

National Cooperative Highway Research Program (NCHRP)

Presentation to AASHTO Highway
Subcommittee on Construction

by

Gary E. Angles, P.E.

Research Steering Committee Chair
In Little Rock AR on August 12, 2015

10-96 Guide for Civil Integrated Management (CIM) in Departments of Transportation

The objective of this research is to develop a guide to CIM that DOT managers can use to (a) assess their agency's use of digital information in project delivery and subsequent asset management; (b) improve project quality and more effectively control costs through increased reliance on digital project delivery and asset management; (c) identify the particular opportunities, benefits, obstacles, and costs for their agency through increased reliance on digital project delivery and asset management; and (d) identify practical strategies for increasing reliance on digital project delivery and asset management.

U of Texas at Austin, Dr. William J. O'Brien,
5/20/2014 – 1/19/2016
\$249,988

10-92 Optimizing the Risk and Cost of Materials QA Programs

The objective of this research is to develop a methodology for establishing a materials QA program that optimizes risk and cost by providing appropriate types, levels, and frequencies of testing for transportation projects across their full range of type, size, complexity, and project-delivery method.

Hill International, Inc., Sidney Scott
9/16/2013 -9/16/2015
\$399,970

10-91 Guidebook for Selecting and Implementing Sustainable Highway Construction Practices

The objective of this research is to identify effective sustainability practices that can be implemented during the construction of highway projects and prepare a guidebook that can be used by DOTs, other transportation agencies, consulting engineers, and construction contractors, to aid them in identifying, evaluating, and selecting sustainable construction practices. The guidebook should also provide guidance on how to evaluate the relative costs and benefits of implementing various sustainability practices during construction.

Parsons Brinckerhoff, Michael D. Meyer

4/22/2013 – 5/1/2016

\$475,000

10-89 Best Practices Guidebook for Optimal Construction Inspection

The objective of this research is to develop a Best Practices Guidebook for DOTs to produce quality transportation infrastructure using efficient and effective construction engineering inspection processes.

Project terminated due to time and quality issues

10-83 Alternative Quality Management Systems for Highway Construction

The objectives of this research are to (1) identify and understand alternative quality management systems and (2) develop guidelines for their use in highway construction projects.

U of Colorado at Boulder, Keith R. Molenaar, Ph.D.
Completed and Published as NCHRP Report 808

12-105 Proposed AASHTO Seismic Specifications for ABC Column Connections

The objective of this research is to develop proposed AASHTO displacement-based design and construction specifications for implementation of ABC column connections in moderate-to-high seismic regions. As a minimum, the specifications should include mechanical bar couplers, grouted ducts, pocket, and socket connections.

Proposed by a collaboration of
AASHTO SOC & SOBS
40 months, \$450,000
Award expected 9/1/2015

19-10 AASHTO Partnering Handbook, Second Edition

The objectives of this research are to (a) quantify the costs and benefits of a formal partnering process and (b) prepare a recommended *AASHTO Partnering Handbook*, Second Edition.

Iowa State University, Douglas Gransberg
4/9/2015 – 4/8/2017
\$400,000

01-57 Standard Definitions for Comparable Pavement Cracking Data

The objective of this research is to develop standard, discrete definitions for common cracking types in flexible, rigid, and composite pavements. The definitions shall classify cracking type, extent, and severity based on information from images collected by highway-speed data collection vehicles, including orientation, length, density, displacement, location, and other relevant factors.

20 months, \$300,000
Award expected summer 2015

Synthesis 20-05/Topic 47-09 Effective Practices for Establishing Contract Completion Dates for Highway Projects

Tentative Scope

State Departments of Transportation (DOT) use various methods to set contract completion dates for highway projects. The objective of this synthesis is to document the methodologies used by DOTs to determine completion dates for different types of contracts.

\$45,000 FY 2015
Not Yet Awarded

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Thank you for your interest and
participation!