

# Town Road Survey

## What You Should Know

# Town Roads

## What you should know!

- Mileage:
  - 93.17 miles surveyed
    - 29.01 miles – No improvement work currently required ( 29% )
    - **64.16** miles – Improvement work required ( **71%** )
- Survey Criteria:
  - Occupancy (low = 1, high = 5)
  - Traffic (low = 1, high = 5)
  - Condition (poor = 5, good = 1)
  - Additional one half to one full point awarded for single access roads)
  - Maximum points awarded 15

# Town Roads

## What you should know!

- Road Survey Categories:

- 1 Recently Updated, Or in Good Condition - No work planned
- 2 Paved Road, repaving planned, same surface
- 3 Paved Road, repaving planned, new surface
- 4 Existing Gravel Road, planned upgrade to pavement
- 5 Existing Gravel Road, general grading and gravel
- 6 Existing Gravel Road/Fire Road - No Plans

# Town Roads

## What you should know!

- Key Survey Results:
  - High Priority Roads (High Occupancy, High Traffic, Worst Condition) were designated to become asphalt roads making them the most expensive to fix.
  - Allen Rd / High Lake Rd. / High – Fishtrap Lake Rd provide access to the largest number of residents.
  - North Creek Road (4.5 Miles) is the single longest town road and a key emergency road between Hwy M and Hwy H.
  - Newcomb Rd (3.5 Miles) and Fallon Rd (2.0 Miles) are long, single access roads.

# Town Roads

## What you should know!

- Top 20 Roads:

TYPE	CAT	ROAD NAME	Miles	Accum.	Gravel	Chip	Asphalt	Traffic	Occupancy	Condition	Priority	Gravel	Chip	Asphalt	COST EST	COST EST	
TR	3	Allen Road	0.68	0.68		0.68		5	5	5	15		0.00	0.68	\$220,320	\$220,320	
TR	3	Fishtrap Lake Road	2.04	2.72		2.04		5	5	5	15		0.64	1.40	\$340,800	\$561,120	
TR	3	Newcomb Lane	3.50	6.22		3.50		5	5	5	15			3.50	\$756,000	\$1,317,120	
TR	3	North Creek Road	4.57	10.79		4.57		5	5	5	15			4.57	\$987,120	\$2,304,240	
TR	3	Fallon Road	2.08	12.87		2.08		5	5	4	14			2.08	\$449,280	\$2,753,520	
TR	2	Island Lake Road	1.28	14.15		1.28		4	5	4	13		1.28		\$121,600	\$2,875,120	
TR	2	High-Fishtrap Lake Road	1.10	15.25			1.10	5	5	3	13			1.10	\$356,400	\$3,231,520	
TR	4	Big Muskellunge Road	2.70	17.95	1.20	1.00	0.50	5	3	4	12		2.20		\$167,000	\$3,398,520	
TR	2	Kern Lane	1.10	19.05		1.10		3	4	5	12		1.10		\$104,500	\$3,503,020	
TR	4	Airport Road (paved)	2.45	21.50		1.45		5	5	2	12		0.00		\$0	\$3,503,020	
		20%															\$3,503,020
TR	2	High Lake Road	3.80	26.50		1.30		3	3	5	11		1.10	0.70	\$331,300	\$3,834,320	
TR	2	Shamrock Lane	0.40	21.90		0.40		3	4	4	11		0.40		\$38,000	\$3,872,320	
TR	2	Concora Road	0.80	22.70		0.80		3	3	5	11		0.80		\$76,000	\$3,948,320	
TR	2	Old K Road	2.79	29.29		2.79		3	3	5	11		2.79		\$397,575	\$4,345,895	
TR	3	Dairymens Road	1.55	30.84		1.55		4	5	2	11			1.55	\$502,200	\$4,848,095	
TR	1	Oswego-Fishtrap Lake Road	1.90	32.74		1.90		4	5	2	11		0.00		\$0	\$4,848,095	
TR	1	South Town Line	1.36	34.10		1.36		4	5	2	11		0.00		\$0	\$4,848,095	
TR	2	Bakken Road (East)	1.07	35.17		1.07		3	3	4	10		1.07		\$101,650	\$4,949,745	
TR	3	Highland Drive	0.28	35.45		0.28		3	3	4	10			0.28	\$60,480	\$5,010,225	
TR	2	Rudolph Lake Lane	0.60	36.05		0.60		3	4	3	10		0.60		\$57,000	\$5,067,225	
TR	2	Wool Lake Lane	0.76	36.81		0.76		3	3	4	10		0.76		\$72,200	\$5,139,425	
TR	1	North Town Line Rd (Town Road 116)	1.00	37.81		1.00		4	4	2	10		0.00		\$0	\$5,139,425	
		20%															\$1,636,405

# Town Roads

## What you should know!

- Road Cost Estimate Matrix
  - Matrix is based on 2015 data and will be updated to create the final plan options.
- Road Improvement Levels / Costs:
  - Gravel to Gravel - \$40,000 per mile
  - Gravel to Chip Seal - \$60,000 per mile
  - Chip Seal to Chip Seal - \$95,000 per mile
  - Chip Seal to Asphalt - \$216,000 per mile
  - Asphalt to Asphalt - \$216,000 per mile

**PAVING COST PER MILE**

EXISTING Surface	NEW Surface		
	Gravel	Chip Seal	Asphalt
GRAVEL	\$ 40,000	\$60,000	\$197,000
CHIP SEAL	\$ 40,000	\$95,000	\$216,000
ASPHALT	\$ 40,000	\$95,000	\$216,000

Source: Mark Barden, Town & Country Engineering, Inc

# Town Roads

## What you should know!

- Road Survey Mileage / Cost Summary
  - The first **19** miles of road:
    - (worst shape, highest traffic, highest occupancy)
  - Would require **47%** (\$3,503,600) of the total budget (\$7,481,675),
  - And cover **20%** of the total miles of town roads.



% of Dollars	Accum. Miles	%	Cost by 20% Increments
47%	19.05	20	\$3,503,020
22%	36.81	20	\$1,636,405
14%	55.58	20	\$1,040,400
9%	74.35	20	\$683,950
8%	92.29	20	\$617,900
<b>100</b>			<b>\$7,481,675</b>



Town Road Survey - What You Should Know  
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# Town Roads

## What you should know!

- Road Materials:
  - Asphalt
    - Average Life span of an asphalt road without maintenance is 16 years to total failure.
    - With regular maintenance and repair, it can be extended to 30 years or more.
    - Asphalt is applied over the top of gravel, usually in two layers. The typical finished thickness is 3 ½”.
  - Chip Seal
    - Chip seal was originally designed as a cost effective asphalt maintenance surface not necessarily a stand alone road surface.
    - A chip seal surface is applied to a gravel base to provide a wearing surface and dust free environment.
  - Stone Mastic Overlay
    - Stone Mastic Overlay, a more durable and slight more expensive road surface, is almost the same cost as Chip Seal and is a good alternative to Chip Seal in specific applications.

# Town Roads

## What you should know!

- Road Material Installation:
  - Gravel
    - A gravel road is prepped for chip seal by grading and compacting to add the appropriate slope and grade for proper water drainage.
  - Chip Seal
    - Resurfacing of a chip seal surface must first be pulverized and compacted before and a new surface can be applied. The first coat, a 5/8" chip, is applied to create a base layer on top of gravel. The second layer, a 1/4" or 3/8" chip, is applied on top of the base to create the surface layer. The finished surface, once rolled, is less than inch in thickness.

# Town Roads

## What you should know!

- Road Material Installation:
  - Stone Mastic Overlay
    - A Stone Mastic Overlay surface is more durable than chip seal and, in right situation, can be applied directly to a previously chip seal surface. No pulverization is required which offsets the higher cost of material. It can only be applied, however, on previously sealed surfaced that do not required additional grading, shouldering or drainage preparation.
  - Asphalt
    - Asphalt surfaces have the longest life, provide the most durable surface for all types of vehicles. They are also the most expensive and required regular maintenance to ensure their longevity. Adequate drainage (shouldering and ditching) is a prerequisite, making their application somewhat limited in our heavily wooded environment.