

CBA summary

Year	Reduced Operating costs			Safety factors- reduction in highway fatalities			Avoided Maintenance Costs -			Revised based upon new SCC guidance			
	owner to use Rail vs. Truck	Discounted 7%	Discounted 3%	Safety factors- reduction in highway fatalities	Discounted 7%	Discounted 3%	Avoided Maintenance Costs - By diverting trucks off the roadways and onto the railroads	Discounted 7%	Discounted 3%	CO2 reduced Metric Tons using rail vs truck	3%ave SCC (2007\$)	Metric tons of CO2 saved- using rail vs. trucks	Discounted 3%
2012													
2013													
2014	\$ 653,927	\$ 653,927	\$ 653,927	\$ 284,097	\$ 284,097	\$ 284,097	\$ 1,105,229	\$ 1,105,229	\$ 1,105,229	\$ 11,278	\$ 23.30	\$ 262,774	\$ 262,774
2015	\$ 1,307,854	\$ 1,222,294	\$ 1,269,761	\$ 568,194	\$ 531,022	\$ 551,645	\$ 2,210,458	\$ 2,065,848	\$ 2,146,075	\$ 22,556	\$ 23.80	\$ 536,825	\$ 521,190
2016	\$ 1,307,854	\$ 1,142,330	\$ 1,232,778	\$ 568,194	\$ 496,283	\$ 535,577	\$ 2,210,458	\$ 1,930,699	\$ 2,083,568	\$ 22,556	\$ 24.30	\$ 548,103	\$ 516,640
2017	\$ 1,307,854	\$ 1,067,599	\$ 1,196,872	\$ 568,194	\$ 463,815	\$ 519,978	\$ 2,210,458	\$ 1,804,392	\$ 2,022,882	\$ 22,556	\$ 24.80	\$ 559,381	\$ 511,913
2018	\$ 1,307,854	\$ 997,756	\$ 1,162,011	\$ 568,194	\$ 433,472	\$ 504,833	\$ 2,210,458	\$ 1,686,348	\$ 1,963,963	\$ 22,556	\$ 25.30	\$ 570,659	\$ 507,023
2019	\$ 1,307,854	\$ 932,482	\$ 1,128,166	\$ 568,194	\$ 405,114	\$ 490,129	\$ 2,210,458	\$ 1,576,026	\$ 1,906,760	\$ 22,556	\$ 25.80	\$ 581,937	\$ 501,984
2020	\$ 2,615,708	\$ 1,742,957	\$ 2,190,614	\$ 1,136,388	\$ 757,223	\$ 951,707	\$ 4,420,915	\$ 2,945,842	\$ 3,702,447	\$ 45,111	\$ 26.30	\$ 1,186,429	\$ 993,616
2021	\$ 2,615,708	\$ 1,628,932	\$ 2,126,810	\$ 1,136,388	\$ 707,685	\$ 923,987	\$ 4,420,915	\$ 2,753,124	\$ 3,594,609	\$ 45,111	\$ 27.00	\$ 1,218,007	\$ 990,351
2022	\$ 2,615,708	\$ 1,522,366	\$ 2,064,864	\$ 1,136,388	\$ 661,388	\$ 897,075	\$ 4,420,915	\$ 2,573,013	\$ 3,489,911	\$ 45,111	\$ 27.60	\$ 1,245,074	\$ 982,873
2023	\$ 2,615,708	\$ 1,422,772	\$ 2,004,723	\$ 1,136,388	\$ 618,120	\$ 870,947	\$ 4,420,915	\$ 2,404,685	\$ 3,388,263	\$ 45,111	\$ 28.30	\$ 1,276,652	\$ 978,447
2024	\$ 2,615,708	\$ 1,329,693	\$ 1,946,333	\$ 1,136,388	\$ 577,682	\$ 845,579	\$ 4,420,915	\$ 2,247,369	\$ 3,289,576	\$ 45,111	\$ 28.90	\$ 1,303,719	\$ 970,089
2025	\$ 3,923,562	\$ 1,864,056	\$ 2,834,468	\$ 1,704,582	\$ 809,835	\$ 1,231,426	\$ 6,631,373	\$ 3,150,517	\$ 4,790,645	\$ 67,667	\$ 29.60	\$ 2,002,945	\$ 1,446,970
2026	\$ 3,923,562	\$ 1,742,109	\$ 2,751,908	\$ 1,704,582	\$ 756,855	\$ 1,195,559	\$ 6,631,373	\$ 2,944,409	\$ 4,651,111	\$ 67,667	\$ 30.20	\$ 2,043,545	\$ 1,433,302
2027	\$ 3,923,562	\$ 1,628,139	\$ 2,671,755	\$ 1,704,582	\$ 707,341	\$ 1,160,737	\$ 6,631,373	\$ 2,751,784	\$ 4,515,642	\$ 67,667	\$ 30.90	\$ 2,090,912	\$ 1,423,810
2028	\$ 3,923,562	\$ 1,521,625	\$ 2,593,937	\$ 1,704,582	\$ 661,066	\$ 1,126,929	\$ 6,631,373	\$ 2,571,761	\$ 4,384,119	\$ 67,667	\$ 31.50	\$ 2,131,513	\$ 1,409,181
2029	\$ 3,923,562	\$ 1,422,080	\$ 2,518,385	\$ 1,704,582	\$ 617,819	\$ 1,094,106	\$ 6,631,373	\$ 2,403,515	\$ 4,256,426	\$ 67,667	\$ 32.10	\$ 2,172,113	\$ 1,394,197
2030	\$ 5,231,416	\$ 1,772,062	\$ 3,260,046	\$ 2,272,776	\$ 769,868	\$ 1,416,319	\$ 8,841,830	\$ 2,995,034	\$ 5,509,936	\$ 90,223	\$ 32.80	\$ 2,959,307	\$ 1,844,142
2031	\$ 5,231,416	\$ 1,656,132	\$ 3,165,093	\$ 2,272,776	\$ 719,503	\$ 1,375,067	\$ 8,841,830	\$ 2,799,097	\$ 5,349,453	\$ 90,223	\$ 33.40	\$ 3,013,440	\$ 1,823,181
2032	\$ 5,231,416	\$ 1,547,787	\$ 3,072,906	\$ 2,272,776	\$ 672,432	\$ 1,335,016	\$ 8,841,830	\$ 2,615,979	\$ 5,193,643	\$ 90,223	\$ 34.10	\$ 3,076,596	\$ 1,807,176
2033	\$ 5,231,416	\$ 1,446,530	\$ 2,983,404	\$ 2,272,776	\$ 628,441	\$ 1,296,132	\$ 8,841,830	\$ 2,444,840	\$ 5,042,372	\$ 90,223	\$ 34.70	\$ 3,130,730	\$ 1,785,411
2034	\$ 60,815,215	\$ 28,263,626	\$ 42,828,757	\$ 26,421,017	\$ 12,279,061	\$ 18,606,846	\$ 102,786,278	\$ 47,789,510	\$ 72,386,632			\$ 31,910,662	\$ 22,104,270
	reduced op cost			Safety factors- reduction in highway fatalities			Avoided Maintenance Costs - By diverting trucks off the roadways and onto the railroads			co2 at 3%			

Cost of Improvements			Cost of Maintenance to Improvements			Benefits			costs
Cost of Improvements including \$17,345,468 capital improvements + \$250,000 land cost	Discounted 7%	Discounted 3%	Cost of Maintenance to Improvements	Discounted 7%	Discounted 3%	Total	total 7%	Total 3%	
						\$ 0	\$ 0	\$ 0	
						\$ 0	\$ 0	\$ 0	
\$ -17595468	\$ (17,595,468)	\$ (17,595,468)	\$ (26,458)	\$ (26,458)	\$ (26,458)	\$ 2,279,569	\$ 2,306,027	\$ 2,279,569	
			\$ (26,458)	\$ (24,727)	\$ (25,687)	\$ 4,581,237	\$ 4,340,354	\$ 4,462,984	
			\$ (26,458)	\$ (23,109)	\$ (24,939)	\$ 4,576,687	\$ 4,085,952	\$ 4,343,624	
			\$ (26,458)	\$ (21,598)	\$ (24,213)	\$ 4,571,961	\$ 3,847,719	\$ 4,227,432	
			\$ (26,458)	\$ (20,185)	\$ (23,508)	\$ 4,567,071	\$ 3,624,599	\$ 4,114,323	
			\$ (26,458)	\$ (18,864)	\$ (22,823)	\$ 4,562,031	\$ 3,415,606	\$ 4,004,217	
			\$ (26,458)	\$ (17,630)	\$ (22,158)	\$ 9,140,169	\$ 6,439,638	\$ 7,816,226	
			\$ (26,458)	\$ (16,477)	\$ (21,513)	\$ 9,136,905	\$ 6,080,092	\$ 7,614,245	
			\$ (26,458)	\$ (15,399)	\$ (20,886)	\$ 9,129,426	\$ 5,739,640	\$ 7,413,837	
			\$ (26,458)	\$ (14,391)	\$ (20,278)	\$ 9,125,001	\$ 5,424,024	\$ 7,222,102	
			\$ (26,458)	\$ (13,450)	\$ (19,687)	\$ 9,116,642	\$ 5,124,834	\$ 7,031,890	
			\$ (26,458)	\$ (12,570)	\$ (19,114)	\$ 9,108,029	\$ 4,840,289	\$ 6,848,392	
			\$ (26,458)	\$ (11,748)	\$ (18,557)	\$ 9,099,360	\$ 4,576,674	\$ 6,676,674	
			\$ (26,458)	\$ (10,979)	\$ (18,017)	\$ 9,090,122	\$ 4,324,527	\$ 6,511,073	
			\$ (26,458)	\$ (10,261)	\$ (17,492)	\$ 9,080,375	\$ 4,079,633	\$ 6,346,674	
			\$ (26,458)	\$ (9,590)	\$ (16,982)	\$ 9,070,127	\$ 3,849,110	\$ 6,187,132	
			\$ (26,458)	\$ (8,962)	\$ (16,488)	\$ 9,060,370	\$ 3,643,606	\$ 6,001,955	
			\$ (26,458)	\$ (8,376)	\$ (16,008)	\$ 9,050,112	\$ 3,458,113	\$ 5,820,786	
			\$ (26,458)	\$ (7,828)	\$ (15,541)	\$ 9,040,354	\$ 3,282,640	\$ 5,643,374	
			\$ -	\$ -	\$ -	\$ 9,030,106	\$ 3,117,163	\$ 5,476,217	
\$ (17,595,468)	\$ (17,595,468)	\$ (17,595,468)	\$ (502,702)	\$ (292,601)	\$ (390,348)	\$ 212,126,780	\$ 110,416,467	\$ 155,926,504	\$ (17,888,069) \$ (17,985,816)

6.17 8.67  
7% 3%

	CBA at 3%	CBA at 7%
NPV	\$ 92,528,398	\$ 137,940,687

Discount Rates		
	7%	3%
2014	1.00000	1.00000
2015	1.07000	1.03000
2016	1.14490	1.06090
2017	1.22504	1.09273
2018	1.31080	1.12551
2019	1.40255	1.15927
2020	1.50073	1.19405
2021	1.60578	1.22987
2022	1.71819	1.26677
2023	1.83846	1.30477
2024	1.96715	1.34392
2025	2.10485	1.38423
2026	2.25219	1.42576
2027	2.40985	1.46853
2028	2.57853	1.51259
2029	2.75903	1.55797
2030	2.95216	1.60471
2031	3.15882	1.65285
2032	3.37993	1.70243
2033	3.61653	1.75351
2034	3.86968	1.80611