National Asphalt Roadmap

Dale Decker

Peterson Conference
Western Research Institute
Laramie, WY
Construction Definitions

- Contractor: a gambler who never gets to shuffle, cut or deal
- Bid Opening: a poker game in which the losing hand wins
- Bid: a wild guess carried out to two decimal points
- Low Bidder: a contractor who is wondering what he left out
Construction Definitions

- **Project Manager**: the conductor of an orchestra in which every musician is in a different union.
- **Strike**: an effort to increase egg production by strangling the chicken.
- **Liquidated Damages**: a penalty for failing to achieve the impossible.
Construction Definitions

- Engineer’s Estimate: the cost of construction in heaven
- Auditor: people who go in after the war is lost and bayonet the wounded
- Lawyer: people who go in after the auditors and strip the bodies
A Commitment to the Future

Asphalt Pavement Research and Technology
Working Group

- Jon Epps (CART chair, Granite)
- Dave Newcomb (NAPA)
- Kent Hansen (NAPA)
- Steve Lenker (NSSGA)
- Ken Kobetsky (AASHTO)
- Tom Harman (FHWA)
- Mike Anderson (AI)
- Support: John D’Angelo, Katherine Petros, Bob Horan, Dale Decker
VISION:

Develop improved asphalt pavement technologies that ensure the continued delivery of safe and economical pavements to satisfy our Nation’s needs.
Asphalt Community

- Government agencies
- Industry
- Academia

All understand importance of HMA to the nation’s transportation system
Asphalt Industry

- Hot Mix Asphalt producers
- Paving contractors
- Asphalt binder suppliers
- Equipment suppliers
- Consultants

AC Roadmap 10
Collaboration

- Joint discussions focus direction for innovation
- Research accomplished in collaboration is more easily implemented
  - Reaps far greater gains

Significant progress will be achieved through a nationally coordinated effort to complete major projects
CART

• Roadmap builds on significant effort for last 10 years by NAPA’s committee
Overarching Themes

• Safety
• Environmental Stewardship
• Pavement Performance
• Economics
Program Areas

1. Workforce Development
2. Long-life Pavements and Pavement Performance
3. Improved Design of Pavements
4. Materials Characterization and Mix Design
5. Construction Practices and Quality Management
6. Innovative Contracting Practices
7. Surface Characteristics
Relationships between the Vision, Program Areas, and Themes

1. Workforce Development
   - Workforce
   - Safety
   - Economics
   - Performance

2. Long-Life Pavements & Pavement Performance
   - Environment
   - Safety
   - Economics
   - Performance

3. Improved Structural Design of Pavements
   - Environment
   - Economics
   - Performance

4. Materials Characterization & Mix Design
   - Environment
   - Safety
   - Economics
   - Performance

5. Construction Practices & QMS
   - Workforce
   - Economics
   - Performance

6. Innovative Contracting Approaches
   - Workforce
   - Economics
   - Performance

7. Surface Characteristics
   - Safety
   - Economics
   - Performance

Vision
Program 1

Workforce Development

Develop strategies to recruit, retain and develop the HMA workforce.
Program 2
Long-Life Pavements and Pavement Performance

Verify and improve technology for long-life pavement structural design, materials optimization, life cycle cost analysis and data collection techniques for pavement evaluation.
Program 3
Improved Structural Design of Pavements

Develop improved design methods which will optimize HMA pavements to accommodate future changes in traffic and materials while accounting for environmental effects.
Program 4
Materials Characterization and Mix Design

Develop test methods, specifications, and performance relationships which will lead to optimization of materials and mix design for asphalt pavements.
Program 5
Construction Practices and Quality Management Systems

Develop construction practices to improve quality, increase productivity, improve safety, and extend pavement life
Program 6
Innovative Contracting Approaches

Evaluate advantages and disadvantages of non-traditional financing and contracting approaches used for HMA projects.
Program 7
Surface Characteristics

Develop materials selection, design methods, QC/QA guidelines, performance relationships, and mix type selection for mixes to improve surface characteristics of HMA pavements.
HMA Industry Priorities
Identified by CART

• Long-Life Pavements
• Mix Design
• Performance Based Specifications
• Quality Management Systems
• Resource Availability and Cost Containment
Roadmap

- 69 Projects
- 2 to 3 page “problem statement” for each
  - Introduction
  - Background
  - Overview of research topic
- Wide variety of general subject areas
- Various research approaches may be used
  - Other research may be in progress
AC Roadmap

www.hotmix.org
HMA Roadmap

NAPA in association with FHWA and AASHTO are developing the HMA Roadmap which will outline needed research for the HMA community in the near future. This Roadmap has been revised. To download the revised Roadmap and submit comments to the please [click here](#).
Purpose of the Roadmap...

- This document is the result of public-private partnership and encapsulates the shared vision of the Asphalt Community for research and technology.
Many individuals and groups provided direct input to the Roadmap.
Purpose of the Roadmap…

• Purpose is to serve as a **guiding document to research and technology transfer** organizations in formulation and identification of programs and projects.

• Individuals and groups are encouraged to draw upon and share this document.
Purpose of the Roadmap.

• Roadmap vision is to foster collaboration, partnership, and cooperation within Asphalt Community to ensure continued delivery of safe and economical pavements to satisfy our Nation’s needs.
Asphalt Roadmap

Shared Vision
“Living Document”
Thank You!