Warranty Program in Michigan
1996 to Present

AASHTO Committee on Construction, August 2018
Why Warranties?

Public Act 79 of 1997 (effective July 28, 1997) states: “Of the amounts appropriated for state trunkline projects, the department shall, where possible, secure warranties of not less than five-year full replacement guarantee for contracted construction work.”
2015 Revision

Public Act 175 of 2015 (effective April 1, 2016) states: “Of the amounts appropriated for state trunkline projects, the department shall, where possible, secure pavement warranties for full replacement or appropriate repair for contracted construction work on pavement projects whose cost exceeds $2,000,000.00 and projects for new construction or reconstruction...”
Most Common Warranty

- Manufacturer's Warranty

Pavement Warranties = Risk Transfer

- Materials and Workmanship Warranties
- Performance Warranties
• **Materials and Workmanship Warranties**
  • Transfer risk for material selection and workmanship from agency to contractor
  • Typically a three or five-year warranty period

• **Performance Warranties**
  • Transfer risk for design, material selection, and workmanship to contractor
  • Typically a two to three-year warranty period for capital preventive maintenance (CPM) and bridge projects
• Warranty Types
  • Reconstruction and Rehabilitation
  • Capital Preventive Maintenance
  • Bridge

• Warranty Length – Two, three, or five years

• Thresholds for the specifications are based on Michigan pavement performance data

• Contractors are required to attain a warranty bond for the life of the warranty

• Conflict resolution process
• **Conflict Resolution Team (CRT)**
  
  • Sole responsibility of the CRT is to provide a decision on disputes between the department and the contractor.
  
  • Either party can request a CRT
  
  • Five-member team
    
    • Two members selected and compensated by the department.
    
    • Two members selected and compensated by the contractor.
    
    • One member mutually selected by the department and contractor. Compensation equally shared by the department and contractor.

  • May conduct a forensic investigation with costs shared proportionately based on the determined cause of the condition
Two Year Warranties - Capital Preventive Maintenance and Bridge Projects

- Chip Seals
- Micro-Surfacing
- Ultra-Thin Overlays
- Hot Mix Asphalt Crack Treatment
- Bridge Painting
- Concrete Surface Coating
Three Year Warranties - Capital Preventive Maintenance

- Non-Structural Hot Mix Asphalt Overlays
- Cold Mill and Hot Mix Asphalt Resurfacing
- Paver Placed Surface Seal
Five Year Warranties - Reconstruction, Rehabilitation, and Bridge Projects

- New/Reconstructed Pavement
- Major Rehabilitation
  - Rubblize
  - Crush and Shape
- Multiple-Course Hot Mix Asphalt Overlay
- Cold Mill and Multiple-Course Hot Mix Asphalt Overlay
- Bridge Deck Overlays
Asphalt Condition Parameters

Transverse Cracking

Longitudinal Cracking

Alligator Cracking
Asphalt Condition Parameters

- Raveling
- Flushing
- Rutting
Concrete Condition Parameters

- Transverse Cracking
- Longitudinal Cracking
- Spalling
- Corner Cracking
Scaling  Map Cracking  Joint Sealant Adhesive Failure  Joint Sealant Cohesive Failure

Concrete Condition Parameters
Chip Seal Condition Parameters

- Surface Cracking
- Loss of Cover Aggregate
- Bleeding/Flushing
Micro Surface Condition Parameters

- Rutting
- Raveling
- Debonding
- Bleeding, Flushing
• More Than 4,100 Warranties from 1996-2018
  • 62% Capital Preventive Maintenance
  • 24% Pavement Rehabilitation and Reconstruction
  • 13% Bridge Steel Coating
  • 1% Miscellaneous Bridge Work

• Corrective Action Needed
  • 4.6% of Capital Preventive Maintenance
  • 16.1% of Pavement Rehabilitation and Reconstruction
  • 48.1% of Bridge Steel Coating
  • 8.5% of Miscellaneous Bridge Work
Warranty Tracking System

• **Statewide Warranty Administration Database (SWAD)**
  • Tracks dates
    • Acceptance dates
    • Inspection dates
    • Expiration dates
    • Corrective work
  • Generates reminder e-mails
  • Provides reports
Audit Findings

- Lack of complete documentation
- Accuracy of the database
- Failure to complete inspections
- Lack of follow-up on corrective action
- Early completion of inspections
Improvements

• 2016, new statewide warranty engineer position
• Increased monitoring and emphasis
• Notification timeline for corrective action
• Attorney General assistance in pursuing delinquent contractors
• Designated location for warranty documentation
• Updating warranty guidelines
Challenges

- Initial implementation, all projects
- Warranty education
- Resources and timing
- Detailed process and compliance
- Root cause of distress
- Corrective action costs
- Maintenance activities
Thank you

Jason Gutting, P.E.
Engineer of Construction Field Services

[Email: guttingj@Michigan.gov]