

Santa Cruz Branch Rail Line Structures Assessments
Summary of Estimated Capital and Annual Maintenance Costs
Updated April 2008

MP	Structure Name	Biggs Cardosa				HNTB				HNTB & Biggs Cardosa ³			
		Potential Capital Costs ^{1,2,4}		Potential Maintenance Costs ^{1,2,4}		Potential Capital Costs ^{1,4}		Potential Maintenance Costs ^{1,5}		Potential Capital Costs ^{1,4}		Potential Maintenance Costs ^{1,5}	
		Low	High	Low	High	Low	High	Low	High	Low	High	Low	High
0.86		\$27,100	\$54,200	\$4,300	\$5,400					\$27,100	\$54,200	\$4,300	\$5,400
1.06a		\$0	\$0	\$3,600	\$4,900					\$0	\$0	\$3,600	\$4,900
1.06b	Pajaro River Crossing	\$0	\$187,700	\$6,800	\$9,700	\$57,000	\$68,000	\$5,670	\$9,585	\$57,000	\$68,000	\$5,670	\$9,585
1.06c		\$0	\$0	\$1,800	\$2,500					\$0	\$0	\$1,800	\$2,500
4.45	Watsonville Slough Retaining Wall	\$0	\$0	\$1,300	\$1,400	\$0	\$0	\$0	\$540	\$0	\$0	\$1,300	\$1,400
4.87	Harkins Slough	\$9,000	\$18,100	\$3,800	\$5,000					\$9,000	\$18,100	\$3,800	\$5,000
5.42		\$9,000	\$36,100	\$1,000	\$1,300					\$9,000	\$36,100	\$1,000	\$1,300
5.54		\$3,600	\$18,100	\$2,800	\$3,500					\$3,600	\$18,100	\$2,800	\$3,500
6.01		\$3,600	\$18,100	\$1,800	\$2,400					\$3,600	\$18,100	\$1,800	\$2,400
6.14		\$3,600	\$18,100	\$1,000	\$1,300					\$3,600	\$18,100	\$1,000	\$1,300
6.25		\$9,000	\$36,100	\$2,400	\$3,500					\$9,000	\$36,100	\$2,400	\$3,500
8.32		\$0	\$0	\$1,000	\$1,300					\$0	\$0	\$1,000	\$1,300
8.64a	San Andreas Road	\$0	\$10,100	\$1,000	\$1,400					\$0	\$10,100	\$1,000	\$1,400
8.64b	San Andreas Road	\$9,000	\$36,100	\$2,200	\$3,100					\$9,000	\$36,100	\$2,200	\$3,100
9.09	Retaining Wall					\$89,000	\$123,000	\$0	\$675	\$89,000	\$123,000	\$0	\$675
9.30	La Selva Beach Trestle	\$4,726,000	\$8,479,000	\$7,000	\$12,500	\$1,532,000	\$2,168,000	\$8,370	\$14,985	\$1,532,000	\$2,168,000	\$8,370	\$14,985
9.30	Retaining Wall					\$0	\$0	\$0	\$495	\$0	\$0	\$0	\$495
10.45	Seascape Trestle	\$72,300	\$180,700	\$4,700	\$8,300	\$217,000	\$348,000	\$4,860	\$7,425	\$217,000	\$348,000	\$4,860	\$7,425
11.16		\$36,100	\$108,400	\$4,700	\$7,600					\$36,100	\$108,400	\$4,700	\$7,600
12.30	State Route 1	\$0	\$0	\$2,100	\$3,100					\$0	\$0	\$2,100	\$3,100
12.34	Valencia Creek	\$0	\$0	\$4,900	\$6,800					\$0	\$0	\$4,900	\$6,800
12.39	Soquel Drive	\$0	\$0	\$1,300	\$1,900					\$0	\$0	\$1,300	\$1,900
12.71a	Aptos Creek & Spreckles Dr.	\$0	\$0	\$3,600	\$4,400					\$0	\$0	\$3,600	\$4,400
12.71b		\$0	\$0	\$1,700	\$2,100					\$0	\$0	\$1,700	\$2,100
12.83	State Route 1	\$0	\$0	\$3,100	\$3,900					\$0	\$0	\$3,100	\$3,900
14.85	New Brighton Beach Rd.	\$0	\$4,000	\$1,000	\$1,400					\$0	\$4,000	\$1,000	\$1,400
15.89a	Capitola Crossing	\$0	\$44,300	\$2,400	\$3,900	\$9,000	\$14,500	\$1,890	\$2,700	\$9,000	\$14,500	\$1,890	\$2,700
15.89b	Capitola Crossing	\$36,100	\$139,100	\$4,300	\$7,200	\$78,000	\$125,000	\$4,455	\$6,750	\$78,000	\$125,000	\$4,455	\$6,750
15.89c	Capitola Crossing	\$0	\$206,400	\$3,300	\$5,700	\$167,000	\$236,000	\$3,375	\$5,670	\$167,000	\$236,000	\$3,375	\$5,670
15.89d	Capitola Crossing	\$18,100	\$79,500	\$1,000	\$1,400	\$26,000	\$41,000	\$945	\$1,350	\$26,000	\$41,000	\$945	\$1,350
15.89e	Capitola Crossing	\$0	\$22,200	\$1,300	\$1,800	\$6,000	\$8,500	\$1,080	\$1,620	\$6,000	\$8,500	\$1,080	\$1,620
17.30	Rodeo Gulch	\$0	\$0	\$4,900	\$6,700					\$0	\$0	\$4,900	\$6,700
18.84	SC Small Craft Harbor	\$0	\$0	\$4,000	\$6,100					\$0	\$0	\$4,000	\$6,100
19.43a	San Lorenzo River	\$37,500	\$225,200	\$5,400	\$9,700	\$360,000	\$540,000	\$4,860	\$8,505	\$360,000	\$540,000	\$4,860	\$8,505
19.43b	San Lorenzo River	\$9,500	\$75,100	\$1,300	\$2,500	\$44,000	\$54,000	\$1,080	\$1,755	\$44,000	\$54,000	\$1,080	\$1,755
19.43	San Lorenzo Seismic Retro ²					\$1,200,000	\$1,200,000			\$1,200,000	\$1,200,000	N/A	N/A
22.29	Moore's Gulch	\$36,100	\$108,400	\$6,500	\$9,500					\$36,100	\$108,400	\$6,500	\$9,500
23.47	Wilder Creek	\$0	\$0	\$1,000	\$1,300					\$0	\$0	\$1,000	\$1,300
23.54	Meder Creek Crossing	\$9,000	\$18,100	\$1,000	\$1,300	\$14,500	\$23,500	\$270	\$540	\$14,500	\$23,500	\$270	\$540
26.09	Baldwin Creek	\$0	\$0	\$1,000	\$1,300					\$0	\$0	\$1,000	\$1,300
26.55		\$0	\$9,000	\$1,000	\$1,300					\$0	\$9,000	\$1,000	\$1,300
TOTALS		\$5,054,600	\$10,132,100	\$107,300	\$158,400	\$3,799,500	\$4,949,500	\$36,855	\$62,595	\$3,945,600	\$5,424,300	\$105,655	\$156,995

¹ Repair costs and maintenance costs include mobilization/demobilization (10%) design engineering (12%), construction management (12%), and project reserve (5%)

² Figures in structural assessment report did not include additional "soft costs" and are included here consistent with note 1

³ These costs are based on the most recent figures. (Costs are from HNTB June 23, 2006 report when available and from July 2005 Structural Assessment for structures not evaluated in June 23, 2006 report.)

⁴ Updated and escalated to August 2008 cost figures by Biggs Cardosa in March 2008 with the exception of HNTB maintenance costs

⁵ HNTB maintenance costs escalated by 35% consistent with the Biggs Cardosa updated maintenance figures of March 2008