Technical Session #1
Functions and Types of Subbases, Soil Stabilization and Embankments

Subbases, Soil Stabilization and Embankments
• All part of total pavement structure
• Support begins at interface with natural ground (for embankments)
• Higher stiffness (generally) progressing to pavement layers
• Live load disperses as a function of depth

Embankment
• “Road-carrying structure”
• Typically composed of soil and rock
• Placed and compacted under controlled conditions

Subbase
• Foundation for subsequent pavement layers above it
• Typically composed of well graded aggregate material
• Placed and compacted under controlled conditions
Functions and Types of Subbases, Soil Stabilization and Embankments

Stabilization

• Actions taken to stabilize pavement support layers
• Seeking to improve stiffness of layers
• Soil layers and aggregate layers may benefit from stabilization

Session #1

• Use of Steel Slag in Geotechnical Applications: Research and Implementation
  – Dr. Monica Prezzi
  – Professor of Civil Engineering
  – Purdue University

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• Foundry Sand Use in Geotechnical Projects: Characteristics and Project Examples
  – Mike Lenahan
  – President
  – Resource Recovery Corp.

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• Use of Pulp and Paper Byproducts in Soil Stabilization
  – Dr. William Thacker
  – Senior Research Engineer
  – Western Michigan University (NCASI)
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- Use of Tire Derived Aggregate for Embankments
  - Dr. Dana Humphrey
  - Dean of Engineering and Professor of Civil Engineering
  - University of Maine