

Bureau of Materials & Physical Research Issues



- 1) General Topics
- 2) Hot-Mix Asphalt (HMA) Issues
- 3) Coming Soon



Staffing Issues



2016 Std. Spec. for Road and Bridge Construction



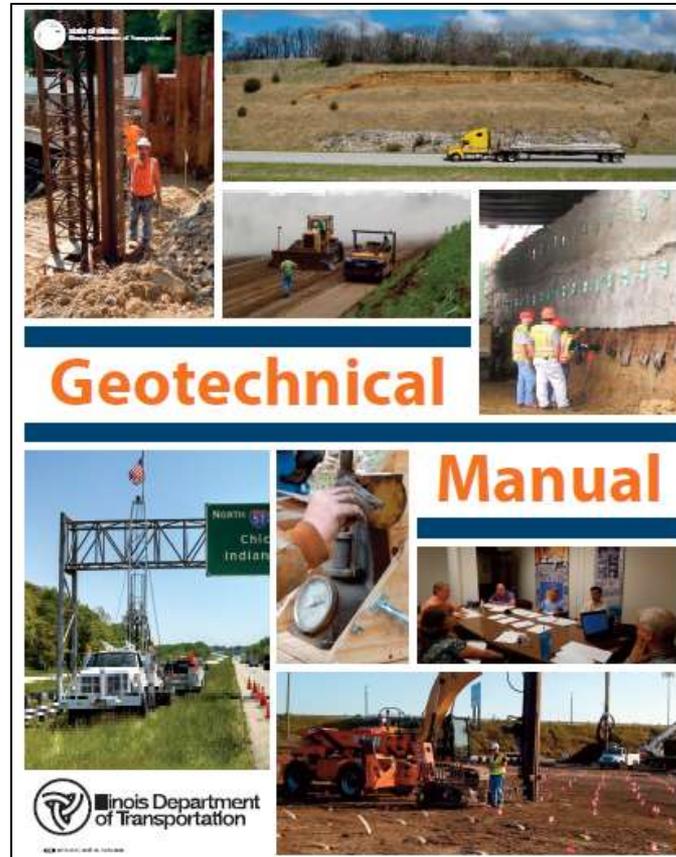
- Div. 1000 - Materials
- BDE & GBSP Special Provisions Incorporated

2016 Std. Spec. for Road and Bridge Construction



- Friction Aggregate (BDE)
- HMA Mixture Design
Composition and Volumetric
Requirements (BDE)
- HMA Mixture Design
Verification and Production
(BDE)

<http://www.idot.illinois.gov/doing-business/material-approvals/soils/index>





<http://ict.illinois.edu/>

AMERICAN ASSOCIATION OF
STATE HIGHWAY AND
TRANSPORTATION OFFICIALS

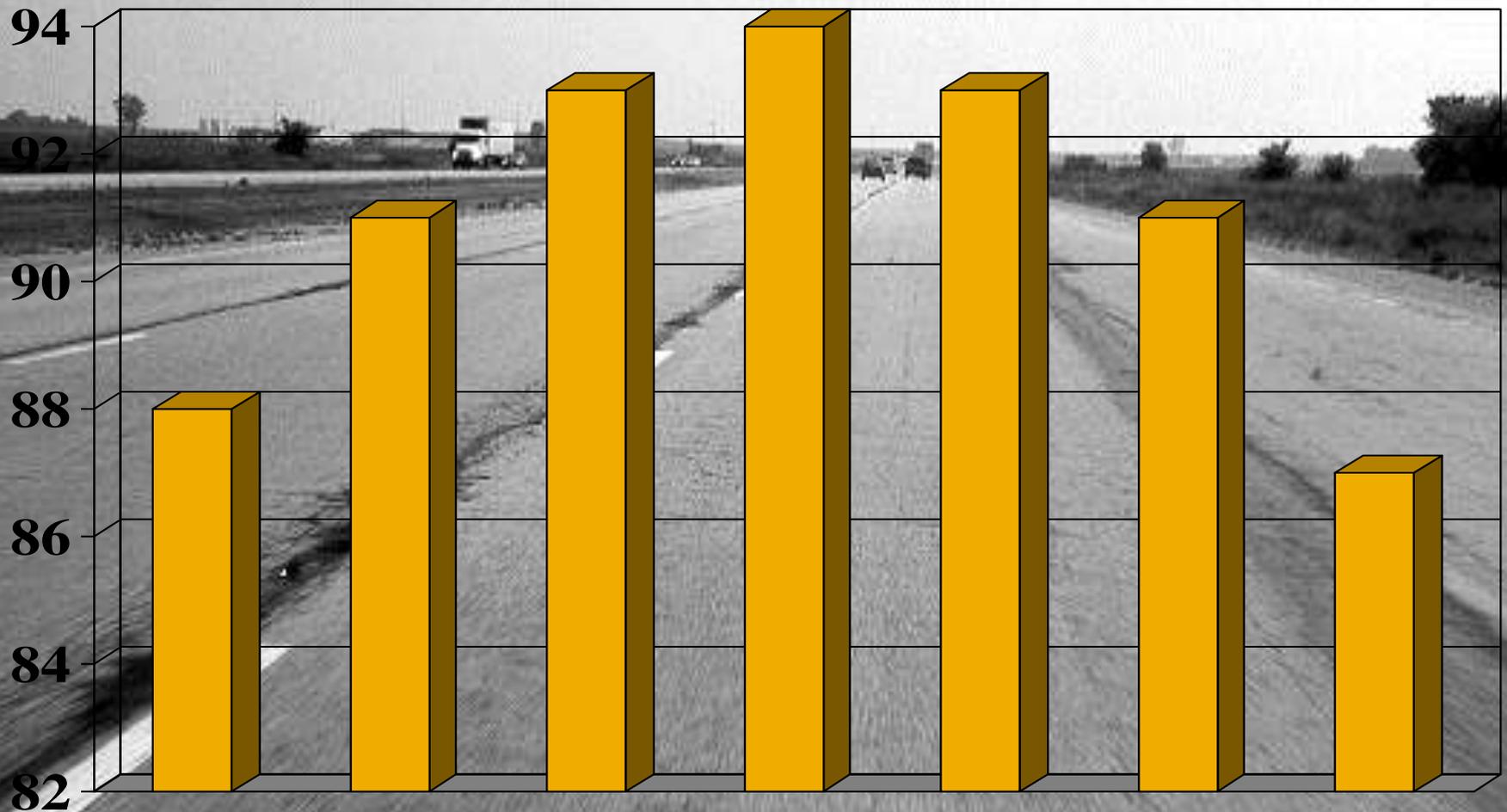
AASHO
THE VOICE OF TRANSPORTATION



Longitudinal Joint Issues



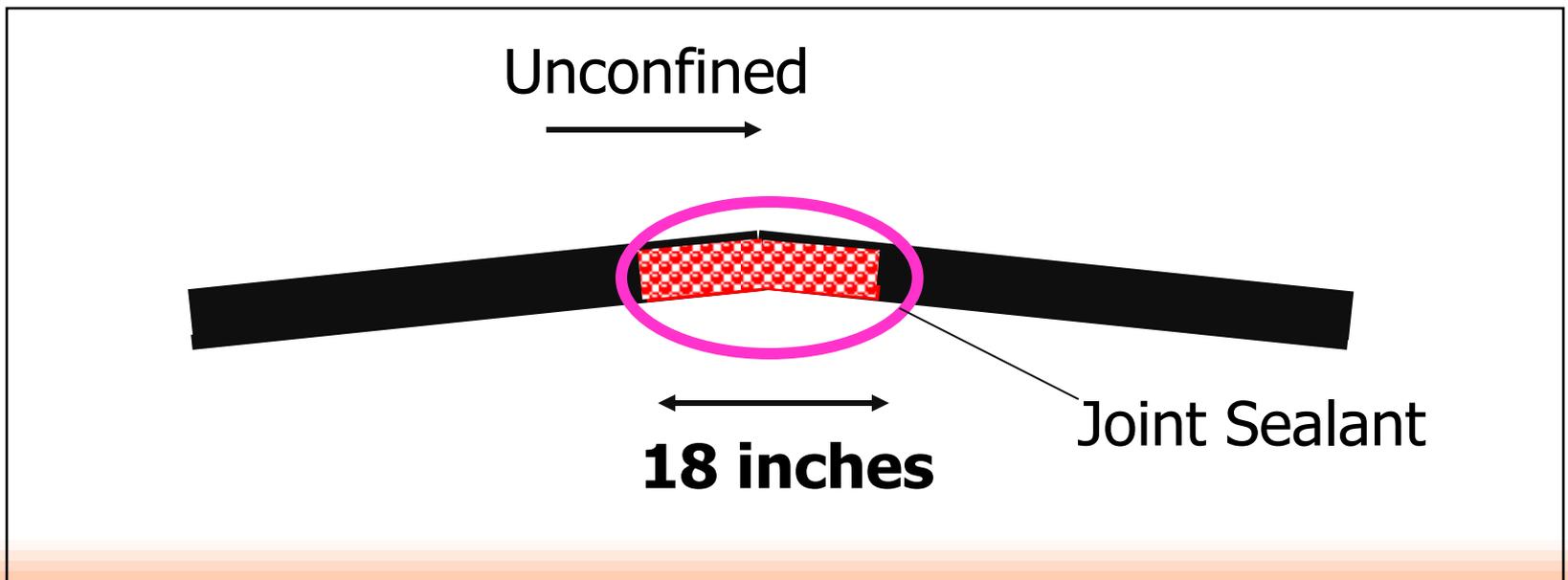
Why the Poor Performance?



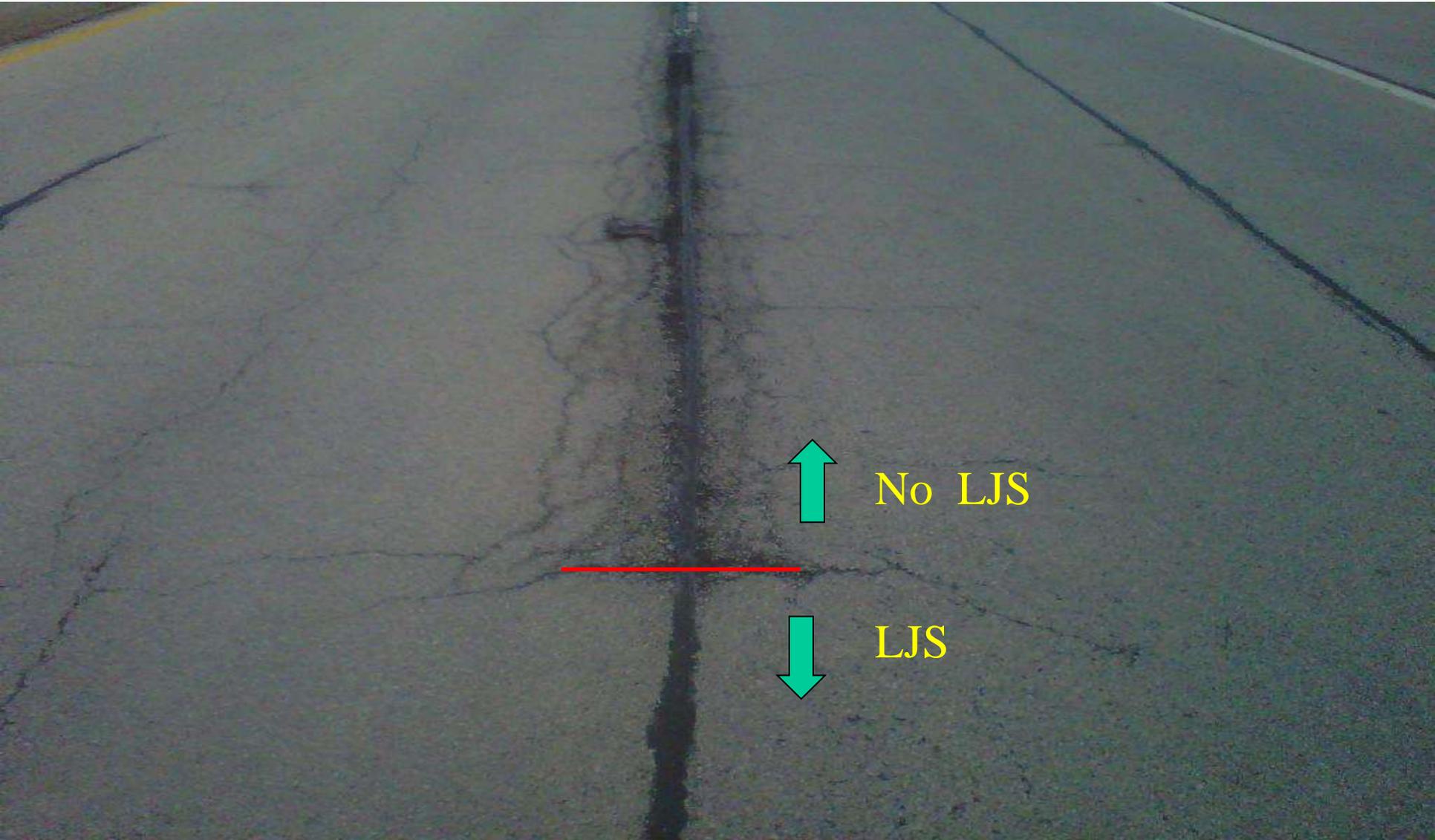
- 2001/2002 Longitudinal Joint Sealants
 - IDOT worked w/ 2 companies to Develop a Longitudinal Joint Sealant (LJS)
 - LJS is a Band of Asphalt Binder that Seals a lift of HMA from the Bottom Up.

Joint Sealant Concept

- Band melts up into the joint thus:
 - Increasing density
 - Decreasing permeability
 - Increasing joint life

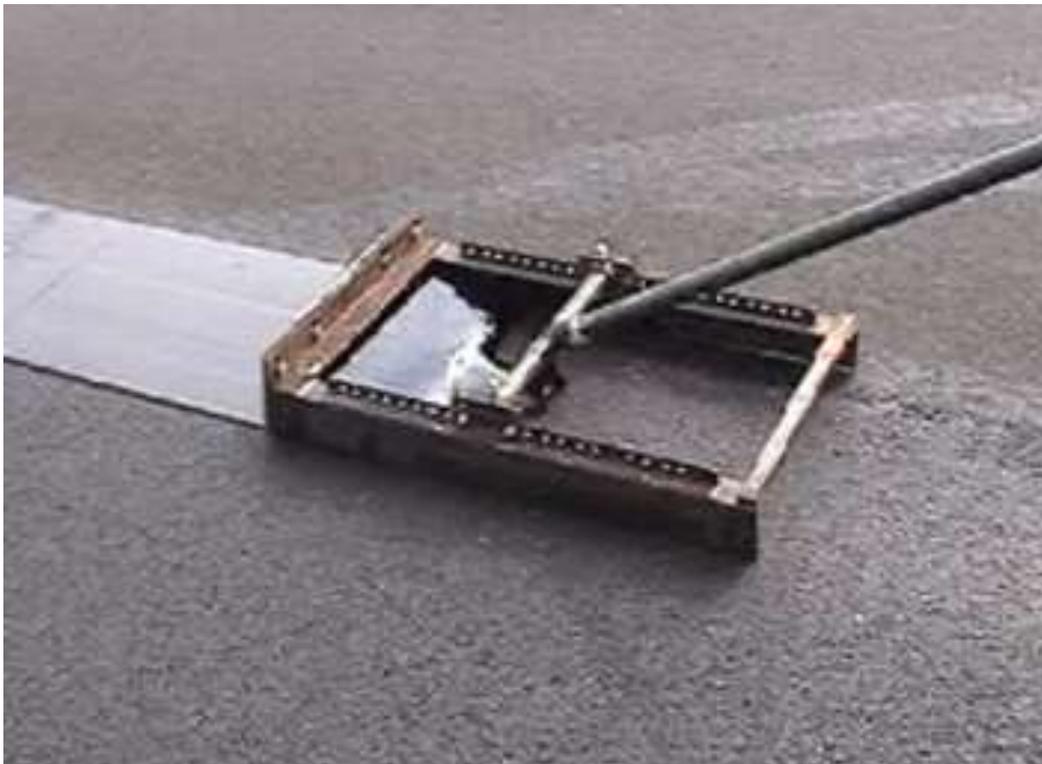


Longitudinal Joint Seal 12 Years Later



How it was Applied in 2002-2004

Asphalt Materials – “J –Band”



Hendy – “Quickseam”



How Asphalt Materials Applies it Now

Heavy Duty Pressure Distributor for Applying LJS







Five Minutes After Placement
(Spec calls for 30 Minutes)

No
Pickup



BMPR Experimental Feature Special Provision

- Waives density within 1 ft of C.L.
- Applied to C.L. Joint of every lift except IL-4.75
- Implementation Goals:
 - 2016 – 2 Projects per District
 - 2017 – 50% of Projects per District
 - 2018 – Full Implementation
 - <http://www.idot.illinois.gov/doing-business/material-approvals/hot-mix-asphalt/index>



High Speed Profilers

- D2, D4, and D5 have devices
- Additional procurements affected by FY 16 budget
- Targeting 2017 to have a new Surface Testing Special Provision with smoothness based on IRI



e-Construction

- Web-based contract management
- Paperless contract administration
- Electronic submission of construction documentation by stakeholders
- Electronic Document Approvals
- Secure Digital management of construction documentation



e-Construction

- Begins with electronic deliverables needed to include a contract on a letting
- Ends with the final acceptance of contract work
- Includes CAD models, daily records, quantities of work, materials information, project correspondence, EEO compliance,...
- Multiple relational software tools

Current Status

- In the process of developing an RFP to replace ICORS and MISTIC
- Construction and Materials processes have been mapped
- Developing requirements for use in the RFP
- Developing hardware requirements to facilitate mobile use of the new web based systems
- Anticipate issuing an RFP to replace ICORS and MISTIC in early FY 17