

Town of Simsbury



Pavement Management Program Overview

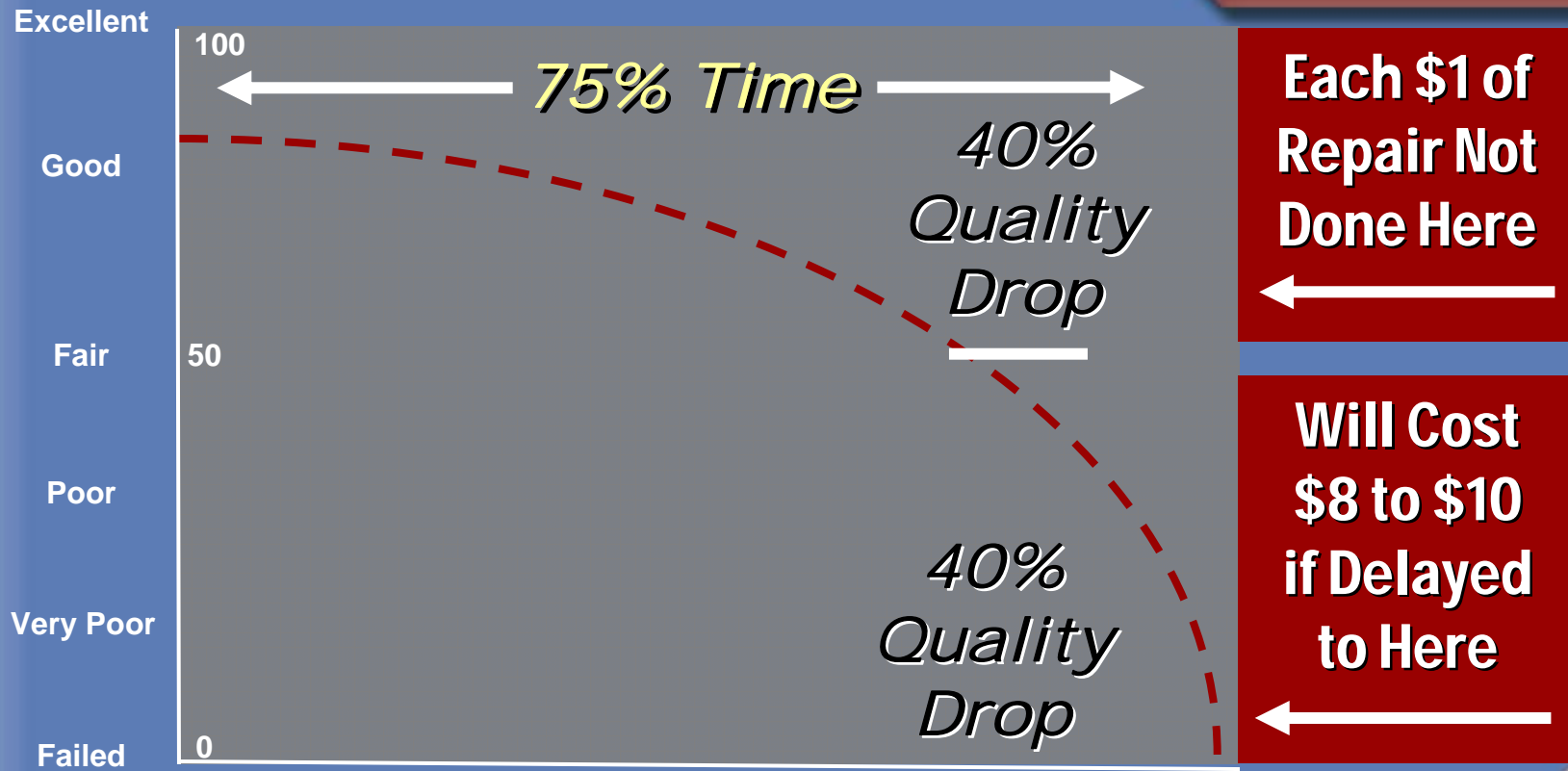
February 2010

Why Pavement Management?

- **What is the current condition of the roadway network?**
- **Which roads should be repaired first?**
- **What techniques should be used for best results?**
- **What are the projected long-term consequences if we delay or defer repairs?**

Why Pavement Management?

Deterioration Curve



Project Goals & Objectives

- Maximize Available Funding
- Reduce long-term maintenance costs
- Short and long range repair plan
- Better roads for less money



Flexible & User-Friendly Design

- MS Access-based Program
- Geodatabase Format
- Dynamic Link with Tables and GIS
- CIP Tools
- Bid Specifications

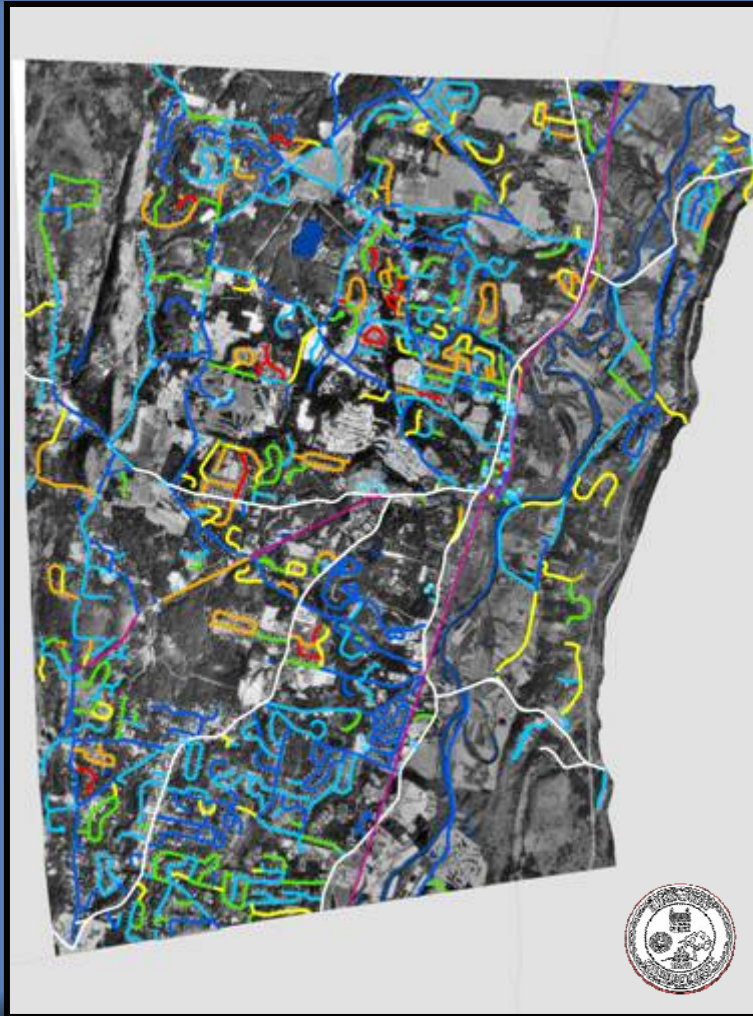
SE NAME	Owner	Accepted	Length	Miles	Width	Right Of Way	Area	Square Feet	F
ADAMS ROAD-01	Town		402.791474719	0.3904046112	36				BC
ADAMS ROAD-02	Town	Private	501.18827951	0.2942420976	36				BC
ALAN DRIVE	Private	Private	5719.287702001	0.1221120762	0				BC
ALSAMY TRN	State	State	1218.28262636	0.2307210473	0				BC
ALSAMY DRIVE	Private	Private	753.15304239	0.1406474133	36				BC
ALDER ROAD-01	Town		871.46882117	0.1800647211	30				BC
ALDER ROAD-02	Town		1119.2208005	0.2107148936	36				BC
APT LANE	Town		1803.8847936	0.344676793	36				BC
ANDREW DRIVE	Town		1142.28789102	0.2104420754	36				BC
ANNA DRIVE	Town		606.01823776	0.1308940225	36				BC
AVM MAIN LANE-01	Town		436.02820402	0.3028912012	36				BC
AVM MAIN LANE-02	Town		940.742710002	0.1781706817	36				BC
APPLE LANE	Private	Private	535.2468125	0.1903672902	0				BC
ARDLEY WAY	Town		904.28711236	0.1712054762	36				BC
ARROWHEAD DRIVE	Town		3321.4632056	0.4288254271	35.6				BC
ASTON CIRCLE-01	Private	Private	162.65864376	0.0388423911	36				BC
ASTON CIRCLE-02	Private	Private	57.828825762	0.0187130794	36				BC
ASTON CIRCLE-03	Private	Private	89.88420902	0.0174038193	36				BC
ASPENWOOD DRIVE-01	Town		623.62463223	0.0188410277	36				BC
ASPENWOOD DRIVE-02	Town		1799.2164862	0.3467620486	36				BC
AUSTIN ROAD	Town		2738.83886426	0.01872841037	35.6				BC
AUSTIN WAY	Town		620.03871186	0.0849178947	22				BC
BAILEY DRIVE-01	Private	Private	539.67610426	0.1967880793	0				BC
BAILEY DRIVE-02	Private	Private	172.3848816	0.0228170552	0				BC

System Implementation Overview

Four Step Process:

- 1 – Establish Roadway Inventory**
- 2 – Field Inspection Program**
- 3 – Capital Improvement Planning**
- 4 – System Maintenance**

Roadway Profile



Total Roadway Mileage

State	20 Miles
Private	13 Miles
Town	164 Miles
<hr/>	
Total	197 Miles

Field Inspection Program

Roadway Inventory

Inventory and Inspection Form

GIS ID: 584

Street: ANN MAR LANE

Segment Name: ANN MAR LANE 01

From Street: OLD FARMS ROAD

To Street: HYER DRIVE

Inspector: EN

Inspection Date: 7/2/2009

Condition: Normal

Agreement: Acceptable

Ride: Acceptable

Outlet Sac:

Material:

Drainage: No

Guard Rail Material:

Lengths:

	Severity	Extent (%)	Notes
Edge Cracking	<input type="text"/>	<input type="text"/>	<input type="text"/>
Alligator Cracking	<input type="text"/>	<input type="text"/>	<input type="text"/>
Linear Cracking	Moderate	40	<input type="text"/>
Potholes	<input type="text"/>	<input type="text"/>	<input type="text"/>
Patching	<input type="text"/>	<input type="text"/>	<input type="text"/>
Butting	<input type="text"/>	<input type="text"/>	<input type="text"/>
Depressions	<input type="text"/>	<input type="text"/>	<input type="text"/>
Drainage	<input type="text"/>	<input type="text"/>	<input type="text"/>
General Notes	<input type="text"/>		

Odd Curb Type: Asphalt

Even Curb Type: Asphalt

Avg. Reveals: 6

Sidewalk Odd: No

Sidewalk Even: No

Record: 11 of 1193

- Calculate Road Surface Rating (RSR) On-the-Fly
- Ratings are 0 to 100 (Worst to Best)
- QA/QC Program
- Pilot Project

Condition Summary



Defer Maintenance (35%)

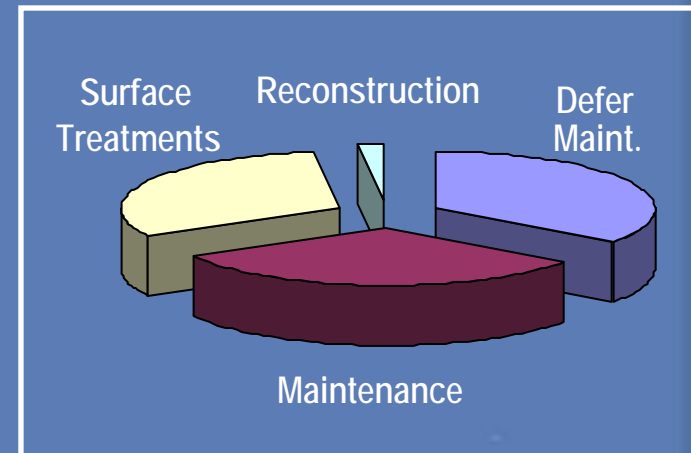
Maintenance (32%)

- *Crack Seal*

Surface Treatments (31%)

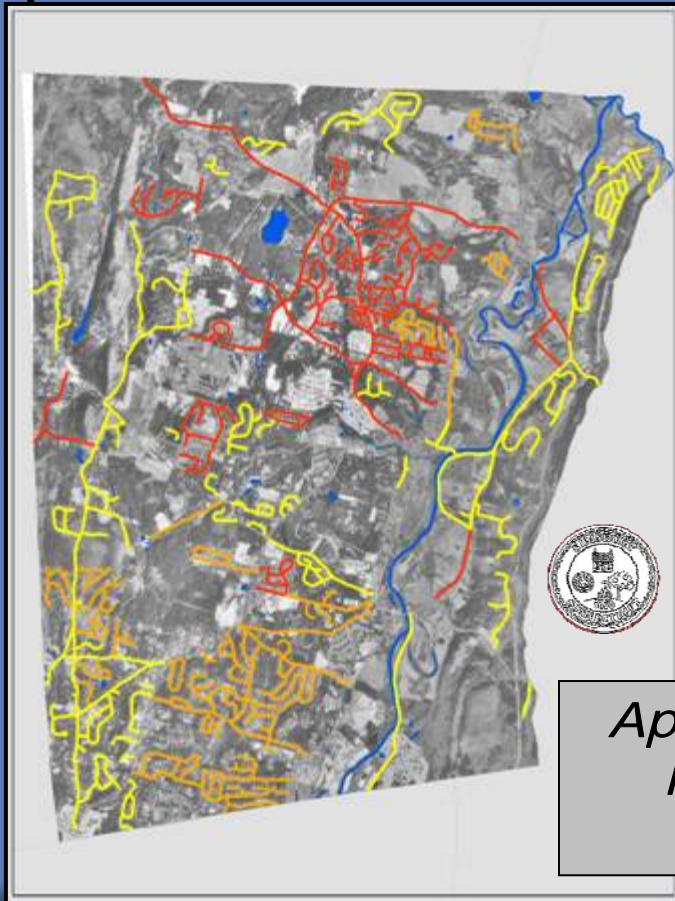
- *Chip Seal*
- *Heat Scarification*
- *Mill & Overlay*

Reconstruction (2%)



CIP Summary – GIS Mapping

Repair Breakdown by Miles



<u>Type</u>	<u>Miles</u>
Crack Seal	63.65
Shim & Chip Seal	1.3
Heat Scarification	32.13
Mill & Overlay	19.67
Estimated Total	116.75

Approximately 70% of Paved Road Miles Targeted For Improvements

Sample Inspection Data



Brook Drive

RSR = 37

Reconstruction



Pleasant Street

RSR = 45

Mill and Overlay

Sample Inspection Data



Hickory Hill Road

RSR = 67

Heat Scarification



Sand Hill Road

RSR = 73

Shim and Chip Seal

Sample Inspection Data



Firetown Road

RSR = 90

Crack Seal



Stratton Brook Road

RSR = 100

Defer Maintenance

Four-Year CIP Summary



FY 2010 - FY 2013

	Miles	Initial Cost	Police Estimate	DYCL Striping	Fog Line Striping	CIP Estimate
Project Year: FY 2010						
Funding Source: Local Funds						
Mill and Overlay	0.99	\$95,508.00	\$0.00	\$0.00	\$0.00	\$97,918.00
FY 2010 Total:	0.99	\$95,508.00	\$0.00	\$0.00	\$0.00	\$97,918.00
Project Year: FY 2011						
Funding Source: Local Funds						
Heat Scarification	4.27	\$280,931.00	\$0.00	\$8,999.00	\$0.00	\$303,616.00
Mill and Overlay	10.99	\$1,086,915.00	\$0.00	\$5,326.00	\$0.00	\$1,143,856.00
Shim and Chip Seal	1.30	\$60,972.00	\$0.00	\$0.00	\$0.00	\$64,021.00
FY 2011 Total:	16.56	\$1,428,818.00	\$0.00	\$14,325.00	\$0.00	\$1,511,493.00
Project Year: FY 2012						
Funding Source: Local Funds						
Heat Scarification	10.18	\$693,763.00	\$0.00	\$841.00	\$0.00	\$729,296.00
Mill and Overlay	7.20	\$684,551.00	\$0.00	\$0.00	\$0.00	\$718,779.00
FY 2012 Total:	17.37	\$1,378,314.00	\$0.00	\$841.00	\$0.00	\$1,448,075.00
Project Year: FY 2013						
Funding Source: Local Funds						
Heat Scarification	17.68	\$1,154,127.00	\$0.00	\$2,020.00	\$0.00	\$1,213,852.00
Mill and Overlay	1.65	\$172,405.00	\$0.00	\$0.00	\$0.00	\$190,515.00
FY 2013 Total:	19.33	\$1,326,532.00	\$0.00	\$2,020.00	\$0.00	\$1,394,367.00
4-Year Total:	54.26	\$4,229,172.00	\$0.00	\$17,196.00	\$0.00	\$4,451,853.00

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Thank You