National Cooperative Highway Research Program (NCHRP)

Research for Improved Highway Operations and Maintenance

Report to the AASHTO Highway Subcommittee on Maintenance

Des Moines, Iowa, July 2015

(NCHRP Liaison: Amir N. Hanna)
NCHRP- National Cooperative Highway Research Program

- An AASHTO program sponsored by state DOTs
- Started in 1962
- Annual funding ~ $40 million/year
- Contributes to advancements in all aspects of highways
- 8 fields of research (Administration, Planning, Design, Materials and Construction, Soils and Geology, Maintenance, Traffic, and Special Projects)
- 25 Subject areas (e.g., economics, forecasting, pavements, bituminous materials, mechanics and foundations, snow and ice control, maintenance of ways and structures, equipment, illumination and visibility, and special projects)
NCHRP: Goal-Oriented Research

• Responds to state DOT needs: DOTs and AASHTO committees propose research topics; SCOR selects projects.
• Ensures applicability of the results: state DOTs and other sectors of the highway industry participate in monitoring the research.
• Results are published by NCHRP (reports, digests, synthesis, CD-ROMs, and Web documents) or by AASHTO (guides/manuals, specifications, and test methods), and often adopted by state DOTs and other organizations.
Scope of NCHRP Projects Related to Maintenance

- Pavement Maintenance
- Snow and Ice Control
- Bridges and Structures
- Roadside
- Maintenance Equipment
- Workforce Development
- Etc.
Three Types of NCHRP Projects
(of Interest to the AASHTO Highway Subcommittee on Maintenance)

• Research Projects
  Selected by SCOR once/year (March).

• Research for AASHTO Standing Committee on Highways (20-07 projects)
  Selected by NCHRP Project Panel SP20-07 twice/year (May and October).

• Synthesis of Information Related to Highway Problems (20-05 projects)
  Selected by NCHRP Project Panel SP20-05 once/year (May).
Publication/Dissemination of Project Reports

😊 Published by AASHTO
😊 Available on AASHTO (SCOM) Website
😊 Published in the NCHRP publication series (as NCHRP reports, syntheses, or research results digests)
😊 Summarized and made available on NCHRP Website
Published by AASHTO

😊 AASHTO Maintenance Manual for Roadways and Bridges (2007)

😊 AASHTO Guide for Snow and Ice Control (1999)

Recent NCHRP Publications

😊 Manual for Emulsion-Based Chip Seals for Pavement Preservation (NCHRP Report 680) – Also AASHTO Publication Code MBC-1-UL

😊 Decision Making for Outsourcing and Privatization of Vehicle and Equipment Fleet Maintenance (NCHRP Report 692) – Also AASHTO Publication Code EFM-1

😊 Determining Highway Maintenance Costs (NCHRP Report 688)

😊 State Department of Transportation Fleet Replacement Management Practices (NCHRP Synthesis 452)
NCHRP FY 2016 - Summary

Programmed for FY 2016:

- 16 Continuation projects ($11,780)
- 45 New projects ($19,060,000)
- Total 61 projects ($30,840,000) in 18 problem areas (bridges, maintenance, materials, pavements, etc.)
- 2 Projects related to maintenance (1 submitted by SCOM)
NCHRP FY 2016 Selected Projects

• NCHRP Project 14-37: Guide Construction Specifications for Pavement Preservation Treatments: Chip Seal and Microsurfacing

• Project 14-38: Triggers and Timings for the Placement of Pavement Preservation Treatments for Asphalt Pavements
NCHRP FY 2016 Program

• March 30-31, 2015: FY 2016 projects selected
• July-December 2015: 1st and 2nd panel meetings (develop RFPs and select agencies)
• February-March 2016: Contracting
NCHRP FY 2017 Program

- July 1, 2015: Solicitation of FY 2017 problem statements
- Oct. 15, 2015: End date for problem statements
- March 2?-2?, 2016: SCOR meeting/project selection
More Information

NCHRP: Advancing transportation and meeting states’ needs for more than half a century

• http://www.trb.org ........ NCHRP
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