.011.0	1.0	A	#0.044.00	\$3,276,000
75 76		Bridge Structures DEA Bridge Location	2,211,000		\$1.00	\$2,211,000	
76		Retaining Wall 4' Max (Low Gravity Wall)	RR Spur Over	pass SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	35,500	SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station	33,500	LF	\$3,500.00		
104	6 - Stations				,		
105		Stations	1	LS			
106		Station Name					
107		Allowance for Art at Stations & Park & Rides		LS	\$1.00		
108	7 D- 1 0 -:	Platform Electrical LTK610	1	LS	\$100,000		
115	7 - Park & Ri	des Park & Ride	1	Space	Ø4 200		
116 117		Park & Ride Park & Ride Location	+	Space	\$4,300		
119	8 - Operation	ns Facility (All Yard elements Included)	†				
123	, 5p0, acioi	Bldg & Yard Site Prep, Grading & Utilities LTK811	1	LS	\$18,611,516		
124		Operations Facility Building LTK		SF	\$171.00		

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	UPRR Spokane Yard Area		225+00	250+00		0.5 mil
	C -210	UP Section		220.00	200100	2,000 1 1	0.0 11111
	0 210	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Qualitity	LS	\$4.160.844	EXICIIOIOII	2001ψ
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,500,000		\$387,95
136	3 - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ307,93
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Contact Wire LTK920	2,500	RF	\$123.00		
		' '	,	RF			
141		Lighting LTK940	2,500		\$11.58		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60	\$86,500	
147	10 - Signal S						\$718,28
148		Signal	2,500	RF	\$287.32	\$718,288	
151	11 - Commur						\$328,57
152		Communications	2,500	RF	\$131.43	\$328,575	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		
160		Subtotal - Infrastructure			Subtotal		\$7,219,06
161							
162	13. Right of V	Vay					
		DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles				4 0,000,000.00		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179	15 - Engineer	ring & Administration			Subtotal		\$2,526,67
180	Infrastructure	E & A 35.00%			Gubtotai	\$2,526,674	ΨΣ,020,01
181	Vehicle	E & A 5.00%				Ψ2,020,011	
185	16 - Continge				Subtotal		\$1,643,81
187	Vehicles	Contingency 5.00%			Subiolai		ψ1,0 4 3,01
189	Infrastructure	Contingency 20.00%				\$1,393,813	
191	Utilities	Contingency 100.00%				\$250,000	
194		ton State Sales Tax				\$250,000	\$496,32
194	17 - wasning	Sales Tax 8.40%				£400 204 22	\$490,32
195						\$496,321.33	
		Sales Tax has been applied to 2/3 of Infrastructure &					
400		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						-	***
						Total	\$11,885,87

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	UPRR Spokane Yard Area to Interstate 90		250+00	275+00	2,500 FT	0.5 mile
	C -211	UP Section		200.00	270100	2,00011	0.0 111110
	0 211	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const	•	quantity	0	Oline Goot	ZATORIOIO	\$3,300,572
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	* - / / -
2		Grade Preparation to Top of subballast.	2,500		\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
<u>4</u> 5		Common Excavation Select Backfill (MSE Retaining Walls)	8,327 12,840	CY	\$15.00 \$15.00	\$124,905 \$192,600	
6		Common Backfill (From Project Excavation)	273		\$4.00	\$1,092	
8		Landscaping Allowance	210	SF	\$2.00	Ψ1,002	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	2,500		\$16.00	\$40,000	
10		Chain Link Fencing 6'	1,900		\$22.00	\$41,800	
11		Ballast Walls (Curb-no drainage)	100		\$22.00	\$2,200	
12		Site Cleanup and Final Grading Allowance	2,500		\$6.00	\$15,000	
13 14		Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	5,000	EA TF	\$8,000 \$223	\$1,115,000	
15		Embedded (Paved) Track at Grade	3,000	TF	\$312	\$1,113,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover	1	EA	\$150,000		
22		Turnout	1	EA	\$75,000	\$75,000	
23 24		Impact Attenuators Minor Street Closures Allowance		EA EA	\$35,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$25,000 \$100,000		
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000	7=10,000	
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31 32		Sidewalk Construction Off Alignment Signal Modifications		SF EA	\$6.00 \$75,000.00		
32		Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -			700.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line	1,200		\$100.00	\$120,000	
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37 38		Provide Team Track and Loading Dock (HDR) Lake Rd Industrial Spur Modifications (HDR)	1	LS LS	\$208,000.00 \$476,000.00	\$476,000	
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$120,000.00	\$120,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,650	
41		Signal Communication Building LTK130	1	EA	\$100,000.00	\$100,000	
42		Systems wide Ductbank/ Conduit LTK140	2,500		\$200.00	\$500,000	
43		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,825	
50		- Included other in Items	-				#050.000
57 59	3 - Utilities	Utility Allowance - High		RF	\$600.00		\$250,000
60		Utility Allowance - High	+	RF	\$350.00		
61		Utility Allowance - Low	2,500		\$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	_,	-	Ţ.22.00	.=11,110	
74	5 - Structures	5					\$2,179,500
75		Bridge Structures DEA	1,122,000		\$1.00	\$1,122,000	
76		Bridge Location	Lake Rd Spur		# 00.00		
77 78		Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA	35,250	SF SF	\$32.00 \$30.00	\$1,057,500	
78		Cut & Cover Box/ Tunnel to Pine Road Aerial Station	ან,∠50	LF	\$3,500.00	φ1,057,500	
104	6 - Stations	23. 3. 50.0. 50.0 Tallion to Fino Roda Aonai Giation			ψυ,υυυ.υυ		
105		Stations	1	LS			
106		Station Name	Future Station				
107		Allowance for Art at Stations & Park & Rides		LS	\$1.00		
108	7 0 0 5:	Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric		+	Coose	£4.000		
116 117		Park & Ride Park & Ride Location	+	Space	\$4,300		
119	8 - Operation	s Facility (All Yard elements Included)	+				
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		
124		Operations Facility Building LTK		SF	\$171.00		

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	UPRR Spokane Yard Area to Interstate 90		250+00	275+00		0.5 mile
	C -211	UP Section				_,000	
	0 2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Quantity	LS	\$4.160.844	Extonoion	200.4
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,000,000		\$1,137,95
136	3 - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,107,00
138		OCS Single Contact Wire LTK920	-	RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$11.58		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60		
147	10 - Signal S		2,300	LO	\$34.00	\$60,500	\$718,28
148	iu - Signai S	Signal	2,500	RF	\$287.32	\$718,288	\$7.10,20
151	11 - Commun		2,300	ΝΓ	\$201.32	\$110,200	\$220 E7
	11 - Commun		2.500	RF	C404 40	\$220 F7F	\$328,57
152	40. 5 0-1	Communications	2,500	KF	\$131.43	\$328,575	
157	12 - Fare Col				0040.004		
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		^= • · · · •
160		Subtotal - Infrastructure			Subtotal		\$7,914,88
161							
162	13. Right of V						
		DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ring & Administration			Subtotal		\$2,770,21
180	Infrastructure	E & A 35.00%				\$2,770,210	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,782,97
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,532,977	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$543,08
195		Sales Tax 8.40%				\$543,080.37	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$13,011,15
	1	I .			1		, , ,

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Interstate 90 to Approx Station 300+00		275+00	300+00	2,500 FT	0.5 mile
		UP Section		270100	000100	2,00011	0.0 111110
	0 212	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const	•	quantity	- Cilic	Omit Goot	ZATORIOIO	\$2,366,576
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	+ //-
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
<u>3</u>		Curb & Gutter Allowance Common Excavation	0.007	LF CY	\$35.00 \$15.00	CO4.00	
5		Select Backfill (MSE Retaining Walls)	6,267	CY	\$15.00 \$15.00	\$94,005	
6		Common Backfill (From Project Excavation)	1,699	CY	\$4.00	\$6,796	
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)	1,000	LF	\$16.00	\$16,000	
10 11		Chain Link Fencing 6' Ballast Walls (Curb-no drainage)	3,900 1,000	LF LF	\$22.00 \$22.00	\$85,800 \$22,000	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$22.00	\$22,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,000	EA	\$8,000	ψτο,οσο	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16	1	Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19 20	1	LRT Siding or Pocket Track Double Crossover		TF EA	\$230 \$300,000		
21	+	Single Crossover	+	EA	\$150,000		
22	1	Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance	1	EA	\$25,000	\$25,000	
25		Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes)	1	EA	\$100,000	\$100,000	
26 27		Minor Traffic Signal (2 Lanes)		EA EA	\$200,000 \$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF EA	\$6.00		
32		Off Alignment Signal Modifications Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -			700.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line	2,100	TF	\$100.00	\$210,000	
36 37		Remove & Relocate Industrial Spur HDR Provide Team Track and Loading Dock (HDR)		TF LS	\$130.00 \$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$120,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,650	
41		Signal Communication Building LTK130		EA	\$100,000.00		
42 43		Systems wide Ductbank/ Conduit LTK140 Corrosion Mitigation LTK150	2,500 2,500	RF RF	\$200.00 \$10.73	\$500,000 \$26,825	
50		- Included other in Items	2,500	KF	\$10.73	\$20,625	
57	3 - Utilities						\$250,000
59		Utility Allowance - High		RF	\$600.00		
60	1	Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low erials - Included in the Rail Items	2,500	RF	\$100.00	\$250,000	
70 74	5 - Structures						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78	1	MSE Retaining Wall - Typical DEA Cut & Cover Box/ Tunnel to Pine Road Aerial Station		SF LF	\$30.00		
79 104	6 - Stations	Cut a Cover Dox/ Furnier to Fine Road Aerial Station	-	ᄕ	\$3,500.00		
105	- Clations	Stations	1	LS			
106		Station Name					
107		Allowance for Art at Stations & Park & Rides		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115 116	7 - Park & Ric	des Park & Ride		Space	\$4,300		
117		Park & Ride Park & Ride Location		Space	\$4,300		
119		s Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		
124	1	Operations Facility Building LTK		SF	\$171.00		

	Spokane	Regional					
	•	Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Interstate 90 to Approx Station 300+00		275+00	300+00		0.5 mile
	C -212	UP Section				_,	
	0 2.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	~	LS	\$4.160.844		
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			* 1,000,000		\$387,95
136		Sub-Station Type 3 LTK 910		EA	\$750,000		400.,000
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$11.58		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60		
147	10 - Signal S		2,000		ψο 1.00	ψου,ουυ	\$718,288
148	io oignaro	Signal	2.500	RF	\$287.32	\$718,288	ψ/ 10,20
151	11 - Commur		2,000	141	Ψ201.02	ψ110,200	\$328,575
152	11 - Commu	Communications	2,500	RF	\$131.43	\$328,575	Ψ320,37
157	12 - Fare Col		2,300	131	ψ101.40	ψ020,010	
158	12 - 1 ale COI	Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		
160		Subtotal - Infrastructure			Subtotal		\$4,051,390
161		Subtotal - Illifasti ucture			Subiolai		ψ 4 ,051,550
162	13. Right of V	Mari					
102	is. Right of v	DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
103		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -		LO	\$30,000,000		
405		Allowance		LS	ФЕ 000 000 00		
165	14. Vehicles	Allowance		LS	\$5,000,000.00		
174 175	14. Venicies	Learn Country De Taylor Country 4000		EA	#0.500.000.00		
		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176	45 5	Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		64 447 00
179		ring & Administration			Subtotal	D4 447 007	\$1,417,987
180	Infrastructure	E & A 35.00%				\$1,417,987	
181	Vehicle	E & A 5.00%			0.1		0 4 040 0 7 4
185	16 - Continge				Subtotal		\$1,010,278
187	Vehicles	Contingency 5.00%				A=00.0=0	
189	Infrastructure	Contingency 20.00%				\$760,278	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$283,453
195		Sales Tax 8.40%				\$283,453.44	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,763,109
	1			l	1	i e	

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Park Road & Spear Ave Area		300+00	325+00	2,500 FT	0.5 mile
	C -213	UP Section		300+00	323+00	2,500 FT	0.5 111116
	C-213		Ougatitus	I Imia	Unit Cost	Cytonolon	20046
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$ \$2,173,216
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	φ2,173,210
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	, , , , , , , , , , , , , , , , , , , ,	LF	\$35.00	, , , , , , , , , , , , , , , , , , , ,	
4		Common Excavation	369	CY	\$15.00	\$5,535	
5		Select Backfill (MSE Retaining Walls)	16,694	CY	\$15.00	\$250,410	
6		Common Backfill (From Project Excavation)	524	CY	\$4.00	\$2,096	
8 9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	2,500	SF LF	\$2.00 \$16.00	\$40,000	
10		Chain Link Fencing 4 (on waits of Ballast Curb) Chain Link Fencing 6'	2,500	LF	\$22.00	\$55,000	
11		Ballast Walls (Curb-no drainage)	600	LF	\$22.00	\$13,200	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	, , , , , , , , , , , , , , , , , , , ,	EA	\$8,000	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track	1	TF	\$230		
20 21		Double Crossover Single Crossover	+	EA EA	\$300,000 \$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA SF	\$300,000		
30 31		Roadway Construction Sidewalk Construction	+	SF	\$9.00 \$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -			ψ. ο,οοο.οο		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37 38		Provide Team Track and Loading Dock (HDR) Lake Rd Industrial Spur Modifications (HDR)		LS LS	\$208,000.00 \$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$120,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,650	
41		Signal Communication Building LTK130	, , , , , , , , , , , , , , , , , , , ,	EA	\$100,000.00	, , , , , , , , , , , , , , , , , , , ,	
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00	\$500,000	
43		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,825	
50		- Included other in Items					
57	3 - Utilities	LICEC Allege LICE		-	# 000 00		\$250,000
59 60		Utility Allowance - High Utility Allowance - Medium		RF RF	\$600.00 \$350.00		
61		Utility Allowance - Ivedium Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70	4 - Track Mat	terials - Included in the Rail Items	2,550	131	ψ100.00	Ψ200,000	
74	5 - Structure:						\$1,494,000
75		Bridge Structures DEA	841,500		\$1.00	\$841,500	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
76		Bridge Location	Park Rd & Spe				
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	21,750	SF	\$30.00	\$652,500	
79	6 - Stations	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104 105	o - Stations	Stations	1	LS			
106		Station Name	1	LO			
107		Allowance for Art at Stations & Park & Rides		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ri			-	F:11,100		
		Park & Ride		Space	\$4,300		
116							
117		Park & Ride Location					
	8 - Operation	Park & Ride Location s Facility (All Yard elements Included) Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		

		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Park Road & Spear Ave Area		300+00	325+00		0.5 mile
	C -213	UP Section		000100	020100	2,00011	0.0 11111
	0-213	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Qualitity	LS	\$4.160.844	LAIGHSIOH	20019
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
	9 - Traction F	Power System			\$1,300,000		\$387,95
136	9 - Haction F	Sub-Station Type 3 LTK 910		EA	\$750,000		φ307,93
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Contact Wire LTK920	2,500	RF	\$123.00		
141		' '	,	RF			
		Lighting LTK940 Spare Parts/ System support LTK950	2,500	LS	\$11.58 \$34.60		
142	40. 0'		2,500	LS	\$34.60	\$86,500	\$740.00
	10 - Signal S		0.500	RF	\$287.32	\$718,288	\$718,28
148	44 0	Signal	2,500	KF	\$287.32	\$718,288	# 000 F7
	11 - Commun		0.500		*	4000 575	\$328,57
152		Communications	2,500	RF	\$131.43	\$328,575	
	12 - Fare Col				2010.001		
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		AF 050 00
160		Subtotal - Infrastructure			Subtotal		\$5,352,03
161							
162	13. Right of V						
		DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
		ring & Administration			Subtotal		\$1,873,21
	Infrastructure	E & A 35.00%				\$1,873,211	
181	Vehicle	E & A 5.00%					
	16 - Continge				Subtotal		\$1,270,40
187	Vehicles	Contingency 5.00%					
	Infrastructure	Contingency 20.00%				\$1,020,406	
	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$370,85
195		Sales Tax 8.40%				\$370,856.45	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$8,866,504

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
				01-1-01-			
		Order of Magnitude		Start Sta	End Sta	Length	0 = "
	Drawing	Vista Road Area		325+00	350+00	2,500 FT	0.5 mile
	C -214	UP Section					
	1.01.11.0	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const		2,500	LF	\$10.00	\$25,000	\$2,560,172
2		Site Preparation - Clearing & Grubbing Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	2,500	LF	\$35.00		
4		Common Excavation	3,431	CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	308	CY	\$4.00		
<u>8</u> 9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	2.500	SF LF	\$2.00		
10		Chain Link Fencing 4 (on walls or Ballast Curb) Chain Link Fencing 6'	2,500 2,500	LF	\$16.00 \$22.00	,	
11		Ballast Walls (Curb-no drainage)	2,750	LF	\$22.00	\$60,500	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00		
13		Transition Slab Ballasted to Embedded /Bridge /Structure	=,000	EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15	1	Embedded (Paved) Track at Grade	1	TF	\$312		
16	-	Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19 20	+	LRT Siding or Pocket Track Double Crossover	+	TF EA	\$230 \$300,000		
21	+	Single Crossover	1	EA EA	\$300,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28 29		Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild		EA EA	\$200,000 \$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications	1	EA	\$75,000.00	\$75,000	
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
34		Industrial Railroad Turnouts East Side Syndicate Spur - HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$120,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06		
41		Signal Communication Building LTK130	1	EA	\$100,000.00		
42		Systems wide Ductbank/ Conduit LTK140 Corrosion Mitigation LTK150	2,500 2,500	RF RF	\$200.00 \$10.73	\$500,000 \$26,825	
50	2 - Insurance	e - Included other in Items	2,500	IXI	ψ10.73	Ψ20,023	
57	3 - Utilities						\$250,000
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70 74		erials - Included in the Rail Items	1				
75	5 - Structure	s Bridge Structures DEA	+	LS	\$1.00		
76	 	Bridge Location		- 10	ψ1.00		
77	1	Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Out to	1		A=00.555	#	\$850,000
105	+	Stations Station Name	1 Park/Vista Sta	LS tion Contor Bl	\$700,000	\$700,000	
106 107	+	Allowance for Art at Stations & Park & Rides	\$50,000	LS	atrorm \$1.00	\$50,000	
107	†	Platform Electrical LTK610	\$50,000	LS	\$100,000	\$100,000	
115	7 - Park & Ri		†		\$.00,000	\$.50,000	
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location	Vista Station				
		s Facility (All Yard elements Included)					
119 123	8 - Operation	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Vista Road Area		325+00	350+00		0.5 mil
	C -214	UP Section				_,000	
	0 2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Quartity	LS	\$4.160.844	Extonoion	
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,000,000		\$1,137,95
136	J - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,107,00
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$11.58		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60		
	10 - Signal S		2,500	LS	\$34.00	\$00,000	Ф 7 40 00
147 148	10 - Signai S	Signal	2,500	RF	\$287.32	\$718,288	\$718,28
	11 - Commur		2,500	KF	\$287.32	\$718,288	#200 F7
151	11 - Commun		0.500	DE	0101.10	#000 F7F	\$328,57
152		Communications	2,500	RF	\$131.43	\$328,575	***
157	12 - Fare Col				2010.001	2010.001	\$212,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$212,321	\$212,321	
160		Subtotal - Infrastructure			Subtotal		\$6,057,30
161							
162	13. Right of \						
		DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ring & Administration			Subtotal		\$2,120,05
180	Infrastructure	E & A 35.00%				\$2,120,058	
181	Vehicle	E & A 5.00%					
185	16 - Continge	encies			Subtotal		\$1,411,46
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,161,461	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$418,25
195		Sales Tax 8.40%				\$418,251.06	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$10,007,07

	oporane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Sargent Road to Argonne Station		350+00	375+00	2,500 FT	0.5 mile
	C -215	UP Section		000100	070100	2,00011	0.0 111110
	0 -213	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	- Oilit	Omit Gost	Extension	\$2,444,17
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	+= , · · · ·, · ·
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation	185	CY	\$15.00	\$2,775	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	291 914	CY CY	\$15.00 \$4.00	\$4,365 \$3,656	
8		Landscaping Allowance	50.000	SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)	4,000	LF	\$16.00	\$64,000	
10		Chain Link Fencing 6'	1,000	LF	\$22.00	\$22,000	
11		Ballast Walls (Curb-no drainage)	900	LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2	EA	\$8,000		
14		Ballasted Track at Grade or Structure	2,200	TF TF	\$223	\$490,600	
15 16	+	Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure	2,800	TF	\$312 \$280	\$784,000	
19	†	LRT Siding or Pocket Track	2,000	TF	\$230	φι 04,000	
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance	1	EA	\$25,000	\$25,000	
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)		EA EA	\$200,000 \$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
34		Industrial Railroad Turnouts East Side Syndicate Spur - HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$120,000.00	\$120,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06		
41		Signal Communication Building LTK130	1	EA	\$100,000.00	\$100,000	
42 43		Systems wide Ductbank/ Conduit LTK140 Corrosion Mitigation LTK150	2,500 2,500	RF RF	\$200.00 \$10.73	\$500,000 \$26,825	
50	2 - Insurance	e - Included other in Items	2,300	IXI	φ10.73	Ψ20,023	
57	3 - Utilities						\$250,00
59		Utility Allowance - High		RF	\$600.00		,
60		Utility Allowance - Medium		RF	\$350.00		
61	1	Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	-
70		terials - Included in the Rail Items	1				40 :
74	5 - Structure	s Bridge Structures DEA	6 200 000	10	64.00	\$6.000.000	\$6,480,00
75 76	1	Bridge Structures DEA Bridge Location	6,390,000 Argonne-Dish	LS man-Willow Ov	\$1.00	\$6,390,000	
77	1	Retaining Wall 4' Max (Low Gravity Wall)	Argornie-Distil	SF	\$32.00		
78	1	MSE Retaining Wall - Typical DEA	3,000	SF	\$30.00		
79	1	Cut & Cover Box/ Tunnel to Pine Road Aerial Station	2,230	LF	\$3,500.00		
104	6 - Stations						\$2,150,00
105		Stations	1	LS	\$2,000,000	\$2,000,000	-
106	1	Station Name		on Elevated Co		A	
107	1	Allowance for Art at Stations & Park & Rides	\$50,000	LS	\$1.00		
108	7 - Park & Ri	Platform Electrical LTK610	1	LS	\$100,000	\$100,000	\$4 07F 00
115 116	r - raik & Ki	Park & Ride	250	Space	\$4,300	\$1,075,000	\$1,075,00
117	 	Park & Ride Location	Argonne Statio		φ+,300	ψ1,075,000	
119	8 - Operation	ns Facility (All Yard elements Included)	January Claim				
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		
124	1	Operations Facility Building LTK		SF	\$171.00		

	Spokane	Regional					
	•	Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Sargent Road to Argonne Station		350+00	375+00		0.5 mil
	C -215	UP Section		333.33	0.0.00	2,000	0.0
	0 2.0	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Qualitity	LS	\$4,160,844	Extension	Συσιφ
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction E	Power System			\$1,300,000		\$1,137,95
136	9 - Haction F	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	\$1,137,90
138		OCS Single Contact Wire LTK920	- 1	RF	\$123.00		
139		OCS Simple Contact Wife LTK920	2.500	RF	\$123.00		
			2,500				
141		Lighting LTK940	2,500	RF	\$11.58		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60	\$86,500	
147	10 - Signal S						\$718,28
148		Signal	2,500	RF	\$287.32	\$718,288	
151	11 - Commur						\$328,57
152		Communications	2,500	RF	\$131.43	\$328,575	
157	12 - Fare Col						\$212,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$212,321	\$212,321	
160		Subtotal - Infrastructure			Subtotal		\$14,796,30
161							
162	13. Right of V						
		DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179	15 - Engineer	ring & Administration			Subtotal		\$5,178,70
180	Infrastructure	E & A 35.00%				\$5,178,707	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$3,159,26
187	Vehicles	Contingency 5.00%					, , , , , ,
189	Infrastructure	Contingency 20.00%				\$2,909,261	
191	Utilities	Contingency 100.00%				\$250,000	
194		ton State Sales Tax				\$200,000	\$1,005,51
195	11 Washing	Sales Tax 8.40%				\$1,005,511.79	ψ1,000,01
100		Sales Tax has been applied to 2/3 of Infrastructure &				ψ1,000,011.73	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
190	 	or the verifice's estimated total.					
	+					Tatal	CO4 400 70
	-					Total	\$24,139,78
	+						

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Willow Road to Dartmouth Rd Area		375+00	400+00	2,500 FT	0.5 mile
	C -216	UP Section		010100	100100	2,00011	0.0 111110
	0 2.0	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const	•					\$2,461,366
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance Common Excavation	7,623	LF CY	\$35.00 \$15.00	\$114,345	
5		Select Backfill (MSE Retaining Walls)	6,222	CY	\$15.00	\$93,330	
6		Common Backfill (From Project Excavation)	2,529	CY	\$4.00	\$10,116	
8		Landscaping Allowance	50,000	SF	\$2.00	\$100,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	2,900	LF	\$16.00	\$46,400	
10 11		Chain Link Fencing 6' Ballast Walls (Curb-no drainage)	4,100	LF LF	\$22.00 \$22.00	\$90,200	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,000	EA	\$8,000	ψιο,οσο	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19 20		LRT Siding or Pocket Track Double Crossover		TF EA	\$230 \$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)	1	EA EA	\$200,000 \$100,000	\$100,000	
28		Major Traffic Signal (4 Lanes)	'	EA	\$200,000	\$100,000	
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
- 55		Industrial Railroad Turnouts East Side Syndicate Spur -			ψ55.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37 38		Provide Team Track and Loading Dock (HDR) Lake Rd Industrial Spur Modifications (HDR)		LS LS	\$208,000.00 \$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$120,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,650	
41		Signal Communication Building LTK130		EA	\$100,000.00		
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00	\$500,000	
43 50	2 Incurance	Corrosion Mitigation LTK150 - Included other in Items	2,500	RF	\$10.73	\$26,825	
57	3 - Utilities	- included other in items					\$250,000
59	5 - Othitics	Utility Allowance - High		RF	\$600.00		Ψ230,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	-
70		erials - Included in the Rail Items					A04= 05=
74 75	5 - Structures	s Bridge Structures DEA		LS	\$1.00		\$315,000
76		Bridge Location		LO	φ1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	10,500	SF	\$30.00	\$315,000	
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Stations		10			
105 106		Stations Station Name	1	LS			
107		Allowance for Art at Stations & Park & Rides		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric	des					
116		Park & Ride		Space	\$4,300		
117	0 Om	Park & Ride Location					
119 123	o - Operation	s Facility (All Yard elements Included) Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		
123		Operations Facility Building LTK		SF	\$10,611,510		
	1	1-F domi, Danamy = 110	1	٠,	ψ171.00		

	oponune	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Willow Road to Dartmouth Rd Area		375+00	400+00		0.5 mile
	C -216	UP Section		0.0.00	100100	2,00011	0.0 11111
	0 210	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Qualitity	LS	\$4.160.844	Extension	ΣΟΟΙΨ
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
	9 - Traction F	Power System			ψ1,500,000		\$387,95
136	3 - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		Ψ307,33
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Contact Wire ETR920	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$109.00		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60		
	10 - Signal S		2,500	LS	\$34.00	Φ00,000	Ф 7 40 00
147 148	iu - Signai S	Signal	2,500	RF	\$287.32	\$718,288	\$718,28
151	11 - Commur		2,500	KF	\$201.32	Φ110,200	#220 F7
	11 - Commun		2.500	RF	£404.40	#200 F7F	\$328,57
152	40. 5 0-1	Communications	2,500	KF	\$131.43	\$328,575	
157	12 - Fare Col				\$040.004		
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		*
160		Subtotal - Infrastructure			Subtotal		\$4,461,18
161							
162	13. Right of \						
		DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ring & Administration			Subtotal		\$1,561,41
180	Infrastructure	E & A 35.00%				\$1,561,413	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,092,23
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$842,236	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$310,99
195		Sales Tax 8.40%				\$310,991.33	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$7,425,82

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Dartmouth Road Area to University Rd		400+00	425+00	2,500 FT	0.5 mile
	C -217	East Valley Section		400+00	425+00	2,500 F1	0.5 111116
	C-217	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Oilit	Onit Cost	LAGIISIOII	\$3,136,127
1	1-OIVII OOIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	ψ5,150,127
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	300	LF	\$35.00	\$10,500	
4		Common Excavation	3,180	CY	\$15.00	\$47,700	
5		Select Backfill (MSE Retaining Walls)	4.400	CY CY	\$15.00	010 700	
6 8		Common Backfill (From Project Excavation) Landscaping Allowance	4,183 50,000	SF	\$4.00 \$2.00	\$16,732 \$100,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	375	LF	\$16.00	\$6,000	
10		Chain Link Fencing 6'	4,325	LF	\$22.00	\$95,150	
11		Ballast Walls (Curb-no drainage)	375	LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14 15		Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade	5,000	TF TF	\$223 \$312	\$1,115,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover	1	EA	\$300,000	\$300,000	
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24 25		Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes)	1	EA EA	\$25,000 \$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)	1	EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	1,920	SF	\$6.00	\$11,520	
32		Off Alignment Signal Modifications Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide	380	LF	\$35.00	\$13,300	
		Industrial Railroad Turnouts East Side Syndicate Spur -				7.0,000	
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37 38		Provide Team Track and Loading Dock (HDR) Lake Rd Industrial Spur Modifications (HDR)		LS LS	\$208,000.00 \$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$120,000.00	\$120,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	* -,	
41		Signal Communication Building LTK130	1	EA	\$100,000.00	\$100,000	
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00	\$500,000	
43		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,825	
50		e - Included other in Items					¢250.000
57 59	3 - Utilities	Utility Allowance - High		RF	\$600.00		\$250,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74	5 - Structure:						\$1,200,000
75		Bridge Structures DEA	1,200,000		\$1.00	\$1,200,000	
76		Bridge Location Retaining Wall 4' Max (Low Gravity Wall)	Pedestrian Bri	SF			
77 78		MSE Retaining Wall - Typical DEA		SF	\$32.00 \$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
	6 - Stations				,		\$850,000
105		Stations	1	LS	\$700,000	\$700,000	
106		Station Name	University Sta			*	
107		Allowance for Art at Stations & Park & Rides	\$50,000		\$1.00	\$50,000	
108	7 Dark 9 D:	Platform Electrical LTK610	1	LS	\$100,000	\$100,000	
115 116	7 - Park & Ri	park & Ride		Space	\$4,300		
117		Park & Ride Location	University Sta		ψ4,300		
119	8 - Operation	ns Facility (All Yard elements Included)	2.2.0, 010				
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		
124		Operations Facility Building LTK	1	SF	\$171.00		

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Dartmouth Road Area to University Rd		400+00	425+00		0.5 mil
	C -217	East Valley Section		100100	120100	2,000 1 1	0.0 11111
	0 217	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Quantity	LS	\$4.160.844	LATERISION	2001ψ
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
	9 - Traction F	Power System			ψ1,500,000		\$1,137,95
136	3 - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,137,33
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Contact Wire ETR920	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$109.00		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60		
	10 - Signal S		2,500	LS	\$34.00	\$60,500	Ф740 OO
147 148	iu - Signai S	Signal	2,500	RF	\$287.32	\$718,288	\$718,28
151	11 - Commur		2,500	KF	\$201.32	\$7.10,200	\$328,57
	11 - Commur		0.500	RF	0101.10	#000 F7F	\$328,57
152	40. 5 0-1	Communications	2,500	KF	\$131.43	\$328,575	#040.00
157	12 - Fare Col				\$040.004	0040.004	\$212,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$212,321	\$212,321	\$7,000,00
160		Subtotal - Infrastructure			Subtotal		\$7,833,26
161							
162	13. Right of V						
		DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ring & Administration			Subtotal		\$2,741,64
180	Infrastructure	E & A 35.00%				\$2,741,642	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,766,65
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,516,652	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$537,59
195		Sales Tax 8.40%				\$537,595.24	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$12,879,15

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	University Road to Bodish Road Area		425+00	450+00	2,500 FT	0.5 mile
	C -218	East Valley Section		120100	100100	2,00011	0.0 111110
	0 2.0	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				\$2,302,820
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance Common Excavation	400 1,919	LF CY	\$35.00 \$15.00	\$14,000 \$28,785	
5		Select Backfill (MSE Retaining Walls)	1,919	CY	\$15.00	Ψ20,703	
6		Common Backfill (From Project Excavation)	7,715	CY	\$4.00	\$30,860	
8		Landscaping Allowance	50,000	SF	\$2.00	\$100,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	730	LF	\$16.00	\$11,680	
10 11		Chain Link Fencing 6' Ballast Walls (Curb-no drainage)	4,270 730	LF LF	\$22.00 \$22.00	\$93,940 \$16,060	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	,	EA	\$8,000	* -,	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16 19		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF TF	\$280 \$230		
20		Double Crossover	+	EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24 25		Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes)	1	EA EA	\$25,000 \$100,000	\$100,000	
26		Major Intersection Rebuild (2 Lanes)	1	EA	\$200,000	\$100,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction	0.500	SF	\$9.00	#45.400	
31 32		Sidewalk Construction Off Alignment Signal Modifications	2,520	SF EA	\$6.00 \$75,000.00	\$15,120	
32		Construct Maintenance Road Assume All Weather Gravel -		LA	ψ/ 3,000.00		
33		12 FT Wide	2,440	LF	\$35.00	\$85,400	
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA TF	\$65,000.00		
35 36		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR		TF	\$100.00 \$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$120,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,650	
41 42		Signal Communication Building LTK130 Systems wide Ductbank/ Conduit LTK140	2,500	EA RF	\$100,000.00 \$200.00	\$500,000	
43		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,825	
50	2 - Insurance	- Included other in Items	_,		7.0		
57	3 - Utilities						\$250,000
59		Utility Allowance - High		RF	\$600.00		
60 61		Utility Allowance - Medium Utility Allowance - Low	2,500	RF RF	\$350.00 \$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	2,500	NΓ	\$100.00	φ230,000	
74	5 - Structures						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77 78		Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA		SF SF	\$32.00 \$30.00		
78 79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$30.00 \$3,500.00		
104	6 - Stations	The state of the s			\$5,550.50		
105		Stations	1	LS			
106		Station Name			*		
107		Allowance for Art at Stations & Park & Rides		LS LS	\$1.00		
108 115	7 - Park & Ric	Platform Electrical LTK610	-	L3	\$100,000		
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location		-,	Ţ.,200		
119	8 - Operation	s Facility (All Yard elements Included)					·
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		
124		Operations Facility Building LTK		SF	\$171.00		

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	University Road to Bodish Road Area		425+00	450+00		0.5 mile
	C -218	East Valley Section			100.00	_,	
	0 2.0	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Quantity	LS	\$4.160.844	Exterioren	200.0
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			\$1,000,000		\$387,95
136		Sub-Station Type 3 LTK 910		EA	\$750,000		φου, ,σο
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$11.58		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60	. ,	
147	10 - Signal S		2,300		ψ04.00	φου,500	\$718,28
148	10 - Signal S	Signal	2,500	RF	\$287.32	\$718,288	Ψ1 10,20
151	11 - Commur		2,300	IXI	Ψ201.32	Ψ110,200	\$328,57
152	11 - Commu	Communications	2,500	RF	\$131.43	\$328,575	φ320,37
157	12 - Fare Col		2,300	ΝΓ	\$131.43	φ320,373	
158	12 - Fare Coi	Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		
160		Subtotal - Infrastructure		LO	Subtotal		\$3,987,63
161		Subtotal - Illifastructure			Subiolai		φ3,96 <i>1</i> ,03
	40 Dimbs -61	Ma					
162	13. Right of V	DEA Right of Way Acquisition Budget Estimate (Including					
400					# 00 000 000		
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -			^=		
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles				A 0. 5 00.000.00		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ring & Administration			Subtotal		\$1,395,67
180	Infrastructure	E & A 35.00%				\$1,395,672	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$997,52
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$747,527	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$279,16
195		Sales Tax 8.40%				\$279,169.04	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,660,00
	1						

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Bodish Road to Pine Road (At Grade) Area		450+00	475+00	2,500 FT	0.5 mile
	C -219	East Valley Section		430+00	473+00	2,50011	0.5 111116
	C -219	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Olik	Offic Cost	LAGIISIOII	\$2,475,093
1	1-OIVII OOIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ2,470,000
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	400	LF	\$35.00	\$14,000	
4		Common Excavation	2,253	CY	\$15.00	\$33,795	
5		Select Backfill (MSE Retaining Walls)	40.000	CY	\$15.00	# 40.000	
<u>6</u> 8		Common Backfill (From Project Excavation) Landscaping Allowance	10,982 50,000	CY SF	\$4.00 \$2.00	\$43,928 \$100,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	1,200	LF	\$16.00	\$100,000	
10		Chain Link Fencing 6'	3,640		\$22.00	\$80,080	
11		Ballast Walls (Curb-no drainage)	1,200	LF	\$22.00	\$26,400	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16 19		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track	 	TF TF	\$280 \$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance	2	EA	\$25,000	\$50,000	
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27 28		Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes)		EA EA	\$100,000 \$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	2,640	SF	\$6.00	\$15,840	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide	2,425	LF	\$35.00	\$84,875	
34		Industrial Railroad Turnouts East Side Syndicate Spur - HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$120,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,650	
41		Signal Communication Building LTK130	0.500	EA	\$100,000.00	A =00.000	
42 43		Systems wide Ductbank/ Conduit LTK140 Corrosion Mitigation LTK150	2,500 2,500	RF RF	\$200.00 \$10.73	\$500,000 \$26,825	
50	2 - Insurance	- Included other in Items	2,500	KF	\$10.73	\$20,625	
57	3 - Utilities	moladed other in terms					\$250,000
59		Utility Allowance - High		RF	\$600.00		*,
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74 75	5 - Structures	s Bridge Structures DEA	+	LS	\$1.00		
76		Bridge Location	 	LO	\$1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						
105		Stations	1	LS			
106		Station Name		10	Ø4 00		
107 108		Allowance for Art at Stations & Park & Rides Platform Electrical LTK610	 	LS LS	\$1.00 \$100,000		
115	7 - Park & Ric		+		φ100,000		
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location		,	, ,		
119	8 - Operation	s Facility (All Yard elements Included)		-			
123	<u> </u>	Bldg & Yard Site Prep, Grading & Utilities LTK811	1	LS	\$18,611,516		
124		Operations Facility Building LTK		SF	\$171.00		

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Bodish Road to Pine Road (At Grade) Area		450+00	475+00		0.5 mile
	C -219	East Valley Section		100100	170100	2,00011	0.0 111110
	0 210	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Qualitity	LS	\$4.160.844	LATERISION	2001ψ
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,500,000		\$387,95
136	3 - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ307,33.
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Contact Wire ETR920	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$11.58		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60	. ,	
147	10 - Signal S		2,500	LS	\$34.00	Φ00,000	\$718,28
148	iu - Signai S	Signal	2,500	RF	\$287.32	\$718,288	₹/10,20
151	11 - Commun		2,500	ΚΓ	\$201.32	\$710,200	\$220 EZ
	11 - Commur		2.500	RF	£404.40	#200 F7F	\$328,57
152	40 5 0-1	Communications	2,500	KF	\$131.43	\$328,575	
157	12 - Fare Col				# 040.004		
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		0.4.50.00
160		Subtotal - Infrastructure			Subtotal		\$4,159,90
161	40 81 14 41						
162	13. Right of V						
		DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ring & Administration			Subtotal		\$1,455,96
180	Infrastructure	E & A 35.00%				\$1,455,968	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,031,98 ⁻
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$781,981	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$290,746
195		Sales Tax 8.40%				\$290,745.78	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,938,602

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing		Spokane	Regional					
Drawing Pine Road (Af Grade) to McDonald Road Area 475+00 500+00 2,500 FT 0,5 mile						Estima	te Basics	
Drawing Pine Road (At Grade) to McDonald Road Area 475+00 500+00 2,500 FT 0,5 mile			-		Start Sta			
C-220 East Valley Section			3					
Count Coun		U	,		475+00	500+00	2,500 FT	0.5 mile
1		0 220		Quantity	Unit	Unit Cost	Extension	2001\$
Cardio Proparation to Top of subballast. 2,500 LF \$35.00 \$87,500		1-Civil Const						\$2,380,894
Curo & Gutter Allowance				,				
Common Excavation				2,500			. ,	
Select Backfill (MSE Retaining Walls)				1,481				
B						\$15.00		
Chain Link Fencing if (on walls or Balliast Curb)								
Chain Link Fencing 6"				,				
Ballast Walls (Cut-no drainage)								
12 Site Cleanup and Final Grading Allowance 2.500 LF \$6.00 \$15,000 13 Transition Sita Ballasted to Embedded (Pringe Structure 5.000 TF \$223 \$1,115,000 14 Ballasted Track at Grade or Structure 5.000 TF \$223 \$1,115,000 15 Embedded (Pawed) Track at Grade TF \$220 16 Direct Fixation (PF) Track, Elevated Structure TF \$280 19 LRT Siding or Pocket Track TF \$280 20 Double Crossover EA \$300,000 21 Single Crossover EA \$300,000 22 Turnout EA \$55,000 23 Impact Allowance Allowance EA \$55,000 24 Minor Street Clours ex Allowance EA \$55,000 25 Impact Allowance Allowance EA \$55,000 26 Major Traftic Signal (Lanes) EA \$500,000 27 Minor Traftic Signal (Lanes) EA \$500,000 28 Major Traftic Signal (Lanes) EA \$500,000 29 Complex Major Intersection Rebuild (Lanes) EA \$500,000 29 Complex Major Intersection Rebuild EA \$300,000 30 Readway Construction SF \$8.00 31 Sidewalk Construction SF \$8.00 32 Off Alignment Signal Modifications EA \$75,000 33 Sidewalk Construction SF \$8.00 34 Relocate UPRR Yard Lead or Branch Line TF \$300,000 37 Provide Team Track and Loading Dock (PDR) Lane \$400,000 38 Relocate UPRR Yard Lead or Branch Line TF \$300,000 41 Sidewalk Construction SF \$300,000 42 Systems wide Ductbank Conduit LTK140 \$2,500 RF \$310,000 \$370,000 43 Lane RR Industrial Spur HOR TF \$300,000 \$300,000 44 Track Materials - Industrial Spur HOR TF \$300,000 \$300,000 45 Single Communication Building LTK150 \$2,500 RF \$310,000 \$300,000 46 Stations Spark Single LTK150 \$2,500 RF \$310,000 \$300,000 47 Stations Spark Modifications Conduit LTK140 \$2,500 RF \$310,000 \$300,000 48 Stations Spark Communication Building LTK150 \$2,500 RF \$300,000 \$300,000 49 Station Name Spark Single DEA \$300,000 \$300,0								
14					LF			
15								
16				5,000			\$1,115,000	
19								
Double Crossover								
Turnout								
Impact Attenuators								
Minor Street Closures Allowance								
Minor Intersection Rebuild (2 Lanes)								
Major Intersection Rebuild (4 Lanes)								
Major Traffic Signal (4 Lanes)						*,		
Complex Major Intersection Rebuild	27				EA			
Roadway Construction								
Sidewalk Construction								
Off Alignment Signal Modifications EA \$75,000.00								
Construct Maintenance Road Assume All Weather Gravel 12 FT Wide 2,500								
Industrial Railroad Turnouts East Side Syndicate Spur - HDR						V . 5,555		
HDR	33			2,500	LF	\$35.00	\$87,500	
Signal Communication Building LTK130 Signal Communication Building LTK140 Signal Communication Building LTK150 Signal S	34				EA	\$65,000.00		
37								
Second								
TPS Building, Foundation & Ground Mat. LTK110								
40				4			£400,000	
Signal Communication Building LTK130								
42 Systems wide Ductbank/ Conduit LTK140 2,500 RF \$20.00 \$500,000 43 Corrosion Mitigation LTK150 2,500 RF \$10.73 \$26,825 50 2 - Insurance - Included other in Items \$250,000 57 3 - Utilities \$250,000 59 Utility Allowance - Heigh RF \$600.00 60 Utility Allowance - Medium RF \$350.00 61 Utility Allowance - Low 2,500 RF \$100.00 \$250,000 70 4 - Track Materials - Included in the Rail Items \$5 - Structures 75 Bridge Structures DEA LS \$1.00 76 Bridge Location \$8 MSE Retaining Wall 4' Max (Low Gravity Wall) \$F \$320.00 78 MSE Retaining Wall - Typical DEA \$F \$330.00 79 Cut & Cover Box/ Tunnel to Pine Road Aerial Station LF \$3,500.00 106 Stations 1 LS \$700,000 \$700,000 107 Allowance for Art at Stations & Park & Rides \$50,000 LS \$1.00 \$50,000 108 Platform Electrical LTK610 1 LS \$100,000 \$1,720,000 116 Park & Ride 400 Space \$4,300 \$1,720,000 117 Park & Ride Park & Ride Pines Station Pines Station Pines Station \$1 Park & Ride Location Pines Station Pine								
2 - Insurance - Included other in Items \$250,000	42			2,500		\$200.00	\$500,000	
\$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000 \$250,000				2,500	RF	\$10.73	\$26,825	
Second			- Included other in Items					\$250,000
Materials - Included in the Rail Items Section Sec		o - ounties	Utility Allowance - High	+	RF	\$600.00		Ψ250,000
October Color Co			Utility Allowance - Medium					
74 5 - Structures LS \$1.00 75 Bridge Structures DEA LS \$1.00 76 Bridge Location SF \$32.00 77 Retaining Wall 4' Max (Low Gravity Wall) SF \$32.00 78 MSE Retaining Wall - Typical DEA SF \$30.00 79 Cut & Cover Box/ Tunnel to Pine Road Aerial Station LF \$3,500.00 104 6 - Stations 1 LS \$700,000 105 Station Name Pines Station Center Platform 107 Allowance for Art at Stations & Park & Rides \$50,000 LS \$1.00 \$50,000 108 Platform Electrical LTK610 1 LS \$100,000 \$100,000 115 7 - Park & Rides 400 Space \$4,300 \$1,720,000 116 Park & Ride Location Pines Station Pines Station Pines Station 119 8 - Operations Facility (All Yard elements Included) A00 Space \$4,300 \$1,720,000			Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
This color								
To Bridge Location Retaining Wall 4' Max (Low Gravity Wall) SF \$32.00		o - Structures		-	19	\$1.00		
77 Retaining Wall 4' Max (Low Gravity Wall) SF \$32.00 78 MSE Retaining Wall - Typical DEA SF \$30.00 79 Cut & Cover Box/ Tunnel to Pine Road Aerial Station LF \$3,500.00 104 6 - Stations 1 LS \$700,000 105 Stations 1 LS \$700,000 106 Station Name Pines Station Center Platform 107 Allowance for Art at Stations & Park & Rides \$50,000 LS \$1.00 \$50,000 108 Platform Electrical LTK610 1 LS \$100,000 \$100,000 115 7 - Park & Rides \$0 \$0 \$1,720,000 116 Park & Ride 400 Space \$4,300 \$1,720,000 117 Park & Ride Location Pines Station Pines Station \$0 \$1,720,000 119 8 - Operations Facility (All Yard elements Included) \$1 \$1 \$1 \$1 \$1 \$1 \$1 \$1 \$1 \$1 \$1 \$1 \$1						ψ1.00		
To Cut & Cover Box/ Tunnel to Pine Road Aerial Station LF \$3,500.00 \$850,000	77		Retaining Wall 4' Max (Low Gravity Wall)					
104 6 - Stations								-
1		C C4-11	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		#050.000
106		o - Stations	Stations	1	19	\$700,000	\$700,000	\$850,000
107							Ψ100,000	
108							\$50,000	
116 Park & Ride 400 Space \$4,300 \$1,720,000 117 Park & Ride Location Pines Station 119 8 - Operations Facility (All Yard elements Included) **	108		Platform Electrical LTK610					
117 Park & Ride Location Pines Station 119 8 - Operations Facility (All Yard elements Included)		7 - Park & Ric					A. ==- · · ·	\$1,720,000
119 8 - Operations Facility (All Yard elements Included)					Space	\$4,300	\$1,720,000	
		8 - Operation		rines Station				
		- operation			LS	\$18,611,516		

Light Rail Project					
LIGHT IVAH FIOICU			Estima	te Basics	
Order of Magnitude		Start Sta	End Sta	Length	
Drawing Pine Road (At Grade) to McDonald Road Area		475+00	500+00	2,500 FT	0.5 mile
C -220 East Valley Section					
Description	Quantity	Unit	Unit Cost	Extension	2001\$
Operations Facility Building LTK		SF	\$171.00		
Yard Maintenance Equipment LTK		LS	\$4,160,844		
Maintenance of Way Vehicles LTK		LS	\$4,307,460		
Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
- Traction Power System					\$1,137,95
Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	
OCS Single Contact Wire LTK920		RF	\$123.00		
OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
Lighting LTK940	2,500	RF	\$11.58		
Spare Parts/ System support LTK950	2,500	LS	\$34.60		
) - Signal System	,		***	****	\$718,28
Signal	2,500	RF	\$287.32	\$718,288	4 1.10,=0
- Communications	2,000		\$201.02	ψ1.10,200	\$328,57
Communications	2,500	RF	\$131.43	\$328,575	+,
2 - Fare Collection	2,000		ψ.σc	ψ020,010	\$212,32
Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$212,321	\$212,321	Ψ212,02
Subtotal - Infrastructure		LO	Subtotal	Ψ212,021	\$7,598,02
Oubtotal Illiabilabilati			Cubiciai		ψ1,000,02
B. Right of Way					
DEA Right of Way Acquisition Budget Estimate (Including					
Railroads & Operation Facility)		LS	\$30,000,000		
HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -		LO	\$30,000,000		
Allowance		LS	ΦE 000 000 00		
Allowance I. Vehicles		LS	\$5,000,000.00		
Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	£0.500.000.00		
Low Floor Light Rail Vehicles - Base Cost LTK 1600 Low Floor Light Rail Vehicles - Spare Parts LTK 1600			\$2,500,000.00		
		EA	\$681,818.18		^
5 - Engineering & Administration			Subtotal	A0.050.040	\$2,659,31
frastructure E & A 35.00%				\$2,659,310	
ehicle E & A 5.00%			0.1		0.1 7.1 0.00
6 - Contingencies			Subtotal		\$1,719,60
chicles Contingency 5.00%					
frastructure Contingency 20.00%				\$1,469,606	
tilities Contingency 100.00%				\$250,000	
' - Washington State Sales Tax					\$521,78
Sales Tax 8.40%				\$521,787.58	
Sales Tax has been applied to 2/3 of Infrastructure &					
Contingency (Reduced to eliminate tax on Labor) and 100%					
Contingency (Reduced to eliminate tax on Labor) and 100%					
Contingency (Reduced to eliminate tax on Labor) and 100%				Total	\$12,498,73
	Contingency (Reduced to eliminate tax on Labor) and 100%	Contingency (Reduced to eliminate tax on Labor) and 100%	Contingency (Reduced to eliminate tax on Labor) and 100%	Contingency (Reduced to eliminate tax on Labor) and 100%	Contingency (Reduced to eliminate tax on Labor) and 100%

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 219A

	Spokane	Regional					
	•	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Bodish Road to Pine Road (Aerial Structure)		Olari Ola	Liid Old	Longin	
	Drawing	Area		450+00	475+00	2,500 FT	0.5 mile
	219A	East Valley Section (Aerial at Pine)		430100	473100	2,30011	0.5 111110
	210/4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Onic	Onit Cost	LAterision	\$2,680,093
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	-
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance Common Excavation	400	LF	\$35.00		
<u>4</u> 5		Select Backfill (MSE Retaining Walls)	2,253 27,000	CY CY	\$15.00 \$15.00		
6		Common Backfill (From Project Excavation)	10,982	CY	\$4.00		
8		Landscaping Allowance	50,000	SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)	1,200	LF	\$16.00		
10 11		Chain Link Fencing 6' Ballast Walls (Curb-no drainage)	3,640 1,200	LF LF	\$22.00 \$22.00		
12		Site Cleanup and Final Grading Allowance	2,500	LF LF	\$6.00		
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,000	EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF TF	\$280 \$230		
19 20		LRT Siding or Pocket Track Double Crossover		EA	\$230 \$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24 25		Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes)	2	EA EA	\$25,000 \$100,000	\$50,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30 31		Roadway Construction Sidewalk Construction	2,640	SF SF	\$9.00 \$6.00		
32		Off Alignment Signal Modifications	2,640	EA	\$75,000.00		
- 02		Construct Maintenance Road Assume All Weather Gravel -		E/(ψι σ,σσσ.σσ		
33		12 FT Wide	2,425	LF	\$35.00	\$84,875	
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34 35		HDR Relocate UPRR Yard Lead or Branch Line		EA TF	\$65,000.00 \$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	0.500	EA	\$120,000.00		
40		OCS Pole Foundations LTK120 Signal Communication Building LTK130	2,500	RF EA	\$15.06 \$100,000.00		
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00		
43		Corrosion Mitigation LTK150	2,500	RF	\$10.73		
50		- Included other in Items		_			
57	3 - Utilities	Litility Allowopes Ligh		כר	#000 CC		\$250,000
59 60		Utility Allowance - High Utility Allowance - Medium		RF RF	\$600.00 \$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00		
70		erials - Included in the Rail Items	,		,		
74	5 - Structures						\$1,787,500
75		Bridge Structures DEA	587,500		\$1.00	\$587,500	
76 77		Bridge Location Retaining Wall 4' Max (Low Gravity Wall)	Grade Separa	tion at Pines F SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	40,000	SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station	.5,550	LF	\$3,500.00		
104	6 - Stations						
105		Stations	1	LS			
106 107		Station Name Allowance for Art at Stations & Park & Rides		LS	\$1.00		
107		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric	des			\$.00,000		
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location					
119 123		s Facility (All Yard elements Included) Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$19 £11 £1£		
123		plug a ratu site Prep, Grauing & Utilities LTN8TT		LO	\$18,611,516		

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Bodish Road to Pine Road (Aerial Structure)					
	Drawing	Area		450+00	475+00	2,500 FT	0.5 mile
	219A	East Valley Section (Aerial at Pine)		100100	170100	2,00011	0.0 111110
	213/4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00		2001ψ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System		LO	\$1,300,000		\$387,952
136	J - Haction I	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ307,332
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Contact Wire LTK920 OCS Simple Catenary LTK930	2.500	RF	\$123.00		
141		Lighting LTK940	2,500	RF	\$109.00		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60		
147	10 - Signal Sy		2,300	LO	\$34.00	\$60,500	\$740 OOO
148	iu - Signai S	Signal	2.500	RF	\$287.32	\$718,288	\$718,288
151	11 - Commun		2,500	KΓ	\$201.32	\$7.10,200	\$220 E7E
	11 - Commun		2.500	RF	£404.40	\$328,575	\$328,575
152	12 - Fare Col	Communications	2,500	KF	\$131.43	\$328,575	
157	12 - Fare Col			1.0	#040.004		
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		60.450.403
160		Subtotal - Infrastructure			Subtotal		\$6,152,407
161	40 51 14 41						
162	13. Right of V						
		DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ing & Administration			Subtotal		\$2,153,343
180	Infrastructure	E & A 35.00%				\$2,153,343	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,430,481
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,180,481	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$424,642
195		Sales Tax 8.40%				\$424,641.78	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$10,160,873

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 220A

	Spokane	Regional					
	•	Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Pine Road (Aerial Structure) to McDonald		Otall Ota	2.1.4 51.4		
	Drawing	Road Area		475+00	500+00	2,500 FT	0.5 mile
	220A	East Valley Section (Aerial at Pine)					
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const						\$3,055,894
1		Site Preparation - Clearing & Grubbing	2,500	LF LF	\$10.00 \$35.00	\$25,000	
3		Grade Preparation to Top of subballast. Curb & Gutter Allowance	2,500	LF LF	\$35.00 \$35.00	. ,	
4		Common Excavation	1,481	CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)	45,000	CY	\$15.00	\$675,000	
6		Common Backfill (From Project Excavation)	5,151	CY	\$4.00		
8		Landscaping Allowance	50,000	SF	\$2.00		
9 10		Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6'	850 4,150	LF LF	\$16.00 \$22.00		
11		Ballast Walls (Curb-no drainage)	850	LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00		
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15 16		Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure		TF TF	\$312 \$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300.000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24 25		Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes)		EA EA	\$25,000 \$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30 31		Roadway Construction Sidewalk Construction		SF SF	\$9.00 \$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
- 02		Construct Maintenance Road Assume All Weather Gravel -		2,1	ψ10,000.00		
33		12 FT Wide	2,500	LF	\$35.00	\$87,500	
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34 35		HDR Relocate UPRR Yard Lead or Branch Line		EA TF	\$65,000.00 \$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$100.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$120,000.00	\$120,000	
40 41		OCS Pole Foundations LTK120	2,500	RF	\$15.06		
41		Signal Communication Building LTK130 Systems wide Ductbank/ Conduit LTK140	2,500	EA RF	\$100,000.00 \$200.00	\$100,000 \$500,000	
43		Corrosion Mitigation LTK150	2,500	RF	\$10.73		
50		- Included other in Items	=,530		Ţ.137 G		
57	3 - Utilities						\$250,000
59		Utility Allowance - High		RF	\$600.00		
60 61		Utility Allowance - Medium Utility Allowance - Low	2,500	RF RF	\$350.00 \$100.00		
70	4 - Track Mat	erials - Included in the Rail Items	2,300	IM	φ100.00	Ψ230,000	
74	5 - Structures						\$1,862,000
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location		0.5	Acc 5 -		
77 78		Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA	57,400	SF SF	\$32.00 \$30.00		
78 79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station	57,400	LF	\$30.00		
104	6 - Stations	The state of the read renal diagon	140		\$0,000.00	\$140,000	\$1,150,000
105		Stations	1	LS	\$1,000,000	\$1,000,000	
106		Station Name	Pines Station				
107		Allowance for Art at Stations & Park & Rides	\$50,000	LS	\$1.00		
108 115	7 - Park & Ric	Platform Electrical LTK610	1	LS	\$100,000	\$100,000	\$1,720,000
116	r - rain or nic	Park & Ride	400	Space	\$4,300	\$1,720,000	ψ1,720,000
117		Park & Ride Location	Pines Station	-1	Ţ.,300	. ,,	
119	8 - Operation	s Facility (All Yard elements Included)		_			
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Pine Road (Aerial Structure) to McDonald					
	Drawing	Road Area		475+00	500+00	2,500 FT	0.5 mile
	220A	East Valley Section (Aerial at Pine)			000.00	2,000	0.0
	ZZO/T	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00		2001ψ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,500,000		\$1,137,952
136	o muonom	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	Ψ1,101,002
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Contact Wire ETR920	2.500	RF	\$123.00		
141		Lighting LTK940	2,500	RF	\$11.58		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60		
147	10 - Signal Sy		2,300	LO	ψ54.00	\$60,500	\$718,288
148	10 - Signal S	Signal	2,500	RF	\$287.32	\$718,288	φ/10,200
151	11 - Commun		2,500	Kr	\$201.32	\$7.10,200	\$328,575
152	11 - Commu	Communications	2,500	RF	\$131.43	\$328,575	φ320,373
157	12 - Fare Col		2,500	Kr	\$131.43	\$320,373	\$212,321
158	12 - Fare Con	Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$212,321	¢242 224	ΦΖ1Ζ,3Ζ 1
160		Subtotal - Infrastructure	1	LS	\$212,321 Subtotal	\$212,321	\$10,435,029
		Subtotal - Illifastructure			Subiolai		\$10,435,028
161 162	42 Dialet of V	Man.					
162	13. Right of V	DEA Right of Way Acquisition Budget Estimate (Including					
400				1.0	¢20,000,000		
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -			A= 000 000 00		
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ring & Administration			Subtotal		\$3,652,260
180	Infrastructure	E & A 35.00%				\$3,652,260	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$2,287,006
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$2,037,006	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$712,434
195		Sales Tax 8.40%				\$712,433.98	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$17,086,730
	1					1	

]	Spokane	Regional					
	•	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	McDonald Road to Evergreen Road Area		500+00	525+00	2,500 FT	0.5 mile
	C -221	East Valley Section		000100	020100	2,00011	0.0 111110
	O ZZI	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		quantity	O.m.	Oint Goot	Extension	\$2,543,576
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	800	LF	\$35.00	\$28,000	
<u>4</u> 5		Common Excavation Select Backfill (MSE Retaining Walls)	4,029	CY	\$15.00 \$15.00	\$60,435	
6		Common Backfill (From Project Excavation)	3,204	CY	\$4.00	\$12,816	
8		Landscaping Allowance	50,000	SF	\$2.00	\$100,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	730	LF	\$16.00	\$11,680	
10		Chain Link Fencing 6'	4,260	LF	\$22.00	\$93,720	
11		Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance	730	LF LF	\$22.00	\$16,060	
12 13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	EA	\$6.00 \$8,000	\$15,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312	* / / / / / / / / / / / / / / / / / / / / / / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / - / / / / / / / / / / / -	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20 21		Double Crossover Single Crossover		EA EA	\$300,000 \$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27 28		Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes)		EA EA	\$100,000 \$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	5,040	SF	\$6.00	\$30,240	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide	2,390	LF	¢25.00	\$83,650	
33		Industrial Railroad Turnouts East Side Syndicate Spur -	2,390	LF	\$35.00	\$63,630	
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110		LS EA	\$476,000.00 \$120,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,650	
41		Signal Communication Building LTK130	,	EA	\$100,000.00		
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00	\$500,000	
43		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,825	
50 57	2 - Insurance 3 - Utilities	- Included other in Items					\$250.000
59	3 - Othities	Utility Allowance - High		RF	\$600.00		Ψ230,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74	5 - Structures	s Bridge Structures DEA		LS	Ø4 00		
75 76		Bridge Location		LO	\$1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Out the same					
105 106		Stations Station Name	1	LS			
106		Allowance for Art at Stations & Park & Rides		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric	des					
116		Park & Ride		Space	\$4,300		
117	0 0	Park & Ride Location					
119 123	o - Operation	s Facility (All Yard elements Included) Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		
123		Operations Facility Building LTK	 	SF	\$171.00		
147		operation admits building ETIX	1	5	Ψ171.00		

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	McDonald Road to Evergreen Road Area		500+00	525+00		0.5 mile
	C -221	East Valley Section		000100	020100	2,00011	0.0 111110
	U ZZI	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Quantity	LS	\$4.160.844	LATERISION	20019
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,500,000		\$387,95
136	3 - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ307,93
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Contact Wire ETR920	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$11.58		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60	. ,	
	10 - Signal S		2,500	LO	\$34.00	Φ00,000	\$718,28
147 148	iu - Signai S	Signal	2,500	RF	\$287.32	\$718,288	\$710,20
151	11 - Commur		2,500	KF	\$201.32	\$710,200	\$220 F7
	11 - Commun		2.500	RF	£404.40	#200 F7F	\$328,57
152	40. 5 0-1	Communications	2,500	KF	\$131.43	\$328,575	
157	12 - Fare Col			1.0	0040.004		
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		# 4.000.00
160		Subtotal - Infrastructure			Subtotal		\$4,228,39
161							
162	13. Right of \						
		DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ring & Administration			Subtotal		\$1,479,93
180	Infrastructure	E & A 35.00%				\$1,479,937	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,045,67
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$795,678	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$295,34
195		Sales Tax 8.40%				\$295,347.84	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
			-				
						Total	\$7,049,353
						i otai	φ.,σ.σ,σσ.

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

	Spokane	Regional					
	•	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Evergreen Road Area to Adams Road Area		525+00	550+00	2,500 FT	0.5 mile
	C -222	East Valley Section		020100	000100	2,00011	0.0 111110
	O ZZZ	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		quantity	O.m.	Oint Goot	Extension	\$2,744,002
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	. , , , , , , , , , , , , , , , , , , ,
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance Common Excavation	400	LF	\$35.00	\$14,000	
5		Select Backfill (MSE Retaining Walls)	6,787	CY	\$15.00 \$15.00	\$101,805	
6		Common Backfill (From Project Excavation)	4,483	CY	\$4.00	\$17,932	
8		Landscaping Allowance	50,000	SF	\$2.00	\$100,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	1,665	LF	\$16.00	\$26,640	
10		Chain Link Fencing 6'	3,175	LF	\$22.00	\$69,850	
11 12		Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance	1,665 2,500	LF LF	\$22.00 \$6.00	\$36,630 \$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	EA	\$8,000	\$15,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track Double Crossover		TF EA	\$230		
20 21		Single Crossover	1	EA	\$300,000 \$150,000	\$150,000	
22		Turnout		EA	\$75,000	ψ130,000	
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)		EA EA	\$200,000 \$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	2,520	SF	\$6.00	\$15,120	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide	2,430	LF	\$35.00	\$85,050	
33		Industrial Railroad Turnouts East Side Syndicate Spur -	2,430	LF	\$33.00	\$65,050	
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110	1	LS EA	\$476,000.00 \$120,000.00	\$120,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,650	
41		Signal Communication Building LTK130	1	EA	\$100,000.00	\$100,000	
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00	\$500,000	
43		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,825	
50 57	2 - Insurance 3 - Utilities	- Included other in Items					\$250,000
59	o - ounces	Utility Allowance - High		RF	\$600.00		φ250,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74	5 - Structure:	s Bridge Structures DEA		LS	Ø4 00		
75 76		Bridge Location		LO	\$1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Out the same			070000	0=00	\$850,000
105 106		Stations Station Name	1 Evergreen Sta	LS tion Center Pl	\$700,000	\$700,000	
106		Allowance for Art at Stations & Park & Rides	\$50,000	LS	\$1.00	\$50,000	
108		Platform Electrical LTK610	1		\$100,000	\$100,000	
115	7 - Park & Ri	des					
116		Park & Ride		Space	\$4,300		
117	0 Om	Park & Ride Location	Evergreen Sta	ition			
119 123	o - Operation	s Facility (All Yard elements Included) Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		
123		Operations Facility Building LTK		SF	\$171.00		
147	1	poporanono i domy banding ETIX	1	5	Ψ171.00		

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Evergreen Road Area to Adams Road Area		525+00	550+00		0.5 mile
	C -222	East Valley Section			000100	_,,====================================	
	0 222	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	quantity	LS	\$4.160.844	Extonoion	200.4
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			\$1,000,000		\$1,137,95
136		Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ.,.σ.,σσ
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$11.58		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60		
147	10 - Signal S		2,300		ψ54.00	\$60,500	\$718,28
148	10 - Signal S	Signal	2,500	RF	\$287.32	\$718,288	Ψ110,20
151	11 - Commur		2,300	IXI	Ψ201.32	\$7.10,200	\$328,57
152	11 - Commu	Communications	2,500	RF	\$131.43	\$328,575	φ320,37
157	12 - Fare Col		2,300	ΝΓ	\$131.43	\$320,373	\$212,32
158	12 - Fare Coi	Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$212,321	\$212,321	\$212,32
160		Subtotal - Infrastructure	- '	LO	Subtotal	\$212,321	\$6,241,13
161		Subtotal - Infrastructure			Subiolai		\$6,241,13
162	40 Dimbs -61	M					
102	13. Right of V	DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	¢20,000,000		
163		HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) -		LS	\$30,000,000		
405					# F 000 000 00		
165	44 1/-1-1	Allowance		LS	\$5,000,000.00		
174	14. Vehicles	Lease Flores Links De Taylahinka - Deces Occas LTK 4000			#0 F00 000 00		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		***
179		ring & Administration			Subtotal	00.404.000	\$2,184,39
180	Infrastructure	E & A 35.00%				\$2,184,398	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,448,22
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,198,227	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$430,60
195		Sales Tax 8.40%				\$430,604.44	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$10,304,367
	1				1		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Adams Road Area to Sullivan Road Area		550+00	575+00	2,500 FT	0.5 mile
	C -223	East Valley Section		000100	070100	2,00011	0.0 111110
	0 220	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		quantity	O.m.	Oint Goot	Extension	\$2,401,913
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	* =, ····,···
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	800	LF	\$35.00	\$28,000	
<u>4</u> 5		Common Excavation Select Backfill (MSE Retaining Walls)	947	CY	\$15.00 \$15.00	\$14,205	
6		Common Backfill (From Project Excavation)	4,597	CY	\$4.00	\$18,388	
8		Landscaping Allowance	50,000	SF	\$2.00	\$100,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	810	LF	\$16.00	\$12,960	
10		Chain Link Fencing 6'	4,030		\$22.00	\$88,660	
11		Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance	810	LF LF	\$22.00	\$17,820	
12 13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	EA	\$6.00 \$8,000	\$15,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade	2,230	TF	\$312	. ,,	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20 21		Double Crossover Single Crossover	1	EA EA	\$300,000 \$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	2	EA	\$100,000	\$200,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27 28		Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes)		EA EA	\$100,000 \$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	5,040	SF	\$6.00	\$30,240	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide	2,419	LF	¢25.00	\$84,665	
33		Industrial Railroad Turnouts East Side Syndicate Spur -	2,419	LF	\$35.00	\$64,000	
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110		LS EA	\$476,000.00 \$120,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,650	
41		Signal Communication Building LTK130	,	EA	\$100,000.00	, , , , , , , , , , , , , , , , , , , ,	
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00	\$500,000	
43		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,825	
50 57	2 - Insurance 3 - Utilities	- Included other in Items					\$250,000
59	3 - Othities	Utility Allowance - High		RF	\$600.00		φ250,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74	5 - Structures	s Bridge Structures DEA		LS	Ø4 00		\$105,000
75 76		Bridge Location		LO	\$1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	3,500	SF	\$30.00	\$105,000	
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		·
104	6 - Stations	Out the same					
105 106		Stations Station Name	1	LS			
106		Allowance for Art at Stations & Park & Rides		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric	des					
116		Park & Ride		Space	\$4,300		
117	0. 0	Park & Ride Location					
119 123	δ - Operation	s Facility (All Yard elements Included) Bldg & Yard Site Prep, Grading & Utilities LTK811	1	LS	\$18,611,516		
123		Operations Facility Building LTK		SF	\$18,611,516		
147		operation admits building ETIX	1	5	Ψ171.00		

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Adams Road Area to Sullivan Road Area		550+00	575+00		0.5 mile
	C -223	East Valley Section		000.00	070100	2,00011	0.0 11111
	0 220	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Quantity	LS	\$4.160.844	LATERISION	2001ψ
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,500,000		\$387,95
136	J - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ501,55
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Contact Wire ETR920	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$109.00		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60	. ,	
	10 - Signal S		2,500	LS	\$34.00	Φ00,000	Ф 7 40 00
147 148	10 - Signai S	Signal	2,500	RF	\$287.32	\$718,288	\$718,28
	11 - Commun		2,500	KF	\$201.32	Φ110,200	#220 F7
151	11 - Commur		0.500	RF	0 404.40	#000 F7F	\$328,57
152	40 5 0-1	Communications	2,500	KF	\$131.43	\$328,575	
157	12 - Fare Col				0040.004		
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		01.101.70
160		Subtotal - Infrastructure			Subtotal		\$4,191,72
161							
162	13. Right of V						
		DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ring & Administration			Subtotal		\$1,467,10
180	Infrastructure	E & A 35.00%				\$1,467,105	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,038,34
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$788,345	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$292,88
195		Sales Tax 8.40%				\$292,884.08	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,990,06

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

	Spokane	Regional					
	_	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Sullivan Road Area to Cannery Street Area		575+00	600+00	2,500 FT	0.5 mile
	C -224	East Valley Section		373+00	000+00	2,500 F1	0.5 111116
	C -224	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Ollit	Offic Cost	LAGIISIOII	\$2,375,517
1	1-OIVII OOIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ2,575,517
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	400	LF	\$35.00	\$14,000	
4		Common Excavation	2,196	CY	\$15.00	\$32,940	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	1,223	CY	\$15.00 \$4.00	¢4.902	
8		Landscaping Allowance	50,000	SF	\$4.00 \$2.00	\$4,892 \$100,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	700	LF	\$16.00	\$11,200	
10		Chain Link Fencing 6'	4,120	LF	\$22.00	\$90,640	
11		Ballast Walls (Curb-no drainage)	700	LF	\$22.00	\$15,400	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	5.000	EA	\$8,000	04.445.000	
14 15		Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade	5,000	TF TF	\$223 \$312	\$1,115,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$312		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23 24		Impact Attenuators		EA	\$35,000		
25		Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes)		EA EA	\$25,000 \$100,000		
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000	7=11,111	
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction	0.500	SF	\$9.00	0.15.100	
31 32		Sidewalk Construction Off Alignment Signal Modifications	2,520	SF EA	\$6.00 \$75,000.00	\$15,120	
32		Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide	2,410	LF	\$35.00	\$84,350	
		Industrial Railroad Turnouts East Side Syndicate Spur -	,				
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36 37		Remove & Relocate Industrial Spur HDR Provide Team Track and Loading Dock (HDR)		TF LS	\$130.00 \$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$120,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,650	
41		Signal Communication Building LTK130		EA	\$100,000.00		
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00	\$500,000	
43 50	2 Inquirence	Corrosion Mitigation LTK150 e - Included other in Items	2,500	RF	\$10.73	\$26,825	
57	3 - Utilities	- monuced other in items					\$250,000
59		Utility Allowance - High		RF	\$600.00		Ψ200,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		terials - Included in the Rail Items					
74 75	5 - Structure	s Bridge Structures DEA		LS	\$1.00		
76		Bridge Location		LO	φ1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Obeliana					
105		Stations Station Name	1	LS			
106 107		Station Name Allowance for Art at Stations & Park & Rides		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ri			-	Ç:11,100		
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location					
					1		
117 119 123	8 - Operation	B Facility (All Yard elements Included) Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		

Orawing C -224 Traction P	Light Rail Project Order of Magnitude Sullivan Road Area to Cannery Street Area East Valley Section Description Yard Maintenance Equipment LTK Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK ower System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930 Lighting LTK940	Quantity	Start Sta 575+00 Unit LS LS LS	Estima End Sta 600+00 Unit Cost \$4,160,844 \$4,307,460 \$1,900,000	Extension	0.5 mile
Traction P	Sullivan Road Area to Cannery Street Area East Valley Section Description Yard Maintenance Equipment LTK Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK ower System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930	Quantity	575+00 Unit LS LS LS	600+00 Unit Cost \$4,160,844 \$4,307,460	2,500 FT Extension	
Traction P	Sullivan Road Area to Cannery Street Area East Valley Section Description Yard Maintenance Equipment LTK Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK ower System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930	Quantity	575+00 Unit LS LS LS	600+00 Unit Cost \$4,160,844 \$4,307,460	2,500 FT Extension	
Traction P	East Valley Section Description Yard Maintenance Equipment LTK Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK ower System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930	Quantity	Unit LS LS LS	Unit Cost \$4,160,844 \$4,307,460	Extension	
Traction P	Description Yard Maintenance Equipment LTK Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK ower System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930	Quantity	LS LS LS	\$4,160,844 \$4,307,460		2001\$
Traction P	Yard Maintenance Equipment LTK Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK ower System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930	quantity	LS LS LS	\$4,160,844 \$4,307,460		2001ψ
Traction P	Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK ower System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930		LS LS	\$4,307,460		
Traction P	Communications Control Center/ Hardware/ Software LTK ower System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930		LS			
Traction P	ower System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930			ψ1,000,000		
- Signal Sy	Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930		ΕΛ			\$387,95
- Signal Sy	OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930			\$750,000		Ψ307,33.
- Signal Sy	OCS Simple Catenary LTK930		RF	\$123.00		
- Signal Sy	, ,	2,500	RF	\$109.00		
- Signal Sy		2,500	RF	\$109.00		
- Signal Sy	Spare Parts/ System support LTK950	2,500	LS	\$34.60		
		2,500	LS	\$34.00	φου,300	Ф740 OO
	Signal	2,500	RF	\$287.32	\$718,288	\$718,28
- Commun		2,500	Kr	\$201.32	\$110,200	¢200.57
		2.500	RF	C404 40	#200 F7F	\$328,57
	Communications	2,500	KF	\$131.43	\$328,575	
- Fare Coll				0040 004		
	Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		# 4.000.00
	Subtotal - Infrastructure			Subtotal		\$4,060,33
Right of W						
	DEA Right of Way Acquisition Budget Estimate (Including					
	Railroads & Operation Facility)		LS	\$30,000,000		
	HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
	Allowance		LS	\$5,000,000.00		
			EA			
				Subtotal		\$1,421,110
					\$1,421,116	
nicle						
				Subtotal		\$1,012,06
nicles						
astructure						
ities					\$250,000	
 Washingt 	ton State Sales Tax					\$284,054
	Sales Tax 8.40%				\$284,054.27	
	Sales Tax has been applied to 2/3 of Infrastructure &					
	Contingency (Reduced to eliminate tax on Labor) and 100%					
	of the vehicle's estimated total.					
		-				
					Total	\$6,777,568
			-			-
as	structure cle Continge cles structure es	Low Floor Light Rail Vehicles - Base Cost LTK 1600 Low Floor Light Rail Vehicles - Spare Parts LTK 1600 Engineering & Administration Structure	Low Floor Light Rail Vehicles - Base Cost LTK 1600 Low Floor Light Rail Vehicles - Spare Parts LTK 1600 Engineering & Administration Structure	Low Floor Light Rail Vehicles - Base Cost LTK 1600	Contingencies Contingency 20.00%	Cehicles

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

· <u> </u>	Spokane	Regional					
	•	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Cannery Street Area to Steen Road Area		600+00	625+00	2,500 FT	0.5 mile
		East Valley Section		000100	020100	2,00011	0.0 111110
	0 220	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		quantity	Oc	Omit Goot	ZATOTIOIOTI	\$2,575,238
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	
2		Grade Preparation to Top of subballast.	2,500		\$35.00		
<u>3</u>		Curb & Gutter Allowance Common Excavation	400 815	LF CY	\$35.00 \$15.00	\$14,000	
5		Select Backfill (MSE Retaining Walls)	010	CY	\$15.00	\$12,225	
6		Common Backfill (From Project Excavation)	2,272	CY	\$4.00	\$9,088	
8		Landscaping Allowance	50,000		\$2.00	\$100,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	250		\$16.00	\$4,000	
10 11		Chain Link Fencing 6' Ballast Walls (Curb-no drainage)	4,630 250		\$22.00 \$22.00	\$101,860 \$5,500	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,000	EA	\$8,000	ψ.ο,οοο	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16 19		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track	1	TF TF	\$280 \$230		
20	+	Double Crossover	+	EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24 25		Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes)		EA EA	\$25,000 \$100,000		
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000	Ψ200,000	
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction Sidewalk Construction	0.040	SF SF	\$9.00 \$6.00	C45.040	
31 32		Off Alignment Signal Modifications	2,640	EA EA	\$75,000.00	\$15,840	
		Construct Maintenance Road Assume All Weather Gravel -			ψ. ο,οοο.οο		
33		12 FT Wide	2,450	LF	\$35.00	\$85,750	
		Industrial Railroad Turnouts East Side Syndicate Spur -			*		
34 35		HDR Relocate UPRR Yard Lead or Branch Line		EA TF	\$65,000.00 \$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$120,000.00	\$120,000	
40 41		OCS Pole Foundations LTK120 Signal Communication Building LTK130	2,500	RF EA	\$15.06 \$100,000.00	\$37,650 \$100,000	
41		Systems wide Ductbank/ Conduit LTK140	2,500		\$100,000.00	\$500,000	
43		Corrosion Mitigation LTK150	2,500		\$10.73	\$26,825	
50		- Included other in Items					
57	3 - Utilities	A NOTE - A NO.		5-	A 222.22		\$250,000
59 60		Utility Allowance - High Utility Allowance - Medium		RF RF	\$600.00 \$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	, , , , , , , , , , , , , , , , , , , ,				
74	5 - Structures						
75		Bridge Structures DEA	1	LS	\$1.00		
76 77		Bridge Location Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						\$850,000
105		Stations Station Name	1	LS e Station Cent	\$700,000	\$700,000	
106 107		Station Name Allowance for Art at Stations & Park & Rides	\$50,000		er Platform \$1.00	\$50,000	
108		Platform Electrical LTK610	1	LS	\$100,000		
115	7 - Park & Ric	des			,,		\$1,720,000
116		Park & Ride	400	Space	\$4,300	\$1,720,000	-
117	9 Om = ===4!	Park & Ride Location	Bogue Station				
119 123	o - Operation	s Facility (All Yard elements Included) Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		
124		Operations Facility Building LTK		SF	\$10,011,310		
	1	1-1	1		ψ		

	Light Rail Project		· · · · · · · · · · · · · · · · · · ·			
	Light Kan Froject			Estima	te Basics	
	Order of Magnitude		Start Sta	End Sta	Length	
Drawing	Cannery Street Area to Steen Road Area		600+00	625+00		0.5 mile
U	•		000100	020100	2,00011	0.0 11111
0 220	,	Quantity	Unit	Unit Cost	Extension	2001\$
		Quantity			LATERISION	20019
9 - Traction F				ψ1,500,000		\$1,137,95
3 - Traction i		1	EΛ	\$750,000	\$750,000	ψ1,137,93
		2 500				
	,	,			. ,	
		,				
40 Cimmal C		2,500	LS	\$34.00	\$00,000	Ф740 OO
iu - Signai S		2.500	DE	\$207.22	₽740 200	\$718,28
44 . Communi		2,500	ΚΓ	\$201.32	\$110,200	\$328,57
11 - Commun		0.500	D.E.	0101.10	\$000 F7F	\$328,57
40. 5 0-1		2,500	KF	\$131.43	\$328,575	#040.00
12 - Fare Col			- 0	\$040.004	D040.004	\$212,32
		1	LS		\$212,321	A= =00 0=
	Subtotal - Infrastructure			Subtotal		\$7,792,37
40 51 14 41						
13. Right of V						
			LS	\$30,000,000		
	Allowance		LS	\$5,000,000.00		
14. Vehicles						
			EA	. ,		
				Subtotal		\$2,727,33
					\$2,727,331	
				Subtotal		\$1,758,47
Utilities					\$250,000	
17 - Washing	ton State Sales Tax					\$534,84
	Sales Tax 8.40%				\$534,847.50	
	Sales Tax has been applied to 2/3 of Infrastructure &					
	Contingency (Reduced to eliminate tax on Labor) and 100%					
	of the vehicle's estimated total.					
					Total	\$12,813,026
	10 - Signal S 11 - Commur 12 - Fare Col 13. Right of V 14. Vehicles 15 - Enginee Infrastructure Vehicles Infrastructure Utilities	Pard Maintenance Equipment LTK Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK 9 - Traction Power System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930 Lighting LTK940 Spare Parts/ System support LTK950 10 - Signal System Signal 11 - Communications Communications Communications 12 - Fare Collection Fare Collection Vending/ Validator & Spares LTK1200 Subtotal - Infrastructure 13. Right of Way DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility) HazMat Demo & Disposal (Tanks,Waste Mitigation etc.) - Allowance 14. Vehicles Low Floor Light Rail Vehicles - Base Cost LTK 1600 Low Floor Light Rail Vehicles - Spare Parts LTK 1600 15 - Engineering & Administration Infrastructure Vehicle E & A 35.00% 16 - Contingencies Vehicles Contingency 5.00% Infrastructure Contingency 100.00% 17 - Washington State Sales Tax Sales Tax has been applied to 2/3 of Infrastructure & Contingency 100.00% Sales Tax has been applied to 2/3 of Infrastructure & Contingency 100.00% Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100%	Description Quantity	Description Quantity Unit	Description Quantity Unit Unit Cost	Description

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Steen Road Area to Sprague Ave Crossing		625+00	650+00	2,500 FT	0.5 mile
	C -226	East Valley Section		023+00	030+00	2,50011	0.5 111116
	C -226	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Cons		Quantity	Oilit	Unit Cost	Extension	\$2,431,318
1	1-OIVII OOIIS	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ2,401,010
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	800	LF	\$35.00	\$28,000	
4		Common Excavation	3,963	CY	\$15.00	\$59,445	
5		Select Backfill (MSE Retaining Walls)	057	CY	\$15.00	# 4 000	
6 8		Common Backfill (From Project Excavation) Landscaping Allowance	257 50,000	CY SF	\$4.00 \$2.00	\$1,028 \$100,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	305	LF	\$16.00	\$4,880	
10		Chain Link Fencing 6'	4,295	LF	\$22.00	\$94,490	
11		Ballast Walls (Curb-no drainage)	305	LF	\$22.00	\$6,710	
12		Site Cleanup and Final Grading Allowance	2,500	LF.	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	5.000	EA	\$8,000	04.445.000	
14 15		Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade	5,000	TF TF	\$223 \$312	\$1,115,000	
16	+	Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23 24		Impact Attenuators Minor Street Closures Allowance	1	EA EA	\$35,000 \$25,000	\$25,000	
25		Minor Intersection Rebuild (2 Lanes)	2	EA	\$100,000	\$20,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000	Ψ200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction	5.040	SF	\$9.00	# 00.040	
31 32		Sidewalk Construction Off Alignment Signal Modifications	5,040	SF EA	\$6.00 \$75,000.00	\$30,240	
32		Construct Maintenance Road Assume All Weather Gravel -		LA	Ψ13,000.00		
33		12 FT Wide	2,130	LF	\$35.00	\$74,550	
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36 37		Remove & Relocate Industrial Spur HDR Provide Team Track and Loading Dock (HDR)		TF LS	\$130.00 \$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$120,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,650	
41		Signal Communication Building LTK130		EA	\$100,000.00		
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00	\$500,000	
43 50	2 - Incurance	Corrosion Mitigation LTK150 e - Included other in Items	2,500	RF	\$10.73	\$26,825	
57	3 - Utilities						\$250,00
59		Utility Allowance - High		RF	\$600.00		Ţ 2 00,00
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70 74	4 - Track Ma 5 - Structure	terials - Included in the Rail Items					
75	o - otructure	Bridge Structures DEA		LS	\$1.00		
76		Bridge Location		0	ψ1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		-
79	C C4-1'	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104 105	6 - Stations	Stations	1	LS			
106		Station Name		LO			
107		Allowance for Art at Stations & Park & Rides		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ri						
116		Park & Ride		Space	\$4,300		
117	9 Or ===+':-	Park & Ride Location					
119 123	6 - Operation	ns Facility (All Yard elements Included) Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		
124		Operations Facility Building LTK		SF	\$171.00		
	1	Table 1 downly bearing bills	1	٠,	ψ171.00		

	Spokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Steen Road Area to Sprague Ave Crossing		625+00	650+00	2,500 FT	0.5 mile
	C -226	East Valley Section				,	
-		Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	_	LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction P	ower System					\$387,952
136		Sub-Station Type 3 LTK 910		EA	\$750,000		
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$11.58		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60		
147	10 - Signal S		2,300		ψ54.00	ψ00,500	\$718,288
148	10 - Signal S	Signal	2,500	RF	\$287.32	\$718,288	φ/10,200
151	11 - Commun		2,300	NΓ	φ201.32	\$7.10,200	#200 F7
	11 - Commun		0.500	D.E.	0404.40	#000 F7F	\$328,575
152		Communications	2,500	RF	\$131.43	\$328,575	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		
160		Subtotal - Infrastructure			Subtotal		\$4,116,132
161							
162	13. Right of V						
		DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles				***************************************		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179	15 Engineer	ring & Administration		LA	Subtotal		\$1,440,646
180	Infrastructure	E & A 35.00%			Subiolai	\$1,440,646	\$1,440,040
181	Vehicle	E&A 5.00%				\$1,440,040	
					0.1.1.1.1		#4 000 000
185	16 - Continge				Subtotal		\$1,023,226
187	Vehicles	Contingency 5.00%				#770.000	
189	Infrastructure	Contingency 20.00%				\$773,226	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$287,804
195	1	Sales Tax 8.40%				\$287,804.10	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,867,809
							, , , , , , ,
	+				<u> </u>		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

	Spokane	Regional				T	
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Sprague Ave Crossing to Greenacres Road		650+00	675+00	2,500 FT	0.5 mile
	C -227	East Valley Section		000100	070100	2,00011	0.0 111110
	O ZZI	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		quantity	0	Omit Goot	Extension	\$2,558,707
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	280	LF	\$35.00 \$15.00	\$9,800	
5		Common Excavation Select Backfill (MSE Retaining Walls)	924	CY	\$15.00 \$15.00	\$13,860	
6		Common Backfill (From Project Excavation)	2,318	CY	\$4.00	\$9,272	
8		Landscaping Allowance	50,000	SF	\$2.00	\$100,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00		
10		Chain Link Fencing 6'	1,500	LF	\$22.00	\$33,000	
11 12		Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance	2,500	LF LF	\$22.00 \$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	EA	\$8,000	\$15,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track Double Crossover		TF	\$230 \$300,000		
20 21		Single Crossover		EA EA	\$300,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)	1	EA EA	\$200,000 \$100,000	\$200,000	
28		Major Traffic Signal (4 Lanes)	1	EA	\$200,000	\$200,000	
29		Complex Major Intersection Rebuild		EA	\$300,000	Ψ200,000	
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	1,800	SF	\$6.00	\$10,800	
32		Off Alignment Signal Modifications	1	EA	\$75,000.00	\$75,000	
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide		LF	\$35.00		
- 33		Industrial Railroad Turnouts East Side Syndicate Spur -		LI	ψ33.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37 38		Provide Team Track and Loading Dock (HDR) Lake Rd Industrial Spur Modifications (HDR)		LS LS	\$208,000.00 \$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$120,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,650	
41		Signal Communication Building LTK130		EA	\$100,000.00		
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00	\$500,000	
43	2 1	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,825	
50 57	3 - Utilities	- Included other in Items					\$250,000
59	- Junios	Utility Allowance - High		RF	\$600.00		Ψ200,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74 75	5 - Structures	s Bridge Structures DEA		LS	\$1.00		
76		Bridge Location		LO	φ1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Stations		10			
105 106		Stations Station Name	1	LS			
107		Allowance for Art at Stations & Park & Rides		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric	des					
116		Park & Ride		Space	\$4,300		
117	0 Om	Park & Ride Location					
119 123	o - Operation	s Facility (All Yard elements Included) Bldg & Yard Site Prep, Grading & Utilities LTK811	-	LS	\$18,611,516		
123		Operations Facility Building LTK	 	SF	\$10,611,516		
147		operation admits building ETIX	1	5	Ψ171.00		

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Sprague Ave Crossing to Greenacres Road		650+00	675+00		0.5 mile
	C -227	East Valley Section		000100	0,0,00	2,00011	0.0 11111
	U ZZI	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Quantity	LS	\$4.160.844	LATERISION	2001ψ
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,500,000		\$387,95
136	3 - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ307,93
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Contact Wire ETR920	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$109.00		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60	. ,	
147	10 - Signal S		2,500	LS	\$34.00	Φ00,000	\$718,28
148	iu - Signai S	Signal	2,500	RF	\$287.32	\$718,288	⊅/ 10,∠0
151	11 - Commur		2,500	KF	\$201.32	\$710,200	¢220 E7
	11 - Commur		2.500	RF	£404.40	#200 F7F	\$328,57
152	40. 5 0-1	Communications	2,500	KF	\$131.43	\$328,575	
157	12 - Fare Col			1.0	0040.004		
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		04.040.50
160		Subtotal - Infrastructure			Subtotal		\$4,243,52
161	40 51 14 41						
162	13. Right of V						
		DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ring & Administration			Subtotal		\$1,485,23
180	Infrastructure	E & A 35.00%				\$1,485,233	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,048,70
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$798,704	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$296,36
195		Sales Tax 8.40%				\$296,364.64	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$7,073,82

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

	Oponanc	Regional			<u> </u>		
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Greenacres Road to Barker Road Area		675+00	700+00	2,500 FT	0.5 mile
	C -228	East Valley Section		070100	700100	2,00011	0.0 111110
	0 -220	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Cons		Quantity	Oilit	Onit Oost	LATERISION	\$2,534,441
1	. Givii Goila	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ2,001,111
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	320	LF	\$35.00	\$11,200	
4		Common Excavation	1,028	CY	\$15.00	\$15,420	
5		Select Backfill (MSE Retaining Walls)	40.040	CY	\$15.00	£40,470	
6 8		Common Backfill (From Project Excavation) Landscaping Allowance	10,619 50,000	CY SF	\$4.00 \$2.00	\$42,476 \$100,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	2,415	LF	\$16.00	\$38,640	
10		Chain Link Fencing 6'	100	LF	\$22.00	\$2,200	
11		Ballast Walls (Curb-no drainage)	2,415	LF	\$22.00	\$53,130	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15 16		Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure		TF TF	\$312 \$280		
19		LRT Siding or Pocket Track		TF	\$280		
20		Double Crossover		EA	\$300,000		
21		Single Crossover	1	EA	\$150,000	\$150,000	
22		Turnout		EA	\$75,000	,	
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26 27		Major Intersection Rebuild (4 Lanes)		EA EA	\$200,000 \$100,000		
28		Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes)	1	EA	\$200,000	\$200,000	
29		Complex Major Intersection Rebuild	'	EA	\$300,000	\$200,000	
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	2,400	SF	\$6.00	\$14,400	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
34		Industrial Railroad Turnouts East Side Syndicate Spur - HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$120,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,650	
41		Signal Communication Building LTK130	0.500	EA	\$100,000.00	# 500.000	
42 43		Systems wide Ductbank/ Conduit LTK140 Corrosion Mitigation LTK150	2,500 2,500	RF RF	\$200.00 \$10.73	\$500,000 \$26,825	
	2 - Insurance	e - Included other in Items	2,300	IXI	\$10.73	\$20,023	
	3 - Utilities						\$250,00
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00		_
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
		terials - Included in the Rail Items					# 400 10
74 75	5 - Structure	s Bridge Structures DEA		LS	\$1.00		\$102,40
76		Bridge Location		LU	ψ1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)	3,200	SF	\$32.00	\$102,400	
78		MSE Retaining Wall - Typical DEA	2, 23	SF	\$30.00	,	
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		_
	6 - Stations						
105		Stations Stations	1	LS			
106 107		Station Name Allowance for Art at Stations & Park & Ridge		10	Ø4 00		
107		Allowance for Art at Stations & Park & Rides Platform Electrical LTK610		LS LS	\$1.00 \$100,000		
	7 - Park & Ri			LU	ψ100,000		
116	10	Park & Ride		Space	\$4,300		
117		Park & Ride Location			7 /- 33		
	8 - Operation	ns Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811 Operations Facility Building LTK		LS SF	\$18,611,516 \$171.00		
124							

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Greenacres Road to Barker Road Area		675+00	700+00		0.5 mile
	C -228	East Valley Section		0.0.00	700700	2,00011	0.0 111110
	0 220	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Qualitity	LS	\$4.160.844	LAGIISIOII	20019
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	0 Traction F	Power System		LS	\$1,900,000		\$387,95
136	9 - Traction F	Sub-Station Type 3 LTK 910		EA	\$750,000		\$307,93 <i>i</i>
				RF			
138		OCS Single Contact Wire LTK920	0.500		\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	* ,	
141		Lighting LTK940	2,500	RF	\$11.58	. ,	
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60	\$86,500	
147	10 - Signal S						\$718,28
148		Signal	2,500	RF	\$287.32	\$718,288	
151	11 - Commun						\$328,57
152		Communications	2,500	RF	\$131.43	\$328,575	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		
160		Subtotal - Infrastructure			Subtotal		\$4,321,65
161							
162	13. Right of \	Nav					
		DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -			400,000,000		
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles	7 MOWANOO			ψ3,000,000.00		
175	14. Verneies	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$681,818.18		
179	1E Engineer	ring & Administration		EA	Subtotal		\$1,512,579
180	Infrastructure	E & A 35.00%			Subiolai	\$1.512.579	\$1,512,57
181	Vehicle	E & A 5.00%				\$1,512,579	
					Cultatal		£4.004.004
185	16 - Continge				Subtotal		\$1,064,33
187	Vehicles	Contingency 5.00%				2011001	
189	Infrastructure	Contingency 20.00%				\$814,331	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$301,61
195		Sales Tax 8.40%				\$301,615.25	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$7,200,18

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Barker Road Area to Appleway Station Area		700+00	725+00	2,500 FT	0.5 mile
	C -229	Liberty Lake Section		700+00	725+00	2,500 F1	0.5 111116
	C -229	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Oilit	Onit Cost	LAGIISIOII	\$2,047,247
1	1-OIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ2,047,247
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation		CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)	22,493	CY	\$15.00	# 00.070	
6 8		Common Backfill (From Project Excavation) Landscaping Allowance	50,000	CY SF	\$4.00 \$2.00	\$89,972 \$100,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	1,700	LF	\$16.00	\$27,200	
10		Chain Link Fencing 6'	650	LF	\$22.00	\$14,300	
11		Ballast Walls (Curb-no drainage)	400	LF	\$22.00	\$8,800	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15 16	+	Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure		TF TF	\$312 \$280		
19	1	LRT Siding or Pocket Track		TF	\$280		
20	1	Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25 26		Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes)		EA EA	\$100,000 \$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide		LF	\$35.00		
33		Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$33.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39 40		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2,500	EA RF	\$120,000.00 \$15.06	\$37,650	
41		Signal Communication Building LTK130	2,500	EA	\$100,000.00	ψ37,030	
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00	\$500,000	
43		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,825	
50		- Included other in Items		_			
57	3 - Utilities	LIGHT AN LIGHT			*		\$250,000
59	1	Utility Allowance - High Utility Allowance - Medium		RF	\$600.00		
60 61	+	Utility Allowance - Medium Utility Allowance - Low	2,500	RF RF	\$350.00 \$100.00	\$250,000	
70	4 - Track Mat	terials - Included in the Rail Items	2,300	111	φ100.00	Ψ230,000	
74	5 - Structure						\$166,400
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77	-	Retaining Wall 4' Max (Low Gravity Wall)	5,200	SF	\$32.00	\$166,400	
78 79	+	MSE Retaining Wall - Typical DEA Cut & Cover Box/ Tunnel to Pine Road Aerial Station		SF LF	\$30.00 \$3,500.00		
104	6 - Stations	Out & Cover DOM Turmer to Fine Road Aerial Station		LF	φ3,500.00		
105	5 Glations	Stations	1	LS			
106	1	Station Name	<u> </u>				
107		Allowance for Art at Stations & Park & Rides		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ri				1		
116	1	Park & Ride		Space	\$4,300		
117 119	8 - Operation	Park & Ride Location as Facility (All Yard elements Included)					
123	o - Operation	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		
124	1	Operations Facility Building LTK		SF	\$171.00		

		Little Dail Davidson					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Barker Road Area to Appleway Station Area		700+00	725+00		0.5 mile
	C -229	Liberty Lake Section		700.00	720.00	2,00011	0.0 11111
	0 223	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Quantity	LS	\$4.160.844	LAterision	2001ψ
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
	9 - Traction F	Power System			ψ1,500,000		\$387,95
136	3 - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		Ψ307,33
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Contact Wire ETR920	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$109.00		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60	. ,	
	10 - Signal S		2,500	LS	\$34.00	φου,300	Ф740 OO
147 148	iu - Signai S	Signal	2,500	RF	\$287.32	\$718,288	\$718,28
	11 - Commur		2,500	ΚΓ	\$201.32	\$110,200	#200 F7
	11 - Commun		2.500	RF	£404.40	#200 F7F	\$328,57
152	40. 5 0-1	Communications	2,500	KF	\$131.43	\$328,575	
	12 - Fare Col			- 0	\$040.004		
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		***
160		Subtotal - Infrastructure			Subtotal		\$3,898,46
161							
162	13. Right of \						
		DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
l		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
		ring & Administration			Subtotal		\$1,364,46
	Infrastructure	E & A 35.00%				\$1,364,462	
181	Vehicle	E & A 5.00%					
	16 - Continge				Subtotal		\$979,69
187	Vehicles	Contingency 5.00%					
	Infrastructure	Contingency 20.00%				\$729,692	
	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$273,17
195		Sales Tax 8.40%				\$273,176.61	
		Sales Tax has been applied to 2/3 of Infrastructure &					
l		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
-						Total	\$6,515,79
-							

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

	Spokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Appleway Station Area to Country Vista Road		Otari Ota	Liid Old	Longin	
	Drawing	Area		705.00	750.00	2 F00 FT	0 E mile
	Drawing			725+00	750+00	2,500 FT	0.5 mile
	C -230	Liberty Lake Section	0	11	11-24 04	F	00044
	4.00:01.00:00	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Cons	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,456,537
2		Grade Preparation to Top of subballast.	2,500		\$35.00		
3		Curb & Gutter Allowance	2,000	LF	\$35.00		
4		Common Excavation		CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	35,768		\$4.00	\$143,072	
8		Landscaping Allowance	50,000	_	\$2.00	. ,	
9 10		Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6'	5,000	LF LF	\$16.00 \$22.00		
11		Ballast Walls (Curb-no drainage)	2,000		\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500		\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,000	EA	\$8,000	Ψ10,000	
14		Ballasted Track at Grade or Structure	4,430		\$223	\$987,890	
15		Embedded (Paved) Track at Grade	ĺ	TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure	570		\$280	\$159,600	
19		LRT Siding or Pocket Track		TF	\$230		
20	-	Double Crossover		EA	\$300,000		
21 22	1	Single Crossover Turnout		EA EA	\$150,000 \$75,000		
23		Impact Attenuators		EA	\$75,000 \$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF EA	\$6.00		
32		Off Alignment Signal Modifications Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -			φοσιου		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)	4	LS	\$476,000.00	# 400.000	
39 40		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2,500	EA RF	\$120,000.00 \$15.06	\$120,000 \$37,650	
41		Signal Communication Building LTK130	2,500		\$100,000.00		
42		Systems wide Ductbank/ Conduit LTK140	2,500		\$200.00	. ,	
43		Corrosion Mitigation LTK150	2,500		\$10.73		
50	2 - Insurance	e - Included other in Items					
57	3 - Utilities						\$250,00
59		Utility Allowance - High		RF	\$600.00		
60	1	Utility Allowance - Medium	0 ===	RF	\$350.00		
61	4 Trook Ma	Utility Allowance - Low terials - Included in the Rail Items	2,500	RF	\$100.00	\$250,000	
70 74	5 - Structure						\$726,00
75	J - Giruciare	Bridge Structures DEA	726,000	LS	\$1.00	\$726,000	ψ1 20,00
76	1	Bridge Location	Country Vista		ψ1.00	\$120,000	
77	1	Retaining Wall 4' Max (Low Gravity Wall)	, ,,,,,,,,	SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79	1	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Out		1.0	A=00.00	# 700.005	\$850,00
105	1	Stations Station North	1	LS	\$700,000	\$700,000	
106 107	+	Station Name Allowance for Art at Stations & Park & Rides	Appleway Sta \$50,000	tion Center Pla		\$50,000	
107	+	Platform Electrical LTK610	\$50,000		\$1.00 \$100,000		
115	7 - Park & Ri		'		ψ100,000	ψ100,000	\$4,300,00
116		Park & Ride	1,000	Space	\$4,300	\$4,300,000	Ţ.,000,00
117		Park & Ride Location	Appleway Sta		. ,,,,,,,	. ,,	
119	8 - Operation	ns Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		

	Spokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Appleway Station Area to Country Vista Road				- 5	
	Drawing	Area		725+00	750+00	2,500 FT	0.5 mile
	C -230	Liberty Lake Section		720.00	700100	2,000 1 1	0.0 111110
	C -230	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00		2001ψ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	Q - Traction E	Power System		LO	\$1,300,000		\$1,137,95
136	3 - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	Ψ1,137,33.
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Contact Wife LTK920	2.500	RF	\$123.00		
141		Lighting LTK940	,	RF			
141		Spare Parts/ System support LTK950	2,500	LS	\$11.58		
	40. 0'		2,500	LS	\$34.60	\$86,500	#740.00
147	10 - Signal Sy		0.500	DE.	0007.00	↑740.000	\$718,28
148	44 0	Signal	2,500	RF	\$287.32	\$718,288	# 000 F7
151	11 - Commun		0.500		*	A000 ====	\$328,57
152		Communications	2,500	RF	\$131.43	\$328,575	
157	12 - Fare Col						\$212,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$212,321	\$212,321	
160		Subtotal - Infrastructure			Subtotal		\$10,979,67
161							
162	13. Right of V						
		DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179	15 - Engineer	ing & Administration			Subtotal		\$3,842,88
180	Infrastructure	E & A 35.00%				\$3,842,885	
181	Vehicle	E & A 5.00%					
185	16 - Continge	encies			Subtotal		\$2,395,93
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$2,145,934	
191	Utilities	Contingency 100.00%				\$250,000	
194		ton State Sales Tax				+ 200,000	\$749,03
195		Sales Tax 8.40%				\$749,033.99	* -,
		Sales Tax has been applied to 2/3 of Infrastructure &				ψ1 10,000.00	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
100		or the verifole 3 estimated total.					
						Total	\$17,967,520
						IUIAI	ψ11,901,520

	Spokane	Regional	<u> </u>				
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Liberty Lake Area along side Interstate 90		750+00	775+00	2,500 FT	0.5 mile
	C -231	Liberty Lake Section		750+00	775+00	2,500 FT	0.5 11116
	C-231	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const	•	Quantity	Olik	Offic Cost	LAGIISIOII	\$2,308,25
1	. Givii Goilgi	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	ψ2,000,20
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation	8,360	CY	\$15.00	\$125,400	
5		Select Backfill (MSE Retaining Walls)	040	CY	\$15.00	#070	
6 8		Common Backfill (From Project Excavation) Landscaping Allowance	219 50,000	CY SF	\$4.00 \$2.00	\$876 \$100,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	30,000	LF	\$16.00	\$100,000	
10		Chain Link Fencing 6'	2,500	LF	\$22.00	\$55,000	
11		Ballast Walls (Curb-no drainage)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	LF	\$22.00	****	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15	 	Embedded (Paved) Track at Grade		TF TF	\$312		
16 19	-	Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF	\$280 \$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27 28		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
29		Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild		EA EA	\$200,000 \$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35 36		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR		TF TF	\$100.00 \$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$120,000.00	\$120,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,650	
41		Signal Communication Building LTK130	1	EA	\$100,000.00	\$100,000	
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00	\$500,000	
43	2 Income	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,825	
50 57	3 - Utilities	e - included other in items					\$250,00
59	o - Othlites	Utility Allowance - High		RF	\$600.00		Ψ200,00
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items				·	
74	5 - Structure:						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location		C.F.	#00.00		
77 78	1	Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA		SF SF	\$32.00 \$30.00		
79	 	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	The state of the s			\$5,555.00		
105		Stations	1	LS			
106		Station Name					
107		Allowance for Art at Stations & Park & Rides		LS	\$1.00		-
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ri			Cnc	#4.000		
116 117		Park & Ride Park & Ride Location		Space	\$4,300		
119	8 - Operation	ns Facility (All Yard elements Included)					
123	- ореганоп	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		
124		Operations Facility Building LTK		SF	\$171.00		

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Liberty Lake Area along side Interstate 90		750+00	775+00		0.5 mile
	C -231	Liberty Lake Section		700.00	770100	2,00011	0.0 11111
	0 201	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Quantity	LS	\$4.160.844	LATERISION	2001ψ
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,500,000		\$1,137,95
136	J - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,107,00
138		OCS Single Contact Wire LTK920	-	RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$11.58		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60	. ,	
147	10 - Signal S		2,300	LO	\$34.00	\$60,500	\$718,28
148	iu - Signai S	Signal	2,500	RF	\$287.32	\$718,288	φ/ 10,20
151	11 - Commun		2,300	KF	\$201.32	\$7.10,200	\$328,57
152	11 - Commu	Communications	2,500	RF	\$131.43	\$328,575	φ320,37
	12 - Fare Col		2,500	Kr	\$131.43	\$320,373	
157 158	12 - Fare Coi	Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		
160		Subtotal - Infrastructure		LS	Subtotal		£4.740.00
		Subtotal - Infrastructure			Subtotal		\$4,743,06
161	40 Birti (1)	M					
162	13. Right of V						
		DEA Right of Way Acquisition Budget Estimate (Including			****		
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ring & Administration			Subtotal		\$1,660,07
180	Infrastructure	E & A 35.00%				\$1,660,073	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,148,61
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$898,613	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$329,93
195		Sales Tax 8.40%				\$329,934.00	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$7,881,68
	1			1			

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

	Ороканс	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Liberty Lake Area along side Interstate 90		775+00	800+00	2,500 FT	0.5 mil
	C -232	Liberty Lake Section			000.00	2,000	0.0
	0 -232	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Oilit	Onit Oost	LAterision	\$1,983,95
1	i Givii Goiloi	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	ψ1,000,00
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	,	LF	\$35.00		
4		Common Excavation	659	CY	\$15.00	\$9,885	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	3,023	CY	\$4.00		
8		Landscaping Allowance	50,000	SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)	2.500	LF	\$16.00		
10		Chain Link Fencing 6' Ballast Walls (Curb-no drainage)	2,500	LF LF	\$22.00 \$22.00		
11 12		Site Cleanup and Final Grading Allowance	2,500	LF LF	\$22.00		
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223		
15		Embedded (Paved) Track at Grade	0,000	TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes)		EA	\$100,000 \$200,000		
28 29		Complex Major Intersection Rebuild		EA EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -			, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110		EA	\$476,000.00 \$120,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$120,000.00		
41		Signal Communication Building LTK130	2,300	EA	\$100,000.00		
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00		
43		Corrosion Mitigation LTK150	2,500	RF	\$10.73		
50	2 - Insurance	e - Included other in Items					
57	3 - Utilities						\$250,0
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		terials - Included in the Rail Items					
74	5 - Structure			LS	£4.00		
75 76		Bridge Structures DEA Bridge Location		LS	\$1.00		
77	1	Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			,,,,,,,,,,,,		
105		Stations	1	LS			
106		Station Name					
107		Allowance for Art at Stations & Park & Rides		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ri						
116		Park & Ride		Space	\$4,300		
	1	Park & Ride Location					
117							
	8 - Operation	Is Facility (All Yard elements Included) Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Liberty Lake Area along side Interstate 90		775+00	800+00		0.5 mile
	C -232	Liberty Lake Section		110100	000100	2,00011	0.0 11111
	0 -232	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Qualitity	LS	\$4.160.844	LAGIISIOII	2001φ
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	0 Traction F	Power System			ψ1,300,000		\$387,95
136	9 - Haction F	Sub-Station Type 3 LTK 910		EA	\$750,000		φ361,93
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Contact Wire LTK920	2,500	RF	\$123.00		
141		Lighting LTK940	2,500	RF	\$109.00		
		Spare Parts/ System support LTK950	,	LS	·	. ,	
142	40. 0'		2,500	LS	\$34.60	\$86,500	#740.00
147	10 - Signal S		2.500	RF	\$287.32	\$718,288	\$718,28
148	44 0	Signal	2,500	KF	\$287.32	\$718,288	# 000 F7
151	11 - Commun		0.500	D.F.	0 404.40	#000 F7F	\$328,57
152		Communications	2,500	RF	\$131.43	\$328,575	
157	12 - Fare Col				2010.001		
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		A0 000 TO
160		Subtotal - Infrastructure			Subtotal		\$3,668,76
161							
162	13. Right of V						
		DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ring & Administration			Subtotal		\$1,284,06
180	Infrastructure	E & A 35.00%				\$1,284,068	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$933,75
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$683,753	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$257,74
195		Sales Tax 8.40%				\$257,741.11	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,144,32

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 233

	Spokane	Regional					
	_	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Liberty Lake Road Area to Signal Road		800+00	825+00	2,500 FT	0.5 mile
	C -233	Liberty Lake Section		000100	020100	2,00011	0.0 111110
	0 -200	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const	·	Quantity	Oilit	Onit Cost	LATERISION	\$2,859,916
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	ΨΞ,000,010
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	300	LF	\$35.00	\$10,500	
4		Common Excavation	487	CY	\$15.00	\$7,305	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	5,109	CY	\$15.00 \$4.00	\$20,436	
8		Landscaping Allowance	50.000	SF	\$2.00	\$100,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	00,000	LF	\$16.00	ψ100,000	
10		Chain Link Fencing 6'	2,350	LF	\$22.00	\$51,700	
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13 14		Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	5,000	EA TF	\$8,000 \$223	\$1,115,000	
15		Embedded (Paved) Track at Grade	5,000	TF	\$312	\$1,115,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21	-	Single Crossover		EA	\$150,000		-
22		Turnout		EA	\$75,000		
23 24		Impact Attenuators Minor Street Closures Allowance	1	EA EA	\$35,000 \$25,000	\$25,000	
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000	Ψ100,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)	1	EA	\$200,000	\$200,000	
29		Complex Major Intersection Rebuild	1	EA	\$300,000	\$300,000	
30		Roadway Construction	0.000	SF	\$9.00	040.000	
31 32		Sidewalk Construction Off Alignment Signal Modifications	3,000	SF EA	\$6.00 \$75,000.00	\$18,000	
32		Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF LS	\$130.00		
37 38		Provide Team Track and Loading Dock (HDR) Lake Rd Industrial Spur Modifications (HDR)		LS	\$208,000.00 \$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$120,000.00	\$120,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,650	
41		Signal Communication Building LTK130	1	EA	\$100,000.00	\$100,000	
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00	\$500,000	
43	0 1	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,825	
	3 - Utilities	e - included other in items					\$250,00
59	5 - Othitics	Utility Allowance - High		RF	\$600.00		Ψ230,00
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
		terials - Included in the Rail Items					
	5 - Structure	s Bridge Structures DEA		10	04.00		
75 76		Bridge Structures DEA Bridge Location		LS	\$1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
	6 - Stations						
105		Stations Station Name	1	LS			
106 107		Station Name Allowance for Art at Stations & Park & Rides		LS	\$1.00		
107		Platform Electrical LTK610		LS	\$100,000		
	7 - Park & Ri				\$100,000		
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location		·			
	8 - Operation	ns Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		
124		Operations Facility Building LTK		SF	\$171.00		

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Liberty Lake Road Area to Signal Road		800+00	825+00		0.5 mile
	C -233	Liberty Lake Section		000.00	020100	2,00011	0.0 11111
	0 200	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Qualitity	LS	\$4.160.844	LAGISION	20019
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,500,000		\$1,137,95
136	3 - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,137,93
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Contact Wire ETR920	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$11.58		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60		
147	10 - Signal S		2,500	LS	\$34.00	Φ00,000	\$718,28
148	iu - Signai S	Signal	2,500	RF	\$287.32	\$718,288	₹/10,20
151	11 - Commun		2,500	KF	\$201.32	\$710,200	\$220 F7
	11 - Commur		2.500	RF	£404.40	#200 F7F	\$328,57
152	40. 5 0-1	Communications	2,500	KF	\$131.43	\$328,575	
157	12 - Fare Col				# 040.004		
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		AF 00 4 70
160		Subtotal - Infrastructure			Subtotal		\$5,294,73
161	40 81 14 41						
162	13. Right of V						
		DEA Right of Way Acquisition Budget Estimate (Including					
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ring & Administration			Subtotal		\$1,853,15
180	Infrastructure	E & A 35.00%				\$1,853,156	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,258,94
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,008,946	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$367,00
195		Sales Tax 8.40%				\$367,005.89	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$8,773,838
	1				1		

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Signal Road to Madson Road Area		825+00	850+00	2,500 FT	0.5 mile
	C -234			023+00	030+00	2,500 FT	0.5 11116
	C -234	Liberty Lake Section Description	Ouentitus	Unit	Unit Cost	Cytonolon	2001\$
	1-Civil Const		Quantity	Offic	Unit Cost	Extension	\$2,608,99
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,000,99
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	500	LF	\$35.00	\$17,500	
4		Common Excavation	7,500	CY	\$15.00	\$112,500	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)		CY	\$4.00		
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	50,000	SF LF	\$2.00	\$100,000	
10		Chain Link Fencing 4 (on walls or Ballast Curb) Chain Link Fencing 6'	2,390	LF	\$16.00 \$22.00	\$52,580	
11		Ballast Walls (Curb-no drainage)	2,390	LF	\$22.00	\$52,560	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000	¥10,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19	1	LRT Siding or Pocket Track		TF	\$230		
20	1	Double Crossover		EA	\$300,000 \$150,000		
21 22	 	Single Crossover Turnout		EA EA	\$150,000 \$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance	4	EA	\$25,000	\$100,000	
25		Minor Intersection Rebuild (2 Lanes)	2	EA	\$100,000	\$200,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)	2	EA	\$100,000	\$200,000	
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction	0.040	SF	\$9.00	040.440	
31 32		Sidewalk Construction Off Alignment Signal Modifications	3,240	SF EA	\$6.00 \$75,000.00	\$19,440	
32		Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
- 00		Industrial Railroad Turnouts East Side Syndicate Spur -			φοσ.σσ		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39 40		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2,500	EA RF	\$120,000.00 \$15.06	\$37,650	
41		Signal Communication Building LTK130	2,500	EA	\$100,000.00	φ3 <i>1</i> ,000	
42		Systems wide Ductbank/ Conduit LTK140	2,500	RF	\$200.00	\$500,000	
43		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,825	
50	2 - Insurance	- Included other in Items			·		
57	3 - Utilities			_			\$250,00
59		Utility Allowance - High		RF	\$600.00		
60	1	Utility Allowance - Medium		RF	\$350.00		
61	4. Total Man	Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70	4 - Track Mat	terials - Included in the Rail Items					
74 75	o - structure	s Bridge Structures DEA		LS	\$1.00		
76	†	Bridge Structures DEA Bridge Location		LO	φ1.00		
77	1	Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						
105	1	Stations	1	LS			
106	1	Station Name		1.0			
107	1	Allowance for Art at Stations & Park & Rides		LS	\$1.00		
108	7 - Park & Ri	Platform Electrical LTK610		LS	\$100,000		
115 116	r - raik & KI	Park & Ride		Space	\$4,300		
117	1	Park & Ride Location		Opace	ψ+,300		
119	8 - Operation	ns Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,611,516		
124		Operations Facility Building LTK		SF	\$171.00		

	Spokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Signal Road to Madson Road Area		825+00	850+00		0.5 mile
	C -234	Liberty Lake Section		020.00	000100	2,00011	0.0 111110
	0 20+	Description	Quantity	Unit	Unit Cost	Extension	2001\$
125		Yard Maintenance Equipment LTK	Quantity	LS	\$4.160.844	LAterision	2001ψ
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,500,000		\$387,95
136	J - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψουτ,οο.
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$11.58		
142		Spare Parts/ System support LTK950	2,500	LS	\$34.60	. ,	
147	10 - Signal S		2,300	LO	\$34.00	\$60,500	\$718,28
148	iu - Signai S	Signal	2,500	RF	\$287.32	\$718,288	φ/ 10,20
151	11 - Commun		2,300	KF	\$201.32	φ/ 10,200	\$328,57
152	11 - Commu	Communications	2,500	RF	\$131.43	\$328,575	φ320,37
	12 - Fare Col		2,500	Kr	\$131.43	\$320,373	
157 158	12 - Fare Coi	Fare Collection Vending/ Validator & Spares LTK1200		LS	\$212,321		
160		Subtotal - Infrastructure		LS	\$212,321 Subtotal		£4.000.00
		Subtotal - Infrastructure			Subtotal		\$4,293,80
161	40 Diale (1	1					
162	13. Right of V						
400		DEA Right of Way Acquisition Budget Estimate (Including			****		
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ring & Administration			Subtotal		\$1,502,83
180	Infrastructure	E & A 35.00%				\$1,502,833	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,058,76
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$808,762	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax					\$299,74
195		Sales Tax 8.40%				\$299,744.00	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$7,155,149
	1				1		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 235

	Spokane	Regional					
	•	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Liberty Lake Station (Molter Rd) and Line		Otari Ota	Liid Old	Longin	
		Terminus Area		850+00	868+50	1,850 FT	0.4 mile
		Liberty Lake Section		000100	000100	1,00011	0.4 111110
	0 200	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Oille	Olin Gost	Extension	\$2,512,502
1		Site Preparation - Clearing & Grubbing	1,850	LF	\$10.00		, , , , , , , , , , , , , , , , , , , ,
2		Grade Preparation to Top of subballast.	1,850	LF	\$35.00		
3 4		Curb & Gutter Allowance Common Excavation	300 9,860	LF CY	\$35.00 \$15.00		
5		Select Backfill (MSE Retaining Walls)	9,000	CY	\$15.00		
6		Common Backfill (From Project Excavation)		CY	\$4.00		
8		Landscaping Allowance	37,000	SF	\$2.00	\$74,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	4.050	LF	\$16.00		
10 11		Chain Link Fencing 6' Ballast Walls (Curb-no drainage)	1,850	LF LF	\$22.00 \$22.00		
12		Site Cleanup and Final Grading Allowance	1,850	LF	\$6.00		
13		Transition Slab Ballasted to Embedded /Bridge /Structure	1,000	EA	\$8,000		
14		Ballasted Track at Grade or Structure	3,700	TF	\$223	\$825,100	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19 20		LRT Siding or Pocket Track Double Crossover	1	TF EA	\$230 \$300,000		
21		Single Crossover	'	EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators	2		\$35,000	\$70,000	
24		Minor Street Closures Allowance		EA	\$25,000		
25 26		Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes)	1	EA EA	\$100,000 \$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)	1	EA	\$200,000	\$200,000	
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31 32		Sidewalk Construction Off Alignment Signal Modifications	2,040	SF EA	\$6.00 \$75,000.00	\$12,240	
32		Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35 36		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR		TF TF	\$100.00 \$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$120,000.00	\$120,000	
40		OCS Pole Foundations LTK120	1,850	RF	\$15.06		
41 42		Signal Communication Building LTK130 Systems wide Ductbank/ Conduit LTK140	1,850	EA RF	\$100,000.00 \$200.00		
43		Corrosion Mitigation LTK150	1,850	RF	\$200.00	\$19,851	
		- Included other in Items	1,000	131	ψ10.70	ψ10,001	
57	3 - Utilities						\$185,000
59		Utility Allowance - High		RF	\$600.00		
60 61		Utility Allowance - Medium Utility Allowance - Low	1,850	RF RF	\$350.00 \$100.00		
		erials - Included in the Rail Items	1,850	ΚΓ	\$100.00	000,σοιφ	
	5 - Structures						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location	-				
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78 79		MSE Retaining Wall - Typical DEA Cut & Cover Box/ Tunnel to Pine Road Aerial Station		SF LF	\$30.00 \$3,500.00		
	6 - Stations	Out a Gover box Turnier to Fille Road Aerial Station		LF	φ3,500.00		\$850,000
105		Stations	1	LS	\$700,000	\$700,000	, , , , , , , ,
106		Station Name			Platform Terminus		
107		Allowance for Art at Stations & Park & Rides	\$50,000	LS	\$1.00		
108 115	7 - Park & Ric	Platform Electrical LTK610	1	LS	\$100,000	\$100,000	\$860,000
116		Park & Ride	200	Space	\$4,300	\$860,000	ψουυ,υυι
		Park & Ride Location	Liberty Lake S		ψ.,300	+555,556	
117		I alk a ride Location	- Louis				

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Liberty Lake Station (Molter Rd) and Line					
	Drawing	Terminus Area		850+00	868+50	1,850 FT	0.4 mile
	C -235	Liberty Lake Section		333.33	000.00	1,00011	0
	0 200	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00		2001ψ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$4,307,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,000,000		\$1,037,084
136	o muonom	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	Ψ1,007,00
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Contact Wire ETR920	1.850	RF	\$123.00		
141		Lighting LTK940	1,850	RF	\$11.58		
142		Spare Parts/ System support LTK950	1,850	LS	\$34.60		
147	10 - Signal S		1,050	LO	ψ54.00	\$04,010	\$531,533
148	10 - Signal S	Signal	1,850	RF	\$287.32	\$531,533	φυσ1,υσι
151	11 - Commur		1,650	NF.	\$201.32	φυσ1,υυσ	\$243,146
152	11 - Commu	Communications	1,850	RF	\$131.43	\$243,146	φ243,140
157	12 - Fare Col		1,050	Kr	\$131.43	\$243,140	\$212,321
158	12 - Fare Coi		1	LS	\$212,321	C040 004	\$212,32
160		Fare Collection Vending/ Validator & Spares LTK1200 Subtotal - Infrastructure	1	LS	\$212,321 Subtotal	\$212,321	ФС 424 E05
161		Subtotal - Infrastructure			Subtotal		\$6,431,58
	40 Distance	1					
162	13. Right of V	DEA Right of Way Acquisition Budget Estimate (Including					
400					# 00 000 000		
163		Railroads & Operation Facility)		LS	\$30,000,000		
		HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) -					
165		Allowance		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600		EA	\$681,818.18		
179		ring & Administration			Subtotal		\$2,251,05
180	Infrastructure	E & A 35.00%				\$2,251,055	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,434,317
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,249,317	
191	Utilities	Contingency 100.00%				\$185,000	
194	17 - Washing	ton State Sales Tax					\$440,491
195		Sales Tax 8.40%				\$440,490.52	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$10,557,448

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 201.2

		Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Lincoln to Convention Center		5+00	25+00	2,000 FT	0.4 mile
	C -201.2	Downtown Section Alternate 2					
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const						\$6,360,598
1		Site Preparation - Clearing & Grubbing	2,000	LF	\$10.00	\$20,000	
2		Grade Preparation to Top of subballast.	2,000	LF	\$35.00		
3		Curb & Gutter Allowance	4,000	LF	\$35.00		
4		Common Excavation	14,815	CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6 8		Common Backfill (From Project Excavation) Landscaping Allowance		CY SF	\$4.00 \$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00		
10		Chain Link Fencing 4 (on waits of Ballast Gulb)		LF	\$22.00		
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,000	LF	\$6.00		
13		Transition Slab Ballasted to Embedded /Bridge /Structure	1	EA	\$8,000		
14		Ballasted Track at Grade or Structure		TF	\$223		
15		Embedded (Paved) Track at Grade	4,000	TF	\$312	\$1,248,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover	1	EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23 24		Impact Attenuators Minor Street Closures Allowance	2	EA EA	\$35,000 \$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)	6		\$200,000		
27		Minor Traffic Signal (2 Lanes)	-	EA	\$100,000		
28		Major Traffic Signal (4 Lanes)	6		\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction	85,200	SF	\$9.00		
31		Sidewalk Construction	72,000	SF	\$6.00	\$432,000	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
0.4		Industrial Railroad Turnouts East Side Syndicate Spur -		E.A.	#05 000 00		
34 35		HDR		EA TF	\$65,000.00		
36		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR		TF	\$100.00 \$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,000	RF	\$15.06	\$30,110	
41		Signal Communication Building LTK130		EA	\$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140	2,000	RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,000	RF	\$110.00		
45		Corrosion Mitigation LTK150	2,000	RF	\$10.73	\$21,466	
50		e - Included other in Items					* 4.000.00
57	3 - Utilities	Litility Allowance Lligh	2,000	DE	\$600.00	¢4 200 000	\$1,200,000
59 60		Utility Allowance - High Utility Allowance - Medium	2,000	RF RF	\$600.00 \$350.00		
61		Utility Allowance - Low	<u> </u>	RF	\$100.00		
70	4 - Track Mat	terials - Included in the Rail Items		IXI	ψ100.00		
74	5 - Structure						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		4
104	6 - Stations	Out the second			A=00.6==	#	\$800,000
105		Stations Station Name	Dlaza Station	LS Cido by Cido I	\$700,000	\$700,000	
106 107		Station Name	Plaza Station				
107		Artwork (*Subject to Board Policy) Platform Electrical LTK610	1	LS LS	\$1.00 \$100,000		
115	7 - Park & Rie		1	LO	\$100,000	φ100,000	
116	r - raik ox Ki	Park & Ride	+	Space	\$4,300		
117		Park & Ride Location		эраос	ψ+,500		
119	8 - Operation	ns Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Lincoln to Convention Center		5+00	25+00	2,000 FT	0.4 mile
	C -201.2	Downtown Section Alternate 2		0.00	20100	2,00011	0.111111
	C -201.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00	Extension	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,000,000		\$339,14
136	o muonom	Sub-Station Type 3 LTK 910		EA	\$750,000		ψοσο, 1 -1
138		OCS Single Contact Wire LTK920	2.000	RF	\$123.00	\$246,000	
139		OCS Simple Catenary LTK930	2,000	RF	\$109.00	\$2.0,000	
141		Lighting LTK940	2,000	RF	\$8.11	\$16,212	
142		Spare Parts/ System support LTK950	2,000	LS	\$38.47	\$76,930	
147	10 - Signal S		,,,,,,		***	* -,,	\$577,75
148		Signal (Alt 2 & Alt 3)	2,000	RF	\$288.88	\$577,752	
151	11 - Commun		•				\$254,24
152		Communications (Alt 2 & Alt 3)	2,000	RF	\$127.12	\$254,246	
157	12 - Fare Col	lection					\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$9,734,06
161							
162	13. Right of \						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168	44 1/-1-1	Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174 175	14. Vehicles	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Base Cost LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 d		EA	\$700,000		
179	15 - Enginee	ring & Administration		LA	Subtotal		\$3,406,92
180	Infrastructure	E & A 35.00%			Oubtotal	\$3,406,921	ψ5,400,52
181	Vehicle	E & A 5.00%				ψ3,400,321	
185	16 - Continge				Subtotal		\$2,906,81
187	Vehicles	Contingency 5.00%					+=,000,011
189	Infrastructure	Contingency 20.00%				\$1,706,812	
191	Utilities	Contingency 100.00%				\$1,200,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$707,88
195		Sales Tax 8.40%				\$707,888.81	,
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
			·	-			·
						Total	\$16,755,68
	1		·	· · · · · · · · · · · · · · · · · · ·	1		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 202.2

	Spokane	Regional					
	1	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Convention Center to Trent Station		25+00	50+00	2,500 FT	0.5 mile
		Downtown Section Alternate 2		25+00	30+00	2,500 F1	0.5 111116
	C -202.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const	•	Quantity	Offic	Unit Cost	Extension	\$4,753,932
1	1-OIVII OOIIst	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	ψ+,7 00,002
2		Grade Preparation to Top of subballast.	2,500		\$35.00		
3		Curb & Gutter Allowance	3,200		\$35.00	\$112,000	
4		Common Excavation	13,074	CY	\$15.00	\$196,110	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	463	CY CY	\$15.00 \$4.00	\$1,852	
8		Landscaping Allowance	403	SF	\$2.00	\$1,002	
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00		
10		Chain Link Fencing 6'		LF	\$22.00		
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13 14		Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	2,000	EA TF	\$8,000 \$223	\$446,000	
15		Embedded (Paved) Track at Grade	3,000		\$312	\$936,000	
16		Direct Fixation (DF) Track, Elevated Structure	0,000	TF	\$280	\$000,000	
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover	1	EA	\$300,000	\$300,000	
21		Single Crossover		EA	\$150,000		
22		Turnout Impact Attenuators		EA EA	\$75,000 \$35,000		
23 24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)	3		\$200,000	\$600,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)	3		\$200,000	\$600,000	
29 30		Complex Major Intersection Rebuild Roadway Construction	63,000	EA SF	\$300,000 \$9.00	\$E67,000	
31		Sidewalk Construction	63,000 48,000	SF	\$6.00	\$567,000 \$288,000	
32		Off Alignment Signal Modifications	10,000	EA	\$75,000.00	Ψ200,000	
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -			* 05 000 00		
34 35		HDR Relocate UPRR Yard Lead or Branch Line		EA TF	\$65,000.00 \$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41 42	+	Signal Communication Building LTK130 Ductbank/ Conduit -PAVED TRACK- LTK140	2,000	EA RF	\$60,000.00 \$200.00	\$400,000	
43	1	Ductbank/ Conduit -PAVED TRACK- LTK140 Ductbank/ Conduit -OPEN TRACK- LTK140	500		\$110.00	\$55,000	
45	<u> </u>	Corrosion Mitigation LTK150	2,500		\$10.73	\$26,833	
50		- Included other in Items					
57	3 - Utilities						\$1,250,000
59	+	Utility Allowance - High Utility Allowance - Medium	1,500	RF RF	\$600.00	\$900,000 \$350,000	
60 61	+	Utility Allowance - Medium Utility Allowance - Low	1,000	RF	\$350.00 \$100.00		
70	4 - Track Mat	erials - Included in the Rail Items		IM	φ100.00		
74	5 - Structures						
75		Bridge Structures DEA		LS	\$1.00		
76	1	Bridge Location					
77 78	1	Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA		SF SF	\$32.00		
78 79	+	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$30.00 \$3,500.00		
104	6 - Stations	Out a Cover Box Turiner to Fine Noad Aerial Station	 	LI	ψυ,υυυ.υυ		\$800,000
105		Stations	1	LS	\$700,000	\$700,000	+300,000
106		Station Name	Convention Co	enter Center P	latform	·	
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108	7 B	Platform Electrical LTK610	1	LS	\$100,000	\$100,000	
115 116	7 - Park & Ric	des Park & Ride	+	Space	\$4,300		
117	+	Park & Ride Location		Space	φ4,300		
119	8 - Operation	s Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Convention Center to Trent Station		25+00	50+00	2.500 FT	0.5 mile
	C -202.2	Downtown Section Alternate 2		20100	00100	2,00011	0.0 111110
	C -202.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	EXTENSION	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$1,166,92
136	3 - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,100,52
138		OCS Single Contact Wire LTK920	2.000	RF	\$123.00	\$246,000	
139		OCS Simple Catenary LTK930	500	RF	\$109.00	\$54,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		,		,	****,	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* , -
151	11 - Commur		,		,		\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col	lection					\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	•
160		Subtotal - Infrastructure			Subtotal		\$9,213,17
161							
162	13. Right of \	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	L EL LILE BUYLL B. O. (LEKARO)			***		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600 Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$2,500,000.00		
176 177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 d		EA EA	\$681,818.18 \$700,000		
177	1E Enginee	ring & Administration		EA	Subtotal		\$3,224,61
180	Infrastructure	E & A 35.00%			Subiolai	\$3,224,612	\$3,224,61.
181	Vehicle	E & A 5.00%				\$3,224,012	
185	16 - Continge				Subtotal		\$2,842,63
187	Vehicles	Contingency 5.00%			Judicial		Ψ2,042,03
189	Infrastructure	Contingency 20.00%				\$1,592,636	
191	Utilities	Contingency 100.00%				\$1,250,000	
194		ton State Sales Tax and Real Estate Tax				Ţ., 2 00,000	\$675,12
195		Sales Tax 8.40%				\$675,125.59	Ţ
		Sales Tax has been applied to 2/3 of Infrastructure &				,	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$15,955,55

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 203.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Trent Station to Hamilton St Bridge Area		50+00	75+00	2,500 FT	0.5 mile
		BN Section Alternate 2		30+00	75+00	2,500 F I	0.5 111116
	C -203.2	Description	Ouentitus	I Imia	Unit Coot	Eutonoion	2001\$
	1-Civil Const		Quantity	Unit	Unit Cost	Extension	\$2,127,790
1	1-CIVII CONST	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,127,790
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	,	LF	\$35.00	, , , , , , , , , , , , , , , , , , , ,	
4		Common Excavation	21,044	CY	\$15.00	\$315,660	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	2,790	CY	\$4.00	\$11,160	
<u>8</u> 9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)		SF LF	\$2.00 \$16.00		
10		Chain Link Fencing 6'	4,500	LF	\$22.00	\$99,000	
11		Ballast Walls (Curb-no drainage)	1,000	LF	\$22.00	V 00,000	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15 16		Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure		TF TF	\$312 \$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24 25		Minor Street Closures Allowance		EA EA	\$25,000 \$100,000		
26		Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -		L,	φου.σο		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37 38		Provide Team Track and Loading Dock (HDR) Lake Rd Industrial Spur Modifications (HDR)		LS LS	\$208,000.00 \$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	1	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45 50	2 Incurance	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
	3 - Utilities	e - included other in items					\$250,000
59	- Junios	Utility Allowance - High		RF	\$600.00		Ψ200,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
		terials - Included in the Rail Items					
74 75	5 - Structure:	s Bridge Structures DEA		LS	¢4.00		
75 76		Bridge Structures DEA Bridge Location		LO	\$1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
	6 - Stations						\$850,000
105		Stations Stations	Trant Ctation (LS	\$750,000	\$750,000	
106 107		Station Name Artwork (*Subject to Board Policy)	Trent Station (Center Platforr LS	n \$1.00		
107		Platform Electrical LTK610	1	LS	\$1.00	\$100,000	
	7 - Park & Ri		<u> </u>		ψ100,000	Ψ100,000	
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location	Trent Station				
119	8 - Operation	ns Facility (All Yard elements Included) Bldg & Yard Site Prep, Grading & Utilities LTK811					
123				LS	\$18,551,516		

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Trent Station to Hamilton St Bridge Area		50+00	75+00	2,500 FT	0.5 mile
	C -203.2	BN Section Alternate 2		00100	70.00	2,00011	0.0 11111
	C -203.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	LATERISION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ.,σσσ,σσσ		\$1,138,92
136		Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	¥ 1,100,0=
138		OCS Single Contact Wire LTK920		RF	\$123.00	,	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commur						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$5,609,03
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
404		Alternate 2 HazMat Demo & Disposal (Tanks,Waste			# F 000 000 00		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
405		Alternate 3 DEA Right of Way Acquisition Budget		1.0	CO7 04 4 740 00		
165 166		Estimate (Including Railroads & Operation Facility) Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS LS	\$27,914,712.00 \$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Aliemate 4 Traziviat Demo & Disposai (Tariks, Waste Witigati			ψ3,000,000.00		
175	14. Verileies	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		\$1,963,16
180	Infrastructure	E & A 35.00%				\$1,963,163	, , , , , , ,
181	Vehicle	E&A 5.00%				· //	
185	16 - Continge	encies			Subtotal		\$1,321,80
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,071,807	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$388,12
195		Sales Tax 8.40%				\$388,127.25	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$9,282,13

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 204.2

	Drawing C -204.2	Regional Light Rail Project Order of Magnitude Hamiliton St Bridge Area to Helena Street BN Section Alternate 2 Description ruction Site Preparation - Clearing & Grubbing Grade Preparation to Top of subballast. Curb & Gutter Allowance Common Excavation Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track Double Crossover Single Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction Sidewalk Construction	2,500 2,500 2,500 2,088 13,697 31,400 200 2,500 5,000	Start Sta 75+00 Unit LF LF LF CY CY SF LF LF LF EA TF TF EA	### Cost ###	\$31,320 \$205,455 \$125,600 \$4,400 \$15,000 \$1,115,000	0.5 mile 2001\$ \$2,130,745
1. 1 2 3 3 4 4 5 5 6 8 8 9 10 11 11 12 13 13 14 15 16 19 20 21 1 22 23 24 25 26 27 28 29 30 31 32 33 34 35	Drawing C -204.2	Order of Magnitude Hamiliton St Bridge Area to Helena Street BN Section Alternate 2 Description ruction Site Preparation - Clearing & Grubbing Grade Preparation to Top of subballast. Curb & Gutter Allowance Common Excavation Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track Double Crossover Single Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Mijor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction	2,500 2,500 2,008 13,697 31,400 200 2,500	75+00 Unit LF LF CY CY CY SF LF LF LF LF EA TF TF TF EA EA EA EA EA EA EA	### Cost ###	Length 2,500 FT Extension \$25,000 \$87,500 \$31,320 \$205,455 \$125,600 \$4,400 \$15,000 \$1,115,000	2001\$
1. 1 2 3 3 4 4 5 5 6 8 8 9 10 11 11 12 13 13 14 15 16 19 20 21 1 22 23 24 25 26 27 28 29 30 31 32 33 34 35	C -204.2	Hamiliton St Bridge Area to Helena Street BN Section Alternate 2 Description ruction Site Preparation - Clearing & Grubbing Grade Preparation to Top of subballast. Curb & Gutter Allowance Common Excavation Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track Double Crossover Single Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Mijor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction	2,500 2,500 2,008 13,697 31,400 200 2,500	75+00 Unit LF LF CY CY CY SF LF LF LF LF EA TF TF TF EA EA EA EA EA EA EA	100+00 Unit Cost \$10.00 \$35.00 \$35.00 \$15.00 \$4.00 \$2.00 \$16.00 \$22.00 \$6.00 \$8,000 \$223 \$230 \$300,000 \$150,000 \$75,000 \$35,000 \$100,000 \$200,000 \$100,000	2,500 FT Extension \$25,000 \$87,500 \$31,320 \$205,455 \$125,600 \$4,400 \$15,000	2001\$
1. 1 2 3 3 4 4 5 5 6 8 8 9 10 11 11 12 13 13 14 15 16 19 20 21 1 22 23 24 25 26 27 28 29 30 31 32 33 34 35	C -204.2	BN Section Alternate 2 Description ruction Site Preparation - Clearing & Grubbing Grade Preparation to Top of subballast. Curb & Gutter Allowance Common Excavation Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track Double Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Mioro Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction	2,500 2,500 2,008 13,697 31,400 200 2,500	Unit LF LF CY CY CY SF LF LF LF LF EA TF TF TE EA EA EA EA EA EA EA	\$10.00 \$35.00 \$35.00 \$15.00 \$15.00 \$4.00 \$22.00 \$22.00 \$6.00 \$22.00 \$6.00 \$22.30 \$23 \$23 \$23 \$230 \$300,000 \$150,000 \$75,000 \$25,000 \$100,000 \$200,000	\$25,000 \$87,500 \$31,320 \$205,455 \$125,600 \$4,400 \$15,000	2001\$
1. 1 2 3 4 4 5 5 6 6 8 9 9 10 11 11 12 13 13 14 15 16 19 20 21 1 22 23 24 25 26 27 28 29 30 31 32 33 34 35	1-Civil Const	Description ruction Site Preparation - Clearing & Grubbing Grade Preparation to Top of subballast. Curb & Gutter Allowance Common Excavation Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track Double Crossover Single Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Major Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction	2,500 2,500 2,008 13,697 31,400 200 2,500	LF LF CY CY CY SF LF LF LF EA TF TF TF EA EA EA EA EA EA	\$10.00 \$35.00 \$35.00 \$15.00 \$4.00 \$2.00 \$16.00 \$22.00 \$6.00 \$8,000 \$23 \$312 \$280 \$230 \$300,000 \$150,000 \$75,000 \$35,000 \$100,000 \$200,000 \$100,000	\$25,000 \$87,500 \$31,320 \$205,455 \$125,600 \$4,400 \$15,000	+
1 2 3 4 4 5 6 6 8 8 9 10 10 11 12 13 14 15 16 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35		Site Preparation - Clearing & Grubbing Grade Preparation to Top of subballast. Curb & Gutter Allowance Common Excavation Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track Double Crossover Single Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction	2,500 2,500 2,008 13,697 31,400 200 2,500	LF LF CY CY CY SF LF LF LF EA TF TF TF EA EA EA EA EA EA	\$10.00 \$35.00 \$35.00 \$15.00 \$4.00 \$2.00 \$16.00 \$22.00 \$6.00 \$8,000 \$23 \$312 \$280 \$230 \$300,000 \$150,000 \$75,000 \$35,000 \$100,000 \$200,000 \$100,000	\$25,000 \$87,500 \$31,320 \$205,455 \$125,600 \$4,400 \$15,000	
1 2 3 4 4 5 6 6 8 8 9 10 10 11 12 13 14 15 16 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35		Site Preparation - Clearing & Grubbing Grade Preparation to Top of subballast. Curb & Gutter Allowance Common Excavation Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track Double Crossover Single Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction	2,500 2,088 13,697 31,400 200 2,500	LF LF CY CY SF LF LF LF EA TF TF EA EA EA EA EA EA EA	\$35.00 \$35.00 \$15.00 \$4.00 \$2.00 \$16.00 \$22.00 \$6.00 \$8,000 \$22.30 \$6.00 \$10,000 \$75,000 \$35,000 \$150,000 \$100,000 \$20,000 \$100,000	\$87,500 \$31,320 \$205,455 \$125,600 \$4,400 \$15,000	φ2,100,770
2 3 4 5 6 8 9 10 11 12 13 14 15 16 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35		Grade Preparation to Top of subballast. Curb & Gutter Allowance Common Excavation Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track Double Crossover Single Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction	2,500 2,088 13,697 31,400 200 2,500	LF LF CY CY SF LF LF LF EA TF TF EA EA EA EA EA EA EA	\$35.00 \$35.00 \$15.00 \$4.00 \$2.00 \$16.00 \$22.00 \$6.00 \$8,000 \$22.30 \$6.00 \$10,000 \$75,000 \$35,000 \$150,000 \$100,000 \$20,000 \$100,000	\$87,500 \$31,320 \$205,455 \$125,600 \$4,400 \$15,000	
3 4 5 6 8 8 9 10 11 11 12 13 14 15 16 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35		Curb & Gutter Allowance Common Excavation Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track Double Crossover Single Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Mijor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction	2,088 13,697 31,400 200 2,500	LF CY CY SF LF LF LF EA TF TF TF EA EA EA EA EA EA EA EA	\$35.00 \$15.00 \$15.00 \$4.00 \$2.00 \$16.00 \$22.00 \$6.00 \$223 \$312 \$280 \$230 \$300,000 \$75,000 \$35,000 \$100,000 \$20,000 \$100,000	\$31,320 \$205,455 \$125,600 \$4,400 \$15,000 \$1,115,000	
5 6 8 9 10 11 12 13 14 15 16 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track Double Crossover Single Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction	13,697 31,400 200 2,500	CY CY SF LF LF LF LF EA TF TF TF EA EA EA EA EA EA EA	\$15.00 \$4.00 \$2.00 \$16.00 \$22.00 \$6.00 \$8,000 \$223 \$312 \$280 \$300,000 \$150,000 \$75,000 \$35,000 \$100,000 \$200,000 \$100,000	\$205,455 \$125,600 \$4,400 \$15,000 \$1,115,000	
6 8 9 10 11 11 12 13 14 15 16 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35		Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track Double Crossover Single Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction	200 2,500	CY SF LF LF LF EA TF TF EA EA EA EA EA EA EA EA	\$4.00 \$2.00 \$16.00 \$22.00 \$6.00 \$8,000 \$23 \$312 \$280 \$300,000 \$150,000 \$75,000 \$35,000 \$100,000 \$100,000 \$100,000 \$200,000	\$125,600 \$4,400 \$15,000 \$1,115,000	
8 9 10 11 11 12 13 14 15 16 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track Double Crossover Single Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction	200	SF LF LF LF EA TF TF TF EA EA EA EA EA EA EA	\$2.00 \$16.00 \$22.00 \$6.00 \$8,000 \$223 \$312 \$280 \$300,000 \$75,000 \$35,000 \$25,000 \$100,000 \$200,000 \$200,000	\$4,400 \$15,000 \$1,115,000	
9 10 11 12 13 14 15 16 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33		Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track Double Crossover Single Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Major Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction	2,500	LF LF LF EA TF TF TF EA EA EA EA EA EA EA EA	\$16.00 \$22.00 \$22.00 \$6.00 \$8,000 \$223 \$312 \$280 \$330,000 \$150,000 \$75,000 \$25,000 \$100,000 \$100,000 \$200,000	\$4,400 \$15,000 \$1,115,000	
10 11 12 13 14 15 16 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33		Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track Double Crossover Single Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Mijor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction	2,500	LF LF LF EA TF TF TF EA EA EA EA EA EA EA EA EA EA	\$22.00 \$22.00 \$6.00 \$8,000 \$223 \$312 \$280 \$230 \$300,000 \$150,000 \$35,000 \$25,000 \$100,000 \$200,000 \$100,000	\$4,400 \$15,000 \$1,115,000	
12 13 14 15 16 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33		Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track Double Crossover Single Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction		LF EA TF TF TF EA EA EA EA EA EA EA EA	\$22.00 \$6.00 \$8,000 \$223 \$312 \$280 \$230 \$300,000 \$150,000 \$75,000 \$35,000 \$25,000 \$100,000 \$100,000 \$200,000	\$15,000 \$1,115,000	
13 14 15 16 19 20 21 22 23 24 25 26 27 28 29 30 31 32		Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track Double Crossover Single Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Mijor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction		EA TF TF TF EA	\$8,000 \$223 \$312 \$280 \$300,000 \$150,000 \$75,000 \$35,000 \$25,000 \$100,000 \$200,000 \$100,000	\$1,115,000	
14 15 16 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33		Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track Double Crossover Single Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Mijor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction	5,000	TF TF TF EA EA EA EA EA EA EA EA EA	\$223 \$312 \$280 \$330,000 \$150,000 \$75,000 \$35,000 \$25,000 \$100,000 \$200,000 \$100,000	\$1,115,000	
15 16 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33		Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track Double Crossover Single Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction	5,000	TF TF TF EA EA EA EA EA EA EA EA	\$312 \$280 \$230 \$300,000 \$150,000 \$75,000 \$35,000 \$25,000 \$100,000 \$100,000 \$200,000		
16 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track Double Crossover Single Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction		TF TF EA EA EA EA EA EA EA EA	\$280 \$230 \$300,000 \$150,000 \$75,000 \$35,000 \$25,000 \$100,000 \$100,000 \$200,000		
19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34		LRT Siding or Pocket Track Double Crossover Single Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction		TF EA	\$230 \$300,000 \$150,000 \$75,000 \$35,000 \$25,000 \$100,000 \$100,000 \$200,000		
20 21 22 23 24 25 26 27 28 29 30 31 32 33 34		Double Crossover Single Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction		EA EA EA EA EA EA EA EA	\$300,000 \$150,000 \$75,000 \$35,000 \$25,000 \$100,000 \$200,000 \$100,000		
21 22 23 24 25 26 27 28 29 30 31 32 33 34		Single Crossover Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction		EA EA EA EA EA EA EA	\$150,000 \$75,000 \$35,000 \$25,000 \$100,000 \$200,000 \$100,000		
22 23 24 25 26 27 28 29 30 31 32 33 34		Turnout Impact Attenuators Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction		EA EA EA EA EA EA	\$75,000 \$35,000 \$25,000 \$100,000 \$200,000 \$100,000 \$200,000		
24 25 26 27 28 29 30 31 32 33 33		Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction		EA EA EA EA	\$25,000 \$100,000 \$200,000 \$100,000 \$200,000		
25 26 27 28 29 30 31 32 33 33 34		Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction		EA EA EA	\$100,000 \$200,000 \$100,000 \$200,000		
26 27 28 29 30 31 32 33 34 35		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction		EA EA EA	\$200,000 \$100,000 \$200,000		
27 28 29 30 31 32 33 34 35		Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction		EA EA	\$100,000 \$200,000		
28 29 30 31 32 33 34 35		Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild Roadway Construction		EA	\$200,000		
29 30 31 32 33 34 35		Complex Major Intersection Rebuild Roadway Construction					
31 32 33 34 35				L^	\$300,000		
32 33 34 35		Sidewalk Construction		SF	\$9.00		
33 34 35				SF	\$6.00		
34 35		Off Alignment Signal Modifications		EA	\$75,000.00		
34 35		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide		LF	\$35.00		
35		Industrial Railroad Turnouts East Side Syndicate Spur -		LF	φ33.00		
35		HDR		EA	\$65,000.00		
36		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
		Remove & Relocate Industrial Spur HDR	1,400	TF	\$130.00	\$182,000	
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110		LS	\$476,000.00		
39 40		OCS Pole Foundations LTK120	2,500	EA RF	\$60,000.00 \$15.06	\$37,638	
41		Signal Communication Building LTK130	2,500	EA	\$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00		
45	_	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	_
		- Included other in Items					A
	3 - Utilities	Hility Allowance High		DF	#600.00		\$250,000
59 60		Utility Allowance - High Utility Allowance - Medium		RF RF	\$600.00 \$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00		
		erials - Included in the Rail Items	2,000		\$100.00	Ψ=00,000	
	5 - Structures	3					\$1,596,000
75		Bridge Structures DEA	891,000	LS	\$1.00	\$891,000	
76		Bridge Location	Erie & Helena		A · ·		
77 78		Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA	22 500	SF SF	\$32.00 \$30.00	\$705,000	
78 79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station	23,500	LF	\$30.00		
	6 - Stations	Sat a Seroi Box Taliffer of the Road Actial Otation		-	ψυ,υυυ.υυ		
105		Stations	1	LS			
106		Station Name					
107	_	Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
	7 - Park & Ric			Cnoss	£4.000		
116 117		Park & Ride Park & Ride Location		Space	\$4,300		
		s Facility (All Yard elements Included)					
123	8 - Operation		1	LS	\$18,551,516		

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Hamiliton St Bridge Area to Helena Street		75+00	100+00		0.5 mile
		BN Section Alternate 2		70100	100100	2,00011	0.0 11111
	0 -204.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00		2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction P	Power System			ψ1,000,000		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		\$000,02
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal Sy	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun	ications					\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Coll						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$5,405,67
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks,Waste			^=		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
405		Alternate 3 DEA Right of Way Acquisition Budget			007.044.740.00		
165 166		Estimate (Including Railroads & Operation Facility) Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS LS	\$27,914,712.00 \$5,000,000.00		
167		Alternate 3 Hazmat Demo & Disposal (Tanks, waste Mitigati Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$5,000,000.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Alternate 4 Haziviat Demo & Disposai (Tanks, Waste Willigati		LO	\$5,000,000.00		
175	14. Vehicles	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration		ì	Subtotal		\$1,891,98
180	Infrastructure	E & A 35.00%			- Cubicia.	\$1,891,985	Ψ.,σσ.,σσ.
181	Vehicle	E & A 5.00%				V 1,001,000	
185	16 - Continge				Subtotal		\$1,281,13
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,031,134	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$374,46
195		Sales Tax 8.40%	-	-		\$374,461.02	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$8,953,25
	1				1	1	

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 205.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta		
	Drowing	Helena Street to New BN Yard Bridge				Length	O.F. mile
				100+00	125+00	2,500 FT	0.5 mile
	C -205.2	BN Section Alternate 2	0	I I m ! f	Unit Coot	Futanalan	20046
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,416,363
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	2,000	LF	\$35.00	ψο.,ουσ	
4		Common Excavation		CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)	35,831	CY	\$15.00	\$537,465	
6		Common Backfill (From Project Excavation)	58,932	CY	\$4.00	\$235,728	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)		SF LF	\$2.00 \$16.00		
10		Chain Link Fencing 4 (on walls or Ballast Curb) Chain Link Fencing 6'	500	LF LF	\$16.00	\$11,000	
11		Ballast Walls (Curb-no drainage)	300	LF	\$22.00	\$11,000	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2	EA	\$8,000	\$16,000	
14		Ballasted Track at Grade or Structure	4,400	TF	\$223	\$981,200	
15		Embedded (Paved) Track at Grade		TF	\$312		
16	-	Direct Fixation (DF) Track, Elevated Structure	600	TF	\$280	\$168,000	
19 20		LRT Siding or Pocket Track Double Crossover	+	TF EA	\$230 \$300,000		
21	+	Single Crossover	+	EA	\$300,000 \$150,000		
22	†	Turnout	+	EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29 30		Complex Major Intersection Rebuild Roadway Construction		EA SF	\$300,000 \$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -			,		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35 36		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR		TF TF	\$100.00 \$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130		EA	\$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45 50	2 Incurence	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
57	3 - Utilities	; - included other in items					\$250,000
59	5 - Othitics	Utility Allowance - High		RF	\$600.00		Ψ230,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		terials - Included in the Rail Items					
74	5 - Structure:						\$3,168,000
75		Bridge Structures DEA	2,046,000	LS	\$1.00	\$2,046,000	
76		Bridge Location Retaining Wall 4' Max (Low Gravity Wall)	Madelia, Napa	SF	£22.00		
77 78	+	MSE Retaining Wall - Typical DEA	37,400	SF SF	\$32.00 \$30.00	\$1,122,000	
79	 	Cut & Cover Box/ Tunnel to Pine Road Aerial Station	57,400	LF	\$3,500.00		
104	6 - Stations	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			Ţ=,500.00		
105		Stations	1	LS			
106	1	Station Name		-			
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108	7 D	Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ri			Space	¢4 200		
116 117	+	Park & Ride Park & Ride Location	+	Space	\$4,300		
119	8 - Operation	is Facility (All Yard elements Included)					
123	- Sporation	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Helena Street to New BN Yard Bridge		100+00	125+00	2,500 FT	0.5 mile
	C -205.2	BN Section Alternate 2				,	
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK		SF	\$171.00		
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System					\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S						\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$7,263,28
161							
162	13. Right of \						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget			00704474000		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168	44 1/-1-1	Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Low Floor Light Poil Vehicles - Door Coat LTK 4000		EA	Φο τοο οοο οο		
175 176		Low Floor Light Rail Vehicles - Base Cost LTK 1600 Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$2,500,000.00 \$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 d		EA	\$700.000		
179	15 Engineer	ring & Administration		EA	Subtotal		\$2,542,15
180	Infrastructure				Subiolai	\$2,542,151	\$2,542,15
181	Vehicle	E & A 55.00%				\$2,542,151	
185	16 - Continge				Subtotal		\$1,652,658
187	Vehicles	Contingency 5.00%			Gubiolai		ψ1,002,000
189	Infrastructure					\$1,402,658	
191	Utilities	Contingency 100.00%				\$250,000	
194		Iton State Sales Tax and Real Estate Tax				Ψ200,000	\$499,29
195		Sales Tax 8.40%				\$499,292.95	Ψ.00,20
.00		Sales Tax has been applied to 2/3 of Infrastructure &				\$.00,202.00	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$11,957,389
							, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 206.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	New BN Yard Bridge to Regal Street		125+00	150+00	2,500 FT	0.5 mile
		UP Section Alternate 2		125+00	130+00	2,30011	0.5 111116
	C -200.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Oilit	Offic Cost	LAGIISIOII	\$2,414,312
1	1-OIVII OOIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ2,+14,512
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation	2,078	CY	\$15.00	\$31,170	
5		Select Backfill (MSE Retaining Walls)	21,120	CY	\$15.00	\$316,800	
6 8		Common Backfill (From Project Excavation) Landscaping Allowance	568	CY SF	\$4.00 \$2.00	\$2,272	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	2,850	LF	\$16.00	\$45,600	
10		Chain Link Fencing 6'	2,000	LF	\$22.00	\$44,000	
11		Ballast Walls (Curb-no drainage)	1,250	LF	\$22.00	\$27,500	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF TF	\$223	\$1,115,000	
15 16	1	Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure		TF	\$312 \$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover	1	EA	\$150,000	\$150,000	
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24 25		Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes)		EA EA	\$25,000 \$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31 32		Sidewalk Construction		SF EA	\$6.00		
32		Off Alignment Signal Modifications Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
- 00		Industrial Railroad Turnouts East Side Syndicate Spur -			ψου.σσ		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line	950	TF	\$100.00	\$95,000	
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37 38		Provide Team Track and Loading Dock (HDR) Lake Rd Industrial Spur Modifications (HDR)		LS LS	\$208,000.00 \$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60.000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	1	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45 50	2 - Incurance	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
57	3 - Utilities	- moradou other in items					\$250,000
59		Utility Allowance - High		RF	\$600.00		\$200,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					Ф Т ТЕ Е
74 75	5 - Structure:	s Bridge Structures DEA	280,500	LS	\$1.00	\$280,500	\$775,500
76	1	Bridge Location	Altamont	LO	\$1.00	φ∠ου,ουυ	
77	1	Retaining Wall 4' Max (Low Gravity Wall)	, attainiont	SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	16,500	SF	\$30.00	\$495,000	
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						\$850,000
105		Stations Station Name	Altomont Stati	LS on Contar Dia	\$750,000	\$750,000	
106 107		Station Name Artwork (*Subject to Board Policy)	Altamont Stati	on Center Pla	\$1.00		
107	<u> </u>	Platform Electrical LTK610	1	LS	\$100,000	\$100,000	
115	7 - Park & Ri				\$.50,000	ψσσ,σσσ	
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location					
119	8 - Operation	s Facility (All Yard elements Included)		1.0	Ø40 == 4 = : =		
123		Bldg & Yard Site Prep, Grading & Utilities LTK811	1	LS	\$18,551,516		

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	New BN Yard Bridge to Regal Street		125+00	150+00	2,500 FT	0.5 mile
	C -206.2	UP Section Alternate 2		120100	100100	2,00011	0.0 11111
	C -200.2		O., and the	Unit	Unit Cost	Extension	2001\$
101		Description Description	Quantity			Extension	2001\$
124 125		Operations Facility Building LTK Yard Maintenance Equipment LTK		SF LS	\$171.00 \$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	0 - Traction F	Power System		LS	\$1,900,000		\$1,138,92
136	3 - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,130,32
138		OCS Single Contact Wire LTK920		RF	\$123.00	ψ130,000	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		2,000		\$50.11	ψου,	\$722,19
148	. o o.ga. o	Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	ψ. 22, . σ
151	11 - Commur		2,000		\$200.00	ψ. 22, . σσ	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	ψο,σο
157	12 - Fare Col		,			** /**	\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	* - ,-
160		Subtotal - Infrastructure			Subtotal		\$6,671,05
161							
162	13. Right of \	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$2,334,87
180	Infrastructure	E & A 35.00%				\$2,334,870	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,534,21
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,284,212	
191	Utilities	Contingency 100.00%				\$250,000	0.450.10
194	17 - Washing	ton State Sales Tax and Real Estate Tax				A 150 105 10	\$459,49
195		Sales Tax 8.40% Sales Tax has been applied to 2/3 of Infrastructure &				\$459,495.13	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
190	+	or the verlicle's estimated total.			+		
						Total	\$10,999,636
	-					rotal	φ10,999,030

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 207.2

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drowing	Regal Street to Freya Street		150+00	175+00		0 E mila
		-		150+00	175+00	2,500 FT	0.5 mile
	C -207.2	UP Section Alternate 2	0	I la !t	Unit Coot	Fostonolon	00046
	4 Civil Comet	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,541,117
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	2,000	LF	\$35.00	ψοι,σοσ	
4		Common Excavation	5,709	CY	\$15.00	\$85,635	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	28	CY	\$4.00	\$112	
8		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	0.400	SF	\$2.00	\$33.600	
9 10		Chain Link Fencing 4' (on walls of Ballast Curb) Chain Link Fencing 6'	2,100 2,850	LF LF	\$16.00 \$22.00	\$33,600 \$62,700	
11		Ballast Walls (Curb-no drainage)	4,600	LF	\$22.00	\$101,200	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000	7.0,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20 21	 	Double Crossover Single Crossover	<u> </u>	EA EA	\$300,000 \$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance	3	EA	\$25,000	\$75,000	
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29 30		Complex Major Intersection Rebuild Roadway Construction		EA SF	\$300,000 \$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -			, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR	2	EA	\$65,000.00	\$130,000	
35		Relocate UPRR Yard Lead or Branch Line	2,500	TF TF	\$100.00 \$130.00	\$250,000	
36 37		Remove & Relocate Industrial Spur HDR Provide Team Track and Loading Dock (HDR)	930	LS	\$208,000.00	\$120,900	
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130		EA	\$60,000.00		
42	1	Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45 50	2 - Incurance	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
57	3 - Utilities	- moluueu otilei iii iteliis					\$250,000
59	- Junios	Utility Allowance - High		RF	\$600.00		Ψ200,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74	5 - Structures			10	M4 00		
75 76	 	Bridge Structures DEA Bridge Location	<u> </u>	LS	\$1.00		
76		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						
105		Stations	1	LS			
106	1	Station Name	1		A.		
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108 115	7 - Park & Ric	Platform Electrical LTK610		LS	\$100,000		
116	r - rain ox Kil	Park & Ride		Space	\$4,300		
117		Park & Ride Location		Space	ψ+,000		
119	8 - Operation	s Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Regal Street to Freya Street		150+00	175+00	2,500 FT	0.5 mile
	C -207.2	UP Section Alternate 2		100100	170100	2,00011	0.0 111110
	C -201.2		O., and the	Unit	Unit Cost	Extension	2001\$
101		Description Description	Quantity			Extension	20015
124 125		Operations Facility Building LTK Yard Maintenance Equipment LTK		SF LS	\$171.00 \$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	0 - Traction F	Power System		LO	ψ1,300,000		\$388,92
136	3 - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ300,92
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		2,000		Ψοσιτι	φου, του	\$722,19
148	. o o.ga. o	Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	ψ. <u>22</u> , . σ.
151	11 - Commur		2,000		Ψ200:00	ψ. 22, .00	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	ψ011,00
157	12 - Fare Col		,		,	,	
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$4,220,04
161							- / - /-
162	13. Right of \	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$1,477,01
180	Infrastructure	E & A 35.00%				\$1,477,015	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,044,00
187	Vehicles	Contingency 5.00%				0==:-:	
189	Infrastructure	Contingency 20.00%				\$794,008	
191	Utilities	Contingency 100.00%				\$250,000	#004 7 0
194	17 - Washing	ton State Sales Tax and Real Estate Tax				0004 700 00	\$294,78
195		Sales Tax 8.40% Sales Tax has been applied to 2/3 of Infrastructure &				\$294,786.82	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
190	+	or the verlicle's estimated total.					
						Total	\$7,035,852
	-					roidi	φ1,U35,852

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 208.2

		Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Freya Street to Havana Street Area		175+00	200+00	2,500 FT	0.5 mile
	C -208.2	UP Section Alternate 2					
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		.,				\$2,819,62
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	+ //-
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation	5,861	CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	486	CY	\$4.00	\$1,944	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	4,700	SF LF	\$2.00 \$16.00	\$75,200	
10		Chain Link Fencing 4 (on walls of Ballast Curb)	300	LF	\$22.00		
11		Ballast Walls (Curb-no drainage)	4,000	LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,000	EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade	-,	TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout	1	EA	\$75,000	\$75,000	
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance	2	EA	\$25,000	\$50,000	
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000	****	
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27 28		Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes)		EA EA	\$100,000 \$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications	1	EA	\$75,000.00	\$75,000	
		Construct Maintenance Road Assume All Weather Gravel -			Ç 1.0,000.00	4.0,000	
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line	2,500	TF	\$100.00	\$250,000	
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)	1	LS	\$208,000.00	\$208,000	
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00	A 00.000	
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120 Signal Communication Building LTK130	2,500	RF EA	\$15.06 \$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140	1	RF	\$200.00		
43		Ductbank/ Conduit - OPEN TRACK- LTK140	2,500	RF	\$110.00		
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73		
50	2 - Insurance	e - Included other in Items	2,000		ψ.σσ	\$20,000	
57	3 - Utilities						\$250,00
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74	5 - Structure						\$105,00
75	1	Bridge Structures DEA		LS	\$1.00		
76	1	Bridge Location			*== * *		
77	1	Retaining Wall 4' Max (Low Gravity Wall)	0.500	SF	\$32.00 \$30.00		
78 79	1	MSE Retaining Wall - Typical DEA Cut & Cover Box/ Tunnel to Pine Road Aerial Station	3,500	SF LF		*,	
104	6 - Stations	Out a Cover box/ Tunner to Pine Road Aerial Station		LF	\$3,500.00		\$850,00
104	o - Giations	Stations	1	LS	\$750,000	\$750,000	ψουυ,00
106	+	Station Name	Central Station			ψι 50,000	
107	†	Artwork (*Subject to Board Policy)	Jona Gradio	LS	\$1.00		
108		Platform Electrical LTK610	1	LS	\$100,000		
115	7 - Park & Ri		<u> </u>		\$100,000	\$100,000	
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location					
119	8 - Operation	s Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811	1	LS	\$18,551,516		

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	1	Length	
	Drawing	Freya Street to Havana Street Area		175+00	200+00	2,500 FT	0.5 mile
	C -208.2	UP Section Alternate 2		170100	200.00	2,00011	0.0 11111
	C -200.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	LAIGHSIOH	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ.,σσσ,σσσ		\$1,138,92
136		Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	4 1,100,00
138		OCS Single Contact Wire LTK920		RF	\$123.00	,,	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem			·		\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commur	nications					\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$6,405,87
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166 167		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati Alternate 4 DEA Right of Way Acquisition Budget Estima		LS LS	\$5,000,000.00		
168		Alternate 4 DEA Right of Way Acquisition Budget Estima Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$26,771,815.00 \$5,000,000.00		
174	14. Vehicles	Alternate 4 Haziviat Demo & Disposai (Tanks, waste Mitigati		LS	\$5,000,000.00		
175	14. Venicies	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Base Cost LTK 1600 Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 d		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		\$2,242,05
180	Infrastructure	E & A 35.00%			Cubiciai	\$2,242,056	ΨΣ,Σ12,00
181	Vehicle	E & A 5.00%				\$2,2 :2,000	
185	16 - Continge				Subtotal		\$1,481,17
187	Vehicles	Contingency 5.00%					. , - ,
189	Infrastructure	Contingency 20.00%				\$1,231,175	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$441,67
195		Sales Tax 8.40%				\$441,674.83	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$10,570,78
	1				1		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 209.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Havana Street Area toUPRR Spokane Yard		Otari Ota	Liid Old	Longin	
	Drawing	-		200.00	225 . 00	2 F00 FT	0 E mile
	Drawing	Area		200+00	225+00	2,500 FT	0.5 mile
	C -209.2	UP Section Alternate 2					
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const						\$3,269,702
1		Site Preparation - Clearing & Grubbing	2,500		\$10.00	\$25,000	
2		Grade Preparation to Top of subballast. Curb & Gutter Allowance	2,500	LF LF	\$35.00 \$35.00	\$87,500	
3		Common Excavation	1,322	CY	\$35.00 \$15.00	\$19,830	
5		Select Backfill (MSE Retaining Walls)	1,322	CY	\$15.00	\$19,030	
6		Common Backfill (From Project Excavation)	16,413	CY	\$4.00	\$65,652	
8		Landscaping Allowance	10,110	SF	\$2.00	700,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	700		\$16.00	\$11,200	
10		Chain Link Fencing 6'	4,300	LF	\$22.00	\$94,600	
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500		\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	6,150		\$223	\$1,371,450	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure	4.500	TF	\$280	# 0.45.000	
19 20	+	LRT Siding or Pocket Track Double Crossover	1,500	TF EA	\$230 \$300,000	\$345,000	
21		Single Crossover		EA	\$300,000		
22		Turnout	6		\$75,000	\$450,000	
23		Impact Attenuators	0	EA	\$35,000	Ψ430,000	
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications	1	EA	\$75,000.00	\$75,000	
00		Construct Maintenance Road Assume All Weather Gravel -			#05.00		
33		12 FT Wide		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line	500	TF	\$100.00	\$50,000	
36		Remove & Relocate Industrial Spur HDR	300	TF	\$130.00	ψ30,000	
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	1	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45	0.1	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		e - Included other in Items					#0 F0 00
57	3 - Utilities	Litility Allowance High	-	DF	\$600.00		\$250,00
59 60	+	Utility Allowance - High Utility Allowance - Medium	1	RF RF	\$500.00		
61	+	Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70	4 - Track Mat	terials - Included in the Rail Items	2,500	131	Ψ100.00	Ψ200,000	
74	5 - Structure						\$285,00
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	9,500	SF	\$30.00	\$285,000	
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						\$850,00
105		Stations	1		\$750,000	\$750,000	
106	-	Station Name	Fairgrounds V	V Station Triple			
107		Artwork (*Subject to Board Policy)		LS	\$1.00	¢400.000	
108	7 Dark 9 D:	Platform Electrical LTK610	1	LS	\$100,000	\$100,000	¢060.00
115 116	7 - Park & Ri	des Park & Ride	200	Space	\$4,300	\$860,000	\$860,000
	-	Park & Ride Park & Ride Location	Fairgrounds V		\$4,500	φοου,υυυ	
117							

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta		Length	
		Havana Street Area toUPRR Spokane Yard		Otal Cola	2.1.0 01.0	_0g	
	Drawing	Area		200+00	225+00	2,500 FT	0.5 mile
	C -209.2	UP Section Alternate 2		200100	220100	2,00011	0.0 111110
	0 200.2	Description Description	Quantity	Unit	Unit Cost	Extension	2001\$
123		Bldg & Yard Site Prep, Grading & Utilities LTK811	Quantity	LS	\$18,551,516	Extension	2001ψ
124		Operations Facility Building LTK		SF	\$171.00		
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction P	ower System					\$1,138,928
136		Sub-Station Type 3 LTK 910	1	EA	\$750,000		
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal Sy						\$722,190
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun	ications			_		\$317,808
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Coll						\$202,321
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	A= 00= 040
160		Subtotal - Infrastructure			Subtotal		\$7,895,948
161	40 51 14 41						
162	13. Right of V						
400		Alternate 2 DEA Right of Way Acquisition Budget		LS	¢20,000,000		
163		Estimate (Including Railroads & Operation Facility) Alternate 2 HazMat Demo & Disposal (Tanks, Waste		LS	\$30,000,000		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
104		Alternate 3 DEA Right of Way Acquisition Budget		LS	\$5,000,000.00		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Therrials 4 Plazimar Borno a Bioposar (Tarino, Vaste Minigar			ψο,οοο,οοο.οο		
175	14. Vemoles	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ing & Administration			Subtotal		\$2,763,582
180	Infrastructure	E & A 35.00%				\$2,763,582	
181	Vehicle	E & A 5.00%					
185	16 - Continge	ncies			Subtotal		\$1,779,190
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,529,190	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$541,808
195		Sales Tax 8.40%				\$541,807.73	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$12,980,528

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 210.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	UPRR Spokane Yard Area		225+00	250+00	2,500 FT	0.5 mile
		UP Section Alternate 2		223100	230100	2,50011	0.5 111110
	C -210.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Oilit	Onit Oost	LATERISION	\$2,033,248
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	ψ <u>2,000,2</u> .0
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation	393	CY	\$15.00	\$5,895 \$259,995	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	17,333 1,722	CY CY	\$15.00 \$4.00	\$6,888	
8		Landscaping Allowance	1,722	SF	\$2.00	ψ0,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	3,600	LF	\$16.00	\$57,600	
10		Chain Link Fencing 6'	1,400	LF	\$22.00	\$30,800	
11		Ballast Walls (Curb-no drainage)	0.500	LF	\$22.00	045.000	
12 13		Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	LF EA	\$6.00 \$8,000	\$15,000 \$16,000	
14		Ballasted Track at Grade or Structure	3,700	TF	\$223	\$825,100	
15		Embedded (Paved) Track at Grade	3,730	TF	\$312	4020 , 100	
16		Direct Fixation (DF) Track, Elevated Structure	1,300	TF	\$280	\$364,000	
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21 22		Single Crossover Turnout		EA EA	\$150,000 \$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27 28		Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes)		EA EA	\$100,000 \$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
00		Construct Maintenance Road Assume All Weather Gravel -			#05.00		
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR)		LS EA	\$476,000.00 \$60,000.00		
40		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	2,500	EA	\$60,000.00	ψ57,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50 57	2 - Insurance 3 - Utilities	- Included other in Items					\$250,000
59	3 - Othities	Utility Allowance - High		RF	\$600.00		\$250,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74	5 - Structures		0.044.000	10	M4 00	PO 044 000	\$3,276,000
75 76		Bridge Structures DEA Bridge Location	2,211,000 RR Spur Over		\$1.00	\$2,211,000	
77		Retaining Wall 4' Max (Low Gravity Wall)	ixix opui ovei	SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	35,500	SF	\$30.00	\$1,065,000	
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00	·	
104	6 - Stations	0. 4					
105		Stations Station Name	1	LS			
106 107		Station Name Artwork (*Subject to Board Policy)		LS	\$1.00		
107		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric				\$.55,500		
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location					
119	ช - Operation	s Facility (All Yard elements Included)		1.0	\$40 FF4 F40		
123	1	Bldg & Yard Site Prep, Grading & Utilities LTK811	1	LS	\$18,551,516		

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	UPRR Spokane Yard Area		225+00	250+00	2,500 FT	0.5 mile
	C -210.2	UP Section Alternate 2		220.00	200100	2,00011	0.0 111110
	C -210.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00	Extension	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$388,92
136	J - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ500,52
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		_,		700	700,100	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* : ==,::
151	11 - Commur		_,		7=00.00	V ,	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	4 0,00
157	12 - Fare Col		,		*	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$6,988,17
161							
162	13. Right of \	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$2,445,86
180	Infrastructure	E & A 35.00%				\$2,445,861	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,597,63
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,347,635	
191	Utilities	Contingency 100.00%				\$250,000	0.400
194	17 - Washing	ton State Sales Tax and Real Estate Tax				A 400 005	\$480,80
195	-	Sales Tax 8.40%				\$480,805.23	
		Sales Tax has been applied to 2/3 of Infrastructure &					
100		Contingency (Reduced to eliminate tax on Labor) and 100%					
196	-	of the vehicle's estimated total.					
						Tatal	£44 540 47:
	<u> </u>					Total	\$11,512,473

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 211.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drowing	UPRR Spokane Yard Area to Interstate 90		250+00	275+00		0.5 mile
		•		250+00	2/5+00	2,500 FT	0.5 mile
	C -211.2	UP Section Alternate 2	O tit	11	Unit Coot	Futanaian	2004
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,975,567
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	2,000	LF	\$35.00	ψο.,σσσ	
4		Common Excavation	8,327	CY	\$15.00	\$124,905	
5		Select Backfill (MSE Retaining Walls)	12,840	CY	\$15.00	\$192,600	
6		Common Backfill (From Project Excavation)	273	CY	\$4.00	\$1,092	
<u>8</u> 9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	2.500	SF LF	\$2.00 \$16.00	\$40,000	
10		Chain Link Fencing 4 (on walls or Ballast Curb) Chain Link Fencing 6'	2,500 1,900	LF LF	\$22.00	\$40,000	
11		Ballast Walls (Curb-no drainage)	1,900	LF	\$22.00	\$2,200	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	,	EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF TF	\$280 \$230		
19 20		LRT Siding or Pocket Track Double Crossover		EA	\$230 \$300,000		
21	<u> </u>	Single Crossover		EA	\$150,000		
22		Turnout	1	EA	\$75,000	\$75,000	
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000 \$100.000	\$200,000	
27 28		Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes)		EA EA	\$100,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -			005.00		
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line	1,200	TF	\$100.00	\$120,000	
36		Remove & Relocate Industrial Spur HDR	,	TF	\$130.00	,	
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)	1	LS	\$476,000.00	\$476,000	
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40 41		OCS Pole Foundations LTK120 Signal Communication Building LTK130	2,500	RF EA	\$15.06	\$37,638	
41		Ductbank/ Conduit -PAVED TRACK- LTK140	1	RF	\$60,000.00 \$200.00	\$60,000	
43		Ductbank/ Conduit -PAVED TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					
57	3 - Utilities	LUCES AND LUCES					\$250,000
59		Utility Allowance - High		RF	\$600.00		
60 61		Utility Allowance - Medium Utility Allowance - Low	2,500	RF RF	\$350.00 \$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	2,500	NΓ	φ100.00	φ∠υυ,υυυ	
74	5 - Structures						\$2,179,500
75		Bridge Structures DEA	1,122,000	LS	\$1.00	\$1,122,000	. , -,
76		Bridge Location	Lake Rd Spur				
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	35,250	SF	\$30.00	\$1,057,500	
79 104	6 - Stations	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	o - Stations	Stations	1	LS			
106		Station Name	Future Station				
107		Artwork (*Subject to Board Policy)	3	LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric	des					
116		Park & Ride		Space	\$4,300		
117	9 On-==4!	Park & Ride Location					
119 123	o - Operation	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		
123	1	plug a ratu site riep, stauling a Utilities LTNoTT		LO	φ10,551,516		

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	UPRR Spokane Yard Area to Interstate 90		250+00	275+00	2,500 FT	0.5 mile
		UP Section Alternate 2				·	
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK		SF	\$171.00		
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System					\$1,138,928
136		Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	+ / / -
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		_,-,		700111	\$35,135	\$722,190
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* :,:
151	11 - Commun		2,000		\$200.00	\$122,100	\$317,808
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	ψο,σσσ
157	12 - Fare Col		2,000		Ų.22	ψο,σσσ	
158	12 Ture con	Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure		LO	Subtotal		\$7,583,992
161		Oubtotal - Illi asti dotale			Cubiolai		ψ1,505,552
162	13. Right of V	Nav					
102	13. Kigiit oi v	Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
103		Alternate 2 HazMat Demo & Disposal (Tanks, Waste		LS	\$30,000,000		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
104		Alternate 3 DEA Right of Way Acquisition Budget		LS	\$5,000,000.00		
405					007.044.740.00		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$2,654,397
180	Infrastructure	E & A 35.00%				\$2,654,397	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,716,798
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,466,798	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$520,844
195		Sales Tax 8.40%				\$520,844.26	·
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$12,476,032

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 212.2

	Spokane	Regional					
	•	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Interstate 90 to Approx Station 300+00		275+00	300+00	2,500 FT	0.5 mile
		UP Section Alternate 2		273+00	300+00	2,50011	0.5 111116
	U -212.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Olik	Offic Cost	LAGIISIOII	\$2,141,571
1	1-OIVII OOIISt	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	ΨΣ, 171,571
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation	6,267	CY	\$15.00	\$94,005	
5		Select Backfill (MSE Retaining Walls)	4 000	CY	\$15.00	#0.700	
<u>6</u> 8		Common Backfill (From Project Excavation) Landscaping Allowance	1,699	CY SF	\$4.00 \$2.00	\$6,796	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	1,000	LF	\$16.00	\$16,000	
10		Chain Link Fencing 6'	3,900		\$22.00	\$85,800	
11		Ballast Walls (Curb-no drainage)	1,000	LF	\$22.00	\$22,000	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15 16		Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure		TF TF	\$312 \$280		
19		LRT Siding or Pocket Track		TF	\$280		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance	1	EA	\$25,000	\$25,000	
25 26		Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes)	1	EA EA	\$100,000 \$200,000	\$100,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide		LF	\$35.00		
33		Industrial Railroad Turnouts East Side Syndicate Spur -		LF	φ35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line	2,100	TF	\$100.00	\$210,000	
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39 40		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2,500	EA RF	\$60,000.00 \$15.06	\$37,638	
41		Signal Communication Building LTK130	2,500	EA	\$60,000.00	φ31,030	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					
57	3 - Utilities	Heilitz Allowanaa High		סר	#coo co		\$250,000
59 60		Utility Allowance - High Utility Allowance - Medium		RF RF	\$600.00 \$350.00		
61	<u> </u>	Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	2,000		\$100.00	4200,000	
74	5 - Structures	S					
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78 79		MSE Retaining Wall - Typical DEA Cut & Cover Box/ Tunnel to Pine Road Aerial Station		SF LF	\$30.00 \$3,500.00		
104	6 - Stations	Out a Gover Box Turiner to Fine Road Aerial Station		LF	φ3,500.00		
105	Juniona	Stations	1	LS			
106		Station Name					
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric			0	#4000		
116 117	<u> </u>	Park & Ride Park & Ride Location	-	Space	\$4,300		
117	8 - Operation	is Facility (All Yard elements Included)					
123	Срегации	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		
					, , ,		

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Interstate 90 to Approx Station 300+00		275+00	300+00	2,500 FT	0.5 mile
	C -212.2	UP Section Alternate 2		270100	000100	2,00011	0.0 11111
	U -212.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
101		Operations Facility Building LTK	Quantity	SF		Extension	20015
124 125		Yard Maintenance Equipment LTK		LS	\$171.00 \$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	Q - Traction E	Power System		LS	\$1,900,000		\$388,92
136	9 - Haction F	Sub-Station Type 3 LTK 910		EA	\$750,000		\$300,92
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Contact Wire ETR920 OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		2,300	LO	ψ30.47	ψ90,103	\$722,19
148	10 - Oignai O	Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	Ψ122,13
151	11 - Commur		2,000	141	Ψ200.00	Ψ1 ZZ, 100	\$317,80
152	· · · · · · · · · · · · · · · · · · ·	Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	ψ017,00
157	12 - Fare Col		2,000		Ų.ZZ	ψο,σσσ	
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,820,49
161					- Cubiciai		\$0,020,10
162	13. Right of V	Nav					
	g	Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste			Q 00,000,000		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget			\$ 0,000,000.00		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	, , ,					
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		\$1,337,17
180	Infrastructure	E & A 35.00%				\$1,337,174	
181	Vehicle	E&A 5.00%					
185	16 - Continge	encies			Subtotal		\$964,09
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$714,099	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$267,93
195		Sales Tax 8.40%				\$267,937.33	·
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,389,706

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 213.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Park Road & Spear Ave Area		300+00	325+00	2,500 FT	0.5 mile
		UP Section Alternate 2		300+00	323+00	2,50011	0.5 111116
	C -213.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Onit	Unit Cost	Extension	\$1,948,211
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ1,940,211
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00	. ,	
4		Common Excavation	369	CY	\$15.00	\$5,535	
5		Select Backfill (MSE Retaining Walls)	16,694	CY	\$15.00	\$250,410	
6 8		Common Backfill (From Project Excavation) Landscaping Allowance	524	CY SF	\$4.00 \$2.00	\$2,096	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	2,500	LF	\$2.00 \$16.00	\$40,000	
10		Chain Link Fencing 6'	2,500	LF	\$22.00	\$55,000	
11		Ballast Walls (Curb-no drainage)	600	LF	\$22.00	\$13,200	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15 16	-	Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure		TF TF	\$312 \$280		
19		LRT Siding or Pocket Track	+	TF	\$280 \$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25 26		Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes)		EA EA	\$100,000 \$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -		LI	ψ33.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110		LS EA	\$476,000.00 \$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	2,500	EA	\$60,000.00	ψ57,030	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45	ļ	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		e - Included other in Items					#050.000
57 59	3 - Utilities	Utility Allowance - High		RF	\$600.00		\$250,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70	4 - Track Mat	terials - Included in the Rail Items					
74	5 - Structure:						\$1,494,000
75		Bridge Structures DEA	841,500	LS	\$1.00	\$841,500	
76		Bridge Location	Park Rd & Spe	C.	#00.00		
77 78	-	Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA	21,750	SF SF	\$32.00 \$30.00	\$652,500	
79	<u> </u>	Cut & Cover Box/ Tunnel to Pine Road Aerial Station	21,730	LF	\$3,500.00	Ψ032,300	
104	6 - Stations	The state of the s	1		\$2,000.00		
105		Stations	1	LS			
400		Station Name		_			
106	1	Artwork (*Subject to Board Policy)		LS	\$1.00		
107				LS	\$100,000		
107 108	7 De-1 0 D	Platform Electrical LTK610		LO	ψ100,000		
107 108 115	7 - Park & Ri	des					
107 108 115 116	7 - Park & Rid	des Park & Ride		Space	\$4,300		
107 108 115 116 117		des					

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Park Road & Spear Ave Area		300+00	325+00	2,500 FT	0.5 mile
		UP Section Alternate 2				,	
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	-, ,	SF	\$171.00		
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction P	ower System					\$388,928
136		Sub-Station Type 3 LTK 910		EA	\$750,000		
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,190
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun						\$317,808
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$5,121,136
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$1,792,398
180	Infrastructure	E & A 35.00%				\$1,792,398	
181	Vehicle	E & A 5.00%			Cultatal		£4.004.007
185	16 - Continge				Subtotal		\$1,224,227
187	Vehicles Infrastructure	Contingency 5.00% Contingency 20.00%				\$074 007	
189 191	Utilities	Contingency 20.00% Contingency 100.00%				\$974,227 \$250,000	
194		ton State Sales Tax and Real Estate Tax				φ250,000	\$355,340
195	17 - Washing	Sales Tax and Real Estate Tax Sales Tax 8.40%				\$355,340.34	ψ333,340
199	 	Sales Tax has been applied to 2/3 of Infrastructure &				ψοσο,σ40.54	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
130		or the verileic s estimated total.					
						Total	\$8,493,101
						1000	ψο, 100, 101
	1				1		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 214.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Vista Road Area		325+00	350+00	2,500 FT	0.5 mile
	•	UP Section Alternate 2		323+00	330+00	2,500 F1	0.5 111116
	C-214.2		Ouentitus	Unit	Unit Coot	Extension	2004 6
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$ \$2,235,167
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,233,107
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	,	LF	\$35.00	***	
4		Common Excavation	3,431	CY	\$15.00	\$51,465	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	308	CY	\$4.00	\$1,232	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	2,500	SF LF	\$2.00 \$16.00	\$40,000	
10		Chain Link Fencing 4 (on waits of Ballast Culb)	2,500	LF	\$22.00	\$55,000	
11		Ballast Walls (Curb-no drainage)	2,750	LF	\$22.00	\$60,500	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16 19		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF TF	\$280 \$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover	1	EA	\$150,000	\$150,000	
22		Turnout		EA	\$75,000	. ,	
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)		EA EA	\$200,000 \$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications	1	EA	\$75,000.00	\$75,000	
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide		LF	\$35.00		
33		Industrial Railroad Turnouts East Side Syndicate Spur -			ψ33.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110	1	LS EA	\$476,000.00 \$60,000.00	\$60.000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	2,500	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00	777,777	
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					#050.00
57 59	3 - Utilities	Utility Allowance - High		RF	\$600.00		\$250,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74	5 - Structure:						
75		Bridge Structures DEA		LS	\$1.00		
76 77		Bridge Location Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF SF	\$32.00 \$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations				,		\$850,000
105		Stations	1	LS	\$750,000	\$750,000	·
106		Station Name	Park/Vista Sta				
107		Artwork (*Subject to Board Policy)		LS	\$1.00	0400.000	
108 115	7 - Park & Ric	Platform Electrical LTK610	1	LS	\$100,000	\$100,000	
116	r - Fark & KI	Park & Ride		Space	\$4,300		
117		Park & Ride Location	Vista Station		ψ1,500		
119	8 - Operation	s Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	1	Length	
	Drawing	Vista Road Area		325+00	350+00	2,500 FT	0.5 mile
	C -214.2	UP Section Alternate 2		020100	000100	2,00011	0.0 11111
	0-214.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	Extension	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$1,138,92
136	o muonom	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	Ψ1,100,02
138		OCS Single Contact Wire LTK920		RF	\$123.00	ψ, σσ,σσσ	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		_,		Ţ	400,000	\$722,19
148	J.g	Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* :-=,:•
151	11 - Commur		_,		4 200.00	4 1-2,111	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	*****
157	12 - Fare Col	lection					\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$5,716,41
161							
162	13. Right of V	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		A0 000 T
179		ring & Administration			Subtotal	00.000.745	\$2,000,74
180	Infrastructure	E & A 35.00%				\$2,000,745	
181 185	Vehicle	E & A 5.00%			Cultural		£4 040 00
187	16 - Continge Vehicles				Subtotal		\$1,343,28
189	Infrastructure	Contingency 5.00% Contingency 20.00%				\$1,093,283	
191	Utilities	Contingency 20.00% Contingency 100.00%				\$1,093,263	
194		Iton State Sales Tax and Real Estate Tax				Ψ230,000	\$395,34
195	wasiiiig	Sales Tax and Real Estate Tax Sales Tax 8.40%				\$395,342.98	Ψ000,04
.00		Sales Tax has been applied to 2/3 of Infrastructure &				ψ000,042.00	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
.00							
						Total	\$9,455,78

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 215.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Sargent Road to Argonne Station		350+00	375+00	2,500 FT	0.5 mile
		UP Section Alternate 2		330+00	375+00	2,500 F I	0.5 111116
	C -215.2	Description	Quantity	Unit	Unit Cost	Eutonoion	2001\$
	1-Civil Const		Quantity	Unit	Unit Cost	Extension	\$2,019,166
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,019,100
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	,	LF	\$35.00	, , , , , , , , , , , , , , , , , , , ,	
4		Common Excavation	185	CY	\$15.00	\$2,775	
5		Select Backfill (MSE Retaining Walls)	291	CY	\$15.00	\$4,365	
6		Common Backfill (From Project Excavation)	914	CY	\$4.00	\$3,656	
<u>8</u> 9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	4,000	SF LF	\$2.00 \$16.00	\$64,000	
10		Chain Link Fencing 4 (off walls of Ballast Culb)	1,000	LF	\$22.00	\$22,000	
11		Ballast Walls (Curb-no drainage)	900	LF	\$22.00	\$19,800	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2	EA	\$8,000	\$16,000	
14		Ballasted Track at Grade or Structure	2,200	TF	\$223	\$490,600	
15		Embedded (Paved) Track at Grade	0.00-	TF	\$312	#70 : 005	
16 19		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track	2,800	TF TF	\$280 \$230	\$784,000	
20	1	Double Crossover	+	EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance	1	EA	\$25,000	\$25,000	
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26 27		Major Intersection Rebuild (4 Lanes)		EA EA	\$200,000		
28		Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes)		EA	\$100,000 \$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40 41		OCS Pole Foundations LTK120 Signal Communication Building LTK130	2,500	RF EA	\$15.06 \$60,000.00	\$37,638 \$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	1	RF	\$200.00	\$60,000	
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					
57	3 - Utilities	LUCE AN LUCE I	1				\$250,000
59		Utility Allowance - High		RF	\$600.00		
60 61		Utility Allowance - Medium Utility Allowance - Low	2,500	RF RF	\$350.00 \$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	2,500	INF	φ100.00	φ200,000	
74	5 - Structure:						\$4,850,000
75		Bridge Structures DEA	4,760,000	LS	\$1.00	\$4,760,000	
76		Bridge Location	Argonne-Dishi				-
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00	***	
78		MSE Retaining Wall - Typical DEA	3,000	SF LF	\$30.00	\$90,000	
79 104	6 - Stations	Cut & Cover Box/ Tunnel to Pine Road Aerial Station	+	LF	\$3,500.00		
105	o - Glations	Stations	1	LS			
106		Station Name	<u> </u>				
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ri		1		A		\$1,075,000
116		Park & Ride	250	Space	\$4,300	\$1,075,000	
117		Park & Ride Location	Argonne Station	ווע			
119	Q - Operation	s Facility (All Yard elements Included)					

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Sargent Road to Argonne Station		350+00	375+00	2,500 FT	0.5 mile
	C -215.2	UP Section Alternate 2		000100	070100	2,00011	0.0 111110
	C -213.2		O., and the	Unit	Unit Cost	Extension	2001\$
101		Description Description	Quantity			Extension	20015
124 125		Operations Facility Building LTK Yard Maintenance Equipment LTK		SF LS	\$171.00 \$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	0 - Traction F	Power System		LS	\$1,900,000		\$1,138,92
136	3 - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,130,32
138		OCS Single Contact Wire LTK920		RF	\$123.00	ψ130,000	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		2,000		\$55.17	φου,	\$722,19
148	.c o.ga. o	Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	ψ. 22, . σ
151	11 - Commur		2,000		\$200.00	ψ. 22, . σσ	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	ψο,σο.
157	12 - Fare Col		,			** ,***	\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	· - /-
160		Subtotal - Infrastructure			Subtotal		\$10,575,41
161							+ -//
162	13. Right of \	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$3,701,39
180	Infrastructure	E & A 35.00%				\$3,701,394	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$2,315,08
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$2,065,082	
191	Utilities	Contingency 100.00%				\$250,000	A =04.00
194	17 - Washing	ton State Sales Tax and Real Estate Tax				A=0.4 0.0= =0	\$721,868
195		Sales Tax 8.40% Sales Tax has been applied to 2/3 of Infrastructure &				\$721,867.72	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
106							
196		of the vehicle's estimated total.					
	-					Total	\$17,313,757
	-					rotal	φ17,313,75

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 216.2

	оронано	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Willow Road to Dartmouth Rd Area		375+00	400+00	2,500 FT	0.5 mile
		UP Section Alternate 2		0,0,00	100100	2,00011	0.0 11111
	C -210.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Ollit	Onit Cost	LAGIISIOII	\$2,136,36
1	1-CIVII COIIS	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ2,130,30
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	_,	LF	\$35.00		
4		Common Excavation	7,623	CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)	6,222	CY	\$15.00	\$93,330	
6		Common Backfill (From Project Excavation)	2,529	CY	\$4.00		
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)	2,900	LF_	\$16.00		
10		Chain Link Fencing 6'	4.400	LF	\$22.00		
11		Ballast Walls (Curb-no drainage)	4,100	LF LF	\$22.00		
12 13		Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	EA	\$6.00 \$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223		
15		Embedded (Paved) Track at Grade	3,000	TF	\$312	. , ,	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)	1	EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31 32		Sidewalk Construction Off Alignment Signal Modifications		SF EA	\$6.00 \$75,000.00		
32		Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
00		Industrial Railroad Turnouts East Side Syndicate Spur -		L,	ψου.σσ		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06		
41		Signal Communication Building LTK130		EA	\$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140	0.500	RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00		
45 50	2 Incurence	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
57	3 - Utilities	e - included other in items					\$250,00
59	5 - Oundes	Utility Allowance - High		RF	\$600.00		φ∠50,00
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00		
70	4 - Track Mat	terials - Included in the Rail Items	2,000		ψ.σσ.σσ	+200,000	
74	5 - Structure:						\$315,00
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location		·			·
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	10,500	SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Out to					
105		Stations Stations	1	LS	1		
106		Station Name		1.0	64.00		
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108	7 Davis 9 D:	Platform Electrical LTK610		LS	\$100,000		
115 116	7 - Park & Ri	park & Ride		Space	\$4,300		
117		Park & Ride Location		Opale	φ4,300		
119	8 - Operation	ns Facility (All Yard elements Included)			1		
	- CPCI atiOI	(All Tara diditional indiadea)	1	LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 216.2

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Willow Road to Dartmouth Rd Area		375+00	400+00	2,500 FT	0.5 mile
	C -216.2	UP Section Alternate 2		010100	100100	2,00011	0.0 11111
	C -210.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	LATERISION	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,555,555		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		4000,02
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		,		, , ,	, ,	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	· / -
151	11 - Commur		,				\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col	lection					
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$4,130,28
161							
162	13. Right of \	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177	45 5	Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		04 445 00
179		ring & Administration			Subtotal	Ø4 445 000	\$1,445,60
180 181	Infrastructure Vehicle	E & A 35.00%				\$1,445,600	
185	16 - Continge	E & A 5.00%			Subtotal		\$1,026,05
187	Vehicles	Contingency 5.00%			Subiolai		\$1,020,03
189	Infrastructure	Contingency 5.00% Contingency 20.00%				\$776,057	
191	Utilities	Contingency 20.00% Contingency 100.00%				\$250,000	
194		ton State Sales Tax and Real Estate Tax				Ψ200,000	\$288,75
195	washing	Sales Tax 8.40%				\$288,755.22	Ψ200,70
		Sales Tax has been applied to 2/3 of Infrastructure &				\$200,. 00.ZZ	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,890,699

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 217.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Dartmouth Road Area to University Rd		400+00	425+00	2,500 FT	0.5 mile
		East Valley Section Alternate 2		400+00	425+00	2,500 F1	0.5 111116
	C-217.2		Ougatitus	Unit	Unit Cost	Evtension	2004
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$ \$2,697,822
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,097,022
2		Grade Preparation to Top of subballast.	2,500		\$35.00	\$87,500	
3		Curb & Gutter Allowance	300	LF	\$35.00	\$10,500	
4		Common Excavation	3,180	CY	\$15.00	\$47,700	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	4,183	CY	\$4.00	\$16,732	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	375	SF LF	\$2.00 \$16.00	\$6.000	
10		Chain Link Fencing 4 (on waits of Ballast Curb)	4,325	LF	\$22.00	\$95,150	
11		Ballast Walls (Curb-no drainage)	375	LF	\$22.00	\$8,250	
12		Site Cleanup and Final Grading Allowance	2,500		\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16 19		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF TF	\$280 \$230		
20		Double Crossover	1	EA	\$300,000	\$300,000	
21		Single Crossover		EA	\$150,000	φοσο,σσο	
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26 27		Major Intersection Rebuild (4 Lanes)	1	EA EA	\$200,000	\$200,000	
28		Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes)	1	EA	\$100,000 \$200,000	\$200,000	
29		Complex Major Intersection Rebuild		EA	\$300,000	Ψ200,000	
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	1,920	SF	\$6.00	\$11,520	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -			* 0= 00		
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40 41		OCS Pole Foundations LTK120 Signal Communication Building LTK130	2,500	RF EA	\$15.06 \$60,000.00	\$37,638 \$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	1	RF	\$200.00	\$60,000	
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					
57	3 - Utilities	Lucies An					\$250,000
59		Utility Allowance - High		RF	\$600.00		
60 61		Utility Allowance - Medium Utility Allowance - Low	2,500	RF RF	\$350.00 \$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	2,300	INF	φ100.00	φ250,000	
74	5 - Structures						\$1,200,000
75		Bridge Structures DEA	1,200,000	LS	\$1.00	\$1,200,000	
76		Bridge Location	Pedestrian Bri				
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF LF	\$30.00		
79 104	6 - Stations	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		\$850,000
105	o - Glations	Stations	1	LS	\$750,000	\$750,000	Ψ030,000
106		Station Name	University Sta		\$100,000	\$100,000	
107		Artwork (*Subject to Board Policy)	. , , , , ,	LS	\$1.00		
108		Platform Electrical LTK610	1		\$100,000	\$100,000	
115	7 - Park & Ric						
116		Park & Ride	Link	Space	\$4,300		
44-	1	Park & Ride Location	University Sta	นดท			
117 119	0 Onerette	s Facility (All Yard elements Included)					

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 217.2

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Dartmouth Road Area to University Rd		400+00	425+00	2,500 FT	0.5 mile
		East Valley Section Alternate 2				,	
	0 22	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	-,	SF	\$171.00		
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			V 1,000,000		\$1,138,928
136		Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	V 1,100,000
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S				·		\$722,190
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	, , , , , , , , , , , , , , , , , , , ,
151	11 - Commun		,				\$317,808
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	, , , , , , , , , , , , , , , , , , , ,
157	12 - Fare Col	lection					\$202,321
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$7,379,068
161							
162	13. Right of V	Vay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$2,582,674
180	Infrastructure	E & A 35.00%				\$2,582,674	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,675,814
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,425,814	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$507,073
195		Sales Tax 8.40%				\$507,073.40	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$12,144,629

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 218.2

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	University Road to Bodish Road Area		425+00	450+00	2,500 FT	0.5 mile
		East Valley Section Alternate 2		720100	430100	2,30011	0.5 111110
	C -210.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Oilit	Onit Oost	LAterision	\$1,892,415
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	ψ.,σσ <u>2</u> ,σ
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	400	LF	\$35.00	\$14,000	
4		Common Excavation	1,919	CY	\$15.00	\$28,785	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	7,715	CY	\$15.00 \$4.00	\$30,860	
8		Landscaping Allowance	7,713	SF	\$2.00	Ψ30,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	730	LF	\$16.00	\$11,680	
10		Chain Link Fencing 6'	4,270		\$22.00	\$93,940	
11		Ballast Walls (Curb-no drainage)	730	LF	\$22.00	\$16,060	
12 13		Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	LF EA	\$6.00 \$8,000	\$15,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade	0,000	TF	\$312	ψ1,110,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA EA	\$300,000		
21 22		Single Crossover Turnout		EA EA	\$150,000 \$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27 28		Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes)		EA EA	\$100,000 \$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	2,520	SF	\$6.00	\$15,120	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
22		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide		LF	¢25.00		
33		Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110		LS EA	\$476,000.00 \$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	2,000	EA	\$60,000.00	φοι,οσσ	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45	2 Inc	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50 57	2 - Insurance 3 - Utilities	- moluced other in items					\$250,000
59	J Juni05	Utility Allowance - High		RF	\$600.00		Ψ200,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74 75	5 - Structure	s Bridge Structures DEA		LS	\$1.00		
76		Bridge Location		- 13	φ1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Ctations		10			
105 106		Stations Station Name	1	LS			
107	<u> </u>	Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Rie	des					
116		Park & Ride		Space	\$4,300		
117	0 0===+!	Park & Ride Location					
119 123	o - Operation	Bldg & Yard Site Prep, Grading & Utilities LTK811	+	LS	\$18,551,516		
120	1	play a raid one rich, clading a buildes ETNOTT		LU	ψ10,001,010		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 218.2

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	University Road to Bodish Road Area		425+00	450+00	2,500 FT	0.5 mile
	C -218.2	East Valley Section Alternate 2		120100	100100	2,00011	0.0 11111
	C -210.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	LATERISION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,000,000		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		*****
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,571,34
161							
162	13. Right of \						
400		Alternate 2 DEA Right of Way Acquisition Budget			# 00.000.000		
163		Estimate (Including Railroads & Operation Facility) Alternate 2 HazMat Demo & Disposal (Tanks, Waste		LS	\$30,000,000		
164		Mitigation etc.) - Allowance		LS	ØE 000 000 00		
104		Alternate 3 DEA Right of Way Acquisition Budget		LS	\$5,000,000.00		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Altornate 4 Flaziviat Borrio a Biopoda (Tarino, Vadio Mitigati			ψο,σσσ,σσσ.σσ		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Enginee	ring & Administration			Subtotal		\$1,249,96
180	Infrastructure	E & A 35.00%				\$1,249,969	
181	Vehicle	E&A 5.00%					
185	16 - Continge				Subtotal		\$914,26
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$664,268	
191	Utilities	Contingency 100.00%				\$250,000	A :
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$251,19
195		Sales Tax 8.40%				\$251,194.05	
		Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
190	<u> </u>	of the vehicle's estimated total.					
						Total	\$5,986,77
	+					I UldI	φυ,900,77

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 219.2

	ороканс	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Bodish Road to Pines Road (At Grade) Area		450+00	475+00	2,500 FT	0.5 mile
	C -219.2	East Valley Section Alternate 2		430+00	473+00	2,30011	0.5 11111
	C -219.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Unit	Unit Cost	Extension	\$2,065,21
1	1-CIVII CONST	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,005,21
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	400	LF	\$35.00	\$14,000	
4		Common Excavation	2,253	CY	\$15.00	\$33,795	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	10,982	CY	\$4.00	\$43,928	
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)	1,200	LF	\$16.00	\$19,200	
10		Chain Link Fencing 6'	3,640	LF	\$22.00	\$80,080	
11		Ballast Walls (Curb-no drainage)	1,200	LF	\$22.00	\$26,400	
12 13		Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	LF EA	\$6.00	\$15,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$8,000 \$223	\$1,115,000	
15		Embedded (Paved) Track at Grade	5,000	TF	\$312	\$1,115,000	
16		Direct Fixation (DF) Track, Elevated Structure	1	TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance	2	EA	\$25,000	\$50,000	
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction Sidewalk Construction	2,640	SF SF	\$9.00	¢1E 040	
32		Off Alignment Signal Modifications	2,640	EA	\$6.00 \$75,000.00	\$15,840	
32		Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -			\$55.55		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130		EA	\$60,000.00		
42 43		Ductbank/ Conduit -PAVED TRACK- LTK140 Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF RF	\$200.00 \$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.00	\$26,833	
50	2 - Insurance	e - Included other in Items	2,500	IXI	\$10.73	Ψ20,033	
57	3 - Utilities	- meradea other milterns					\$250,00
59		Utility Allowance - High	1	RF	\$600.00		\$200,00
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items					
74	5 - Structure:						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78	-	MSE Retaining Wall - Typical DEA	1	SF	\$30.00		
79	C Ctction	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104 105	6 - Stations	Stations	1	LS			
106	1	Station Name	1	LO			
107	1	Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610	1	LS	\$100,000		
115	7 - Park & Rie		1		\$100,000		
116		Park & Ride	1	Space	\$4,300		
117		Park & Ride Location			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
119	8 - Operation	s Facility (All Yard elements Included)					
123	1	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 219.2

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Bodish Road to Pines Road (At Grade) Area		450+00	475+00	2,500 FT	0.5 mile
	C -219.2	East Valley Section Alternate 2		100100	110100	2,00011	0.0 111110
	0 -219.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	LATERISION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψι,σσσ,σσσ		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		*****
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commur						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,744,13
161							
162	13. Right of \						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks,Waste			A= 000 000 00		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
405		Alternate 3 DEA Right of Way Acquisition Budget		1.0	€07.044.740.00		
165 166		Estimate (Including Railroads & Operation Facility) Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS LS	\$27,914,712.00 \$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Alternate 4 Traziviat Demo & Disposar (Tariks, Waste Witigati			ψ3,000,000.00		
175	14. Verneies	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Enginee	ring & Administration			Subtotal		\$1,310,44
180	Infrastructure					\$1,310,448	* //
181	Vehicle	E & A 5.00%				7 / 2 2 / 2	
185	16 - Continge	encies			Subtotal		\$948,82
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$698,828	·
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$262,800
195		Sales Tax 8.40%				\$262,806.07	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,266,220

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 220.2

	Spokane	Regional					
	•	Light Rail Project			Fstima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Order or Magnitude		Start Sta	Eliu Sia	Lengin	
	Drawing	Pine Roads (At Grade) to McDonald Road Area		475+00	500+00	2,500 FT	0.5 mile
		East Valley Section Alternate 2		475+00	300+00	2,500 F 1	0.5 11116
	C -220.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Unit	Unit Cost	Extension	\$1,868,389
1	1-CIVII COIISt	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	ψ1,000,30
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation	1,481	CY	\$15.00		
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	5,151	CY CY	\$15.00 \$4.00		
8		Landscaping Allowance	5,151	SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)	850		\$16.00		
10		Chain Link Fencing 6'	4,150		\$22.00		
11		Ballast Walls (Curb-no drainage)	850	LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500		\$6.00		
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000		\$223		
15 16	<u> </u>	Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure		TF TF	\$312 \$280		
19		LRT Siding or Pocket Track		TF	\$280		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)		EA EA	\$200,000 \$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -			405.00		
33		12 FT Wide		LF	\$35.00		
34		Industrial Railroad Turnouts East Side Syndicate Spur - HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500		\$15.06		
41 42		Signal Communication Building LTK130 Ductbank/ Conduit -PAVED TRACK- LTK140	1	EA RF	\$60,000.00 \$200.00		
43		Ductbank/ Conduit -PAVED TRACK- LTK140 Ductbank/ Conduit -OPEN TRACK- LTK140	2,500		\$110.00		
45		Corrosion Mitigation LTK150	2,500		\$10.73	\$26,833	
50		- Included other in Items	,			, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
57	3 - Utilities						\$250,00
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium	0.500	RF	\$350.00		
61 70		Utility Allowance - Low erials - Included in the Rail Items	2,500	RF	\$100.00	\$250,000	
74	5 - Structures						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location		_	Ţ.,00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79	0.00.00	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		40===
104	6 - Stations	Chatiana		10	675 0 000	Ф 7 50 000	\$850,00
105		Stations Station Name	1 Dinos Station	LS Center Platforn	\$750,000	\$750,000	
106 107		Artwork (*Subject to Board Policy)	rines Station	LS	1 \$1.00		
108		Platform Electrical LTK610	1	LS	\$100,000		
115	7 - Park & Ric		·		\$.55,500	Ţ.00,000	\$1,720,00
116		Park & Ride	400	Space	\$4,300	\$1,720,000	
117	1	Park & Ride Location	Pines Station				

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 220.2

	Spokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Pine Roads (At Grade) to McDonald Road Area		475+00	500+00	2,500 FT	0.5 mile
	0	East Valley Section Alternate 2		170100	000100	2,00011	0.0 111110
	0 220.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
123		Bldg & Yard Site Prep, Grading & Utilities LTK811	Quantity	LS	\$18,551,516	Extension	2001φ
123		Operations Facility Building LTK		SF	\$10,551,516		
125		Yard Maintenance Equipment LTK		LS	\$4.160.844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	0 T			LS	\$1,900,000		£4.400.00
	9 - Traction P	Power System			#750.000	#750.000	\$1,138,92
136		Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	
138		OCS Single Contact Wire LTK920	0.500	RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S						\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$7,069,63
161							
162	13. Right of V	Vay					
	Ĭ	Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste			\$ 00,000,000		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
101		Alternate 3 DEA Right of Way Acquisition Budget			ψο,οσο,οσο.οσ		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168				LS	\$5,000,000.00		
174	14. Vehicles	Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
	14. Venicies	Law Floor Light Dail Vahislas - Book Coat LTK 4000		Ε.Δ	£0.500.000.00		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		A0 171 07
179		ing & Administration			Subtotal		\$2,474,37
180	Infrastructure	E & A 35.00%				\$2,474,372	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,613,92
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,363,927	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$486,28
195		Sales Tax 8.40%				\$486,279.50	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$11,644,21
							,-
	+						

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 221.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	McDonald Road to Evergreen Road Area		500+00	525+00	2,500 FT	0.5 mile
		East Valley Section Alternate 2		300+00	525+00	2,500 F1	0.5 111116
	C -221.2		Ouentitus	Unit	Unit Coot	Extension	2004 6
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$ \$2,134,92
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,134,92
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	800	LF	\$35.00	\$28,000	
4		Common Excavation	4,029	CY	\$15.00	\$60,435	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	3,204	CY	\$4.00	\$12,816	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	730	SF LF	\$2.00 \$16.00	\$11,680	
10		Chain Link Fencing 4 (on waits of Ballast Curb)	4,260	LF	\$22.00	\$93,720	
11		Ballast Walls (Curb-no drainage)	730	LF	\$22.00	\$16,060	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF TF	\$312		
16 19		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF	\$280 \$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)	1	EA EA	\$200,000 \$100,000	\$200,000	
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	5,040	SF	\$6.00	\$30,240	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
22		Construct Maintenance Road Assume All Weather Gravel -		LF	Фа г оо		
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39 40		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2,500	EA RF	\$60,000.00 \$15.06	\$37,638	
41		Signal Communication Building LTK130	2,500	EA	\$60,000.00	φ37,030	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					
57	3 - Utilities	Heility Allowance High		DF	\$600.00		\$250,000
59 60		Utility Allowance - High Utility Allowance - Medium		RF RF	\$600.00 \$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	2,030		\$.55.00	1200,000	
74	5 - Structures	S					
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location			***		
77 78		Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA		SF SF	\$32.00 \$30.00		
78		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Cat a Cover Bow Tariffer to Fille Hoad Merial Citation			ψυ,υυυ.υυ		
105		Stations	1	LS			
106		Station Name					
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric			Snoon	¢4 200		
116 117		Park & Ride Park & Ride Location		Space	\$4,300		
119	8 - Operation	Is Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 221.2

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	McDonald Road to Evergreen Road Area		500+00	525+00	2,500 FT	0.5 mile
	C -221.2	East Valley Section Alternate 2		000100	020100	2,00011	0.0 11111
	0 -221.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00	LATERISION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψι,σσσ,σσσ		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		*****
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commur						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,813,84
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks,Waste			A= 000 000 00		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
405		Alternate 3 DEA Right of Way Acquisition Budget		1.0	€07.044.740.00		
165		Estimate (Including Railroads & Operation Facility) Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS LS	\$27,914,712.00 \$5,000,000.00		
166 167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Alternate 4 Haziviat Demo & Disposai (Tariks, Waste Willigati		LS	\$5,000,000.00		
175	14. Verificies	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration		ì	Subtotal		\$1,334,84
180	Infrastructure	E & A 35.00%				\$1,334,846	Ţ.,OO.,OT
181	Vehicle	E & A 5.00%				Ţ.,,J.O	
185	16 - Continge				Subtotal		\$962,76
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$712,769	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$267,49
195		Sales Tax 8.40%				\$267,490.45	-
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,378,952

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 222.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Evergreen Road Area to Adams Road Area		525+00	550+00	2,500 FT	0.5 mile
		East Valley Section Alternate 2		323±00	330+00	2,300 F1	0.5 111116
	C -222.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Unit	Unit Cost	Extension	\$2,233,947
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,233,947
2		Grade Preparation to Top of subballast.	2,500		\$35.00	\$87,500	
3		Curb & Gutter Allowance	400		\$35.00	\$14,000	
4		Common Excavation	6,787	CY	\$15.00	\$101,805	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	4,483	CY SF	\$4.00 \$2.00	\$17,932	
<u>8</u> 9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	1,665		\$2.00 \$16.00	\$26,640	
10		Chain Link Fencing 4 (on waits of Ballast Gulb)	3,175		\$22.00	\$69,850	
11		Ballast Walls (Curb-no drainage)	1,665		\$22.00	\$36,630	
12		Site Cleanup and Final Grading Allowance	2,500		\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF TF	\$312		
16 19	-	Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF	\$280 \$230		
20	<u> </u>	Double Crossover		EA	\$300,000		
21		Single Crossover	1		\$150,000	\$150,000	
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1		\$100,000	\$100,000	
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)		EA EA	\$200,000 \$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	2,520		\$6.00	\$15,120	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide		LF	\$35.00		
33		Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00	# 00.000	
39 40		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2,500	EA RF	\$60,000.00 \$15.06	\$60,000 \$37,638	
41		Signal Communication Building LTK130	2,500	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00	ψου,ουο	
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		e - Included other in Items					0050 055
57 50	3 - Utilities	Litility Allowance - High		DE.	\$600.00		\$250,000
59 60	1	Utility Allowance - High Utility Allowance - Medium		RF RF	\$600.00 \$350.00		
61	1	Utility Allowance - Low	2,500		\$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	_,,=00		7.22.00	.===,===	
74	5 - Structure:						
75		Bridge Structures DEA		LS	\$1.00		
76	1	Bridge Location		0.5	#00.00		
77 78		Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA		SF SF	\$32.00 \$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	The state of the s			ψ5,500.00		\$850,000
105		Stations	1		\$750,000	\$750,000	
106		Station Name	Evergreen Sta				
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108	7 De-1 0 D:	Platform Electrical LTK610	1	LS	\$100,000	\$100,000	
115 116	7 - Park & Ri	des Park & Ride		Space	\$4,300		
117		Park & Ride Location	Evergreen Sta		φ4,300		
119	8 - Operation	is Facility (All Yard elements Included)	2.2.9.3011 316				
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 222.2

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	1	Length	
	Drawing	Evergreen Road Area to Adams Road Area		525+00	550+00	2,500 FT	0.5 mile
	C -222.2	East Valley Section Alternate 2		020100	000100	2,00011	0.0 111110
	0 -222.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	EXTENSION	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$1,138,92
136	3 - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,100,02
138		OCS Single Contact Wire LTK920		RF	\$123.00	ψ. σσ,σσσ	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		,		***	V ,	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	· / -
151	11 - Commur		,		,		\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col	lection					\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$5,715,19
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles				A0 500 000 00		
175 176		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA EA	\$2,500,000.00 \$681,818.18		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 & Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 Engineer	ring & Administration		EA	Subtotal		\$2,000,31
180	Infrastructure	E & A 35.00%			Subiolai	\$2,000,318	\$2,000,31
181	Vehicle	E & A 5.00%				\$2,000,316	
185	16 - Continge				Subtotal		\$1,343,03
187	Vehicles	Contingency 5.00%			Casiolai		ψ1,040,00
189	Infrastructure	Contingency 20.00%				\$1,093,039	
191	Utilities	Contingency 100.00%				\$250,000	
194		ton State Sales Tax and Real Estate Tax				4-11,500	\$395,26
195		Sales Tax 8.40%				\$395,261.00	,
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$9,453,81
							•

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 223.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Adams Road Area to Sullivan Road Area		550+00	575+00	2,500 FT	0.5 mile
		East Valley Section Alternate 2		330+00	373+00	2,50011	0.5 111116
	U -223.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Onit	Unit Cost	Extension	\$1,992,243
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ1,992,240
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	800	LF	\$35.00	\$28,000	
4		Common Excavation	947	CY	\$15.00	\$14,205	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6 8		Common Backfill (From Project Excavation)	4,597	CY SF	\$4.00 \$2.00	\$18,388	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	810	LF	\$16.00	\$12,960	
10		Chain Link Fencing 6'	4,030	LF	\$22.00	\$88,660	
11		Ballast Walls (Curb-no drainage)	810	LF	\$22.00	\$17,820	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15 16		Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure		TF TF	\$312 \$280		
19		LRT Siding or Pocket Track		TF	\$280 \$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000	# 000 000	
25 26		Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes)	2	EA EA	\$100,000 \$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	5,040	SF	\$6.00	\$30,240	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide		LF	\$35.00		
33		Industrial Railroad Turnouts East Side Syndicate Spur -		LF	φ35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110		LS EA	\$476,000.00 \$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	2,300	EA	\$60,000.00	ψ57,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		e - Included other in Items					#0 F0 00
57 59	3 - Utilities	Utility Allowance - High		RF	\$600.00		\$250,00
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		terials - Included in the Rail Items	, , , , ,				
74	5 - Structure						\$105,00
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location		C.	#00.00		
77 78		Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA	3,500	SF SF	\$32.00 \$30.00	\$105,000	
		Cut & Cover Box/ Tunnel to Pine Road Aerial Station	3,300	LF	\$3,500.00	ψ100,000	
79	6 - Stations	The state of the s			\$2,000.00		
79 104	o otationo	Ctations	1	LS			
104 105	o otations	Stations		-	1 -		
104 105 106	Ciations	Station Name					
104 105 106 107	Callons	Station Name Artwork (*Subject to Board Policy)		LS	\$1.00		
104 105 106 107 108		Station Name Artwork (*Subject to Board Policy) Platform Electrical LTK610		LS LS	\$1.00 \$100,000		
104 105 106 107 108 115	7 - Park & Ri	Station Name Artwork (*Subject to Board Policy) Platform Electrical LTK610 des		LS	\$100,000		
104 105 106 107 108 115 116		Station Name Artwork (*Subject to Board Policy) Platform Electrical LTK610 des Park & Ride					
104 105 106 107 108 115	7 - Park & Ri	Station Name Artwork (*Subject to Board Policy) Platform Electrical LTK610 des		LS	\$100,000		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 223.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Adams Road Area to Sullivan Road Area		550+00	575+00	2,500 FT	0.5 mile
	C -223.2	East Valley Section Alternate 2		000100	0.0100	2,00011	0.0 11111
	C -223.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	EXTENSION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$388,92
136	3 - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ300,32
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		,		,	,	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	· / -
151	11 - Commur		,		,		\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col	lection					
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,776,16
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles				***		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176 177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 & Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA EA	\$681,818.18 \$700,000		
179	15 Engineer	ring & Administration		EA	Subtotal		\$1,321,65
180	Infrastructure	E & A 35.00%			Subiolai	\$1,321,659	\$1,321,03
181	Vehicle	E & A 5.00%				\$1,321,039	
185	16 - Continge				Subtotal		\$955,23
187	Vehicles	Contingency 5.00%			Cabiolai		Ψ555,25
189	Infrastructure	Contingency 20.00%				\$705,234	
191	Utilities	Contingency 100.00%				\$250,000	
194		ton State Sales Tax and Real Estate Tax				+	\$264,95
195	9	Sales Tax 8.40%				\$264,958.49	,,,,,
		Sales Tax has been applied to 2/3 of Infrastructure &				. ,	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,318,019
							•

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 224.2

	ороканс	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Sullivan Road Area to Cannery Street Area		575+00	600+00	2,500 FT	0.5 mile
	C -224.2	East Valley Section Alternate 2		373+00	000+00	2,30011	0.5 11111
	C -224.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Unit	Unit Cost	Extension	\$1,966,16
1	1-CIVII CONST	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$1,900,10
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	400	LF	\$35.00	\$14,000	
4		Common Excavation	2,196	CY	\$15.00	\$32,940	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	1,223	CY	\$4.00	\$4,892	
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)	700	LF	\$16.00	\$11,200	
10		Chain Link Fencing 6'	4,120	LF	\$22.00	\$90,640	
11 12		Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance	700 2,500	<u>LF</u> LF	\$22.00 \$6.00	\$15,400 \$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	EA	\$8,000	\$15,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade	0,000	TF	\$312	ψ1,110,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000	# 000 000	
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)	1	EA EA	\$200,000 \$100,000	\$200,000	
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	2,520	SF	\$6.00	\$15,120	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36 37		Remove & Relocate Industrial Spur HDR Provide Team Track and Loading Dock (HDR)		TF LS	\$130.00 \$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)	+	LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130		EA	\$60,000.00	701,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					
57	3 - Utilities	Lights All Lights			***		\$250,00
59	1	Utility Allowance - High	1	RF	\$600.00		
60 61		Utility Allowance - Medium Utility Allowance - Low	2,500	RF RF	\$350.00 \$100.00	\$250,000	
70	4 - Track Mos	erials - Included in the Rail Items	2,500	NΓ	\$100.00	φ250,000	
74	5 - Structure						
75		Bridge Structures DEA	1	LS	\$1.00		
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	0					
105		Stations Stations News	1	LS			
106	1	Station Name	1	10	#4.00		
107	1	Artwork (*Subject to Board Policy) Platform Electrical LTK610	-	LS LS	\$1.00 \$100,000		
108 115	7 - Park & Rie			LO	\$100,000		
116	i aik a Ki	Park & Ride		Space	\$4,300		
117		Park & Ride Location		- pa00	ψ-1,500		
119	8 - Operation	s Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 224.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Sullivan Road Area to Cannery Street Area		575+00	600+00	2,500 FT	0.5 mile
	C -224.2	East Valley Section Alternate 2		010100	000100	2,00011	0.0 11111
	0 -224.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00	EXTENSION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$388,92
136	3 - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ300,32
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		_,		700	400,100	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* :,:-
151	11 - Commur		_,		4	V . ==,	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	*****
157	12 - Fare Col	lection	,				
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,645,08
161							
162	13. Right of V	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		A4 075 70
179		ring & Administration			Subtotal	A4 075 700	\$1,275,78
180	Infrastructure	E & A 35.00%				\$1,275,780	
181	Vehicle	E & A 5.00%			0.1.1.1.1		#000 04
185 187	16 - Continge Vehicles				Subtotal		\$929,01
187	Infrastructure	Contingency 5.00%				\$679,017	
191	Utilities	Contingency 20.00% Contingency 100.00%				\$250,000	
194		Iton State Sales Tax and Real Estate Tax				Ψ230,000	\$256,150
195	ir - wasilling	Sales Tax and Real Estate Tax Sales Tax 8.40%				\$256,149.85	ψ200,10
100		Sales Tax has been applied to 2/3 of Infrastructure &				Ψ200, 140.00	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
.00	 	5. 1.5 Tolliolo o dollifiatod total.					
						Total	\$6,106,03

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 225.2

	Spokane	Regional					
	-	Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Cannery Street Area to Steen Road Area		600+00	625+00	2,500 FT	0.5 mile
		-		600+00	625+00	2,500 F I	0.5 11116
	C -225.2	East Valley Section Alternate 2 Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const	•	Quantity	Ollic	Offic Cost	LAGIISIOII	\$2,064,483
1	1-OIVII OOIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ2,004,400
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	400	LF	\$35.00		
4		Common Excavation	815	CY	\$15.00	\$12,225	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	2,272	CY CY	\$15.00 \$4.00		
8		Landscaping Allowance	2,212	SF	\$2.00	\$9,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	250	LF	\$16.00	\$4,000	
10		Chain Link Fencing 6'	4,630	LF	\$22.00		
11		Ballast Walls (Curb-no drainage)	250	LF	\$22.00	\$5,500	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	5.000	EA	\$8,000	Ø4.445.000	
14 15		Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade	5,000	TF TF	\$223 \$312	\$1,115,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23 24		Impact Attenuators Minor Street Closures Allowance		EA	\$35,000		
25		Minor Intersection Rebuild (2 Lanes)		EA EA	\$25,000 \$100,000		
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)	·	EA	\$100,000	\$250,550	
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31 32		Sidewalk Construction	2,640	SF EA	\$6.00 \$75,000.00	\$15,840	
32		Off Alignment Signal Modifications Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -			70000		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37 38		Provide Team Track and Loading Dock (HDR) Lake Rd Industrial Spur Modifications (HDR)		LS LS	\$208,000.00 \$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	* ,	
41		Signal Communication Building LTK130	1	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00		
45 50	2 - Incurance	Corrosion Mitigation LTK150 - Included other in Items	2,500	RF	\$10.73	\$26,833	
57	3 - Utilities	- included other in items					\$250,00
59		Utility Allowance - High		RF	\$600.00		Ψ200,00
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74 75	5 - Structures	s Bridge Structures DEA		LS	\$1.00		
76		Bridge Location		LO	φ1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Otations.			6750 055	0 ==0 00=	\$850,00
105 106		Stations Station Name	1 Sullivan/Boque	LS Station Center	\$750,000 or Platform	\$750,000	
106		Artwork (*Subject to Board Policy)	Sullivan/Bogue	LS LS	er Platform \$1.00		
107		Platform Electrical LTK610	1	LS	\$100,000		
115	7 - Park & Ric				\$.55,500	Ţ.00,000	\$1,720,00
116		Park & Ride	400	Space	\$4,300	\$1,720,000	
		D 1 0 D: 1 1 1:	Danie Ctation				
117 119		Park & Ride Location s Facility (All Yard elements Included)	Bogue Station				

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 225.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	1	Length	
	Drawing	Cannery Street Area to Steen Road Area		600+00	625+00	2,500 FT	0.5 mile
	C -225.2	East Valley Section Alternate 2		000100	020100	2,00011	0.0 11111
	0 -223.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00	EXTENSION	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$1,138,92
136	3 - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,130,32
138		OCS Single Contact Wire LTK920		RF	\$123.00	ψ. σσ,σσσ	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		_,		Ţ	700,100	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* :-=,::
151	11 - Commur		_,		4 200.00	V ,	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	+
157	12 - Fare Col	lection					\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$7,265,72
161							
162	13. Right of \	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$2,543,00
180	Infrastructure	E & A 35.00%				\$2,543,005	
181	Vehicle	E & A 5.00%			0.1.1.1.1		# 4.050.44
185 187	16 - Continge Vehicles				Subtotal		\$1,653,14
187	Venicies Infrastructure	Contingency 5.00%				\$1,403,146	
191	Utilities	Contingency 20.00% Contingency 100.00%				\$1,403,146	
194		Iton State Sales Tax and Real Estate Tax				Ψ230,000	\$499,45
195	ir - wasilling	Sales Tax and Real Estate Tax Sales Tax 8.40%				\$499,457.02	ψ+33,43
100	 	Sales Tax has been applied to 2/3 of Infrastructure &				ψτου,τοι.υΖ	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
.00	 	5. 1.5 Tolliolo o dollifiatod total.					
						Total	\$11,961,33

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 226.2

	Spokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Steen Road Area to Sprague Ave Crossing		625+00	650+00	2,500 FT	0.5 mile
		East Valley Section Alternate 2		020100	000100	2,00011	0.0 111110
	O ZZO.Z	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const	•	quaritity	- Cilic	01111 0001	<u> </u>	\$2,031,763
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	· / /
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
<u>3</u>		Curb & Gutter Allowance Common Excavation	800	LF CY	\$35.00 \$15.00	\$28,000 \$59,445	
5		Select Backfill (MSE Retaining Walls)	3,963	CY	\$15.00 \$15.00	\$59,445	
6		Common Backfill (From Project Excavation)	257	CY	\$4.00	\$1,028	
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)	305	LF	\$16.00	\$4,880	
10 11		Chain Link Fencing 6' Ballast Walls (Curb-no drainage)	4,295 305	LF LF	\$22.00 \$22.00	\$94,490 \$6,710	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,000	EA	\$8,000	ψτο,οοο	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16 19		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF TF	\$280 \$230		
20		Double Crossover		EA	\$230 \$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance	1 2	EA	\$25,000	\$25,000	
25 26		Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes)		EA EA	\$100,000 \$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction	5.040	SF	\$9.00	# 00.040	
31 32		Sidewalk Construction Off Alignment Signal Modifications	5,040	SF EA	\$6.00 \$75,000.00	\$30,240	
52		Construct Maintenance Road Assume All Weather Gravel -		LA	ψ10,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA TF	\$65,000.00		
35 36		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR		TF	\$100.00 \$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41 42	+	Signal Communication Building LTK130 Ductbank/ Conduit -PAVED TRACK- LTK140		EA RF	\$60,000.00 \$200.00		
43		Ductbank/ Conduit - OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					
57	3 - Utilities	Heility Allowance High		DE	\$600.00		\$250,000
59 60	+	Utility Allowance - High Utility Allowance - Medium		RF RF	\$600.00 \$350.00		
61	1	Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items	,			,	
74	5 - Structures				*		
75	1	Bridge Structures DEA		LS	\$1.00		
76 77	+	Bridge Location Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78	+	MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						-
105	1	Stations Station Name	1	LS			
106 107	+	Station Name Artwork (*Subject to Board Policy)		LS	\$1.00		
107	+	Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric	l .			, , , , , , ,		
116		Park & Ride		Space	\$4,300		
117	0 0	Park & Ride Location					
119 123	8 - Operation	s Facility (All Yard elements Included) Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		
123	1	plug a ratu site Frep, Grauing a Utilities LTNoTT		LO	φ10,001,016		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 226.2

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Steen Road Area to Sprague Ave Crossing		625+00	650+00	2,500 FT	0.5 mile
	C -226.2	East Valley Section Alternate 2		020.00	000100	2,00011	0.0 111110
	C -220.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	LATERISION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			\$1,000,000		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		******
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commur						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,710,68
161							
162	13. Right of \						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks,Waste			* • • • • • • • • • • • • • • • • • • •		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
405		Alternate 3 DEA Right of Way Acquisition Budget			007.044.740.00		
165		Estimate (Including Railroads & Operation Facility) Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS LS	\$27,914,712.00 \$5,000,000.00		
166 167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Alternate 4 Haziviat Demo & Disposai (Tariks, Waste Willigati		LO	\$5,000,000.00		
175	14. Verticles	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Enginee	ring & Administration		ì	Subtotal		\$1,298,74
180	Infrastructure				- Cubiciai	\$1,298,741	ψ., <u>2</u> 00,
181	Vehicle	E & A 5.00%				\$1,200,1	
185	16 - Continge				Subtotal		\$942,13
187	Vehicles	Contingency 5.00%					
189	Infrastructure					\$692,138	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$260,558
195		Sales Tax 8.40%			-	\$260,558.23	-
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,212,12

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 227.2

	Spokane	Regional					
	•	Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Sprague Ave Crossing to Greenacres Road		650+00	675+00	2,500 FT	0.5 mile
		East Valley Section Alternate 2		030+00	075+00	2,500 FT	0.5 111116
	C-221.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Ollit	Offic Cost	LAGIISIOII	\$2,233,702
1	1-OIVII OOIISt	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	ΨΖ,233,702
2		Grade Preparation to Top of subballast.	2,500		\$35.00		
3		Curb & Gutter Allowance	280	LF	\$35.00	\$9,800	
4		Common Excavation	924	CY	\$15.00	\$13,860	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	2,318	CY CY	\$15.00 \$4.00	\$9,272	
8		Landscaping Allowance	2,316	SF	\$2.00	φ9,212	
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00		
10		Chain Link Fencing 6'	1,500		\$22.00	\$33,000	
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12 13		Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	LF EA	\$6.00 \$8,000	\$15,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade	3,000	TF	\$312	ψ1,110,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21 22	-	Single Crossover Turnout		EA EA	\$150,000 \$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000	\$200.000	
28 29		Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild	1	EA EA	\$200,000 \$300,000	\$200,000	
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	1,800	SF	\$6.00	\$10,800	
32		Off Alignment Signal Modifications	1	EA	\$75,000.00	\$75,000	
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39 40		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2,500	EA RF	\$60,000.00 \$15.06	\$37,638	
41		Signal Communication Building LTK130	2,300	EA	\$60,000.00	φ37,036	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45	1	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					ФО <u>ГО</u> 000
57 59	3 - Utilities	Utility Allowance - High	+	RF	\$600.00		\$250,000
60	1	Utility Allowance - High		RF	\$350.00		
61		Utility Allowance - Low	2,500		\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74	5 - Structures				24.55		
75 76	1	Bridge Structures DEA Bridge Location		LS	\$1.00		
76	+	Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78	1	MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						
105		Stations Stations Name	1	LS			
106 107	1	Station Name Artwork (*Subject to Board Policy)	-	LS	\$1.00		
107	+	Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric				ψ100,000		
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location					
119	8 - Operation	s Facility (All Yard elements Included)		10	#40 554 513		
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 227.2

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Sprague Ave Crossing to Greenacres Road		650+00	675+00	2,500 FT	0.5 mile
	C -227.2	East Valley Section Alternate 2		000100	0.0.00	2,00011	0.0 11111
	0-221.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00	LATERISION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,000,000		\$388,92
136	o madadini	Sub-Station Type 3 LTK 910		EA	\$750,000		φοσο,σ2
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		,	_	,	,	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	· , ·
151	11 - Commur		Í				\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col	lection					
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,912,62
161							
162	13. Right of \	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	L EL LILE BUYLL B. O. (LEKARR)			***		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600 Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$2,500,000.00		
176 177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 d		EA EA	\$681,818.18 \$700,000		
179	1E Enginee	ring & Administration		EA	Subtotal		\$1,369,41
180	Infrastructure	E & A 35.00%			Subiolai	\$1,369,419	\$1,309,41
181	Vehicle	E & A 55.00% E & A 5.00%				\$1,309,419	
185	16 - Continge				Subtotal		\$982,52
187	Vehicles	Contingency 5.00%			Cabiolai		Ψ302,32
189	Infrastructure	Contingency 20.00%				\$732,525	
191	Utilities	Contingency 100.00%				\$250,000	
194		ton State Sales Tax and Real Estate Tax				+	\$274,12
195		Sales Tax 8.40%				\$274,128.53	,
		Sales Tax has been applied to 2/3 of Infrastructure &				. ,	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,538,700
		+					

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 228.2

	•	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Greenacres Road to Barker Road Area		675+00	700+00	2,500 FT	0.5 mile
	C -228.2	East Valley Section Alternate 2					
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const	ruction					\$2,209,436
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	320	LF	\$35.00		
4		Common Excavation	1,028	CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)	40.040	CY	\$15.00		
6		Common Backfill (From Project Excavation) Landscaping Allowance	10,619	CY SF	\$4.00 \$2.00	\$42,476	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	2,415	LF	\$16.00	\$38,640	
10		Chain Link Fencing 4 (on waits of Ballast Curb)	100	LF	\$22.00		
11		Ballast Walls (Curb-no drainage)	2,415	LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00		
13		Transition Slab Ballasted to Embedded /Bridge /Structure	_,,,,,	EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover	1	EA	\$150,000	\$150,000	
22		Turnout		EA	\$75,000		
23		Impact Attenuators Minor Street Closures Allowance		EA	\$35,000		
24 25		Minor Intersection Rebuild (2 Lanes)	1	EA EA	\$25,000 \$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$100,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)	1	EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000	4=10,000	
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	2,400	SF	\$6.00	\$14,400	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR		TF TF	\$100.00 \$130.00		
36 37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	,,,,,,	EA	\$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					
57	3 - Utilities	Lucies All			****		\$250,000
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium	0.500	RF	\$350.00		
61 70	4 Trook Mad	Utility Allowance - Low erials - Included in the Rail Items	2,500	RF	\$100.00	\$250,000	
74	5 - Structures						\$102,400
75	o - on acture:	Bridge Structures DEA	+	LS	\$1.00		Ψ102,400
76		Bridge Location		LO	Ψ1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)	3,200	SF	\$32.00	\$102,400	
78		MSE Retaining Wall - Typical DEA	2,230	SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations			·			
105		Stations	1	LS			
106		Station Name					
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108	7 8-1 25	Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ri			Cnoos	Ø4 200		
116		Park & Ride Park & Ride Location		Space	\$4,300		
117		II GIN OLIVIUE LUCAUUII	1		1		
117 119	8 - Operation	s Facility (All Yard elements Included)					

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 228.2

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Greenacres Road to Barker Road Area		675+00	700+00	2,500 FT	0.5 mile
	C -228.2	East Valley Section Alternate 2		010100	700700	2,00011	0.0 11111
	C -220.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	LATERISION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,000,000		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		*****
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commur						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,990,76
161							
162	13. Right of \						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks,Waste			* =		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
405		Alternate 3 DEA Right of Way Acquisition Budget		1.0	COZ 04 4 740 00		
165 166		Estimate (Including Railroads & Operation Facility) Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS LS	\$27,914,712.00 \$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Alternate 4 Traziviat Demo & Disposar (Tariks, Waste Witigati			\$3,000,000.00		
175	14. Verneies	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Enginee	ring & Administration			Subtotal		\$1,396,76
180	Infrastructure					\$1,396,766	,,,,,,
181	Vehicle	E & A 5.00%					
185	16 - Continge	encies			Subtotal		\$998,15
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$748,152	·
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax	-				\$279,37
195		Sales Tax 8.40%				\$279,379.14	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,665,059

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 229.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Barker Road Area to Appleway Station Area		700+00	725+00	2,500 FT	0.5 mile
		Liberty Lake Section Alternate 2		700100	720100	2,00011	0.0 111110
	0 220.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		quantity	O.m.	Oline Goot	Extension	\$1,722,242
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	* · , · ==,= · =
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
<u>4</u> 5		Common Excavation Select Backfill (MSE Retaining Walls)		CY	\$15.00 \$15.00		
6		Common Backfill (From Project Excavation)	22,493	CY	\$4.00	\$89.972	
8		Landscaping Allowance	22,100	SF	\$2.00	ψου,υ. 2	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	1,700	LF	\$16.00	\$27,200	
10		Chain Link Fencing 6'	650	LF	\$22.00	\$14,300	
11		Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance	400	LF LF	\$22.00	\$8,800	
12 13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	EA	\$6.00 \$8,000	\$15,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312	* / */***	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20 21		Double Crossover Single Crossover		EA EA	\$300,000 \$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27 28		Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes)		EA EA	\$100,000 \$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide		LF	\$35.00		
33		Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110		LS EA	\$476,000.00 \$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	,	EA	\$60,000.00	, , , , , , , , , , , , , , , , , , , ,	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45 50	2 - Incurance	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
57	3 - Utilities	- moradou otner in items					\$250,000
59		Utility Allowance - High		RF	\$600.00		+ <u>+</u> <u>+</u> <u>+</u> <u>+</u> + + + + + + + + + + + + + +
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70	4 - Track Mat 5 - Structures	erials - Included in the Rail Items					¢166 400
74 75	o - ou ucture:	s Bridge Structures DEA	+	LS	\$1.00		\$166,400
76		Bridge Location		10	ψ1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)	5,200	SF	\$32.00	\$166,400	
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79	0.00::1	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104 105	6 - Stations	Stations	1	LS			
105		Stations Station Name	1	LO			
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric						
116		Park & Ride		Space	\$4,300		
117 119	8 - Operation	Park & Ride Location s Facility (All Yard elements Included)					
123	o - Operation	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		
120	1	Change one i lop, Chang & Canado Linoi i	1		\$ 10,00 i,0 i0		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 229.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Barker Road Area to Appleway Station Area		700+00	725+00	2,500 FT	0.5 mile
	C -229.2	Liberty Lake Section Alternate 2		700100	720100	2,00011	0.0 11111
	C -229.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00	Extension	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$388,92
136	3 - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ300,32
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		_,		700	400,000	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* :,:-
151	11 - Commur		_,		4	4 1-2,111	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	*****
157	12 - Fare Col	lection	,				
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,567,56
161							
162	13. Right of V	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		04.040.04
179		ring & Administration			Subtotal	A 4 040 040	\$1,248,64
180	Infrastructure	E & A 35.00%				\$1,248,648	
181	Vehicle	E & A 5.00%			Cubtotal		¢040.54
185 187	16 - Continge Vehicles				Subtotal		\$913,51
187	Infrastructure	Contingency 5.00%				\$663,513	
191	Utilities	Contingency 20.00% Contingency 100.00%				\$250,000	
194		Iton State Sales Tax and Real Estate Tax				Ψ230,000	\$250,94
195	ir - wasilling	Sales Tax and Real Estate Tax Sales Tax 8.40%				\$250,940.50	Ψ250,94
100	 	Sales Tax has been applied to 2/3 of Infrastructure &				Ψ200,340.00	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
.00	 	5. 1.5 Tolliolo o dollifiatod total.					
						Total	\$5,980,66

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 230.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
				Start Sta	Eliu Sia	Lengui	
	. .	Appleway Station Area to Country Vista Road		705 00	750 00	0.500.57	0 = "
	Drawing	Area		725+00	750+00	2,500 FT	0.5 mile
	C -230.2	Liberty Lake Section Alternate 2					
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const	ruction					\$2,031,532
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation		CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	35,768	CY	\$4.00	\$143,072	
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)	5 000	LF	\$16.00	£440,000	
10		Chain Link Fencing 6'	5,000	LF LF	\$22.00 \$22.00	\$110,000 \$44,000	
11 12		Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance	2,000 2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	EA	\$8,000	\$15,000	
14		Ballasted Track at Grade or Structure	4,430	TF	\$223	\$987,890	
15		Embedded (Paved) Track at Grade	4,430	TF	\$312	ψ907,090	
16		Direct Fixation (DF) Track, Elevated Structure	570	TF	\$280	\$159,600	
19		LRT Siding or Pocket Track	0.0	TF	\$230	Ψ100,000	
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -			********		
34		HDR		EA TF	\$65,000.00		
35 36		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR		TF	\$100.00 \$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	1	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	·	RF	\$200.00	400,000	
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50	2 - Insurance	e - Included other in Items					
57	3 - Utilities						\$250,00
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		terials - Included in the Rail Items					
74	5 - Structure						\$726,00
75		Bridge Structures DEA	726,000	LS	\$1.00	\$726,000	
76		Bridge Location	Country Vista	0.5	400		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79	C Ctction	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		#050.00
104	6 - Stations	Stations		1.0	₱ 7 E0.000	Φ7E0 000	\$850,00
105		Stations Station Name	1 Appleway Stat	LS	\$750,000	\$750,000	
106 107		Station Name Artwork (*Subject to Board Policy)	Appleway Stat				
107		Platform Electrical LTK610	1	LS LS	\$1.00 \$100,000	\$100,000	
115	7 - Park & Ri		'	LO	φ100,000	φ100,000	\$4,300,00
116	r - raik ox Ki	Park & Ride	1,000	Space	\$4,300	\$4,300,000	ψ4,300,00
		Park & Ride Location	Appleway Stat	ion	ψ4,300	ψ+,500,000	
117			i, ippicway olal	1011	1		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 230.2

	Spokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Appleway Station Area to Country Vista Road		Olari Ola	Liid Old	Longui	
	Drawing	Area		725+00	750+00	2,500 FT	0.5 mile
	0			725+00	750+00	2,300 FT	0.5 11116
	C -230.2	Liberty Lake Section Alternate 2					
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		
124		Operations Facility Building LTK		SF	\$171.00		
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		A. 100.00
133	9 - Traction F	Power System			^==	^==	\$1,138,92
136		Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	
138		OCS Single Contact Wire LTK920	0.500	RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142	40. 0'	Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	Φ 7 00.40
147	10 - Signal S		0.500	RF	# 000 00	#700.400	\$722,19
148	44 0	Signal (Alt 2 & Alt 3)	2,500	KF	\$288.88	\$722,190	4047.00
151	11 - Commun		0.500	RF	0107.10	0047.000	\$317,808
152 157	12 - Fare Col	Communications (Alt 2 & Alt 3)	2,500	KF	\$127.12	\$317,808	\$202,32
	12 - Fare Col			1.0	#200 204	#200 204	\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	640 500 77
160		Subtotal - Infrastructure			Subtotal		\$10,538,778
161	40 Diele - (1)	M					
162	13. Right of V						
400		3		1.0	#20.000.000		
163		Estimate (Including Railroads & Operation Facility) Alternate 2 HazMat Demo & Disposal (Tanks, Waste		LS	\$30,000,000		
404		Mitigation etc.) - Allowance		1.0	ΦE 000 000 00		
164		Alternate 3 DEA Right of Way Acquisition Budget		LS	\$5,000,000.00		
405				1.0	POZ 044 740 00		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168	44 Vahialaa	Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Law Floor Light Bail Vahislas Boss Cost LTK 4000		Ε.Δ	£0.500.000.00		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176 177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 & Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA EA	\$681,818.18 \$700,000		
179	1E Engineer	ring & Administration		EA	Subtotal		\$3,688,572
180	Infrastructure	E & A 35.00%			Subtotal	©2 COO E72	\$3,688,572
						\$3,688,572	
181 185	Vehicle 16 - Continge	E & A 5.00%			Subtotal		\$2,307,756
187	Vehicles	Contingency 5.00%			อนมเบเสเ		Φ∠,3∪1,75€
187	Venicies Infrastructure	Contingency 5.00% Contingency 20.00%				\$2,057,756	
189	Utilities	Contingency 20.00% Contingency 100.00%				\$2,057,756	
191		ton State Sales Tax and Real Estate Tax				φ250,000	\$719,40
195	ir - wasning	Sales Tax and Real Estate Tax Sales Tax 8.40%				\$719,405.91	ψ1 19, 4 00
190		Sales Tax has been applied to 2/3 of Infrastructure &				ψε 13,400.31	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
190		of the vehicle's estimated total.					
						Total	\$17,254,512
	1					iviai	Ψ11,204,012
		l l					

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 231.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta		
	Drowing	Liberty Lake Area along side Interstate 90			775+00	Length	0 E mile
				750+00	775+00	2,500 FT	0.5 mile
	C -231.2	Liberty Lake Section Alternate 2	0	11	11:24 0	F1	00046
	4 Civil Comet	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,383,24
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	2,500	LF	\$35.00	ψ01,300	
4		Common Excavation	8,360	CY	\$15.00	\$125,400	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	219	CY	\$4.00	\$876	
8		Landscaping Allowance		SF	\$2.00		
9 10		Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6'	2.500	LF LF	\$16.00 \$22.00	\$55,000	
11		Ballast Walls (Curb-no drainage)	2,500	LF	\$22.00	\$55,000	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,000	EA	\$8,000	Ψ10,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19	1	LRT Siding or Pocket Track		TF	\$230		
20	1	Double Crossover		EA EA	\$300,000		
21 22		Single Crossover Turnout		EA EA	\$150,000 \$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30 31		Roadway Construction Sidewalk Construction		SF SF	\$9.00 \$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
- 02		Construct Maintenance Road Assume All Weather Gravel -		2,1	ψ10,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF LS	\$130.00		
37 38		Provide Team Track and Loading Dock (HDR) Lake Rd Industrial Spur Modifications (HDR)		LS	\$208,000.00 \$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	1	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	2,500	RF	\$200.00	\$500,000	
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50	2 - Insurance 3 - Utilities	e - Included other in Items					\$2E0.00
57 59	3 - Utilities	Utility Allowance - High		RF	\$600.00		\$250,00
60	†	Utility Allowance - Medium		RF	\$350.00		
61	1	Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70	4 - Track Mat	terials - Included in the Rail Items					
74	5 - Structures						
75		Bridge Structures DEA		LS	\$1.00		
76	1	Bridge Location			400		
77 78	1	Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA		SF SF	\$32.00 \$30.00		
78	+	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Sat a Sever Bow Turner to Fine House Merial Gradient			ψυ,υυυ.υυ		
105		Stations	1	LS			
106		Station Name					
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric			0.	0.000		
116	1	Park & Ride		Space	\$4,300		
117 119	8 - Operation	Park & Ride Location s Facility (All Yard elements Included)	-				
123	o - Operation	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		
120	Ì	ping a raid one rich, Grauling & Outlittes LTNOTT	1	LU	ψ10,001,010		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 231.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Liberty Lake Area along side Interstate 90		750+00	775+00	2,500 FT	0.5 mile
	C -231.2	Liberty Lake Section Alternate 2		700100	770100	2,00011	0.0 11111
	C -231.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00	EXTENSION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System		LO	ψ1,300,000		\$1,138,92
136	3 - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,100,02
138		OCS Single Contact Wire LTK920		RF	\$123.00	ψ. σσ,σσσ	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		_,		700	400,100	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* :,:-
151	11 - Commur		_,		4	V . ==,	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	*****
157	12 - Fare Col	lection	,				
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$4,812,17
161							
162	13. Right of V	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		^ 4 ^ 2 ^ 4 ^ 2
179		ring & Administration			Subtotal	* 4 . 2 . 4 . 2 . 2	\$1,684,26
180	Infrastructure	E & A 35.00%				\$1,684,260	
181 185	Vehicle	E & A 5.00%			Cultatal		£4.4C0.40
187	16 - Continge Vehicles				Subtotal		\$1,162,43
189	Infrastructure	Contingency 5.00% Contingency 20.00%				\$912,434	
191	Utilities	Contingency 20.00% Contingency 100.00%				\$250,000	
194		Iton State Sales Tax and Real Estate Tax				Ψ230,000	\$334,578
195	17 - Washing	Sales Tax 8.40%				\$334,577.89	Ψ00-1,071
.00		Sales Tax has been applied to 2/3 of Infrastructure &				φοστ,σττ.υσ	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$7,993,443

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 232.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta		
	Drowing	Liberty Lake Area along side Interstate 90		775+00	800+00	Length 2,500 FT	0.5 mile
	Drawing			775+00	800+00	2,500 F I	0.5 mile
	C -232.2	Liberty Lake Section Alternate 2	Ourantitus	I lade	Unit Coot	F	2004 €
	4 Civil Come	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,158,94
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	2,500	LF	\$35.00	ψ07,300	
4		Common Excavation	659	CY	\$15.00	\$9,885	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	3,023	CY	\$4.00	\$12,092	
8		Landscaping Allowance		SF	\$2.00		
9 10		Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6'	2.500	LF LF	\$16.00 \$22.00	\$55,000	
11		Ballast Walls (Curb-no drainage)	2,500	LF	\$22.00	\$55,000	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,000	EA	\$8,000	Ψ10,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout Impact Attenuators		EA EA	\$75,000 \$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
33		Industrial Railroad Turnouts East Side Syndicate Spur -			ψ33.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	0.500	EA	\$60,000.00	407.000	
40		OCS Pole Foundations LTK120	2,500	RF EA	\$15.06	\$37,638	
41 42	+	Signal Communication Building LTK130 Ductbank/ Conduit -PAVED TRACK- LTK140	2,500	RF	\$60,000.00 \$200.00	\$500,000	
43	†	Ductbank/ Conduit -PAVED TRACK- LTK140 Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45	1	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50	2 - Insurance	- Included other in Items			·		
57	3 - Utilities						\$250,00
59		Utility Allowance - High		RF	\$600.00		
60	1	Utility Allowance - Medium		RF	\$350.00	0	
61	4 Tag : 1 35 :	Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70 74	4 - Track Mat 5 - Structure	terials - Included in the Rail Items					
75	5 - Structures	Bridge Structures DEA		LS	\$1.00		
76	1	Bridge Location			ψ1.00		
77	1	Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79	1	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						
105	1	Stations	1	LS			
106	1	Station Name		10	64.00		
107 108	+	Artwork (*Subject to Board Policy)		LS LS	\$1.00 \$100,000		
108	7 - Park & Rie	Platform Electrical LTK610		L9	\$100,000		
116	r - raik ox Kii	Park & Ride		Space	\$4,300		
117	1	Park & Ride Location			\$.,500		
119	8 - Operation	s Facility (All Yard elements Included)					
123	1	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		
_							

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 232.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Liberty Lake Area along side Interstate 90		775+00	800+00	2,500 FT	0.5 mile
	C -232.2	Liberty Lake Section Alternate 2		110100	000100	2,00011	0.0 11111
	U -232.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	LATERISION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,000,000		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		*****
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commur						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,837,87
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks,Waste			* =		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
405		Alternate 3 DEA Right of Way Acquisition Budget		1.0	COZ 04 4 740 00		
165 166		Estimate (Including Railroads & Operation Facility) Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS LS	\$27,914,712.00 \$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Aliemate 4 Traziviat Demo & Disposai (Tariks, Waste Witigati			\$3,000,000.00		
175	14. Verileies	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		\$1,343,25
180	Infrastructure	E & A 35.00%				\$1,343,255	. ,
181	Vehicle	E&A 5.00%				· //	
185	16 - Continge	encies			Subtotal		\$967,57
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$717,574	·
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax	-				\$269,10
195		Sales Tax 8.40%				\$269,105.00	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,417,80

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 233.2

	Spokane	Regional					
	•	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Liberty Lake Road Area to Signal Road		800+00	825+00	2,500 FT	0.5 mile
		Liberty Lake Section Alternate 2		800+00	625 + 00	2,500 FT	0.5 111116
	C -233.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Oilit	Offic Cost	LAGIISIOII	\$2,934,911
1	1-OIVII OOIISt	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ2,337,311
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	300	LF	\$35.00	\$10,500	
4		Common Excavation	487	CY	\$15.00	\$7,305	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	5,109	CY CY	\$15.00 \$4.00	\$20,436	
8		Landscaping Allowance	5,109	SF	\$2.00	\$20,430	
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00		
10		Chain Link Fencing 6'	2,350	LF	\$22.00	\$51,700	
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12 13		Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	LF EA	\$6.00 \$8,000	\$15,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade	0,000	TF	\$312	ψ1,110,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21 22	-	Single Crossover Turnout		EA EA	\$150,000 \$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance	1	EA	\$25,000	\$25,000	
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27 28		Minor Traffic Signal (2 Lanes)		EA	\$100,000	\$200.000	
28		Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild	1	EA EA	\$200,000 \$300,000	\$200,000 \$300,000	
30		Roadway Construction		SF	\$9.00	ψ300,000	
31		Sidewalk Construction	3,000	SF	\$6.00	\$18,000	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00	# 00.000	
39 40		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2,500	EA RF	\$60,000.00 \$15.06	\$60,000 \$37,638	
41		Signal Communication Building LTK130	2,500	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	2,500	RF	\$200.00	\$500,000	
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45	1	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					#050.000
57 59	3 - Utilities	Utility Allowance - High		RF	\$600.00		\$250,000
60	1	Utility Allowance - High		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items		_			
74	5 - Structures						
75 76	1	Bridge Structures DEA Bridge Location		LS	\$1.00		
76	+	Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78	1	MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						
105		Stations Stations Name	1	LS			
106 107	1	Station Name Artwork (*Subject to Board Policy)	-	LS	\$1.00		
107	+	Platform Electrical LTK610		LS	\$1.00		
115	7 - Park & Ric				ψ100,000		
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location					
119	8 - Operation	s Facility (All Yard elements Included)		10	Φ40 554 510		
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 233.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	1	Length	
	Drawing	Liberty Lake Road Area to Signal Road		800+00	825+00	2,500 FT	0.5 mile
	C -233.2	Liberty Lake Section Alternate 2		000100	020100	2,00011	0.0 11111
	U -233.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	Extension	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,000,000		\$1,138,92
136	o muonom	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,100,02
138		OCS Single Contact Wire LTK920		RF	\$123.00	ψ. σσ,σσσ	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem	,		·		\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commur	nications					\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col	lection					
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$5,363,83
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166 167		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati Alternate 4 DEA Right of Way Acquisition Budget Estima		LS LS	\$5,000,000.00		
168		Alternate 4 DEA Right of Way Acquisition Budget Estima Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$26,771,815.00 \$5,000,000.00		
174	14. Vehicles	Alternate 4 Haziviat Demo & Disposai (Tanks, waste Mitigati		LS	\$5,000,000.00		
175	14. Venicies	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 d		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		\$1,877,34
180	Infrastructure	E & A 35.00%			Cubiciai	\$1,877,343	Ψ1,011,01
181	Vehicle	E & A 5.00%				ψ1,011,010	
185	16 - Continge				Subtotal		\$1,272,76
187	Vehicles	Contingency 5.00%					,
189	Infrastructure	Contingency 20.00%				\$1,022,767	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$371,65
195		Sales Tax 8.40%				\$371,649.78	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$8,885,590

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 234.2

	Spokane	Regional					
	•	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Signal Road to Madson Road Area		825+00	850+00	2,500 FT	0.5 mile
		Liberty Lake Section Alternate 2		023+00	830+00	2,500 FT	0.5 111116
	C -234.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Onit	Unit Cost	Extension	\$2,783,990
1	1-CIVII COIISt	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ2,703,990
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	500	LF	\$35.00	\$17,500	
4		Common Excavation	7,500	CY	\$15.00	\$112,500	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)		CY CY	\$15.00 \$4.00		
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00		
10		Chain Link Fencing 6'	2,390	LF	\$22.00	\$52,580	
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12 13		Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	LF EA	\$6.00 \$8,000	\$15,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade	0,000	TF	\$312	ψ1,110,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		·
20		Double Crossover		EA	\$300,000		
21 22	-	Single Crossover Turnout		EA EA	\$150,000 \$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance	4	EA	\$25,000	\$100,000	
25		Minor Intersection Rebuild (2 Lanes)	2	EA	\$100,000	\$200,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27 28		Minor Traffic Signal (2 Lanes)	2	EA EA	\$100,000	\$200,000	
28		Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild		EA	\$200,000 \$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	3,240	SF	\$6.00	\$19,440	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39 40		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2,500	EA RF	\$60,000.00 \$15.06	\$37,638	
41		Signal Communication Building LTK130	2,300	EA	\$60,000.00	φ37,036	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	2,500	RF	\$200.00	\$500,000	
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45	1	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					ФО <u>ГО</u> 000
57 59	3 - Utilities	Utility Allowance - High	+	RF	\$600.00		\$250,000
60	1	Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items		_			
74	5 - Structures						
75 76	1	Bridge Structures DEA Bridge Location	-	LS	\$1.00		
76	+	Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78	1	MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						
105		Stations Stations Name	1	LS			
106 107	1	Station Name Artwork (*Subject to Board Policy)	-	LS	\$1.00		
107	+	Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric				ψ100,000		
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location					
119	8 - Operation	s Facility (All Yard elements Included)		10	Φ40 554 510		
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 234.2

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Signal Road to Madson Road Area		825+00	850+00	2,500 FT	0.5 mile
	C -234.2	Liberty Lake Section Alternate 2		020100	000100	2,00011	0.0 111110
	C -234.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	Extension	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$388,92
136	J - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ300,32
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		_,		700	400,000	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	. ,
151	11 - Commur		_,		4	4 1-2,111	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	*****
157	12 - Fare Col	lection					
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$4,462,91
161							
162	13. Right of \	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		0 4 5 00 00
179		ring & Administration			Subtotal	A4 500 000	\$1,562,02
180	Infrastructure	E & A 35.00%				\$1,562,020	
181	Vehicle	E & A 5.00%			0.14.4.1		#4 000 50
185 187	16 - Continge Vehicles				Subtotal		\$1,092,58
187	Infrastructure	Contingency 5.00%				\$842,583	
191	Utilities	Contingency 20.00% Contingency 100.00%				\$250,000	
194		Iton State Sales Tax and Real Estate Tax				Ψ230,000	\$311,108
195	ir - wasilling	Sales Tax and Real Estate Tax Sales Tax 8.40%				\$311,107.89	ψ511,100
100	 	Sales Tax has been applied to 2/3 of Infrastructure &				ψυ 11,101.09	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
.00	 	5. 1.5 Tolliolo o dell'Indica total.					
						Total	\$7,428,620

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 235.2

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Liberty Lake Station (Molter Rd) and Line		Otart Ota	Liid Ola	Lerigin	
		Terminus Area		850+00	868+50	1,850 FT	0.4 mile
	- U			830+00	000+30	1,000 F1	0.4 111116
	C -235.2	Liberty Lake Section Alternate 2	Ourantitus	l locit	Unit Coot	F. tamaian	00046
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-CIVII Const	Site Preparation - Clearing & Grubbing	1,850	LF	\$10.00	\$18,500	\$2,581,998
2		Grade Preparation to Top of subballast.	1,850		\$35.00	\$64,750	
3		Curb & Gutter Allowance	300		\$35.00		
4		Common Excavation	9,860		\$15.00	\$147,900	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6 8		Common Backfill (From Project Excavation)		CY SF	\$4.00 \$2.00		
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$2.00 \$16.00		
10		Chain Link Fencing 4 (on waits of Ballast Curb)	1,850		\$22.00	\$40,700	
11		Ballast Walls (Curb-no drainage)	1,000	LF	\$22.00	V 10,100	
12		Site Cleanup and Final Grading Allowance	1,850	LF	\$6.00	\$11,100	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	3,700	TF	\$223	\$825,100	
15 16		Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure		TF TF	\$312 \$280		
19		LRT Siding or Pocket Track		TF	\$280		
20		Double Crossover	1	EA	\$300,000	\$300,000	
21		Single Crossover		EA	\$150,000	, ,	
22		Turnout		EA	\$75,000		
23		Impact Attenuators	2		\$35,000	\$70,000	
24		Minor Street Closures Allowance		EA	\$25,000		
25 26		Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes)	1	EA EA	\$100,000 \$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)	1	EA	\$100,000	\$200,000	
28		Major Traffic Signal (4 Lanes)	1	EA	\$200,000	\$200,000	
29		Complex Major Intersection Rebuild		EA	\$300,000	, ,	
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	2,040		\$6.00	\$12,240	
32		Off Alignment Signal Modifications Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
55		Industrial Railroad Turnouts East Side Syndicate Spur -			ψ55.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110	1	LS EA	\$476,000.00 \$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	1,850	RF	\$15.06	\$27,852	
41		Signal Communication Building LTK130	1,000	EA	\$60,000.00	\$21,002	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	1,850	RF	\$200.00	\$370,000	
43		Ductbank/ Conduit -OPEN TRACK- LTK140	1,850	RF	\$110.00	\$203,500	
45		Corrosion Mitigation LTK150	1,850	RF	\$10.73	\$19,856	
50		- Included other in Items					\$185,00
57 59	3 - Utilities	Utility Allowance - High		RF	\$600.00		φ185,00
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	1,850	RF	\$100.00	\$185,000	
70		erials - Included in the Rail Items					
74	5 - Structures						
75		Bridge Structures DEA		LS	\$1.00		
76 77		Bridge Location Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						\$850,00
105		Stations	1		\$750,000	\$750,000	
106		Station Name	Liberty Lake S		Platform Terminus		
107		Artwork (*Subject to Board Policy)	-	LS	\$1.00	¢400.000	
108 115	7 - Park & Ric	Platform Electrical LTK610	1	LS	\$100,000	\$100,000	\$860,00
116		Park & Ride	200	Space	\$4,300	\$860,000	φοου,υυ
117		Park & Ride Location	Liberty Lake S		ψ-,500	Ψ000,000	
		s Facility (All Yard elements Included)			1		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 235.2

	Spokane	Regional					
	•	Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Liberty Lake Station (Molter Rd) and Line				- 3	
	Drawing	Terminus Area		850+00	868+50	1,850 FT	0.4 mile
	C -235.2	Liberty Lake Section Alternate 2		000100	000100	1,00011	0.111110
	0 -233.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
123		Bldg & Yard Site Prep, Grading & Utilities LTK811	Quantity	LS	\$18,551,516		20019
123		Operations Facility Building LTK		SF	\$171.00		
124		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	O Traction F	Power System		LS	\$1,900,000		\$1,037,806
136	9 - Traction F	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	\$1,037,806
138		OCS Single Contact Wire LTK920	1	RF	\$123.00		
138		OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930	1,850	RF	\$123.00		
			,				
141		Lighting LTK940	1,850	RF	\$8.11	\$14,996	
142	40 Cimmal C	Spare Parts/ System support LTK950	1,850	LS	\$38.47	\$71,160	ФЕОЛ 101
147 148	10 - Signal S		4.050	RF	¢000.00	ФЕО.4 40.4	\$534,421
	44 0	Signal (Alt 2 & Alt 3)	1,850	KF	\$288.88	\$534,421	\$005.470
151	11 - Commun		4.050	RF	0407.40	0005 470	\$235,178
152	40. Fara Call	Communications (Alt 2 & Alt 3)	1,850	KF	\$127.12	\$235,178	#000 004
157	12 - Fare Col			LS	# 000 004	\$000.004	\$202,321
158		Fare Collection Vending/ Validator & Spares LTK1200 Subtotal - Infrastructure	1	Lõ	\$202,321	\$202,321	#0.400.704
160		Subtotal - Intrastructure			Subtotal		\$6,486,724
161	40 01 14 41						
162	13. Right of V						
400		Alternate 2 DEA Right of Way Acquisition Budget			****		
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks,Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		A0 070 050
179		ring & Administration			Subtotal	A0.070.050	\$2,270,353
180	Infrastructure	E & A 35.00%				\$2,270,353	
181	Vehicle	E & A 5.00%			0.1		04 445 045
185	16 - Continge				Subtotal		\$1,445,345
187	Vehicles	Contingency 5.00%				£4.000.045	
189	Infrastructure	Contingency 20.00%				\$1,260,345	
191	Utilities	Contingency 100.00%				\$185,000	£444 40C
194	ı / - wasning	ton State Sales Tax and Real Estate Tax				¢444.405.00	\$444,196
195		Sales Tax 8.40%				\$444,195.83	
		Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100%					
400							
196		of the vehicle's estimated total.					
						Tatal	£40.040.040
						Total	\$10,646,618
						Į.	

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 300.2

	Spokane	Regional			<u> </u>		
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drowing	Order of Magnitude		Start Sta	Eliu Sia	Lengui	
	Drawing	Marinton and Frankling Alicensets O					
	C -300.2	Maintenance Facility Alternate 2	0	11	11-24 04	F	00046
	4.05-31.0	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const	Site Preparation - Clearing & Grubbing		LF	\$10.00		
2		Grade Preparation to Top of subballast.		LF	\$35.00		
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation		CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)		CY	\$4.00		
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00		
10		Chain Link Fencing 6'		LF	\$22.00		
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance		LF	\$6.00		
13 14		Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure		EA TF	\$8,000 \$223		
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27 28		Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes)		EA EA	\$100,000 \$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36 37		Remove & Relocate Industrial Spur HDR Provide Team Track and Loading Dock (HDR)		TF LS	\$130.00 \$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120		RF	\$15.06		
41		Signal Communication Building LTK130		EA	\$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140		RF	\$110.00		
45		Corrosion Mitigation LTK150		RF	\$10.73		
50		- Included other in Items					
57	3 - Utilities	Hility Allowance High		DE	Ø000.00		
59 60		Utility Allowance - High Utility Allowance - Medium		RF RF	\$600.00 \$350.00		
61		Utility Allowance - Low		RF	\$100.00		
70	4 - Track Mat	erials - Included in the Rail Items		iXi	ψ100.00		
74	5 - Structure						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79	0.0011	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Chatiana		1.0			
105		Stations Station Name	1	LS	-		
106 107		Artwork (*Subject to Board Policy)		LS	\$1.00		
107		Platform Electrical LTK610		LS	\$1.00		
115	7 - Park & Rie			LU	ψ100,000		
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location			\$.,500		
119	8 - Operation	s Facility (All Yard elements Included)					\$39,284,
123	1	Bldg & Yard Site Prep, Grading & Utilities LTK811	1.0	LS	\$18,551,516	\$18,551,516	

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 300.2

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	-					
	C -300.2	Maintenance Facility Alternate 2					
	0 000.2	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	75,000	SF	\$171.00		200.
125		Yard Maintenance Equipment LTK	73,000	LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK	1	LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK	1	LS	\$1,900,000		
	9 - Traction F	Power System			\$1,000,000	\$1,000,000	
136		Sub-Station Type 3 LTK 910		EA	\$750,000		
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930		RF	\$109.00		
141		Lighting LTK940		RF	\$8.11		
142		Spare Parts/ System support LTK950		LS	\$38.47		
	10 - Signal S			_	,		
148	.	Signal (Alt 2 & Alt 3)		RF	\$288.88		
151	11 - Commur						
152		Communications (Alt 2 & Alt 3)		RF	\$127.12		
157	12 - Fare Col	lection					
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$39,284,820
161							
162	13. Right of V	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
		ring & Administration			Subtotal		\$13,749,687
	Infrastructure					\$13,749,687	
-	Vehicle	E & A 5.00%					
	16 - Continge				Subtotal		\$7,856,964
187	Vehicles	Contingency 5.00%					
	Infrastructure	Contingency 20.00%				\$7,856,964	
	Utilities	Contingency 100.00%					
	17 - Washing	ton State Sales Tax and Real Estate Tax					\$2,639,940
195		Sales Tax 8.40%				\$2,639,939.90	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$63,531,411

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 201.3

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Lincoln to Convention Center		5+00	25+00	2,000 FT	0.4 mile
	- 3	Downtown Section Alternate 3		3+00	25+00	2,000 F1	0.4 111116
	C -201.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Offic	Unit Cost	Extension	\$6,360,598
1	1-OIVII OOIISt	Site Preparation - Clearing & Grubbing	2,000	LF	\$10.00	\$20,000	ψ0,000,000
2		Grade Preparation to Top of subballast.	2,000		\$35.00		
3		Curb & Gutter Allowance	4,000		\$35.00	\$140,000	
4		Common Excavation	14,815	CY	\$15.00	\$222,222	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)		CY CY	\$15.00 \$4.00		
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00		
10		Chain Link Fencing 6'		LF	\$22.00		
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,000	LF	\$6.00	\$12,000	
13 14		Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	1	EA TF	\$8,000 \$223	\$8,000	
15		Embedded (Paved) Track at Grade	4,000	TF	\$312	\$1,248,000	
16		Direct Fixation (DF) Track, Elevated Structure	4,000	TF	\$280	ψ1,270,000	
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover	1	EA	\$300,000	\$300,000	
21		Single Crossover		EA	\$150,000		
22		Turnout Impact Attenuators	2	EA EA	\$75,000 \$35,000	\$70,000	
23 24		Minor Street Closures Allowance	2	EA	\$25,000	\$70,000	
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)	6		\$200,000	\$1,200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)	6		\$200,000	\$1,200,000	
29 30		Complex Major Intersection Rebuild Roadway Construction	85,200	EA SF	\$300,000 \$9.00	\$766,800	
31		Sidewalk Construction	72,000	SF	\$6.00	\$432,000	
32		Off Alignment Signal Modifications	72,000	EA	\$75,000.00	Ψ10Z,000	
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -			* 05 000 00		
34 35		HDR Relocate UPRR Yard Lead or Branch Line		EA TF	\$65,000.00 \$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,000	RF	\$15.06	\$30,110	
41 42		Signal Communication Building LTK130 Ductbank/ Conduit -PAVED TRACK- LTK140	2,000	EA RF	\$60,000.00 \$200.00	\$400,000	
43		Ductbank/ Conduit -PAVED TRACK- LTK140 Ductbank/ Conduit -OPEN TRACK- LTK140	2,000		\$110.00	\$220,000	
45		Corrosion Mitigation LTK150	2,000		\$10.73	\$21,466	
50		- Included other in Items					
57	3 - Utilities						\$1,200,000
59 60		Utility Allowance - High Utility Allowance - Medium	2,000	RF RF	\$600.00 \$350.00	\$1,200,000	
61		Utility Allowance - Nedium Utility Allowance - Low		RF	\$100.00		
70	4 - Track Mat	erials - Included in the Rail Items		131	ψ100.00		
74	5 - Structures	8					
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location		05	000.5		
77 78		Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA		SF SF	\$32.00 \$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	The state of the s			\$5,555.00		\$800,000
105		Stations	1		\$700,000	\$700,000	
106		Station Name	Plaza Station				
107		Artwork (*Subject to Board Policy) Platform Electrical LTK610		LS	\$1.00		
108 115	7 - Park & Ric		1	LS	\$100,000	\$100,000	
116	I ark a Kit	Park & Ride		Space	\$4,300		
117		Park & Ride Location			7 7.55		
119	8 - Operation	s Facility (All Yard elements Included)					-
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 201.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Lincoln to Convention Center		5+00	25+00	2,000 FT	0.4 mile
	C -201.3	Downtown Section Alternate 3		0.00	20100	2,00011	0.111111
	C -201.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00	EXTENSION	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System		LO	ψ1,300,000		\$339,14
136	3 - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ555,14
138		OCS Single Contact Wire LTK920	2.000	RF	\$123.00	\$246,000	
139		OCS Simple Catenary LTK930	2,000	RF	\$109.00	42.0,000	
141		Lighting LTK940	2,000	RF	\$8.11	\$16,212	
142		Spare Parts/ System support LTK950	2,000	LS	\$38.47	\$76,930	
147	10 - Signal S		_,,,,,		700	4.0,000	\$577,75
148		Signal (Alt 2 & Alt 3)	2,000	RF	\$288.88	\$577,752	+
151	11 - Commur		_,,,,,		4	*** *********************************	\$254,24
152		Communications (Alt 2 & Alt 3)	2,000	RF	\$127.12	\$254,246	+
157	12 - Fare Col	lection	,				\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$9,734,06
161							
162	13. Right of V	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$3,406,92
180	Infrastructure	E & A 35.00%				\$3,406,921	
181	Vehicle	E & A 5.00%			0.1.1.1		A0.000:
185	16 - Continge				Subtotal		\$2,906,81
187	Vehicles	Contingency 5.00%				Ø4 700 040	
189	Infrastructure	Contingency 20.00%				\$1,706,812	
191 194	Utilities	Contingency 100.00% ton State Sales Tax and Real Estate Tax				\$1,200,000	¢707.00
194	ı / - wasning	Sales Tax 8.40%			+	\$707,888.81	\$707,88
195	 	Sales Tax has been applied to 2/3 of Infrastructure &				\$101,000.81	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
130		of the vehicle 3 estimated total.					
					1	Total	\$16,755,68

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 202.3

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Convention Center to Trent Station		25+00	50+00	2,500 FT	0.5 mile
	-	Downtown Section Alternate 3		20100	00100	2,00011	0.0 111110
	0 202.0	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		quantity		Omit Goot	Extension	\$4,753,932
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	* / / -
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	3,200	LF	\$35.00	\$112,000	
<u>4</u> 5		Common Excavation Select Backfill (MSE Retaining Walls)	13,074	CY CY	\$15.00 \$15.00	\$196,110	
6		Common Backfill (From Project Excavation)	463	CY	\$4.00	\$1,852	
8		Landscaping Allowance	400	SF	\$2.00	ψ1,032	
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00		
10		Chain Link Fencing 6'		LF	\$22.00		
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13 14		Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	2,000	EA TF	\$8,000 \$223	\$446,000	
15		Embedded (Paved) Track at Grade	3,000	TF	\$312	\$936,000	
16		Direct Fixation (DF) Track, Elevated Structure	2,230	TF	\$280	,	
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover	1	EA	\$300,000	\$300,000	
21		Single Crossover		EA	\$150,000		
22		Turnout Impact Attenuators		EA EA	\$75,000 \$35,000		
23 24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)	3	EA	\$200,000	\$600,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)	3		\$200,000	\$600,000	
29 30		Complex Major Intersection Rebuild Roadway Construction	62,000	EA SF	\$300,000	\$507.000	
31		Sidewalk Construction	63,000 48,000	SF	\$9.00 \$6.00	\$567,000 \$288,000	
32		Off Alignment Signal Modifications	40,000	EA	\$75,000.00	Ψ200,000	
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34 35		HDR		EA TF	\$65,000.00		
36		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR		TF	\$100.00 \$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130 Ductbank/ Conduit -PAVED TRACK- LTK140	0.000	EA	\$60,000.00 \$200.00	\$400,000	
42 43		Ductbank/ Conduit -PAVED TRACK- LTK140 Ductbank/ Conduit -OPEN TRACK- LTK140	2,000 500	RF RF	\$200.00	\$55,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50	2 - Insurance	- Included other in Items	,			• -,	
57	3 - Utilities						\$1,250,000
59		Utility Allowance - High	1,500		\$600.00	\$900,000	
60		Utility Allowance - Medium Utility Allowance - Low	1,000	RF RF	\$350.00 \$100.00	\$350,000	
61 70	4 - Track Mat	erials - Included in the Rail Items		ĽΓ	\$100.00		
74	5 - Structures						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					-
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF LF	\$30.00		
79 104	6 - Stations	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		\$800,000
105	Julions	Stations	1	LS	\$700,000	\$700,000	ΨΟΟΟ,ΟΟΟ
106		Station Name	Convention Co			Ţ. 10,000	
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610	1	LS	\$100,000	\$100,000	
115	7 - Park & Ric			Canaca	£4.000		
116 117		Park & Ride Park & Ride Location		Space	\$4,300		
119	8 - Operation	s Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 202.3

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Convention Center to Trent Station		25+00	50+00	2.500 FT	0.5 mile
	C -202.3	Downtown Section Alternate 3		20100	00100	2,00011	0.0 111110
	C -202.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	EXTENSION	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$1,166,92
136	J - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,100,52
138		OCS Single Contact Wire LTK920	2.000	RF	\$123.00	\$246,000	
139		OCS Simple Catenary LTK930	500	RF	\$109.00	\$54,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		,		,	****,	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* , -
151	11 - Commur		,				\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col	lection					\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$9,213,17
161							
162	13. Right of \						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles				***		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600 Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$2,500,000.00		
176 177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 d		EA EA	\$681,818.18 \$700,000		
179	4E Enginee	ring & Administration		EA	Subtotal		\$3,224,61
180	Infrastructure	E & A 35.00%			Subiolai	\$3,224,612	Φ3,224,01
181	Vehicle	E & A 5.00%				\$3,224,012	
185	16 - Continge				Subtotal		\$2,842,63
187	Vehicles	Contingency 5.00%			Cabiolai		Ψ2,072,03
189	Infrastructure	Contingency 20.00%				\$1,592,636	
191	Utilities	Contingency 100.00%				\$1,250,000	
194		ton State Sales Tax and Real Estate Tax				V 1,=00,000	\$675,12
195		Sales Tax 8.40%				\$675,125.59	,
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$15,955,552

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 203.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Trent Station to Hamilton St Bridge Area		50+00	75+00	2,500 FT	0.5 mile
		BN Section Alternate 3		00100	70100	2,00011	0.0 111110
	0 -200.0	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		quartity	O.I.I.	Omit Goot	ZATOTIOIOTI	\$2,127,790
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	4 =, -= - , - = -
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	24.244	LF	\$35.00	A0.45.000	
5		Common Excavation Select Backfill (MSE Retaining Walls)	21,044	CY	\$15.00 \$15.00	\$315,660	
6		Common Backfill (From Project Excavation)	2,790	CY	\$4.00	\$11,160	
8		Landscaping Allowance		SF	\$2.00	711,100	
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00		
10		Chain Link Fencing 6'	4,500	LF	\$22.00	\$99,000	
11 12		Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance	2,500	LF LF	\$22.00 \$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	EA	\$8,000	\$15,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16	1	Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19 20	+	LRT Siding or Pocket Track Double Crossover		TF EA	\$230 \$300,000		
21	+	Single Crossover		EA	\$300,000 \$150,000		
22	1	Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)		EA EA	\$200,000 \$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
- 00		Industrial Railroad Turnouts East Side Syndicate Spur -			ψοσ.σσ		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36 37		Remove & Relocate Industrial Spur HDR Provide Team Track and Loading Dock (HDR)		TF LS	\$130.00 \$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	1	EA	\$60,000.00	\$60,000	
42 43	+	Ductbank/ Conduit -PAVED TRACK- LTK140 Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF RF	\$200.00 \$110.00	\$275,000	
45	+	Corrosion Mitigation LTK150	2,500	RF	\$110.00	\$275,000	
50	2 - Insurance	- Included other in Items	2,000		\$.5.70	\$20,000	
57	3 - Utilities						\$250,000
59	1	Utility Allowance - High		RF	\$600.00		
60	+	Utility Allowance - Medium Utility Allowance - Low	2,500	RF RF	\$350.00 \$100.00	\$250,000	
61 70	4 - Track Mat	erials - Included in the Rail Items	2,500	ΝF	\$100.00	φ∠50,000	
74	5 - Structures						
75		Bridge Structures DEA		LS	\$1.00		
76	1	Bridge Location			1		
77 78	+	Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA		SF SF	\$32.00		
78 79	+	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$30.00 \$3,500.00		
104	6 - Stations	Sat a Sover Box Turner to Fine Road Actial Station		L	ψυ,υυυ.υυ		\$850,000
105		Stations	1	LS	\$750,000	\$750,000	
106		Station Name	Trent Station (
107	1	Artwork (*Subject to Board Policy)		LS	\$1.00	0	
108 115	7 - Park & Ric	Platform Electrical LTK610	1	LS	\$100,000	\$100,000	
116	r - raik & KIC	Park & Ride		Space	\$4,300		
117	1	Park & Ride Location	Trent Station	2500	ψ1,550		
119	8 - Operation	s Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 203.3

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Trent Station to Hamilton St Bridge Area		50+00	75+00	2,500 FT	0.5 mile
	C -203.3	BN Section Alternate 3		00100	70.00	2,00011	0.0 11111
	C -203.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00	LATERISION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ.,σσσ,σσσ		\$1,138,92
136		Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	¥ 1,100,0=
138		OCS Single Contact Wire LTK920		RF	\$123.00	,	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commur						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$5,609,03
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks,Waste			A		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
405		Alternate 3 DEA Right of Way Acquisition Budget			007.044.740.00		
165		Estimate (Including Railroads & Operation Facility) Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS LS	\$27,914,712.00 \$5,000,000.00		
166 167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Alternate 4 Haziviat Demo & Disposai (Tariks, Waste Willigati		LO	\$5,000,000.00		
175	14. Verificies	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration		ì	Subtotal		\$1,963,16
180	Infrastructure	E & A 35.00%			Cubiciai	\$1,963,163	ψ.,σσσ,.σ
181	Vehicle	E & A 5.00%				Ţ.,,. 	
185	16 - Continge				Subtotal		\$1,321,80
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,071,807	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$388,12
195		Sales Tax 8.40%				\$388,127.25	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$9,282,13
	1				1		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 204.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Hamiliton St Bridge Area to Helena Street		75+00	100+00	2,500 FT	0.5 mile
		BN Section Alternate 3		70.00	100100	2,00011	0.0 111110
	0 204.0	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		quartity	O.m.	Omit Goot	Extension	\$2,130,745
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	+ =,,
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	2 222	LF	\$35.00	A 04.000	
5		Common Excavation Select Backfill (MSE Retaining Walls)	2,088 13,697	CY	\$15.00 \$15.00	\$31,320 \$205,455	
6		Common Backfill (From Project Excavation)	31,400	CY	\$4.00	\$125,600	
8		Landscaping Allowance	01,100	SF	\$2.00	ψ120,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00		
10		Chain Link Fencing 6'	200	LF	\$22.00	\$4,400	
11		Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance	2.500	LF LF	\$22.00	£45.000	
12 13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	EA	\$6.00 \$8,000	\$15,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312	. , .,	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track	ļ	TF	\$230		
20 21		Double Crossover Single Crossover		EA EA	\$300,000 \$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27 28		Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes)		EA EA	\$100,000 \$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide		LF	\$35.00		
33		Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR	1,400	TF	\$130.00	\$182,000	
37		Provide Team Track and Loading Dock (HDR)		LS LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110		EA	\$476,000.00 \$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	,	EA	\$60,000.00	• - ,	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45 50	2 Incurance	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
57	3 - Utilities	- included other in items					\$250,000
59	- Junios	Utility Allowance - High		RF	\$600.00		Ψ200,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					#4 F00 000
74 75	5 - Structure:	Bridge Structures DEA	891,000	LS	\$1.00	\$891,000	\$1,596,000
76		Bridge Location	Erie & Helena	LO	φ1.00	ΨΟΘ1,000	
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	23,500	SF	\$30.00	\$705,000	
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Ctations		10			
105 106		Stations Station Name	1	LS			
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ri	des					
116		Park & Ride		Space	\$4,300		
117	0 On	Park & Ride Location					
119 123	o - Operation	s Facility (All Yard elements Included) Bldg & Yard Site Prep, Grading & Utilities LTK811	1	LS	\$18,551,516		
120		play a raid one ricp, ordaing & onlines ETNOTT	1	LO	ψ10,001,010		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 204.3

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Hamiliton St Bridge Area to Helena Street		75+00	100+00	2,500 FT	0.5 mile
	C -204.3	BN Section Alternate 3		10100	100100	2,00011	0.0 11111
	0 -204.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00	LAGIISIOII	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ.,σσσ,σσσ		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		*****
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commur						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$5,405,67
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks,Waste			A		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
405		Alternate 3 DEA Right of Way Acquisition Budget		1.0	CO7 04 4 740 00		
165 166		Estimate (Including Railroads & Operation Facility) Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS LS	\$27,914,712.00 \$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Alternate 4 Traziviat Demo & Disposar (Tariks, Waste Witigati		LO	ψ5,000,000.00		
175	14. Verileies	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		\$1,891,98
180	Infrastructure	E & A 35.00%				\$1,891,985	, , , , , , ,
181	Vehicle	E&A 5.00%					
185	16 - Continge	encies			Subtotal		\$1,281,13
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%		·		\$1,031,134	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax	-				\$374,46
195		Sales Tax 8.40%				\$374,461.02	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$8,953,250

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 205.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Helena Street to New BN Yard Bridge		100+00	125+00	2,500 FT	0.5 mile
	•	BN Section Alternate 3		100+00	123+00	2,300 FT	0.5 111116
	C -205.3		Ourantitus	I I a ! t	Unit Coot	Futanaian	00046
	4.00-01.00-01	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const		2.500	LF	\$10.00	₽ 05 000	\$2,416,36
2		Site Preparation - Clearing & Grubbing Grade Preparation to Top of subballast.	2,500 2,500	LF LF	\$35.00	\$25,000 \$87,500	
3		Curb & Gutter Allowance	2,500	LF	\$35.00	\$67,500	
4		Common Excavation		CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)	35,831	CY	\$15.00		
6		Common Backfill (From Project Excavation)	58,932	CY	\$4.00		
8		Landscaping Allowance	00,000	SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00		
10		Chain Link Fencing 6'	500	LF	\$22.00	\$11,000	
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2	EA	\$8,000		
14		Ballasted Track at Grade or Structure	4,400	TF	\$223	\$981,200	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure	600	TF	\$280	\$168,000	
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators Minor Street Closures Allowance		EA	\$35,000		
24		Minor Intersection Rebuild (2 Lanes)		EA EA	\$25,000 \$100,000		
25 26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$200,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -			. ,		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	0.500	EA	\$60,000.00	A07.000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06		
41		Signal Communication Building LTK130		EA	\$60,000.00		
42 43		Ductbank/ Conduit -PAVED TRACK- LTK140 Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF RF	\$200.00		
45		Corrosion Mitigation LTK150	2,500	RF	\$110.00 \$10.73		
50	2 - Incurance	e - Included other in Items	2,500	NF.	\$10.73	φ∠0,033	
57	3 - Utilities	- moraded other in items					\$250,00
59	o - Othities	Utility Allowance - High		RF	\$600.00		Ψ230,00
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00		
70	4 - Track Mat	terials - Included in the Rail Items	2,000		ψ.55.00	\$200,000	
74	5 - Structure						\$3,168,00
75		Bridge Structures DEA	2,046,000	LS	\$1.00	\$2,046,000	,
76		Bridge Location	Madelia, Napa				
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	37,400	SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						
		Stations	1	LS			
105	1	Station Name					
105 106			ĺ	LS	\$1.00		
105 106 107		Artwork (*Subject to Board Policy)					
105 106 107 108		Platform Electrical LTK610		LS	\$100,000		
105 106 107 108 115	7 - Park & Ri	Platform Electrical LTK610 des					
105 106 107 108 115 116	7 - Park & Ri	Platform Electrical LTK610 des Park & Ride		LS Space	\$100,000 \$4,300		
105 106 107 108 115		Platform Electrical LTK610 des					

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 205.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Helena Street to New BN Yard Bridge		100+00	125+00	_	0.5 mile
		BN Section Alternate 3		100100	120100	2,00011	0.0 11111
	C -200.5	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00		20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction P	Power System			V 1,000,000		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		*****
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal Sy						\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Coll						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$7,263,28
161	42 Dialet of V	Man.					
162	13. Right of V	Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
103		Alternate 2 HazMat Demo & Disposal (Tanks, Waste		LS	\$30,000,000		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
104		Alternate 3 DEA Right of Way Acquisition Budget			ψ3,000,000.00		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	, , ,					
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ing & Administration			Subtotal		\$2,542,15
180	Infrastructure	E & A 35.00%				\$2,542,151	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,652,65
187	Vehicles	Contingency 5.00%				Ø4 400 650	
189	Infrastructure	Contingency 20.00%				\$1,402,658	
191 194	Utilities	Contingency 100.00%				\$250,000	¢400.20
194 195	ir - wasning	ton State Sales Tax and Real Estate Tax Sales Tax 8.40%				\$499,292.95	\$499,29
130		Sales Tax has been applied to 2/3 of Infrastructure &				φ 4 93,232.95	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
. 50		o. a.o volucio o odimatod totali.					
						Total	\$11,957,389
					ii .		Ţ ,UU. ,UU

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 206.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	New BN Yard Bridge to Regal Street		125+00	150+00	2,500 FT	0.5 mile
		UP Section Alternate 3		125+00	130+00	2,30011	0.5 111116
	C -200.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Oilit	Offic Cost	LATERISION	\$2,414,312
1	1-OIVII OOIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	ΨΣ, ΤΙΤ, ΟΙΣ
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation	2,078	CY	\$15.00	\$31,170	
5		Select Backfill (MSE Retaining Walls)	21,120	CY	\$15.00	\$316,800	
6 8		Common Backfill (From Project Excavation) Landscaping Allowance	568	CY SF	\$4.00 \$2.00	\$2,272	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	2,850	LF	\$16.00	\$45,600	
10		Chain Link Fencing 6'	2,000	LF	\$22.00	\$44,000	
11		Ballast Walls (Curb-no drainage)	1,250	LF	\$22.00	\$27,500	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	5.000	EA	\$8,000	A 4.445.000	
14 15		Ballasted Track at Grade or Structure	5,000	TF TF	\$223 \$312	\$1,115,000	
16		Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure		TF	\$312		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover	1	EA	\$150,000	\$150,000	
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24 25		Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes)		EA EA	\$25,000 \$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31 32		Sidewalk Construction Off Alignment Signal Modifications		SF EA	\$6.00 \$75,000.00		
32		Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line	950	TF	\$100.00	\$95,000	
36 37		Remove & Relocate Industrial Spur HDR Provide Team Track and Loading Dock (HDR)		TF LS	\$130.00 \$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	1	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	0.500	RF	\$200.00	#075 000	
43 45		Ductbank/ Conduit -OPEN TRACK- LTK140 Corrosion Mitigation LTK150	2,500 2,500	RF RF	\$110.00 \$10.73	\$275,000 \$26,833	
50	2 - Insurance	e - Included other in Items	2,300	131	ψ10.73	Ψ20,033	
57	3 - Utilities						\$250,000
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00	0	
61	4 Tuesta Mari	Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70 74	5 - Structure	erials - Included in the Rail Items					\$775,500
75	o - on ucture:	Bridge Structures DEA	280,500	LS	\$1.00	\$280,500	ψ113,300
76		Bridge Location	Altamont		Ţ00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	16,500	SF	\$30.00	\$495,000	
79	6 - Stations	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		COEO 000
104 105	o - Stations	Stations	1	LS	\$750,000	\$750,000	\$850,000
105	 	Station Name	Altamont Stati			φι 50,000	
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610	1	LS	\$100,000	\$100,000	
115	7 - Park & Ri						
116		Park & Ride		Space	\$4,300		
117 119	8 - Operation	Park & Ride Location s Facility (All Yard elements Included)					
123	o - Operation	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		
120	1	2.03 C. Ald Ollo Flop, Crading & Calling Elitori	1		Ψ10,001,010		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 206.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	New BN Yard Bridge to Regal Street		125+00	150+00	2,500 FT	0.5 mile
	C -206.3	UP Section Alternate 3		120100	100100	2,00011	0.0 111110
	C -200.3		O., and the	Unit	Unit Cost	Extension	2001\$
101		Description Description	Quantity			Extension	2001\$
124 125		Operations Facility Building LTK Yard Maintenance Equipment LTK		SF LS	\$171.00 \$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	0 - Traction F	Power System			ψ1,300,000		\$1,138,92
136	3 - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,130,32
138		OCS Single Contact Wire LTK920		RF	\$123.00	ψ100,000	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		2,000		ψου	φου,	\$722,19
148	.c o.ga. o	Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	Ψ. 22, . σ
151	11 - Commur		2,000		Ψ200.00	ψ. 22, . σσ	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	ψο,σο
157	12 - Fare Col		,		,	** ,***	\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	· - ,-
160		Subtotal - Infrastructure			Subtotal		\$6,671,05
161							
162	13. Right of \	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$2,334,87
180	Infrastructure	E & A 35.00%				\$2,334,870	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,534,21
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,284,212	
191	Utilities	Contingency 100.00%				\$250,000	£450.40
194	17 - Washing	ton State Sales Tax and Real Estate Tax				£450 405 40	\$459,49
195	<u> </u>	Sales Tax 8.40% Sales Tax has been applied to 2/3 of Infrastructure &				\$459,495.13	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
190	+	or the verticle's estimated total.					
						Total	\$10,999,636
	-					rotal	φ10,999,b3l

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 207.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Ctort Cto	1		
	Describes			Start Sta	End Sta	Length	0.5:1-
		Regal Street to Freya Street		150+00	175+00	2,500 FT	0.5 mile
	C -207.3	UP Section Alternate 3					
	10: 110	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,541,117
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	2,500	LF	\$35.00	ψ01,300	
4		Common Excavation	5,709	CY	\$15.00	\$85,635	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	28	CY	\$4.00	\$112	
8		Landscaping Allowance	0.400	SF	\$2.00	000.000	
9 10		Chain Link Fencing 4' (on walls or Ballast Curb)	2,100	LF LF	\$16.00	\$33,600	
10		Chain Link Fencing 6' Ballast Walls (Curb-no drainage)	2,850 4,600	LF LF	\$22.00 \$22.00	\$62,700 \$101,200	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$101,200	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,300	EA	\$8,000	ψ13,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20	1	Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout Impact Attenuators		EA EA	\$75,000 \$35,000		
23 24		Minor Street Closures Allowance	3	EA EA	\$35,000	\$75,000	
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000	ψ.ου,ουυ	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31 32		Sidewalk Construction		SF EA	\$6.00		
32		Off Alignment Signal Modifications Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
- 55		Industrial Railroad Turnouts East Side Syndicate Spur -			ψ00.00		
34		HDR	2	EA	\$65,000.00	\$130,000	
35		Relocate UPRR Yard Lead or Branch Line	2,500	TF	\$100.00	\$250,000	
36		Remove & Relocate Industrial Spur HDR	930	TF	\$130.00	\$120,900	
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2.500	EA	\$60,000.00	#27 C20	
40 41		Signal Communication Building LTK130	2,500	RF EA	\$15.06 \$60,000.00	\$37,638	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50	2 - Insurance	- Included other in Items					
57	3 - Utilities						\$250,000
59	1	Utility Allowance - High		RF	\$600.00		
60	-	Utility Allowance - Medium	0.500	RF	\$350.00	#050.000	
61	4 Trook Mar	Utility Allowance - Low erials - Included in the Rail Items	2,500	RF	\$100.00	\$250,000	
70 74	5 - Structures						
75	5 Structures	Bridge Structures DEA		LS	\$1.00		
76		Bridge Location			\$00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						
105		Stations	1	LS			
106	1	Station Name		10	M4 00		
107	-	Artwork (*Subject to Board Policy)		LS	\$1.00		
108 115	7 - Park & Ric	Platform Electrical LTK610		LS	\$100,000		
116	r - raik & KI	Park & Ride		Space	\$4,300		
117		Park & Ride Location		Space	φ+,500		
119	8 - Operation	is Facility (All Yard elements Included)					
		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 207.3

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Regal Street to Freya Street		150+00	175+00	2,500 FT	0.5 mile
	C -207.3	UP Section Alternate 3		100100	170100	2,00011	0.0 11111
	0 -207.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	LAGIISIOII	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ.,σσσ,σσσ		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		*****
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem	·		·		\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	•
151	11 - Commur	nications					\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$4,220,04
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks,Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget			**********		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166 167		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati Alternate 4 DEA Right of Way Acquisition Budget Estima		LS LS	\$5,000,000.00		
168		Alternate 4 DEA Right of Way Acquisition Budget Estima Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$26,771,815.00 \$5,000,000.00		
174	14. Vehicles	Alternate 4 Haziviat Demo & Disposai (Tariks, vvaste iviitigati		LS	\$5,000,000.00		
175	14. Venicies	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Base Cost LTK 1600 Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 d		EA	\$700,000		
179	15 - Engineer	ring & Administration		E/X	Subtotal		\$1,477,01
180	Infrastructure	E & A 35.00%			Cubiciui	\$1,477,015	Ψ1,177,01
181	Vehicle	E & A 5.00%				ψ1,111,010	
185	16 - Continge				Subtotal		\$1,044,00
187	Vehicles	Contingency 5.00%					,
189	Infrastructure	Contingency 20.00%				\$794,008	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$294,78
195		Sales Tax 8.40%				\$294,786.82	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$7,035,85

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 208.3

	Spokane	Regional			<u> </u>		
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Freya Street to Havana Street Area		175+00	200+00	2,500 FT	0.5 mile
		UP Section Alternate 3		173+00	200+00	2,500 F1	0.5 111116
	C -208.3		Ouentitus	Unit	Unit Cost	Evtension	2004
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$ \$2,819,629
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,019,023
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	,	LF	\$35.00	***	
4		Common Excavation	5,861	CY	\$15.00	\$87,915	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	486	CY	\$4.00	\$1,944	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	4,700	SF LF	\$2.00 \$16.00	\$75,200	
10		Chain Link Fencing 4 (on waits of Ballast Curb)	300	LF	\$22.00	\$6,600	
11		Ballast Walls (Curb-no drainage)	4,000	LF	\$22.00	\$88,000	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF TF	\$312		
16 19		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF	\$280 \$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout	1	EA	\$75,000	\$75,000	
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance	2		\$25,000	\$50,000	
25		Minor Intersection Rebuild (2 Lanes)	1	EA EA	\$100,000	#200 000	
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)	1	EA	\$200,000 \$100,000	\$200,000	
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications	1	EA	\$75,000.00	\$75,000	
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide		LF	\$35.00		
33		Industrial Railroad Turnouts East Side Syndicate Spur -		LF	φ35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line	2,500	TF	\$100.00	\$250,000	
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)	1	LS	\$208,000.00	\$208,000	
38		Lake Rd Industrial Spur Modifications (HDR)	4	LS	\$476,000.00	\$ 00,000	
39 40		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2,500	EA RF	\$60,000.00 \$15.06	\$60,000 \$37,638	
41		Signal Communication Building LTK130	2,300	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00	φου,σσσ	
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	-
50		e - Included other in Items					0050 55
57	3 - Utilities	Utility Allowance - High		DE	\$600.00		\$250,000
59 60	1	Utility Allowance - High Utility Allowance - Medium		RF RF	\$600.00 \$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	_,:30		Ţ.11.00	.===,===	
74	5 - Structures	S					\$105,000
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location			000		
77 78	<u> </u>	Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA	3,500	SF SF	\$32.00 \$30.00	\$105,000	
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station	3,500	LF	\$3,500.00	φ100,000	
104	6 - Stations	2.1. 2.10. 20% (dimorto in mortoda / mila ottato)			\$0,000.00		\$850,000
105		Stations	1	LS	\$750,000	\$750,000	, , , ,
106		Station Name	Central Station	n Center Platfo			
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610	1	LS	\$100,000	\$100,000	
115 116	7 - Park & Ric	des Park & Ride		Cnoos	\$4,300		
117	1	Park & Ride Park & Ride Location		Space	\$4,500		
119	8 - Operation	is Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 208.3

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Freya Street to Havana Street Area		175+00	200+00	2,500 FT	0.5 mile
	C -208.3	UP Section Alternate 3		170100	200100	2,00011	0.0 11111
	C -200.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	EXTENSION	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$1,138,92
136	3 - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,130,32
138		OCS Single Contact Wire LTK920		RF	\$123.00	ψ. σσ,σσσ	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		,		,	****,	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* , -
151	11 - Commur		,			• •	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col	lection					\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$6,405,87
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles				A0 500 000 00		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600 Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$2,500,000.00		
176 177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 d		EA EA	\$681,818.18 \$700,000		
179	1E Engineer	ring & Administration		EA	Subtotal		\$2,242,05
180	Infrastructure	E & A 35.00%			Subiolai	\$2,242,056	\$2,242,00
181	Vehicle	E&A 5.00%				\$2,242,000	
185	16 - Continge				Subtotal		\$1,481,17
187	Vehicles	Contingency 5.00%			Casiolai		Ψ1,701,17
189	Infrastructure	Contingency 20.00%				\$1,231,175	
191	Utilities	Contingency 100.00%				\$250.000	
194		ton State Sales Tax and Real Estate Tax				4 =00,000	\$441,67
195	9	Sales Tax 8.40%				\$441,674.83	, ,
		Sales Tax has been applied to 2/3 of Infrastructure &				. ,	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$10,570,78
							•

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 209.3

	Spokane	Regional					
	•	Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta		
				Start Sta	Eliu Sia	Length	
		Havana Street Area toUPRR Spokane Yard		000.00	005.00	0 500 FT	0.5
)	Area		200+00	225+00	2,500 FT	0.5 mile
	C -209.3	UP Section Alternate 3					
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const		2,500	LF	\$10.00	\$25,000	\$3,269,70
2		Site Preparation - Clearing & Grubbing Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	2,500	LF	\$35.00		
4		Common Excavation	1,322	CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	16,413	CY	\$4.00		
8		Landscaping Allowance	700	SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6'	700 4,300	LF LF	\$16.00 \$22.00		
11		Ballast Walls (Curb-no drainage)	4,300	LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00		
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	6,150	TF	\$223	\$1,371,450	
15		Embedded (Paved) Track at Grade		TF	\$312		-
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280	A-	
19		LRT Siding or Pocket Track	1,500	TF	\$230		
20 21		Double Crossover Single Crossover		EA EA	\$300,000 \$150,000		
22		Turnout	6		\$75,000		
23		Impact Attenuators	0	EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29 30		Complex Major Intersection Rebuild Roadway Construction		EA SF	\$300,000 \$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications	1	EA	\$75,000.00	\$75,000	
		Construct Maintenance Road Assume All Weather Gravel -			Q 10,000.00	4.0,000	
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00	A =0.000	
35 36		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR	500	TF TF	\$100.00 \$130.00	\$50,000	
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06		
41		Signal Communication Building LTK130	1	EA	\$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140 Corrosion Mitigation LTK150	2,500	RF RF	\$110.00	\$275,000	
45 50		- Included other in Items	2,500	KF	\$10.73	\$26,833	
	3 - Utilities	- moraded other in items					\$250,00
59	• • • • • • • • • • • • • • • • • • • •	Utility Allowance - High		RF	\$600.00		Ψ200,00
60		Utility Allowance - Medium		RF	\$350.00		
61	-	Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
	5 - Structures		1	10	04.00		\$285,00
75 76		Bridge Structures DEA Bridge Location	+	LS	\$1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)	+	SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	9,500	SF	\$30.00	\$285,000	
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station	5,550	LF	\$3,500.00		
104	6 - Stations						\$850,00
105		Stations	1	LS	\$750,000	\$750,000	-
106		Station Name	Fairgrounds W				
107		Artwork (*Subject to Board Policy)	-	LS	\$1.00		
400		Platform Electrical LTK610	1	LS	\$100,000	\$100,000	\$860,00
108	7 - Dark o Di-						
	7 - Park & Ric	Park & Ride	200	Space	\$4,300	\$860,000	ψ000,00

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 209.3

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta		Length	
		Havana Street Area toUPRR Spokane Yard		Otal Cola	2.1.0 01.0	_0g	
	Drawing	Area		200+00	225+00	2,500 FT	0.5 mile
	C -209.3	UP Section Alternate 3		200100	220100	2,00011	0.0 111110
	0 -203.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
123		Bldg & Yard Site Prep, Grading & Utilities LTK811	Quantity	LS	\$18,551,516		20019
124		Operations Facility Building LTK		SF	\$171.00		
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction P	Power System					\$1,138,928
136		Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$8.11		
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal Sy					4	\$722,190
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	0017.000
151	11 - Commun	ications	0.500	DE	0 407.40	0047.000	\$317,808
152 157	12 - Fare Coll	Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	\$202,321
158	12 - Fare Con	Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	Φ202,321
160		Subtotal - Infrastructure	- '	LS	Subtotal	\$202,321	\$7,895,948
161		Subtotal - Illi asti uctule			Subtotal		ψ1,093,9 4 0
162	13. Right of V	Vav					
.02	.o. mgm or t	Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176 177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 & Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA EA	\$681,818.18 \$700,000		
177	15 Engineer	ring & Administration		EA	Subtotal		\$2,763,582
180	Infrastructure	E & A 35.00%			Gubiolai	\$2,763,582	ψε,103,302
181	Vehicle	E&A 5.00%				Ψ2,100,002	
185	16 - Continge				Subtotal		\$1,779,190
187	Vehicles	Contingency 5.00%					Ţ., . ,
189	Infrastructure	Contingency 20.00%				\$1,529,190	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$541,808
195		Sales Tax 8.40%				\$541,807.73	
·		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	# 40.000.700
						Total	\$12,980,528
	1						
	L						

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 210.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	UPRR Spokane Yard Area		225+00	250+00	2,500 FT	0.5 mile
		UP Section Alternate 3		223+00	250+00	2,500 F1	0.5 111116
	C-210.3		Ouentitus	Unit	Unit Coot	Extension	2004¢
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$ \$2,033,248
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,033,246
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	,	LF	\$35.00	, , , , , , , , , , , , , , , , , , , ,	
4		Common Excavation	393	CY	\$15.00	\$5,895	
5		Select Backfill (MSE Retaining Walls)	17,333	CY	\$15.00	\$259,995	
6		Common Backfill (From Project Excavation)	1,722	CY	\$4.00	\$6,888	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	3,600	SF LF	\$2.00 \$16.00	\$57,600	
10		Chain Link Fencing 6'	1,400	LF	\$22.00	\$30,800	
11		Ballast Walls (Curb-no drainage)	1,100	LF	\$22.00	400,000	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2	EA	\$8,000	\$16,000	
14		Ballasted Track at Grade or Structure	3,700	TF	\$223	\$825,100	
15 16	<u> </u>	Embedded (Paved) Track at Grade	1 200	TF TF	\$312 \$280	\$264,000	
16 19		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track	1,300	TF	\$280 \$230	\$364,000	
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)		EA EA	\$200,000 \$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide		LF	\$35.00		
33		Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$33.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39 40		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2,500	EA RF	\$60,000.00 \$15.06	\$37,638	
41		Signal Communication Building LTK130	2,500	EA	\$60,000.00	ψ37,030	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					
57	3 - Utilities	Heility Allowance High		DE	\$600.00		\$250,000
59 60	1	Utility Allowance - High Utility Allowance - Medium		RF RF	\$600.00 \$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	_,:30		7.11.00	.===,===	
74	5 - Structures						\$3,276,000
75		Bridge Structures DEA	2,211,000	LS	\$1.00	\$2,211,000	
76		Bridge Location	RR Spur Over	0.5	A 00.00		
77 78	<u> </u>	Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA	35,500	SF SF	\$32.00 \$30.00	\$1,065,000	
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station	30,000	LF	\$3,500.00	φ1,000,000	
104	6 - Stations	22. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.			\$0,000.00		
105		Stations	1	LS			
106		Station Name					
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115 116	7 - Park & Ric	des Park & Ride		Snoon	\$4,300		
117	1	Park & Ride Location		Space	\$4,500		
119	8 - Operation	s Facility (All Yard elements Included)					
		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 210.3

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	UPRR Spokane Yard Area		225+00	250+00	2,500 FT	0.5 mile
	C -210.3	UP Section Alternate 3		220.00	200100	2,00011	0.0 11111
	C -210.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	EXICIISIOII	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$388,92
136	3 - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ500,52
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		,		,	,,,,,,	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* , -
151	11 - Commur		,			, ,	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col	lection					
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$6,988,17
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	L EL LILE BUYLL B. C. (LEKARR)			***		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600 Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$2,500,000.00		
176 177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 d		EA EA	\$681,818.18 \$700,000		
177	1E Engineer	ring & Administration		EA	Subtotal		\$2,445,86
180	Infrastructure				Subtotal	₽0 44E 964	\$2,445,86
181	Vehicle	E & A 35.00% E & A 5.00%				\$2,445,861	
185	16 - Continge				Subtotal		\$1,597,63
187	Vehicles	Contingency 5.00%			Judicial		ψ1,551,05
189	Infrastructure	Contingency 20.00%				\$1,347,635	
191	Utilities	Contingency 100.00%				\$250,000	
194		ton State Sales Tax and Real Estate Tax				+ 200,000	\$480,80
195		Sales Tax 8.40%				\$480,805.23	Ţ.23,00·
		Sales Tax has been applied to 2/3 of Infrastructure &				,	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$11,512,47

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 211.3

	Spokane	Regional		<u></u>			
	•	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	UPRR Spokane Yard Area to Interstate 90		250+00	275+00	2,500 FT	0.5 mile
		UP Section Alternate 3		230100	273100	2,50011	0.5 111110
	0 -211.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Ollic	Onit Cost	Exterision	\$2,975,567
1	. Givii Goliac	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ2,070,007
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation	8,327	CY CY	\$15.00	\$124,905 \$192,600	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	12,840 273	CY	\$15.00 \$4.00	\$192,600	
8		Landscaping Allowance	210	SF	\$2.00	Ψ1,002	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	2,500	LF	\$16.00	\$40,000	
10		Chain Link Fencing 6'	1,900	LF	\$22.00	\$41,800	
11		Ballast Walls (Curb-no drainage)	100	LF	\$22.00	\$2,200	
12 13		Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	LF EA	\$6.00 \$8,000	\$15,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade	5,550	TF	\$312	Ţ.,o,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20 21		Double Crossover		EA EA	\$300,000		
21		Single Crossover Turnout	1	EA	\$150,000 \$75,000	\$75,000	
23		Impact Attenuators	1	EA	\$35,000	Ψ13,000	
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27 28		Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes)		EA EA	\$100,000 \$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
00		Construct Maintenance Road Assume All Weather Gravel -			#05.00		
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line	1,200	TF	\$100.00	\$120,000	
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110	1	LS EA	\$476,000.00 \$60,000.00	\$476,000 \$60,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	2,500	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00	****	
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50 57	2 - Insurance 3 - Utilities	- Included other in Items					\$250,000
59	3 - Utilities	Utility Allowance - High		RF	\$600.00		\$250,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74	5 - Structures		4.400.000	1.0	04.00	P4 400 000	\$2,179,500
75 76		Bridge Structures DEA Bridge Location	1,122,000 Lake Rd Spur		\$1.00	\$1,122,000	
77		Retaining Wall 4' Max (Low Gravity Wall)	Lake Nu Spui	SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	35,250	SF	\$30.00	\$1,057,500	
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00	·	
104	6 - Stations	0					
105		Stations Station Name	1 Future Station	LS			
106 107		Artwork (*Subject to Board Policy)	i-uture station	LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric	l .					
116		Park & Ride		Space	\$4,300		
117	0 0	Park & Ride Location					
119 123	8 - Operation	s Facility (All Yard elements Included) Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	¢10 551 546		
123	1	plug a raid one riep, diading a dillilles Linoi i		LO	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 211.3

		Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	1	Length	
	Drawing	UPRR Spokane Yard Area to Interstate 90		250+00	275+00	2,500 FT	0.5 mile
	C -211.3	UP Section Alternate 3		200100	210100	2,00011	0.0 111110
	C -211.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	Extension	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$1,138,92
136	3 - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,130,32
138		OCS Single Contact Wire LTK920		RF	\$123.00	ψ. σσ,σσσ	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		_,		Ţ	700,100	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* : ==,::
151	11 - Commur		_,		4 200.00	V ,	\$317,808
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col	lection					
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$7,583,99
161							
162	13. Right of V	Vay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$2,654,39
180	Infrastructure	E & A 35.00%				\$2,654,397	
181	Vehicle	E & A 5.00%			0.14.4.1		A. 7.0
185	16 - Continge				Subtotal		\$1,716,798
187	Vehicles	Contingency 5.00%				Ø4 400 700	
189	Infrastructure	Contingency 20.00%				\$1,466,798 \$250.000	
191 194	Utilities	Contingency 100.00%				\$∠50,000	¢E20.04
194	ir - wasning	ton State Sales Tax and Real Estate Tax Sales Tax 8.40%				\$520,844.26	\$520,844
195	 	Sales Tax has been applied to 2/3 of Infrastructure &				φο ∠ υ,ο 44 .26	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
130	 	or the verileie's estimated total.					
						Total	\$12,476,032
	-					I Ulai	Ψ12,410,032

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 212.3

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Interstate 90 to Approx Station 300+00		275+00	300+00	2,500 FT	0.5 mile
		UP Section Alternate 3		273100	300100	2,50011	0.5 111110
	0 -212.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Ollic	Onit Cost	Exterision	\$2,141,571
1	. Givii Goliot	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	ΨΣ,1-11,071
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation	6,267	CY	\$15.00	\$94,005	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	1,699	CY CY	\$15.00 \$4.00	\$6,796	
8		Landscaping Allowance	1,099	SF	\$2.00	ψ0,790	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	1,000	LF	\$16.00	\$16,000	
10		Chain Link Fencing 6'	3,900		\$22.00	\$85,800	
11		Ballast Walls (Curb-no drainage)	1,000	LF	\$22.00	\$22,000	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13 14		Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	5,000	EA TF	\$8,000 \$223	\$1,115,000	
15		Embedded (Paved) Track at Grade	3,000	TF	\$312	ψ1,110,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21 22		Single Crossover Turnout		EA EA	\$150,000 \$75,000		
23		Impact Attenuators		EA	\$75,000 \$35,000		
24		Minor Street Closures Allowance	1	EA	\$25,000	\$25,000	
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28 29		Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild		EA EA	\$200,000 \$300,000		
30		Roadway Construction		SF	\$300,000		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
34		Industrial Railroad Turnouts East Side Syndicate Spur - HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line	2,100	TF	\$100.00	\$210,000	
36		Remove & Relocate Industrial Spur HDR	2,100	TF	\$130.00	Ψ210,000	
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	0.500	EA	\$60,000.00	#07.000	
40 41		OCS Pole Foundations LTK120 Signal Communication Building LTK130	2,500	RF EA	\$15.06 \$60,000.00	\$37,638	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items	ļ				06====
57	3 - Utilities	Hility Allowance High		DF	\$600.00		\$250,000
59 60		Utility Allowance - High Utility Allowance - Medium		RF RF	\$600.00 \$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items			,		
74	5 - Structures						
75		Bridge Structures DEA		LS	\$1.00		
76 77		Bridge Location Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$32.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						
105		Stations	1	LS			
106		Station Name		1.0			
107 108		Artwork (*Subject to Board Policy) Platform Electrical LTK610	-	LS LS	\$1.00 \$100,000		
115	7 - Park & Ric	l .		LO	φ100,000		
116	un a na	Park & Ride		Space	\$4,300		
117		Park & Ride Location					
119	8 - Operation	s Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 212.3

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Interstate 90 to Approx Station 300+00		275+00	300+00	2,500 FT	0.5 mile
	C -212.3	UP Section Alternate 3		270100	000100	2,00011	0.0 111110
	C -212.3		O., and the	Unit	Unit Cost	Extension	2001\$
101		Description Description	Quantity			Extension	20015
124 125		Operations Facility Building LTK Yard Maintenance Equipment LTK		SF LS	\$171.00 \$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	0 - Traction F	Power System		LS	\$1,900,000		\$388,92
136	3 - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ300,92
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		2,000		\$50.11	φου, του	\$722,19
148	. o o.ga. o	Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	ψ. <u>22</u> , . σ.
151	11 - Commur		2,000		\$200.00	ψ. <u>22,</u> 100	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	ψ011,00
157	12 - Fare Col		,			, , , , , , , , , , , , , , , , , , , ,	
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,820,49
161							, , ,
162	13. Right of \	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$1,337,174
180	Infrastructure	E & A 35.00%				\$1,337,174	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$964,099
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$714,099	
191	Utilities	Contingency 100.00%				\$250,000	A007.00
194	17 - Washing	ton State Sales Tax and Real Estate Tax				0007.007.00	\$267,93
195		Sales Tax 8.40% Sales Tax has been applied to 2/3 of Infrastructure &				\$267,937.33	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
106							
196		of the vehicle's estimated total.					
	-					Total	\$6,389,70
	-					rotal	დ,აგე,70t

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 213.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Park Road & Spear Ave Area		300+00	325+00	2,500 FT	0.5 mile
	•	-		300+00	323+00	2,500 F1	0.5 111116
	C-213.3	UP Section Alternate 3 Description	Ougatitus	Unit	Unit Cost	Evtension	2001\$
	1-Civil Const	•	Quantity	Unit	Unit Cost	Extension	\$1,948,211
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$1,940,21
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	, , , , , , , , , , , , , , , , , , , ,	LF	\$35.00	***	
4		Common Excavation	369	CY	\$15.00	\$5,535	
5		Select Backfill (MSE Retaining Walls)	16,694	CY	\$15.00	\$250,410	
6		Common Backfill (From Project Excavation)	524	CY	\$4.00	\$2,096	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	2,500	SF LF	\$2.00 \$16.00	\$40,000	
10		Chain Link Fencing 6'	2,500	LF	\$22.00	\$55,000	
11		Ballast Walls (Curb-no drainage)	600	LF	\$22.00	\$13,200	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16 19		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF TF	\$280 \$230		
20		Double Crossover	1	EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)	+	EA EA	\$200,000		
28		Major Traffic Signal (4 Lanes)	+	EA	\$100,000 \$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -			* 0= 00		
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -	+	LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	0.500	EA	\$60,000.00	#07.000	
40 41		OCS Pole Foundations LTK120 Signal Communication Building LTK130	2,500	RF EA	\$15.06 \$60,000.00	\$37,638	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					
57	3 - Utilities	I kilke. Allemane and I kink		55	0000		\$250,000
59 60		Utility Allowance - High Utility Allowance - Medium	1	RF RF	\$600.00 \$350.00		
61		Utility Allowance - Medium Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	2,500	rti	ψ100.00	Ψ200,000	
74	5 - Structures						\$1,494,000
75		Bridge Structures DEA	841,500	LS	\$1.00	\$841,500	
76		Bridge Location	Park Rd & Spe				
77		Retaining Wall 4' Max (Low Gravity Wall)	04.750	SF	\$32.00	#050 500	
78 79		MSE Retaining Wall - Typical DEA Cut & Cover Box/ Tunnel to Pine Road Aerial Station	21,750	SF LF	\$30.00 \$3,500.00	\$652,500	
104	6 - Stations	Out a Gover Box Turrier to Fine Rodu Aeriai Station	1	LF	φο,ουυ.υυ		
105	5 5.44.0113	Stations	1	LS			
106		Station Name	1				
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		-
115	7 - Park & Ric			_			
116		Park & Ride	1	Space	\$4,300		
	1	Park & Ride Location					
117 119	8 - Operation	s Facility (All Yard elements Included)				l I	

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 213.3

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Park Road & Spear Ave Area		300+00	325+00	2,500 FT	0.5 mile
	C -213.3	UP Section Alternate 3		000100	020100	2,00011	0.0 11111
	0 -213.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	LAGIISIOII	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			\$ 1,000,000		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		*****
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem			·		\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	•
151	11 - Commur	nications					\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$5,121,13
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks,Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166 167		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati Alternate 4 DEA Right of Way Acquisition Budget Estima		LS LS	\$5,000,000.00		
168		Alternate 4 DEA Right of Way Acquisition Budget Estima Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$26,771,815.00 \$5,000,000.00		
174	14. Vehicles	Alternate 4 Haziviat Demo & Disposai (Tanks, waste Mitigati		LS	\$5,000,000.00		
175	14. Venicies	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 d		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		\$1,792,39
180	Infrastructure	E & A 35.00%			Cubiciui	\$1,792,398	ψ1,7 0 <u>2</u> ,00
181	Vehicle	E & A 5.00%				Ψ1,102,000	
185	16 - Continge				Subtotal		\$1,224,22
187	Vehicles	Contingency 5.00%					· , ·,
189	Infrastructure	Contingency 20.00%				\$974,227	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$355,34
195		Sales Tax 8.40%				\$355,340.34	
		Sales Tax has been applied to 2/3 of Infrastructure &	-				
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
			-				-
						Total	\$8,493,10
	1			l .	1		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 214.3

	Spokane	Regional		<u></u>	<u> </u>		
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Vista Road Area		325+00	350+00	2,500 FT	0.5 mile
		UP Section Alternate 3		323+00	330+00	2,30011	0.5 111116
	C -214.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Offic	Unit Cost	Extension	\$2,235,167
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ2,233,107
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	,	LF	\$35.00		
4		Common Excavation	3,431	CY	\$15.00	\$51,465	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	308	CY	\$4.00	\$1,232	
<u>8</u> 9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	2,500	SF LF	\$2.00 \$16.00	\$40,000	
10		Chain Link Fencing 4 (on walls of Ballast Curb)	2,500	LF	\$22.00	\$55,000	
11		Ballast Walls (Curb-no drainage)	2,750	LF	\$22.00	\$60,500	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000	V .0,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000	£450,000	
21 22		Single Crossover Turnout	1	EA EA	\$150,000 \$75,000	\$150,000	
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31 32		Sidewalk Construction	1	SF EA	\$6.00 \$75,000.00	¢75 000	
32		Off Alignment Signal Modifications Construct Maintenance Road Assume All Weather Gravel -	1	EA	\$75,000.00	\$75,000	
33		12 FT Wide		LF	\$35.00		
- 55		Industrial Railroad Turnouts East Side Syndicate Spur -			ψ33.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40 41		OCS Pole Foundations LTK120 Signal Communication Building LTK130	2,500	RF EA	\$15.06 \$60,000.00	\$37,638 \$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	1	RF	\$200.00	\$60,000	
43		Ductbank/ Conduit -PAVED TRACK- LTK140 Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275.000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50	2 - Insurance	- Included other in Items	,			, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
57	3 - Utilities						\$250,000
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium	1	RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74 75	5 - Structures	Bridge Structures DEA		LS	£1.00		
75 76		Bridge Location		LO	\$1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						\$850,000
105		Stations	1	LS	\$750,000	\$750,000	
106		Station Name	Park/Vista Sta				
107		Artwork (*Subject to Board Policy)	1	LS	\$1.00		
108	7 P - 1 0 F	Platform Electrical LTK610	1	LS	\$100,000	\$100,000	
115 116	7 - Park & Ric	des Park & Ride		Space	\$4,300		
117		Park & Ride Location	Vista Station	Space	\$4,300		
119	8 - Operation	s Facility (All Yard elements Included)	vista Station				
123	- Operation	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		
	1	, .g	1		÷ . 5,551,510		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 214.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Vista Road Area		325+00	350+00	2,500 FT	0.5 mile
	C -214.3	UP Section Alternate 3		020100	000100	2,00011	0.0 11111
	0 -214.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00	Extension	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$1,138,92
136	o muonom	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,100,02
138		OCS Single Contact Wire LTK920		RF	\$123.00	ψ, σσ,σσσ	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		_,		700	400,000	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	. ,
151	11 - Commur		_,		4	4 1 = 2,100	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	, , , , , , , , , , , , , , , , , , , ,
157	12 - Fare Col	lection					\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$5,716,41
161							
162	13. Right of V	Vay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$2,000,74
180	Infrastructure	E & A 35.00%				\$2,000,745	
181	Vehicle	E & A 5.00%			Cubtotal		¢4 0 40 00
185 187	16 - Continge Vehicles				Subtotal		\$1,343,28
187	Infrastructure	Contingency 5.00%				\$1,093,283	
191	Utilities	Contingency 20.00% Contingency 100.00%				\$1,093,283	
194		ton State Sales Tax and Real Estate Tax				Ψ230,000	\$395,34
195	wasiiiig	Sales Tax and Real Estate Tax Sales Tax 8.40%				\$395,342.98	ψυσυ,υ4
100		Sales Tax has been applied to 2/3 of Infrastructure &				ψυυυ,υμε.υο	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
.00		5. 115 Totaliolo o dell'indica totali.					
						Total	\$9,455,78

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 215.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Sargent Road to Argonne Station		350+00	375+00	2,500 FT	0.5 mile
		UP Section Alternate 3		000100	070100	2,00011	0.0 111110
	0 -210.0	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Oilit	Onit Oost	LAterision	\$2,019,166
1	. Givii Gonida	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ2,010,100
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation	185	CY	\$15.00	\$2,775	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	291 914	CY	\$15.00 \$4.00	\$4,365 \$3,656	
8		Landscaping Allowance	914	SF	\$2.00	\$3,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	4,000	LF	\$16.00	\$64,000	
10		Chain Link Fencing 6'	1,000	LF	\$22.00	\$22,000	
11		Ballast Walls (Curb-no drainage)	900	LF	\$22.00	\$19,800	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2		\$8,000	\$16,000	
14 15		Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade	2,200	TF TF	\$223 \$312	\$490,600	
16		Direct Fixation (DF) Track, Elevated Structure	2,800	TF	\$280	\$784,000	
19		LRT Siding or Pocket Track	2,000	TF	\$230	Ţ. O.,OOO	
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23 24		Impact Attenuators Minor Street Closures Allowance	1	EA EA	\$35,000 \$25,000	\$25,000	
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$25,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31 32		Sidewalk Construction Off Alignment Signal Modifications		SF EA	\$6.00 \$75,000.00		
52		Construct Maintenance Road Assume All Weather Gravel -		LA	ψ10,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36 37		Remove & Relocate Industrial Spur HDR Provide Team Track and Loading Dock (HDR)		TF LS	\$130.00 \$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	1	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	0.500	RF	\$200.00	*075 000	
43 45		Ductbank/ Conduit -OPEN TRACK- LTK140 Corrosion Mitigation LTK150	2,500 2,500	RF RF	\$110.00 \$10.73	\$275,000 \$26,833	
50	2 - Insurance	e - Included other in Items	2,500	IM	ψ10.73	Ψ20,033	
57	3 - Utilities						\$250,000
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00	0	
61 70	4 Track Mar	Utility Allowance - Low erials - Included in the Rail Items	2,500	RF	\$100.00	\$250,000	
70	5 - Structures						\$4,850,000
75	o ou dotaro	Bridge Structures DEA	4,760,000	LS	\$1.00	\$4,760,000	ψ1,000,000
76		Bridge Location	Argonne-Dish			. ,	
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	3,000	SF	\$30.00	\$90,000	
79 104	6 - Stations	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	o - Stations	Stations	1	LS			
106		Station Name	1	- 10			
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric						\$1,075,000
116		Park & Ride	250		\$4,300	\$1,075,000	
117 119	8 - Operation	Park & Ride Location s Facility (All Yard elements Included)	Argonne Station	ווע			
123	o - Operation	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		
120	1	12.39 & . ard One i rop, Grading & Othico ETNOTI	1	-0	ψ10,001,010		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 215.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Sargent Road to Argonne Station		350+00	375+00	2,500 FT	0.5 mile
	C -215.3	UP Section Alternate 3		000100	0.0100	2,00011	0.0 111110
	C -213.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	EXTENSION	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System		LO	ψ1,300,000		\$1,138,92
136	J - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,130,32
138		OCS Single Contact Wire LTK920	•	RF	\$123.00	ψ. σσ,σσσ	
139		OCS Simple Catenary LTK930	2,500		\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		,	_	,	,	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* , -
151	11 - Commur		•			` '	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col	lection					\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$10,575,41
161							
162	13. Right of \						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles				***		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176 177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 & Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA EA	\$681,818.18 \$700,000		
177	4E Engineer	ring & Administration		EA	Subtotal		\$3,701,39
180	Infrastructure	E & A 35.00%			Subiolai	\$3,701,394	\$3,701,39
181	Vehicle	E & A 55.00% E & A 5.00%				\$3,701,394	
185	16 - Continge				Subtotal		\$2,315,08
187	Vehicles	Contingency 5.00%			Capiciai		Ψ2,313,00
189	Infrastructure	Contingency 20.00%				\$2,065,082	
191	Utilities	Contingency 100.00%				\$250,000	
194		ton State Sales Tax and Real Estate Tax				+ 255,550	\$721,86
195		Sales Tax 8.40%				\$721,867.72	Ţ. <u>_</u> . ,00
		Sales Tax has been applied to 2/3 of Infrastructure &				,	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$17,313,75

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 216.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Willow Road to Dartmouth Rd Area		375+00	400+00	2,500 FT	0.5 mile
	U	UP Section Alternate 3		373+00	400+00	2,30011	0.5 111116
	C -210.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Oilit	Offic Cost	LAGIISIOII	\$2,136,361
1	1-OIVII OOIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ2,130,30
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation	7,623	CY	\$15.00	\$114,345	
5		Select Backfill (MSE Retaining Walls)	6,222	CY	\$15.00	\$93,330	
6 8		Common Backfill (From Project Excavation) Landscaping Allowance	2,529	CY SF	\$4.00 \$2.00	\$10,116	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	2,900	LF	\$16.00	\$46,400	
10		Chain Link Fencing 6'	2,000	LF	\$22.00	ψ10,100	
11		Ballast Walls (Curb-no drainage)	4,100	LF	\$22.00	\$90,200	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15 16		Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure		TF TF	\$312 \$280		
16		LRT Siding or Pocket Track		TF	\$280 \$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)	1	EA EA	\$200,000 \$100,000	\$100,000	
28		Major Traffic Signal (4 Lanes)		EA	\$200,000	\$100,000	
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
00		Construct Maintenance Road Assume All Weather Gravel -		LF	#05.00		
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	0.500	EA	\$60,000.00	#07.000	
40		OCS Pole Foundations LTK120 Signal Communication Building LTK130	2,500	RF EA	\$15.06 \$60,000.00	\$37,638	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items		-			
57	3 - Utilities	Andrew Andrews					\$250,000
59		Utility Allowance - High		RF	\$600.00		
60 61		Utility Allowance - Medium Utility Allowance - Low	2,500	RF RF	\$350.00 \$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	2,500	INF	φ100.00	φ200,000	
74	5 - Structures						\$315,000
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					-
77		Retaining Wall 4' Max (Low Gravity Wall)	45 = 5	SF	\$32.00	001	
78		MSE Retaining Wall - Typical DEA	10,500	SF LF	\$30.00 \$3,500.00	\$315,000	
79 104	6 - Stations	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		ഥ	φ3,500.00		
105	5 - Glations	Stations	1	LS			
106	1	Station Name					
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric			_			
116		Park & Ride		Space	\$4,300		
44-		Park & Ride Location			1		
117 119	0 Onereti	s Facility (All Yard elements Included)					

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 216.3

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Willow Road to Dartmouth Rd Area		375+00	400+00	2,500 FT	0.5 mile
	C -216.3	UP Section Alternate 3		010100	100100	2,00011	0.0 11111
	C -210.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	LATERISION	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,000,000		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		*****
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$4,130,28
161							
162	13. Right of \						
400		Alternate 2 DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)			# 00 000 000		
163		Alternate 2 HazMat Demo & Disposal (Tanks, Waste		LS	\$30,000,000		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
104		Alternate 3 DEA Right of Way Acquisition Budget		LO	\$5,000,000.00		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles				\$ 0,000,000.00		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Enginee	ring & Administration			Subtotal		\$1,445,60
180	Infrastructure	E & A 35.00%				\$1,445,600	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,026,05
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$776,057	
191	Utilities	Contingency 100.00%				\$250,000	#000
194	17 - Washing	ton State Sales Tax and Real Estate Tax				#000 7FF 00	\$288,75
195	<u> </u>	Sales Tax 8.40% Sales Tax has been applied to 2/3 of Infrastructure &				\$288,755.22	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
190	-	or the verilide's estimated total.					
						Total	\$6,890,699
						I Utai	ψυ,υσυ,υσ

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 217.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Dartmouth Road Area to University Rd		400+00	425+00	2,500 FT	0.5 mile
		East Valley Section Alternate 3		400100	423100	2,30011	0.0 111110
	0-217.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Onic	Onit Oost	LAterision	\$2,697,822
1	i divii ddiidi	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ2,001,022
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	300		\$35.00	\$10,500	
4		Common Excavation	3,180		\$15.00	\$47,700	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	4,183	CY	\$15.00 \$4.00	\$16,732	
8		Landscaping Allowance	4,103	SF	\$2.00	\$10,732	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	375		\$16.00	\$6,000	
10		Chain Link Fencing 6'	4,325		\$22.00	\$95,150	
11		Ballast Walls (Curb-no drainage)	375		\$22.00	\$8,250	
12		Site Cleanup and Final Grading Allowance	2,500		\$6.00	\$15,000	
13 14		Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	5,000	EA TF	\$8,000 \$223	\$1,115,000	
15		Embedded (Paved) Track at Grade	5,000	TF	\$312	\$1,115,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover	1		\$300,000	\$300,000	
21		Single Crossover		EA	\$150,000		
22 23		Turnout Impact Attenuators		EA EA	\$75,000 \$35,000		
23		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1		\$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)	1		\$200,000	\$200,000	
29 30		Complex Major Intersection Rebuild Roadway Construction		EA SF	\$300,000 \$9.00		
31		Sidewalk Construction	1,920	SF	\$6.00	\$11,520	
32		Off Alignment Signal Modifications	1,020	EA	\$75,000.00	ψ,o20	
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
34		Industrial Railroad Turnouts East Side Syndicate Spur - HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40 41		OCS Pole Foundations LTK120 Signal Communication Building LTK130	2,500	RF EA	\$15.06 \$60,000.00	\$37,638 \$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	<u> </u>	RF	\$200.00	φου,υυυ	
43	1	Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items	1				05
57 50	3 - Utilities	Litility Allowance - High		DE.	\$600.00		\$250,000
59 60		Utility Allowance - High Utility Allowance - Medium		RF RF	\$600.00 \$350.00		
61	1	Utility Allowance - Low	2,500		\$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	_,:30				
74	5 - Structures						\$1,200,000
75	1	Bridge Structures DEA	1,200,000		\$1.00	\$1,200,000	
76 77		Bridge Location Retaining Wall 4' Max (Low Gravity Wall)	Pedestrian Br	SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						\$850,000
105		Stations	1		\$750,000	\$750,000	
106		Station Name	University Sta		M4 00		
107 108		Artwork (*Subject to Board Policy) Platform Electrical LTK610	1	LS LS	\$1.00 \$100,000	\$100,000	
115	7 - Park & Ric		'	LO	\$100,000	φ100,000	
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location	University Sta				
119	8 - Operation	s Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811	1	LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 217.3

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Dartmouth Road Area to University Rd		400+00	425+00	2,500 FT	0.5 mile
	C -217.3	East Valley Section Alternate 3		100100	120100	2,00011	0.0 111110
	0-217.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	EXTENSION	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$1,138,92
136	3 - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	Ψ1,130,32
138		OCS Single Contact Wire LTK920		RF	\$123.00	ψ. σσ,σσσ	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		,		,	****,	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* , -
151	11 - Commur		,				\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col	lection					\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$7,379,06
161							
162	13. Right of \						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	L EL LILE BUYLL B. C. (LEKARR)			***		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600 Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$2,500,000.00		
176 177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 d		EA EA	\$681,818.18 \$700,000		
177	1E Enginee	ring & Administration		EA	Subtotal		\$2,582,67
180	Infrastructure				Subtotal	\$2,582,674	\$2,582,67
181	Vehicle	E & A 55.00% E & A 5.00%				\$2,502,074	
185	16 - Continge				Subtotal		\$1,675,81
187	Vehicles	Contingency 5.00%			Capiciai		ψ1,013,01
189	Infrastructure					\$1,425,814	
191	Utilities	Contingency 100.00%				\$250.000	
194		ton State Sales Tax and Real Estate Tax				\$200,000	\$507,07
195		Sales Tax 8.40%				\$507,073.40	\$22.,01
		Sales Tax has been applied to 2/3 of Infrastructure &				, , , , , , , , , , , ,	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$12,144,62

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 218.3

	Spokane	Regional					_
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	University Road to Bodish Road Area		425+00	450+00	2,500 FT	0.5 mile
	C -218.3	-		423+00	450+00	2,500 FT	0.5 111116
	C-218.3	East Valley Section Alternate 3 Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Unit	Unit Cost	EXTENSION	\$1,892,415
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$1,092,413
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	400	LF	\$35.00	\$14,000	
4		Common Excavation	1,919	CY	\$15.00	\$28,785	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6 8		Common Backfill (From Project Excavation) Landscaping Allowance	7,715	CY SF	\$4.00 \$2.00	\$30,860	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	730	LF	\$2.00 \$16.00	\$11,680	
10		Chain Link Fencing 4 (on waits of Ballast Outs)	4,270	LF	\$22.00	\$93,940	
11		Ballast Walls (Curb-no drainage)	730	LF	\$22.00	\$16,060	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure		TF TF	\$312		
16 19		LRT Siding or Pocket Track		TF	\$280 \$230		
20	<u> </u>	Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)		EA EA	\$200,000 \$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	2,520	SF	\$6.00	\$15,120	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
00		Construct Maintenance Road Assume All Weather Gravel -			#05.00		
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	0.500	EA	\$60,000.00	#07.000	
40 41		OCS Pole Foundations LTK120 Signal Communication Building LTK130	2,500	RF EA	\$15.06 \$60,000.00	\$37,638	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					
57	3 - Utilities	Light All Light		6.	0000.00		\$250,000
59		Utility Allowance - High		RF	\$600.00		
60 61		Utility Allowance - Medium Utility Allowance - Low	2,500	RF RF	\$350.00 \$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	2,500	INF	φ100.00	φ250,000	
74	5 - Structures						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location		-			
77	1	Retaining Wall 4' Max (Low Gravity Wall)	1	SF	\$32.00		
78	1	MSE Retaining Wall - Typical DEA	-	SF	\$30.00		
79 104	6 - Stations	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	o - Giations	Stations	1	LS			
106		Station Name	<u>'</u>	10			
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric						
116	-	Park & Ride		Space	\$4,300		
117 119	8 - Operation	Park & Ride Location s Facility (All Yard elements Included)	-				
123	o - Operation	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		
120		play a raid one rich, ordaing a dunice ETNOTT	1		ψ10,001,010		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 218.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	University Road to Bodish Road Area		425+00	450+00	2,500 FT	0.5 mile
	C -218.3	East Valley Section Alternate 3		120100	100100	2,00011	0.0 11111
	C -210.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	LATERISION	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,000,000		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		*****
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,571,34
161							
162	13. Right of \						
400		Alternate 2 DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)			# 00 000 000		
163		Alternate 2 HazMat Demo & Disposal (Tanks, Waste		LS	\$30,000,000		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
104		Alternate 3 DEA Right of Way Acquisition Budget		LO	\$5,000,000.00		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles				\$ 0,000,000.00		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Enginee	ring & Administration			Subtotal		\$1,249,96
180	Infrastructure	E & A 35.00%				\$1,249,969	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$914,26
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$664,268	
191	Utilities	Contingency 100.00%				\$250,000	#054.10
194	17 - Washing	ton State Sales Tax and Real Estate Tax				#054 404 05	\$251,19
195		Sales Tax 8.40% Sales Tax has been applied to 2/3 of Infrastructure &				\$251,194.05	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
190	-	or the verilide's estimated total.					
						Total	\$5,986,77
						I Ulai	ψυ,συυ,77

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 219.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Bodish Road to Pines Road (At Grade) Area		450+00	475+00	2,500 FT	0.5 mile
		East Valley Section Alternate 3		450+00	475+00	2,500 FT	0.5 111116
	C -219.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Olik	Offic Cost	LAGIISIOII	\$2,065,213
1	1-01VII OOIISt	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	ΨΣ,000,Σ10
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	400	LF	\$35.00	\$14,000	
4		Common Excavation	2,253	CY	\$15.00	\$33,795	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	10,982	CY CY	\$15.00 \$4.00	\$43,928	
8		Landscaping Allowance	10,302	SF	\$2.00	Ψ43,320	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	1,200	LF	\$16.00	\$19,200	
10		Chain Link Fencing 6'	3,640		\$22.00	\$80,080	
11		Ballast Walls (Curb-no drainage)	1,200	LF	\$22.00	\$26,400	
12 13		Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	LF EA	\$6.00 \$8,000	\$15,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade	3,530	TF	\$312	Ţ.,o,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20 21	+	Double Crossover Single Crossover		EA EA	\$300,000 \$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance	2	EA	\$25,000	\$50,000	
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27 28		Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes)		EA EA	\$100,000 \$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	2,640	SF	\$6.00	\$15,840	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
00		Construct Maintenance Road Assume All Weather Gravel -			#05.00		
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110		LS EA	\$476,000.00 \$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	2,300	EA	\$60,000.00	ψ37,030	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45	0 1	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50 57	2 - Insurance 3 - Utilities	- Included other in Items	1				\$250,000
59	3 - Otilities	Utility Allowance - High		RF	\$600.00		φ250,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74	5 - Structures			- 0	04.00		
75 76	+	Bridge Structures DEA Bridge Location		LS	\$1.00		
77	+	Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78	1	MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Outro					
105	+	Stations Station Name	1	LS			
106 107		Station Name Artwork (*Subject to Board Policy)		LS	\$1.00		
107	+	Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric				\$.55,500		
116		Park & Ride		Space	\$4,300		
117	<u> </u>	Park & Ride Location					
119	8 - Operation	s Facility (All Yard elements Included)		10	\$40 FF4 F40		
123	1	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 219.3

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Bodish Road to Pines Road (At Grade) Area		450+00	475+00	2,500 FT	0.5 mile
	C -219.3	East Valley Section Alternate 3		100100	170100	2,00011	0.0 11111
	0 -219.5	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	LAGIISIOII	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ.,σσσ,σσσ		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		*****
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commur						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,744,13
161							
162	13. Right of \						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks,Waste			A= 000 000 00		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
405		Alternate 3 DEA Right of Way Acquisition Budget		1.0	CO7 04 4 740 00		
165		Estimate (Including Railroads & Operation Facility) Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS LS	\$27,914,712.00 \$5,000,000.00		
166 167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Alternate 4 Haziviat Demo & Disposai (Tariks, Waste Willigati		LO	\$5,000,000.00		
175	14. Verticles	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Enginee	ring & Administration			Subtotal		\$1,310,44
180	Infrastructure	E & A 35.00%			Gubiolai	\$1,310,448	ψ.,σ.σ,
181	Vehicle	E & A 5.00%				\$ 1,5 15, 115	
185	16 - Continge				Subtotal		\$948,82
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$698,828	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$262,80
195		Sales Tax 8.40%		-		\$262,806.07	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,266,220

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 220.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Order of magnitude		Otart Ota	Liid Ola	Lerigin	
		Pines Road (At Grade) to McDonald Road Area		475+00	500+00	2,500 FT	0.5 mile
	C -220.3	East Valley Section Alternate 3	Ougntitu	l Init	Unit Coot	Evtonoion	2004
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$ \$1,868,389
1	1-CIVII COIISE	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	ψ1,000,309
2		Grade Preparation to Top of subballast.	2,500		\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation	1,481	CY	\$15.00	\$22,215	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	5,151	CY	\$15.00 \$4.00	\$20,604	
8		Landscaping Allowance	5,151	SF	\$2.00	\$20,004	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	850	LF	\$16.00	\$13,600	
10		Chain Link Fencing 6'	4,150	LF	\$22.00	\$91,300	
11		Ballast Walls (Curb-no drainage)	850		\$22.00	\$18,700	
12		Site Cleanup and Final Grading Allowance	2,500		\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	F 000	EA TF	\$8,000 \$223	£4.44E.000	
14 15		Embedded (Paved) Track at Grade	5,000	TF	\$223	\$1,115,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23 24		Impact Attenuators Minor Street Closures Allowance		EA EA	\$35,000 \$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30 31		Roadway Construction Sidewalk Construction		SF SF	\$9.00 \$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -			ψ. ο,οοοίοο		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35 36		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR		TF TF	\$100.00 \$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41 42		Signal Communication Building LTK130 Ductbank/ Conduit -PAVED TRACK- LTK140	1	EA RF	\$60,000.00 \$200.00	\$60,000	
43		Ductbank/ Conduit -PAVED TRACK- LTK140 Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500		\$10.73	\$26,833	
		- Included other in Items					
	3 - Utilities	A Deliver A Deli			*		\$250,000
59 60		Utility Allowance - High Utility Allowance - Medium		RF RF	\$600.00 \$350.00		
61		Utility Allowance - Inedium Utility Allowance - Low	2,500	RF	\$350.00	\$250,000	
	4 - Track Mat	erials - Included in the Rail Items	2,000		ψ100.00	\$200,000	
74	5 - Structures	3					
75	-	Bridge Structures DEA		LS	\$1.00		
76		Bridge Location		er.	\$32.00		
77 78		Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA		SF SF	\$32.00 \$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
	6 - Stations	* *** * * * * * * * * * * * * * * * * *			,		\$850,000
105		Stations	1	LS	\$750,000	\$750,000	•
106		Station Name	Pines Station	Center Platfor			
107		Artwork (*Subject to Board Policy) Platform Electrical LTK610	4	LS LS	\$1.00	\$400,000	
108 115	7 - Park & Ric		1	LS	\$100,000	\$100,000	\$1,720,000
116	. rancant	Park & Ride	400	Space	\$4,300	\$1,720,000	ψ1,720,000
117		Park & Ride Location	Pines Station		,,,,,,,		
119	0 0	s Facility (All Yard elements Included)			1	-	

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 220.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Pines Road (At Grade) to McDonald Road Area		475+00	500+00	2,500 FT	0.5 mile
	C -220.3	East Valley Section Alternate 3					
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		
124		Operations Facility Building LTK		SF	\$171.00		
125		Yard Maintenance Equipment LTK		LS	\$4.160.844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		\$1,138,92
136		Sub-Station Type 3 LTK 910	1	EA	\$750.000	\$750.000	. , , .
138		OCS Single Contact Wire LTK920		RF	\$123.00	ψ. σσ,σσσ	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		2,500		ψ50.41	ψ50,105	\$722,19
148	10 - Olgilai O	Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	Ψ122,13
151	11 - Commun		2,300	IXI	\$200.00	Ψ122,190	\$317,80
152	11 - Commu	Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	φ317,000
157	12 - Fare Col		2,500	NF	\$121.12	φ317,000	\$202,32
158	12 - Fare Con	Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	\$202,32
160		Subtotal - Infrastructure	ı	LS		\$202,321	#7 000 00
		Subtotal - Infrastructure			Subtotal		\$7,069,63
161	40. Dialet - (1)	V					
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget			****		
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks,Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		\$2,474,37
180	Infrastructure	E & A 35.00%				\$2,474,372	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,613,92
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,363,927	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$486,28
195		Sales Tax 8.40%				\$486,279.50	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$11,644,21
	+				1		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 221.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta		
	Drowing	McDonald Road to Evergreen Road Area				Length	0.5 mile
	Drawing C -221.3	East Valley Section Alternate 3		500+00	525+00	2,500 FT	0.5 mile
	C -221.3	•	O	1114	Unit Coot	Fortan alian	00046
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$ \$2,134,92
1	1-CIVII CONST	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	φ2,134,92
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	800	LF	\$35.00	\$28,000	
4		Common Excavation	4,029	CY	\$15.00	\$60,435	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	3,204	CY	\$4.00	\$12,816	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	730	SF LF	\$2.00 \$16.00	\$11,680	
10		Chain Link Fencing 4' (off walls of Ballast Curb)	4,260	LF	\$22.00	\$93,720	
11		Ballast Walls (Curb-no drainage)	730	LF	\$22.00	\$16,060	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15	-	Embedded (Paved) Track at Grade		TF	\$312		
16 19	+	Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF TF	\$280 \$230		
20	+	Double Crossover		EA	\$300,000		
21	 	Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)	1	EA EA	\$200,000 \$100,000	\$200,000	
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	5,040	SF	\$6.00	\$30,240	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
34		Industrial Railroad Turnouts East Side Syndicate Spur - HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	0.500	EA	\$60,000.00	A07.000	
40		OCS Pole Foundations LTK120	2,500	RF EA	\$15.06	\$37,638	
41	+	Signal Communication Building LTK130 Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$60,000.00 \$200.00		
43		Ductbank/ Conduit - OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					
57	3 - Utilities						\$250,00
59	-	Utility Allowance - High		RF	\$600.00		
60 61	1	Utility Allowance - Medium Utility Allowance - Low	2,500	RF RF	\$350.00 \$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	2,500	NΓ	\$100.00	φ∠50,000	
74	5 - Structure						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77	1	Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78	1	MSE Retaining Wall - Typical DEA		SF	\$30.00		
79 104	6 - Stations	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
105	o - Glations	Stations	1	LS			
106	1	Station Name	1				
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ri				A		
116 117	-	Park & Ride		Space	\$4,300		
	1	Park & Ride Location					
119	0 Onereties	s Facility (All Yard elements Included)					

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 221.3

		Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	McDonald Road to Evergreen Road Area		500+00	525+00	2,500 FT	0.5 mile
	C -221.3	East Valley Section Alternate 3		000100	020100	2,00011	0.0 11111
	0 -221.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	Extension	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System		LO	ψ1,300,000		\$388,92
136	o madadini	Sub-Station Type 3 LTK 910		EA	\$750,000		φοσο,σ2
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		_,		700	400,000	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* :-=,:•
151	11 - Commur		_,		4	V ,	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	, , , , , , , , , , , , , , , , , , , ,
157	12 - Fare Col	lection				. ,	
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,813,84
161							
162	13. Right of \	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$1,334,84
180	Infrastructure	E & A 35.00%				\$1,334,846	
181	Vehicle	E & A 5.00%			0.1.1.1		***
185	16 - Continge				Subtotal		\$962,76
187	Vehicles	Contingency 5.00%				6740 70 2	
189	Infrastructure	Contingency 20.00%				\$712,769	
191 194	Utilities	Contingency 100.00%				\$250,000	¢067.40
194	ıı - wasning	ton State Sales Tax and Real Estate Tax Sales Tax 8.40%				\$267,490.45	\$267,49
195		Sales Tax has been applied to 2/3 of Infrastructure &				\$201,49U.45	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
190		or the verilide's estimated total.					
						Total	\$6,378,95
					1		WU.U1 U.SU

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 222.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta		
	Drowing	Evergreen Road Area to Adams Road Area				Length	0 E mila
	Drawing	-		525+00	550+00	2,500 FT	0.5 mile
	C -222.3	East Valley Section Alternate 3	O tit	1114	Unit Coot	F. et a maila m	2004 €
	4 Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,233,947
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	400	LF	\$35.00	\$14,000	
4		Common Excavation	6,787	CY	\$15.00	\$101,805	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	4,483	CY	\$4.00	\$17,932	
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)	1,665	LF	\$16.00	\$26,640	
10 11		Chain Link Fencing 6' Ballast Walls (Curb-no drainage)	3,175 1,665	LF LF	\$22.00 \$22.00	\$69,850 \$36,630	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	EA	\$8,000	ψ10,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade	,	TF	\$312	. , , ,	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20	1	Double Crossover		EA	\$300,000	A	
21		Single Crossover	1	EA	\$150,000	\$150,000	
22		Turnout Impact Attenuators		EA	\$75,000		
23 24		Minor Street Closures Allowance		EA EA	\$35,000 \$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1		\$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000	Ψ100,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	2,520	SF	\$6.00	\$15,120	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide		LF	\$35.00		
33		Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41	1	Signal Communication Building LTK130	1	EA	\$60,000.00	\$60,000	
42 43	1	Ductbank/ Conduit -PAVED TRACK- LTK140 Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF RF	\$200.00 \$110.00	\$275,000	
45	+	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50	2 - Insurance	e - Included other in Items	2,500	141	ψ10.73	Ψ20,000	
57	3 - Utilities						\$250,00
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		terials - Included in the Rail Items					
74	5 - Structure			10	04.00		
75 76	1	Bridge Structures DEA Bridge Location		LS	\$1.00		
76 77	1	Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78	†	MSE Retaining Wall - Typical DEA		SF	\$30.00		
79	1	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations				,		\$850,00
105		Stations	1		\$750,000	\$750,000	
106	1	Station Name	Evergreen Sta				
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610	1	LS	\$100,000	\$100,000	
115	7 - Park & Ri			0	04.000		
116	1	Park & Ride	Everage C:	Space	\$4,300		
117 119	8 - Operation	Park & Ride Location s Facility (All Yard elements Included)	Evergreen Sta	IIIOI I			
123	o - Operation	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		
120	1	Ising a rain one rich, Graung & Oullies LINOTT	1	LU	ψ10,001,010		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 222.3

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Evergreen Road Area to Adams Road Area		525+00	550+00	2,500 FT	0.5 mile
	C -222.3	East Valley Section Alternate 3		020100	000100	2,00011	0.0 11111
	0 -222.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	EXTENSION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System		LO	ψ1,300,000		\$1,138,92
136	3 - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,100,02
138		OCS Single Contact Wire LTK920		RF	\$123.00	ψ. σσ,σσσ	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		,	_	***	, , , , , ,	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	· / -
151	11 - Commur		,		,		\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col	lection					\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$5,715,19
161							
162	13. Right of \						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles				40 500 000 00		
175 176		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA EA	\$2,500,000.00 \$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 & Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$681,818.18		
179	15 Engineer	ring & Administration		EA	Subtotal		\$2,000,31
180	Infrastructure	E & A 35.00%			Subiolai	\$2,000,318	\$2,000,31
181	Vehicle	E & A 5.00%				\$2,000,316	
185	16 - Continge				Subtotal		\$1,343,03
187	Vehicles	Contingency 5.00%			Cabiolai		ψ1,040,00
189	Infrastructure	Contingency 20.00%				\$1,093,039	
191	Utilities	Contingency 100.00%				\$250,000	
194		ton State Sales Tax and Real Estate Tax				+	\$395,26
195		Sales Tax 8.40%				\$395,261.00	,
		Sales Tax has been applied to 2/3 of Infrastructure &				. ,	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$9,453,81
		†			1		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 223.3

	Spokane	Regional		<u></u>			
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Adams Road Area to Sullivan Road Area		550+00	575+00	2,500 FT	0.5 mile
		East Valley Section Alternate 3		330+00	373+00	2,500 FT	0.5 111116
	C -223.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Ollit	Offic Cost	LAGIISIOII	\$1,992,243
1	1-01VII OOIISt	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	ψ1,332,243
2		Grade Preparation to Top of subballast.	2,500		\$35.00		
3		Curb & Gutter Allowance	800	LF	\$35.00	\$28,000	
4		Common Excavation	947	CY	\$15.00	\$14,205	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	4,597	CY CY	\$15.00 \$4.00	\$18,388	
8		Landscaping Allowance	4,597	SF	\$2.00	φ10,300	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	810		\$16.00	\$12,960	
10		Chain Link Fencing 6'	4,030	LF	\$22.00	\$88,660	
11		Ballast Walls (Curb-no drainage)	810		\$22.00	\$17,820	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13 14		Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	5,000	EA TF	\$8,000 \$223	\$1,115,000	
15		Embedded (Paved) Track at Grade	5,000	TF	\$312	\$1,115,000	
16	1	Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23 24		Impact Attenuators Minor Street Closures Allowance		EA EA	\$35,000 \$25,000		
25		Minor Intersection Rebuild (2 Lanes)	2	EA	\$100,000	\$200,000	
26		Major Intersection Rebuild (4 Lanes)	_	EA	\$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction	5.040	SF SF	\$9.00	\$20.040	
31 32		Sidewalk Construction Off Alignment Signal Modifications	5,040	EA EA	\$6.00 \$75,000.00	\$30,240	
32		Construct Maintenance Road Assume All Weather Gravel -		LA	φ13,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36 37		Remove & Relocate Industrial Spur HDR Provide Team Track and Loading Dock (HDR)		TF LS	\$130.00 \$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130		EA	\$60,000.00		
42	-	Ductbank/ Conduit -PAVED TRACK- LTK140	0.500	RF	\$200.00	#075 000	
43 45	+	Ductbank/ Conduit -OPEN TRACK- LTK140 Corrosion Mitigation LTK150	2,500 2,500	RF RF	\$110.00 \$10.73	\$275,000 \$26,833	
50	2 - Insurance	- Included other in Items	2,500	KΓ	\$10.73	\$∠0,033	
57	3 - Utilities						\$250,000
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70 74	4 - Track Mat 5 - Structures	erials - Included in the Rail Items					¢105 000
75	J - Su uctures	Bridge Structures DEA		LS	\$1.00		\$105,000
76		Bridge Location			ψ1.00		
77	1	Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	3,500	SF	\$30.00	\$105,000	
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Chatiana		10			
105 106	+	Stations Station Name	1	LS			
106	+	Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric			-	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location					
119	ช - Operation	s Facility (All Yard elements Included)		10	#40 554 513		
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 223.3

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Adams Road Area to Sullivan Road Area		550+00	575+00	2,500 FT	0.5 mile
	C -223.3	East Valley Section Alternate 3		000100	070100	2,00011	0.0 11111
	0 -223.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00		20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction P	Power System			ψ1,000,000		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		4000,02
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal Sy	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun	ications					\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Coll						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,776,16
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
404		Alternate 2 HazMat Demo & Disposal (Tanks,Waste			# F 000 000 00		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
105		Alternate 3 DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		1.0	COZ 04 4 740 00		
165 166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS LS	\$27,914,712.00 \$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Alternate 4 Traziviat Demo & Disposai (Tariks, Waste Witigati			\$3,000,000.00		
175	14. VCIIICICS	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		\$1,321,65
180	Infrastructure	E & A 35.00%				\$1,321,659	, , , , , , , , , , , ,
181	Vehicle	E&A 5.00%				7 /2 /22	
185	16 - Continge	encies			Subtotal		\$955,23
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$705,234	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$264,95
195		Sales Tax 8.40%	-	-		\$264,958.49	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,318,01
					1		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 224.3

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta		
	Drawing	Sullivan Road Area to Cannery Street Area				Length	0.5 mile
	Drawing	-		575+00	600+00	2,500 FT	0.5 mile
	C -224.3	East Valley Section Alternate 3	O	1114	Unit Coot	Fortan alian	2004 (*
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$1,966,162
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	400	LF	\$35.00	\$14,000	
4		Common Excavation	2,196	CY	\$15.00	\$32,940	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	1,223	CY	\$4.00	\$4,892	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	700	SF LF	\$2.00 \$16.00	\$11,200	
10		Chain Link Fencing 4 (on waits of Ballast Curb)	4,120	LF	\$22.00	\$90,640	
11		Ballast Walls (Curb-no drainage)	700	LF	\$22.00	\$15,400	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16 19	1	Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF TF	\$280 \$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	4	EA	\$100,000	# 000 000	
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)	1	EA EA	\$200,000 \$100,000	\$200,000	
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	2,520	SF	\$6.00	\$15,120	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -			* 0= 00		
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	0.500	EA	\$60,000.00	007.000	
40 41		OCS Pole Foundations LTK120 Signal Communication Building LTK130	2,500	RF EA	\$15.06 \$60,000.00	\$37,638	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$60,000.00		
43		Ductbank/ Conduit - OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					_
57	3 - Utilities	LUCE AN LUCE I		n-			\$250,00
59		Utility Allowance - High		RF	\$600.00		
60 61		Utility Allowance - Medium Utility Allowance - Low	2,500	RF RF	\$350.00 \$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	2,500	INF	\$100.00	φ250,000	
74	5 - Structure:						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79 104	6 - Stations	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	o - Stations	Stations	1	LS			
106		Station Name		LO			
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ri						
116		Park & Ride		Space	\$4,300		
		Park & Ride Location	1		i l		
117 119	0 Onereti-	is Facility (All Yard elements Included)					

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 224.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Sullivan Road Area to Cannery Street Area		575+00	600+00	2,500 FT	0.5 mile
	C -224.3	East Valley Section Alternate 3		010100	000100	2,00011	0.0 11111
	0 -224.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	LATERISION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			\$1,000,000		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		*****
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,645,08
161							
162	13. Right of \						
400		Alternate 2 DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)			# 00 000 000		
163		Alternate 2 HazMat Demo & Disposal (Tanks, Waste		LS	\$30,000,000		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
104		Alternate 3 DEA Right of Way Acquisition Budget		LO	\$5,000,000.00		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles				40,000,000		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$1,275,78
180	Infrastructure	E & A 35.00%				\$1,275,780	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$929,01
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$679,017	
191	Utilities	Contingency 100.00%				\$250,000	#050.45
194	17 - wasning	ton State Sales Tax and Real Estate Tax				POEC 440 0E	\$256,15
195		Sales Tax 8.40% Sales Tax has been applied to 2/3 of Infrastructure &				\$256,149.85	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
190	-	or the verilide's estimated total.					
						Total	\$6,106,03
						I Ulai	ψυ, 100,03
	1						

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 225.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Cannery Street Area to Steen Road Area		600+00	625+00	2,500 FT	0.5 mile
		East Valley Section Alternate 3		000+00	025+00	2,500 F 1	0.5 111116
	C -225.3		Ougatitus	Unit	Unit Coot	Evtencies	20046
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$ \$2,064,483
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,004,403
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	400	LF	\$35.00	\$14,000	
4		Common Excavation	815	CY	\$15.00	\$12,225	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	2,272	CY	\$4.00	\$9,088	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	250	SF LF	\$2.00 \$16.00	\$4,000	
10		Chain Link Fencing 4 (off walls of Ballast Curb)	4,630	LF	\$22.00	\$101,860	
11		Ballast Walls (Curb-no drainage)	250	LF	\$22.00	\$5,500	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15	+	Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure	+	TF TF	\$312		
16 19	+	LRT Siding or Pocket Track	1	TF	\$280 \$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25 26		Minor Intersection Rebuild (2 Lanes)	1	EA EA	\$100,000 \$200,000	\$200,000	
27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)	- 1	EA	\$100,000	\$200,000	
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	2,640	SF	\$6.00	\$15,840	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide		LF	\$35.00		
33		Industrial Railroad Turnouts East Side Syndicate Spur -		LF	φ35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110	1	LS EA	\$476,000.00 \$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	2,500	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00	700,000	
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		e - Included other in Items					* 050.000
57 59	3 - Utilities	Utility Allowance - High		RF	\$600.00		\$250,000
60	1	Utility Allowance - High	1	RF	\$350.00		
61	1	Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70	4 - Track Mat	terials - Included in the Rail Items	,				
74	5 - Structure			_			
75	1	Bridge Structures DEA		LS	\$1.00		
76	1	Bridge Location	1	er.	#00.00		
77 78	+	Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA	1	SF SF	\$32.00 \$30.00		
79	†	Cut & Cover Box/ Tunnel to Pine Road Aerial Station	+	LF	\$3,500.00		
104	6 - Stations	The state of the s	1		\$5,555.00		\$850,000
105		Stations	1	LS	\$750,000	\$750,000	
106		Station Name	Sullivan/Bogue				-
107	1	Artwork (*Subject to Board Policy)		LS	\$1.00	0	
108	7 Don't 9 D'	Platform Electrical LTK610	1	LS	\$100,000	\$100,000	¢4 700 000
115 116	7 - Park & Ri	des Park & Ride	400	Space	\$4,300	\$1,720,000	\$1,720,000
117	†	Park & Ride Location	Bogue Station		ψ+,300	ψ1,720,000	
119	8 - Operation	ns Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 225.3

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Cannery Street Area to Steen Road Area		600+00	625+00		0.5 mile
	C -225.3	East Valley Section Alternate 3			0=0:00	_,000	
	0 220.0	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00		20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction P	ower System			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		\$1,138,92
136		Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	* ,,-
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal Sy						\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Coll						\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$7,265,72
161	40 51 14 41						
162	13. Right of V						
400		Alternate 2 DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		1.0	¢20,000,000		
163		Alternate 2 HazMat Demo & Disposal (Tanks, Waste		LS	\$30,000,000		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
104		Alternate 3 DEA Right of Way Acquisition Budget			\$3,000,000.00		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles				4 0,000,000.00		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		\$2,543,00
180	Infrastructure	E & A 35.00%				\$2,543,005	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,653,14
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,403,146	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax				A400 457 00	\$499,45
195	-	Sales Tax 8.40% Sales Tax has been applied to 2/3 of Infrastructure &				\$499,457.02	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
190		or the vehicle's estimated total.					
						Total	\$11,961,33
						I Ulai	ψ11,301,330

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 226.3

	Spokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Ctort Cto	End Sta		
	Danisia					Length	0.5 !!-
	Drawing	Steen Road Area to Sprague Ave Crossing		625+00	650+00	2,500 FT	0.5 mile
	C -226.3	East Valley Section Alternate 3					
	4.00-11.0	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,031,763
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	800	LF	\$35.00		
4		Common Excavation	3,963	CY	\$15.00	\$59,445	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00	****	
6		Common Backfill (From Project Excavation)	257	CY	\$4.00	\$1,028	
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)	305	LF	\$16.00		
10		Chain Link Fencing 6'	4,295	LF	\$22.00		
11		Ballast Walls (Curb-no drainage)	305	LF LF	\$22.00		
12 13		Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	EA	\$6.00 \$8,000	\$15,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15	1	Embedded (Paved) Track at Grade	5,000	TF	\$312	ψ1,110,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance	1	EA	\$25,000	\$25,000	
25		Minor Intersection Rebuild (2 Lanes)	2	EA	\$100,000	\$200,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA SF	\$300,000		
30		Roadway Construction Sidewalk Construction	F 040	SF SF	\$9.00 \$6.00	¢20.240	
31 32		Off Alignment Signal Modifications	5,040	EA	\$75,000.00	\$30,240	
32		Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
00		Industrial Railroad Turnouts East Side Syndicate Spur -		Li	Ψ00.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41	1	Signal Communication Building LTK130		EA	\$60,000.00		
42	1	Ductbank/ Conduit -PAVED TRACK- LTK140	0.500	RF	\$200.00	#075 000	
43 45	1	Ductbank/ Conduit -OPEN TRACK- LTK140 Corrosion Mitigation LTK150	2,500	RF RF	\$110.00 \$10.73		
45 50	2 - Incurance	c - Included other in Items	2,500	KF	\$10.73	\$26,833	
57	3 - Utilities	- moluueu oliiei iii ileilis					\$250,00
59	J - Junites	Utility Allowance - High		RF	\$600.00		Ψ230,00
60	 	Utility Allowance - Medium		RF	\$350.00		
61	1	Utility Allowance - Low	2,500	RF	\$100.00		
70	4 - Track Mat	erials - Included in the Rail Items	7.27		,		
74	5 - Structure:						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78	1	MSE Retaining Wall - Typical DEA		SF	\$30.00		
79	0.0011	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Chatiana		10			
105	1	Stations Station Name	1	LS			
106	1	Station Name Artwork (*Subject to Board Policy)		10	Ф4 OO		
107	1	Platform Electrical LTK610		LS LS	\$1.00 \$100,000		
108 115	7 - Park & Rie			LS	\$100,000		
116	r - rain & Kl	Park & Ride		Space	\$4,300		
117	†	Park & Ride Location		Орасс	ψ-,500		
119	8 - Operation	is Facility (All Yard elements Included)					
			1	LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 226.3

	Spokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Steen Road Area to Sprague Ave Crossing		625+00	650+00	2,500 FT	0.5 mile
	C -226.3	East Valley Section Alternate 3		020.00	000100	2,000	0.0
	0 -220.5	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00		2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction P	Power System			V 1,000,000		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		*****
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal Sy	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Coll						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,710,68
161							
162	13. Right of V						
400		Alternate 2 DEA Right of Way Acquisition Budget			# 00 000 000		
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
164		Alternate 2 HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) - Allowance		LS	\$5,000,000.00		
104		Alternate 3 DEA Right of Way Acquisition Budget		LS	\$5,000,000.00		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Thomate 4 Flaziviai Bomo a Biopodai (Tarmo, Vadio Miligai			ψο,οσο,οσο.σσ		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		\$1,298,74
180	Infrastructure	E & A 35.00%				\$1,298,741	
181	Vehicle	E&A 5.00%					
185	16 - Continge	encies			Subtotal		\$942,13
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$692,138	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$260,558
195		Sales Tax 8.40%				\$260,558.23	
		Sales Tax has been applied to 2/3 of Infrastructure &					
400		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Tatal	CO 040 40
						Total	\$6,212,12

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 227.3

	-	Regional	+		1		
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Sprague Ave Crossing to Greenacres Road		650+00	675+00	2,500 FT	0.5 mile
		East Valley Section Alternate 3				,	
	0 227.0	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const			• • • • • • • • • • • • • • • • • • • •	- C C C C C		\$2,233,70
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	4 =,===,: =
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	280	LF	\$35.00	\$9,800	
4		Common Excavation	924	CY	\$15.00	\$13,860	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	2,318	CY	\$4.00	\$9,272	
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00		
10		Chain Link Fencing 6'	1,500	LF	\$22.00		
11		Ballast Walls (Curb-no drainage)	0.500	LF	\$22.00		
12 13		Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	LF EA	\$6.00 \$8,000	\$15,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade	5,000	TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20	1	Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)	1	EA	\$200,000	\$200,000	
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	1,800	SF	\$6.00	\$10,800	
32		Off Alignment Signal Modifications	1	EA	\$75,000.00	\$75,000	
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR)		LS EA	\$476,000.00 \$60,000.00		
40		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2.500	RF		¢27 620	
41		Signal Communication Building LTK130	2,500	EA	\$15.06 \$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit - OPEN TRACK- LTK140	2,500	RF	\$110.00		
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73		
50	2 - Insurance	e - Included other in Items	2,300	IXI	ψ10.75	Ψ20,000	
57	3 - Utilities	- moladed other in items					\$250,00
59	5 54114165	Utility Allowance - High		RF	\$600.00		Ψ200,00
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00		
70	4 - Track Mat	terials - Included in the Rail Items	_,		Ţ	,	
74	5 - Structure						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						
105		Stations	1	LS			
106		Station Name					
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ri						
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location					
119	8 - Operation	s Facility (All Yard elements Included) Bldg & Yard Site Prep, Grading & Utilities LTK811			\$18,551,516		
123				LS			

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 227.3

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Sprague Ave Crossing to Greenacres Road		650+00	675+00	2,500 FT	0.5 mile
	C -227.3	East Valley Section Alternate 3		000100	0.0.00	2,00011	0.0 11111
	0 -221.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00	LATERISION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψι,σσσ,σσσ		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		*****
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commur						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,912,62
161							
162	13. Right of \						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks,Waste			AT		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
405		Alternate 3 DEA Right of Way Acquisition Budget		1.0	€07.044.740.00		
165		Estimate (Including Railroads & Operation Facility) Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS LS	\$27,914,712.00 \$5,000,000.00		
166 167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks,Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Alternate 4 Haziviat Demo & Disposai (Tariks, Waste Willigati		LS	\$5,000,000.00		
175	14. Vernicles	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Enginee	ring & Administration			Subtotal		\$1,369,41
180	Infrastructure				0 0 0 0 10 10 10 10 10 10 10 10 10 10 10	\$1,369,419	\$ 1,000,11
181	Vehicle	E & A 5.00%				, , , , , , ,	
185	16 - Continge				Subtotal		\$982,52
187	Vehicles	Contingency 5.00%					
189	Infrastructure					\$732,525	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$274,12
195		Sales Tax 8.40%		-		\$274,128.53	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,538,700

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 228.3

	Spokane	Regional					
	•	Light Rail Project			Fetima	te Basics	
		-		Ot = -1 Ot =			
	D	Order of Magnitude		Start Sta	End Sta	Length	0.5
	Drawing	Greenacres Road to Barker Road Area		675+00	700+00	2,500 FT	0.5 mile
	C -228.3	East Valley Section Alternate 3					
	10: 110	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,209,436
2		Grade Preparation to Top of subballast.	2,500		\$35.00		
3		Curb & Gutter Allowance	320	LF	\$35.00	\$11,200	
4		Common Excavation	1,028	CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	10,619	CY	\$4.00	\$42,476	
9		Landscaping Allowance	0.445	SF LF	\$2.00	\$38,640	
10		Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6'	2,415 100		\$16.00 \$22.00		
11		Ballast Walls (Curb-no drainage)	2,415	LF	\$22.00	\$53,130	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	,	EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15	1	Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19 20	1	LRT Siding or Pocket Track Double Crossover		TF EA	\$230 \$300.000		
21		Single Crossover	1	EA	\$150,000	\$150,000	
22		Turnout		EA	\$75,000	\$100,000	
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000 \$100,000		
27 28		Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes)	1	EA EA	\$100,000	\$200,000	
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	2,400	SF	\$6.00	\$14,400	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -			***		
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39 40		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2.500	EA RF	\$60,000.00		
41		Signal Communication Building LTK130	2,500	EA	\$15.06 \$60,000.00	\$37,638	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					
57	3 - Utilities	Utility Allowance - High		D.F.	#coo oo		\$250,000
59 60	1	Utility Allowance - High Utility Allowance - Medium		RF RF	\$600.00 \$350.00		
61	 	Utility Allowance - Ivedium	2,500	RF	\$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	2,000		\$100.00	\$250,000	
74	5 - Structures	3					\$102,400
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location	2 22 -	65	***	0.100.10	
77 78	1	Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA	3,200	SF SF	\$32.00 \$30.00	\$102,400	
78 79	1	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Cat a Cover Box Talifforto Fillo Hoda Actial Otation			ψο,ουσ.σσ		
105		Stations	1	LS			
106		Station Name					
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric			Cn	#4 000		
116 117	1	Park & Ride Park & Ride Location		Space	\$4,300		
119	8 - Operation	s Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 228.3

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Greenacres Road to Barker Road Area		675+00	700+00	2,500 FT	0.5 mile
	C -228.3	East Valley Section Alternate 3		0.0.00	700700	2,00011	0.0 11111
	C -220.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	LATERISION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψι,σσσ,σσσ		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		*****
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commur						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,990,76
161							
162	13. Right of \						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks,Waste			A= 000 000 00		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
405		Alternate 3 DEA Right of Way Acquisition Budget		1.0	€07.044.740.00		
165		Estimate (Including Railroads & Operation Facility) Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS LS	\$27,914,712.00 \$5,000,000.00		
166 167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Alternate 4 Haziviat Demo & Disposai (Tariks, Waste Wittgati		LS	\$5,000,000.00		
175	14. Vernicles	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Enginee	ring & Administration			Subtotal		\$1,396,76
180	Infrastructure	E & A 35.00%			0 0 0 0 10 10 10 10 10 10 10 10 10 10 10	\$1,396,766	4 1,000,10
181	Vehicle	E & A 5.00%				, , , , , , , , ,	
185	16 - Continge				Subtotal		\$998,15
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$748,152	
191	Utilities	Contingency 100.00%				\$250,000	·
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$279,379
195		Sales Tax 8.40%				\$279,379.14	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,665,059

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 229.3

	Spokane	Regional					
	-	Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta		
	Drowing	Barker Road Area to Appleway Station Area				Length	O.E. mila
	Drawing			700+00	725+00	2,500 FT	0.5 mile
	C -229.3	Liberty Lake Section Alternate 3	O a m 4 i fo	I I a i i	Unit Coot	F	20046
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$ \$1,722,242
1	1-Civil Const	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$1,722,242
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	2,000	LF	\$35.00		
4		Common Excavation		CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	22,493	CY	\$4.00	\$89,972	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	1 700	SF LF	\$2.00	\$27,200	
10		Chain Link Fencing 4 (on waits of Ballast Curb)	1,700 650	LF	\$16.00 \$22.00		
11		Ballast Walls (Curb-no drainage)	400	LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19 20	+	LRT Siding or Pocket Track Double Crossover	+	TF EA	\$230 \$300,000		
21	+	Single Crossover		EA EA	\$300,000 \$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild		EA EA	\$200,000 \$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34 35		HDR Relocate UPRR Yard Lead or Branch Line		EA TF	\$65,000.00 \$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$100.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130		EA	\$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140	0.500	RF	\$200.00	#075 000	
43 45		Ductbank/ Conduit -OPEN TRACK- LTK140 Corrosion Mitigation LTK150	2,500 2,500	RF RF	\$110.00 \$10.73	\$275,000 \$26,833	
50	2 - Insurance	e - Included other in Items	2,300	KF	\$10.73	\$20,033	
57	3 - Utilities	morado de circi in itemo					\$250,00
59		Utility Allowance - High		RF	\$600.00		,
60		Utility Allowance - Medium		RF	\$350.00		_
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					# 400 10
74 75	5 - Structure	s Bridge Structures DEA	+	LS	\$1.00		\$166,40
76	+	Bridge Location		LO	\$1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)	5,200	SF	\$32.00	\$166,400	
78		MSE Retaining Wall - Typical DEA	2,230	SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						
105	1	Stations	1	LS			
106	-	Station Name		10	04.00		
107	-	Artwork (*Subject to Board Policy)		LS	\$1.00		
108 115	7 - Park & Rie	Platform Electrical LTK610		LS	\$100,000		
116	r - raik ox Ki	Park & Ride	+	Space	\$4,300		
117	1	Park & Ride Location	1	Space	ψ-1,500		
119	8 - Operation	s Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 229.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Barker Road Area to Appleway Station Area		700+00	725+00	2,500 FT	0.5 mile
	C -229.3	Liberty Lake Section Alternate 3		700100	720100	2,00011	0.0 11111
	0 -229.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	Extension	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$388,92
136	3 - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ300,32
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		_,		700	400,000	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	.
151	11 - Commur		_,		4	4 1-2,111	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	, , , , , , , , , , , , , , , , , , , ,
157	12 - Fare Col	lection					
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,567,56
161							
162	13. Right of \	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$1,248,64
180	Infrastructure	E & A 35.00%				\$1,248,648	
181	Vehicle	E & A 5.00%			0.1.1.1.1		\$040.54
185 187	16 - Continge Vehicles				Subtotal		\$913,51
_	Infrastructure	Contingency 5.00%				PCC2 F42	
189 191	Utilities	Contingency 20.00% Contingency 100.00%				\$663,513 \$250,000	
191		ton State Sales Tax and Real Estate Tax				φ250,000	\$250,94
195	ir - wasiling	Sales Tax and Real Estate Tax				\$250,940.50	φ250,94
190		Sales Tax has been applied to 2/3 of Infrastructure &				Ψ230,340.30	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
100		or the vernois a commuted total.					
						Total	\$5,980,66

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 230.3

	Spokane	Regional					
	•	Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Appleway Station Area to Country Vista Road		Otari Ota	Liid Old	Longar	
	Drawing	Area		725+00	750+00	2,500 FT	0.5 mile
	C -230.3	Liberty Lake Section Alternate 3					
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const						\$2,031,532
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	
2		Grade Preparation to Top of subballast. Curb & Gutter Allowance	2,500	LF LF	\$35.00 \$35.00	4 - 7	
4		Common Excavation		CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	35,768	CY	\$4.00		
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF 	\$16.00		
10		Chain Link Fencing 6'	5,000	LF LF	\$22.00 \$22.00		
11 12		Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance	2,000 2,500	LF	\$22.00		
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,300	EA	\$8,000		
14		Ballasted Track at Grade or Structure	4,430	TF	\$223	\$987,890	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure	570	TF	\$280	\$159,600	
19		LRT Siding or Pocket Track		TF	\$230		
20 21		Double Crossover Single Crossover		EA EA	\$300,000 \$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28 29		Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild		EA EA	\$200,000 \$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
34		Industrial Railroad Turnouts East Side Syndicate Spur - HDR		EA	¢65,000,00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$65,000.00 \$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00		
40 41		OCS Pole Foundations LTK120 Signal Communication Building LTK130	2,500	RF EA	\$15.06 \$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140	1	RF	\$200.00		
43		Ductbank/ Conduit - OPEN TRACK- LTK140	2,500	RF	\$110.00		
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73		
		- Included other in Items					
57	3 - Utilities	Likilia. Allamanaa Liint		55	#		\$250,000
59 60		Utility Allowance - High Utility Allowance - Medium	-	RF RF	\$600.00 \$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00		
70	4 - Track Mat	erials - Included in the Rail Items	_,=50		7.11.00		
74	5 - Structures						\$726,000
75		Bridge Structures DEA	726,000	LS	\$1.00	\$726,000	
76		Bridge Location Retaining Wall 4' Max (Low Gravity Wall)	Country Vista	or-	#20.00		
77 78		MSE Retaining Wall - Typical DEA	 	SF SF	\$32.00 \$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations				,		\$850,000
105		Stations	1		\$750,000	\$750,000	
106		Station Name	Appleway Sta				
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108 115	7 - Park & Ric	Platform Electrical LTK610	1	LS	\$100,000	\$100,000	\$4,300,000
116	iain ox rxio	Park & Ride	1,000	Space	\$4,300	\$4,300,000	ψ+,500,000
117		Park & Ride Location	Appleway Sta		\$.,500	\$ 1,000,000	
119	8 - Operation	s Facility (All Yard elements Included)					

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 230.3

	Spokane	Regional					
	•	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Appleway Station Area to Country Vista Road		Otari Ota	Liid Old	Longin	
				707 00	750 00	0 500 FT	0 = "
	Drawing	Area		725+00	750+00	2,500 FT	0.5 mile
	C -230.3	Liberty Lake Section Alternate 3					
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		
124		Operations Facility Building LTK		SF	\$171.00		
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	ower System					\$1,138,928
136		Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal Sy	ystem					\$722,190
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun	ications					\$317,808
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						\$202,321
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$10,538,778
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ing & Administration			Subtotal		\$3,688,572
180	Infrastructure	E & A 35.00%				\$3,688,572	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$2,307,756
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$2,057,756	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$719,406
195		Sales Tax 8.40%				\$719,405.91	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						_	
						Total	\$17,254,512

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 231.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta		
	Drawing	Liberty Lake Area along side Interstate 90			775+00	Length	0 E mile
				750+00	775+00	2,500 FT	0.5 mile
	C -231.3	Liberty Lake Section Alternate 3	O	11	Unit Coot	Futancian	2004
	4 Civil Come	Description	Quantity	Unit	Unit Cost	Extension	2001\$ \$2,383,246
1	1-Civil Const	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,383,246
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	2,000	LF	\$35.00	φο,,σσσ	
4		Common Excavation	8,360	CY	\$15.00	\$125,400	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	219	CY	\$4.00	\$876	
<u>8</u> 9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)		SF LF	\$2.00		
10		Chain Link Fencing 4 (on walls of Ballast Curb) Chain Link Fencing 6'	2,500	LF	\$16.00 \$22.00	\$55,000	
11		Ballast Walls (Curb-no drainage)	2,300	LF	\$22.00	ψ55,000	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	,	EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19 20		LRT Siding or Pocket Track Double Crossover		TF EA	\$230 \$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000 \$200,000		
28 29		Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild		EA EA	\$200,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA TF	\$65,000.00		
35 36		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR		TF	\$100.00 \$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	1	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	2,500	RF	\$200.00	\$500,000	
43 45		Ductbank/ Conduit -OPEN TRACK- LTK140 Corrosion Mitigation LTK150	2,500 2,500	RF RF	\$110.00 \$10.73	\$275,000 \$26,833	
50	2 - Insurance	- Included other in Items	2,500	KF	\$10.73	\$20,033	
57	3 - Utilities						\$250,000
59		Utility Allowance - High		RF	\$600.00		,,
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74 75	5 - Structures	Bridge Structures DEA		LS	£4.00		
75 76	1	Bridge Location		LO	\$1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						
105	1	Stations	1	LS			
106		Station Name		10	M4 00		
107 108	<u> </u>	Artwork (*Subject to Board Policy) Platform Electrical LTK610		LS LS	\$1.00 \$100,000		
115	7 - Park & Ric			LO	\$100,000		
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location			\$.,550		
119	8 - Operation	s Facility (All Yard elements Included)					
123	1	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 231.3

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Liberty Lake Area along side Interstate 90		750+00	775+00	2,500 FT	0.5 mile
	C -231.3	Liberty Lake Section Alternate 3				·	
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	-, ,	SF	\$171.00		
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	ower System					\$1,138,928
136		Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S				·		\$722,190
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* ,
151	11 - Commun		,			, , , , , ,	\$317,808
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	, , , , , , , , , , , , , , , , , , , ,
157	12 - Fare Col	lection					
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$4,812,171
161							, , , , ,
162	13. Right of V	Vay					
	Ů	Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste		_	, , , , , , , , , , , , , , , , , , , ,		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	.			40,000,000		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		\$1,684,260
180	Infrastructure	E & A 35.00%				\$1,684,260	, , , , , , , , , , , , , , , , , , , ,
181	Vehicle	E&A 5.00%				7,722,722	
185	16 - Continge	encies			Subtotal		\$1,162,434
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$912,434	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$334,578
195		Sales Tax 8.40%				\$334,577.89	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$7,993,443

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 232.3

1 1 2 3 4 4 5 5 6 8 9 9 10 11 12 13 14 15 16 16 19 20 21 22 23 24	Drawing C -232.3 1-Civil Const	Site Preparation - Clearing & Grubbing Grade Preparation to Top of subballast. Curb & Gutter Allowance Common Excavation Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	2,500 2,500 659 3,023 2,500	775+00 Unit LF LF CY CY CY EF LF LF LF LF LF LF LF LF	### Sta 800+00 800+00 \$10.00 \$35.00 \$15.00 \$15.00 \$4.00 \$22.00 \$22.00 \$22.00 \$22.00 \$22.00 \$22.00	\$87,500 \$9,885 \$12,092	0.5 mile 2001\$ \$2,158,94
1 2 3 4 4 5 6 8 8 9 10 11 11 12 13 14 15 16 19 20 21 22 23	C -232.3	Liberty Lake Area along side Interstate 90 Liberty Lake Section Alternate 3 Description ruction Site Preparation - Clearing & Grubbing Grade Preparation to Top of subballast. Curb & Gutter Allowance Common Excavation Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	2,500 2,500 659 3,023 2,500	775+00 Unit LF LF CY CY CY EF LF LF LF LF LF LF LF LF	\$10.00 \$35.00 \$15.00 \$15.00 \$4.00 \$2.00 \$22.00	2,500 FT Extension \$25,000 \$87,500 \$9,885 \$12,092	2001\$
1 2 3 4 4 5 6 8 8 9 10 11 11 12 13 14 15 16 19 20 21 22 23	C -232.3	Liberty Lake Area along side Interstate 90 Liberty Lake Section Alternate 3 Description ruction Site Preparation - Clearing & Grubbing Grade Preparation to Top of subballast. Curb & Gutter Allowance Common Excavation Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	2,500 2,500 659 3,023 2,500	775+00 Unit LF LF CY CY CY EF LF LF LF LF LF LF LF LF	\$10.00 \$35.00 \$15.00 \$15.00 \$4.00 \$2.00 \$22.00	2,500 FT Extension \$25,000 \$87,500 \$9,885 \$12,092	2001\$
1 2 3 4 4 5 6 8 8 9 10 11 11 12 13 14 15 16 19 20 21 22 23	C -232.3	Liberty Lake Section Alternate 3 Description ruction Site Preparation - Clearing & Grubbing Grade Preparation to Top of subballast. Curb & Gutter Allowance Common Excavation Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	2,500 2,500 659 3,023 2,500	Unit LF LF CY CY CY SF LF LF LF	\$10.00 \$35.00 \$35.00 \$15.00 \$15.00 \$4.00 \$2.00 \$16.00	\$25,000 \$87,500 \$9,885 \$12,092	2001\$
1 2 3 4 4 5 6 8 8 9 10 11 11 12 13 14 15 16 19 20 21 22 23		Description ruction Site Preparation - Clearing & Grubbing Grade Preparation to Top of subballast. Curb & Gutter Allowance Common Excavation Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	2,500 2,500 659 3,023 2,500	LF LF CY CY CY SF LF LF	\$10.00 \$35.00 \$35.00 \$15.00 \$15.00 \$4.00 \$2.00 \$16.00	\$25,000 \$87,500 \$9,885 \$12,092	
1 2 3 4 4 5 6 8 8 9 10 11 11 12 13 14 15 16 19 20 21 22 23	1-Civil Const	ruction Site Preparation - Clearing & Grubbing Grade Preparation to Top of subballast. Curb & Gutter Allowance Common Excavation Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	2,500 2,500 659 3,023 2,500	LF LF CY CY CY SF LF LF	\$10.00 \$35.00 \$35.00 \$15.00 \$15.00 \$4.00 \$2.00 \$16.00	\$25,000 \$87,500 \$9,885 \$12,092	
1 2 3 4 4 5 6 8 8 9 10 11 11 12 13 14 15 16 19 20 21 22 23	I-CIVII CUISC	Site Preparation - Clearing & Grubbing Grade Preparation to Top of subballast. Curb & Gutter Allowance Common Excavation Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	2,500 659 3,023 2,500	LF LF CY CY CY SF LF LF	\$35.00 \$35.00 \$15.00 \$15.00 \$4.00 \$2.00 \$16.00	\$87,500 \$9,885 \$12,092	φ2,100,94
2 3 4 5 6 8 9 10 11 12 13 14 15 16 19 20 21 22 23		Grade Preparation to Top of subballast. Curb & Gutter Allowance Common Excavation Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	2,500 659 3,023 2,500	LF LF CY CY CY SF LF LF	\$35.00 \$35.00 \$15.00 \$15.00 \$4.00 \$2.00 \$16.00	\$87,500 \$9,885 \$12,092	
3 4 5 6 8 9 10 11 12 13 14 15 16 19 20 21 22 23		Curb & Gutter Allowance Common Excavation Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	3,023 2,500	LF CY CY CY SF LF LF	\$35.00 \$15.00 \$15.00 \$4.00 \$2.00 \$16.00 \$22.00	\$9,885 \$12,092	
4 5 6 8 9 10 11 12 13 14 15 16 19 20 21 22 23		Common Excavation Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	3,023	CY CY CY SF LF LF	\$15.00 \$4.00 \$2.00 \$16.00 \$22.00	\$12,092	
6 8 9 10 11 12 13 14 15 16 19 20 21 22 23		Common Backfill (From Project Excavation) Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	2,500	CY SF LF LF LF	\$4.00 \$2.00 \$16.00 \$22.00	\$12,092	
8 9 10 11 11 12 13 14 15 16 19 20 21 22 23		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	2,500	SF LF LF LF	\$2.00 \$16.00 \$22.00		
9 10 11 12 13 14 15 16 19 20 21 22 23		Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure		LF LF LF	\$16.00 \$22.00		
10 11 12 13 14 15 16 19 20 21 22 23		Chain Link Fencing 6' Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure		LF LF	\$22.00		
11 12 13 14 15 16 19 20 21 22 23		Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure		LF			
12 13 14 15 16 19 20 21 22 23		Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	2,500		\$22.00		
13 14 15 16 19 20 21 22 23		Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure	2,300	LF	\$22.00		
14 15 16 19 20 21 22 23		Ballasted Track at Grade or Structure		EA	\$8,000		
15 16 19 20 21 22 23			5,000	TF	\$223		
19 20 21 22 23		Embedded (Paved) Track at Grade	2,000	TF	\$312		
20 21 22 23		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		-
21 22 23	-	LRT Siding or Pocket Track		TF	\$230		
22 23		Double Crossover		EA	\$300,000		
23		Single Crossover		EA	\$150,000		
		Turnout		EA	\$75,000		
2/		Impact Attenuators		EA	\$35,000		
		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26 27		Major Intersection Rebuild (4 Lanes)		EA EA	\$200,000 \$100,000		
28		Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110		LS EA	\$476,000.00 \$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$60,000.00		
41		Signal Communication Building LTK130	2,500	EA	\$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140	2,500	RF	\$200.00		
43		Ductbank/ Conduit - OPEN TRACK- LTK140	2,500	RF	\$110.00		
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73		
50 2	2 - Insurance	- Included other in Items					
57 3	3 - Utilities						\$250,00
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
		erials - Included in the Rail Items				<u> </u>	
	5 - Structures			1.0	Ø4.00		
75 76		Bridge Structures DEA Bridge Location		LS	\$1.00		
76		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00	+	
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
	6 - Stations	The state of the s			ψ5,500.00	+	
105		Stations	1	LS			
106		Station Name		-			
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
	7 - Park & Rid			-			-
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location					
119 8	8 - Operation	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 232.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Liberty Lake Area along side Interstate 90		775+00	800+00	2,500 FT	0.5 mile
	C -232.3	Liberty Lake Section Alternate 3		110100	000100	2,00011	0.0 11111
	U -232.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00	EXTENSION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$388,92
136	o muonom	Sub-Station Type 3 LTK 910		EA	\$750,000		φοσο,σ2
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		,		,	, , , , , ,	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	· / -
151	11 - Commur		Í				\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col	lection					
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,837,87
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles				***		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600 Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$2,500,000.00		
176 177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 d		EA EA	\$681,818.18 \$700,000		
179	1E Engineer	ring & Administration		EA	Subtotal		\$1,343,25
180	Infrastructure	E & A 35.00%			Subiolai	\$1,343,255	\$1,343,23
181	Vehicle	E&A 5.00%				\$1,343,233	
185	16 - Continge				Subtotal		\$967,57
187	Vehicles	Contingency 5.00%			Cabiolai		ψ501,511
189	Infrastructure	Contingency 20.00%				\$717,574	
191	Utilities	Contingency 100.00%				\$250,000	
194		ton State Sales Tax and Real Estate Tax				4=00,000	\$269,10
195	9	Sales Tax 8.40%				\$269,105.00	, . •
		Sales Tax has been applied to 2/3 of Infrastructure &				. ,	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,417,807
	1				1		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 233.3

	Spokane	Regional					
		Light Rail Project			Fstima	te Basics	
		Order of Magnitude		Ctort Cto			
	Describes	Liberty Lake Road Area to Signal Road		Start Sta	End Sta	Length	0.5!
				800+00	825+00	2,500 FT	0.5 mile
	C -233.3	Liberty Lake Section Alternate 3			11.11.0		
	10: 110	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,934,91
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	300	LF	\$35.00	\$10,500	
4		Common Excavation	487	CY	\$15.00	\$7,305	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	5,109	CY	\$4.00	\$20,436	
<u>8</u> 9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)		SF LF	\$2.00 \$16.00		
10		Chain Link Fencing 4' (off walls of Ballast Curb)	2,350	LF	\$22.00	\$51,700	
11		Ballast Walls (Curb-no drainage)	2,000	LF	\$22.00	ψ51,700	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		-
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15	1	Embedded (Paved) Track at Grade		TF	\$312		
16 19	1	Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF TF	\$280 \$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance	1	EA	\$25,000	\$25,000	
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)		EA EA	\$200,000 \$100,000		
28		Major Traffic Signal (4 Lanes)	1	EA	\$200,000	\$200,000	
29		Complex Major Intersection Rebuild	1	EA	\$300,000	\$300,000	
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	3,000	SF	\$6.00	\$18,000	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide		LF	фог oo		
33		Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00	\$60.000	
39 40		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2,500	EA RF	\$60,000.00 \$15.06	\$37,638	
41		Signal Communication Building LTK130	2,300	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	2,500	RF	\$200.00	\$500,000	
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		e - Included other in Items					0050.00
57 59	3 - Utilities	Utility Allowance - High		RF	\$600.00		\$250,000
60	1	Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	,				
74	5 - Structures						
75	1	Bridge Structures DEA		LS	\$1.00		
76	1	Bridge Location Retaining Wall (I May (Low Growity Wall)	-	SF	\$32.00		
77 78	1	Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA		SF SF	\$32.00 \$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations				, , , , , , , ,		
105		Stations	1	LS			
106		Station Name					
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108	7 - Park & Ric	Platform Electrical LTK610		LS	\$100,000		
115 116	ı - Fark & Ric	pes Park & Ride		Space	\$4,300		
117		Park & Ride Location		Opacc	ψ+,300		
119	8 - Operation	s Facility (All Yard elements Included)					-
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 233.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Liberty Lake Road Area to Signal Road		800+00	825+00	2,500 FT	0.5 mile
	C -233.3	Liberty Lake Section Alternate 3		000100	020100	2,00011	0.0 11111
	C -233.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00	Extension	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$1,138,92
136	o muonom	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	Ψ1,100,02
138		OCS Single Contact Wire LTK920		RF	\$123.00	ψ, σσ,σσσ	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		_,		700	400,000	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* :-=,:•
151	11 - Commur		_,		4	4 1-2,111	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	*
157	12 - Fare Col	lection	,				
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$5,363,83
161							
162	13. Right of V	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal	A	\$1,877,34
180	Infrastructure	E & A 35.00%				\$1,877,343	
181	Vehicle	E & A 5.00%			0.1.1.1.1		#4 070 70
185 187	16 - Continge Vehicles				Subtotal		\$1,272,76
187	Infrastructure	Contingency 5.00%				\$1,022,767	
191	Utilities	Contingency 20.00% Contingency 100.00%				\$1,022,767	
194		Iton State Sales Tax and Real Estate Tax				Ψ230,000	\$371,65
195	17 - Washing	Sales Tax and Real Estate Tax Sales Tax 8.40%				\$371,649.78	ψ3/1,03
100	 	Sales Tax has been applied to 2/3 of Infrastructure &				ψυτ 1,040.10	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
.00	 	5. 1.5 Tolliolo o dollifiatod total.					
						Total	\$8,885,59

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 234.3

	Spokane	Regional					
		Light Rail Project			Fstima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Signal Road to Madson Road Area		Start Sta	Liid Sta	Length	
	-						
	C -234.3	Liberty Lake Section Alternate 3	Ouentitu	I Imia	Unit Coot	Evtension	2004 €
	1-Civil Constr	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1		Site Preparation - Clearing & Grubbing		LF	\$10.00		
2		Grade Preparation to Top of subballast.		LF	\$35.00		
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation		CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)		CY	\$4.00		
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)		SF LF	\$2.00 \$16.00		
10		Chain Link Fencing 4 (on waits of Ballast Curb) Chain Link Fencing 6'		LF	\$22.00		
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance		LF	\$6.00		
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure		TF	\$223		
15		Embedded (Paved) Track at Grade		TF	\$312		
16 19		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF TF	\$280 \$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)		EA EA	\$200,000 \$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -			***		
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40 41		OCS Pole Foundations LTK120 Signal Communication Building LTK130		RF EA	\$15.06 \$60,000.00		
41		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$60,000.00		
43		Ductbank/ Conduit - AVED TRACK- ETK140		RF	\$110.00		
45		Corrosion Mitigation LTK150		RF	\$10.73		
50		- Included other in Items					
57	3 - Utilities	Lielte, Allemane, Llieb		55	Mana 2.2		
59		Utility Allowance - High		RF	\$600.00		
60 61		Utility Allowance - Medium Utility Allowance - Low		RF RF	\$350.00 \$100.00		
70		erials - Included in the Rail Items		131	ψ100.00		
74	5 - Structures						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79 104	6 - Stations	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
105		Stations	1	LS			
106		Station Name	·				
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Rid						
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location s Facility (All Yard elements Included)					
119 123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		
120		Diag a raid one ricp, ordaing a dilling ETNOTT		LU	ψ10,001,010	1	

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 234.3

	Spokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Signal Road to Madson Road Area		Otari Ota	Liid Old	Longin	
	C -234.3	Liberty Lake Section Alternate 3					
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK		SF	\$171.00		
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			#750.000		
136		Sub-Station Type 3 LTK 910		EA	\$750,000		
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930		RF	\$109.00		
141		Lighting LTK940 Spare Parts/ System support LTK950		RF	\$8.11		
142 147	40 Cianci C			LS	\$38.47		
147	10 - Signal S	Signal (Alt 2 & Alt 3)		RF	\$288.88		
151	11 - Commun			KF	\$288.88		
152	11 - Commur	Communications (Alt 2 & Alt 3)		RF	\$127.12		
157	12 - Fare Col			KF	\$121.12		
158	12 - Fale Col	Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure		LO	Subtotal		
161		Subtotal - Illifasti ucture			Subiolai		
162	13. Right of V	Nav					
102	13. Kight of V	Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
103		Alternate 2 HazMat Demo & Disposal (Tanks, Waste		LO	ψ30,000,000		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
104		Alternate 3 DEA Right of Way Acquisition Budget			ψ5,000,000.00		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Therrate Triagnat Berne & Bispecal (Tarine) Tracte Innigati			ψο,οσο,οσο.οσ		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		
180	Infrastructure	E & A 35.00%					
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%					
191	Utilities	Contingency 100.00%					
194	17 - Washing	ton State Sales Tax and Real Estate Tax					
195		Sales Tax 8.40%					
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	
							-

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 235.3

	Spokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Liberty Lake Station (Molter Rd) and Line		Otal Cia	2.1.4 51.4	_0g	
		Terminus Area					
		Liberty Lake Section Alternate 3					
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const						\$70,000
1		Site Preparation - Clearing & Grubbing		LF LF	\$10.00 \$35.00		
3		Grade Preparation to Top of subballast. Curb & Gutter Allowance		LF	\$35.00 \$35.00		
4		Common Excavation		CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)		CY	\$4.00		
8		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)		SF LF	\$2.00 \$16.00		
10		Chain Link Fencing 4 (on wails of Ballast Curb)		LF	\$22.00		
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance		LF	\$6.00		
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14 15		Ballasted Track at Grade or Structure		TF TF	\$223		
16		Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure		TF	\$312 \$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000	A 70.000	
23 24		Impact Attenuators Minor Street Closures Allowance	2	EA EA	\$35,000 \$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29 30		Complex Major Intersection Rebuild Roadway Construction		EA SF	\$300,000 \$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
34		Industrial Railroad Turnouts East Side Syndicate Spur - HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39 40		TPS Building, Foundation & Ground Mat. LTK110		EA RF	\$60,000.00		
40		OCS Pole Foundations LTK120 Signal Communication Building LTK130		EA	\$15.06 \$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140		RF	\$110.00		
45		Corrosion Mitigation LTK150		RF	\$10.73		
		- Included other in Items					
57 59	3 - Utilities	Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low		RF	\$100.00		
70		erials - Included in the Rail Items					-
74	5 - Structures			1.0	64.00		
75 76		Bridge Structures DEA Bridge Location		LS	\$1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Outh			6770 000	6 ==0.055	\$850,000
105 106		Stations Station Name	Liberty Lake S		\$750,000 Platform Terminus	\$750,000	
107		Artwork (*Subject to Board Policy)	Liberty Lake S	LS	\$1.00		
108		Platform Electrical LTK610	1	LS	\$100,000		
115	7 - Park & Ric	des					
116		Park & Ride		Space	\$4,300		
117	8 - Operation	Park & Ride Location					
119	o - Operation	s Facility (All Yard elements Included)					

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 235.3

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta		Length	
		Liberty Lake Station (Molter Rd) and Line		Otal Cola	2.10 010		
	Drawing	Terminus Area					
		Liberty Lake Section Alternate 3					
	0 -233.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
123		Bldg & Yard Site Prep, Grading & Utilities LTK811	Quantity	LS	\$18,551,516	Extension	20019
123		Operations Facility Building LTK		SF	\$10,551,516		
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction P	Power System			ψ1,000,000		\$750,000
136		Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ. σσ,σσσ
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930		RF	\$109.00		
141		Lighting LTK940		RF	\$8.11		
142		Spare Parts/ System support LTK950		LS	\$38.47		
147	10 - Signal Sy				Ì		
148		Signal (Alt 2 & Alt 3)		RF	\$288.88		
151	11 - Commun	ications					
152		Communications (Alt 2 & Alt 3)		RF	\$127.12		
157	12 - Fare Coll	ection					\$202,321
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$1,872,321
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Lease Flores Links De Tayletinker De con Const. Et (1999)		F.	↑ 0 5 00 000 00		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176 177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 & Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA EA	\$681,818.18 \$700,000		
177	15 Engineer	ring & Administration		EA	Subtotal		\$655,313
180	Infrastructure	E & A 35.00%			Subiolai	\$655,313	φ000,313
181	Vehicle	E&A 5.00%				ψ000,010	
185	16 - Continge				Subtotal		\$374,464
187	Vehicles	Contingency 5.00%			Casiolai		ψοί -1,404
189	Infrastructure	Contingency 20.00%				\$374,464	
191	Utilities	Contingency 100.00%				ψο, ιστ	
194		ton State Sales Tax and Real Estate Tax					\$125,820
195		Sales Tax 8.40%				\$125,820.00	* -/
		Sales Tax has been applied to 2/3 of Infrastructure &				,	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$3,027,918

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 300.3

	Spokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Order of magnitude		Otart Ota	Liid Old	Longin	
		Maintenance Facility Alternate 3					
	C -300.3	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Offic	Unit Cost	Extension	20019
1	1-CIVII COIIst	Site Preparation - Clearing & Grubbing		LF	\$10.00		
2		Grade Preparation to Top of subballast.		LF	\$35.00		
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation		CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)		CY	\$4.00		
<u>8</u> 9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)		SF LF	\$2.00 \$16.00		
10		Chain Link Fencing 4 (on walls of Ballast Curb)		LF	\$22.00		
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance		LF	\$6.00		
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure		TF	\$223		
15	1	Embedded (Paved) Track at Grade		TF	\$312		
16	1	Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19 20	+	LRT Siding or Pocket Track Double Crossover		TF EA	\$230 \$300,000		
21	+	Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28 29		Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild		EA EA	\$200,000 \$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA TF	\$65,000.00		
35 36		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR		TF	\$100.00 \$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120		RF	\$15.06		
41		Signal Communication Building LTK130		EA	\$60,000.00		
42	-	Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43 45	1	Ductbank/ Conduit -OPEN TRACK- LTK140		RF RF	\$110.00 \$10.73		
50	2 - Incurance	Corrosion Mitigation LTK150 - Included other in Items		KF	\$10.73		
57	3 - Utilities	morado otror in nomo					
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low		RF	\$100.00		
70		erials - Included in the Rail Items			1		
74	5 - Structures			10	04.00		
75 76	+	Bridge Structures DEA Bridge Location		LS	\$1.00		
77	+	Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78	+	MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						
105		Stations	1	LS			
106		Station Name					
107	1	Artwork (*Subject to Board Policy)		LS	\$1.00		
108 115	7 - Park & Ric	Platform Electrical LTK610		LS	\$100,000		
116	r - raik & KIC	Park & Ride		Space	\$4,300		
117	1	Park & Ride Location		Space	Ψ1,300		
119	8 - Operation	s Facility (All Yard elements Included)					\$39,284,82
123		Bldg & Yard Site Prep, Grading & Utilities LTK811	1.0	LS	\$18,551,516	\$18,551,516	

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 300.3

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Lenath	
	Drawing	oraci or magau		01011 010	2.1.0 01.0		
	C -300.3	Maintenance Facility Alternate 3					
	C -300.3		Ouentitus	l lmi4	Unit Coot	Extension	20046
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	75,000	SF	\$171.00	\$12,825,000	
125		Yard Maintenance Equipment LTK	1	LS	\$4,160,844	\$4,160,844	
126		Maintenance of Way Vehicles LTK	1	LS	\$1,847,460		
127	0 T	Communications Control Center/ Hardware/ Software LTK	1	LS	\$1,900,000	\$1,900,000	
133	9 - Traction F	Power System		Ε.Δ	Ф7 ГО 000		
136 138		Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920		EA RF	\$750,000		
					\$123.00		
139		OCS Simple Catenary LTK930		RF	\$109.00		
141		Lighting LTK940 Spare Parts/ System support LTK950		RF	\$8.11		
142	40 Ciamal C			LS	\$38.47		
147	10 - Signal S			D.E.	¢000.00		
148	44 0	Signal (Alt 2 & Alt 3)		RF	\$288.88		
151 152	11 - Commun	Communications (Alt 2 & Alt 3)		RF	\$127.12		
157	12 - Fare Col			KF	\$127.12		
158	12 - Fare Coi			LS	# 000 004		
160		Fare Collection Vending/ Validator & Spares LTK1200 Subtotal - Infrastructure		LS	\$202,321 Subtotal		\$39,284,82
161		Subtotal - Infrastructure			Subiolai		φ39,204,02
162	13. Right of \	Nov					
102	13. Kigiit oi v	Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
103		Alternate 2 HazMat Demo & Disposal (Tanks, Waste		LO	\$30,000,000		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
104		Alternate 3 DEA Right of Way Acquisition Budget			ψ5,000,000.00		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Anternate 4 Traziviai Demo & Disposai (Tariks, vvaste ivingati		LO	ψ5,000,000.00		
175	14. Verneies	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Enginee	ring & Administration			Subtotal		\$13,749,68
180	Infrastructure	E & A 35.00%			Gubiotai	\$13,749,687	Ψ.ο,ο,οο
181	Vehicle	E & A 5.00%				Ψ10,140,001	
185	16 - Continge				Subtotal		\$7,856,96
187	Vehicles	Contingency 5.00%			Gubiotai		ψ.,σσσ,σσ
189	Infrastructure	Contingency 20.00%				\$7,856,964	
191	Utilities	Contingency 100.00%				Ţ.,222,30·	
194		ton State Sales Tax and Real Estate Tax					\$2,639,94
195		Sales Tax 8.40%				\$2,639,939.90	. , ,
		Sales Tax has been applied to 2/3 of Infrastructure &				, , ,	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$63,531,41
	+				+		, , ,

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 201.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta		
	Drowing	Lincoln to Convention Center				Length	0.4 mile
	Drawing	Downtown Section Alternate 4		5+00	25+00	2,000 FT	0.4 mile
	C -201.4		Oversity	I Imia	Unit Coot	Extension	2004¢
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const	Site Preparation - Clearing & Grubbing	2,000	LF	\$10.00	\$20,000	\$6,360,598
2		Grade Preparation to Top of subballast.	2,000	LF	\$35.00	\$70,000	
3		Curb & Gutter Allowance	4,000	LF	\$35.00	\$140,000	
4		Common Excavation	14,815	CY	\$15.00	\$222,222	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)		CY	\$4.00		
<u>8</u> 9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)		SF LF	\$2.00 \$16.00		
10		Chain Link Fencing 4 (on walls of Ballast Curb)		LF	\$22.00		
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,000	LF	\$6.00	\$12,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	1	EA	\$8,000	\$8,000	
14		Ballasted Track at Grade or Structure		TF	\$223		
15		Embedded (Paved) Track at Grade	4,000	TF	\$312	\$1,248,000	
16 19		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF TF	\$280 \$230		
20		Double Crossover	1	EA	\$300,000	\$300,000	
21		Single Crossover		EA	\$150,000	ψ500,000	
22		Turnout		EA	\$75,000		
23		Impact Attenuators	2	EA	\$35,000	\$70,000	
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000	A 4 000 000	
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)	6	EA EA	\$200,000 \$100.000	\$1,200,000	
28		Major Traffic Signal (4 Lanes)	6	EA	\$200,000	\$1,200,000	
29		Complex Major Intersection Rebuild	0	EA	\$300,000	ψ1,200,000	
30		Roadway Construction	85,200	SF	\$9.00	\$766,800	
31		Sidewalk Construction	72,000	SF	\$6.00	\$432,000	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -			* 0= 00		
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	0.000	EA	\$60,000.00	000 440	
40 41		OCS Pole Foundations LTK120 Signal Communication Building LTK130	2,000	RF EA	\$15.06 \$60,000.00	\$30,110	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	2,000	RF	\$200.00	\$400,000	
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,000	RF	\$110.00	\$220,000	
45		Corrosion Mitigation LTK150	2,000	RF	\$10.73	\$21,466	
		- Included other in Items		·			
57	3 - Utilities	ALCON AND ADDITIONAL CONTRACTOR OF THE PARTY	2 222		A 000 00	A4 000 000	\$1,200,000
59 60		Utility Allowance - High Utility Allowance - Medium	2,000	RF RF	\$600.00 \$350.00	\$1,200,000	
61		Utility Allowance - Nedium Utility Allowance - Low		RF	\$350.00		
70	4 - Track Mat	erials - Included in the Rail Items		131	ψ100.00		
74	5 - Structures						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA		SF	\$32.00		
78 79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		SF LF	\$30.00 \$3,500.00		
104	6 - Stations	Out a Gover Dow Turiner to Fine Noau Aeriai Station		LF	ψ3,300.00		\$800,000
105	Juniona	Stations	1	LS	\$700,000	\$700,000	ψ550,000
106		Station Name	Plaza Station		Platform	,	
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610	1	LS	\$100,000	\$100,000	
	7 - Park & Ric			_			
115		Park & Ride		Space	\$4,300		
116				-	Ţ.,555		
	9 Operation	Park & Ride Location s Facility (All Yard elements Included)			7 1,000		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 201.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Lincoln to Convention Center		5+00	25+00	2,000 FT	0.4 mile
	C -201.4	Downtown Section Alternate 4		0.00	20100	2,00011	0.111111
	0 -201.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00	EXTENSION	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System		LO	ψ1,300,000		\$339,14
136	3 - Haction I	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ555,14
138		OCS Single Contact Wire LTK920	2.000	RF	\$123.00	\$246,000	
139		OCS Simple Catenary LTK930	2,000	RF	\$109.00	42.0,000	
141		Lighting LTK940	2,000	RF	\$8.11	\$16,212	
142		Spare Parts/ System support LTK950	2,000	LS	\$38.47	\$76,930	
147	10 - Signal S		_,,,,,		700	4.0,000	\$577,75
148		Signal (Alt 2 & Alt 3)	2,000	RF	\$288.88	\$577,752	*
151	11 - Commur		_,,,,,		4	*** *********************************	\$254,24
152		Communications (Alt 2 & Alt 3)	2,000	RF	\$127.12	\$254,246	* ,
157	12 - Fare Col	lection					\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$9,734,06
161							
162	13. Right of V	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		A 0.400.00
179		ring & Administration			Subtotal	00.400.004	\$3,406,92
180	Infrastructure	E & A 35.00%				\$3,406,921	
181	Vehicle	E & A 5.00%			0.1.1.1.1		#0.000.04
185 187	16 - Continge Vehicles				Subtotal		\$2,906,81
187	Infrastructure	Contingency 5.00%				\$1,706,812	
191	Utilities	Contingency 20.00% Contingency 100.00%				\$1,706,812	
194		ton State Sales Tax and Real Estate Tax				ψ1,200,000	\$707,88
195	wasiiiig	Sales Tax and Real Estate Tax Sales Tax 8.40%				\$707,888.81	ψι σι ,σο:
100		Sales Tax has been applied to 2/3 of Infrastructure &				ψι σι ,σσσ.σ1	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
.00		5. 1.5 Tolliolo o dell'Indica totali					
	1					Total	\$16,755,68

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 202.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta		
	Drowing	Convention Center to Trent Station			50+00	Length	0 E mila
	Drawing			25+00	50+00	2,500 FT	0.5 mile
	C -202.4	Downtown Section Alternate 4	O	I India	Unit Coot	F. et a maila m	20046
	4 Civil Come	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$4,753,932
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	3,200	LF	\$35.00	\$112,000	
4		Common Excavation	13,074	CY	\$15.00	\$196,110	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	463	CY	\$4.00	\$1,852	
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF LF	\$16.00		
10 11		Chain Link Fencing 6' Ballast Walls (Curb-no drainage)		LF LF	\$22.00 \$22.00		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,000	EA	\$8,000	Ψ10,000	
14		Ballasted Track at Grade or Structure	2,000	TF	\$223	\$446,000	
15		Embedded (Paved) Track at Grade	3,000	TF	\$312	\$936,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230	A	
20		Double Crossover	1	EA	\$300,000	\$300,000	
21		Single Crossover	+	EA	\$150,000 \$75,000		
22 23		Turnout Impact Attenuators		EA EA	\$75,000 \$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)	3	EA	\$200,000	\$600,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)	3	EA	\$200,000	\$600,000	
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction	63,000	SF	\$9.00	\$567,000	
31 32		Sidewalk Construction Off Alignment Signal Modifications	48,000	SF EA	\$6.00 \$75,000.00	\$288,000	
32		Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -			700.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110	1	LS EA	\$476,000.00 \$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	2,500	EA	\$60,000.00	ψ57,050	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	2,000	RF	\$200.00	\$400,000	
43		Ductbank/ Conduit -OPEN TRACK- LTK140	500	RF	\$110.00	\$55,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					
57	3 - Utilities	I killer Allermane a Lijeb	4.500	D-	#000 CC	# 000 000	\$1,250,00
59 60		Utility Allowance - High Utility Allowance - Medium	1,500 1,000	RF RF	\$600.00 \$350.00	\$900,000 \$350,000	
61		Utility Allowance - Medium Utility Allowance - Low	1,000	RF	\$100.00	φ350,000	
70	4 - Track Mat	terials - Included in the Rail Items		IXI	ψ100.00		
74	5 - Structure:						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79 104	6 - Stations	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		\$000.00
104	o - Stations	Stations	1	LS	\$700,000	\$700,000	\$800,00
106	+	Station Name	Convention Co			Ψ100,000	
107		Artwork (*Subject to Board Policy)	501110111011101	LS	\$1.00		
108		Platform Electrical LTK610	1	LS	\$100,000	\$100,000	
115	7 - Park & Ri						
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location					
119	8 - Operation	s Facility (All Yard elements Included)			010		
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 202.4

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Convention Center to Trent Station		25+00	50+00	2.500 FT	0.5 mile
	C -202.4	Downtown Section Alternate 4		20100	00100	2,00011	0.0 111110
	C -202.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	EXTENSION	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$1,166,92
136	J - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,100,32
138		OCS Single Contact Wire LTK920	2.000	RF	\$123.00	\$246,000	
139		OCS Simple Catenary LTK930	500	RF	\$109.00	\$54,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		,		,	****,	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* , -
151	11 - Commur		,		,		\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col	lection				·	\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	•
160		Subtotal - Infrastructure			Subtotal		\$9,213,17
161							
162	13. Right of \	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177	45 5	Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		#0.004.04
179		ring & Administration			Subtotal	#0.004.040	\$3,224,61
180 181	Infrastructure Vehicle	E & A 35.00%				\$3,224,612	
185	16 - Continge	E & A 5.00%			Subtotal		\$2,842,63
187	Vehicles	Contingency 5.00%			Juniolai		φ∠,04∠,03
189	Infrastructure	Contingency 5.00% Contingency 20.00%				\$1,592,636	
191	Utilities	Contingency 20.00%				\$1,250,000	
194		ton State Sales Tax and Real Estate Tax				ψ1,200,000	\$675,12
195	TT TTGSTINIS	Sales Tax 8.40%				\$675,125.59	φοιο, ι Σ
.00		Sales Tax has been applied to 2/3 of Infrastructure &				\$5.5,.25.00	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$15,955,55

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 203.4

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Trent Station to Hamilton St Bridge Area		50+00	75+00	2,500 FT	0.5 mile
		BN Section Alternate 4		00.00	10.00	2,000	0.0
	0 200.4	Description Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Onic	Onit Oost	LAterision	\$2,127,790
1	. Givii Goiloi	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ2,127,700
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation	21,044	CY	\$15.00	\$315,660	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	2,790	CY	\$4.00		
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF . =	\$16.00		
10		Chain Link Fencing 6'	4,500	LF	\$22.00		
11		Ballast Walls (Curb-no drainage)	0.500	LF	\$22.00		
12 13		Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	LF EA	\$6.00 \$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223		
15		Embedded (Paved) Track at Grade	5,000	TF	\$312		
16	 	Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
20		Construct Maintenance Road Assume All Weather Gravel -		LF	¢25.00		
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	1	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00		
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					
57	3 - Utilities	LICEC Allegan LPs.		5-	A		\$250,000
59		Utility Allowance - High		RF	\$600.00		
60	1	Utility Allowance - Medium	0.500	RF	\$350.00		
61	4 Treals No.	Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70 74	5 - Structure	terials - Included in the Rail Items					
75	5 - Structure	Bridge Structures DEA		LS	\$1.00		
76		Bridge Location		LO	ψ1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
79	6 - Stations				,		\$850,000
	o - Otations	Stations	1	LS	\$750,000	\$750,000	,
79	0 - Otations		Tarant Otation (Center Platforn			
79 104 105 106	0 - Otations	Station Name	Trent Station (
79 104 105 106 107	o - otations	Station Name Artwork (*Subject to Board Policy)		LS	\$1.00		
79 104 105 106 107 108		Station Name Artwork (*Subject to Board Policy) Platform Electrical LTK610	1 rent Station (\$1.00 \$100,000		
79 104 105 106 107 108 115	7 - Park & Ri	Station Name Artwork (*Subject to Board Policy) Platform Electrical LTK610 des		LS LS	\$100,000	\$100,000	
79 104 105 106 107 108 115 116		Station Name Artwork (*Subject to Board Policy) Platform Electrical LTK610 des Park & Ride	1	LS		\$100,000	
79 104 105 106 107 108 115	7 - Park & Ri	Station Name Artwork (*Subject to Board Policy) Platform Electrical LTK610 des		LS LS	\$100,000	\$100,000	

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 203.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Trent Station to Hamilton St Bridge Area		50+00	75+00	2,500 FT	0.5 mile
	C -203.4	BN Section Alternate 4		00100	70.00	2,00011	0.0 11111
	C -203.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	LAGIISIOII	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ.,σσσ,σσσ		\$1,138,92
136		Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	¥ 1,100,0=
138		OCS Single Contact Wire LTK920		RF	\$123.00	*,	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commur						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$5,609,03
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166 167		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati Alternate 4 DEA Right of Way Acquisition Budget Estima		LS LS	\$5,000,000.00		
168		Alternate 4 DEA Right of Way Acquisition Budget Estima Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$26,771,815.00 \$5,000,000.00		
174	14. Vehicles	Alternate 4 Haziviat Demo & Disposai (Tariks, vvaste iviitigati		LS	\$5,000,000.00		
175	14. Venicies	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 d		EA	\$700,000		
179	15 - Engineer	ring & Administration		E/X	Subtotal		\$1,963,16
180	Infrastructure	E & A 35.00%			Cubiciui	\$1,963,163	ψ1,000,10
181	Vehicle	E & A 5.00%				ψ1,000,100	
185	16 - Continge				Subtotal		\$1,321,80
187	Vehicles	Contingency 5.00%					. ,==:,00
189	Infrastructure	Contingency 20.00%				\$1,071,807	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$388,12
195		Sales Tax 8.40%				\$388,127.25	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$9,282,13
				1			

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 204.4

	Spokane	Regional					
		Light Rail Project			Fstima	te Basics	
		Order of Magnitude		Start Sta	End Sta		
	Drawing	Hamiliton St Bridge Area to Helena Street				Length	0 E mile
		BN Section Alternate 4		75+00	100+00	2,500 FT	0.5 mile
	C -204.4		O a m 4 i fr	11	Unit Coot	Futancian	2004
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$ \$2,130,745
1	1-Civil Const	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,130,743
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	2,000	LF	\$35.00	φο,,οσσ	
4		Common Excavation	2,088	CY	\$15.00	\$31,320	
5		Select Backfill (MSE Retaining Walls)	13,697	CY	\$15.00	\$205,455	
6		Common Backfill (From Project Excavation)	31,400	CY	\$4.00	\$125,600	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)		SF LF	\$2.00 \$16.00		
10		Chain Link Fencing 4 (on waits of Ballast Curb)	200	LF	\$22.00	\$4,400	
11		Ballast Walls (Curb-no drainage)	200	LF	\$22.00	ψ+,+00	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade	1	TF	\$312		
16 19		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF TF	\$280 \$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)	+	EA EA	\$200,000 \$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
20		Construct Maintenance Road Assume All Weather Gravel		LF	фог оо		
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -	+	LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR	1,400	TF	\$130.00	\$182,000	
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39 40		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2,500	EA RF	\$60,000.00 \$15.06	\$37,638	
41		Signal Communication Building LTK130	2,500	EA	\$60,000.00	\$37,030	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					
57	3 - Utilities	Htility Allowance High	1	DF	#600.00		\$250,000
59 60	-	Utility Allowance - High Utility Allowance - Medium	1	RF RF	\$600.00 \$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	2,000	- • •	\$.55.00	\$200,000	
74	5 - Structure:	S					\$1,596,000
75		Bridge Structures DEA	891,000	LS	\$1.00	\$891,000	
76		Bridge Location	Erie & Helena		***		
77 78	 	Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA	22 500	SF SF	\$32.00 \$30.00	\$705,000	
78 79	1	Cut & Cover Box/ Tunnel to Pine Road Aerial Station	23,500	LF	\$3,500.00	φ/05,000	
104	6 - Stations	Cat a Cover Book Taliffer to Fille Road Actial Gladfoll			ψυ,υυυ.υυ		
105		Stations	1	LS			
106		Station Name					
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610	-	LS	\$100,000		
115	7 - Park & Ri		+	Snoon	¢4 200		
116 117	-	Park & Ride Park & Ride Location	1	Space	\$4,300		
119	8 - Operation	is Facility (All Yard elements Included)	+				
		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 204.4

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Hamiliton St Bridge Area to Helena Street		75+00	100+00	2,500 FT	0.5 mile
	C -204.4	BN Section Alternate 4		70.00	100100	2,00011	0.0 11111
	C -204.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	LATERISION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,000,000		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		+000,00
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$5,405,67
161							
162	13. Right of \						
400		Alternate 2 DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)			# 00 000 000		
163		Alternate 2 HazMat Demo & Disposal (Tanks, Waste		LS	\$30,000,000		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
104		Alternate 3 DEA Right of Way Acquisition Budget		LO	\$5,000,000.00		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles				\$ 0,000,000.00		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Enginee	ring & Administration			Subtotal		\$1,891,98
180	Infrastructure	E & A 35.00%				\$1,891,985	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,281,13
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,031,134	
191	Utilities	Contingency 100.00%				\$250,000	0074 10
194	17 - Washing	ton State Sales Tax and Real Estate Tax				P074 404 00	\$374,46
195		Sales Tax 8.40% Sales Tax has been applied to 2/3 of Infrastructure &				\$374,461.02	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
190	-	or the verilide's estimated total.					
						Total	\$8,953,25
						I Utai	ψυ,συυ,Ζυ

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 205.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Helena Street to New BN Yard Bridge		100+00	125+00	2,500 FT	0.5 mile
		BN Section Alternate 4		100+00	125+00	2,500 F1	0.5 111116
	C -205.4		Ougatitus	l lmi4	Unit Coot	Extension	20046
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$ \$2,416,363
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,410,303
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	,	LF	\$35.00	***	
4		Common Excavation		CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)	35,831	CY	\$15.00	\$537,465	
6 8		Common Backfill (From Project Excavation)	58,932	CY SF	\$4.00 \$2.00	\$235,728	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$2.00 \$16.00		
10		Chain Link Fencing 6'	500	LF	\$22.00	\$11,000	
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2	EA	\$8,000	\$16,000	
14		Ballasted Track at Grade or Structure	4,400	TF TF	\$223	\$981,200	
15 16	+	Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure	600	TF	\$312 \$280	\$168,000	
19	1	LRT Siding or Pocket Track	550	TF	\$230	ψ100,000	
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24 25		Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes)		EA EA	\$25,000 \$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31 32		Sidewalk Construction Off Alignment Signal Modifications		SF EA	\$6.00 \$75,000.00		
32		Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36 37		Remove & Relocate Industrial Spur HDR Provide Team Track and Loading Dock (HDR)		TF LS	\$130.00 \$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130		EA	\$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140	0.500	RF	\$200.00	#07F 000	
43 45		Ductbank/ Conduit -OPEN TRACK- LTK140 Corrosion Mitigation LTK150	2,500 2,500	RF RF	\$110.00 \$10.73	\$275,000 \$26,833	
50	2 - Insurance	e - Included other in Items	2,500	131	ψ10.73	Ψ20,000	
57	3 - Utilities						\$250,000
59		Utility Allowance - High		RF	\$600.00		, , , , ,
60	1	Utility Allowance - Medium		RF	\$350.00		
61	4 Tag -1 32 :	Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70 74	4 - Track Mat 5 - Structure	terials - Included in the Rail Items	+				\$3,168,000
75	5 - Giraciales	Bridge Structures DEA	2,046,000	LS	\$1.00	\$2,046,000	ψυ, 100,000
76		Bridge Location	Madelia, Napa		Ţ00	. ,,	
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78	1	MSE Retaining Wall - Typical DEA	37,400	SF	\$30.00	\$1,122,000	
79 104	6 - Stations	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	o - Stations	Stations	1	LS			
106	+	Station Name	+ '	LO			
107	1	Artwork (*Subject to Board Policy)	+	LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ri						
116	1	Park & Ride	1	Space	\$4,300		
117	0 0 0	Park & Ride Location	1				
119 123	o - Operation	BIG & Yard Site Prep, Grading & Utilities LTK811	+	LS	\$18,551,516		
123		Didy a ratu one Frep, Grading a Utilities LTNOTT		LO	φ10,331,316		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 205.4

124 125 126 127 133 9 - 138 139 141 142 147 10 148 151 11 152 157 12 158 160	Drawing C -205.4	Regional Light Rail Project Order of Magnitude Helena Street to New BN Yard Bridge BN Section Alternate 4 Description Operations Facility Building LTK Yard Maintenance Equipment LTK Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK Ower System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920 OCS Simple Catenary LTK930	Quantity	Start Sta 100+00 Unit SF LS	1	te Basics Length 2,500 FT Extension	0.5 mile
124 125 126 127 133 9- 138 139 141 142 147 10 148 151 152 157 152 157 158 160 161 162 13.	C -205.4	Order of Magnitude Helena Street to New BN Yard Bridge BN Section Alternate 4 Description Operations Facility Building LTK Yard Maintenance Equipment LTK Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK ower System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920	Quantity	Unit SF LS	End Sta 125+00 Unit Cost \$171.00	Length 2,500 FT	
124 125 126 127 133 9- 138 139 141 142 147 10 148 151 152 157 152 157 158 160 161 162 13.	C -205.4	Helena Street to New BN Yard Bridge BN Section Alternate 4 Description Operations Facility Building LTK Yard Maintenance Equipment LTK Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK Ower System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920	Quantity	Unit SF LS	125+00 Unit Cost \$171.00	2,500 FT	
124 125 126 127 133 9- 138 139 141 142 147 10 148 151 152 157 152 157 158 160 161 162 13.	C -205.4	BN Section Alternate 4 Description Operations Facility Building LTK Yard Maintenance Equipment LTK Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK Ower System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920	Quantity	Unit SF LS	Unit Cost \$171.00		
124	- Traction P	Description Operations Facility Building LTK Yard Maintenance Equipment LTK Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK Ower System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920	Quantity	SF LS	\$171.00	Extension	2001\$
125 126 127 133 9- 136 138 139 141 142 147 10 148 151 152 157 158 160 161 162 13.		Operations Facility Building LTK Yard Maintenance Equipment LTK Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK Ower System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920	Quantity	SF LS	\$171.00	Extension	20019
125 126 127 133 9- 136 138 139 141 142 147 10 148 151 152 157 158 160 161 162 13.		Yard Maintenance Equipment LTK Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK ower System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920		LS			
126 127 133 9- 136 138 139 141 142 147 10 148 151 152 157 12 158 160 161 162 13.		Maintenance of Way Vehicles LTK Communications Control Center/ Hardware/ Software LTK ower System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920					
127 133 9- 136 138 139 141 142 147 10 148 151 152 157 12 158 160 161 162 13.		Communications Control Center/ Hardware/ Software LTK Power System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920			\$1,847,460		
133 9- 136 138 139 141 142 147 10 148 151 11 152 157 12 158 160 161 162 13.		ower System Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920		LS LS	\$1,900,000		
136 138 139 141 142 147 10 148 151 152 157 12 158 160 161 162 13.		Sub-Station Type 3 LTK 910 OCS Single Contact Wire LTK920			\$1,300,000		\$388,92
138 139 141 142 147 10 148 151 152 157 12 158 160 161 162 13.	0 - Signal Sy	OCS Single Contact Wire LTK920		EA	\$750,000		Ψ300,92
139 141 142 147 10 148 151 152 157 12 158 160 161 162 163	0 - Signal Sy			RF	\$123.00		
141 142 147 10 148 151 152 157 12 158 160 161 162 13.	0 - Signal Sy		2,500	RF	\$109.00	\$272,500	
142	0 - Signal Sy	Lighting LTK940	2,500	RF	\$8.11	\$20,265	
147	0 - Signal Sy	Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
148	· •.g,		2,000		ψου	ψου, του	\$722,19
151 11 152 157 12 157 12 158 160 161 162 13.		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
152 157 158 160 161 162 163	1 - Commun		2,000		Ψ200.00	ψ. <u>22,</u> 100	\$317,80
157 12 158 160 161 162 13 .		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	Ψσ,σσ
158 160 161 162 163	2 - Fare Coll		,		,	, , , , , , , , , , , , , , , , , , , ,	
160 161 162 13. 163		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
162 13.		Subtotal - Infrastructure			Subtotal		\$7,263,28
163							
	3. Right of V	Vay					
		Alternate 2 DEA Right of Way Acquisition Budget					
164		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
164		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		•
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		•
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
	4. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
		ing & Administration			Subtotal		\$2,542,15
	frastructure	E & A 35.00%				\$2,542,151	
	ehicle	E & A 5.00%					
	6 - Continge				Subtotal		\$1,652,65
	ehicles	Contingency 5.00%					
	frastructure	Contingency 20.00%				\$1,402,658	
	tilities	Contingency 100.00%				\$250,000	
	7 - Washing	ton State Sales Tax and Real Estate Tax				A 400 000 05	\$499,29
195		Sales Tax 8.40% Sales Tax has been applied to 2/3 of Infrastructure &				\$499,292.95	
		Contingency (Reduced to eliminate tax on Labor) and 100%			1		
196		of the vehicle's estimated total.					
190		or the vehicle's estimated total.			+		
						Total	\$11,957,38
						roidi	φιι,957,385

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 206.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	New BN Yard Bridge to Regal Street		125+00	150+00	2,500 FT	0.5 mile
		UP Section Alternate 4		123+00	130+00	2,300 F 1	0.5 111116
	C -200.4	Description	Ougntitu	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Ullit	Unit Cost	Extension	\$2,414,312
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,414,312
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation	2,078	CY	\$15.00	\$31,170	
5		Select Backfill (MSE Retaining Walls)	21,120	CY	\$15.00	\$316,800	
6		Common Backfill (From Project Excavation)	568	CY SF	\$4.00 \$2.00	\$2,272	
8 9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	2,850	LF	\$2.00 \$16.00	\$45,600	
10		Chain Link Fencing 4 (on waits of Ballast Outs)	2,000	LF	\$22.00	\$44,000	
11		Ballast Walls (Curb-no drainage)	1,250	LF	\$22.00	\$27,500	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15 16	 	Embedded (Paved) Track at Grade		TF TF	\$312 \$280		
16	1	Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF	\$280 \$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover	1	EA	\$150,000	\$150,000	
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25 26		Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes)		EA EA	\$100,000 \$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide		LF	\$35.00		
33		Industrial Railroad Turnouts East Side Syndicate Spur -		Li	ψ33.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line	950	TF	\$100.00	\$95,000	
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR)	1	LS EA	\$476,000.00 \$60,000.00	\$60.000	
40		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2,500	RF	\$60,000.00	\$37,638	
41		Signal Communication Building LTK130	2,300	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	<u>'</u>	RF	\$200.00	\$50,000	
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					#050.000
57 59	3 - Utilities	Utility Allowance - High		DE	\$600.00		\$250,000
59 60	1	Utility Allowance - High Utility Allowance - Medium		RF RF	\$600.00 \$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	_,		7.11.00		
74	5 - Structure:						\$775,500
75		Bridge Structures DEA	280,500	LS	\$1.00	\$280,500	
76	1	Bridge Location	Altamont	٥-	#00.00		
77 78		Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA	16,500	SF SF	\$32.00 \$30.00	\$495,000	
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station	10,300	LF	\$3,500.00	Ψ490,000	
104	6 - Stations	2.1. 2.10. 20% (a.m.o. to . mo rioda / tonal otation		-	\$0,000.00		\$850,000
105		Stations	1	LS	\$750,000	\$750,000	
106		Station Name	Altamont Stati	on Center Pla	tform		
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108	7 5	Platform Electrical LTK610	1	LS	\$100,000	\$100,000	
115 116	7 - Park & Ri	des Park & Ride		Space	\$4,300		
117	1	Park & Ride Park & Ride Location		Space	\$4,300		
119	8 - Operation	is Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		
		. •					

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 206.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	New BN Yard Bridge to Regal Street		125+00	150+00	2,500 FT	0.5 mile
	C -206.4	UP Section Alternate 4		120100	100100	2,00011	0.0 11111
	C -200.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	EXTENSION	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System		LO	ψ1,300,000		\$1,138,92
136	3 - Haction I	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,130,32
138		OCS Single Contact Wire LTK920	·	RF	\$123.00	ψ. σσ,σσσ	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		,	_	, , , ,	****,	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commur		,			, ,	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col	lection					\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$6,671,05
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166 167		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati Alternate 4 DEA Right of Way Acquisition Budget Estima		LS LS	\$5,000,000.00		
168		Alternate 4 DEA Right of Way Acquisition Budget Estima Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$26,771,815.00 \$5,000,000.00		
174	14. Vehicles	Alternate 4 Haziviat Demo & Disposai (Tanks, waste Mitigati		LS	\$5,000,000.00		
175	14. Venicies	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Base Cost LTK 1600 Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 d		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		\$2,334,87
180	Infrastructure	E & A 35.00%			Oubtotal	\$2,334,870	Ψ2,001,01
181	Vehicle	E & A 5.00%				\$2,00 1,07 0	
185	16 - Continge				Subtotal		\$1,534,21
187	Vehicles	Contingency 5.00%					· / /
189	Infrastructure	Contingency 20.00%				\$1,284,212	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$459,49
195		Sales Tax 8.40%				\$459,495.13	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$10,999,630
					1		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 207.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Regal Street to Freya Street		150+00	175+00	2,500 FT	0.5 mile
		UP Section Alternate 4		130100	173100	2,30011	0.5 111110
	0 -207.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Oilit	Onit Oost	LAterision	\$2,541,117
1	. Givii Gonida	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ2,041,117
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation	5,709	CY	\$15.00	\$85,635	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	28	CY	\$15.00 \$4.00	\$112	
8		Landscaping Allowance	20	SF	\$2.00	\$112	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	2,100	LF	\$16.00	\$33,600	
10		Chain Link Fencing 6'	2,850	LF	\$22.00	\$62,700	
11		Ballast Walls (Curb-no drainage)	4,600	LF	\$22.00	\$101,200	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	5 000	EA	\$8,000	04.445.000	
14 15		Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade	5,000	TF TF	\$223 \$312	\$1,115,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23 24		Impact Attenuators Minor Street Closures Allowance	3	EA EA	\$35,000 \$25,000	\$75,000	
25		Minor Intersection Rebuild (2 Lanes)	1		\$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000	Ψ100,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31 32		Sidewalk Construction Off Alignment Signal Modifications		SF EA	\$6.00 \$75,000.00		
52		Construct Maintenance Road Assume All Weather Gravel -		LA	ψ10,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR	2	EA	\$65,000.00	\$130,000	
35		Relocate UPRR Yard Lead or Branch Line	2,500	TF	\$100.00	\$250,000	
36 37		Remove & Relocate Industrial Spur HDR Provide Team Track and Loading Dock (HDR)	930	TF LS	\$130.00 \$208,000.00	\$120,900	
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130		EA	\$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140	0.500	RF	\$200.00	¢075 000	
43 45		Ductbank/ Conduit -OPEN TRACK- LTK140 Corrosion Mitigation LTK150	2,500 2,500	RF RF	\$110.00 \$10.73	\$275,000 \$26,833	
50	2 - Insurance	e - Included other in Items	2,300	IM	ψ10.73	Ψ20,033	
57	3 - Utilities						\$250,000
59		Utility Allowance - High		RF	\$600.00		•
60		Utility Allowance - Medium		RF	\$350.00	0	
61 70	4 Troots Mark	Utility Allowance - Low erials - Included in the Rail Items	2,500	RF	\$100.00	\$250,000	
70	5 - Structures						
75	o ou dotaro	Bridge Structures DEA		LS	\$1.00		
76		Bridge Location			,		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79 104	6 - Stations	Cut & Cover Box/ Tunnel to Pine Road Aerial Station	1	LF	\$3,500.00		
104	o - Stations	Stations	1	LS			
105		Station Name	<u>'</u>	- 10			
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric						
116		Park & Ride		Space	\$4,300		
117 119	8 - Operation	Park & Ride Location s Facility (All Yard elements Included)					
123	o - Operation	Bldg & Yard Site Prep, Grading & Utilities LTK811	 	LS	\$18,551,516		
120	1	12.03 C. Lard One i rop, Crading & Office E i Not i	1		Ψ10,001,010		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 207.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Regal Street to Freya Street		150+00	175+00	2,500 FT	0.5 mile
	C -207.4	UP Section Alternate 4		100100	170700	2,00011	0.0 11111
	0 -207.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	EXTENSION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$388,92
136	o muonom	Sub-Station Type 3 LTK 910		EA	\$750,000		φοσο,σ2
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		,		, , , ,	,	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	· / -
151	11 - Commur		,				\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col	lection					
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$4,220,04
161							
162	13. Right of V	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177	45 Engines	Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		£4 477 04
179		ring & Administration			Subtotal	¢4 477 045	\$1,477,01
180 181	Infrastructure Vehicle	E & A 35.00% E & A 5.00%				\$1,477,015	
185	16 - Continge				Subtotal		\$1,044,00
187	Vehicles	Contingency 5.00%			Jubiliai		φ1,044,00
189	Infrastructure	Contingency 3.00%				\$794,008	
191	Utilities	Contingency 20.00%				\$250,000	
194		ton State Sales Tax and Real Estate Tax				Ψ200,000	\$294,78
195		Sales Tax 8.40%				\$294,786.82	Ψ20 .,. σ
		Sales Tax has been applied to 2/3 of Infrastructure &				Ţ 1,1 00.0Z	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$7,035,85

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 208.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Freya Street to Havana Street Area		175+00	200+00	2,500 FT	0.5 mile
		UP Section Alternate 4		173+00	200+00	2,500 F1	0.5 111116
	C -208.4		Oversity	Unit	Unit Cost	Extension	2004 \$
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$ \$2,819,629
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,019,023
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	,	LF	\$35.00	***	
4		Common Excavation	5,861	CY	\$15.00	\$87,915	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	486	CY	\$4.00	\$1,944	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	4,700	SF LF	\$2.00 \$16.00	\$75,200	
10		Chain Link Fencing 4 (on waits of Ballast Culb)	300	LF	\$22.00	\$6,600	
11		Ballast Walls (Curb-no drainage)	4,000	LF	\$22.00	\$88,000	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16 19		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF TF	\$280 \$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout	1	EA	\$75,000	\$75,000	
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance	2		\$25,000	\$50,000	
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000	A 000 000	
26 27		Major Intersection Rebuild (4 Lanes)	1	EA EA	\$200,000	\$200,000	
28		Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes)		EA	\$100,000 \$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications	1	EA	\$75,000.00	\$75,000	
		Construct Maintenance Road Assume All Weather Gravel -			* 0= 00		
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line	2,500	TF	\$100.00	\$250,000	
36		Remove & Relocate Industrial Spur HDR	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	TF	\$130.00	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
37		Provide Team Track and Loading Dock (HDR)	1	LS	\$208,000.00	\$208,000	
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40 41		OCS Pole Foundations LTK120 Signal Communication Building LTK130	2,500	RF EA	\$15.06 \$60,000.00	\$37,638 \$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	1	RF	\$200.00	\$60,000	
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					
57	3 - Utilities	Liver An					\$250,000
59	1	Utility Allowance - High		RF	\$600.00		
60 61	 	Utility Allowance - Medium Utility Allowance - Low	2,500	RF RF	\$350.00 \$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	2,500	INF	φ100.00	φ250,000	
74	5 - Structures						\$105,000
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77	1	Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00	0.00	
78		MSE Retaining Wall - Typical DEA	3,500	SF	\$30.00	\$105,000	
79 104	6 - Stations	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		\$850,000
105	o - Glations	Stations	1	LS	\$750,000	\$750,000	ψ050,000
106		Station Name	Central Station			\$100,000	
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610	1	LS	\$100,000	\$100,000	
115	7 - Park & Ric						
		Park & Ride		Space	\$4,300		
116					1		
116 117 119	O Omoratica	Park & Ride Location s Facility (All Yard elements Included)					

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 208.4

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Freya Street to Havana Street Area		175+00	200+00	2,500 FT	0.5 mile
	C -208.4	UP Section Alternate 4		170100	200100	2,00011	0.0 11111
	C -200.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	LAIGHSIOH	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			\$1,000,000		\$1,138,92
136		Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	* 1,100,00
138		OCS Single Contact Wire LTK920		RF	\$123.00	,,	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commur						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$6,405,87
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks,Waste			A= 000 000 00		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
405		Alternate 3 DEA Right of Way Acquisition Budget			007.044.740.00		
165		Estimate (Including Railroads & Operation Facility) Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS LS	\$27,914,712.00 \$5,000,000.00		
166 167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$5,000,000.00 \$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Allemate 4 Haziviat Demo & Disposai (Tanks, Waste Willigati		LO	\$5,000,000.00		
175	14. Verificies	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration		ì	Subtotal		\$2,242,05
180	Infrastructure	E & A 35.00%			Gustotai	\$2,242,056	\$2,2 .2,00
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,481,17
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,231,175	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$441,67
195		Sales Tax 8.40%				\$441,674.83	·
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$10,570,78
		I .			1		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 209.4

	Spokane	Regional					
	•	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Havana Street Area toUPRR Spokane Yard		Start Sta	Liiu Sta	Length	
		-		200.00	225.00	2 500 ET	0 E mila
		Area		200+00	225+00	2,500 FT	0.5 mile
	C -209.4	UP Section Alternate 4	O	l last	Unit Coot	Futancian	00046
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$ \$3,269,702
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$3,209,702
2		Grade Preparation to Top of subballast.	2,500		\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation	1,322	CY	\$15.00	\$19,830	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	16 412	CY	\$15.00 \$4.00	\$65,652	
8		Landscaping Allowance	16,413	SF	\$2.00	\$65,652	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	700		\$16.00	\$11,200	
10		Chain Link Fencing 6'	4,300		\$22.00	\$94,600	
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500		\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	0.450	EA	\$8,000	D4 074 450	
14 15		Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade	6,150	TF TF	\$223 \$312	\$1,371,450	
16	+	Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track	1,500	TF	\$230	\$345,000	
20		Double Crossover	,	EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout	6		\$75,000	\$450,000	
23 24		Impact Attenuators Minor Street Closures Allowance		EA EA	\$35,000 \$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$25,000		
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000	*,	
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31 32		Sidewalk Construction Off Alignment Signal Modifications	1	SF EA	\$6.00 \$75,000.00	\$75,000	
32		Construct Maintenance Road Assume All Weather Gravel -	1	EA	\$75,000.00	\$75,000	
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line	500		\$100.00	\$50,000	
36 37		Remove & Relocate Industrial Spur HDR Provide Team Track and Loading Dock (HDR)		TF LS	\$130.00 \$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	1	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	0.500	RF	\$200.00	A075 000	
43 45		Ductbank/ Conduit -OPEN TRACK- LTK140 Corrosion Mitigation LTK150	2,500 2,500	RF RF	\$110.00 \$10.73	\$275,000 \$26,833	
50		- Included other in Items	2,300	IXI	φ10.73	Ψ20,033	
57	3 - Utilities						\$250,000
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00	4055	
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70 74	5 - Structures	erials - Included in the Rail Items					\$285,000
75		Bridge Structures DEA		LS	\$1.00		Ψ200,000
76		Bridge Location		-	Ţ 0 0		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	9,500	SF	\$30.00	\$285,000	
79	C C4-11	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		#050.000
104 105	6 - Stations	Stations	1	LS	\$750,000	\$750,000	\$850,000
106		Stations Station Name		∣ LS √ Station Triple		φ/ 50,000	
107		Artwork (*Subject to Board Policy)	. ang. Junus v	LS	\$1.00		
108		Platform Electrical LTK610	1	LS	\$100,000	\$100,000	
115	7 - Park & Ric						\$860,000
	1	Park & Ride	200	Space	\$4,300	\$860,000	
116 117		Park & Ride Location	Fairgrounds V		* /	******	

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 209.4

	Spokane	Regional					
	-	Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta		Length	
		Havana Street Area toUPRR Spokane Yard		Otal Cola	2.1.0 01.0		
	Drawing	Area		200+00	225+00	2,500 FT	0.5 mile
	C -209.4	UP Section Alternate 4		200.00	220100	2,00011	0.0 111110
	0 200.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
123		Bldg & Yard Site Prep, Grading & Utilities LTK811	quartity	LS	\$18,551,516	ZXXXIII	200.ψ
124		Operations Facility Building LTK		SF	\$171.00		
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction P	ower System					\$1,138,928
136		Sub-Station Type 3 LTK 910	1	EA	\$750,000		
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal Sy						\$722,190
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun	ications			_		\$317,808
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Coll						\$202,321
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	A= 00= 010
160		Subtotal - Infrastructure			Subtotal		\$7,895,948
161	40 Birty (V						
162	13. Right of V						
163		3		LS	¢20,000,000		
103		Estimate (Including Railroads & Operation Facility) Alternate 2 HazMat Demo & Disposal (Tanks, Waste		LS	\$30,000,000		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
104		Alternate 3 DEA Right of Way Acquisition Budget		LS	\$5,000,000.00		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Thernate 4 Trazinat Borne a Biopocai (Tarito, Vacto Mingat			ψο,οοο,οοο.οο		
175	14. VOIIIOIOO	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ing & Administration			Subtotal		\$2,763,582
180	Infrastructure	E & A 35.00%				\$2,763,582	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,779,190
187	Vehicles	Contingency 5.00%	-				
189	Infrastructure	Contingency 20.00%				\$1,529,190	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$541,808
195		Sales Tax 8.40%				\$541,807.73	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	#40.000.500
						Total	\$12,980,528
	1						

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 210.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	UPRR Spokane Yard Area		225+00	250+00	2,500 FT	0.5 mile
	C -210.4	UP Section Alternate 4		223+00	230+00	2,50011	0.5 11111
	C -210.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const	•	Quantity	Ollit	Unit Cost	Extension	\$2,033,24
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	φ2,033,24
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	, , , , , , , , , , , , , , , , , , , ,	LF	\$35.00	, , , , , , , , , , , , , , , , , , , ,	
4		Common Excavation	393	CY	\$15.00	\$5,895	
5		Select Backfill (MSE Retaining Walls)	17,333	CY	\$15.00	\$259,995	
6		Common Backfill (From Project Excavation)	1,722	CY	\$4.00	\$6,888	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	3,600	SF LF	\$2.00 \$16.00	\$57,600	
10		Chain Link Fencing 4' (off walls of Ballast Curb)	1,400	LF	\$22.00	\$30,800	
11		Ballast Walls (Curb-no drainage)	1,100	LF	\$22.00	ψου,ουυ	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2	EA	\$8,000	\$16,000	
14		Ballasted Track at Grade or Structure	3,700	TF	\$223	\$825,100	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure	1,300	TF	\$280	\$364,000	
19 20		LRT Siding or Pocket Track Double Crossover		TF EA	\$230 \$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28 29		Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild		EA EA	\$200,000 \$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35 36		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR		TF TF	\$100.00 \$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130		EA	\$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140	0.500	RF	\$200.00	0075.000	
43 45		Ductbank/ Conduit -OPEN TRACK- LTK140 Corrosion Mitigation LTK150	2,500 2,500	RF RF	\$110.00 \$10.73	\$275,000 \$26,833	
50	2 - Insurance	e - Included other in Items	2,500	NΓ	\$10.73	\$∠0,033	
57	3 - Utilities	, moradou otnor minomo					\$250,00
59		Utility Allowance - High		RF	\$600.00		Ψ200,00
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		terials - Included in the Rail Items					A
74	5 - Structure		0.044.000	10	04.00	60.044.000	\$3,276,00
75 76		Bridge Structures DEA Bridge Location	2,211,000 RR Spur Over	LS	\$1.00	\$2,211,000	
77		Retaining Wall 4' Max (Low Gravity Wall)	KK Spui Ovei	SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	35,500	SF	\$30.00	\$1,065,000	
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station	2,230	LF	\$3,500.00	. ,	
104	6 - Stations						
105		Stations	1	LS			
106		Station Name					
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108	7 - Dark 9 D:	Platform Electrical LTK610		LS	\$100,000		
115 116	7 - Park & Ri	Park & Ride	+	Space	\$4,300		
117		Park & Ride Location	+	Opace	ψ+,300		
119	8 - Operation	ns Facility (All Yard elements Included)					
123	.,	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 210.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	UPRR Spokane Yard Area		225+00	250+00	2,500 FT	0.5 mile
	C -210.4	UP Section Alternate 4			200100	2,000	0.0
	0 -210.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00		20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction P	Power System			\$1,000,000		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		******
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal Sy	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Coll						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$6,988,17
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
404		Alternate 2 HazMat Demo & Disposal (Tanks,Waste			# F 000 000 00		
164		Mitigation etc.) - Allowance Alternate 3 DEA Right of Way Acquisition Budget		LS	\$5,000,000.00		
405		Estimate (Including Railroads & Operation Facility)		1.0	COZ 044 740 00		
165 166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS LS	\$27,914,712.00 \$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Anternate 4 Traziviai Demo & Disposai (Tariks, vvaste ivitigati		LO	ψ3,000,000.00		
175	14. 701110100	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		\$2,445,86
180	Infrastructure	E&A 35.00%				\$2,445,861	
181	Vehicle	E&A 5.00%					
185	16 - Continge	encies			Subtotal		\$1,597,63
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%	-			\$1,347,635	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$480,80
195		Sales Tax 8.40%				\$480,805.23	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Tatal	£44 540 47
	-					Total	\$11,512,47

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 211.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	UPRR Spokane Yard Area to Interstate 90		250+00	275+00	2,500 FT	0.5 mile
		UP Section Alternate 4		250+00	275+00	2,300 F1	0.5 111116
	C-211.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Ullit	Unit Cost	Extension	\$2,975,567
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,975,507
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	,	LF	\$35.00		
4		Common Excavation	8,327	CY	\$15.00	\$124,905	
5		Select Backfill (MSE Retaining Walls)	12,840	CY	\$15.00	\$192,600	
6		Common Backfill (From Project Excavation)	273	CY SF	\$4.00 \$2.00	\$1,092	
<u>8</u> 9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	2,500	LF	\$2.00 \$16.00	\$40,000	
10		Chain Link Fencing 4 (on wails of Ballast Gulb)	1,900	LF	\$22.00	\$41,800	
11		Ballast Walls (Curb-no drainage)	100	LF	\$22.00	\$2,200	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF TF	\$312		
16 19		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF	\$280 \$230		
20	<u> </u>	Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout	1	EA	\$75,000	\$75,000	
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	4	EA	\$100,000	\$200,000	
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)	1	EA EA	\$200,000 \$100.000	\$200,000	
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide		LF	\$35.00		
33		Industrial Railroad Turnouts East Side Syndicate Spur -		LF	φ35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line	1,200	TF	\$100.00	\$120,000	
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)	1	LS	\$476,000.00	\$476,000	
39 40		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2,500	EA RF	\$60,000.00 \$15.06	\$60,000 \$37,638	
41		Signal Communication Building LTK130	2,300	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00	ψου,σου	
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		e - Included other in Items					0050 055
57 50	3 - Utilities	Litility Allowance - High		DE	\$600.00		\$250,000
59 60	1	Utility Allowance - High Utility Allowance - Medium		RF RF	\$600.00 \$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	_,:50		7.22.00	.===,===	
74	5 - Structures						\$2,179,500
75		Bridge Structures DEA	1,122,000	LS	\$1.00	\$1,122,000	
76	-	Bridge Location	Lake Rd Spur		***		
77 78	 	Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA	35,250	SF SF	\$32.00 \$30.00	\$1,057,500	
78	1	Cut & Cover Box/ Tunnel to Pine Road Aerial Station	35,230	LF	\$3,500.00	φ1,007,000	
104	6 - Stations	Cat a Cover Bow Tariffer to Fille Hoad Merial Citation		1	ψυ,υυυ.υυ		
105		Stations	1	LS			
106		Station Name	Future Station	Possible			
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108	7 5	Platform Electrical LTK610		LS	\$100,000		
115 116	7 - Park & Ric	des Park & Ride		Space	\$4,300		
117		Park & Ride Location		Space	φ4,300		
119	8 - Operation	is Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 211.4

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	UPRR Spokane Yard Area to Interstate 90		250+00	275+00	2,500 FT	0.5 mile
	C -211.4	UP Section Alternate 4		200.00	270100	2,00011	0.0 111110
	C -211.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00	Extension	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System		LO	ψ1,300,000		\$1,138,92
136	o muonom	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,100,02
138		OCS Single Contact Wire LTK920		RF	\$123.00	ψ. σσ,σσσ	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		_,		700	700,100	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* : ==,::
151	11 - Commur		_,		4	V ,	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	, , , , , , , , , , , , , , , , , , , ,
157	12 - Fare Col	lection					
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$7,583,99
161							
162	13. Right of \	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$2,654,39
180	Infrastructure	E & A 35.00%				\$2,654,397	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,716,79
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,466,798	
191	Utilities	Contingency 100.00%				\$250,000	# 500.01
194	17 - Washing	ton State Sales Tax and Real Estate Tax				A =00.044.00	\$520,84
195		Sales Tax 8.40% Sales Tax has been applied to 2/3 of Infrastructure &				\$520,844.26	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
106							
196		of the vehicle's estimated total.					
						Total	\$12,476,032
	-					rotal	φ12,476,U32

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 212.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Ctort Cto			
	Danisia			Start Sta	End Sta	Length	0.5!!-
		Interstate 90 to Approx Station 300+00		275+00	300+00	2,500 FT	0.5 mile
	C -212.4	UP Section Alternate 4					
	10: !! 0	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,141,57
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	2,000	LF	\$35.00	ψον,000	
4		Common Excavation	6,267	CY	\$15.00	\$94,005	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	1,699	CY	\$4.00	\$6,796	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	1,000	SF LF	\$2.00 \$16.00	\$16.000	
10		Chain Link Fencing 4' (off walls of Ballast Curb)	3,900	LF	\$22.00	\$85,800	
11		Ballast Walls (Curb-no drainage)	1,000	LF	\$22.00	\$22,000	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16 19		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF TF	\$280 \$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance	1	EA	\$25,000	\$25,000	
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)		EA EA	\$200,000 \$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide		LF	\$35.00		
33		Industrial Railroad Turnouts East Side Syndicate Spur -		LF	φ35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line	2,100	TF	\$100.00	\$210,000	
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110		LS EA	\$476,000.00 \$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	2,500	EA	\$60,000.00	ψ57,050	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
		e - Included other in Items					#050.00
57 59	3 - Utilities	Utility Allowance - High		RF	\$600.00		\$250,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
	5 - Structures						
75 76		Bridge Structures DEA		LS	\$1.00		
76 77		Bridge Location Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
	6 - Stations						
105		Stations	1	LS			
106		Station Name					
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108 115	7 - Park & Ric	Platform Electrical LTK610		LS	\$100,000		
116	, - rain ox Kil	Park & Ride		Space	\$4,300		
117		Park & Ride Location			ψ1,500		
	8 - Operation	s Facility (All Yard elements Included)					
123	ı -	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 212.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Interstate 90 to Approx Station 300+00		275+00	300+00	2,500 FT	0.5 mile
	C -212.4	UP Section Alternate 4		270100	000100	2,00011	0.0 11111
	U -212.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
101		Operations Facility Building LTK	Quantity	SF		Extension	20015
124 125		Yard Maintenance Equipment LTK		LS	\$171.00 \$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	Q - Traction E	Power System		LS	\$1,900,000		\$388,92
136	9 - Haction F	Sub-Station Type 3 LTK 910		EA	\$750,000		\$300,92
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Contact Wire ETR920	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		2,300	LO	ψ30.47	ψ90,103	\$722,19
148	10 - Oignai O	Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	Ψ122,13
151	11 - Commur		2,000	141	Ψ200.00	Ψ7 ZZ, 100	\$317,80
152	· · · · · · · · · · · · · · · · · · ·	Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	ψ017,00
157	12 - Fare Col		2,000		Ų.ZZ	\$0.17,000	
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,820,49
161					Cubiciai		\$0,020,10
162	13. Right of V	Vav					
	g	Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste			Q 00,000,000		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget			4 0,000,000.00		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	1 , ,					
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		\$1,337,17
180	Infrastructure	E & A 35.00%				\$1,337,174	
181	Vehicle	E&A 5.00%					
185	16 - Continge	encies			Subtotal		\$964,09
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$714,099	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$267,93
195		Sales Tax 8.40%				\$267,937.33	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,389,70

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 213.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Park Road & Spear Ave Area		300+00	325+00	2,500 FT	0.5 mile
		UP Section Alternate 4		300+00	323+00	2,500 F1	0.5 111116
	C -213.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const	•	Quantity	Unit	Unit Cost	Extension	\$1,948,211
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$1,946,211
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	,	LF	\$35.00		
4		Common Excavation	369	CY	\$15.00	\$5,535	
5		Select Backfill (MSE Retaining Walls)	16,694	CY	\$15.00	\$250,410	
6 8		Common Backfill (From Project Excavation)	524	CY SF	\$4.00 \$2.00	\$2,096	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	2,500	LF	\$16.00	\$40,000	
10		Chain Link Fencing 6'	2,500		\$22.00	\$55,000	
11		Ballast Walls (Curb-no drainage)	600	LF	\$22.00	\$13,200	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000	_	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15 16	+	Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure		TF TF	\$312 \$280		
19	+	LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24 25		Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes)		EA EA	\$25,000 \$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
- 00		Industrial Railroad Turnouts East Side Syndicate Spur -		Li	ψου.σο		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37 38		Provide Team Track and Loading Dock (HDR)		LS LS	\$208,000.00 \$476,000.00		
39		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130		EA	\$60,000.00	701,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45 50	2 Imarras :	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
57	2 - Insurance 3 - Utilities	- Included other in Items					\$250,000
59	J - Guillies	Utility Allowance - High		RF	\$600.00		Ψ230,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74 75	5 - Structures	s Bridge Structures DEA	841,500	LS	¢4.00	\$0.44 EOO	\$1,494,000
75 76	+	Bridge Location	841,500 Park Rd & Spe		\$1.00	\$841,500	
77		Retaining Wall 4' Max (Low Gravity Wall)	. ark iku a spe	SF	\$32.00		
78	1	MSE Retaining Wall - Typical DEA	21,750	SF	\$30.00	\$652,500	
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						
105	1	Stations Station Name	1	LS			
106 107	+	Station Name Artwork (*Subject to Board Policy)	-	LS	\$1.00		
107	+	Platform Electrical LTK610		LS	\$1.00		
115	7 - Park & Ric	l .			\$100,000		
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location					
119	8 - Operation	s Facility (All Yard elements Included)			640		
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 213.4

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Park Road & Spear Ave Area		300+00	325+00		0.5 mile
		UP Section Alternate 4		000100	020100	2,00011	0.0 11111
	0 -213.4	Description	Ougatitus	Unit	Unit Cost	Extension	2001\$
101			Quantity				2001\$
124		Operations Facility Building LTK Yard Maintenance Equipment LTK		SF	\$171.00		
125 126		Maintenance Equipment LTK Maintenance of Way Vehicles LTK		LS LS	\$4,160,844 \$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	Q - Traction B	Power System		LS	\$1,900,000		\$388,92
136	9 - Haction F	Sub-Station Type 3 LTK 910		EA	\$750,000		\$300,92
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal Sy		2,000		ψου. 17	φου, του	\$722,19
148	.o o.ga.o,	Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	Ψ. ΣΣ, . σ
151	11 - Commun		2,000		\$200.00	ψ: <u>22</u> , 100	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	+
157	12 - Fare Coll		,			71 ,111	
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$5,121,13
161							
162	13. Right of V	Vay					
	_	Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ing & Administration			Subtotal		\$1,792,39
180	Infrastructure	E & A 35.00%				\$1,792,398	
181	Vehicle	E & A 5.00%			0.1.1.1		04
185	16 - Continge				Subtotal		\$1,224,22
187	Vehicles	Contingency 5.00%				00746-	
189	Infrastructure	Contingency 20.00%				\$974,227	
191 194	Utilities	Contingency 100.00%				\$250,000	¢004
194	ı / - wasning	ton State Sales Tax and Real Estate Tax				\$355,340.34	\$355,34
190		Sales Tax 8.40% Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
190		or the veriloie's estimated total.					
						Total	\$8,493,10
						I Ulai	φο, 4 33,10

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 214.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Vista Road Area		325+00	350+00	2,500 FT	0.5 mile
		UP Section Alternate 4		323+00	330+00	2,500 F1	0.5 111116
	C -214.4	Description	Ouentitus	Unit	Unit Coot	Extension	2004 6
	1-Civil Const		Quantity	Unit	Unit Cost	Extension	2001\$ \$2,235,167
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,233,107
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	,,,,,,,	LF	\$35.00	****	
4		Common Excavation	3,431	CY	\$15.00	\$51,465	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	308	CY	\$4.00	\$1,232	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	2,500	SF LF	\$2.00 \$16.00	\$40,000	
10		Chain Link Fencing 4 (on walls of Ballast Culb)	2,500	LF	\$22.00	\$55,000	
11		Ballast Walls (Curb-no drainage)	2,750	LF	\$22.00	\$60,500	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16 19		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF TF	\$280 \$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover	1	EA	\$150,000	\$150,000	
22		Turnout		EA	\$75,000	7.00,000	
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26 27		Major Intersection Rebuild (4 Lanes)		EA EA	\$200,000		
28		Minor Traffic Signal (2 Lanes) Major Traffic Signal (4 Lanes)		EA	\$100,000 \$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications	1	EA	\$75,000.00	\$75,000	
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	1	EA	\$60,000.00	\$60,000	
40 41		Signal Communication Building LTK130	2,500	RF EA	\$15.06 \$60,000.00	\$37,638 \$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	1	RF	\$200.00	\$60,000	
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		- Included other in Items					
57	3 - Utilities	I kilis. Allamana a Lilak		55	00005		\$250,000
59 60		Utility Allowance - High Utility Allowance - Medium		RF RF	\$600.00 \$350.00		
61		Utility Allowance - Medium Utility Allowance - Low	2,500	RF	\$350.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	2,500	TAI	ψ100.00	Ψ200,000	
74	5 - Structures						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78 79		MSE Retaining Wall - Typical DEA Cut & Cover Box/ Tunnel to Pine Road Aerial Station		SF LF	\$30.00 \$3,500.00		
104	6 - Stations	Out a Gover Bow Turnier to Fine Road Aerial Station		LF	φο,ουυ.υυ		\$850,000
105	Juniona	Stations	1	LS	\$750,000	\$750,000	ψ000,000
106		Station Name	Park/Vista Sta			Ţ. 00,000	
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610	1	LS	\$100,000	\$100,000	-
115	7 - Park & Ric			_			
116		Park & Ride	Viete Ott	Space	\$4,300		
44-		Park & Ride Location	Vista Station				
117 119	0 Onar-4!	s Facility (All Yard elements Included)				1	

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 214.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	1	Length	
	Drawing	Vista Road Area		325+00	350+00	2,500 FT	0.5 mile
	C -214.4	UP Section Alternate 4		020100	000100	2,00011	0.0 11111
	0 -214.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	Extension	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$1,138,92
136	o muonom	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	Ψ1,100,02
138		OCS Single Contact Wire LTK920		RF	\$123.00	ψ, σσ,σσσ	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		_,		Ţ	400,000	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* :-=,:•
151	11 - Commur		_,		4 200.00	4 1-2,111	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	*****
157	12 - Fare Col	lection					\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$5,716,41
161							
162	13. Right of V	Vay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$2,000,74
180	Infrastructure	E & A 35.00%				\$2,000,745	
181	Vehicle	E & A 5.00%			0.1.1.1.1		# 4 0 40 00
185 187	16 - Continge Vehicles				Subtotal		\$1,343,28
187	Infrastructure	Contingency 5.00%				\$1,093,283	
191	Utilities	Contingency 20.00% Contingency 100.00%				\$1,093,283	
194		ton State Sales Tax and Real Estate Tax				Ψ230,000	\$395,34
195	wasiiiig	Sales Tax and Real Estate Tax Sales Tax 8.40%				\$395,342.98	ψυσυ,υ4
100		Sales Tax has been applied to 2/3 of Infrastructure &				ψυυυ,υμε.σο	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
.00		5. 115 Totaliolo o dell'indica totali.					
						Total	\$9,455,78

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 215.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Sargent Road to Argonne Station		350+00	375+00	2,500 FT	0.5 mile
		UP Section Alternate 4		330100	373100	2,30011	0.0 111110
	0 -210.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Oilit	Onit Oost	LAterision	\$2,019,166
1	. Givii Goilgi	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ2,010,100
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation	185	CY	\$15.00	\$2,775	
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)	291 914	CY	\$15.00 \$4.00	\$4,365 \$3,656	
8		Landscaping Allowance	914	SF	\$2.00	\$3,000	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	4,000	LF	\$16.00	\$64,000	
10		Chain Link Fencing 6'	1,000	LF	\$22.00	\$22,000	
11		Ballast Walls (Curb-no drainage)	900	LF	\$22.00	\$19,800	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2		\$8,000	\$16,000	
14 15		Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade	2,200	TF TF	\$223 \$312	\$490,600	
16		Direct Fixation (DF) Track, Elevated Structure	2,800	TF	\$280	\$784,000	
19		LRT Siding or Pocket Track	2,000	TF	\$230	\$101,000	
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23 24		Impact Attenuators Minor Street Closures Allowance	1	EA EA	\$35,000 \$25,000	\$25,000	
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$25,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31 32		Sidewalk Construction Off Alignment Signal Modifications		SF EA	\$6.00 \$75,000.00		
52		Construct Maintenance Road Assume All Weather Gravel -		LA	ψ10,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36 37		Remove & Relocate Industrial Spur HDR Provide Team Track and Loading Dock (HDR)		TF LS	\$130.00 \$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	1	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	0.500	RF	\$200.00	4075 000	
43 45		Ductbank/ Conduit -OPEN TRACK- LTK140 Corrosion Mitigation LTK150	2,500 2,500	RF RF	\$110.00 \$10.73	\$275,000 \$26,833	
50	2 - Insurance	e - Included other in Items	2,500	131	ψ10.73	Ψ20,033	
57	3 - Utilities						\$250,000
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00	0	
61	4 Tecal- Mar	Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70 74	5 - Structure	erials - Included in the Rail Items					\$4,850,000
75	- Chactare	Bridge Structures DEA	4,760,000	LS	\$1.00	\$4,760,000	ψ1,000,000
76		Bridge Location	Argonne-Dish		Ţ00	. ,,	
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	3,000	SF	\$30.00	\$90,000	
79	6 Chetlen	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104 105	6 - Stations	Stations	1	LS			
105	<u> </u>	Station Name	1	LO			
107	1	Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ri						\$1,075,000
116		Park & Ride	250		\$4,300	\$1,075,000	
117	8 - Operation	Park & Ride Location s Facility (All Yard elements Included)	Argonne Station	on			
119 123	o - Operation	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		
123	1	play a raid one rich, ordaing a dilliles ETNOTI		LU	ψ10,001,010		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 215.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Sargent Road to Argonne Station		350+00	375+00	2,500 FT	0.5 mile
	C -215.4	UP Section Alternate 4		000100	0.0.00	2,00011	0.0 11111
	0 -213.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	LAGIISIOII	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψι,σσσ,σσσ		\$1,138,92
136		Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	V 1,100,0
138		OCS Single Contact Wire LTK920		RF	\$123.00	,,	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commur						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$10,575,41
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks,Waste			AT		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
405		Alternate 3 DEA Right of Way Acquisition Budget			007.044.740.00		
165		Estimate (Including Railroads & Operation Facility) Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS LS	\$27,914,712.00 \$5,000,000.00		
166 167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Alternate 4 Haziviat Demo & Disposai (Tariks, Waste Willigati		LO	\$5,000,000.00		
175	14. Verificies	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		\$3,701,39
180	Infrastructure	E & A 35.00%			Cubiciai	\$3,701,394	φο,ι ο ι ,σο
181	Vehicle	E & A 5.00%				40,101,001	
185	16 - Continge				Subtotal		\$2,315,08
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$2,065,082	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$721,86
195		Sales Tax 8.40%	-	-		\$721,867.72	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$17,313,75

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 216.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Willow Road to Dartmouth Rd Area		375+00	400+00	2,500 FT	0.5 mile
	- 3	UP Section Alternate 4		070100	400100	2,00011	0.0 111110
	0 210.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		quantity	O.m.	Oint Goot	Extension	\$2,136,361
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	+ =,:==,==
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	7.000	LF	\$35.00	0111015	
5		Common Excavation Select Backfill (MSE Retaining Walls)	7,623 6,222	CY	\$15.00 \$15.00	\$114,345 \$93,330	
6		Common Backfill (From Project Excavation)	2,529	CY	\$4.00	\$10,116	
8		Landscaping Allowance	2,323	SF	\$2.00	ψ10,110	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	2,900	LF	\$16.00	\$46,400	
10		Chain Link Fencing 6'		LF	\$22.00		
11		Ballast Walls (Curb-no drainage)	4,100	LF	\$22.00	\$90,200	
12 13		Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	LF EA	\$6.00 \$8,000	\$15,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade	0,000	TF	\$312	ψ1,110,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout Impact Attenuators		EA EA	\$75,000 \$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)	1	EA	\$100,000	\$100,000	
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29 30		Complex Major Intersection Rebuild Roadway Construction		EA SF	\$300,000 \$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34 35		HDR		EA TF	\$65,000.00		
36		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR		TF	\$100.00 \$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41 42		Signal Communication Building LTK130 Ductbank/ Conduit -PAVED TRACK- LTK140		EA RF	\$60,000.00 \$200.00		
43		Ductbank/ Conduit -PAVED TRACK- LTK140 Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50	2 - Insurance	- Included other in Items			·		
57	3 - Utilities						\$250,000
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium Utility Allowance - Low	2,500	RF RF	\$350.00	\$250,000	
61 70	4 - Track Mat	erials - Included in the Rail Items	2,500	ľΓ	\$100.00	φ∠50,000	
74	5 - Structures						\$315,000
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall)	10 500	SF	\$32.00	0017.005	
78 79	<u> </u>	MSE Retaining Wall - Typical DEA Cut & Cover Box/ Tunnel to Pine Road Aerial Station	10,500	SF LF	\$30.00 \$3,500.00	\$315,000	
104	6 - Stations	Out a Gover Dow Turner to Fine Road Aerial Station		LF	φο,ουυ.υυ		
105	Junions	Stations	1	LS			
106		Station Name					
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric			Cnor-	64.000		
116 117		Park & Ride Park & Ride Location		Space	\$4,300		
119	8 - Operation	s Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		
		. •					

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 216.4

	Spokane	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Willow Road to Dartmouth Rd Area		375+00	400+00		0.5 mile
	C -216.4	UP Section Alternate 4		0.0.0	100.00	2,000	0.0
	0 -210.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00		20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction P	Power System			V 1,000,000		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		*****
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal Sy	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Coll						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$4,130,28
161							
162	13. Right of V						
400		Alternate 2 DEA Right of Way Acquisition Budget			# 00 000 000		
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
164		Alternate 2 HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) - Allowance		LS	\$5,000,000.00		
104		Alternate 3 DEA Right of Way Acquisition Budget		LS	\$5,000,000.00		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Thomate 4 Flaziviai Bomo a Biopodai (Tarmo, Vadio Miligai			φο,σσσ,σσσ.σσ		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		\$1,445,60
180	Infrastructure	E & A 35.00%				\$1,445,600	
181	Vehicle	E&A 5.00%					
185	16 - Continge	encies			Subtotal		\$1,026,05
187	Vehicles	Contingency 5.00%	-	-			
189	Infrastructure	Contingency 20.00%				\$776,057	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$288,75
195		Sales Tax 8.40%				\$288,755.22	
		Sales Tax has been applied to 2/3 of Infrastructure &					
100		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	#C 000 00
						Total	\$6,890,69
	1						

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 217.4

	•	Regional			_		
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Dartmouth Road Area to University Rd		400+00	425+00	2,500 FT	0.5 mile
		East Valley Section Alternate 4				,	
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		- Lucinity	0	- C C.C.		\$2,697,82
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	+ / /-
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	300	LF	\$35.00	\$10,500	
4		Common Excavation	3,180	CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	4,183	CY	\$4.00	\$16,732	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	375	SF LF	\$2.00 \$16.00	\$6,000	
10		Chain Link Fencing 4 (on wails of Ballast Curb) Chain Link Fencing 6'	4,325	LF	\$22.00		
11		Ballast Walls (Curb-no drainage)	375	LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,000	EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		-
19		LRT Siding or Pocket Track		TF	\$230		
20	1	Double Crossover	1	EA	\$300,000	\$300,000	
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24 25		Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes)	1	EA EA	\$25,000 \$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)	'	EA	\$100,000		
28		Major Traffic Signal (4 Lanes)	1		\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000	V =00,000	
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	1,920	SF	\$6.00	\$11,520	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
0.4		Industrial Railroad Turnouts East Side Syndicate Spur -		- A	#05.000.00		
34 35		HDR Relocate UPRR Yard Lead or Branch Line		EA TF	\$65,000.00 \$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$100.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	1	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00		
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		e - Included other in Items					#250.00
57 59	3 - Utilities	Utility Allowance - High		RF	\$600.00		\$250,00
60	1	Utility Allowance - High		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00		
70	4 - Track Mat	terials - Included in the Rail Items	2,000		ψ.σσ.σσ	2200,000	
74	5 - Structure						\$1,200,00
75		Bridge Structures DEA	1,200,000	LS	\$1.00	\$1,200,000	
76		Bridge Location	Pedestrian Bri				·
77	1	Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79	C Ctriling	Cut & Cover Box/ Tunnel to Pine Road Aerial Station	-	LF	\$3,500.00		#050.00
104	6 - Stations	Stations	-	1.0	Ф7 ГО 000	Ф7E0 000	\$850,00
105 106	-	Stations Station Name	1 University Sta	LS	\$750,000	\$750,000	
106	 	Artwork (*Subject to Board Policy)	University Sta	LS	\$1.00		
107	 	Platform Electrical LTK610	1		\$100,000		
115	7 - Park & Ri		<u>'</u>		ψ100,000	ψ100,000	
116		Park & Ride	1	Space	\$4,300		
117		Park & Ride Location	University Sta		Ţ.,300		
119	8 - Operation	ns Facility (All Yard elements Included)	1 , , , , ,				
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 217.4

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Dartmouth Road Area to University Rd		400+00	425+00	2,500 FT	0.5 mile
	C -217.4	East Valley Section Alternate 4		100100	120100	2,00011	0.0 111110
	0-217.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	EXICIISIOII	2001φ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$1,138,92
136	3 - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,130,32
138		OCS Single Contact Wire LTK920		RF	\$123.00	ψ. σσ,σσσ	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		,		,	,,,,,,	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* , -
151	11 - Commur		,			, ,	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col	lection					\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$7,379,06
161							
162	13. Right of \						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	L EL LILE BUYLL B. C. (LEKARR)			***		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600 Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$2,500,000.00		
176 177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 d		EA EA	\$681,818.18 \$700,000		
177	1E Enginee	ring & Administration		EA	Subtotal		\$2,582,67
180	Infrastructure				Subiolai	\$2,582,674	\$2,562,67
181	Vehicle	E & A 55.00% E & A 5.00%				\$2,502,074	
185	16 - Continge				Subtotal		\$1,675,81
187	Vehicles	Contingency 5.00%			Capiciai		ψ1,013,01
189	Infrastructure					\$1,425,814	
191	Utilities	Contingency 100.00%				\$250,000	
194		ton State Sales Tax and Real Estate Tax				+ 200,000	\$507,07
195		Sales Tax 8.40%				\$507,073.40	4 22.,0
		Sales Tax has been applied to 2/3 of Infrastructure &				,	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$12,144,629

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 218.4

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta		
	Drowing	University Road to Bodish Road Area				Length	0.5 mile
	Drawing	-		425+00	450+00	2,500 FT	0.5 mile
	C -218.4	East Valley Section Alternate 4	Oversity	l lmi4	Unit Cost	Extension	2001\$
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	\$1,892,415
1	1-Civil Const	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$1,892,41
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	400	LF	\$35.00	\$14,000	
4		Common Excavation	1,919	CY	\$15.00	\$28,785	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	7,715	CY	\$4.00	\$30,860	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	730	SF LF	\$2.00	\$11,680	
10		Chain Link Fencing 4 (on walls or Ballast Curb) Chain Link Fencing 6'	4,270		\$16.00 \$22.00	\$93,940	
11		Ballast Walls (Curb-no drainage)	730	LF	\$22.00	\$16,060	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	,,,,,,,	EA	\$8,000	,	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		<u></u>
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19 20		LRT Siding or Pocket Track Double Crossover		TF EA	\$230 \$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28 29		Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild		EA EA	\$200,000 \$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	2,520	SF	\$6.00	\$15,120	
32		Off Alignment Signal Modifications		EA	\$75,000.00	¥10,1=0	
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA TF	\$65,000.00		
35 36		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR		TF	\$100.00 \$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130		EA	\$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140	0.500	RF	\$200.00	0075 000	
43 45		Ductbank/ Conduit -OPEN TRACK- LTK140 Corrosion Mitigation LTK150	2,500 2,500	RF RF	\$110.00 \$10.73	\$275,000	
50	2 - Insurance	e - Included other in Items	2,500	KF	\$10.73	\$26,833	
57	3 - Utilities	- moraded other in items					\$250,00
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		terials - Included in the Rail Items					
74 75	5 - Structure:			LS	¢4.00		
76		Bridge Structures DEA Bridge Location		LO	\$1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations			-			_
105		Stations	1	LS			
106		Station Name		- 0	04.00		
107 108		Artwork (*Subject to Board Policy) Platform Electrical LTK610		LS LS	\$1.00 \$100,000		
115	7 - Park & Rie	l .		LO	\$100,000		
116	un a N	Park & Ride		Space	\$4,300		
117		Park & Ride Location			7 ,		
119	8 - Operation	s Facility (All Yard elements Included)					
123	1	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 218.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	University Road to Bodish Road Area		425+00	450+00	2,500 FT	0.5 mile
	C -218.4	East Valley Section Alternate 4		120100	100100	2,00011	0.0 11111
	C -210.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	LATERISION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψι,σσσ,σσσ		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		*****
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commur						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,571,34
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks,Waste			A= 000 000 00		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
405		Alternate 3 DEA Right of Way Acquisition Budget		1.0	€07.044.740.00		
165 166		Estimate (Including Railroads & Operation Facility) Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS LS	\$27,914,712.00 \$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Alternate 4 Traziviat Demo & Disposar (Tariks, Waste Witigati		LO	ψ3,000,000.00		
175	14. Verileies	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		\$1,249,96
180	Infrastructure	E & A 35.00%				\$1,249,969	, , -,
181	Vehicle	E & A 5.00%				* / * / * /	
185	16 - Continge	encies			Subtotal		\$914,26
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$664,268	·
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax	-				\$251,19
195		Sales Tax 8.40%				\$251,194.05	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$5,986,77

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 219.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Bodish Road to Pines Road (At Grade) Area		450+00	475+00	2,500 FT	0.5 mile
		` '		450+00	4/5+00	2,500 F1	0.5 11116
	C -219.4	East Valley Section Alternate 4	Ouentitus	Unit	Unit Cost	Extension	2004
	1-Civil Const	Description	Quantity	Ullit	Unit Cost	Extension	2001\$ \$2,065,213
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,005,21
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	400	LF	\$35.00	\$14,000	
4		Common Excavation	2,253	CY	\$15.00	\$33,795	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	10,982	CY	\$4.00	\$43,928	
8		Landscaping Allowance	4 000	SF	\$2.00	# 40.000	
9 10		Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6'	1,200 3,640	LF LF	\$16.00 \$22.00	\$19,200 \$80,080	
11		Ballast Walls (Curb-no drainage)	1,200	LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,000	EA	\$8,000	Ψ10,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		-
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover Turnout		EA	\$150,000		
22		Impact Attenuators		EA EA	\$75,000 \$35,000		
24		Minor Street Closures Allowance	2	EA	\$25,000	\$50,000	
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000	φου,σου	
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31 32		Sidewalk Construction	2,640	SF EA	\$6.00	\$15,840	
32		Off Alignment Signal Modifications Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
- 55		Industrial Railroad Turnouts East Side Syndicate Spur -			ψ00.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2.500	EA	\$60,000.00	#07.C00	
40 41		Signal Communication Building LTK130	2,500	RF EA	\$15.06 \$60,000.00	\$37,638	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50	2 - Insurance	- Included other in Items					
57	3 - Utilities			_			\$250,000
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium	0.55	RF	\$350.00	0050.005	
61	4 Tue -1 25 :	Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70 74	4 - Track Mat 5 - Structures	erials - Included in the Rail Items					
75	5 - Structures	Bridge Structures DEA		LS	\$1.00		
76		Bridge Location			φ1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						
105		Stations	1	LS			
106		Station Name			A		
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108	7 Dowle 9 D.	Platform Electrical LTK610		LS	\$100,000		
115 116	7 - Park & Ric	des Park & Ride		Space	\$4,300		
117		Park & Ride Park & Ride Location		Space	\$4,500		
1.17		is Facility (All Yard elements Included)					
119	8 - Operation	is racility (All Tard elements included)					

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 219.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Bodish Road to Pines Road (At Grade) Area		450+00	475+00	2,500 FT	0.5 mile
	C -219.4	East Valley Section Alternate 4		100100	110100	2,00011	0.0 11111
	C -219.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00	Extension	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$388,92
136	3 - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ300,32
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		_,		700	400,000	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* :,:-
151	11 - Commur		_,		4	4 1-2,111	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	*****
157	12 - Fare Col	lection					
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,744,13
161							
162	13. Right of \	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$1,310,44
180	Infrastructure	E & A 35.00%				\$1,310,448	
181	Vehicle	E & A 5.00%			0.1.1.1.1		#0.40.00
185 187	16 - Continge Vehicles				Subtotal		\$948,82
187	Venicies Infrastructure	Contingency 5.00%				\$698,828	
191	Utilities	Contingency 20.00% Contingency 100.00%				\$250,000	
194		ton State Sales Tax and Real Estate Tax				Ψ230,000	\$262,80
195	17 - Washing	Sales Tax and Real Estate Tax Sales Tax 8.40%				\$262,806.07	Ψ202,00
100	 	Sales Tax has been applied to 2/3 of Infrastructure &				Ψ202,000.07	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
.00	 	5. 1.5 Tolliolo o dell'Indica totali					
						Total	\$6,266,22

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 220.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Order of magnitude		Otari Ota	Liid Ola	Longin	
		Pines Road (At Grade) to McDonald Road Area		475+00	500+00	2,500 FT	0.5 mile
	C -220.4	East Valley Section Alternate 4					22212
	1.01.11.0	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const	ruction Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$1,868,389
2		Grade Preparation to Top of subballast.	2,500		\$35.00		
3		Curb & Gutter Allowance	_,,,,,	LF	\$35.00		
4		Common Excavation	1,481	CY	\$15.00	\$22,215	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6 8		Common Backfill (From Project Excavation)	5,151	CY SF	\$4.00 \$2.00		
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	850	LF	\$2.00 \$16.00		
10		Chain Link Fencing 4 (on wais of Ballast Curb)	4,150		\$22.00		
11		Ballast Walls (Curb-no drainage)	850		\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15 16		Embedded (Paved) Track at Grade Direct Fixation (DF) Track, Elevated Structure		TF TF	\$312 \$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24 25		Minor Street Closures Allowance Minor Intersection Rebuild (2 Lanes)		EA EA	\$25,000 \$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -			700.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36 37		Remove & Relocate Industrial Spur HDR Provide Team Track and Loading Dock (HDR)		TF LS	\$130.00 \$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	1	EA	\$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43 45		Ductbank/ Conduit -OPEN TRACK- LTK140 Corrosion Mitigation LTK150	2,500 2,500	RF RF	\$110.00 \$10.73	\$275,000 \$26,833	
50	2 - Insurance	- Included other in Items	2,500	NΓ	\$10.73	\$∠0,033	
57	3 - Utilities						\$250,000
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00		
61	4 Tegal- Mari	Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70 74	4 - Track Mat	erials - Included in the Rail Items					
75	o - on uctures	Bridge Structures DEA		LS	\$1.00		
76		Bridge Location		-			
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79	6 Stations	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		COEO 000
104 105	6 - Stations	Stations	1	LS	\$750,000	\$750,000	\$850,000
106		Station Name		Center Platforr		ψ1 30,000	
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610	1	LS	\$100,000	\$100,000	
115	7 - Park & Ric			0.	0.0	# 4 7 00 005	\$1,720,000
	1	Park & Ride	400	Space	\$4,300	\$1,720,000	
116 117		Park & Ride Location	Pines Station	·			

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 220.4

	Spokane	Regional					
	-	Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta			
		Order of Magnitude		Start Sta	Ena Sia	Length	
	Describes	Dince Bood (At Crede) to McDoneld Bood Area		475 . 00	500.00	0 500 FT	0.5:!-
	Drawing	Pines Road (At Grade) to McDonald Road Area		475+00	500+00	2,500 FT	0.5 mile
	C -220.4	East Valley Section Alternate 4					22214
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		
124		Operations Facility Building LTK		SF	\$171.00		
125 126		Yard Maintenance Equipment LTK Maintenance of Way Vehicles LTK		LS LS	\$4,160,844		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,847,460 \$1,900,000		
133	0 - Traction E	Power System		LS	\$1,900,000		\$1,138,928
136	9 - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,130,920
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$8.11		
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47		
147	10 - Signal Sy		,			, , , , ,	\$722,190
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun	nications					\$317,808
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						\$202,321
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$7,069,635
161							
162	13. Right of V						
400		Alternate 2 DEA Right of Way Acquisition Budget			****		
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
164		Alternate 2 HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) - Allowance		1.6	ΦE 000 000 00		
164		Alternate 3 DEA Right of Way Acquisition Budget		LS	\$5,000,000.00		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles				4 0,000,000		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		\$2,474,372
180	Infrastructure	E & A 35.00%				\$2,474,372	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,613,927
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,363,927	
191	Utilities	Contingency 100.00%				\$250,000	# 400.000
194	17 - wasning	ton State Sales Tax and Real Estate Tax				£400.070.50	\$486,280
195		Sales Tax 8.40% Sales Tax has been applied to 2/3 of Infrastructure &				\$486,279.50	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
130		טו נווט יטווטוב ז בזנוווומנכע נטנמו.					
						Total	\$11,644,214
						. 5.6	J,J,E

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 221.4

		Regional	1				
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	McDonald Road to Evergreen Road Area		500+00	525+00	2,500 FT	0.5 mile
		East Valley Section Alternate 4				,	
	0 22	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const			• • • • • • • • • • • • • • • • • • • •	- C C.C.		\$2,134,92
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$ =, · · · · · · · ·
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00	\$87,500	
3		Curb & Gutter Allowance	800	LF	\$35.00	\$28,000	
4		Common Excavation	4,029	CY	\$15.00	\$60,435	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	3,204	CY	\$4.00	\$12,816	
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)	730	LF	\$16.00		
10		Chain Link Fencing 6'	4,260	LF	\$22.00		
11		Ballast Walls (Curb-no drainage)	730	LF	\$22.00		
12 13		Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	LF EA	\$6.00	\$15,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$8,000 \$223	\$1,115,000	
15		Embedded (Paved) Track at Grade	5,000	TF	\$312		
16	1	Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19	1	LRT Siding or Pocket Track		TF	\$230		
20	+	Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	5,040	SF	\$6.00	\$30,240	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR)		LS EA	\$476,000.00 \$60,000.00		
40		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120	2.500	RF		\$27 620	
41		Signal Communication Building LTK130	2,500	EA	\$15.06 \$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit - OPEN TRACK- LTK140	2,500	RF	\$110.00		
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73		
50	2 - Insurance	e - Included other in Items	2,300	IXI	ψ10.75	Ψ20,033	
57	3 - Utilities	- moladed other in items					\$250,00
59	o otimico	Utility Allowance - High		RF	\$600.00		Ψ200,00
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00		
70	4 - Track Mat	terials - Included in the Rail Items	_,		Ţ		
74	5 - Structure						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						
105		Stations	1	LS			
106		Station Name					
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ri						
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location					
119	8 - Operation	s Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811	1	LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 221.4

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	McDonald Road to Evergreen Road Area		500+00	525+00	2,500 FT	0.5 mile
	C -221.4	East Valley Section Alternate 4		000100	020100	2,00011	0.0 11111
	0 -221.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	Extension	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$388,92
136	3 - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ300,32
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		_,		700	400,000	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	. ,
151	11 - Commur		_,		4	4 1-2,111	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	*****
157	12 - Fare Col	lection					
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,813,84
161							
162	13. Right of \	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$1,334,84
180	Infrastructure	E & A 35.00%				\$1,334,846	
181	Vehicle	E & A 5.00%			0.1		****
185	16 - Continge				Subtotal		\$962,76
187	Vehicles	Contingency 5.00%				Ф740 700	
189 191	Infrastructure Utilities	Contingency 20.00% Contingency 100.00%				\$712,769 \$250,000	
194		Iton State Sales Tax and Real Estate Tax				\$250,000	\$267,49
194	ir - wasning	Sales Tax and Real Estate Tax				\$267,490.45	φ201,49
190		Sales Tax has been applied to 2/3 of Infrastructure &				φ201,490.45	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
100		of the veriloid a commuted total.					
						Total	\$6,378,95

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 222.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Evergreen Road Area to Adams Road Area		525+00	550+00	2,500 FT	0.5 mile
		East Valley Section Alternate 4		525+00	550+00	2,500 F1	0.5 111116
	C -222.4		Ougatitus	I Imia	Unit Coot	Extension	2004 \$
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$ \$2,233,947
1	1-CIVII CONST	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,233,94
2		Grade Preparation to Top of subballast.	2,500		\$35.00	\$87,500	
3		Curb & Gutter Allowance	400	LF	\$35.00	\$14,000	
4		Common Excavation	6,787	CY	\$15.00	\$101,805	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	4,483	CY	\$4.00	\$17,932	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	1,665	SF LF	\$2.00	\$26,640	
10		Chain Link Fencing 4 (on walls or Ballast Curb) Chain Link Fencing 6'	3,175	LF	\$16.00 \$22.00	\$69,850	
11		Ballast Walls (Curb-no drainage)	1,665	LF	\$22.00	\$36,630	
12		Site Cleanup and Final Grading Allowance	2,500		\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	,	EA	\$8,000	, , , , , , , , , , , , , , , , , , , ,	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16	-	Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track Double Crossover		TF EA	\$230		
20 21		Single Crossover	1	EA	\$300,000 \$150,000	\$150,000	
22		Turnout		EA	\$75,000	φ130,000	
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1		\$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000 \$200,000		
28 29		Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild		EA EA	\$200,000		
30		Roadway Construction		SF	\$300,000		
31		Sidewalk Construction	2,520	SF	\$6.00	\$15,120	
32		Off Alignment Signal Modifications		EA	\$75,000.00	4.0,	
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA TF	\$65,000.00		
35 36		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR		TF	\$100.00 \$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	2,500		\$15.06	\$37,638	
41		Signal Communication Building LTK130	1	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	0.500	RF	\$200.00	A075.000	
43 45		Ductbank/ Conduit -OPEN TRACK- LTK140 Corrosion Mitigation LTK150	2,500 2,500	RF RF	\$110.00 \$10.73	\$275,000 \$26,833	
50	2 - Insurance	:- Included other in Items	2,500	ΚΓ	\$10.73	\$∠0,033	
57	3 - Utilities						\$250,000
59		Utility Allowance - High		RF	\$600.00		,,
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74 75	5 - Structures			LS	\$1.00		
76		Bridge Structures DEA Bridge Location		LS	\$1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						\$850,000
105		Stations	1	LS	\$750,000	\$750,000	
106	1	Station Name	Evergreen Sta	ation Center Pl			
107		Artwork (*Subject to Board Policy)		LS	\$1.00	£400.000	
108 115	7 - Park & Ric	Platform Electrical LTK610	1	LS	\$100,000	\$100,000	
116	r - raik ox Kil	Park & Ride		Space	\$4,300		
117		Park & Ride Location	Evergreen Sta		ψ-,500		
119	8 - Operation	s Facility (All Yard elements Included)	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3				
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 222.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Evergreen Road Area to Adams Road Area		525+00	550+00	2,500 FT	0.5 mile
	C -222.4	East Valley Section Alternate 4		020100	000100	2,00011	0.0 11111
	C -222.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	EXTENSION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System		LO	ψ1,300,000		\$1,138,92
136	3 - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ1,100,02
138		OCS Single Contact Wire LTK920		RF	\$123.00	ψ. σσ,σσσ	
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		,	_	, , , ,	, , , , , ,	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	· / -
151	11 - Commur		,		,		\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col	lection					\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$5,715,19
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles				\$0.500.000.00		
175 176		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA EA	\$2,500,000.00 \$681,818.18		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 & Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 Engineer	ring & Administration		EA	Subtotal		\$2,000,31
180	Infrastructure	E & A 35.00%			Subiolai	\$2,000,318	\$2,000,31
181	Vehicle	E & A 5.00%				\$2,000,316	
185	16 - Continge				Subtotal		\$1,343,03
187	Vehicles	Contingency 5.00%			Casiolai		ψ1,040,00
189	Infrastructure	Contingency 20.00%				\$1,093,039	
191	Utilities	Contingency 100.00%				\$250,000	
194		ton State Sales Tax and Real Estate Tax				+	\$395,26
195	9	Sales Tax 8.40%				\$395,261.00	,
		Sales Tax has been applied to 2/3 of Infrastructure &				. ,	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$9,453,81

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 223.4

	Spokane	Regional		<u></u>			
	•	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Adams Road Area to Sullivan Road Area		550+00	575+00	2,500 FT	0.5 mile
	- 3	East Valley Section Alternate 4		300100	070100	2,00011	0.0 111110
	0 220.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		quaritity	Oc	Sint Goot	ZATOTIOIOTI	\$1,992,243
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	· / /
2		Grade Preparation to Top of subballast.	2,500		\$35.00		
<u>3</u>		Curb & Gutter Allowance Common Excavation	800 947	LF CY	\$35.00 \$15.00	\$28,000 \$14,205	
5		Select Backfill (MSE Retaining Walls)	947	CY	\$15.00	\$14,205	
6		Common Backfill (From Project Excavation)	4,597	CY	\$4.00	\$18,388	
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)	810		\$16.00	\$12,960	
10 11		Chain Link Fencing 6' Ballast Walls (Curb-no drainage)	4,030 810		\$22.00 \$22.00	\$88,660 \$17,820	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$17,820	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	2,000	EA	\$8,000	ψ10,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16 19		Direct Fixation (DF) Track, Elevated Structure LRT Siding or Pocket Track		TF TF	\$280 \$230		
20	1	Double Crossover		EA EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance	2	EA	\$25,000	#200.000	
25 26		Minor Intersection Rebuild (2 Lanes) Major Intersection Rebuild (4 Lanes)		EA EA	\$100,000 \$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction	5.040	SF	\$9.00	# 00.040	
31 32		Sidewalk Construction Off Alignment Signal Modifications	5,040	SF EA	\$6.00 \$75,000.00	\$30,240	
32		Construct Maintenance Road Assume All Weather Gravel -		LA	φ13,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA TF	\$65,000.00 \$100.00		
35 36		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR		TF	\$100.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41 42	1	Signal Communication Building LTK130 Ductbank/ Conduit -PAVED TRACK- LTK140		EA RF	\$60,000.00 \$200.00		
43		Ductbank/ Conduit -PAVED TRACK- LTK140 Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500		\$10.73	\$26,833	
50		- Included other in Items					
57	3 - Utilities	Likilik Allamana Lilah		DE	#coo.oo		\$250,000
59 60		Utility Allowance - High Utility Allowance - Medium		RF RF	\$600.00 \$350.00		
61		Utility Allowance - Low	2,500		\$100.00	\$250,000	
70	4 - Track Mat	erials - Included in the Rail Items	_,:50		Ţ.:23.00		
74	5 - Structures						\$105,000
75		Bridge Structures DEA		LS	\$1.00		
76 77		Bridge Location Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	3,500	SF	\$30.00	\$105,000	
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station	1,100	LF	\$3,500.00		
104	6 - Stations						
105		Stations Stations Name	1	LS			
106 107	1	Station Name Artwork (*Subject to Board Policy)		LS	\$1.00		
107		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric				\$100,000		
116		Park & Ride		Space	\$4,300		
117	<u> </u>	Park & Ride Location					
119	8 - Operation	s Facility (All Yard elements Included)		10	¢40 EF4 F40		
123	1	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 223.4

	Spokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Adams Road Area to Sullivan Road Area		550+00	575+00	2,500 FT	0.5 mile
	C -223.4	East Valley Section Alternate 4		000100	0,0,00	2,00011	0.0 11111
	0 -223.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00		20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction P	Power System			ψ1,000,000		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		ψοσο,σ2
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00		
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal Sy	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun	ications					\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Coll						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,776,16
161							
162	13. Right of V						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
101		Alternate 2 HazMat Demo & Disposal (Tanks,Waste			ØF 000 000 00		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
105		Alternate 3 DEA Right of Way Acquisition Budget Estimate (Including Railroads & Operation Facility)		1.0	COZ 044 740 00		
165 166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS LS	\$27,914,712.00 \$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Alternate 4 Traziviat Demo & Disposai (Tariks, Waste Witigati			\$3,000,000.00		
175	14. Venicies	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		\$1,321,65
180	Infrastructure	E & A 35.00%				\$1,321,659	, , , , , , , , , , , , , , , , , , , ,
181	Vehicle	E&A 5.00%				, ,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
185	16 - Continge	encies			Subtotal		\$955,23
187	Vehicles	Contingency 5.00%					· ·
189	Infrastructure	Contingency 20.00%				\$705,234	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$264,95
195		Sales Tax 8.40%				\$264,958.49	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,318,01
	1				1		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 224.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drowing	Sullivan Road Area to Cannery Street Area				J	0.5 mil
	Drawing	-		575+00	600+00	2,500 FT	0.5 mil
	C -224.4	East Valley Section Alternate 4	0	11	11-7-01	F1	00016
	1.01.11.0	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$1,966,16
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	400	LF	\$35.00	\$14,000	
4		Common Excavation	2,196	CY	\$15.00	\$32,940	
5		Select Backfill (MSE Retaining Walls)	2,.00	CY	\$15.00	ψ02,010	
6		Common Backfill (From Project Excavation)	1,223	CY	\$4.00	\$4,892	
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)	700	LF	\$16.00	\$11,200	
10		Chain Link Fencing 6'	4,120	LF	\$22.00	\$90,640	
11		Ballast Walls (Curb-no drainage)	700	LF	\$22.00	\$15,400	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16	-	Direct Fixation (DF) Track, Elevated Structure	1	TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20 21		Double Crossover Single Crossover		EA EA	\$300,000 \$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators	+	EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000	\$200,000	
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	2,520	SF	\$6.00	\$15,120	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37 38		Provide Team Track and Loading Dock (HDR) Lake Rd Industrial Spur Modifications (HDR)		LS LS	\$208,000.00 \$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	+	EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	2,500	EA	\$60,000.00	ψ57,050	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50	2 - Insurance	- Included other in Items			·		
57	3 - Utilities						\$250,00
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74	5 - Structure:						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA	1	SF	\$30.00		
79 104	6 - Stations	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	ง - อเลเเอกร	Stations	1	LS			
106	1	Station Name	1	LO			
107	1	Artwork (*Subject to Board Policy)	+	LS	\$1.00		
107		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ri			LO	ψ100,000		
116	un a Ni	Park & Ride		Space	\$4,300		
117		Park & Ride Location	1		\$.,500		
119	8 - Operation	is Facility (All Yard elements Included)	1				
123	,	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 224.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Sullivan Road Area to Cannery Street Area		575+00	600+00	2,500 FT	0.5 mile
	C -224.4	East Valley Section Alternate 4		010100	000100	2,00011	0.0 11111
	C -224.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	LATERISION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,000,000		\$388,92
136		Sub-Station Type 3 LTK 910		EA	\$750,000		*****
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S	ystem					\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,645,08
161							
162	13. Right of \						
400		Alternate 2 DEA Right of Way Acquisition Budget			# 00.000.000		
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
164		Alternate 2 HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) - Allowance		LS	ФЕ 000 000 00		
104		Alternate 3 DEA Right of Way Acquisition Budget		LS	\$5,000,000.00		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Therrate Triagnat Berne & Bispecal (Tarine) Tracte Innigati			ψο,οοο,οοο.οο		
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Enginee	ring & Administration			Subtotal		\$1,275,78
180	Infrastructure	E & A 35.00%				\$1,275,780	
181	Vehicle	E&A 5.00%					
185	16 - Continge				Subtotal		\$929,01
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$679,017	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$256,150
195		Sales Tax 8.40%				\$256,149.85	
		Sales Tax has been applied to 2/3 of Infrastructure & Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
190	<u> </u>	of the vehicle's estimated total.					
						Total	\$6,106,03
	+					I UldI	φυ, 100,03

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 225.4

	Spokane	Regional					
	-	Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Cannery Street Area to Steen Road Area		600+00	625+00	2,500 FT	0.5 mile
	C -225.4	-		600+00	625+00	2,500 F I	0.5 11116
	C -225.4	East Valley Section Alternate 4 Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const	•	Quantity	Ollic	Offic Cost	LAGIISIOII	\$2,064,483
1	1-OIVII OOIISI	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	Ψ2,004,400
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	400	LF	\$35.00		
4		Common Excavation	815	CY	\$15.00	\$12,225	
5		Select Backfill (MSE Retaining Walls)	0.070	CY	\$15.00		
6 8		Common Backfill (From Project Excavation) Landscaping Allowance	2,272	CY SF	\$4.00 \$2.00	\$9,088	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	250	LF	\$16.00	\$4,000	
10		Chain Link Fencing 6'	4,630	LF	\$22.00		
11		Ballast Walls (Curb-no drainage)	250	LF	\$22.00	\$5,500	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	5.000	EA	\$8,000	Ø4.445.000	
14 15		Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade	5,000	TF TF	\$223 \$312	\$1,115,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23 24		Impact Attenuators Minor Street Closures Allowance		EA	\$35,000		
25		Minor Intersection Rebuild (2 Lanes)		EA EA	\$25,000 \$100,000		
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000	\$250,000	
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31 32		Sidewalk Construction	2,640	SF EA	\$6.00 \$75,000.00	\$15,840	
32		Off Alignment Signal Modifications Construct Maintenance Road Assume All Weather Gravel -		EA	\$75,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -			70000		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37 38		Provide Team Track and Loading Dock (HDR) Lake Rd Industrial Spur Modifications (HDR)		LS LS	\$208,000.00 \$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	* ,	
41		Signal Communication Building LTK130	1	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00		
45 50	2 - Incurance	Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
57	3 - Utilities	- moradou other in items					\$250,00
59		Utility Allowance - High		RF	\$600.00		Ψ=30,000
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70 74	4 - Track Mat 5 - Structure	erials - Included in the Rail Items					
75	J - Su ucture	Bridge Structures DEA		LS	\$1.00		
76		Bridge Location			ψ1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Chatiana		1.0	#750.05	#75 2 000	\$850,00
105 106		Stations Station Name	1 Sullivan/Boque	LS Station Center	\$750,000 or Platform	\$750,000	
106		Artwork (*Subject to Board Policy)	Sullivan/Bogue	LS LS	er Platform \$1.00		
108		Platform Electrical LTK610	1	LS	\$100,000		
115	7 - Park & Rie				\$.55,500	Ţ.00,000	\$1,720,00
116		Park & Ride	400	Space	\$4,300	\$1,720,000	
	1	Park & Ride Location	Bogue Station		[
117 119		Is Facility (All Yard elements Included)	Dogue Station				

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 225.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Cannery Street Area to Steen Road Area		600+00	625+00		0.5 mile
		East Valley Section Alternate 4			0=0:00	_,	
	O 220.∓	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00		2001ψ
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction P				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		\$1,138,92
136		Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	. , , .
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal Sy						\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	
151	11 - Commun						\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Coll						\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	
160		Subtotal - Infrastructure			Subtotal		\$7,265,72
161							
162	13. Right of V						
400		Alternate 2 DEA Right of Way Acquisition Budget			# 00 000 000		
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
164		Alternate 2 HazMat Demo & Disposal (Tanks, Waste Mitigation etc.) - Allowance		LS	\$5,000,000.00		
104		Alternate 3 DEA Right of Way Acquisition Budget		LS	\$5,000,000.00		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	Therrials 4 Trazinal Borro a Bioposal (Tarno, Waste Miligal			ψο,οσο,οσο.σσ		
175	14. 701110100	Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ing & Administration			Subtotal		\$2,543,00
180	Infrastructure	E&A 35.00%				\$2,543,005	
181	Vehicle	E&A 5.00%					
185	16 - Continge	ncies			Subtotal		\$1,653,14
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,403,146	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$499,45
195		Sales Tax 8.40%				\$499,457.02	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						T	044.004.55
						Total	\$11,961,338

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 226.4

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Ctort Cto	End Sta		
	Danisia					Length	0.5! -
	Drawing	Steen Road Area to Sprague Ave Crossing		625+00	650+00	2,500 FT	0.5 mile
	C -226.4	East Valley Section Alternate 4					
	4.00-11.0	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$2,031,763
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	800	LF	\$35.00	\$28.000	
4		Common Excavation	3,963	CY	\$15.00	\$59,445	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00	****	
6		Common Backfill (From Project Excavation)	257	CY	\$4.00	\$1,028	
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)	305	LF	\$16.00	\$4,880	
10		Chain Link Fencing 6'	4,295	LF	\$22.00	\$94,490	
11		Ballast Walls (Curb-no drainage)	305	<u>LF</u> LF	\$22.00	\$6,710	
12 13		Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure	2,500	EA	\$6.00 \$8,000	\$15,000	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade	3,000	TF	\$312	ψ1,115,000	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance	1	EA	\$25,000	\$25,000	
25		Minor Intersection Rebuild (2 Lanes)	2	EA	\$100,000	\$200,000	
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28 29		Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild		EA EA	\$200,000 \$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	5,040	SF	\$6.00	\$30,240	
32		Off Alignment Signal Modifications	0,0.0	EA	\$75,000.00	\$50,2 TO	
		Construct Maintenance Road Assume All Weather Gravel -			V : 0,000.00		
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110		LS	\$476,000.00		
39			2.500	EA	\$60,000.00	¢27 620	
40	+	OCS Pole Foundations LTK120 Signal Communication Building LTK130	2,500	RF EA	\$15.06 \$60,000.00	\$37,638	
42	 	Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit - OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50	2 - Insurance	- Included other in Items	,		·		
57	3 - Utilities						\$250,00
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00		
61	ļ <u></u>	Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		terials - Included in the Rail Items					
74	5 - Structure			1.0	£4.00		
75 76	-	Bridge Structures DEA Bridge Location		LS	\$1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations				, 2,222.00		
105		Stations	1	LS			
106		Station Name					
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108		Platform Electrical LTK610		LS	\$100,000	-	-
115	7 - Park & Ri						
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location					
119 123	ಕ - Operation	ns Facility (All Yard elements Included)			#40 == 4 = : =		
	1	Bldg & Yard Site Prep, Grading & Utilities LTK811	1	LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 226.4

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Steen Road Area to Sprague Ave Crossing		625+00	650+00	2,500 FT	0.5 mile
	C -226.4	East Valley Section Alternate 4		020100	000100	2,00011	0.0 11111
	0 -220.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	EXTENSION	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System		LO	ψ1,300,000		\$388,92
136	3 - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ300,32
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		,	_	, , , ,	,	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	· , ·
151	11 - Commur		,				\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	
157	12 - Fare Col	lection					
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,710,68
161							
162	13. Right of \						
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles				\$0.500.000.00		
175 176		Low Floor Light Rail Vehicles - Base Cost LTK 1600 Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA EA	\$2,500,000.00 \$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 d		EA	\$700,000		
179	15 Engineer	ring & Administration		EA	Subtotal		\$1,298,74
180	Infrastructure	E & A 35.00%			Subiolai	\$1,298,741	\$1,290,74
181	Vehicle	E & A 5.00%				\$1,290,741	
185	16 - Continge				Subtotal		\$942,13
187	Vehicles	Contingency 5.00%			Casiolai		Ψυπε, Ιυ
189	Infrastructure	Contingency 20.00%				\$692,138	
191	Utilities	Contingency 100.00%				\$250,000	
194		ton State Sales Tax and Real Estate Tax				+	\$260,55
195		Sales Tax 8.40%				\$260,558.23	
		Sales Tax has been applied to 2/3 of Infrastructure &				. ,,,,,,	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,212,12

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 227.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta		
	Drowing	Sprague Ave Crossing to Greenacres Road				Length	0.5 mile
		East Valley Section Alternate 4		650+00	675+00	2,500 FT	0.5 mile
	C -227.4	•	Ougatitus	l lmi4	Unit Cost	Extension	2004 €
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$ \$2,233,702
1	1-CIVII CONST	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	ΦZ,Z33,702
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	280	LF	\$35.00	\$9,800	
4		Common Excavation	924	CY	\$15.00	\$13,860	
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	2,318	CY	\$4.00	\$9,272	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)		SF LF	\$2.00		
10		Chain Link Fencing 4 (on walls of Ballast Curb)	1,500	LF	\$16.00 \$22.00	\$33,000	
11		Ballast Walls (Curb-no drainage)	1,500	LF	\$22.00	ψ00,000	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	,	EA	\$8,000	,	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16	-	Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19 20	1	LRT Siding or Pocket Track Double Crossover		TF EA	\$230 \$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)	1	EA	\$200,000	\$200,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000	0000 000	
28		Major Traffic Signal (4 Lanes)	1	EA	\$200,000	\$200,000	
29 30		Complex Major Intersection Rebuild Roadway Construction		EA SF	\$300,000 \$9.00		
31		Sidewalk Construction	1,800	SF	\$6.00	\$10,800	
32		Off Alignment Signal Modifications	1,000	EA	\$75,000.00	\$75,000	
		Construct Maintenance Road Assume All Weather Gravel -			,	* -,	
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36 37		Remove & Relocate Industrial Spur HDR Provide Team Track and Loading Dock (HDR)		TF LS	\$130.00 \$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130		EA	\$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00	\$275,000	
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50 57	2 - Insurance 3 - Utilities	e - Included other in Items					\$250,00
59	3 - Othities	Utility Allowance - High		RF	\$600.00		\$250,000
60	1	Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		erials - Included in the Rail Items					
74	5 - Structure:						-
75	1	Bridge Structures DEA		LS	\$1.00		
76	1	Bridge Location		C.	#20.00		
77 78	 	Retaining Wall 4' Max (Low Gravity Wall) MSE Retaining Wall - Typical DEA		SF SF	\$32.00 \$30.00		
79	+	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	2			ψο,οσσ.σσ		
105		Stations	1	LS			
106		Station Name					
107		Artwork (*Subject to Board Policy)		LS	\$1.00		_
108		Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ri			Cnc	#4.000		
116 117	1	Park & Ride Park & Ride Location	-	Space	\$4,300		
117	8 - Operation	Park & Ride Location as Facility (All Yard elements Included)					
	- CPCI atiVI	a (ran a didiniona morada)	1	LS			

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 227.4

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Sprague Ave Crossing to Greenacres Road		650+00	675+00	2,500 FT	0.5 mile
	C -227.4	East Valley Section Alternate 4		000100	070100	2,00011	0.0 111110
	C -221.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	Extension	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System		LO	ψ1,300,000		\$388,92
136	J - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ500,52
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		2,000		Ψοσιτι	\$66,166	\$722,19
148	. o o.ga. o	Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	Ψ. 22, . σ
151	11 - Commur		2,000		Ψ200:00	ψ. <u>LL</u> , .σσ	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	φοιι,σο
157	12 - Fare Col		_,		*	V , , , , , ,	
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,912,62
161							+ 0,01=,0=
162	13. Right of V	Vav					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste			, , , , , , , , , , , , , , , , , , , ,		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Enginee	ring & Administration			Subtotal		\$1,369,41
180	Infrastructure	E & A 35.00%				\$1,369,419	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$982,52
187	Vehicles	Contingency 5.00%					
189	Infrastructure					\$732,525	
191	Utilities	Contingency 100.00%				\$250,000	
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$274,129
195		Sales Tax 8.40%				\$274,128.53	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	\$6,538,70

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 228.4

	•	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Greenacres Road to Barker Road Area		675+00	700+00	2,500 FT	0.5 mile
	C -228.4	East Valley Section Alternate 4					
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const						\$2,209,436
1		Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	320	LF	\$35.00		
4		Common Excavation	1,028	CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)	40.040	CY	\$15.00		
6 8		Common Backfill (From Project Excavation) Landscaping Allowance	10,619	CY SF	\$4.00 \$2.00	\$42,476	
9		Chain Link Fencing 4' (on walls or Ballast Curb)	2,415	LF	\$16.00	\$38,640	
10		Chain Link Fencing 4 (on waits of Ballast Gulb)	100	LF	\$22.00		
11		Ballast Walls (Curb-no drainage)	2,415	LF	\$22.00		
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00		
13		Transition Slab Ballasted to Embedded /Bridge /Structure	,,,,,,	EA	\$8,000		
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19	1	LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover	1	EA	\$150,000	\$150,000	
22		Turnout		EA	\$75,000		
23 24		Impact Attenuators Minor Street Closures Allowance		EA EA	\$35,000 \$25,000		
25		Minor Intersection Rebuild (2 Lanes)	1	EA	\$100,000	\$100,000	
26		Major Intersection Rebuild (4 Lanes)	'	EA	\$200,000	\$100,000	
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)	1	EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000	4 _00,000	
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction	2,400	SF	\$6.00	\$14,400	
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -			* 0= 000 00		
34 35		HDR		EA TF	\$65,000.00		
36		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR		TF	\$100.00 \$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130	,	EA	\$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140	2,500	RF	\$110.00		
45		Corrosion Mitigation LTK150	2,500	RF	\$10.73	\$26,833	
50		e - Included other in Items					
57	3 - Utilities	LICPG All Park		D.F.	# 000.00		\$250,000
59	1	Utility Allowance - High Utility Allowance - Medium		RF RF	\$600.00		
60 61	+	Utility Allowance - Medium Utility Allowance - Low	2,500	RF	\$350.00 \$100.00		
70	4 - Track Mos	terials - Included in the Rail Items	2,500	NΓ	\$100.00	φ∠50,000	
74	5 - Structure						\$102,400
75	0	Bridge Structures DEA		LS	\$1.00		ψ.σ <u>2</u> ,.σσ
76		Bridge Location			Ţ.100		
77		Retaining Wall 4' Max (Low Gravity Wall)	3,200	SF	\$32.00	\$102,400	
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						
105	1	Stations	1	LS			
106		Station Name					
107	1	Artwork (*Subject to Board Policy)		LS	\$1.00		
108	7 Do-1 0 D'	Platform Electrical LTK610		LS	\$100,000		
115 116	7 - Park & Ri	des Park & Ride		Snoon	\$4,300		
117	+	Park & Ride Park & Ride Location		Space	\$4,300		
111			1				
119	8 - Operation	s Facility (All Yard elements Included)					

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 228.4

	Spokane	Regional					
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Greenacres Road to Barker Road Area		675+00	700+00	2,500 FT	0.5 mile
	C -228.4	East Valley Section Alternate 4		0.0.00	700700	2,00011	0.0 11111
	0 -220.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Quantity	SF	\$171.00	Extension	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$388,92
136	3 - Haction i	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ300,32
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		_,		700	400,000	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	¥:==,:•
151	11 - Commur		_,		4	4 1-2,111	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	, , , , , , , , , , , , , , , , , , , ,
157	12 - Fare Col	lection	,				
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,990,76
161							
162	13. Right of \	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$1,396,76
180	Infrastructure					\$1,396,766	
181	Vehicle	E & A 5.00%			0.1.1.1.1		#000 45
185 187	16 - Continge Vehicles				Subtotal		\$998,15
187	Infrastructure	Contingency 5.00%				\$748,152	
191	Utilities	Contingency 20.00% Contingency 100.00%				\$748,152 \$250.000	
194		Iton State Sales Tax and Real Estate Tax				\$250,000	\$279,379
195	17 - Washing	Sales Tax and Real Estate Tax Sales Tax 8.40%				\$279,379.14	Ψ219,51
100		Sales Tax has been applied to 2/3 of Infrastructure &				Ψ213,313.14	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
.00		5. the 15 hold o definition total.					
						Total	\$6,665,059

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 229.4

	Spokane	Regional				1	
	-	Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta		
	Drawing	Barker Road Area to Appleway Station Area				Length	O.E. mila
	Drawing			700+00	725+00	2,500 FT	0.5 mile
	C -229.4	Liberty Lake Section Alternate 4	O	I I a i t	Unit Coot	Fotomolon	20046
	1-Civil Const	Description	Quantity	Unit	Unit Cost	Extension	2001\$ \$1,722,242
1	1-Civil Const	Site Preparation - Clearing & Grubbing	2,500	LF	\$10.00	\$25,000	\$1,722,242
2		Grade Preparation to Top of subballast.	2,500	LF	\$35.00		
3		Curb & Gutter Allowance	_,,,,,	LF	\$35.00	70.,000	
4		Common Excavation		CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)	22,493	CY	\$4.00	\$89,972	
9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)	1 700	SF LF	\$2.00	\$27,200	
10		Chain Link Fencing 4 (on walls or Ballast Curb) Chain Link Fencing 6'	1,700 650	LF LF	\$16.00 \$22.00	\$27,200	
11		Ballast Walls (Curb-no drainage)	400	LF	\$22.00	\$8,800	
12		Site Cleanup and Final Grading Allowance	2,500	LF	\$6.00	\$15,000	
13		Transition Slab Ballasted to Embedded /Bridge /Structure	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	EA	\$8,000	, , , , , , , , , , , , , , , , , , , ,	
14		Ballasted Track at Grade or Structure	5,000	TF	\$223	\$1,115,000	
15		Embedded (Paved) Track at Grade		TF	\$312		·
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19 20		LRT Siding or Pocket Track Double Crossover		TF EA	\$230 \$300,000		
21		Single Crossover		EA EA	\$300,000 \$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28 29		Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild		EA EA	\$200,000 \$300,000		
30		Roadway Construction		SF	\$300,000		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35 36		Relocate UPRR Yard Lead or Branch Line Remove & Relocate Industrial Spur HDR		TF TF	\$100.00 \$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120	2,500	RF	\$15.06	\$37,638	
41		Signal Communication Building LTK130		EA	\$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140	0.50	RF	\$200.00	0075 000	
43 45	-	Ductbank/ Conduit -OPEN TRACK- LTK140 Corrosion Mitigation LTK150	2,500 2,500	RF RF	\$110.00 \$10.73	\$275,000	
50	2 - Insurance	e - Included other in Items	2,500	NΓ	\$10.73	\$26,833	
57	3 - Utilities						\$250,00
59		Utility Allowance - High		RF	\$600.00		, , , , ,
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low	2,500	RF	\$100.00	\$250,000	
70		terials - Included in the Rail Items					6400.10
74 75	5 - Structure:			LS	¢4.00		\$166,40
76		Bridge Structures DEA Bridge Location		LO	\$1.00		
77	<u> </u>	Retaining Wall 4' Max (Low Gravity Wall)	5,200	SF	\$32.00	\$166,400	
78		MSE Retaining Wall - Typical DEA	2,230	SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations			-			-
105	1	Stations	1	LS			
106		Station Name		1.0	04.00		
107 108		Artwork (*Subject to Board Policy) Platform Electrical LTK610		LS LS	\$1.00 \$100,000		
115	7 - Park & Rie	l .		LO	\$100,000		
116	i air o ri	Park & Ride		Space	\$4,300		
117		Park & Ride Location			\$.,550		
119	8 - Operation	s Facility (All Yard elements Included)					
123	1	Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516	-	-

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 229.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta		Length	
	Drawing	Barker Road Area to Appleway Station Area		700+00	725+00	2,500 FT	0.5 mile
	C -229.4	Liberty Lake Section Alternate 4		700100	720100	2,00011	0.0 111110
	0 -229.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	Qualitity	SF	\$171.00	Extension	20019
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,300,000		\$388,92
136	o muonom	Sub-Station Type 3 LTK 910		EA	\$750,000		ψ000,02
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	2,500	RF	\$109.00	\$272,500	
141		Lighting LTK940	2,500	RF	\$8.11	\$20,265	
142		Spare Parts/ System support LTK950	2,500	LS	\$38.47	\$96,163	
147	10 - Signal S		_,		700	400,000	\$722,19
148		Signal (Alt 2 & Alt 3)	2,500	RF	\$288.88	\$722,190	* :,:-
151	11 - Commur		_,		4	4 1-2,111	\$317,80
152		Communications (Alt 2 & Alt 3)	2,500	RF	\$127.12	\$317,808	4 0,00
157	12 - Fare Col	lection					
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$3,567,56
161							
162	13. Right of V	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$1,248,64
180	Infrastructure	E & A 35.00%				\$1,248,648	
181	Vehicle	E & A 5.00%			0.1.1.1.1		#040.54
185 187	16 - Continge Vehicles				Subtotal		\$913,51
	Infrastructure	Contingency 5.00%				PCC2 F42	
189 191	Utilities	Contingency 20.00% Contingency 100.00%				\$663,513 \$250,000	
194		Iton State Sales Tax and Real Estate Tax				φ250,000	\$250,94
195	17 - Washing	Sales Tax and Real Estate Tax Sales Tax 8.40%				\$250,940.50	Ψ230,94
100		Sales Tax has been applied to 2/3 of Infrastructure &				Ψ200,340.00	
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
.00		5. 1.5 Tolliolo o dell'Indica totali					
						Total	\$5,980,66

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 230.4

	Spokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Appleway Station Area to Country Vista Road		Otari Ota	Liid Old	Longin	
	Drawing	Area		725+00	730+00	500 FT	0.1 mile
		Liberty Lake Section Alternate 4		723100	730100	30011	0.1 111110
	0 -230.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Oilit	Offic Cost	LATERISION	\$558,394
1		Site Preparation - Clearing & Grubbing	500	LF	\$10.00	\$5,000	φοσο,σσ .
2		Grade Preparation to Top of subballast.	500		\$35.00		
3		Curb & Gutter Allowance		LF	\$35.00		
<u>4</u> 5		Common Excavation Select Backfill (MSE Retaining Walls)		CY	\$15.00 \$15.00		
6		Common Backfill (From Project Excavation)		CY	\$4.00		
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00		
10		Chain Link Fencing 6'	1,000	LF	\$22.00		
11 12		Ballast Walls (Curb-no drainage) Site Cleanup and Final Grading Allowance	500	LF LF	\$22.00 \$6.00		
13		Transition Slab Ballasted to Embedded /Bridge /Structure	500	EA	\$8,000		
14		Ballasted Track at Grade or Structure	1,000	TF	\$223	\$223,000	
15		Embedded (Paved) Track at Grade	,	TF	\$312	,	
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20 21		Double Crossover Single Crossover		EA EA	\$300,000 \$150,000		
22		Turnout		EA	\$75.000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)		EA EA	\$200,000 \$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide		LF	\$35.00		
- 33		Industrial Railroad Turnouts East Side Syndicate Spur -		Li	ψ33.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37 38		Provide Team Track and Loading Dock (HDR) Lake Rd Industrial Spur Modifications (HDR)		LS LS	\$208,000.00 \$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110	1	EA	\$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	500	RF	\$15.06		
41		Signal Communication Building LTK130	1	EA	\$60,000.00	\$60,000	
42		Ductbank/ Conduit -PAVED TRACK- LTK140	500	RF	\$200.00		
43 45		Ductbank/ Conduit - OPEN TRACK- LTK140	500 500	RF RF	\$110.00 \$10.73		
50 50	2 - Insurance	Corrosion Mitigation LTK150 - Included other in Items	500	KF	\$10.73	\$5,367	
57	3 - Utilities						\$50,000
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00		
61	4 Tea - 1 35 4	Utility Allowance - Low	500	RF	\$100.00	\$50,000	
70 74	4 - Track Mat 5 - Structures	erials - Included in the Rail Items					
75	o - on uctures	Bridge Structures DEA		LS	\$1.00		
76	1	Bridge Location			Ţ.,,00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79 104	6 Stations	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		\$9E0.000
104	6 - Stations	Stations	1	LS	\$750,000	\$750,000	\$850,000
106	1	Station Name	· ·	tion Center Pla		ψ1 30,000	
107		Artwork (*Subject to Board Policy)	1, 3,	LS	\$1.00		
108		Platform Electrical LTK610	1	LS	\$100,000	\$100,000	
115	7 - Park & Ric		4.000	0	04.000	#4.000.000	\$4,300,000
116	 	Park & Ride Park & Ride Location	1,000 Appleway Sta		\$4,300	\$4,300,000	
117			INDUIEWAY Old	uon	1		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 230.4

	Spokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Appleway Station Area to Country Vista Road					
	Drawing	Area		725+00	730+00	500 FT	0.1 mile
	C -230.4	Liberty Lake Section Alternate 4		723+00	730+00	30011	0.111111
	C -230.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
123		Bldg & Yard Site Prep, Grading & Utilities LTK811	Quantity	LS	\$18,551,516		2001φ
123		Operations Facility Building LTK		SF	\$18,551,516		
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System			ψ1,500,000		\$827,78
136	o madadini	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	Ψ021,10
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930	500	RF	\$109.00		
141		Lighting LTK940	500	RF	\$8.11	\$4,053	
142		Spare Parts/ System support LTK950	500	LS	\$38.47	\$19,233	
147	10 - Signal S		000		φσσ	ψ.o,200	\$144,43
148		Signal (Alt 2 & Alt 3)	500	RF	\$288.88	\$144,438	. ,
151	11 - Commun				V =00.00	. ,	\$63,56
152		Communications (Alt 2 & Alt 3)	500	RF	\$127.12	\$63,562	, , , , , ,
157	12 - Fare Col				*	V 00,002	\$202,32
158		Fare Collection Vending/ Validator & Spares LTK1200	1	LS	\$202,321	\$202,321	· · · · ·
160		Subtotal - Infrastructure			Subtotal		\$6,996,50
161							
162	13. Right of V	Vay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$2,448,77
180	Infrastructure	E & A 35.00%				\$2,448,775	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$1,439,30
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$1,389,300	
191	Utilities	Contingency 100.00%				\$50,000	¢.=0 :-
194	17 - Washing	ton State Sales Tax and Real Estate Tax				C470 404 60	\$472,40
195		Sales Tax 8.40%				\$472,404.83	
		Sales Tax has been applied to 2/3 of Infrastructure &					
400		Contingency (Reduced to eliminate tax on Labor) and 100% of the vehicle's estimated total.					
196	-	or the vehicle's estimated total.					
	+					Total	\$11,356,98
					1	าบเสเ	φιι,356,98
		l I					

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 231.4

	Spokane	Regional					
		Light Rail Project			Fetima	ite Basics	
		Order of Magnitude		Ctort Cto			
	Describes			Start Sta	End Sta	Length	
		Liberty Lake Area along side Interstate 90					
	C -231.4	Liberty Lake Section Alternate 4	0	11	11-7-01	F	0004#
	4 Civil Camat	Description	Quantity	Unit	Unit Cost	Extension	2001\$
1	1-Civil Const	Site Preparation - Clearing & Grubbing		LF	\$10.00		
2		Grade Preparation to Top of subballast.		LF	\$35.00		
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation		CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)		CY	\$4.00		
8		Landscaping Allowance		SF	\$2.00		
9 10		Chain Link Fencing 4' (on walls or Ballast Curb) Chain Link Fencing 6'		LF LF	\$16.00 \$22.00		
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance		LF	\$6.00		
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14		Ballasted Track at Grade or Structure		TF	\$223		
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19 20	1	LRT Siding or Pocket Track Double Crossover		TF EA	\$230 \$300,000		
21	1	Single Crossover		EA	\$300,000 \$150,000		
22		Turnout		EA	\$75,000		
23	1	Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28 29		Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild		EA EA	\$200,000 \$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
0.4		Industrial Railroad Turnouts East Side Syndicate Spur -		- A	#05.000.00		
34 35		HDR Relocate UPRR Yard Lead or Branch Line		EA TF	\$65,000.00 \$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$100.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120		RF	\$15.06		
41	-	Signal Communication Building LTK130		EA	\$60,000.00		
42 43		Ductbank/ Conduit -PAVED TRACK- LTK140 Ductbank/ Conduit -OPEN TRACK- LTK140		RF RF	\$200.00 \$110.00		
45	+	Corrosion Mitigation LTK150		RF	\$110.00		
50		- Included other in Items			ψ10.70		
57	3 - Utilities	-					
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low		RF	\$100.00		
70 74	4 - Track Mate	erials - Included in the Rail Items					
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location			ψ1.00		
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79		Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations	Outro		1.0			
105	1	Stations Station Name	1	LS			
106 107	1	Station Name Artwork (*Subject to Board Policy)		LS	\$1.00		
107	1	Platform Electrical LTK610		LS	\$100,000		
115	7 - Park & Ric				ψ100,000		
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location					
119		s Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 231.4

	Spokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Liberty Lake Area along side Interstate 90		Otal Cota	2.10 010	_0g	
	C -231.4	Liberty Lake Section Alternate 4					
	C -231.4	•	Ouentitue	Unit	Unit Cost	Extension	2001\$
101		Description Description	Quantity				2001\$
124 125		Operations Facility Building LTK Yard Maintenance Equipment LTK		SF LS	\$171.00 \$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	0 - Traction F	Power System		LO	ψ1,300,000		\$750,00
136	3 - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	ψ130,00
138		OCS Single Contact Wire LTK920	<u>'</u>	RF	\$123.00		
139		OCS Simple Catenary LTK930		RF	\$109.00		
141		Lighting LTK940		RF	\$8.11		
142		Spare Parts/ System support LTK950		LS	\$38.47		
147	10 - Signal S				φσσ		
148	. o o.ga. o	Signal (Alt 2 & Alt 3)		RF	\$288.88		
151	11 - Commur				\$200.00		
152		Communications (Alt 2 & Alt 3)		RF	\$127.12		
157	12 - Fare Col						
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$750,00
161							
162	13. Right of \	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$262,50
180	Infrastructure	E & A 35.00%				\$262,500	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$150,00
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$150,000	
191	Utilities	Contingency 100.00%					AFC 10
194	17 - Washing	ton State Sales Tax and Real Estate Tax				A =0 400 00	\$50,40
195		Sales Tax 8.40% Sales Tax has been applied to 2/3 of Infrastructure &				\$50,400.00	
		Contingency (Reduced to eliminate tax on Labor) and 100%		1			
196		of the vehicle's estimated total.					
190	 	or the verlicle's estimated total.		-			
						Total	¢1 010 00
	-					rotal	\$1,212,90
				 			

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 232.4

	Spokane	Regional					
	•	Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Liberty Lake Area along side Interstate 90		Start Sta	Eliu Sia	Lengui	
		Liberty Lake Section Alternate 4					
	C -232.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Ullit	Unit Cost	Extension	20015
1	1-CIVII COIIst	Site Preparation - Clearing & Grubbing		LF	\$10.00		
2		Grade Preparation to Top of subballast.		LF	\$35.00		
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation		CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6 8		Common Backfill (From Project Excavation) Landscaping Allowance		CY SF	\$4.00 \$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00		
10		Chain Link Fencing 6'		LF	\$22.00		
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance		LF	\$6.00		
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14 15		Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade		TF TF	\$223 \$312		
16	+	Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19	1	LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22	1	Turnout Impact Attenuators		EA EA	\$75,000 \$35,000		
23 24		Minor Street Closures Allowance		EA	\$35,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29 30		Complex Major Intersection Rebuild Roadway Construction		EA SF	\$300,000 \$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
34		Industrial Railroad Turnouts East Side Syndicate Spur - HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120		EA RF	\$60,000.00		
40 41	+	Signal Communication Building LTK130		EA	\$15.06 \$60,000.00		
42	1	Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140		RF	\$110.00		
45		Corrosion Mitigation LTK150		RF	\$10.73		
50		- Included other in Items					
57 59	3 - Utilities	Utility Allowance - High		RF	\$600.00		
60	+	Utility Allowance - Medium		RF	\$350.00		
61	1	Utility Allowance - Low		RF	\$100.00		
70		erials - Included in the Rail Items					
74	5 - Structures						
75	1	Bridge Structures DEA		LS	\$1.00		
76 77	+	Bridge Location Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79	1	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						
105	1	Stations	1	LS			
106	1	Station Name Artwork (*Subject to Board Policy)		10	¢4.00		
107 108	+	Platform Electrical LTK610		LS LS	\$1.00 \$100,000		
115	7 - Park & Ric				ψ100,000		
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location					
119	8 - Operation	s Facility (All Yard elements Included)		1.0	040 == 1 = 1 =		
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 232.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Liberty Lake Area along side Interstate 90		Otan Ota	2 01.0	20119411	
	C -232.4	Liberty Lake Section Alternate 4					
	C -232.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
404		Operations Facility Building LTK	Quantity				20019
124 125		Yard Maintenance Equipment LTK		SF LS	\$171.00 \$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	0 - Traction E	Power System		LO	\$1,900,000		
136	9 - Haction F	Sub-Station Type 3 LTK 910		EA	\$750,000		
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Contact Wire ETR920 OCS Simple Catenary LTK930		RF	\$109.00		
141		Lighting LTK940		RF	\$8.11		
142		Spare Parts/ System support LTK950		LS	\$38.47		
147	10 - Signal S				ψ50.41		
148	.o orginar o	Signal (Alt 2 & Alt 3)		RF	\$288.88		
151	11 - Commur			10	Ψ200.00		
152	TT Commun	Communications (Alt 2 & Alt 3)		RF	\$127.12		
157	12 - Fare Col				V.2 2		
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		
161		Oubtotal Illinois dotain			Cubiolai		
162	13. Right of V	Nav					
	J	Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste			φοσισσοίσσο		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget		_	, , , , , , , , , , , , , , , , , , , ,		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	, , ,					
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		
180	Infrastructure	E & A 35.00%					
181	Vehicle	E & A 5.00%					
185	16 - Continge	encies			Subtotal		
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%					
191	Utilities	Contingency 100.00%					
194	17 - Washing	ton State Sales Tax and Real Estate Tax					
195		Sales Tax 8.40%	-				
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
						Total	

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 233.4

	Spokane	Regional					
	•	Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Liberty Lake Road Area to Signal Road		Start Sta	Eliu Sia	Lengui	
		Liberty Lake Section Alternate 4					
	C -233.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Unit	Unit Cost	Extension	20015
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing		LF	\$10.00		
2		Grade Preparation to Top of subballast.		LF	\$35.00		
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation		CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6 8		Common Backfill (From Project Excavation) Landscaping Allowance		CY SF	\$4.00 \$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00		
10		Chain Link Fencing 6'		LF	\$22.00		
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance		LF	\$6.00		
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14 15		Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade		TF TF	\$223 \$312		
16	+	Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19	1	LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22	1	Turnout Impact Attenuators		EA EA	\$75,000 \$35,000		
23 24		Minor Street Closures Allowance		EA	\$35,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29 30		Complex Major Intersection Rebuild Roadway Construction		EA SF	\$300,000 \$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
34		Industrial Railroad Turnouts East Side Syndicate Spur - HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110 OCS Pole Foundations LTK120		EA RF	\$60,000.00		
40 41	+	Signal Communication Building LTK130		EA	\$15.06 \$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140		RF	\$110.00		
45		Corrosion Mitigation LTK150		RF	\$10.73		
50		- Included other in Items					
57 59	3 - Utilities	Utility Allowance - High		RF	\$600.00		
60	+	Utility Allowance - Medium		RF	\$350.00		
61	1	Utility Allowance - Low		RF	\$100.00		
70		erials - Included in the Rail Items					
74	5 - Structures						
75	1	Bridge Structures DEA		LS	\$1.00		
76 77	+	Bridge Location Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79	1	Cut & Cover Box/ Tunnel to Pine Road Aerial Station		LF	\$3,500.00		
104	6 - Stations						
105	1	Stations	1	LS			
106	1	Station Name Artwork (*Subject to Board Policy)	1	10	04.00		
107 108	+	Platform Electrical LTK610		LS LS	\$1.00 \$100,000		
115	7 - Park & Ric				ψ100,000		
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location					
119	8 - Operation	s Facility (All Yard elements Included)		1.0	040 == 1 = : =		
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 233.4

	Spokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing	Liberty Lake Road Area to Signal Road		Otal Cota	2.14 014	_0g	
	C -233.4	Liberty Lake Section Alternate 4					
	C -233.4	Description	Ouentitue	Unit	Unit Cost	Extension	2001\$
101			Quantity				2001\$
124 125		Operations Facility Building LTK Yard Maintenance Equipment LTK		SF LS	\$171.00 \$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	0 - Traction F	Power System		LS	\$1,900,000		\$750,00
136	3 - Haction i	Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	Ψ130,00
138		OCS Single Contact Wire LTK920	<u>'</u>	RF	\$123.00		
139		OCS Simple Catenary LTK930		RF	\$109.00		
141		Lighting LTK940		RF	\$8.11		
142		Spare Parts/ System support LTK950		LS	\$38.47		
147	10 - Signal S				φσσ		
148	.c o.ga. o	Signal (Alt 2 & Alt 3)		RF	\$288.88		
151	11 - Commur				\$200.00		
152		Communications (Alt 2 & Alt 3)		RF	\$127.12		
157	12 - Fare Col				,		
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$750,00
161							
162	13. Right of \	Nay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179		ring & Administration			Subtotal		\$262,50
180	Infrastructure	E & A 35.00%				\$262,500	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$150,00
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$150,000	
191	Utilities	Contingency 100.00%					\$50.40
194	17 - Washing	ton State Sales Tax and Real Estate Tax				#FO 400 00	\$50,40
195	<u> </u>	Sales Tax 8.40% Sales Tax has been applied to 2/3 of Infrastructure &		1		\$50,400.00	
		Contingency (Reduced to eliminate tax on Labor) and 100%		1			
196		of the vehicle's estimated total.		1			
190	+	or the verlicle's estimated total.		-	-		
						Total	¢1 010 00
	-					rotal	\$1,212,90
				 			

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 234.4

	Spokane	Regional					
	оронило	Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Ctort Cto			
	Drawing	Signal Road to Madson Road Area		Start Sta	Eliu Sia	Length	
		Liberty Lake Section Alternate 4					
	C -234.4	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		Quantity	Offic	Unit Cost	Extension	20019
1	1-CIVII COIISI	Site Preparation - Clearing & Grubbing		LF	\$10.00		
2		Grade Preparation to Top of subballast.		LF	\$35.00		
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation		CY	\$15.00		
5 6		Select Backfill (MSE Retaining Walls) Common Backfill (From Project Excavation)		CY	\$15.00 \$4.00		
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00		
10		Chain Link Fencing 6'		LF	\$22.00		
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12 13		Site Cleanup and Final Grading Allowance Transition Slab Ballasted to Embedded /Bridge /Structure		LF EA	\$6.00 \$8,000		
14		Ballasted Track at Grade or Structure		TF	\$223		
15		Embedded (Paved) Track at Grade		TF	\$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20 21		Double Crossover Single Crossover		EA EA	\$300,000 \$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26 27		Major Intersection Rebuild (4 Lanes) Minor Traffic Signal (2 Lanes)		EA EA	\$200,000 \$100.000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
33		Construct Maintenance Road Assume All Weather Gravel - 12 FT Wide		LF	\$35.00		
- 55		Industrial Railroad Turnouts East Side Syndicate Spur -			ψ33.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37 38		Provide Team Track and Loading Dock (HDR) Lake Rd Industrial Spur Modifications (HDR)		LS LS	\$208,000.00 \$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120		RF	\$15.06		
41		Signal Communication Building LTK130		EA	\$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43 45		Ductbank/ Conduit -OPEN TRACK- LTK140 Corrosion Mitigation LTK150		RF RF	\$110.00 \$10.73		
50	2 - Insurance	:- Included other in Items		IXI	φ10.73		
57	3 - Utilities						
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00		
61 70	4 - Track Mos	Utility Allowance - Low erials - Included in the Rail Items		RF	\$100.00		
70	5 - Structures						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78 79		MSE Retaining Wall - Typical DEA Cut & Cover Box/ Tunnel to Pine Road Aerial Station		SF LF	\$30.00 \$3.500.00		
104	6 - Stations	Out & Cover Dow Turnier to Fine Road Aeriai Station		LF	\$3,500.00		
105		Stations	1	LS			
106		Station Name					
107		Artwork (*Subject to Board Policy)		LS	\$1.00		
108	7 Dorl 9 D'	Platform Electrical LTK610		LS	\$100,000		
115 116	7 - Park & Ric	Park & Ride		Space	\$4,300		
117		Park & Ride Location		Орасс	ψ+,500		
119	8 - Operation	s Facility (All Yard elements Included)					
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		·

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 234.4

	Spokane	Regional						
		Light Rail Project		Estimate Basics				
		Order of Magnitude		Start Sta	End Sta	Length		
	Drawing	Signal Road to Madson Road Area		Otan Ota	2 01.0	20119111		
	C -234.4	Liberty Lake Section Alternate 4						
	C -234.4		0	1114	Unit Coot	Futanaian	20046	
404		Description Description	Quantity	Unit	Unit Cost	Extension	2001\$	
124 125		Operations Facility Building LTK Yard Maintenance Equipment LTK		SF LS	\$171.00 \$4,160,844			
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460			
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000			
133	Q - Traction E	Power System		LO	\$1,900,000			
136	9 - Haction F	Sub-Station Type 3 LTK 910		EA	\$750,000			
138		OCS Single Contact Wire LTK920		RF	\$123.00			
139		OCS Simple Contact Wire ETR920 OCS Simple Catenary LTK930		RF	\$109.00			
141		Lighting LTK940		RF	\$8.11			
142		Spare Parts/ System support LTK950		LS	\$38.47			
147	10 - Signal S				ψ30.47			
148	io oignaro	Signal (Alt 2 & Alt 3)		RF	\$288.88			
151	11 - Commur			10	Ψ200.00			
152	· · · · · · · · · · · · · · · · · · ·	Communications (Alt 2 & Alt 3)		RF	\$127.12			
157	12 - Fare Col				Ų.ZZ			
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321			
160		Subtotal - Infrastructure			Subtotal			
161		Oubtotal Illinois dotain			Cubiciai			
162	13. Right of V	Nav						
	g	Alternate 2 DEA Right of Way Acquisition Budget						
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000			
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste			ψοσισσοίσσο			
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00			
		Alternate 3 DEA Right of Way Acquisition Budget		_	, , , , , , , , , , , , , , , , , , , ,			
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00			
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00			
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00			
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00			
174	14. Vehicles	, , ,						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00			
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18			
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000			
179	15 - Engineer	ring & Administration			Subtotal			
180	Infrastructure	E & A 35.00%	·					
181	Vehicle	E & A 5.00%	·					
185	16 - Continge		<u> </u>		Subtotal			
187	Vehicles	Contingency 5.00%						
189	Infrastructure	Contingency 20.00%						
191	Utilities	Contingency 100.00%						
194	17 - Washing	ton State Sales Tax and Real Estate Tax						
195		Sales Tax 8.40%						
		Sales Tax has been applied to 2/3 of Infrastructure &						
		Contingency (Reduced to eliminate tax on Labor) and 100%						
196		of the vehicle's estimated total.						
						Total		

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 235.4

	Spokane	Regional					
		Light Rail Project			Estima	te Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
		Liberty Lake Station (Molter Rd) and Line		Otan Ota	2.1.4 51.4		
		Terminus Area					
	0	Liberty Lake Section Alternate 4					
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const						\$130,000
1		Site Preparation - Clearing & Grubbing		LF LF	\$10.00 \$35.00		
3		Grade Preparation to Top of subballast. Curb & Gutter Allowance		LF	\$35.00 \$35.00		
4		Common Excavation		CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)		CY	\$4.00		
8 9		Landscaping Allowance Chain Link Fencing 4' (on walls or Ballast Curb)		SF LF	\$2.00 \$16.00		
10		Chain Link Fencing 4 (on wails of Ballast Culb)		LF	\$22.00		
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance		LF	\$6.00		
13		Transition Slab Ballasted to Embedded /Bridge /Structure		EA	\$8,000		
14 15		Ballasted Track at Grade or Structure Embedded (Paved) Track at Grade		TF TF	\$223 \$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$280		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22 23		Turnout Impact Attenuators	2	EA EA	\$75,000 \$35,000	\$70,000	
24		Minor Street Closures Allowance	2	EA	\$25,000	\$70,000	
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28 29		Major Traffic Signal (4 Lanes) Complex Major Intersection Rebuild		EA EA	\$200,000 \$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
00		Construct Maintenance Road Assume All Weather Gravel -			#05.00		
33		12 FT Wide Industrial Railroad Turnouts East Side Syndicate Spur -		LF	\$35.00		
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR		TF	\$130.00		
37		Provide Team Track and Loading Dock (HDR)		LS	\$208,000.00		
38 39		Lake Rd Industrial Spur Modifications (HDR) TPS Building, Foundation & Ground Mat. LTK110	1	LS EA	\$476,000.00 \$60,000.00	\$60,000	
40		OCS Pole Foundations LTK120	1	RF	\$15.06		
41		Signal Communication Building LTK130		EA	\$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43 45		Ductbank/ Conduit - OPEN TRACK- LTK140		RF RF	\$110.00 \$10.73		
	2 - Insurance	Corrosion Mitigation LTK150 - Included other in Items		ľΓ	\$10.73		
	3 - Utilities						
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00		
61 70	4 - Track Mot	Utility Allowance - Low erials - Included in the Rail Items		RF	\$100.00		
	5 - Structures						
75		Bridge Structures DEA		LS	\$1.00		
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78 79		MSE Retaining Wall - Typical DEA Cut & Cover Box/ Tunnel to Pine Road Aerial Station		SF LF	\$30.00 \$3,500.00		
	6 - Stations	Cat a Cover Box Talifforto Fillo Road Actial Otation			ψυ,υυυ.υυ		\$100,000
105		Stations	1	LS			
106		Station Name					
107		Artwork (*Subject to Board Policy)		LS	\$1.00	¢400.000	
108 115	7 - Park & Ric	Platform Electrical LTK610	1	LS	\$100,000	\$100,000	
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location		,			
119	8 - Operation	s Facility (All Yard elements Included)					

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 235.4

	Spokane	Regional					
		Light Rail Project			Estima	ite Basics	
		Order of Magnitude		Start Sta		Length	
		Liberty Lake Station (Molter Rd) and Line		Otari Ota	Liid Ola	Longui	
	Drawing	Terminus Area					
	C -235.4	Liberty Lake Section Alternate 4					
		Description	Quantity	Unit	Unit Cost	Extension	2001\$
123		Bldg & Yard Site Prep, Grading & Utilities LTK811		LS	\$18,551,516		
124		Operations Facility Building LTK		SF	\$171.00		
125		Yard Maintenance Equipment LTK		LS	\$4,160,844		
126		Maintenance of Way Vehicles LTK		LS	\$1,847,460		
127		Communications Control Center/ Hardware/ Software LTK		LS	\$1,900,000		
133	9 - Traction F	Power System					\$750,00
136		Sub-Station Type 3 LTK 910	1	EA	\$750,000	\$750,000	
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Catenary LTK930		RF	\$109.00		
141		Lighting LTK940		RF	\$8.11		
142		Spare Parts/ System support LTK950		LS	\$38.47		
147	10 - Signal S	ystem					
148		Signal (Alt 2 & Alt 3)		RF	\$288.88		
151	11 - Commur						
152		Communications (Alt 2 & Alt 3)		RF	\$127.12		
157	12 - Fare Col	lection					
158		Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure			Subtotal		\$980,00
161							
162	13. Right of V	Vay					
		Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste					
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget					
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles						
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 &		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Engineer	ring & Administration			Subtotal		\$343,00
180	Infrastructure	E & A 35.00%				\$343,000	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$196,00
187	Vehicles	Contingency 5.00%					-
189	Infrastructure	Contingency 20.00%				\$196,000	
191	Utilities	Contingency 100.00%					
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$65,85
195		Sales Tax 8.40%				\$65,856.00	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
	1					Total	\$1,584,85
						I Utal	Ψ1,001,00

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT

Drawing #C 300.4

	оронано	Regional					
		Light Rail Project			Estima	ate Basics	
		Order of Magnitude		Start Sta	End Sta	Length	
	Drawing						
		Maintenance Facility Alternate 4					
	0 000.1	Description	Quantity	Unit	Unit Cost	Extension	2001\$
	1-Civil Const		quantity	O.m.	Cinc Cool	Exterioren	
1		Site Preparation - Clearing & Grubbing		LF	\$10.00		
2		Grade Preparation to Top of subballast.		LF	\$35.00		
3		Curb & Gutter Allowance		LF	\$35.00		
4		Common Excavation		CY	\$15.00		
5		Select Backfill (MSE Retaining Walls)		CY	\$15.00		
6		Common Backfill (From Project Excavation)		CY	\$4.00		
8		Landscaping Allowance		SF	\$2.00		
9		Chain Link Fencing 4' (on walls or Ballast Curb)		LF	\$16.00		
10		Chain Link Fencing 6'		LF	\$22.00		
11		Ballast Walls (Curb-no drainage)		LF	\$22.00		
12		Site Cleanup and Final Grading Allowance		LF	\$6.00		
13 14		Transition Slab Ballasted to Embedded /Bridge /Structure Ballasted Track at Grade or Structure		EA TF	\$8,000		
15		Embedded (Paved) Track at Grade		TF	\$223 \$312		
16		Direct Fixation (DF) Track, Elevated Structure		TF	\$312		
19		LRT Siding or Pocket Track		TF	\$230		
20		Double Crossover		EA	\$300,000		
21		Single Crossover		EA	\$150,000		
22		Turnout		EA	\$75,000		
23		Impact Attenuators		EA	\$35,000		
24		Minor Street Closures Allowance		EA	\$25,000		
25		Minor Intersection Rebuild (2 Lanes)		EA	\$100,000		
26		Major Intersection Rebuild (4 Lanes)		EA	\$200,000		
27		Minor Traffic Signal (2 Lanes)		EA	\$100,000		
28		Major Traffic Signal (4 Lanes)		EA	\$200,000		
29		Complex Major Intersection Rebuild		EA	\$300,000		
30		Roadway Construction		SF	\$9.00		
31		Sidewalk Construction		SF	\$6.00		
32		Off Alignment Signal Modifications		EA	\$75,000.00		
		Construct Maintenance Road Assume All Weather Gravel -					
33		12 FT Wide		LF	\$35.00		
		Industrial Railroad Turnouts East Side Syndicate Spur -					
34		HDR		EA	\$65,000.00		
35		Relocate UPRR Yard Lead or Branch Line		TF	\$100.00		
36		Remove & Relocate Industrial Spur HDR Provide Team Track and Loading Dock (HDR)		TF LS	\$130.00 \$208,000.00		
37 38		Lake Rd Industrial Spur Modifications (HDR)		LS	\$476,000.00		
39		TPS Building, Foundation & Ground Mat. LTK110		EA	\$60,000.00		
40		OCS Pole Foundations LTK120		RF	\$15.06		
41		Signal Communication Building LTK130		EA	\$60,000.00		
42		Ductbank/ Conduit -PAVED TRACK- LTK140		RF	\$200.00		
43		Ductbank/ Conduit -OPEN TRACK- LTK140		RF	\$110.00		
45		Corrosion Mitigation LTK150		RF	\$10.73		
	2 - Insurance	- Included other in Items					
	3 - Utilities						
59		Utility Allowance - High		RF	\$600.00		
60		Utility Allowance - Medium		RF	\$350.00		
61		Utility Allowance - Low		RF	\$100.00		
		erials - Included in the Rail Items					
	5 - Structures						
75		Bridge Structures DEA	1	LS	\$1.00		
76		Bridge Location					
77		Retaining Wall 4' Max (Low Gravity Wall)		SF	\$32.00		
78		MSE Retaining Wall - Typical DEA		SF	\$30.00		
79	6 - Stations	Cut & Cover Box/ Tunnel to Pine Road Aerial Station	1	LF	\$3,500.00		
	o - Stations	Stations		10	1		
105 106		Stations Station Name	1	LS	1		
106		Station Name Artwork (*Subject to Board Policy)		LS	\$1.00		
107		Platform Electrical LTK610		LS	\$1.00		
	7 - Park & Ric			LO	φ100,000		
116		Park & Ride		Space	\$4,300		
117		Park & Ride Location		Орасс	ψ+,300		
	8 - Operation	s Facility (All Yard elements Included)	 				\$39,284
123	por acion	Bldg & Yard Site Prep, Grading & Utilities LTK811	1.0	LS	\$18,551,516	\$18,551,516	ΨΟΟ, ∠ Ο

INTERIM PRELIMINARY ENGINEERING COST ESTIMATE SPOKANE LIGHT RAIL TRANSIT Drawing #C 300.4

	Spokane	Regional					
		Light Rail Project			Estimate Basics		
		Order of Magnitude		Start Sta	End Sta	Lenath	
	Drawing	0gg		01011 010	2 01.0	20119411	
	C -300.4	Maintenance Facility Alternate 4					
	C -300.4		Ouentitue	l lmi4	Unit Coot	Extension	20046
101		Description	Quantity	Unit	Unit Cost	Extension	2001\$
124		Operations Facility Building LTK	75,000	SF	\$171.00	\$12,825,000	
125		Yard Maintenance Equipment LTK	1	LS	\$4,160,844	\$4,160,844	
126		Maintenance of Way Vehicles LTK	1	LS	\$1,847,460		
127	0 T	Communications Control Center/ Hardware/ Software LTK	1	LS	\$1,900,000	\$1,900,000	
133 136	9 - Traction F	Power System Sub-Station Type 3 LTK 910		EA	\$750,000		
138		OCS Single Contact Wire LTK920		RF	\$123.00		
139		OCS Simple Contact Wife LTK920 OCS Simple Catenary LTK930		RF	\$123.00		
141		Lighting LTK940		RF	\$109.00		
142		Spare Parts/ System support LTK950		LS	\$38.47		
147	10 - Signal S			LO	φ30.47		
148	10 - Signal S	Signal (Alt 2 & Alt 3)		RF	\$288.88		
151	11 - Commur			NF	\$200.00		
152	11 - Commu	Communications (Alt 2 & Alt 3)		RF	\$127.12		
157	12 - Fare Col			IXI	Ψ121.12		
158	12 - 1 ale Coi	Fare Collection Vending/ Validator & Spares LTK1200		LS	\$202,321		
160		Subtotal - Infrastructure		LO	Subtotal		\$39,284,82
161		Oubtotal - Illinasti dotale			Oubiolai		ψ55,204,02
162	13. Right of \	Nav					
	.c. mgm c.	Alternate 2 DEA Right of Way Acquisition Budget					
163		Estimate (Including Railroads & Operation Facility)		LS	\$30,000,000		
		Alternate 2 HazMat Demo & Disposal (Tanks, Waste			φοσισσοίσσο		
164		Mitigation etc.) - Allowance		LS	\$5,000,000.00		
		Alternate 3 DEA Right of Way Acquisition Budget			, , , , , , , , , , , , , , , , , , , ,		
165		Estimate (Including Railroads & Operation Facility)		LS	\$27,914,712.00		
166		Alternate 3 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
167		Alternate 4 DEA Right of Way Acquisition Budget Estima		LS	\$26,771,815.00		
168		Alternate 4 HazMat Demo & Disposal (Tanks, Waste Mitigati		LS	\$5,000,000.00		
174	14. Vehicles	1 , , ,					
175		Low Floor Light Rail Vehicles - Base Cost LTK 1600		EA	\$2,500,000.00		
176		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 2 8		EA	\$681,818.18		
177		Low Floor Light Rail Vehicles - Spare Parts LTK 1600 (Alt 4)		EA	\$700,000		
179	15 - Enginee	ring & Administration			Subtotal		\$13,749,68
180	Infrastructure	E & A 35.00%				\$13,749,687	
181	Vehicle	E & A 5.00%					
185	16 - Continge				Subtotal		\$7,856,96
187	Vehicles	Contingency 5.00%					
189	Infrastructure	Contingency 20.00%				\$7,856,964	
191	Utilities	Contingency 100.00%					
194	17 - Washing	ton State Sales Tax and Real Estate Tax					\$2,639,94
195		Sales Tax 8.40%				\$2,639,939.90	
		Sales Tax has been applied to 2/3 of Infrastructure &					
		Contingency (Reduced to eliminate tax on Labor) and 100%					
196		of the vehicle's estimated total.					
	1						
	1					Total	\$63,531,41