PAVEMENT MANAGEMENT SECTION
STRUCTURE

Sarah McDougall, P.E.
Pavement Management Engineer

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

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Began Collecting Pavement Condition Data Manually
1990

Semi-Automated Data Collection
2007

Major Business, Systems, and Data Improvements within PMG
2019

2001 Pavement Management System Goes Live

2016 Fully Automated Data Collection and PMS Upgrades/Improvements

2019 TAMP Certified by FHWA

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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

Overall Pavement Condition

Decision Making and Performance Model Level

Combined Distress Indices

Structural Index

Non-Structural Index

Functional Index

Data Collection and Quality Management Level

Distress Indices

Fatigue Cracking

Patch/Potholes

Transverse Cracking

Block Cracking

Longitudinal Cracking

Raveling

Rutting

Roughness
COMPONENTS OF THE PAVEMENT MANAGEMENT SYSTEM

Data Management

Policy Management

INVENTORY
CONDITION DATA
WORK PLAN
CONSTRUCTION HISTORY
TREATMENTS
DECISION TREES
PERFORMANCE MODELS
ANALYSIS & REPORTING

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IMPORTANCE OF TREATMENT TIMING
THE CLASSIC PAVEMENT MANAGEMENT PROBLEM!

40% Drop in Quality
75% of Life
40% Drop in Quality
12% of Life

Spending $1 on preservation here...

...eliminates or delays spending $6 to $10 on rehabilitation or reconstruction here.
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

- Preservation
- Rehabilitation

Initial Performance: Model based on last treatment applied

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THANK YOU