

# **NCHRP Research Process**

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# NCHRP Research Process

- National Cooperative Highway Research Program

A forum for coordinated and collaborative research, the National Cooperative Highway Research Program (NCHRP) addresses issues integral to the state Departments of Transportation (DOTs) and transportation professionals at all levels of government and the private sector. The NCHRP provides practical, ready-to-implement solutions to pressing problems facing the industry. The NCHRP is administered by the Transportation Research Board (TRB) and sponsored by the member departments (i.e., individual state departments of transportation) of the American Association of State Highway and Transportation Officials (AASHTO), in cooperation with the Federal Highway Administration (FHWA). Individual projects are conducted by contractors with oversight provided by volunteer panels of expert stakeholders.

# NCHRP Research Process

- Overview of time line for projects originating in the Bridge Technical Working Group (BTWG) of the AASHTO Maintenance Committee (MaC)
  - Topics for proposed research projects are recommended by BTWG leadership, the Regional Bridge Preservation Partnerships and other interested groups.
  - Research needs statements are developed prior to and during the annual MaC meeting.

# NCHRP Research Process

- Overview of time line for projects originating in the Bridge Technical Working Group (BTWG) of the AASHTO Maintenance Committee (MaC) - Continued
  - The proposed research topics are discussed at the MaC Leadership Team meeting on the Sunday prior to the annual meeting and in the BTWG break out sessions.

# NCHRP Research Process

- Overview of time line for projects originating in the Bridge Technical Working Group (BTWG) of the AASHTO Maintenance Committee (MaC) - Continued
  - The proposed research topics are presented for consideration and voting at the MaC business meeting on Thursday of the annual meeting.
  - Projects that are approved by the MaC are submitted to NCHRP - Problem statements are to be submitted to NCHRP by October 15.

# NCHRP Research Process

- Overview of time line for projects originating in the Bridge Technical Working Group (BTWG) of the AASHTO Maintenance Committee (MaC) - Continued
  - After submission, FHWA and NCHRP evaluations are performed .
  - These evaluations are sent to submitters around mid November, and submitters have until early December to comment on the evaluations.

# NCHRP Research Process

- Overview of time line for projects originating in the Bridge Technical Working Group (BTWG) of the AASHTO Maintenance Committee (MaC) – Continued
  - At the same time that new problem candidates are submitted, NCHRP panels and staff are also working on recommendations for continuations of projects begun in earlier years. Late each December, a report on the continuation projects and new problem candidates goes to the AASHTO Special Committee on Research and Innovation (R&I – formally SCOR) and the AASHTO Research Advisory Committee (RAC) with a ballot for rating the candidates according to priority.

# NCHRP Research Process

- Overview of time line for projects originating in the Bridge Technical Working Group (BTWG) of the AASHTO Maintenance Committee (MaC) – Continued
  - The ratings are returned to the R&I Secretary (i.e., the Director of TRB's Cooperative Research Programs) and are translated into priority rankings based on the average ratings of R&I and RAC. A summary report is sent to the R&I for review prior to its meeting in Washington, D.C., to determine final priorities and formulate a program. This meeting is held annually in late March.



# NCHRP Research Process

- Overview of time line for projects originating in the Bridge Technical Working Group (BTWG) of the AASHTO Maintenance Committee (MaC) – Continued
  - Based on the funding expected from the Federal-Aid Highway apportionments for the given fiscal year, R&I determines which completed or ongoing projects should receive additional funding for further work and which new problem submittals should be programmed. An Announcement of Research Projects is prepared each year in April.

# NCHRP Research Process

- Overview of time line for projects originating in the Bridge Technical Working Group (BTWG) of the AASHTO Maintenance Committee (MaC) – Continued
  - Once the program is developed, R&I sends a report to the AASHTO Board of Directors requesting approval of the program. The final program for each year consists of those continuations and new problems that receive a favorable vote by two-thirds or more of the Member Departments.

# NCHRP Research Process

- Overview of time line for projects originating in the Bridge Technical Working Group (BTWG) of the AASHTO Maintenance Committee (MaC) – Continued
  - After AASHTO approves the program, it is referred to the Transportation Research Board (TRB), and the problems are assigned to panels of experts who provide guidance on the technical aspects of the research.

# NCHRP Research Process

- Overview of time line for projects originating in the Bridge Technical Working Group (BTWG) of the AASHTO Maintenance Committee (MaC) – Continued
  - TRB solicits research proposals from private and public research organizations.

# NCHRP Research Process

## NCHRP Project Categories

- Research Field 1 - Pavements
- Research Field 2 - Economics
- Research Field 3 - Operations and Control
- Research Field 4 - General Materials
- Research Field 5 - Illumination and Visibility
- Research Field 6 - Snow and Ice Control
- Research Field 7 - Traffic Planning

# NCHRP Research Process

## NCHRP Project Categories

- Research Field 8 - Forecasting
- Research Field 9 - Bituminous Materials
- Research Field 10 - Specifications, Procedures and Practices
- Research Field 11 - Law
- Research Field 12 - Bridges

# NCHRP Research Process

## NCHRP Project Categories

- Research Field 13 - Equipment
- Research Field 14 - Maintenance of Way and Structures
- Research Field 15 - General Design
- Research Field 16 - Roadside Development
- Research Field 17 - Safety
- Research Field 18 - Concrete Materials

# NCHRP Research Process

## NCHRP Project Categories

- Research Field 19 - Finance
- Research Field 20 - Special Projects
- Research Field 21 - Testing and Instrumentation
- Research Field 22 - Vehicle Barrier Systems
- Research Field 23 - Properties
- Research Field 24 - Mechanics and Foundations
- Research Field 25 - Impact Analysis
- Research Field 70 - Pooled Fund