ASSET MANAGEMENT
Michigan Transportation Asset Management Council

Joint Committee
Senate Infrastructure Modernization Committee
House Transportation and Infrastructure Committee

Steve Warren, Deputy Director
Kent County Road Commission
Member
Michigan Transportation Asset Management Council

February 21, 2013

ASSET MANAGEMENT

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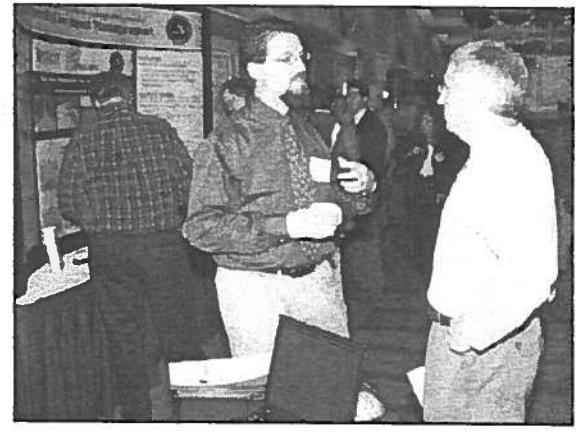
- ✓ What is Asset Management
- ✓ Pavement Distress Rating
- ✓ What Roads to Fix & When
- ✓ Paved Road Conditions
- ✓ Implementing Pavement Preservation
- ✓ Bridge Conditions



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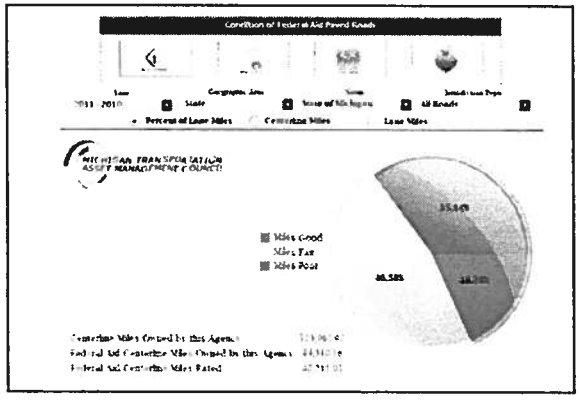
What is Asset Management?

Asset Management : "An **ongoing process** of maintaining, upgrading and operating assets cost-effectively, based on a continuous, physical inventory and condition assessment." [MCL 247.659(a)]

TAMC responsibility : "…advising the Commission on a statewide asset management **strategy** and the processes and necessary tools to implement such a strategy…" [MCL 247.659(2)]

Promote Best Practice in Pavement and Bridge Preservation



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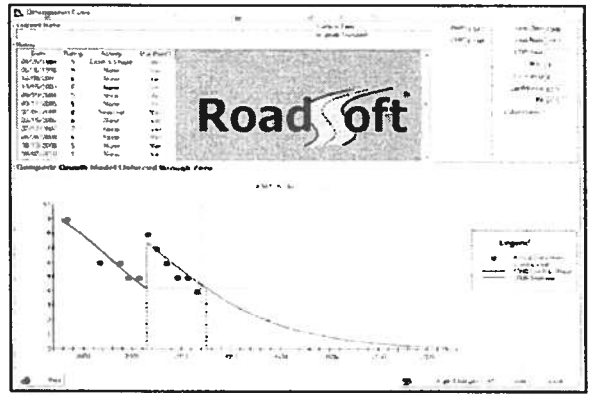

Tools

Training

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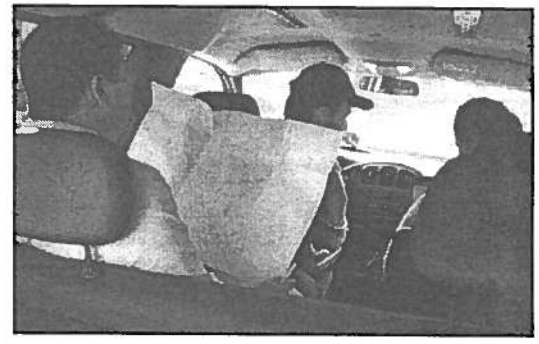
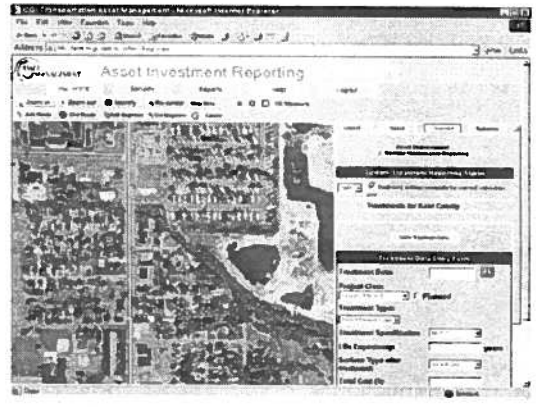
What is Asset Management?

Four Step Process	TAMC Support
Monitoring & Reporting *(Road Condition Rating)*	**Surface condition rating: PASER** • MDOT, county, city/village, RPO • Federal and non-federal aid roads
Goals & Objectives *(Long-Range Vision)*	**Analyze improvement options** • RoadSoft Training • Network and project level analysis
Plans & Programs *(Multi-Year Program)*	**Three – Five Year Program** • Pavement Preservation Targets • Major Rehab. and Reconstruction • Report to TAMC (Act 51 Report)
Program Delivery *(Implementation)*	**Document project completion** • Completed improvements • 3yrs planned projects • Report to TAMC (Act 51 Report)





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Pavement Distress Rating

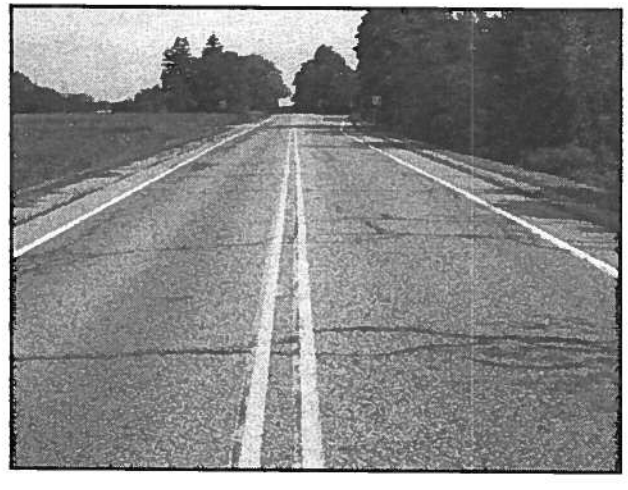
GOOD

PASER = 10, 9, 8

<u>Routine Maintenance</u>

- Crackseal

FAIR



PASER = 7, 6, 5

<u>Preventive Maintenance</u>

- Crackseal
- Surface Treatments
  - Chip Seal
  - Microsurface
- Concrete Joint Repair

POOR

PASER = 4, 3, 2,1

<u>Rehab/Reconstruct</u>

- Structural Resurface
- Pot Hole Patching
- Replace Concrete Slabs
- Complete Reconstruct

What Roads to Fix and When

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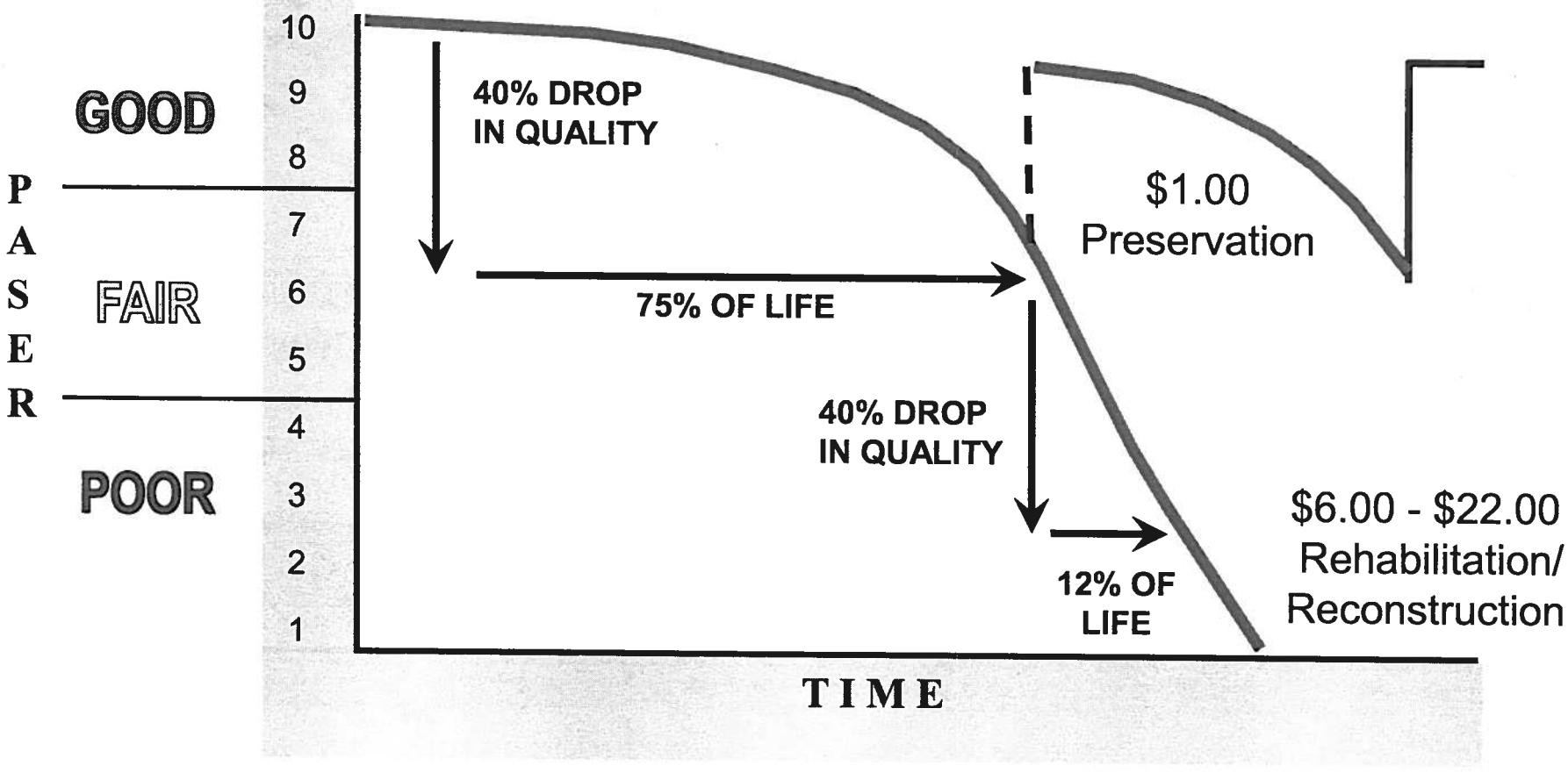
Maintaining Roads in Good Condition

"Right Fix on the Right Road at the Right Time to Maximize Return on Investment"



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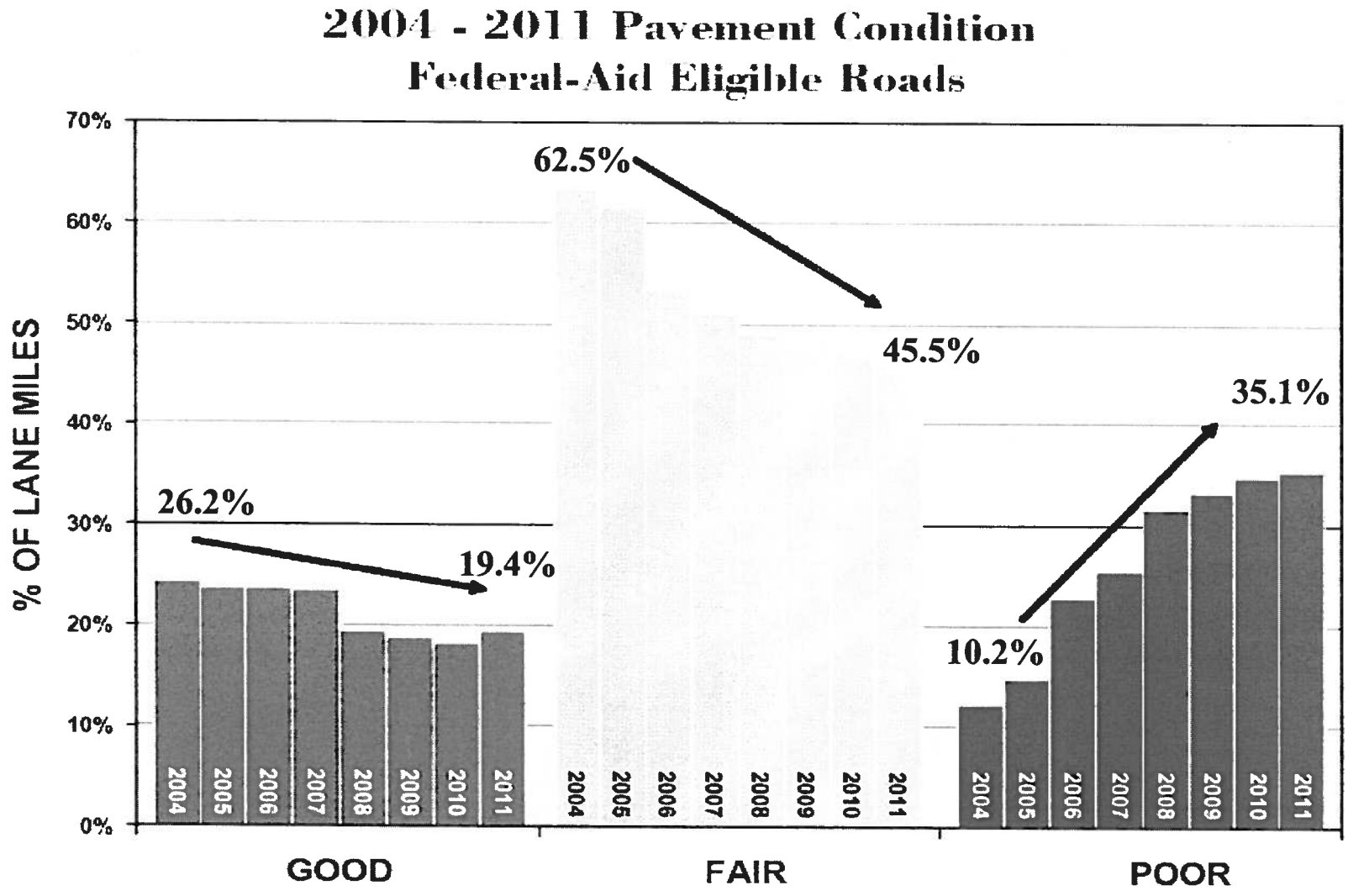
Paved Road Conditions



Source: Transportation Asset Management Council, "2011 Annual Report"

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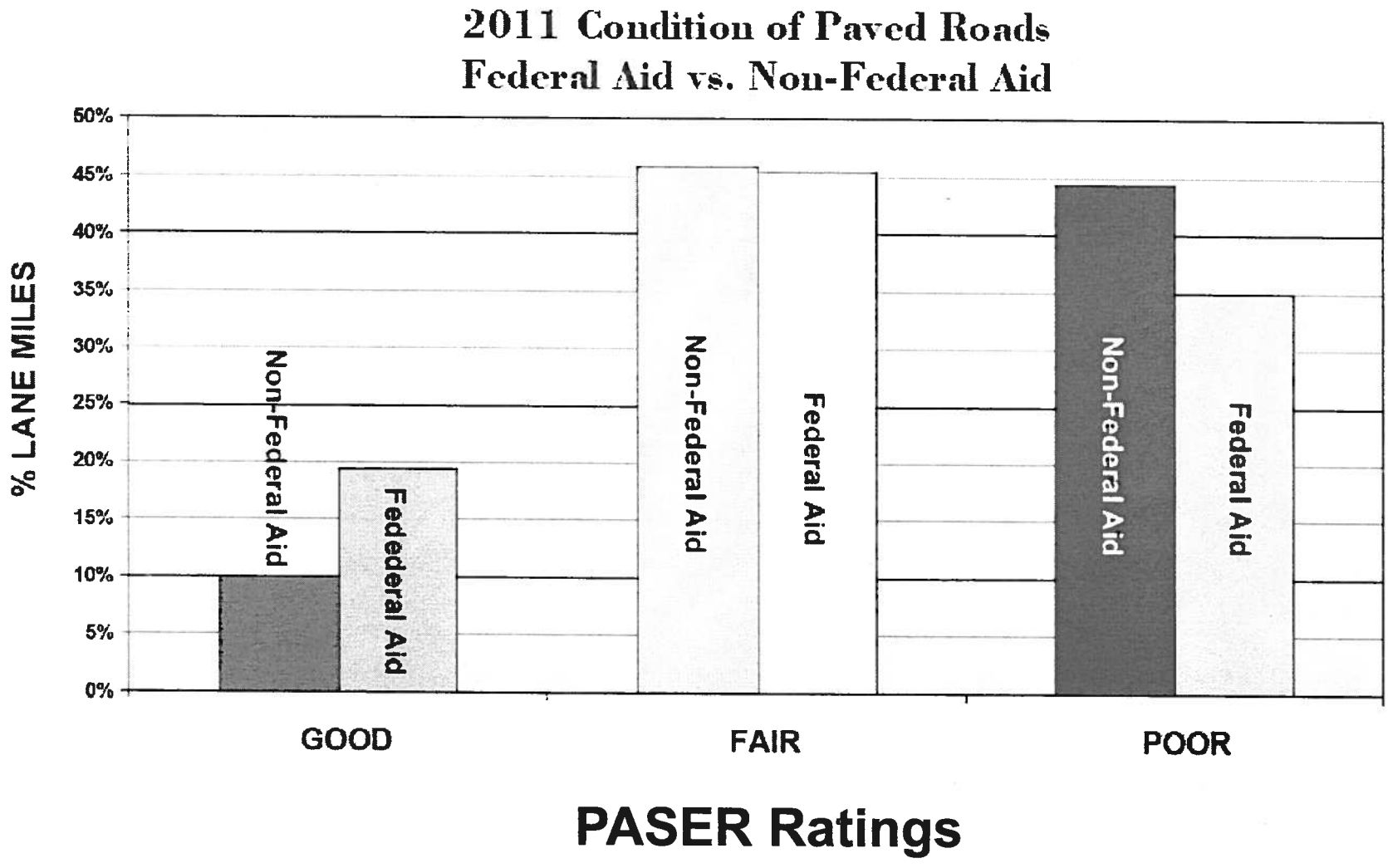
Paved Road Conditions



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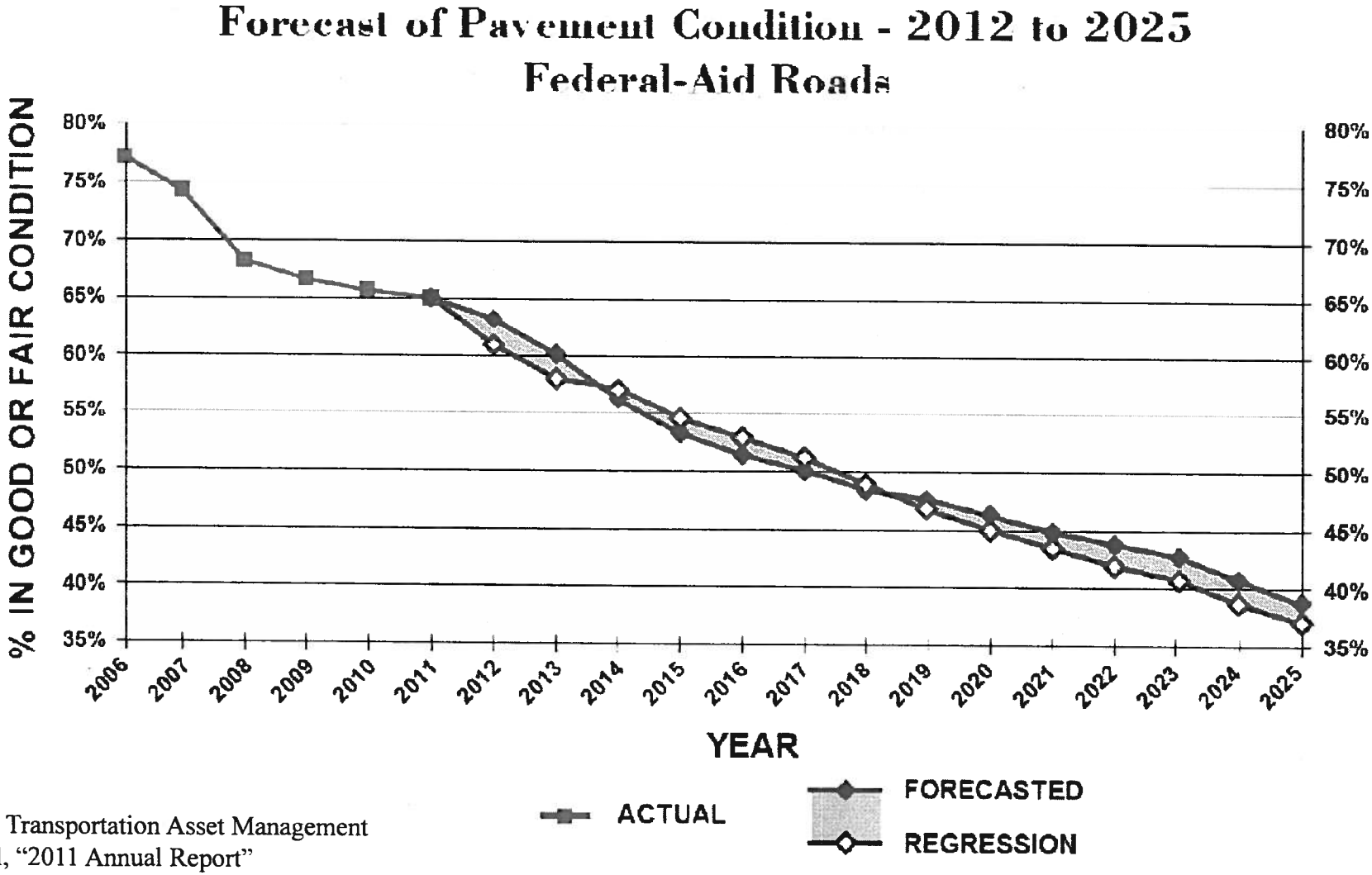
Forecasted Road Conditions



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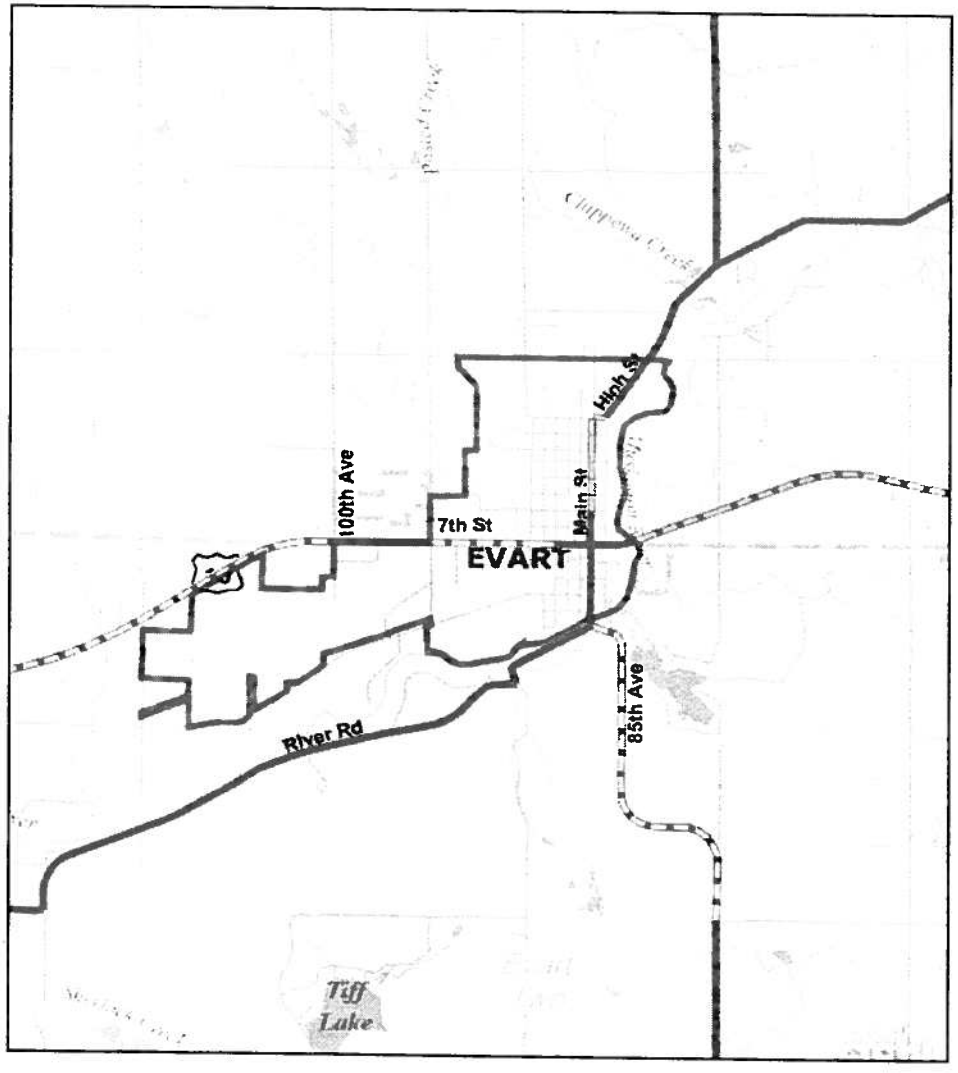
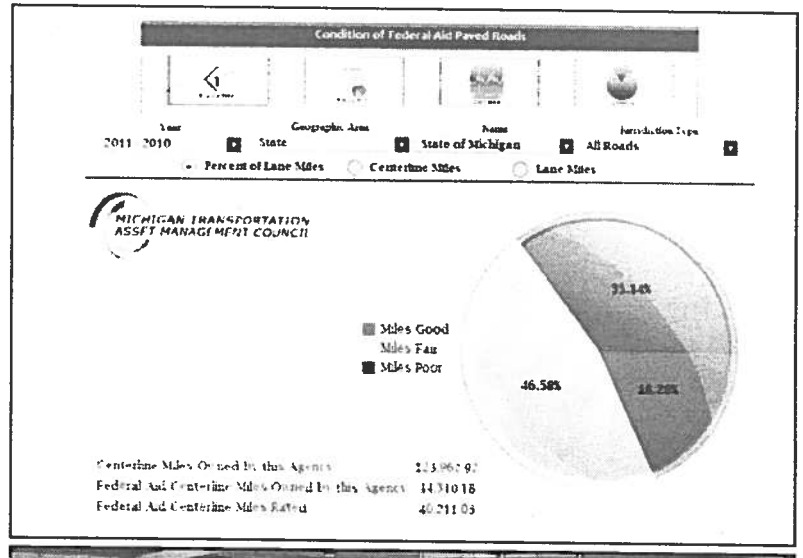
Implementing Asset Management





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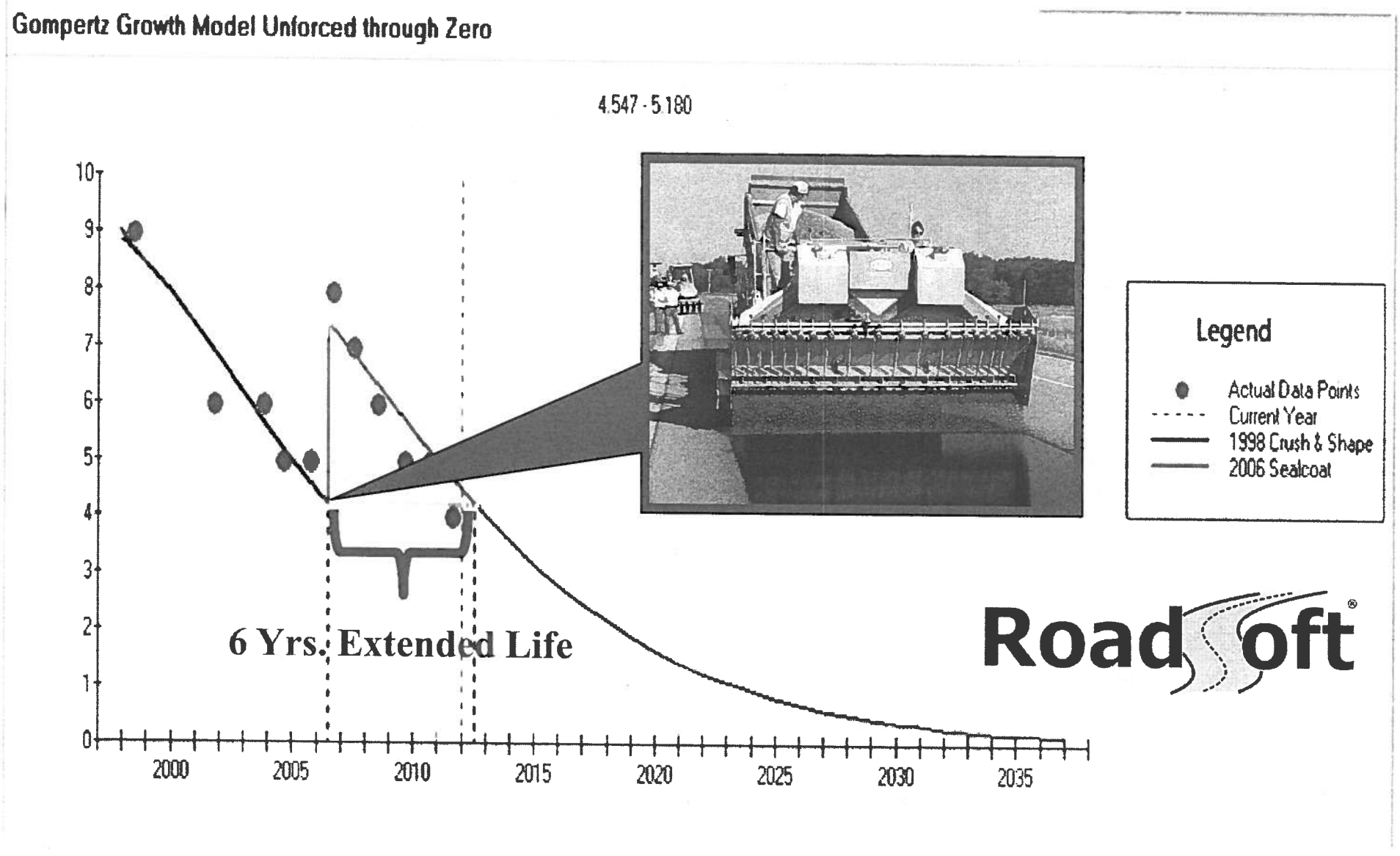
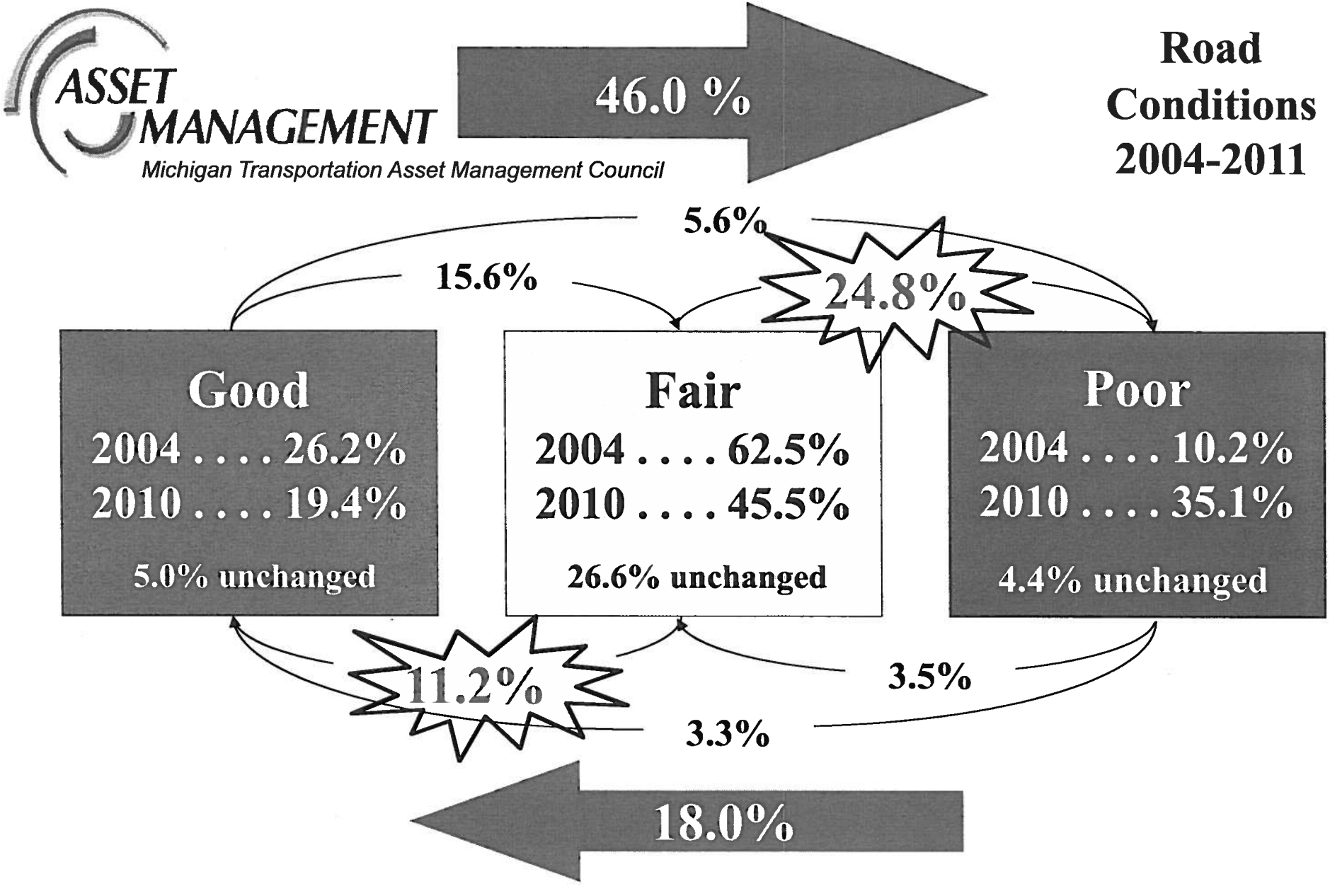
Maximizing Return on Investment





Percent of Total Lane Miles

Source: Transportation Asset Management Council, "2011 Annual Report"

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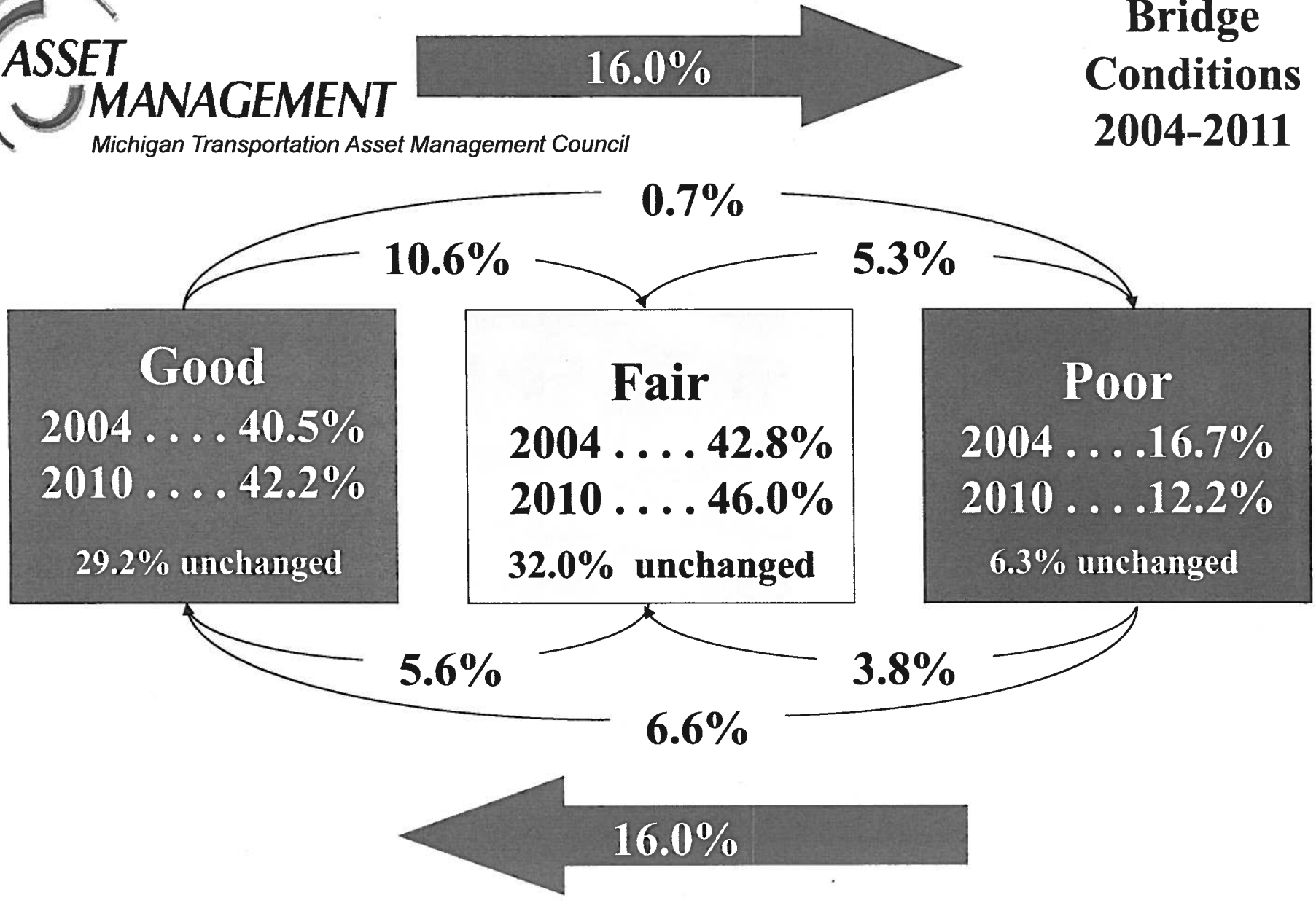
Bridge Conditions 2004-2011



Percent of All Bridges

Source: Transportation Asset Management Council

DRAFT: 2010 Annual Report

NEED vs. FUNDING

FISCAL YEAR	FUNDING APPLICATIONS	VALUE OF APPLICATIONS	FUNDING AVAILABLE	DIFFERENCE
2012	267	$221 Million	$46 Million	$175 Million
2013	299	$224 Million	$45 Million	$179 Million
2014	301	$236 Million	$45 Million	$191 Million
2015	287	$208 Million	$45 Million	$163 Million

Bridge Construction Costs

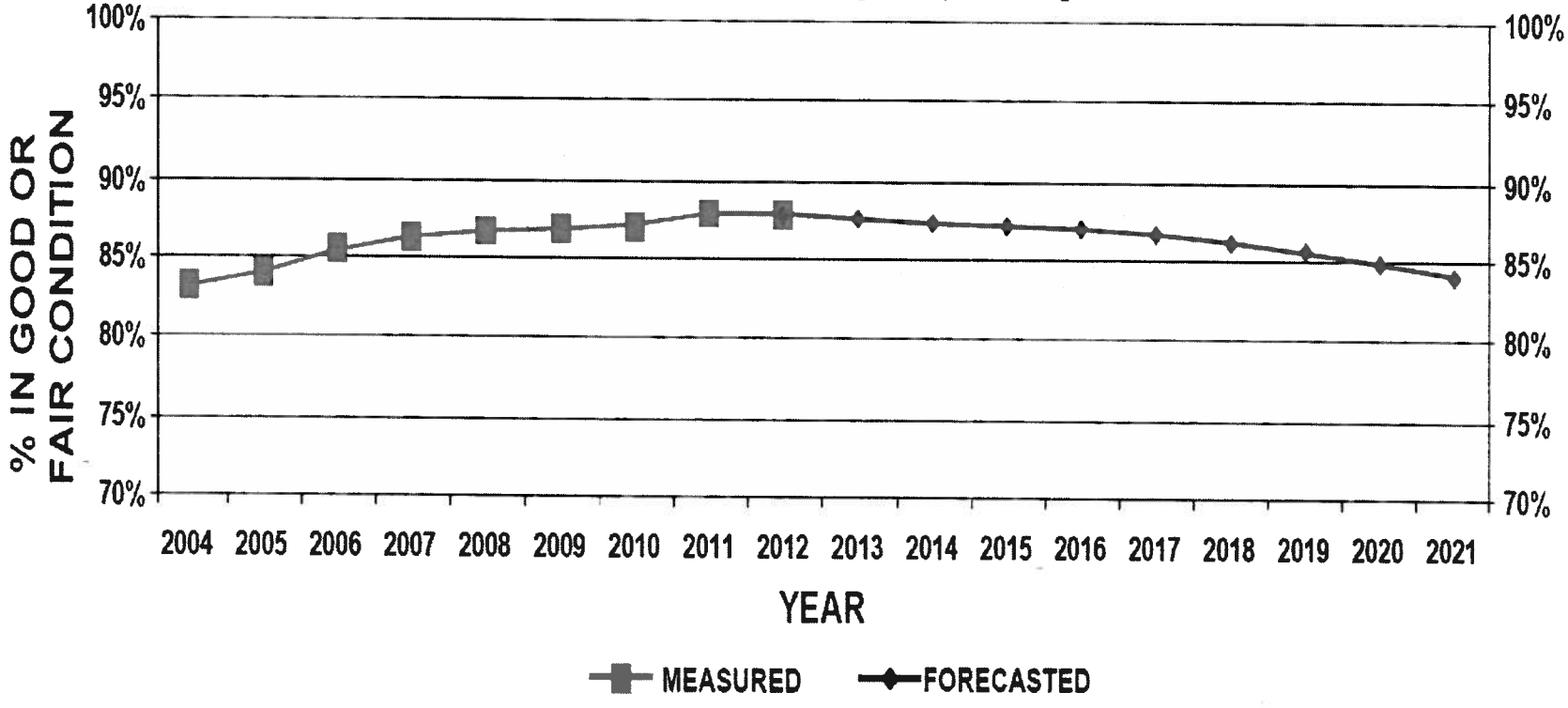
(Estimate per sft of bridge deck area)

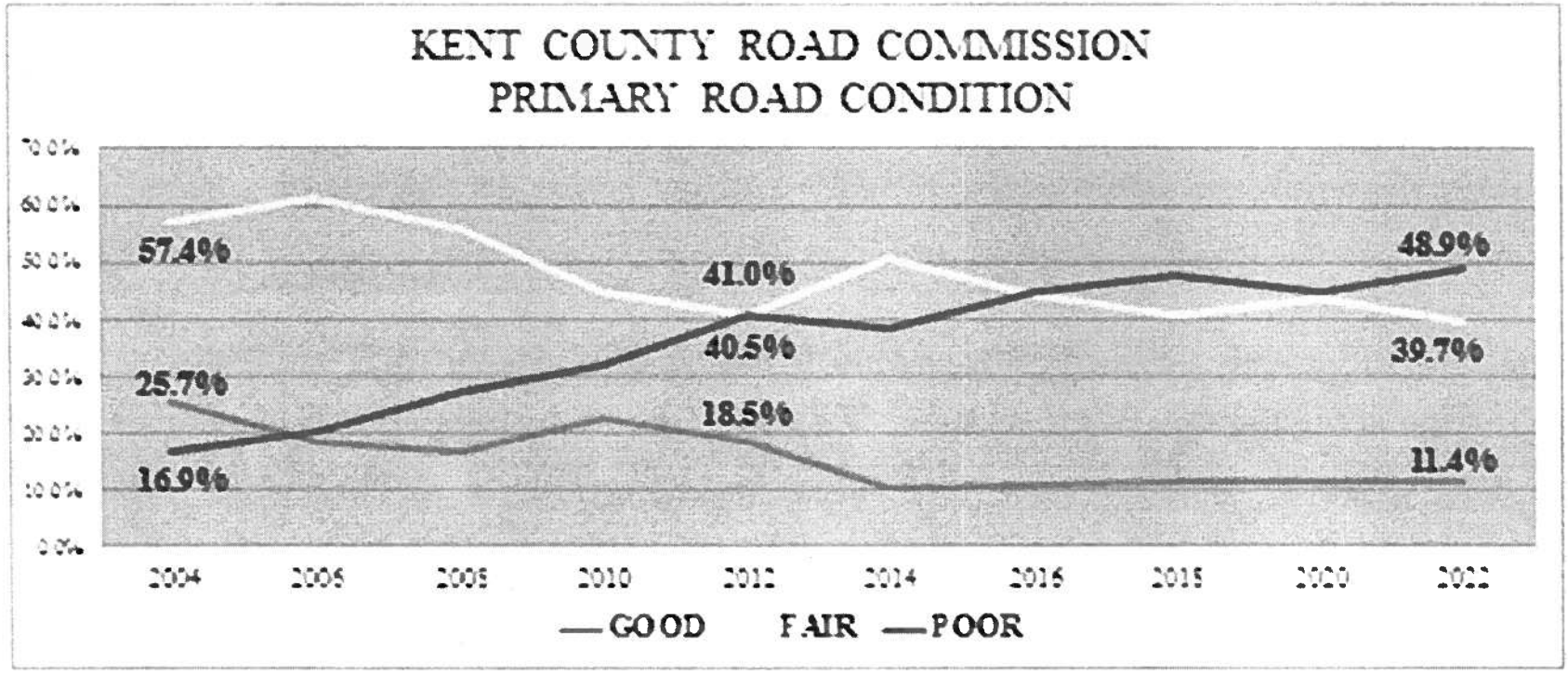
2005-2006:	$135
2007:	$190
2008-2012:	$210

LOCAL BRIDGE FUNDING APPLICATION TYPE

FISCAL YEAR	PREVENTATIVE MAINTENANCE	REHABILITATION	TOTAL REPLACEMENT
2012	19%	16%	65%
2013	24%	12%	64%
2014	26%	12%	62%
2015	35%	12%	53%

Bridge Condition Forecast System - 2004 to 2021
Trunkline and Local Agency Bridges





2004 – 2012

MTF Revenue	- 9%	Diesel Fuel	– 303%
Full-time Employees	- 13%	Salt	– 128%
Miles / Snowplow Driver	+19%	Asphalt	– 91%

Investment in Road Improvements - 53%