



COURSE NUMBER

FHWA-NHI-134087

COURSE TITLE

TCCC Mix Design Principles - WEB-BASED

This training is provided by the Transportation Curriculum Coordination Council (TCCC) in partnership with NHI to review integrated materials and construction practices for concrete pavement. This training is recommended for the Transportation Curriculum Coordination Council levels II - IV.

This module discusses mix design and mix proportioning. Mix design is the process of choosing the characteristics we are looking for in the concrete mixture. Mix proportioning, on the other hand, involves taking the information provided by the mix design process and using that information to determine the actual proportions of ingredients in the mixture. This course discusses theoretical, laboratory, and field testing to determine the Portland cement concrete mix that will achieve the best possible durability, strength, constructability, economy, and uniformity.

This module is part of a curriculum from the "Integrated Materials and Construction Practices for Concrete Pavement" manual developed through the National Concrete Pavement Technology Center at Iowa State University. The other Web-based training modules include:

FHWA-NHI-134075 TCCC Hardened Concrete Properties - Durability

FHWA-NHI-134084 TCCC Fundamentals of Materials Used for Concrete Pavements

FHWA-NHI-134085 TCCC Incompatibility in Concrete Pavement Systems

FHWA-NHI-134095 TCCC Early Age Cracking

FHWA-NHI-134096 TCCC Basics of Cement Hydration

FHWA-NHI-134097 TCCC Fresh Concrete Properties

FHWA-NHI-134098 TCCC Construction of Concrete Pavements

FHWA-NHI-134100 TCCC QCQA for Concrete Pavements

FHWA-NHI-134101 TCCC Design of Pavement

FHWA-NHI-134102 TCCC Troubleshooting for Concrete Pavements

OUTCOMES

Upon completion of the course, participants will be able to:

- Describe the overall goal of mix design
- Define the difference between mix design and mix proportioning
- Recognize field and laboratory testing plans
- Describe test methods used to identify incompatibilities

TARGET AUDIENCE

This training is designed for FHWA, State, and local agencies and their industry counterparts involved in the process to assure that the mix design and proportioning of Portland cement concrete materials meet specification requirements and provide good, durable concrete. It is applicable to anyone desiring a better understanding of the mix design of Portland cement concrete.

TRAINING LEVEL: Intermediate

FEE: 2013: \$0 Per Person; 2014: N/A

LENGTH: 1 HOURS (CEU: 0 UNITS)

CLASS SIZE: MINIMUM: 1; MAXIMUM: 1

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