Course Number
FHWA-NHI-134207A

Course Title
How to Construct Durable Full-Depth Repairs in Concrete Pavements

Full-depth repairs are used to restore localized areas of slab damage that extend beyond the upper one-third of slab depth or originate from the slab bottom.

This course provides a comprehensive guide for performing full-depth repairs—from planning for, preparing, and evaluating the repair through testing and quality assurance after construction is complete. In the Web-based training you will find detailed, how-to instruction that covers the full scope of tasks involved in successfully completing a full-depth repair project. Instructional methods include short, focused, and task-based lessons, visual aids, and assignments that are directly applicable to work in the field.

Outcomes

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

• Explain the purpose of full-depth repairs
• Identify pavement problems that full-depth concrete pavement repairs can and cannot address
• Describe proper project review and material checks for a preservation job involving full-depth repair
• Explain the proper safety and personal protective equipment you will need when performing full-depth repair projects
• Describe the criteria for selecting repair locations and boundaries
• Explain what to do if you think the boundaries are marked incorrectly
• Explain how patching materials are selected for full-depth repair
• Describe the patch material mixing and handling factors that impact the quality of the repair
• Describe the different types of perimeter joint faces for transverse and longitudinal joints
• List important considerations for sawing perimeter joints
• Explain how deteriorated concrete can be removed from the repair area
• List the steps you can take to minimize damage to surrounding pavement when removing concrete
• Describe how to prepare the repair area for new concrete
• Define load transfer
• Describe important considerations for installing dowel bars for full-depth repairs
• List the three ways to connect longitudinal steel for CRCP full-depth repairs
• Explain how to handle the longitudinal joints in longer and shorter patches
• Explain the steps required to place, finish, and cure the concrete for a full-depth repair
• Describe the texturing methods used to match the patch texture with the surrounding pavement
• Explain the steps for sealing the patch perimeter joints
• Explain the difference between quality control and acceptance, including who is responsible
• Describe the tests that may be used for acceptance and opening to traffic

Target Audience

This course provides support and instruction for individuals involved in construction projects using concrete pavement preservation techniques. This training is ideal for construction foremen, workers, technicians, agency inspectors, construction managers, and engineers.
TRAINING LEVEL: Basic

FEE: 2020: $0 Per Person; 2021: N/A

LENGTH: 3 HOURS (CEU: 0 UNITS)

CLASS SIZE: MINIMUM: 0; MAXIMUM: 0

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