

Updated
10-11-17

\$ 1,101,608 \$ (801,608)

TOWN OF:	sample
Current Annual Road Budget	\$ 300,000
Miles of Asphalt Roads:	61.50
Miles of Gravel Roads:	2.80
Total Miles:	64.30

TYPE OF SURFACE	TYPE OF WORK	ESTIMATED \$/MILE OR SIGN	CALCULATION REFERENCE #
ASHPHALT	CRACK-FILL (\$4,000/day = about 1.6 miles/day)	\$ 2,500	(20)
ASHPHALT	CHIP-SEAL (22' Width)	\$ 15,000	(21)
GRAVEL	GRADING	\$ 250	(22)
GRAVEL	GRADE & ADD 3" OF BASE	\$ 25,000	(23)
GRAVEL	MAJOR RECONSTRUCTION	\$ 200,000	(24)
GRAVEL	MINOR RECONSTRUCTION	\$ 120,000	(24-A)
EITHER	SNOW REMOVAL, SALT/SANDING OPERATIONS	\$ 40,000	(26)-VARIES
SIGNS	SIGN REPLACEMENT EACH	\$ 250	(27)
ASHPHALT	SHOULDERING REPAIRS	\$ 5,000	(28)
EITHER	DITCH MOWING & WEED CONTROL	\$ 15,000	(29)
ASHPHALT	PATCHING/REPAIRS	\$ 30,000	(30)
ASHPHALT	RESURFACE -(22'X2.5"Pave/prep/2'GR shoulders/Sign)	\$ 125,000	(31)

Other Maintenance items that vary:			Frequency	
BRIDGES	NOT INCLUDED	\$ -	0	\$ -
ASHPHALT	AMZ SPRAY PATCH (\$4,500/DAY = about 1.5 Miles/day)	\$ 3,000	4	\$ 12,000
ASHPHALT	CULVERT PATCH	\$ 1,400	3	\$ 4,200
GRAVEL	CULVERT REPLACEMENT (18"=\$4,000) & (24" = \$5,000)	\$ 4,500	3	\$ 13,500

*** These figures are estimates only and final costs will be time and material. ***

Estimates above generated from current actual project costs as of 02-01-2017.

MAINTENANCE & RECONSTRUCTION FREQUENCY CALCULATIONS

SIGNAGE

Miles of Roads	64.30			
Multiplied by average signs per mile	7	(2A)		
Typical number of Signs in the Town	450.10			
Divided by 12 year projected sign life (per Federal Retro-reflectivity guides)	12			
Number of Signs per year needing replacement	38			
Cost per mile for Signage	\$ 250	(25)		
Annual Projected Signage:	\$ 9,377		\$ 9,377	
WINTER MAINTENANCE (SNOW REMOVAL, ETC.)	\$ 40,000		\$ 40,000	
DITCHING & MOWING	\$ 15,000		\$ 15,000	
PATCHING/REPAIRS	\$ 30,000		\$ 30,000	
SHOULDERING	\$ 5,000		\$ 5,000	

GRAVEL ROAD SURFACE MAINTENANCE

Miles of Gravel Roads	2.80			
Multiplied by the number of times per year grading is needed	3	(2A)		
Number of Miles per year	8.40			
Cost per mile for grading gravel roads	\$ 250	(25)		
Annual Projected Surface Grading:	\$ 2,100		\$ 2,100	

GRAVEL ROAD ADD 3" BASE FOR SURFACE MAINTENANCE

Miles of Gravel Roads	2.80			
Divided by life before grading needs	5			
Number of Miles per year	0.56			
Cost per mile for adding 3" of base	\$ 25,000			
Annual Projected Additional Base:	\$ 14,000		\$ 14,000	

SEALING:

In an effort to move "toward" the 5 year national sealing schedule, we will first target 8 year cycle and work toward 5 year cycle.	61.50			
So, divide by maintenance cycle.	8			
Number of Miles per year needed to crack-fill & chipseal annually	7.69	(1)		
Cost per mile of Crack-fill + Chip-seal	\$ 17,500	(20)+(21)		
Annual Projected Crack-fill & Chip-seal:	\$ 134,531		\$ 134,531	

RESURFACE PAVING

Miles of Asphalt Roads	61.50			
Divided by paved surface life	25			
Number of Miles per year needing resurfacing annually	2.46	(2)		
Cost per mile for Resurface Paving	\$ 125,000	(31)		
Annual Projected Resurface Paving:	\$ 307,500		\$ 307,500	
				Prioritized Sub-total
				\$ 557,508

MINOR RECONSTRUCTION: (Widening, adding base, ditching, drainage) No paving

Miles of Roads	64.30			
Divided by minor reconstruction life	30			
Number of Miles per year needing minor reconstruction annually	2.14	(2)		
Cost per mile for Minor Reconstruction	\$ 120,000	(24-A)		
Annual Projected Minor Reconstruction:	257,200		257,200	

MAJOR RECONSTRUCTION: (Total reconstruction from sand lift up) No Paving

Miles of Roads	64.30			
Divided by major reconstruction life	50	(2A)		
Number of Miles per year needing major reconstruction annually	1.29			
Cost per mile for Major Reconstruction	\$ 200,000	(25)		
Annual Projected Major Reconstruction:	\$ 257,200		\$ 257,200	
				\$ 1,101,608
				\$ (801,608)

INFLATIONARY FACTOR AT 10 YEAR 2% PROJECTED ANNUAL INCREASE

ANNUAL LONG-TERM ROAD BUDGET REQUIRED:	\$ 679,603	\$ 1,342,861
ANNUAL ROAD BUDGET CURRENTLY AVLE TO FUND:	\$ 300,000	\$ 300,000
PROJECTED UNFUNDED BUDGETARY NEEDS:	\$ (379,603)	\$ (1,042,861)

Prioritized

	Only	Total
\$	557,508	\$ 1,101,608
	1.219	1.219