



# Asphalt Pavement Alliance

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## Today

- Who is the APA?
- Regional & National Focus
- LCCA Assets Available

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## ASPHALT PAVEMENT ALLIANCE

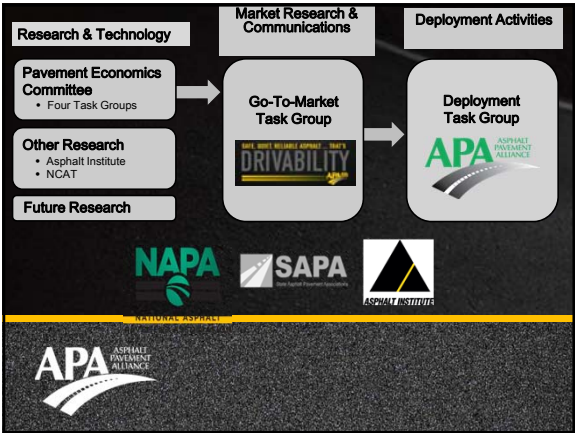


Go-To-Market Task Group



Deployment Task Group



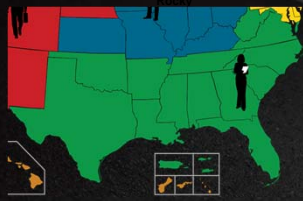



Five regional councils focused on what works in the field to the benefit of the asphalt pavement industry locally and nationally.



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## Regional Councils



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## Southeast Regional Council

## Top Regional Initiatives

- Quality Construction Instruction
- Pavement Preservation

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POSITION PAPER NATIONAL ASPHALT PAVEMENT ASSOCIATION  
Thinlays: The Pavement Preservation Tool of Choice  
NAPA Position on Thin Asphalt Overlay for Pavement Preservation

Thinlay  
SAFE. SMOOTH. DURABLE.

Visit [ThinlayAsphalt.org](http://ThinlayAsphalt.org)

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Thinlays

## APA National Deployment

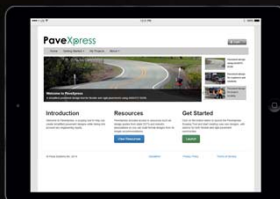
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## Top National Initiatives

- PaveXpress
- Commercial Market Strategies
- LCCA

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- Free, Simplified Design Tool
- Web-Based (Always Up-to-Date)
- AASHTO 93/98
- Flexible & Rigid
- New Construction & Overlays
- Default or Custom Values
- Context-Specific Help

[www.PaveXpressDesign.org](http://www.PaveXpressDesign.org)

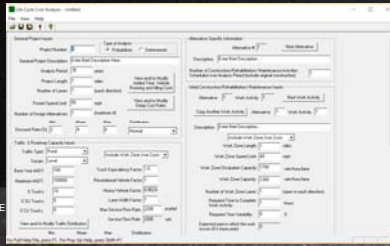
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PaveXpress



## LCCA Express Software

- Based on FHWA
- Download at asphaltroads.org



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## LIFE CYCLE COST ANALYSIS for PAVEMENTS

- Module 1: Basic LCCA concepts, steps, and inputs
- Module 2: Concrete marketing myths and reality
- Module 3: Example LCCA

### Educational Program

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## Module 1

### Outline for Module 1

#### Overview of LCCA

- Why use an LCCA?
- Elements of LCCA

#### Key LCCA Inputs

- Analysis Period
- Performance Periods
- Cost Data
- Discount Rate
- Salvage Value
- User Costs

#### Other Related Issues

- Pavement Design
- Triggers

#### Analysis Methods and Programs

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## Module 2

### 3 CONCEPTS PROMOTED BY THE CONCRETE PAVEMENT INDUSTRY

- 1. The Materials Specific Discount Rate**  
*Trying to predict commodity prices is a foolish venture.*
- 2. The Useful Advantage of the Asphalt Index**  
*Price adjustment clauses are a fair way to deal with volatile material prices.*
- 3. Predictions by the MEPOG are gospel**  
*Use real performance data to set performance periods.*

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## Module 3

### Learning Outcomes

- Demonstrate the program LCCA for conducting an example life cycle cost analysis
- Review the inputs required for an LCCA
- Review the differences between Deterministic and Probabilistic analyses

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Coming December, 2017



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PaveXpress

IRI Explorer



Pavement-Vehicle Interaction

UHI & Albedo Requirements

NCAT Modules



Criteria:

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

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Perpetual Pavement Award



Ten states received in 2017: Alabama, Arkansas, Colorado, Florida, Minnesota, Montana, **Pennsylvania**, South Carolina, Tennessee and Washington.



ON US

SR 73 Berks County




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Debut: World of Asphalt  
Houston, 2018

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VIDEO

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### How To Design A Road To Withstand Time, Traffic, and Taxpayers

#### Perpetual Pavement Design



- Asphalt Surface**  
Kerf and periodically maintained to ensure a high level of skidability. Surface type can be customized depending upon road operating conditions. Friction courses for safety, stone matrix asphalt for added durability, thermoplastic for pavement preservation, etc.
- Asphalt Base**  
SMA structural layer designed to distribute loads and resist structural rutting. Optimize materials and coats with use of RAP, RCA, and other recycled materials.
- Fatigue Resistant Asphalt Layer**  
Flexible layer designed to prevent fatigue cracking and bottoming. Consider the overall thickness of the structure and the materials. All this layer help limit the maximum tensile strain to below the fatigue endurance limit.
- Permanent Subgrade**  
The subgrade may be stabilized or unstabilized.

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