APA Unleashed

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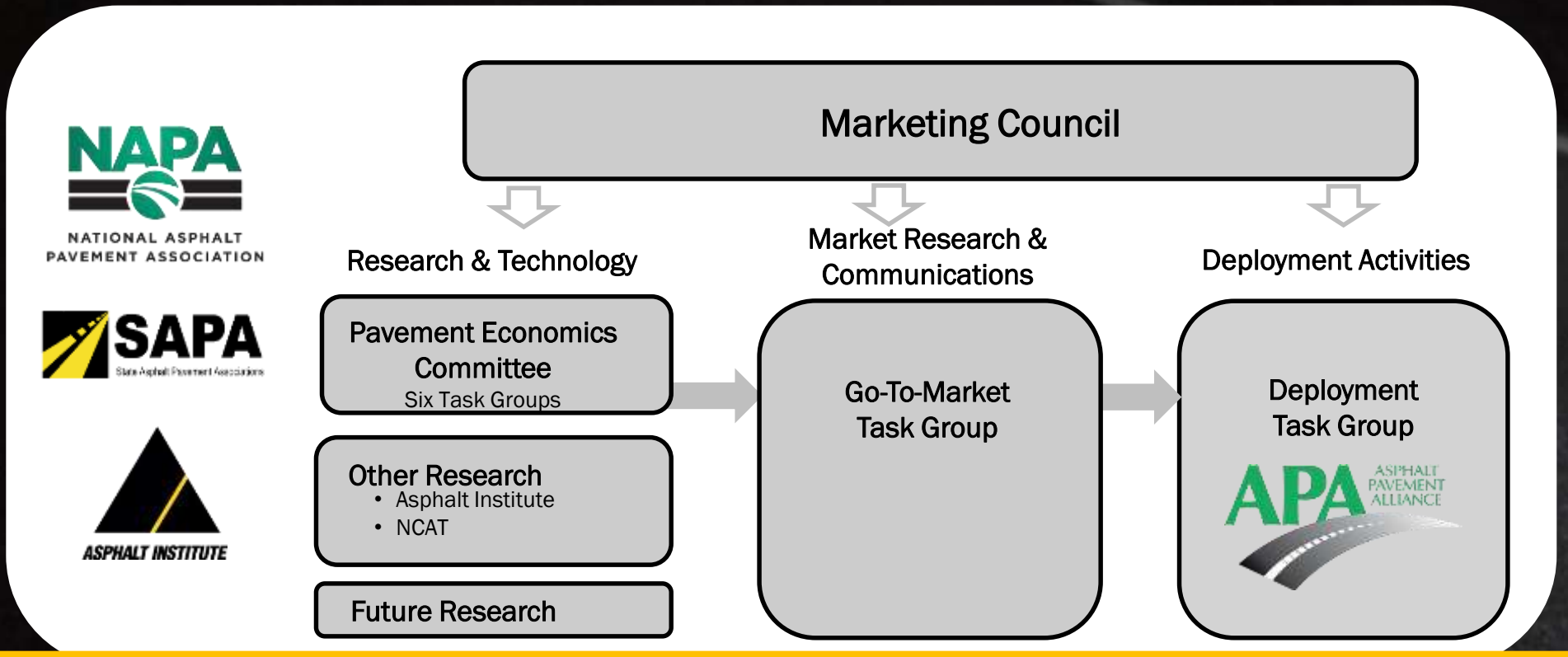
The APA is a partnership of the Asphalt Institute, National Asphalt Pavement Association, and the State Asphalt Pavement Associations. We were formed nearly 10 years ago to promote the increased use of asphalt.

ASPHALT INSTITUTE®

NAPA
NATIONAL ASPHALT
PAVEMENT ASSOCIATION

SAPA
State Asphalt Pavement Associations



Market Organizational Structure

PEC Task Groups

- Best Quality & Competitiveness
- Environmental Sustainability
- Legislative
- Pavement Type Selection
- Pavement Design
- Pavement Preservation
- Private Sector Markets & Local Roads

NATIONAL ASPHALT PAVEMENT ASSOCIATION

Pavement Economics Committee

Technology & Innovation

- Best Quality & Competitiveness
- Pavement Type Selection
- Pavement Design

PaveXpress

- Pavement Preservation

THINLAY
SAFE. SMOOTH. DURABLE.

- Environmental Sustainability

Environmental Product Declaration
NAPA CERTIFIED

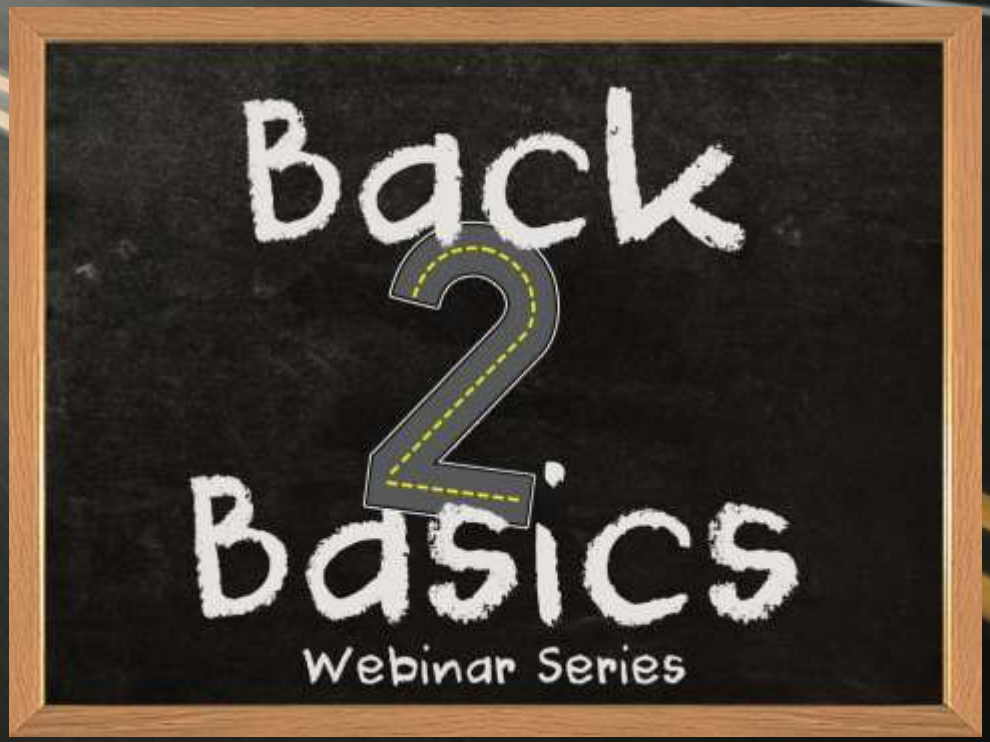
IRI Explorer

- Legislative

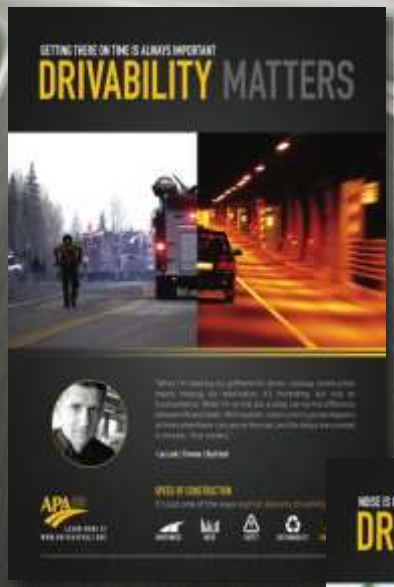
Training

Completed
“On Demand”
Binder — February
Aggregate - March

Scheduled:
Volumetrics — Tuesday, April 4
Mix Design — Thursday, April 27
Plants — Thursday, May 25
Paving — Wednesday, June 7



Go To Market



Asphalt. AMERICA RIDES ON US

APA ASPHALT PAVEMENT ALLIANCE

Messaging

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Video

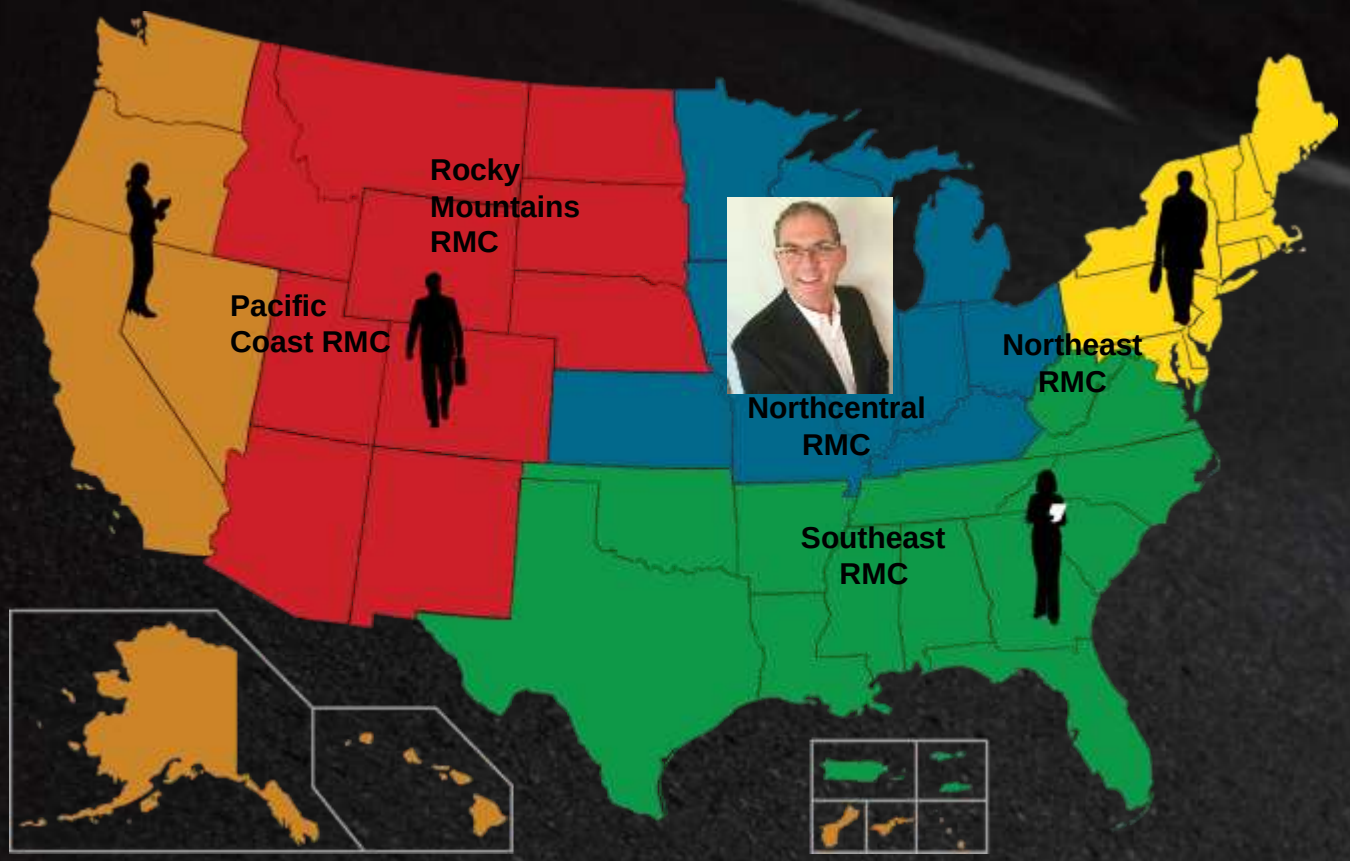
Market Organizational Structure

To establish asphalt pavement as the preferred choice for quality, performance and the environment.

Mission

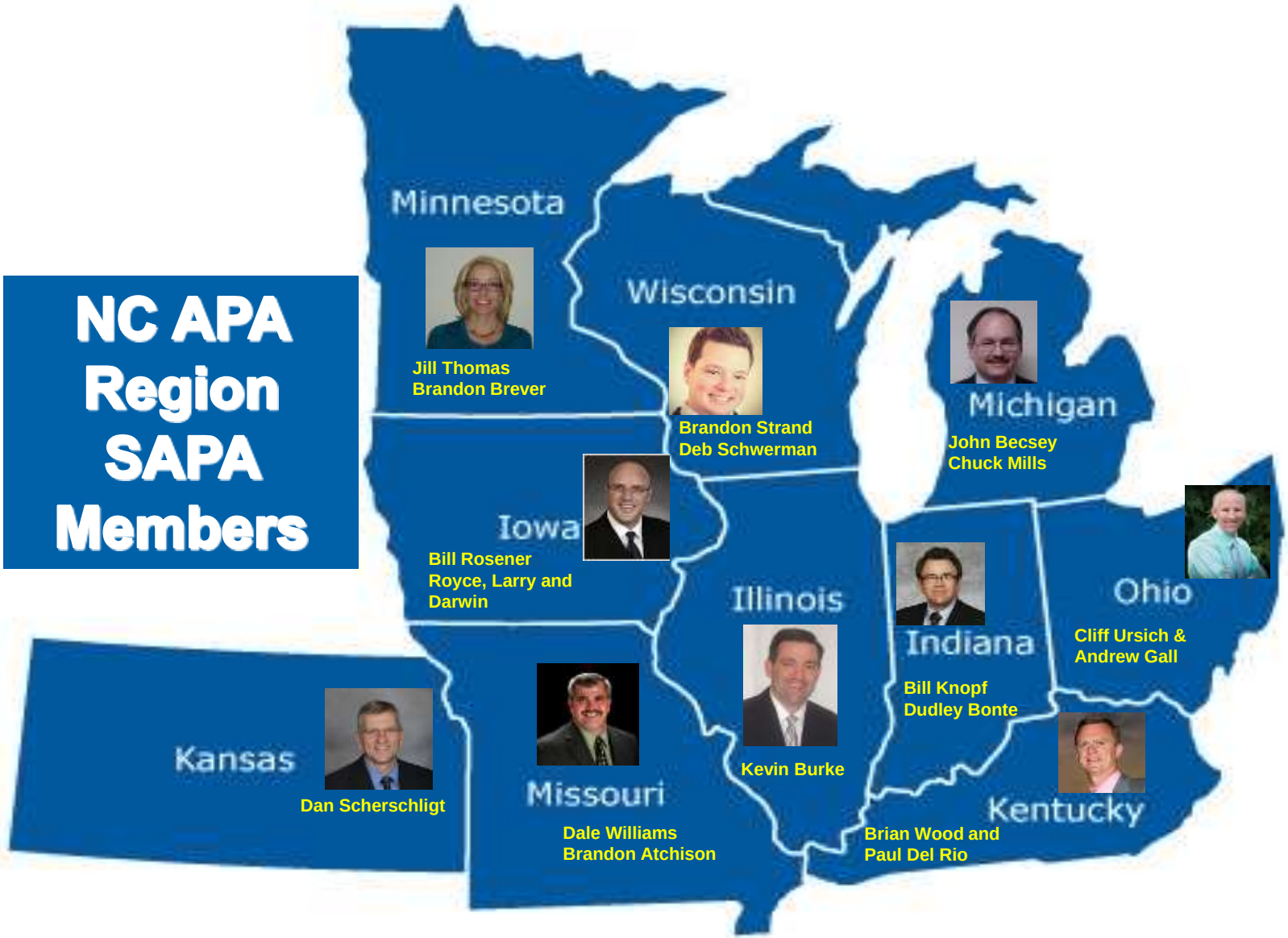
Amy Miller
National Director

Five regional councils focused on what works in the field to the benefit of the asphalt pavement industry locally and nationally.

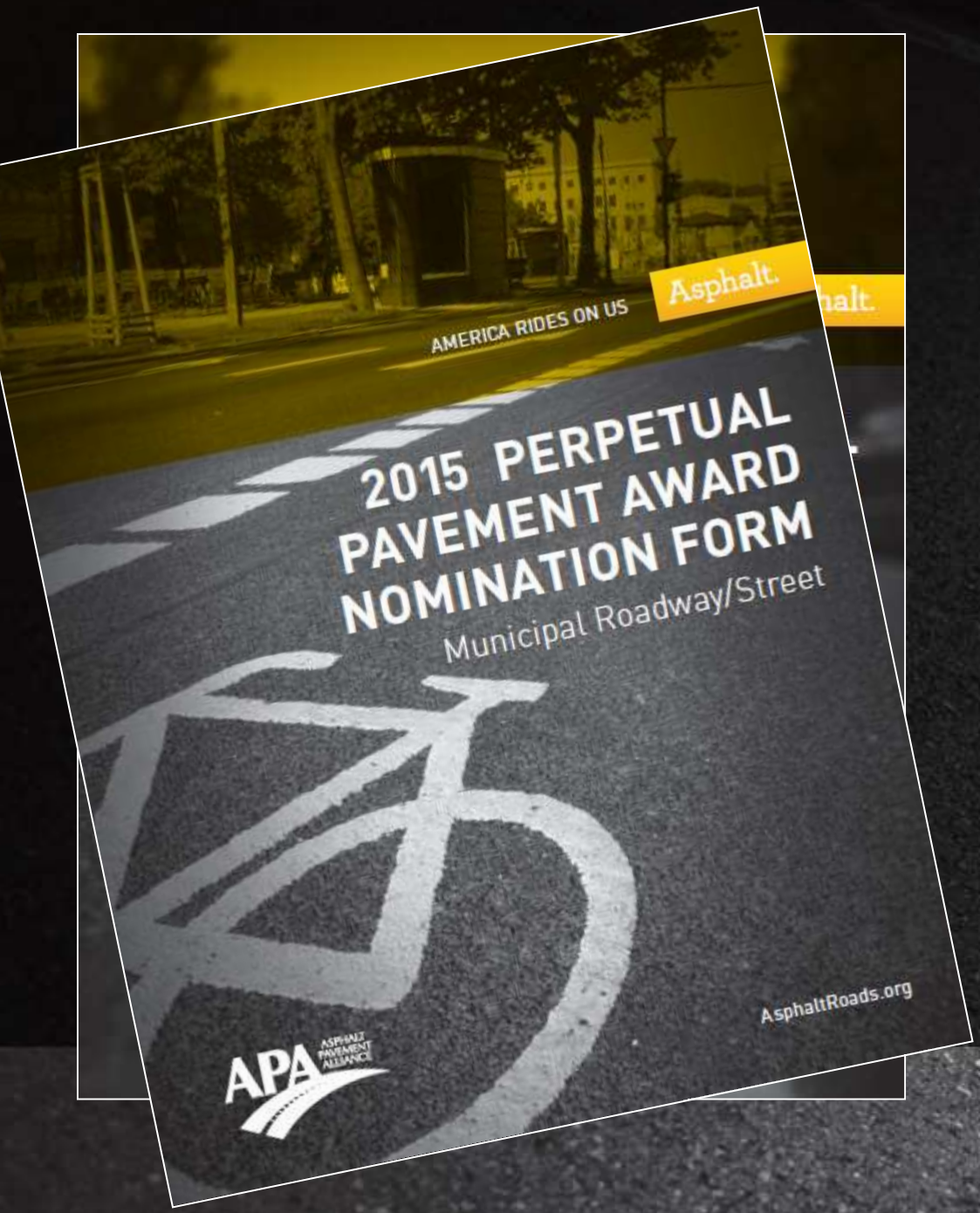


Regional Marketing Councils

NC APA Region SAPA Members



Perpetual Pavement



Criteria:

- 35+ years old
- 13+ years between overlays (average)
- No increase > 4"

This award honors asphalt pavements that were designed and built with outstanding care and exceptional quality. The result is a long-lasting pavement, one that serves the traveling public well, provides true value to the taxpayers, and demonstrates both the convenience and the quality of asphalt pavements.

Regional Initiatives

- **Life Cycle Cost Analysis**
  - GOAL: Adapting standard procedure for LCCA in NC Region that can incorporate state specific input. Gather best practices and deploy best strategies with region
- **Rehab Competition**
  - GOAL: Create competitive industry message promoting best HMA practices.
- **Proper Design Thickness**
  - GOAL: Promote initiatives designed to teach designers how to optimize pavement design while ensuring performance.
- **Commercial Market Strategy**
  - GOAL: Implement tools designed to enhance market share in private sector market.

WARNING!

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APA ASPHALT PAVEMENT ALLIANCE

Versatility

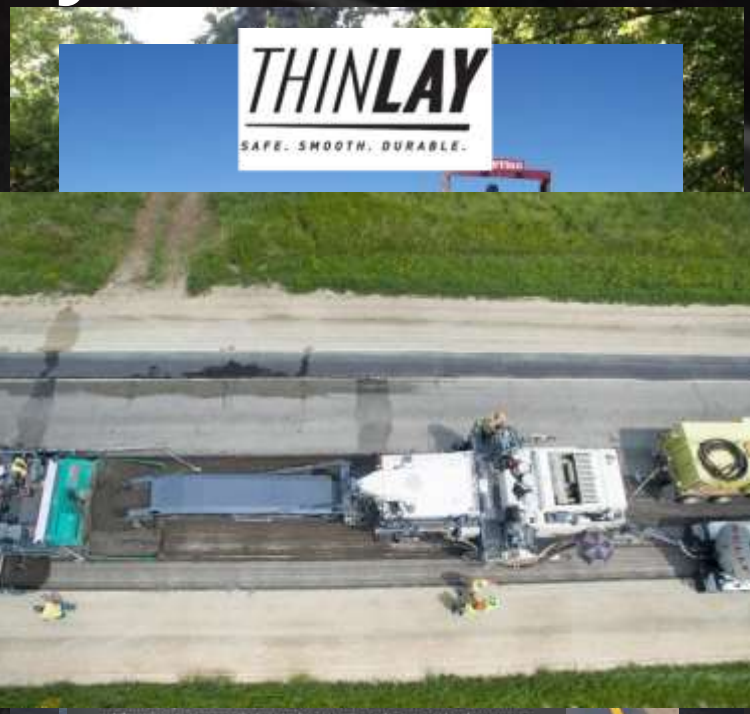
ver·sa·tile

(vûr′sə-təl, -tīl′)*adj.*

1. Capable of doing many things competently.

2. Having varied uses or serving many functions:

3. Variable or inconstant; changeable:



A Miracle Product

Placement

- History
  - Pavers
  - Smoothness
  - Transfer Machines
  - Segregation Understood
    - Mix
    - Heat
- Speed of Construction
  - Get out of the Traffic

Recycle

- History
  - 80’s – Today
  - NAPA Report
    - 25% Just Be Careful
    - Additional Testing
  - Drivability
    - 2.8$ Billion Saved Annually

Inspection

- 80’s – Today Quality Initiatives
  - QMA, QC, QMP
- Increased Knowledge
  - Agency
  - Industry
- Performance Testing

Durability & Design

- Durability
  - Density = Life
    - 1% = LCCA savings 8.8%
  - AC Content
  - Understand Rutting
- Optimized Design

In summary, results
increased in-place air voids
summarizes these results. De
voids was estimated to impro
and 43.8%.

Table 1. Effect of Air Voids on

Study	Lab/Field Experimer
UCB (Epps and Monismish 1969)	Lab
UCB (Harvey and Tsai 1996)	Lab
WesTrack (Epps et al. 2002)	Lab
	Field
AI (Fisher et al. 2010)	Lab

[1] (Seeds et al. 2002)

NCAT Report 16-02

ENHANCED COMPACTION TO IMPROVE DURABILITY AND EXTEND PAVEMENT SERVICE LIFE: A LITERATURE REVIEW

By
Nam Tran, Ph.D., P.E., LEED GA
Pamela Turner
James Shambley

April 2016

National Center for Asphalt Technology
NCAT
at AUBURN UNIVERSITY

277 Technology Parkway ▫ Auburn, AL 36830

Review of Initial Service Life Determination in LCCA Procedures and In Practice – *DRAFT*

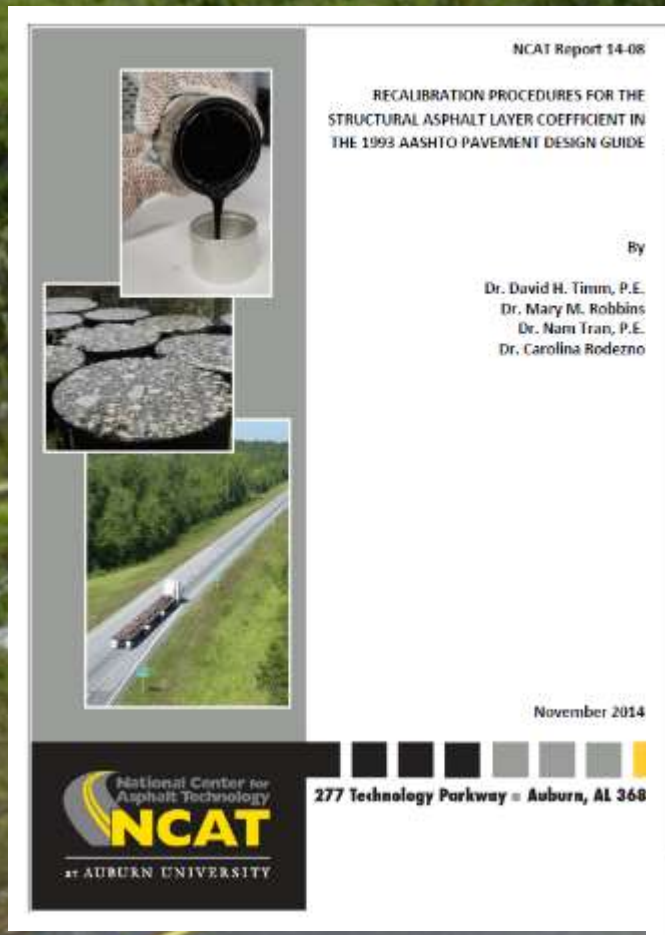
Summary of Middle 90% of Pavement Ages at Time of 1st Rehab

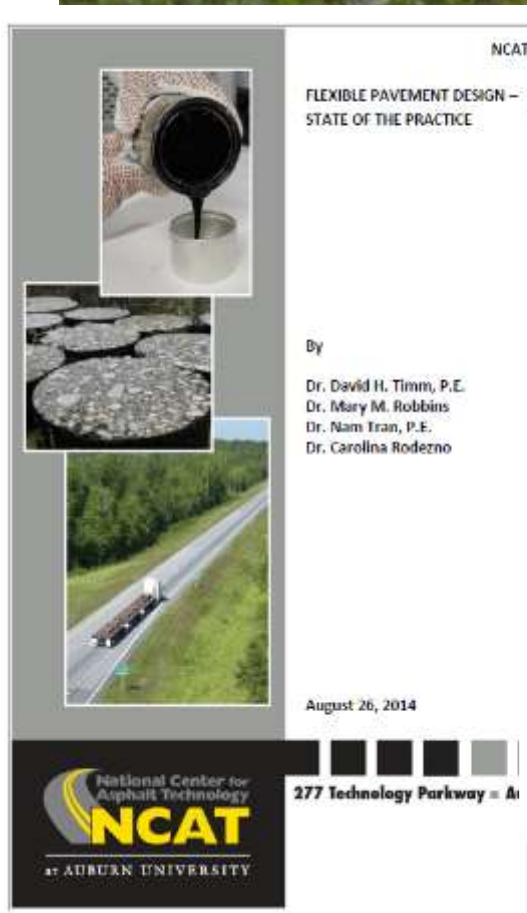
Pavement Type	No.	Avg	Min	Max	Std Dev
AC	206	17.68	7.09	28.93	5.51
PCC	121	23.84	12.88	35.44	5.79

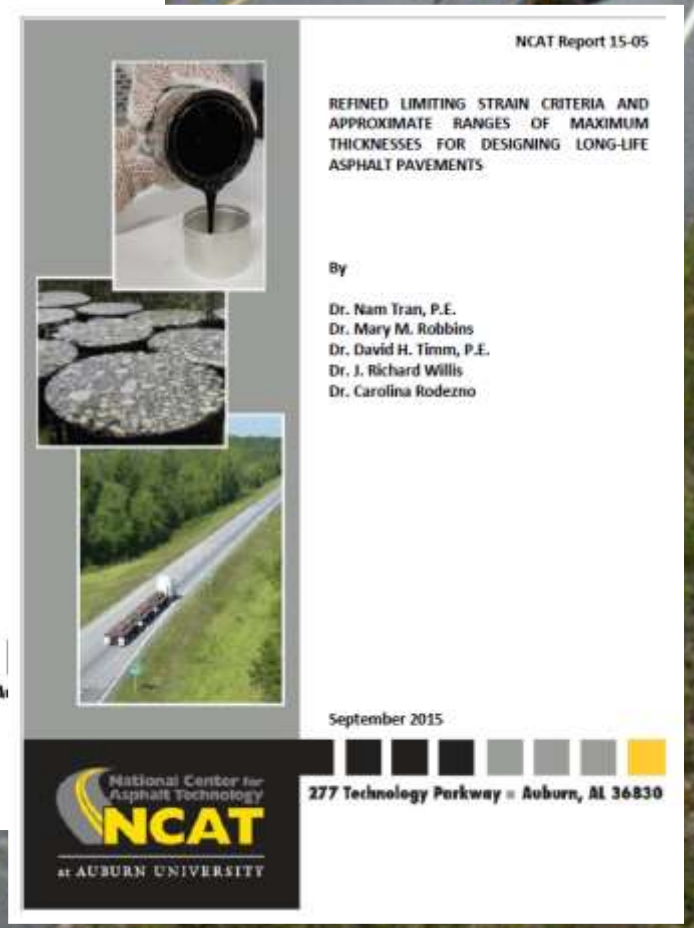
Ride Quality (IRI) Prior to Rehabilitation

	Percent of Total Pavement Sections				
Pavement Type	Very Good** < 60	Good 61 – 95	Fair 96 – 120	Poor 121 – 170	Very Poor > 170
AC Pavements	9.6%	34.3%	24.1%	17.5%	14.5%
PCC Pavements*	1.1%	23.3%	26.7%	34.4%	14.4%

Advancements in Flexible Pavement Design

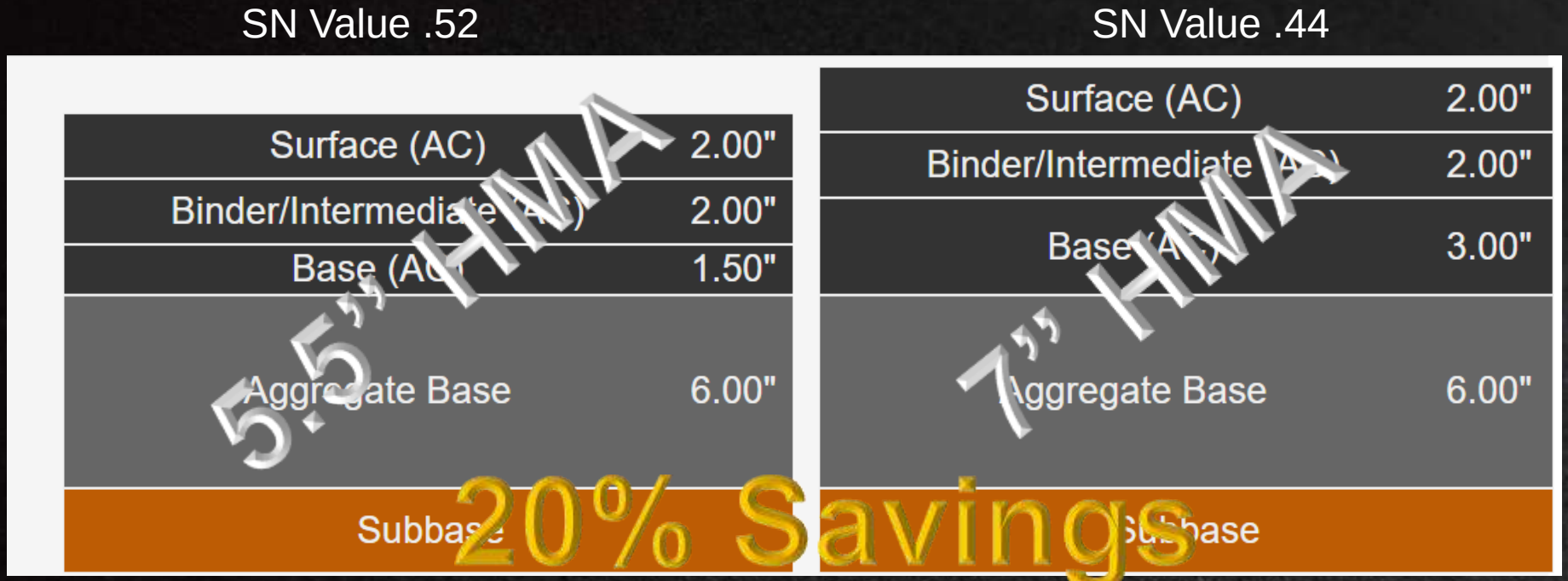






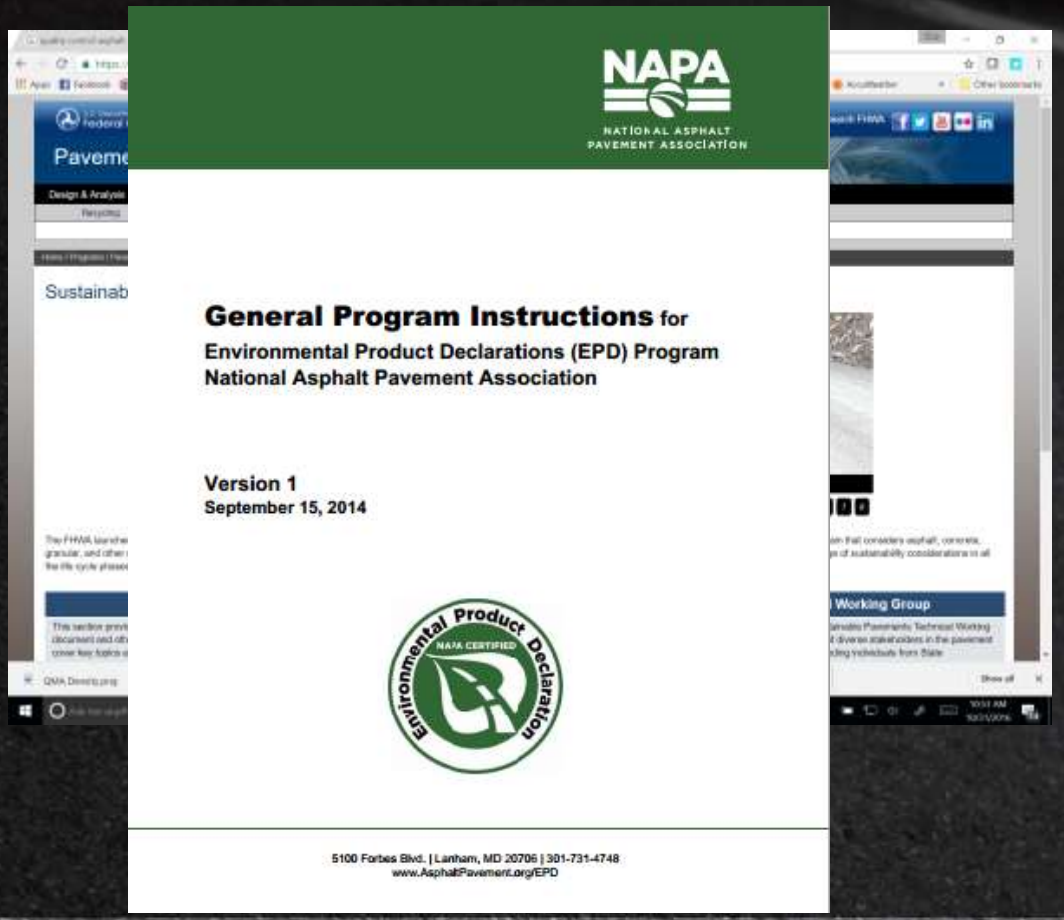
http://eng.auburn.edu/research/centers/ncat/info-pubs/technical-reports.html

What does Optimized Design mean?

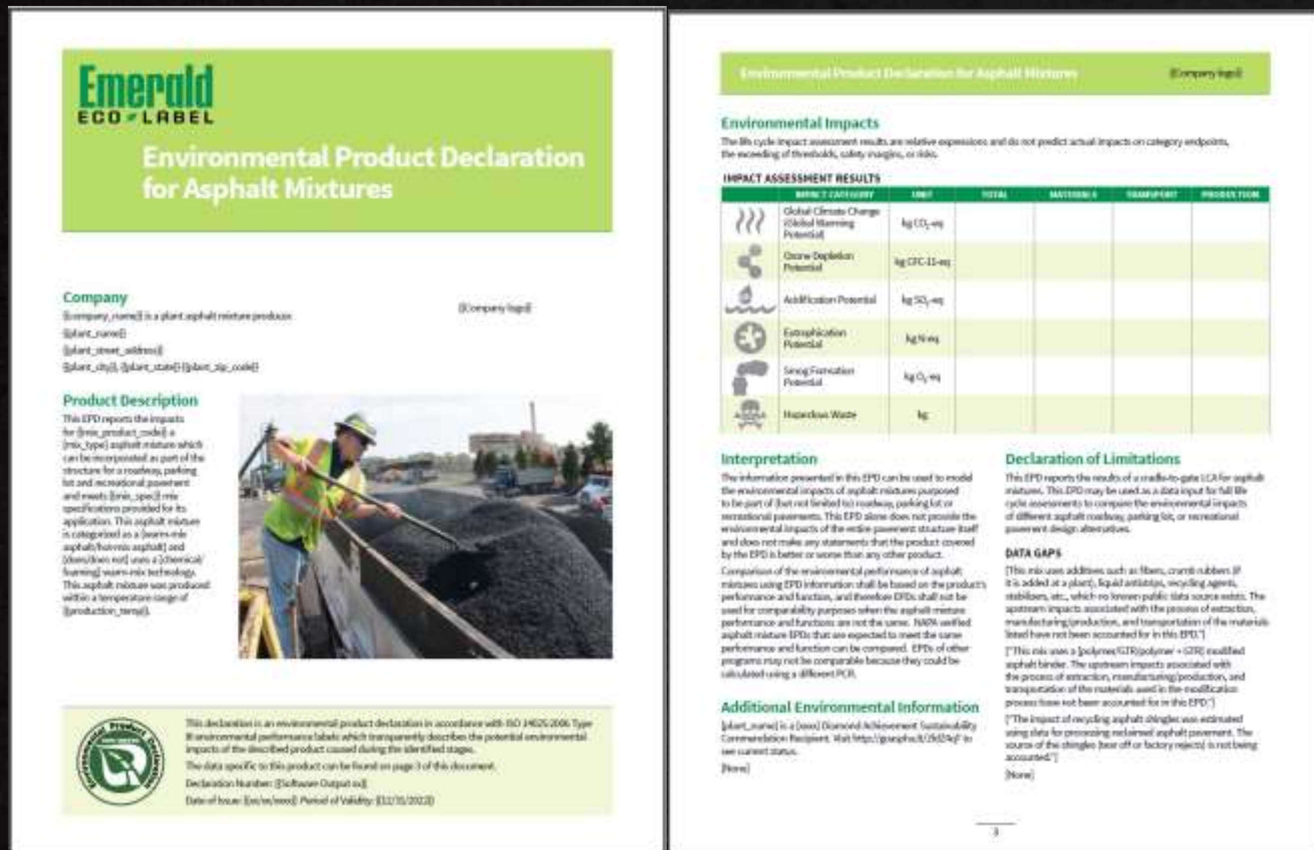


Environment

- Sustainability
- Can’t improve what we do not measure
- LCA
- EPD’s
  - NAPA
  - Industry ready



Emerald ECO LABEL


Emerald ECO LABEL

Environmental Product Declaration for Asphalt Mixtures

Company

[Company logo]

Product Description

Environmental Product Declaration for Asphalt Mixtures [Company logo]

Environmental Impacts

IMPACT ASSESSMENT RESULTS

IMPACT CATEGORY	UNIT	TOTAL	MATERIALS	TRANSPORT	PRODUCTION
Global Climate Change (Global Warming Potential)	kg CO_2-eq				
Ozone Depletion Potential	kg CFC-11-eq				
Acidification Potential	kg SO_2-eq				
Eutrophication Potential	kg N-eq				
Smog Formation Potential	kg O_3-eq				
Hazardous Waste	kg				

Interpretation

Declaration of Limitations

DATA GAPS

Additional Environmental Information

Recap

- Placement
- Recycle
- Inspection
- Durability
- Environment

= PRIDE

Thank You

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