

COST BENEFIT ANALYSIS
OPTION 1 – CONTINUE TO MAINTAIN GRAVEL ROADS

CLASSIFICATION	> 10 Years Lane Km	> 10 Years High Maintenance Roads Lane Km	Capital		Annual Operating (Maintenance)		30 Year Operating Cost
			Per Lane Km	Total	Per Lane Km	Total	
RESIDENTIAL	36.60	6.61	-	-	\$2,926.36*	\$126,448	\$3,793,440
COMMERCIAL	0	1.33	-	-	\$2,926.36	\$3,892	\$116,762
a. SUB TOTAL	36.60	7.94	-	-	-	\$130,340	\$3,910,202
b. INDUSTRIAL	38.16	4.45	-	-	\$2,926.36	\$124,692	\$3,740,766
c. LANE KM SUB TOTAL (a+b)	74.76	12.39	-	-	-	-	-
TOTAL (a+b)		87.15				\$255,032	\$7,650,968

*2011 – 2013 average maintenance operating cost for gravel lanes per lane kilometre including high maintenance gravel roads.

ANNUAL OPERATING (MAINTENANCE) OF THE HIGH MAINTENANCE 12.39 LANE KMS OF GRAVEL ROAD

	Lane Km	Annual Operating (Maintenance)		30 Year Operating Cost
TOTAL HIGH MAINTENANCE ROADS	12.39	\$14,631.80*	\$181,288	\$5,438,640

* The average cost of high maintenance gravel roads are five times the average of typical gravel roads

COST BENEFIT ANALYSIS
OPTION 2 - PAVE 87.15 LANE KMS OF GRAVEL ROAD

CLASSIFICATION	> 10 years Lane Km	Capital		Annual Operating (Maintenance)		30 Year Operating Cost	Capital + 30 Yr Operating Cost
		Per Lane Km	Total	Per Lane Km	Total		
RESIDENTIAL	43.21	\$293,412	\$12,678,333	\$303.17*	\$13,100	\$393,000	\$13,071,333
COMMERCIAL	1.33	\$374,468	\$498,042	\$303.17	\$403	\$12,090	\$510,132
a. SUB TOTAL	44.54	-	\$13,176,375	-	\$13,503	\$405,090	\$13,581,465
b. INDUSTRIAL	42.61	\$374,468	\$15,956,081	\$303.17	\$12,918	\$387,540	\$16,343,621
TOTAL (a+b)	87.15	-	\$29,132,456	-	\$26,421	\$792,630	\$29,925,086

* 2011 – 2013 average maintenance operating cost for paved lanes per lane kilometre

COST BENEFIT ANALYSIS
OPTION 3 - PAVE 12.39 LANE KMS OF GRAVEL ROAD & MAINTAIN 74.76 LANE KMS

CLASSIFICATION	> 10 years	Capital		Annual Operating (Maintenance)		30 Year Operating Cost	Capital + 30 Yr Operating Cost
		Per Lane Km	Total	Per Lane Km	Total		
RESIDENTIAL	6.61	\$293,412	\$1,939,453	\$303.17*	\$2,004	\$60,120	\$1,999,573
COMMERCIAL	1.33	\$374,468	\$498,042	\$303.17	\$403	\$12,090	\$510,132
a. SUB TOTAL	7.93	-	\$2,437,495	-	\$2,407	\$72,210	\$2,509,705
b. INDUSTRIAL	4.45	\$374,468	\$1,666,383	\$303.17	\$1,349	\$40,470	\$1,706,853
TOTAL (a+b)	12.39	-	\$4,103,878	-	\$3,756	\$112,680	\$4,216,558
c. Gravel Road Remaining	74.76	-	-	\$986.41**	\$73,744	\$2,212,320	\$2,212,320
TOTAL (a+b+c)	87.15	-	\$4,103,878	-	\$77,500	\$2,325,000	\$6,428,878

* 2011 – 2013 average maintenance operating cost for paved lanes per lane kilometre

** 2011 – 2013 average maintenance operating cost for gravel lanes per lane kilometre not including high maintenance gravel roads.

COST BENEFIT ANALYSIS
OPTIONS SUMMARY

	Option 1	Option 2	Option 3
CAPITAL	-	\$29,132,456	\$4,103,878
OPERATING	\$255,032 x 30 year life cycle = \$7,650,960	\$26,214 x 30 year life cycle = \$792,630	\$77,500 x 30 year life cycle = \$2,325,000
OPERATING SAVINGS OVER 30 YEARS	\$0	\$7,650,960 - \$792,630= \$6,858,330	\$7,650,960 – \$2,325,000 = \$5,325,960
TOTAL COSTS OVER 30 YEARS	\$7,650,960	\$29,132,456 + \$792,630 = \$29,925,086	\$4,103,878 + \$2,325,000= \$6,428,878