







# **Principles and Practices of Quieter Pavements**

a webinar sponsored by TRB ADC40 Committee, Transportation-Related Noise and Vibration TRB AFD90 Committee, Surface Properties – Vehicle Interaction

## Wednesday, August 24, 2011

2:00 pm - 4:00 pm EDT (11:00 am - 1:00 pm PDT)

Designing and constructing quieter pavements is not difficult. In fact, it can be done using the same materials and techniques commonly used today. That said, there remain knowledge gaps in how this can be done effectively, and without compromising other important characteristics including safety, durability, and cost. This webinar will introduce the principles and practices of quieter pavements. It is intended to educate noise practitioners on the fundamentals of pavements, and pavement practitioners on the fundamentals of noise. Tire-pavement noise will be discussed, including where it comes from and how it is measured. Sources of traffic noise will also be described, along with related policy issues, both existing and forthcoming. The emphasis, however, will be on the current practices for designing and constructing quieter pavements. Specific alternatives will be described, along with guidance about how to quickly implement them into practice.

### **Learning Objectives**

- Discuss some of the fundamentals of sound and texture.
- Describe research and policy directions related to the use of quieter pavements.
- Illustrate how quieter pavements are measured and interpreted.
- Categorize the mechanisms that lead to tire-pavement noise.
- Identify approaches for incorporating quieter pavement design and construction principles into current practices.
- Evaluate the role of a quieter pavement among other needs including safety, durability, and cost effectiveness.

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#### Agenda

- Welcome and introduction
- Setting the stage
  - o Motivations for quieter pavements
  - o Policy implications of using quieter pavements
- Noise and texture 101
  - o Noise and texture fundamentals
  - o Traffic noise
  - o Tire-pavement noise
  - o Measurement techniques
- Principles of a quieter pavement
  - o Texture
  - o Uniformity
- Quieter pavement design and construction practices
- Ongoing activities
- Questions & answers

#### **Presenters**

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