

Central Corridor Transit Study		Estimate Basics				
Light Rail Project		Start Sta	End Sta	Length		
Order of Magnitude		8+43	182+00	17,357		3.3 miles
Drawing	St. Paul Loop					
	Central Corridor Light Rail Transit (LRT)					
Description		Quantity	Unit	Unit Cost	Extension	2002\$
1-Civil Construction						\$29,661,750
1	Site Preparation - Clearing and Grubbing	17,357	LF	\$5	\$86,785	
2	Grade Preparation to top of Subballast	17,357	LF	\$18	\$312,426	
3	Curb and Gutter Allowance	12,307	LF	\$18	\$221,526	
4	Unclassified Excavation	21,880	CY	\$30	\$656,400	
5	Common Backfill (From Project Excavation)		CY	\$4	\$0	
6	Select Backfill (MSE or Retaining Walls)	925	CY	\$30	\$27,750	
7	Landscape Allowance	12,807	RF	\$32	\$409,824	
8	Chain Link Fencing 6'		LF	\$30	\$0	
9	Site Cleanup and Final Grading Allowance	17,357	RF	\$3	\$52,071	
10	Traffic Control Allowance	17,357	RF	\$67	\$1,162,919	
11	Special Aerial Traffic Control Allowance	2,750	RF	\$500	\$1,375,000	
12	Ballast Track at Grade or Structure	0	TF	\$250	\$0	
13	Embedded (Paved) Track at grade	12,307	TF	\$325	\$3,999,775	
14	Direct Fixation Track - Bridge Structure	5,150	TF	\$300	\$1,545,000	
15	LRT siding or Pocket Track	500	TF	\$280	\$140,000	
16	Double Crossover	0	EA	\$300,000	\$0	
17	Single Crossover	0	EA	\$175,000	\$0	
18	Turnout	2	EA	\$90,000	\$180,000	
19	Minor Street Closure Allowance	21	EA	\$50,000	\$1,050,000	
20	Minor Intersection Rebuild (2 Lanes)	21	EA	\$150,000	\$3,150,000	
21	Minor Traffic Signal (2 Lanes)	13	EA	\$100,000	\$1,300,000	
22	Major Street Closure Allowance	8	EA	\$100,000	\$800,000	
23	Major Intersection Rebuild (4 Lanes)	7	EA	\$250,000	\$1,750,000	
24	Major Traffic Signal (4 Lanes)	9	EA	\$200,000	\$1,800,000	
25	Complex Major Intersection Rebuild	1	EA	\$350,000	\$350,000	
26	Rebuild Stairs, Apply Architectural Treatments and Landscaping on Capital Boulevard		LS	\$1,750,000	\$0	
27	Roadway Construction	418,438	SF	\$12	\$5,021,256	
28	Sidewalk Construction	147,684	SF	\$8	\$1,181,472	
29	TPS Building, Foundation & Ground Mat	17,357	RF	\$15	\$260,355	
30	OCS Poles foundations	17,357	RF	\$10	\$173,570	
31	Signal Communications Building	17,357	RF	\$12	\$208,284	
32	Systems Wide Ductbank/Conduit	17,357	RF	\$133	\$2,308,481	
33	Corrosion Mitigation	17,357	RF	\$8	\$138,856	
34	Modify Existing Hiawatha Alignment To Accommodate the Central Corridor	0	LS	\$150,000	\$0	
50	2 - Insurance - Included other in items					
57	3 - Utilities					\$4,889,680
59	Utility Allowance - High	9,100	RF	\$400	\$3,640,000	
60	Utility Allowance - Medium	2,657	RF	\$240	\$637,680	
61	Utility Allowance - Low	5,100	RF	\$120	\$612,000	
62	Relocate 96" Storm Sewer	0	LS	\$5,000,000	\$0	
63	Relocation 30" Water Line in Downtown St Paul		FT	\$1,000	\$0	
64	Downtown St Paul Central Heating Allowance	0	RT	\$150	\$0	
70	4 - Track Materials - Included in the Rail Items					
71	Track Materials					
74	5 - Structures (Tunnels, Portals, Bridges and Retaining Walls)					\$15,805,000
75	2 EA 4' Jersey Barrier Walls with LRT in Between		TF	\$90	\$0	
77	Retaining Walls to 5' high		LF	\$250	\$0	
78	Retaining Walls to 10' high	500	LF	\$450	\$225,000	
79	Retaining Walls to 20' high		LF	\$1,000	\$0	
80	Aerial Guideway - Short Span	2,550	LF	\$4,200	\$10,710,000	
81	Aerial Guideway - Long Span (Interstate 35E)	200	LF	\$12,600	\$2,520,000	
82	Relocate/Modify Existing Pedestrian Tunnel	1	LS	\$750,000	\$750,000	
83	Relocate Existing Bridge Pedestrian Tunnel		LF	\$2,000	\$0	
84	Remodel Existing Bridge for LRT	600	LF	\$1,000	\$600,000	
85	Remove Pedestrian Overpass	1	LS	\$200,000	\$200,000	
86	Pedestrian Overpass	1	LS	\$800,000	\$800,000	
87	Pedestrian Deck and Platform Access		SF	\$160	\$0	

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Description		Quantity	Unit	Unit Cost	Extension	2002\$
104	6 -Stations					\$50,300,000
105		9 Stations				
106	Platform Electrical Allowance	9	EA	\$200,000	\$1,800,000	
107	Center Loading Platform		EA	\$2,500,000	\$0	
108	Center or Side Loading Platform Station - Enhanced	7	EA	\$3,500,000	\$24,500,000	
109	Aerial Station	1	EA	\$12,000,000	\$12,000,000	
110	Split Side Loading Platform Station		EA	\$2,500,000	\$0	
111	Split Side or Side Loading Platform - Special Treatment		EA	\$7,500,000	\$0	
112	Side Loading Platform Station	0	EA	\$1,700,000	\$0	
113	Side Loading Platform Terminus Station in St Paul	1	EA	\$12,000,000	\$12,000,000	
114	7 - Park & Rides					
115	8 - Operations Facility (All Yard elements included)					\$2,082,840
120	Building & Yard Site Preparation	17,357	RF	\$30.00	\$520,710	
121	Operations Facility Building	17,357	RF	\$36.00	\$624,852	
122	Yard Maintenance Equipment	17,357	RF	27	\$468,639	
123	Maintenance of Way Vehicles	17,357	RF	27	\$468,639	
124	Communication Control Center/ Hardware/ Software	17,357	RF		\$0	
125	Storage Yard Allowance in St. Paul Terminus Area		VEH	350000	\$0	
133	9 - Traction Power System					\$3,697,041
136	Substation	17,357	RF	96	\$1,666,272	
137	OCS Single Contact Wire	17,357	RF	85	\$1,475,345	
138	OCS Simple Catenary		RF	110	\$0	
139	Lighting	17,357	RF	8	\$138,856	
140	Spare Parts	17,357	RF	24	\$416,568	
147	10 -Signal System					\$3,471,400
148	Signal	17,357	RF	200	\$3,471,400	
151	11 - Communications					\$1,648,915
152	Communications	17,357	RF	95	\$1,648,915	
157	12 - Fare Collection					\$675,000
158	Fare Collection Vending Machine, Validation & Spare (Two per Station)	9	EA	75000	\$675,000	
160	Subtotal - Infrastructure			subtotal		\$112,231,626
161						
162	13 - Right of Way					\$2,499,408
	Basic Right of Way Allowance	208,284	SF	\$12	\$2,499,408	
	Building Takes		SF	\$175	\$0	
	Building Demolition		CF	\$1.25	\$0	
	Specific Right of Way Takes		SF	\$15	\$0	
	14 - Vehicles (see summary)					\$0
	Assume Low Floor Light Rail Vehicle - Base Cost	0	VEH	\$2,500,000	\$0	
	Associated Vehicle Spare Parts	0	VEH	\$685,000	\$0	
	15 - Engineering & Administration			subtotal		\$33,669,488
	Infrastructure A & E 30%	\$112,231,626			\$33,669,488	
	Vehicle A & E 5.0%	\$0			\$0	
	16 - Contingencies			subtotal		\$26,358,069
	Vehicles Contingencies 5.0%	\$0			\$0	
	Infrastructure Contingencies 20%	\$107,341,946			\$21,468,389	
	Utilities Contingencies 100%	\$4,889,680			\$4,889,680	
				Total		\$174,758,591