Pavement Type Selection
"Kentucky Style"

Brian K. Wood, P.E.
Executive Director
The Plantmix Asphalt Industry of Kentucky, Inc.
Hatfield-McCoy Feud

- Dispute between the Hatfields (West Virginia) and the McCoys (Kentucky) began in 1878 after a dispute about the ownership of a hog.
Kentucky Style?

Heads - Asphalt

Tails - Concrete
Kentucky Style?

Asphalt
Concrete
Kentucky Style?

WHITE - CONCRETE
BLACK - ASPHALT
“Kentucky Style”

- Disclaimer
- Process is underway but far from finished
- Results from alternate bid projects will be evaluated
- The policy will continue to evolve
Presentation Outline

• 6 P’s of Pavement Type Selection in Kentucky
  – Past
  – Present
  – Process
  – Policy
  – Politics
  – Projects
Outline

• 6 P’s
  – Past
  – Present
  – Process
  – Policy
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  – Projects
Kentucky’s Pavement History

- Kentucky is generally a rural state where asphalt has always been the preferred pavement type
  - Roughly 95% of paving dollars in Kentucky spent on asphalt bid items
- Over 130 asphalt plants serving all 120 counties
- Small handful concrete paving contractors
Old Policy

• Old policy was implemented in June 1999
• Provided general guidance but lacked specifics
• 40-year analysis period
• Recommends Rehabilitation Cycles for Asphalt and Concrete (PCC) Pavements
  – 10-year resurfacing cycle for asphalt
  – 40-year with only cleaning & sealing joints on PCC at years 15 and 30
Old Policy Continued...

- High-volume projects utilize more detail and sophisticated analysis techniques than lower volume roadways.
- The 1999 Policy resulted in the selection of asphalt pavement in most instances.
- Concrete pavements typically did not “win” in the policy & process but were selected for other reasons.
History of ACPA in KY

• In 2000, the American Concrete Pavement Association formed a local chapter in Kentucky with the stated goal of taking 25% of the market share from the asphalt industry.

• Hired staff and lobbyists to aggressively promote the use of concrete pavements.
Past Alternate Bids

- Given the pressure from the concrete industry, Kentucky pursued a few alternate bid projects.
- From 2000 through 2005, Kentucky let 5 alternate bid projects (with pavement warranties).
- 4 of the 5 projects went asphalt.
Outline

• 6 P’s
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Present Climate in KY

- New Governor/Administration
- New Transportation Cabinet Officials
- New ideas
PTS Process

• Changes in the Governors office (and party) resulted in all new appointed officials in the Kentucky Transportation Cabinet

• Concrete industry ramped up it’s efforts to influence new Cabinet officials

• Ongoing meetings and discussions with both industries resulted in a decision to reevaluate the existing policy
Tug of War Begins
Outline

• 6 P’s
  – Past
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PTS Process Continued...

- In the Fall of 2005, the Kentucky Transportation Cabinet assembled the following groups to review and revise its policy:
  - Federal Highway Administration (FHWA)
  - University of Kentucky Transportation Research Center at UK (KTC)
  - Asphalt Industry (PAIKY)
  - Concrete Industry (KCPA)
  - Kentucky Transportation Cabinet (KYTC)
Head-to-Head Meetings

• First time both industries were asked to be in the same room at the same time
• KYTC utilized a professional facilitator
• Both Industries made presentation on their issues and/or concerns
• Opposing industry had the opportunity to ask questions of the opposing industry
KYTC Draft Policy

- KYTC, KTC, and FHWA had already developed a draft PTS policy but did not provide that information to the industries at that time
- Wanted to get industry input before releasing first draft of new policy
Asphalt Industry Input

- Policy Issues
  - Initial Cost
  - Life Cycle Cost
    - Rehab Cycles
    - Bid Adjustments
  - Smoothness
  - Skid Resistance
  - Noise
  - Bidding Units

- Design Issues
  - Speed of Construction/Traffic Control
  - Subgrade Strength
  - Break & Seat Vs. Rubblization
  - Thickness Design
Concrete Industry Input

- Kentucky does not have a healthy “two pavement” system
- Concrete creates competition and lowers asphalt prices
- LCCA should be the one and only factor in pavement selection
- When the LCCA is close (within 10%) alternate pavement types
- The Transportation Cabinet has an obligation to “insure that the smaller industry survives.”
- Revert back to AASHTO 93 for thickness design
Outline

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Draft Policy Released

• Draft Policy Released to Industry in December

• Applies to new construction or rehab of Interstates, Parkways, routes with more than 5 million ESALs

• Division of Design provides analysis and data – Commissioner of highways makes final decision
Pilot Projects

• In addition to the draft policy, KYTC provided details and designs for the 3 projects that they plan to “test drive” under this new policy
  – Interstate widening and rehab of I-65 near the Tennessee State Line
  – Extension of the Breathitt Parkway in Western, Kentucky
  – Construction of a bypass around the city of Shelbyville
Follow-up Policy Meeting

• The same group met again in December to discuss the draft policy
• The highway Commissioner addressed the issues (one by one) brought up by industry in the previous meeting and provided a response/justification of their position on that issue
• Asked Industry to present follow-up comments regarding the policy and projects
Asphalt Industry Response

- Excessive Pavement Thickness
- Bid Adjustments
- Ride Quality
- Pavement Rehabilitation Cycles
  - Asphalt is stuck on a 10-year resurfacing cycle despite Superpave, polymer modified Binders, MTV’s, etc.
  - Concrete assumes some patching and grinding in years 15 and 30 but there is no true rehab in the 40-year analysis
Concrete Industry Response

• The concrete representative read a prepared statement/letter criticizing the Transportation Cabinet and their process
• As similar letter was faxed to the Governors office that day
• The felt as if their suggestions were not considered in the process and that the outcome was not fair to their industry
Final Policy

• Signed by the FHWA and KYTC in late February
• FHWA letter allows this policy and projects to utilize the Special Experimental Project No. 14 on a programmatic basis for federally funded projects
• FHWA request that the policy be re-evaluated after one year
Outline

- 6 P’s
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  - Projects
Politics

• Concrete industry letter to Governor’s office created a stir

• The Transportation Research Center at the University of Kentucky has been asked to evaluate the projects and policy after the three test projects have been awarded

• Attempted “asphalt-only” language for federal interstate projects in the state budget bill
Loss of federal dollars may doom asphalt-paving requirement

By Tom Loftus
tloftus@courier-journal.com
The Courier-Journal

FRANKFORT Ky. — A House budget provision that would require using asphalt instead of concrete for interstate construction projects in Kentucky appears dead because it puts federal highway dollars at risk.

In a letter sent Friday to the Transportation Cabinet, the Federal Highway Administration said the single sentence added to the budget “will jeopardize the federal-aid funding of all Interstate projects in Kentucky.”

Rep. Rob Wilkey, chairman of a House budget subcommittee that initated the amendment, said yesterday that “we need to take it back out” if it jeopardizes the federal money.

Senate President David Williams, R-Burkesville, said he wants the Senate to remove the provision.

“I don’t think that language is appropriate,” Williams said. “That’s a professional engineering decision that the legislature ought not be involved in.”

The highway administration letter said that requiring one type of surface for interstate projects violates a federal regulation that says the surface must be selected on each project based on safety, durability and cost.

During a four-hour meeting March 3, the House budget committee made hundreds of changes to the budget proposed by Gov. Ernie Fletcher — including the single sentence added to Page 12% of the 542-page bill to require asphalt on federally funded interstate projects.

Wilkey, D-Scottsville, said at the meeting that asphalt “seemed to be a preference” of the cabinet and local governments.

The provision was added, he said, See ASPHALT, B2, col. 3
Outline

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Pilot Projects

• All three projects will utilize “bid adjustments” which penalize the asphalt bidder
  – Kentucky has had warranties in the past but never bid adjustments
  – Bid Adjustments are calculated as the difference in future maintenance costs

• Ride standards are NOT equal – asphalt is held to a higher standard than concrete
Breathitt Parkway

- 2-mile extension of an existing parkway in western, Kentucky
- $175,000 bid adjustment (penalty)
- 12” PCC thickness versus 14.25” of HMA (40 Million ESALs)
- Advertised for the March 31, 2006 highway letting (this week)
Shelbyville Bypass

- New construction of a bypass around Shelbyville
- $471,000 bid adjustment (penalty)
- 10” PCC thickness versus 14.75” of HMA (7 Million ESALs)
  - CBR=2… no subgrade stabilization
- Advertised for the March 31, 2006 highway letting (this week)
I-65 in Simpson County

- 6-mile rehabilitation and widening of I-65
- $420,000 bid adjustment (penalty)
- 11” PCC thickness versus 14” of HMA on rubblized PCC (87 Million ESALs)
- Adjacent section had an 11” HMA overlay with a 10-year warranty
- Expected in the April Letting
Policy Evolution

- Following the lettings for these three projects, KYTC will re-evaluate the policy
- The Kentucky Transportation Center at UK will be involved in the review
- Per the FHWA, the policy will undergo another evaluate in a year
Wrap-Up

- Kentucky made a quick attempt to revise the Pavement Type Selection policy
- Both industries have serious concerns
- What will the future hold?
- Stayed tuned for the results of these three projects...
Any Questions?

Brian K. Wood, P.E.
Email: Brian@paiky.org
1-800-544-8522