

2021 ACC AIRFIELD PAVEMENT DESIGN, EVALUATION & ANALYSIS WORKSHOP AGENDA

December 7-9, 2021 / Indianapolis, IN

TUESDAY, DECEMBER 7, 2021

7:15 – 8:15 a.m. – **Registration** – *Cosmopolitan A/B Foyer*

7:15 – 8:15 a.m. – **Breakfast** – *Cosmopolitan A*

8:15 – 8:30 a.m. – **Workshop Introduction** - *Cosmopolitan B*

8:30 – 9:15 a.m. – **Overview of Airfield Pavement Design** - *Cosmopolitan B*

Monty Wade, P.E., President, Applied Pavement Technology, Inc.

- The Evolution of Airfield Pavement Design
- Empirical Procedures
- Mechanistic-Empirical Procedures

9:15 – 10:00 a.m. – **Airfield Pavement Types and Pavement Performance** - *Cosmopolitan B*

Monty Wade, P.E., President, Applied Pavement Technology, Inc.

- Overview of Pavement Types (Flexible, Rigid, and Composite)
- Paving Materials
- Base/Subbase Materials
- Pavement Performance

10:00 – 10:15 a.m. – **Break**

10:15 – 11:15 a.m. – **Subgrade Soils and Granular Materials** - *Cosmopolitan B*

Harold V. Honey, P.E., PMP, Senior Airfield Pavement Engineer, Federal Aviation Administration (FAA)

- Characterizing Pavement Materials
- Aggregate Bases
- Stabilized Bases
- Drainable Bases
- Evaluating In-Place Conditions
- Determining Inputs for Pavement Design
- Frost Protection Considerations

11:15 – 12:00 noon – **Aircraft Traffic** - *Cosmopolitan B*

Genevieve Long, P.E., LEED AP, Program Director, Applied Pavement Technology, Inc.

- Gear Types and Naming Conventions
- Cumulative Damage Factor (CDF)
- Pass-to-Coverage Ratio (P/C)
- Characterizing Aircraft Loads in FAARFIELD

12:00 – 1:00 p.m. – **Lunch** - *Cosmopolitan A*

1:00 – 2:00 p.m. – **Flexible Pavement Design** - *Cosmopolitan B*

Harold V. Honey, P.E., PMP, Senior Airfield Pavement Engineer, Federal Aviation Administration (FAA)

- Failure Mechanisms
- Required Input Variables
- Flexible Pavement Design
- Using FAARFIELD

2:00 – 3:15 p.m. – **Workshop Case Study: Flexible Pavement Design - *Cosmopolitan B***
Genevieve Long, P.E., LEED AP, Program Director, Applied Pavement Technology, Inc.

3:15 – 3:30 p.m. – **Break**

3:30 – 4:15 p.m. – **Rigid Pavement Design - *Cosmopolitan B***
Monty Wade, P.E., President, Applied Pavement Technology, Inc.

- Failure Mechanisms
- Required Input Variables
- 3-D Finite Element Model
- Rigid Pavement Design
- Using FAARFIELD

4:15 – 5:00 p.m. – **Workshop Case Study: Rigid Pavement Thickness Design - *Cosmopolitan B***
Monty Wade, P.E., President, Applied Pavement Technology, Inc.

5:00 – 5:15 p.m. – **Daily Workshop Wrap-Up - *Cosmopolitan B***

5:45 – 7:00 p.m. – **Networking Reception – *Studio Lounge***

WEDNESDAY, DECEMBER 8, 2021

7:30 – 8:15 a.m. – **Breakfast - *Cosmopolitan A***

8:15 – 9:00 a.m. – **Update on AC 150/5370-10H: Standard Specifications for Construction of Airports - *Cosmopolitan B***

Harold V. Honey, P.E., PMP, Senior Airfield Pavement Engineer, Federal Aviation Administration (FAA)

9:00 – 10:30 a.m. – **Rigid Pavement Design Details - *Cosmopolitan B***
Monty Wade, P.E., President, Applied Pavement Technology, Inc.

- Slab Size
- Joint Considerations (Types, Spacing, Sealant)
- Load Transfer
- Reinforcing Steel

10:30 – 10:45 a.m. – **Break**

10:45 – 11:30 a.m. – **Workshop Case Study: Rigid Pavement Design Details - *Cosmopolitan B***
Monty Wade, P.E., President, Applied Pavement Technology, Inc.

11:30 – 12:00 noon – **Pavement Design for Airfield Shoulders - *Cosmopolitan B***
Genevieve Long, P.E., LEED AP, Program Director, Applied Pavement Technology, Inc.

- The Purpose of Shoulders
- Material Requirement
- Shoulder Design Procedure

12:00 – 1:00 p.m. – **Lunch - *Cosmopolitan A***

1:00 – 1:45 p.m. – **Overlay Design - *Cosmopolitan B***

Harold V. Honey, P.E., PMP, Senior Airfield Pavement Engineer, Federal Aviation Administration (FAA)

- HMA Over HMA
- Full-Depth Reclamation
- HMA Over Rubblized PCC
- HMA Over PCC
- PCC Over PCC
- PCC Over HMA

1:45 – 3:15 p.m. – **Pavement Evaluation and Overlay Considerations - *Cosmopolitan B***
Genevieve Long, P.E., LEED AP, Program Director, Applied Pavement Technology, Inc.

- Pavement Evaluation Process
- Analysis of Existing Pavements
- Overlay Considerations
- Reflection Crack Control Measures

3:15 – 3:30 p.m. – **Break**

3:30 – 4:30 p.m. – **Workshop Case Study: Overlay Design - *Cosmopolitan B***
Genevieve Long, P.E., LEED AP, Program Director, Applied Pavement Technology, Inc.

4:30 – 5:00 p.m. – **Current Airfield Pavement-Related Research - *Cosmopolitan B***
Harold V. Honey, P.E., PMP, Senior Airfield Pavement Engineer, Federal Aviation Administration (FAA)

5:00 – 5:15 p.m. – **Workshop Daily Wrap-Up - *Cosmopolitan B***

THURSDAY, DECEMBER 9, 2021

7:15 – 7:45 a.m. – **Breakfast - *Cosmopolitan A***

7:45 – 9:00 a.m. – **ACR-PCR Background and Concepts - *Cosmopolitan B***
Harold V. Honey, P.E., PMP, Senior Airfield Pavement Engineer, Federal Aviation Administration (FAA)

- History and Background
- Concept, Purpose and Definitions
- FAA Advisory Circular and Analysis Software
- AC 150/5335-5D

9:00 – 9:30 a.m. – **PCR Approach for Rigid Pavements - *Cosmopolitan B***
Genevieve Long, P.E., LEED AP, Program Director, Applied Pavement Technology, Inc.

- How to Determine PCR for PCC/Rigid Pavements
- Rigid Pavement Sample Problems and Solutions

9:30 – 9:45 a.m. – **Break**

9:45 – 10:30 a.m. – **Workshop Case Study: PCR Determination for Rigid Pavement - *Cosmopolitan B***
Genevieve Long, P.E., LEED AP, Program Director, Applied Pavement Technology, Inc.

10:30 – 11:00 a.m. – **PCR Approach for Flexible Pavements - *Cosmopolitan B***
Harold V. Honey, P.E., PMP, Senior Airfield Pavement Engineer, Federal Aviation Administration (FAA)

- How to Determine PCR for HMA/Flexible Pavements
- Flexible Pavement Sample Problems and Solutions

11:00 – 11:45 a.m. – **Workshop Case Study: PCR Determination for Flexible Pavement - *Cosmopolitan B***
Genevieve Long, P.E., LEED AP, Program Director, Applied Pavement Technology, Inc.

11:45 – 12:00 noon – **Workshop Wrap-Up/Closing Remarks - *Cosmopolitan B***