

Agenda

Principles of Pavement Design

J. Kindler

- Goals of pavement design
 - Smooth, stable surface and longevity
- Terminology and basic components
 - Pavement section
 - Asphalt and concrete components
 - Loading
- Consulting guidelines and standards
- Collecting data necessary for design
- Economics and lifecycle analysis

Flexible Pavement Design

J. Kindler

- Soil support and subsurface preparation
- Reclamation and recycling
- Mixture content and pavement thickness
- Preparing and overlaying existing pavement

Rigid Pavement Design

M. Ayers

- Determining the most feasible concrete pavement type for a specific situation
- Identifying the most critical elements influencing pavement design
 - Support conditions, concrete materials, jointing, etc.
- Generating a list of design elements that can be further refined for value engineering studies
- Concrete overlays
 - Bonded and unbonded overlay types
 - Design and construction

Maintenance and Rehabilitation

J. Kindler

- Goals
- Distresses
- Preservation techniques
- Rehabilitation practices

Sustainability of Pavements

J. Kindler

- Carbon footprint analysis
 - Treatment
 - Raw materials
 - Fuel
 - Traffic delays
- Environment and LEED credits
 - Recycled materials
 - Pervious pavements
 - Runoff filtration zones

Pavement Design

Middleburg Heights, OH - Friday, April 13, 2018



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Learning Objectives

You'll be able to:

- Identify** the goals of pavement design: a smooth, stable and long-lasting surface.
- Review** consulting guidelines and standards.
- Explore** flexible and rigid pavement design considerations including soil support, mixture content and pavement thickness.
- Evaluate** pavement preservation techniques and rehabilitation practices.
- Discuss** factors impacting the sustainability of pavements.



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- Discuss** the terminology and basic components of pavement design
- Receive** an overview of the design considerations for both flexible and rigid pavements
- Learn** how to determine the most feasible pavement type for a specific situation
- Explore** pavement preservation techniques and rehabilitation practices
- Consider** factors impacting the sustainability of pavements

Continuing Education Credits

- Professional Engineers**
7.0 CPD Hours/PDHs
- Contractors**
Non-Credit Continuing Education





Joe Kindler, Sr., P.E., graduated with a BS degree in Civil Engineering from Case Institute of Technology, after which he spent six years with ODOT as maintenance engineer in district six. He went on to spend eight years with the City of Columbus as a street maintenance engineer, and 14 years as a partner in a preventative maintenance construction company, introducing Ralumac (micro surfacing) to Ohio and surrounding states. Since then he has been a consultant providing pavement management and pavement preservation techniques to clients in Ohio and Florida and various states in between. He has participated in two national PAVER workshops and numerous state and local workshops pertaining to pavement management and pavement preservation. Presently Mr. Kindler is teaching a course in pavement design at The Ohio State University.

Michael E. Ayers, Ph.D., is the president of Global Pavement Consultants, Inc. (GPC). GPC conducts business worldwide and concentrates primarily on pavement design, construction,

evaluation and rehabilitation. GPC also specializes in pavement analysis using the AASHTO mechanistic-empirical pavement design procedure, value engineering, forensic analysis, just-in-time-training prior to project start-up, and troubleshooting both during and after construction.

Dr. Ayers recently developed pavement design guides for the City of Honolulu and North and South Carolina, and he is currently working in Belarus, Uganda and Ukraine developing pavement designs, specifications and concrete mix designs. He has extensive experience in the design and construction of unbound and stabilized base courses including cement treated bases, lean concrete bases and full-depth reclamation utilizing existing asphalt materials. Dr. Ayers recently completed development of the aggregates and Portland cement concrete training modules for the Federal Highway Administration’s, Highway Materials Engineering course. He also serves as an expert witness on a variety of design and materials related issues. Recently, under the direction of

Dr. Ayers, GPC conducted the largest study to date using the MIT SCAN2 device to determine dowel bar locations on over 43 miles of interstate highway.

Prior to founding GPC in January 2011, Dr. Ayers was the director of education for design and construction for the American Concrete Pavement Association (ACPA) in Rosemont, Illinois. He managed the contractor-based education and training program for ACPA and worked on a variety of projects for both the public and private sectors. He has also served as a university professor, a division manager at ERES Consultants and a group leader at Applied Research Associates, Inc.

Seminar Information

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Tuition

\$279 for individual registration
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How to Register

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Continuing Education Credit Information

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Additional Learning

February Webinar Series

National Electrical Code: A Solar Photovoltaic System Perspective

- **National Electrical Code for Building Professionals, Part I**
Wed., Feb. 21, 2018, 11:00 AM - 2:15 PM CST
- **National Electrical Code for Building Professionals, Part II**
Thurs., Feb. 22, 2018, 11:00 AM - 2:15 PM CST

Erosion and Sediment Control

- **Erosion and Sediment Overview**
Thurs., Feb. 22, 2018, 11:00 AM - 12:00 PM CST
- **Stormwater Permit Requirements and Procedures**
Thurs., Feb. 22, 2018, 12:30 - 2:00 PM CST
- **Stream Stabilization Measures**
Fri., Feb. 23, 2018, 11:00 AM - 12:00 PM CST
- **Best Management Practices and Maintenance**
Fri., Feb. 23, 2018, 12:30 - 2:30 PM CST

For more information visit:
www.halfmoonseminars.org/webinars/

Registration

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