

**Subject:**        **Transportation Curriculum Coordination Council (TCCC)**

**Issue:**

Rebuilding and maintaining the Nation’s highway construction workforce is an industry priority as agencies across the country face a serious shortage of trained and experienced personnel due to attrition and an aging workforce. At the same time cutting edge construction and system preservation technologies demand new skills and knowledgeable construction personnel.

**FHWA Position:**

Effort to train and certify highway construction personnel has intensified in recent years with the goal of improving the quality of highways and bridges, and to ensure compliance with 23CFR, Part 637, Quality Assurance (QA). The FHWA has taken a proactive-role in this effort. The Resource Center has been a key player in this initiative since TCCC began, providing technical and marketing support and leadership within the TCCC Executive Council. The efforts of the TCCC have significant value to highway agency partners, and greatly increase the skills of inspectors, technicians, and highway workers to improve the construction quality and performance of the nation’s transportation infrastructure.

**Background:**

The TCCC is a partnership between the FHWA, state and local DOTs, and the highway transportation industry to support the training of the highway construction personnel. The TCCC’s mission is to provide leadership at the national level, develop and maintain a national curriculum for various transportation disciplines, identify training and certification requirements, and coordinate/facilitate training efforts.

To achieve its mission, the TCCC embraces the following objectives:

- Optimize resources through concentrated efforts in the development of core training and qualification mediums;
- Improve the skills and abilities of highway construction personnel;
- Promote the dissemination of information among regional and industry organizations;
- Promote uniformity in training content and qualification requirements to facilitate reciprocity between States and regions; and
- Optimize the usage of AASHTO standards in training development.

**Recent Accomplishments:**

The TCCC has developed a Core Curriculum Matrix comprised of five program areas (Construction, Materials, Maintenance, Safety, and Employee Development), and providing training competencies for a wide variety of disciplines within each subject area. The Curriculum is used by State and local DOT’s in their efforts to establish training programs and to develop specific courses for their personnel, and is being used by TCCC to guide its development of course materials to be made available for nationwide use. The Curriculum matrices are designed to be a living document that will grow as the program continues to evolve; accordingly, the curriculum will be maintained on the TCCC website ([www.nhi.fhwa.dot.gov/tccc](http://www.nhi.fhwa.dot.gov/tccc)) and will be updated periodically as new disciplines are added.

The TCCC has several new training courses under development or recently completed for use by State and local DOT’s:

- The *Ethics Awareness for the Transportation Industry* course has been developed for online training and is designed to provide employees with the ethical expectations within their respective DOT. It may be modified to any States’ codes.

- The *Pavement Preservation Online Guide and Training* (131110) is now available for delivery and is intended to provide participants with an introduction to the Pavement Preservation Online Guide (PPOG) created by Caltrans and the National Center for Pavement Preservation. This course is primarily target at individuals unfamiliar with pavement preservation policy and technical information.
- The *Bridge Construction Inspection* (130088) course has been completed and is designed to give basic knowledge of bridge construction procedures to construction inspectors.
- *Managing Construction Workmanship* (134055), designed for construction inspectors and resident engineers, provides information on roles and responsibilities, acceptance of work, and construction quality.
- The Geotechnical steering committee has developed two new training courses: *Mechanically Stabilized Earth Walls/ Reinforced Soil Slopes*, and *Subsurface Investigation Qualification Course*.
- Courses under development include *Inspection of Bridge Rehabilitation*, *Use of GIS in Construction*, and *Environmental Factors in Highway Construction*.

The TCCC is partnering with contractor associations of the pavement preservation industry to create a training and testing qualification program designed for contractor personnel and inspectors involved in the placement of thin surface treatments. The objective of the effort is to increase the quality and performance of pavement preservation treatments, and to increase DOT confidence in the application of new “tools in the toolbox”.

**Action Needed:**

The TCCC will continue to provide leadership at a national level to ensure proper training of all highway construction personnel in an attempt to improve highway construction quality. At present, the primary focus of the TCCC is to determine the current gaps in training courses needed to fulfill the core curriculum matrix assessment and then to prioritize the development of the necessary courses in conjunction with the State DOTs and other partners. Additionally, the TCCC will continue to capture existing materials and, in coordination with the NHI, develop new courses, where gaps are identified.

The next meeting of the TCCC is tentatively scheduled for December 2007.

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