





# DELAWARE DEPARTMENT OF TRANSPORTATION PAVEMENT MANAGEMENT

**FEBRUARY 17, 2020** 

MARK LUSZCZ DEPUTY DIRECTOR (DESIGN)







### PAVEMENT MANAGEMENT SECTION STRUCTURE





**Vacant** 

Mike Beulah

Paul Farkas

Larry Eliason

#### **Consultants**

Road Ratings: AECOM / Mandli

Pavement Management Software: Kercher

Design / Plan Packages: Several





## PAVEMENT MANAGEMENT - MAJOR SUPPORT/IMPLEMENTATION SECTIONS



#### Construction

Brian Locke – North Wayne Hamilton – North George Haldas – Central Chris Webb – South

#### Traffic

Max Saintil Naa-Atswei

Plus many other staff and consultants





### PAVEMENT MANAGEMENT SECTION ROLES AND RESPONSIBILITIES





Pavement Condition Data Collection



Pavement Management System



Funding Allocation



Project Estimates



Project Packaging





# PAVEMENT MANAGEMENT PROGRAM CHANGES AND IMPROVEMENTS THROUGH THE YEARS



Began Collecting
Pavement Condition
Data Manually
1990

Semi-Automated Data Collection 2007

Major Business, Systems, and Data Improvements within PMG 2019











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Pavement
Management
System Goes Live

2016

Fully Automated
Data Collection and
PMS Upgrades/
Improvements

2019

TAMP Certified by FHWA



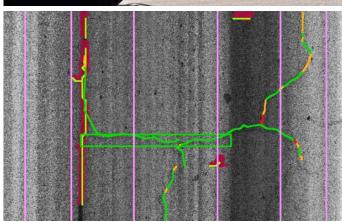


### AUTOMATED CONDITION DATA COLLECTION DELDOT USES STATE-OF-THE-ART TECHNOLOGY











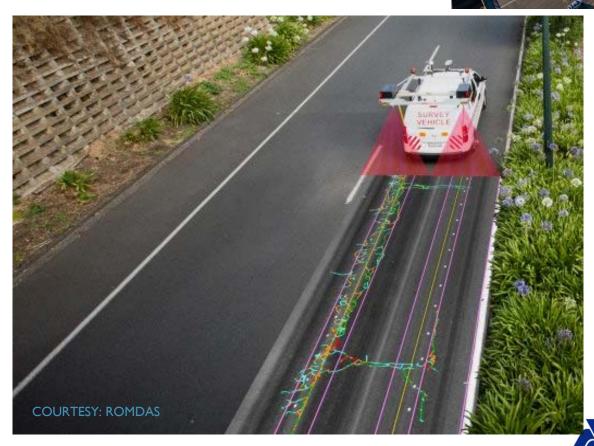




## AUTOMATED CONDITION DATA COLLECTION



- Vehicle Mounted Data Collection Equipment
- Right of Way Imagery
- Laser Crack Measurement System (LCMS)
- Rut Depths
- International Roughness Index (IRI)





#### DATA MANAGEMENT RELATIONSHIP



Network Health Level

Decision Making and Performance Model Level

Data Collection and Quality Management Level

Overall Pavement Condition

Combined Distress Indices

**Distress Indices** 

OPC

Structural Index

Fatigue Cracking

Patch/Potholes

Transverse Cracking

**Block Cracking** 

Longitudinal Cracking

Raveling

Rutting

Roughness

Non-Structural Index

Functional Index





#### COMPONENTS OF THE PAVEMENT MANAGEMENT SYSTEM





Data Management

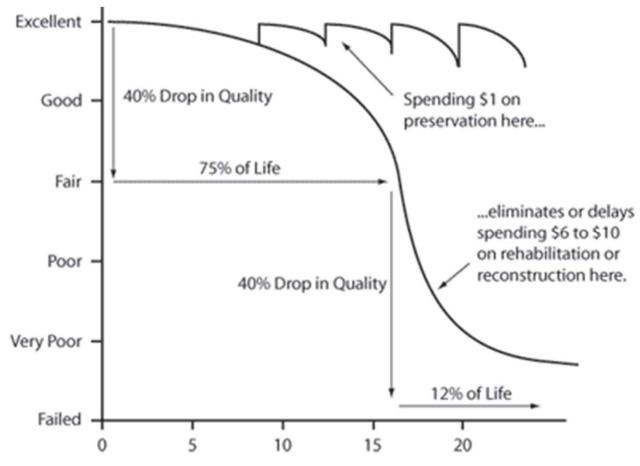
Policy Management





# IMPORTANCE OF TREATMENT TIMING THE CLASSIC PAVEMENT MANAGEMENT PROBLEM!









#### PAVEMENT TREATMENTS



MAINTENANCE

**Patching** 

Crack sealing

**PRESERVATION** 

Microsurfacing

Chip seals

Ultra-Thin Overlays **REHABILITATION** 

Plant Mix Overlays

Mill & Inlay

**RECONSTRUCTION** 

Full Depth Reclamation

Cold-In-Place Recycling

Remove & Replace

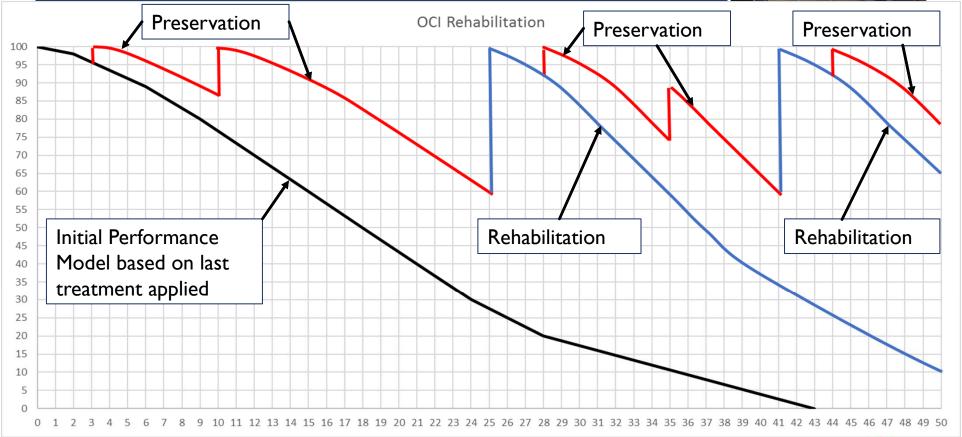
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## EFFECTIVE LIFE CYCLE MANAGEMENT IS THE OBJECTIVE



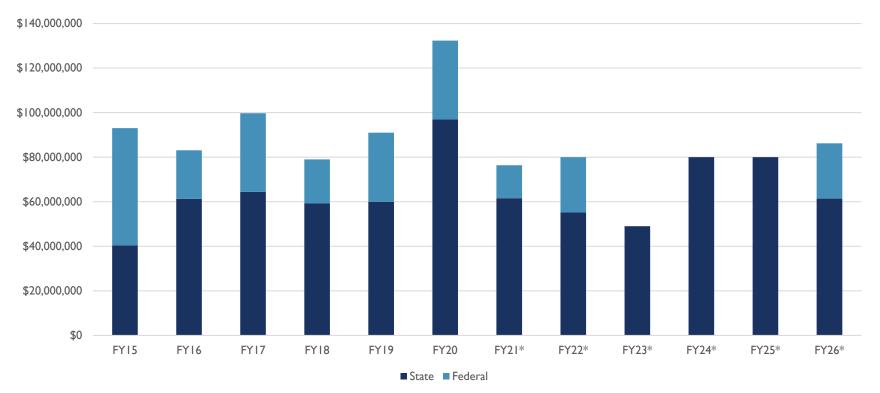






#### PAVEMENT MANAGEMENT BUDGET









#### THANK YOU







