Hooksett I-93 Open Road Tolling Project Benefit-Cost Analysis

		Costs				Benefits					Present Value			
Year	Period	Construction Costs	Rehabilitation of Existing Toll Plaza, Bridges, Highway	Operations & Maint. Cost	Total Costs	Time Savings	Fuel Savings	Accident Reduction	Total Benefits	Discount Rate	Total Benefits PV	Total Cost in PV	Net Present Value	Benefit-Cost Ratio
Totals		*$34,226,049*	*($8,876,160)*	*($5,194,000)*	*$20,155,889*	*$ 134,641,164*	*$ 85,640,839*	*$ 18,955,020*	*$ 239,237,024*	*7.00%*	*$ 70,511,977*	*$ 12,991,390*	*$ 57,520,588*	*5.4*
									$ -					
2011	0	$ 1,210,000	$ -	$ -	$ 1,210,000	$ -	$ -	$ -	$ -	1.0000	$ -	$ 1,210,000	$ (1,210,000)	
2012	1	$ 12,986,779	$ -	$ -	$ 12,986,779	$ -	$ -	$ -	$ -	0.9346	$ -	$ 12,137,177	$ (12,137,177)	
2013	2	$ 667,642	$ -	$ -	$ 667,642	$ -	$ -	$ -	$ -	0.8734	$ -	$ 583,145	$ (583,145)	
2014	3	$ 667,642	$ -	$ -	$ 667,642	$ -	$ -	$ -	$ -	0.8163	$ -	$ 544,995	$ (544,995)	
2015	4	$ 667,642	$ (6,122,768)	$ (128,032)	$ (5,583,157)	$ 2,871,006	$ 1,806,537	$ 504,946	$ 5,182,489	0.7629	$ 3,953,696	$ (4,259,364)	$ 8,213,060	
2016	5	$ 667,642	$ -	$ (130,592)	$ 537,050	$ 2,954,587	$ 1,860,335	$ 512,521	$ 5,327,443	0.7130	$ 3,798,393	$ 382,909	$ 3,415,484	
2017	6	$ 667,642	$ (2,753,392)	$ (133,204)	$ (2,218,954)	$ 3,040,601	$ 1,915,736	$ 520,208	$ 5,476,545	0.6663	$ 3,649,253	$ (1,478,583)	$ 5,127,836	
2018	7	$ 667,642	$ -	$ (135,868)	$ 531,774	$ 3,129,118	$ 1,972,786	$ 528,011	$ 5,629,916	0.6227	$ 3,506,029	$ 331,162	$ 3,174,867	
2019	8	$ 667,642	$ -	$ (138,586)	$ 529,057	$ 3,220,213	$ 2,031,535	$ 535,932	$ 5,787,680	0.5820	$ 3,368,482	$ 307,916	$ 3,060,567	
2020	9	$ 667,642	$ -	$ (141,357)	$ 526,285	$ 3,313,960	$ 2,092,034	$ 543,971	$ 5,949,965	0.5439	$ 3,236,386	$ 286,264	$ 2,950,122	
2021	10	$ 667,642	$ -	$ (144,184)	$ 523,458	$ 3,410,436	$ 2,154,334	$ 552,130	$ 6,116,900	0.5083	$ 3,109,522	$ 266,099	$ 2,843,423	
2022	11	$ 667,642	$ -	$ (147,068)	$ 520,574	$ 3,509,720	$ 2,218,490	$ 560,412	$ 6,288,622	0.4751	$ 2,987,679	$ 247,321	$ 2,740,358	
2023	12	$ 667,642	$ -	$ (150,010)	$ 517,633	$ 3,611,895	$ 2,284,556	$ 568,818	$ 6,465,270	0.4440	$ 2,870,657	$ 229,835	$ 2,640,822	
2024	13	$ 667,642	$ -	$ (153,010)	$ 514,633	$ 3,717,045	$ 2,352,590	$ 577,351	$ 6,646,985	0.4150	$ 2,758,262	$ 213,554	$ 2,544,708	
2025	14	$ 667,642	$ -	$ (156,070)	$ 511,572	$ 3,825,255	$ 2,422,650	$ 586,011	$ 6,833,915	0.3878	$ 2,650,310	$ 198,397	$ 2,451,914	
2026	15	$ 667,642	$ -	$ (159,191)	$ 508,451	$ 3,936,616	$ 2,494,796	$ 594,801	$ 7,026,212	0.3624	$ 2,546,623	$ 184,286	$ 2,362,337	
2027	16	$ 667,642	$ -	$ (162,375)	$ 505,267	$ 4,051,218	$ 2,569,090	$ 603,723	$ 7,224,032	0.3387	$ 2,447,029	$ 171,151	$ 2,275,878	
2028	17	$ 667,642	$ -	$ (165,623)	$ 502,020	$ 4,169,157	$ 2,645,597	$ 612,779	$ 7,427,533	0.3166	$ 2,351,367	$ 158,927	$ 2,192,440	
2029	18	$ 667,642	$ -	$ (168,935)	$ 498,707	$ 4,290,530	$ 2,724,383	$ 621,971	$ 7,636,883	0.2959	$ 2,259,478	$ 147,549	$ 2,111,929	
2030	19	$ 667,642	$ -	$ (172,314)	$ 495,329	$ 4,415,435	$ 2,805,514	$ 631,300	$ 7,852,250	0.2765	$ 2,171,212	$ 136,962	$ 2,034,250	
2031	20	$ 667,642	$ -	$ (175,760)	$ 491,882	$ 4,543,977	$ 2,889,062	$ 640,770	$ 8,073,809	0.2584	$ 2,086,426	$ 127,112	$ 1,959,314	
2032	21	$ 667,642	$ -	$ (179,275)	$ 488,367	$ 4,676,261	$ 2,975,098	$ 650,381	$ 8,301,740	0.2415	$ 2,004,979	$ 117,947	$ 1,887,032	
2033	22	$ 667,642	$ -	$ (182,861)	$ 484,782	$ 4,812,397	$ 3,063,695	$ 660,137	$ 8,536,229	0.2257	$ 1,926,739	$ 109,422	$ 1,817,318	
2034	23	$ 667,642	$ -	$ (186,518)	$ 481,124	$ 4,952,495	$ 3,154,932	$ 670,039	$ 8,777,466	0.2109	$ 1,851,579	$ 101,492	$ 1,750,087	
2035	24	$ 667,642	$ -	$ (190,248)	$ 477,394	$ 5,096,672	$ 3,248,885	$ 680,090	$ 9,025,646	0.1971	$ 1,779,376	$ 94,117	$ 1,685,259	
2036	25	$ 667,642	$ -	$ (194,053)	$ 473,589	$ 5,245,046	$ 3,345,636	$ 690,291	$ 9,280,973	0.1842	$ 1,710,012	$ 87,258	$ 1,622,753	
2037	26	$ 667,642	$ -	$ (197,934)	$ 469,708	$ 5,397,740	$ 3,445,269	$ 700,645	$ 9,543,653	0.1722	$ 1,643,374	$ 80,882	$ 1,562,493	
2038	27	$ 667,642	$ -	$ (201,893)	$ 465,749	$ 5,554,878	$ 3,547,868	$ 711,155	$ 9,813,901	0.1609	$ 1,579,355	$ 74,953	$ 1,504,402	
2039	28	$ 667,642	$ -	$ (205,931)	$ 461,711	$ 5,716,592	$ 3,653,523	$ 721,822	$ 10,091,937	0.1504	$ 1,517,850	$ 69,442	$ 1,448,407	
2040	29	$ 667,642	$ -	$ (210,050)	$ 457,593	$ 5,883,013	$ 3,762,324	$ 732,650	$ 10,377,987	0.1406	$ 1,458,759	$ 64,321	$ 1,394,439	
2041	30	$ 667,642	$ -	$ (214,251)	$ 453,392	$ 6,054,279	$ 3,874,365	$ 743,639	$ 10,672,284	0.1314	$ 1,401,987	$ 59,561	$ 1,342,426	
2042	31	$ 667,642	$ -	$ (218,536)	$ 449,107	$ 6,230,531	$ 3,989,743	$ 754,794	$ 10,975,068	0.1228	$ 1,347,442	$ 55,138	$ 1,292,304	
2043	32	$ -	$ -	$ (222,906)	$ (222,906)	$ 6,411,914	$ 4,108,557	$ 766,116	$ 11,286,587	0.1147	$ 1,295,036	$ (25,577)	$ 1,320,612	
2044	33	$ -	$ -	$ (227,364)	$ (227,364)	$ 6,598,577	$ 4,230,918	$ 777,608	$ 11,607,103	0.1072	$ 1,244,684	$ (24,381)	$ 1,269,066	

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Year	Period	Construction Costs	Rehabilitation of Existing Toll Plaza, Bridges, Highway	Operations & Maint. Cost	Total Costs	Time Savings	Fuel Savings	Accident Reduction	Total Benefits	Discount Rate	Total Benefits PV	Total Cost in PV	Net Present Value	Benefit-Cost Ratio
Totals		*$34,226,049*	*($8,876,160)*	*($5,194,000)*	*$20,155,889*	*$ 134,641,164*	*$ 85,640,839*	*$ 18,955,020*	*$ 239,237,024*	*3.00%*	*$ 134,548,195*	*$ 15,804,503*	*$ 118,743,692*	*8.5*
2011	0	$ 1,210,000	$ -	$ -	$ 1,210,000	$ -	$ -	$ -	$ -	1.0000	$ -	$ 1,210,000	$ (1,210,000)	
2012	1	$ 12,986,779	$ -	$ -	$ 12,986,779	$ -	$ -	$ -	$ -	0.9709	$ -	$ 12,608,523	$ (12,608,523)	
2013	2	$ 667,642	$ -	$ -	$ 667,642	$ -	$ -	$ -	$ -	0.9426	$ -	$ 629,317	$ (629,317)	
2014	3	$ 667,642	$ -	$ -	$ 667,642	$ -	$ -	$ -	$ -	0.9151	$ -	$ 610,987	$ (610,987)	
2015	4	$ 667,642	$ (6,122,768)	$ (128,032)	$ (5,583,157)	$ 2,871,006	$ 1,806,537	$ 504,946	$ 5,182,489	0.8885	$ 4,604,575	$ (4,960,563)	$ 9,565,138	
2016	5	$ 667,642	$ -	$ (130,592)	$ 537,050	$ 2,954,587	$ 1,860,335	$ 512,521	$ 5,327,443	0.8626	$ 4,595,499	$ 463,264	$ 4,132,235	
2017	6	$ 667,642	$ (2,753,392)	$ (133,204)	$ (2,218,954)	$ 3,040,601	$ 1,915,736	$ 520,208	$ 5,476,545	0.8375	$ 4,586,520	$ (1,858,339)	$ 6,444,859	
2018	7	$ 667,642	$ -	$ (135,868)	$ 531,774	$ 3,129,118	$ 1,972,786	$ 528,011	$ 5,629,916	0.8131	$ 4,577,637	$ 432,381	$ 4,145,256	
2019	8	$ 667,642	$ -	$ (138,586)	$ 529,057	$ 3,220,213	$ 2,031,535	$ 535,932	$ 5,787,680	0.7894	$ 4,568,848	$ 417,642	$ 4,151,206	
2020	9	$ 667,642	$ -	$ (141,357)	$ 526,285	$ 3,313,960	$ 2,092,034	$ 543,971	$ 5,949,965	0.7664	$ 4,560,152	$ 403,354	$ 4,156,799	
2021	10	$ 667,642	$ -	$ (144,184)	$ 523,458	$ 3,410,436	$ 2,154,334	$ 552,130	$ 6,116,900	0.7441	$ 4,551,548	$ 389,502	$ 4,162,047	
2022	11	$ 667,642	$ -	$ (147,068)	$ 520,574	$ 3,509,720	$ 2,218,490	$ 560,412	$ 6,288,622	0.7224	$ 4,543,035	$ 376,074	$ 4,166,961	
2023	12	$ 667,642	$ -	$ (150,010)	$ 517,633	$ 3,611,895	$ 2,284,556	$ 568,818	$ 6,465,270	0.7014	$ 4,534,610	$ 363,057	$ 4,171,553	
2024	13	$ 667,642	$ -	$ (153,010)	$ 514,633	$ 3,717,045	$ 2,352,590	$ 577,351	$ 6,646,985	0.6810	$ 4,526,273	$ 350,440	$ 4,175,834	
2025	14	$ 667,642	$ -	$ (156,070)	$ 511,572	$ 3,825,255	$ 2,422,650	$ 586,011	$ 6,833,915	0.6611	$ 4,518,023	$ 338,210	$ 4,179,814	
2026	15	$ 667,642	$ -	$ (159,191)	$ 508,451	$ 3,936,616	$ 2,494,796	$ 594,801	$ 7,026,212	0.6419	$ 4,509,858	$ 326,355	$ 4,183,503	
2027	16	$ 667,642	$ -	$ (162,375)	$ 505,267	$ 4,051,218	$ 2,569,090	$ 603,723	$ 7,224,032	0.6232	$ 4,501,778	$ 314,866	$ 4,186,912	
2028	17	$ 667,642	$ -	$ (165,623)	$ 502,020	$ 4,169,157	$ 2,645,597	$ 612,779	$ 7,427,533	0.6050	$ 4,493,780	$ 303,730	$ 4,190,050	
2029	18	$ 667,642	$ -	$ (168,935)	$ 498,707	$ 4,290,530	$ 2,724,383	$ 621,971	$ 7,636,883	0.5874	$ 4,485,864	$ 292,938	$ 4,192,926	
2030	19	$ 667,642	$ -	$ (172,314)	$ 495,329	$ 4,415,435	$ 2,805,514	$ 631,300	$ 7,852,250	0.5703	$ 4,478,028	$ 282,479	$ 4,195,549	
2031	20	$ 667,642	$ -	$ (175,760)	$ 491,882	$ 4,543,977	$ 2,889,062	$ 640,770	$ 8,073,809	0.5537	$ 4,470,272	$ 272,343	$ 4,197,929	
2032	21	$ 667,642	$ -	$ (179,275)	$ 488,367	$ 4,676,261	$ 2,975,098	$ 650,381	$ 8,301,740	0.5375	$ 4,462,594	$ 262,521	$ 4,200,073	
2033	22	$ 667,642	$ -	$ (182,861)	$ 484,782	$ 4,812,397	$ 3,063,695	$ 660,137	$ 8,536,229	0.5219	$ 4,454,994	$ 253,004	$ 4,201,990	
2034	23	$ 667,642	$ -	$ (186,518)	$ 481,124	$ 4,952,495	$ 3,154,932	$ 670,039	$ 8,777,466	0.5067	$ 4,447,469	$ 243,782	$ 4,203,688	
2035	24	$ 667,642	$ -	$ (190,248)	$ 477,394	$ 5,096,672	$ 3,248,885	$ 680,090	$ 9,025,646	0.4919	$ 4,440,020	$ 234,846	$ 4,205,174	
2036	25	$ 667,642	$ -	$ (194,053)	$ 473,589	$ 5,245,046	$ 3,345,636	$ 690,291	$ 9,280,973	0.4776	$ 4,432,644	$ 226,189	$ 4,206,456	
2037	26	$ 667,642	$ -	$ (197,934)	$ 469,708	$ 5,397,740	$ 3,445,269	$ 700,645	$ 9,543,653	0.4637	$ 4,425,342	$ 217,801	$ 4,207,541	
2038	27	$ 667,642	$ -	$ (201,893)	$ 465,749	$ 5,554,878	$ 3,547,868	$ 711,155	$ 9,813,901	0.4502	$ 4,418,111	$ 209,675	$ 4,208,436	
2039	28	$ 667,642	$ -	$ (205,931)	$ 461,711	$ 5,716,592	$ 3,653,523	$ 721,822	$ 10,091,937	0.4371	$ 4,410,951	$ 201,803	$ 4,209,148	
2040	29	$ 667,642	$ -	$ (210,050)	$ 457,593	$ 5,883,013	$ 3,762,324	$ 732,650	$ 10,377,987	0.4243	$ 4,403,861	$ 194,178	$ 4,209,683	
2041	30	$ 667,642	$ -	$ (214,251)	$ 453,392	$ 6,054,279	$ 3,874,365	$ 743,639	$ 10,672,284	0.4120	$ 4,396,840	$ 186,791	$ 4,210,048	
2042	31	$ 667,642	$ -	$ (218,536)	$ 449,107	$ 6,230,531	$ 3,989,743	$ 754,794	$ 10,975,068	0.4000	$ 4,389,886	$ 179,637	$ 4,210,249	
2043	32	$ -	$ -	$ (222,906)	$ (222,906)	$ 6,411,914	$ 4,108,557	$ 766,116	$ 11,286,587	0.3883	$ 4,383,000	$ (86,563)	$ 4,469,562	
2044	33	$ -	$ -	$ (227,364)	$ (227,364)	$ 6,598,577	$ 4,230,918	$ 777,608	$ 11,607,103	0.3770	$ 4,376,183	$ (85,722)	$ 4,461,905	