

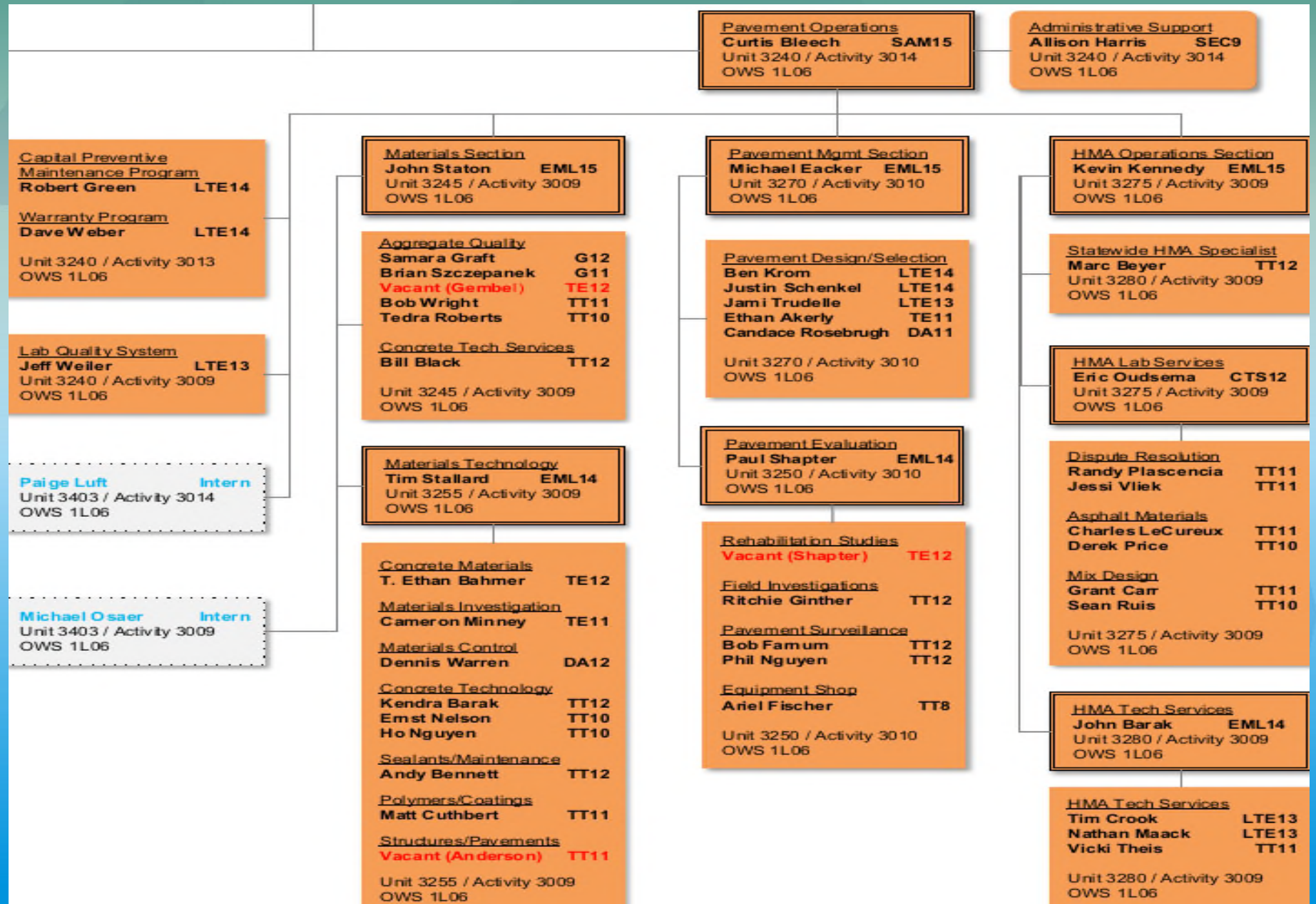
Introduction to Pavement Operations

A Design Basic Training Course
Presented by Pavement Operations
Construction Field Services Division
Bureau of Field Services
Michigan Department of Transportation



Curtis Bleech
Pavement Operations Engineer
Construction Field Services Division
BleechC@Michigan.gov

Pavement Operations



Course Overview of Topics

- Pavement Condition Data
- Pavement Thickness Design
- Life Cycle Cost Analysis - MDOT's Process of Pavement Selection
- Hot Mix Asphalt (HMA)
- PCC (Concrete) Pavements
- Distress ID & Scoping PCC Pavement
- CPM Concepts & Practices
- Warranty Program

Definitions

- **C.P.M. – Capital Preventative Maintenance**
 - Planned strategy of cost-effective treatments to an existing roadway system to decrease the rate of deterioration such that the system is preserved.
- **D.I. – Distress Index**
 - Quantifies the level of distress that exists on a pavement section based on 1/10-mile increments. The scale starts at zero and increases as pavement condition worsens.
- **I.R.I. – International Roughness Index**
 - Internationally recognized measure of a pavement's roughness or smoothness.
- **L.C.C.A. – Life Cycle Cost Analysis**
 - An economic analysis that compares the long-term costs of pavement ownership of two or more alternatives.

Definitions (Continued)

R&R – Rehabilitation & Reconstruction

Rehabilitation - A variety of different kinds of fixes that do not include the replacement of the entire pavement structure. Rehabilitation fixes are targeted to utilize components of the pavement structure that still have strength and value. Examples of rehabilitation fixes include concrete pavement repair, bituminous overlays, mill and resurfacing, and rubblize and resurface.

Reconstruction - A fix that typically removes and replaces the entire pavement structure. Sometimes the sand sub-base may be left in place and incorporated in the new pavement structure. Reconstruction fixes have a design or fix life of twenty years or more. This fix is typically applied to pavements with a remaining service life of two years or less.

R.S.L. – Remaining Service Life

The number of years it will take for a specific pavement attribute to reach a specified threshold level.

Questions To Think About Today

1. What are the functions and components of a pavement management system?
2. Do the specifications, guidelines, methodologies and construction all “fit” together in a comprehensive system?
3. How do pavement issues and specifications get addressed or changed?

A Day in the Life of a Pavement



Before we get started,
are there any questions?

