

Summary

	3% Discount	7% Discount
Total Benefits	\$391,620,557	\$348,776,648
Total Costs	\$68,358,221	\$51,488,184
Benefit Cost Ratio	5.73	6.77

Benefits

Project Year	Analysis Year	Economic Competiveness		Safety	State of Good Repair	Environmental Sustainability		NPV of Benefits			
		Travel time savings	Mode shift savings	Accident Reduction	Maintenance and repair savings	All other emissions	CO2e	Total Non-CO2 Benefits	CO2 @ 3%	Total Benefits @ 3%	Total Benefits @ 7%
1	2015	\$34,774,999	\$42,768,871	\$12,159,131	\$0	\$411,559	\$1,318,305	\$90,114,561	\$1,279,908	\$88,769,772	\$85,499,123
2	2016	\$30,864,103	\$37,831,673	\$10,792,605	-\$5,100	\$363,243	\$1,182,607	\$79,846,524	\$1,114,721	\$76,377,727	\$70,855,767
3	2017	\$26,953,207	\$32,894,474	\$9,426,079	-\$10,180	\$314,927	\$1,061,581	\$69,578,507	\$971,497	\$64,645,687	\$57,768,284
4	2018	\$23,042,310	\$28,025,774	\$8,059,553	\$64,036	\$268,294	\$938,062	\$59,459,967	\$833,456	\$53,662,867	\$46,195,180
5	2019	\$19,131,414	\$23,157,073	\$6,693,027	\$55,980	\$221,662	\$786,336	\$49,259,155	\$678,300	\$43,169,680	\$35,799,397
6	2020	\$15,220,518	\$18,288,372	\$5,326,501	\$57,099	\$175,030	\$616,216	\$39,067,520	\$516,071	\$33,234,503	\$26,548,409
7	2021	\$11,309,621	\$13,419,671	\$3,959,975	\$58,241	\$128,398	\$463,253	\$28,875,906	\$376,667	\$23,855,421	\$18,359,130
8	2022	\$7,398,725	\$8,550,970	\$2,593,449	\$59,406	\$81,765	\$291,897	\$18,684,315	\$230,426	\$14,979,998	\$11,104,868
9	2023	\$3,487,829	\$3,682,269	\$1,226,922	\$60,594	\$35,133	\$113,999	\$8,492,748	\$87,370	\$6,596,355	\$4,706,863
10	2024	-\$423,067	-\$1,186,432	-\$139,604	\$61,806	-\$11,499	-\$70,443	-\$1,698,796	-\$52,417	-\$1,316,480	-\$915,998
11	2025	-\$391,565	-\$1,244,743	-\$145,325	\$63,042	-\$11,694	-\$72,474	-\$1,730,286	-\$52,357	-\$1,302,352	-\$874,403
12	2026	-\$360,063	-\$1,303,055	-\$151,047	\$64,303	-\$11,890	-\$75,795	-\$1,761,751	-\$53,161	-\$1,288,818	-\$835,400
13	2027	-\$328,561	-\$1,361,366	-\$156,768	\$65,589	-\$12,085	-\$77,893	-\$1,793,192	-\$53,042	-\$1,274,118	-\$797,152
14	2028	-\$297,059	-\$1,419,678	-\$162,490	\$66,901	-\$12,280	-\$80,020	-\$1,824,606	-\$52,902	-\$1,259,182	-\$760,516
15	2029	-\$265,557	-\$1,477,989	-\$168,211	\$68,239	-\$12,475	-\$82,173	-\$1,855,994	-\$52,744	-\$1,244,036	-\$725,442
16	2030	-\$234,055	-\$1,536,301	-\$173,933	\$69,604	-\$12,671	-\$83,036	-\$1,887,356	-\$51,745	-\$1,227,883	-\$691,058
17	2031	-\$202,553	-\$1,594,613	-\$179,654	\$70,996	-\$12,866	-\$86,563	-\$1,918,690	-\$52,372	-\$1,213,211	-\$659,780
18	2032	-\$171,051	-\$1,652,924	-\$185,376	\$72,416	-\$13,061	-\$88,798	-\$1,949,996	-\$52,160	-\$1,197,577	-\$629,093
19	2033	-\$139,549	-\$1,711,236	-\$191,097	\$73,864	-\$13,256	-\$91,062	-\$1,981,274	-\$51,931	-\$1,181,824	-\$599,770
20	2034	-\$108,047	-\$1,769,547	-\$196,819	\$75,341	-\$13,452	-\$93,352	-\$2,012,523	-\$51,687	-\$1,165,972	-\$571,761
	Total	\$169,261,598	\$192,361,264	\$58,386,917	\$1,092,177	\$1,862,782	\$5,870,646	\$422,964,738	\$5,511,899	\$391,620,557	\$348,776,648

Costs

Project Year	Analysis Year	Cost of Improvements	Maintenance	NPV of Costs		
		Capital Costs	Operation and Maintenance Costs	Total Costs	Total Costs @ 3%	Total Costs @ 7%
1	2015	\$4,400,000	\$101,000	\$4,501,000	\$4,369,903	\$4,206,542
2	2016	\$4,300,000	\$2,161,476	\$6,461,476	\$6,090,561	\$5,643,703
3	2017	\$15,750,000	\$2,260,486	\$18,010,486	\$16,482,146	\$14,701,921
4	2018	\$3,000,000	\$2,284,359	\$5,284,359	\$4,695,085	\$4,031,412
5	2019	\$0	\$2,394,850	\$2,394,850	\$2,065,819	\$1,707,495
6	2020	\$0	\$2,500,704	\$2,500,704	\$2,094,300	\$1,666,325
7	2021	\$0	\$2,611,277	\$2,611,277	\$2,123,207	\$1,626,172
8	2022	\$0	\$2,726,780	\$2,726,780	\$2,152,545	\$1,587,011
9	2023	\$0	\$2,847,434	\$2,847,434	\$2,182,321	\$1,548,816
10	2024	\$0	\$2,973,470	\$2,973,470	\$2,212,541	\$1,511,561
11	2025	\$0	\$3,105,129	\$3,105,129	\$2,243,211	\$1,475,224
12	2026	\$0	\$3,242,662	\$3,242,662	\$2,274,338	\$1,439,781
13	2027	\$0	\$3,386,332	\$3,386,332	\$2,305,927	\$1,405,207
14	2028	\$0	\$3,536,415	\$3,536,415	\$2,337,987	\$1,371,483
15	2029	\$0	\$3,693,197	\$3,693,197	\$2,370,523	\$1,338,585
16	2030	\$0	\$3,856,979	\$3,856,979	\$2,403,542	\$1,306,492
17	2031	\$0	\$4,028,074	\$4,028,074	\$2,437,051	\$1,275,185
18	2032	\$0	\$4,206,810	\$4,206,810	\$2,471,057	\$1,244,643
19	2033	\$0	\$4,393,529	\$4,393,529	\$2,505,568	\$1,214,847
20	2034	\$0	\$4,588,589	\$4,588,589	\$2,540,590	\$1,185,778
	Total	\$27,450,000	\$60,899,550	\$88,349,550	\$68,358,221	\$51,488,184