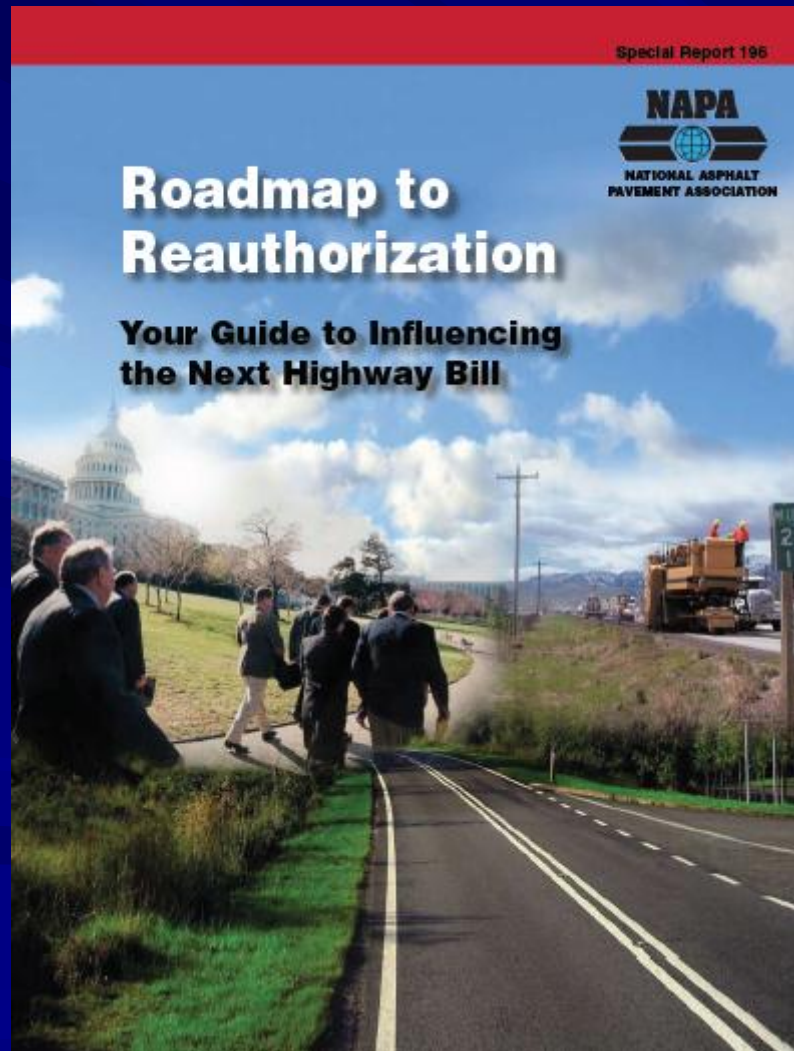


What's Hot In Hot-Mix Asphalt

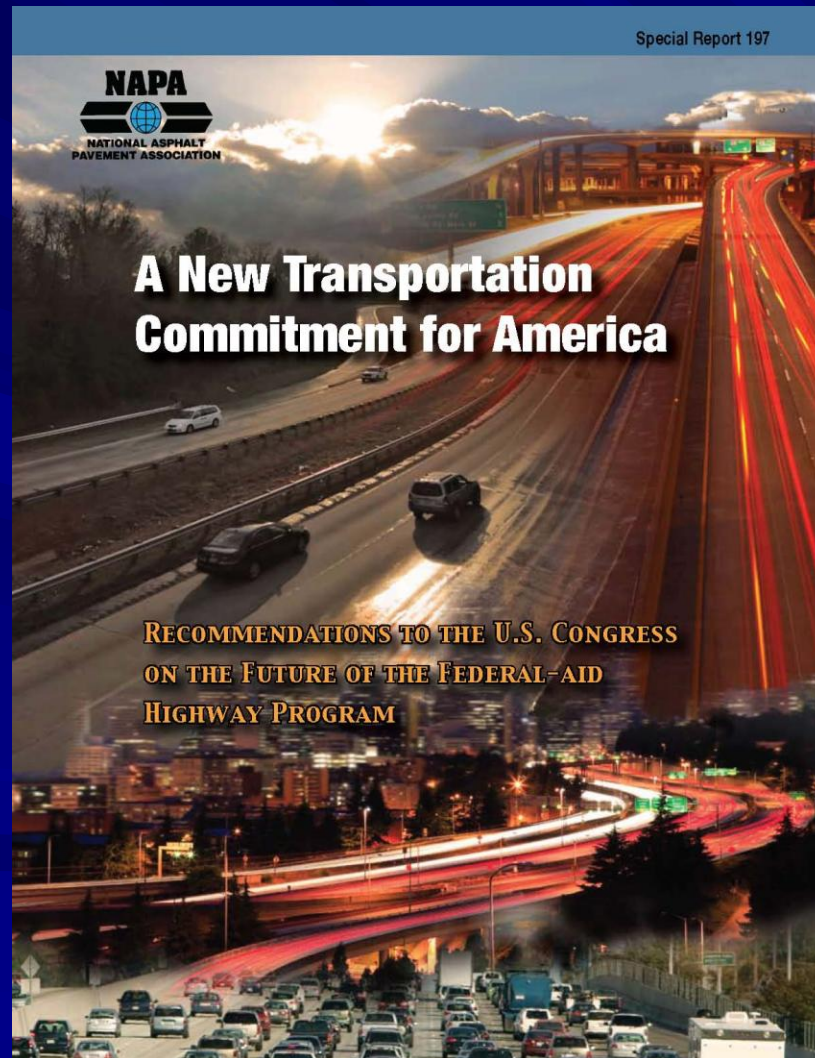
**Mike Acott
NAPA President**

**Association of Modified Asphalt Producers
9th Annual Meeting
February 11-13, 2008**

Reauthorization



NAPA White Paper



IARC Monograph – A High Stakes Ballgame!

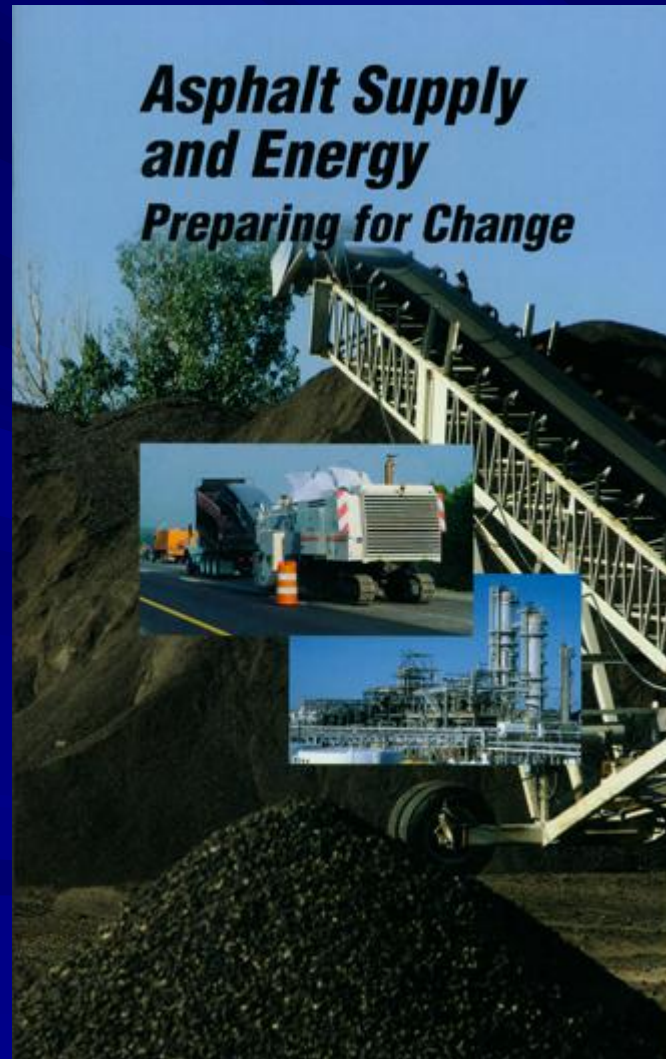
- Cancer Classification Review Upcoming
- Exposure Risk Associated with Asphalt/Asphalt Fume
- Significant U.S. Regulatory, Activist, & Legal Implications



International Agency for Research on Cancer

Centre International de Recherche sur le Cancer

Asphalt & Energy



Quality Improvement Series 126



Energy Conservation in Hot-Mix Asphalt Production



Recycling

- ◆ Oil Embargo - 1974
 - Gas prices skyrocket to
 - Gas lines
- ◆ Industry
 - Look to Recycling
 - Minnesota Heat Transfer
 - Mix Design Changes
 - Milling Machines
 - Today
 - Fractionate RAP
 - Greater RAP Content



Quality Improvement Series 124



Designing HMA Mixtures with High RAP Content A Practical Guide



U.S. Department
of Transportation
Federal Highway
Administration



Warm Mix Asphalt



Benefits of WMA

- Reduced odors
- Reduced Fuel
- Reduced Emissions
- Higher RAP
- Improved Working Conditions
- Cold Weather Paving
- Longer Haul Distances

WMA Goals

- Use existing Hot Mix Asphalt plants
- To meet existing standards for Hot Mix Asphalt specifications
- Must work with Superpave, SMA
- **WMA quality = Hot Mix Asphalt quality**

Quality Improvement Series 125



Warm-Mix Asphalt: Best Practices



ASPHALT SUSTAINABILITY

- ◆ Porous pavements manage stormwater
- ◆ OGFCs mitigate UHI
- ◆ Asphalt accepts recycled goods / are recycled
 - Less energy to construct, low carbon footprint
- ◆ WMA lowers energy consumption & emissions
- ◆ RAP can offset the entire annual HMA plant GHG emissions



Heat Island Effect

[Contact Us](#) | [Print Version](#) | [Search](#)

[EPA Home](#) > [Heat Island Effect](#) > [What Can Be Done](#)

Cool Pavements

■ Denotes link to glossary definition

There is no official standard or labeling p early stage.

While studies show that pavements can several factors. These include the im time; and the absorption by buildings

There are that lower roadways

Investigat pavement pavement constructi

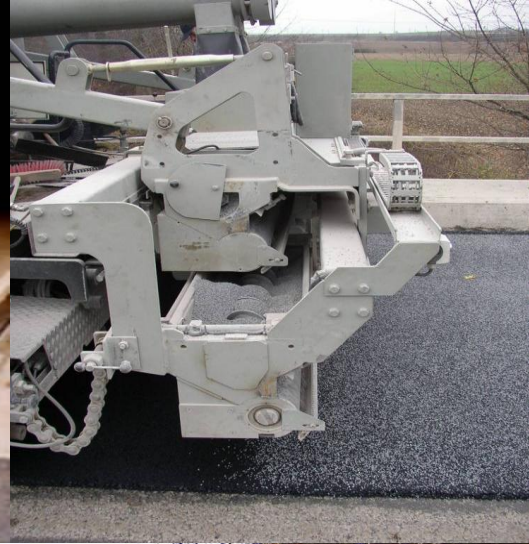
Other fact the best s help with s

Pavement Temperatures vs. Albedo



- pavement thickness
- material capacities
- surface vs. air temperatures
- pavement air voids (OGFC) cooler
- UHI does NOT cause Global Warming

“Gritting”:
reflective chips
and aggregate



reflective pavements



Shot-Blasting: abrading surface binder

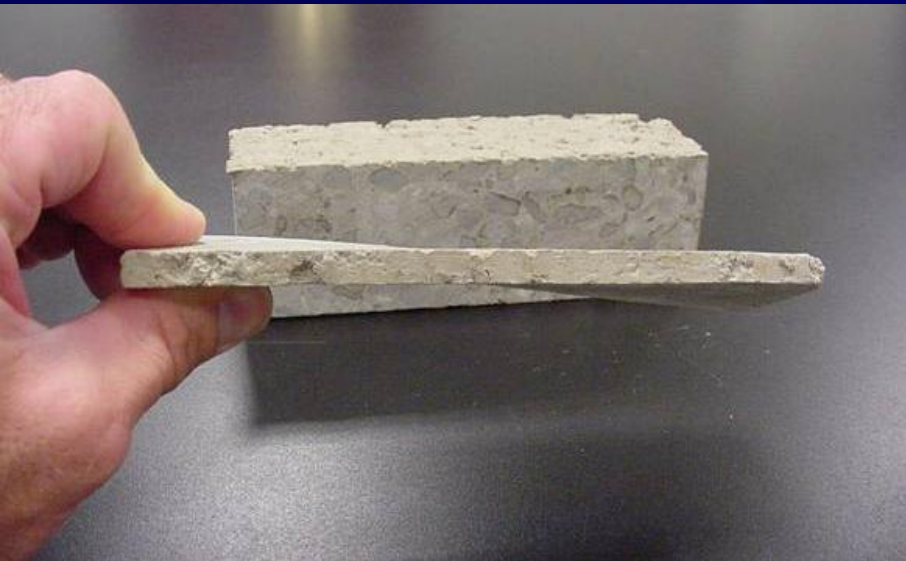


 **BLASTRAC**

reflective pavements



Synthetic and Colored Binders: using reflective aggregates



reflective pavements

Competition

- ◆ Aggressive Competition Marketing Campaign
- ◆ Focus on Environmental Issues
- ◆ Negative Approach
- ◆ APA (Pete Grass)

Environmental Landscape

- ◆ Climate Change
- ◆ Tougher Ozone Standards
- ◆ Increased Activism
- ◆ Energy Concerns
- ◆ Political Change
- ◆ International Developments

Challenges & Opportunities

- ◆ Plant Zoning
- ◆ Asphalt & Energy
- ◆ Asbestos Regulation
- ◆ Ozone/PM 2.5/Ozone
- ◆ Urban Heat Island
- ◆ Stormwater
- ◆ Competition
- ◆ REACH
- ◆ IARC Monograph

Information Series 133



Bold Initiatives in the Asphalt Industry

**To Safeguard
Health, Safety, and
the Environment**



