The Federal Highway Administration (FHWA) launched its Sustainable Pavement Program in 2010 to promote sustainability principles and practices as they apply to the design, construction, and performance of highway pavements. The word “sustainable” in the context of pavements refers to system characteristics that reflect a pavement’s ability to:

- Achieve engineering goals for which it was constructed
- Preserve, and ideally, restore surrounding ecosystems
- Use financial, human and environmental resources economically
- Meet basic human needs such as health, safety, equity, employment, comfort & happiness¹

**BENEFITS OF BEING MORE SUSTAINABLE**

Sustainability goes far beyond just recycling of materials, but instead focuses on key economic, environmental, and social considerations. Opportunities for improving pavement sustainability exist throughout its life cycle, from the materials and mix design stages and through the construction and end-of-life stages.

**MEASURING SUSTAINABILITY**

**LIFE-CYCLE COST ANALYSIS**

Examines the economic impacts of pavement alternatives

**LIFE-CYCLE ASSESSMENT**

Quantifies the environmental impacts associated with a product or system

**SUSTAINABILITY RATING SYSTEMS**

List of sustainability best practices with an associated common metric

FHWA’s multi-tiered approach makes information available on sustainability through:

- Education outreach through webinars & workshops
- Guidance & tech brief documents

**FHWA OUTREACH**

- www.fhwa.dot.gov/pavement/sustainability/

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The MCTC, working in partnership with state agencies and their industry partners, bridges the gap between research and implementation, showcasing materials and construction best practices, championing emerging technologies, and introducing stakeholders to new and evolving test methods.

**PERFORMANCE**

**ENGINEERED MIXTURE**
Designing for durability

**COMPREHENSIVE**

**QUALITY CONTROL**
Improving quality, consistency, and efficiency of concrete production and construction operations

**SUSTAINABLE PAVEMENTS PROGRAM**

**PRODUCTS**

- Pavement Sustainability
- Strategies for Improving Sustainability of Concrete Pavements
- Climate Change Adaptation
- Life-Cycle Assessment
- Pavement Life-Cycle Thinking
- Data Needs for Pavement LCA

**TECH BRIEFS**

- Sustainable Pavements Reference Document
- LCA Framework Document
- Sustainable Pavements Road Map
- Sustainable Pavement Program Checklist

**CASE STUDIES**

- Concrete Surface Texturing Pilot Project in California
- High Performance Concrete Pavements in Minnesota
- Economical Concrete with Recycled Concrete Aggregate in Texas
- Sustainability Rating Systems as Applied to Pavements
- Concrete Material and Construction Innovations for Sustainability Benefits in Colorado

**MORE PRODUCTS**

- Sustainable Pavements Reference Document
- LCA Framework Document
- Sustainable Pavements Road Map
- Sustainable Pavement Program Checklist

**GET INVOLVED**

It's easy to become involved in the Sustainable Pavements Program. You can become a Friend of the SPTWG and attend future meetings, sign up for monthly newsletters, view available webinars on various sustainability topics, and download our resources.

For more information, contact Heather Dylla, FHWA (heather.dylla@dot.gov)

www.fhwa.dot.gov/pavement/sustainability/