



2012 NCHRP Materials and Tests Research Update

2012 AASHTO SOM Annual Meeting
Biloxi, Mississippi
August 5-10, 2012





OUTLINE

- ◎ NCHRP Features
- ◎ NCHRP Program Cycle
- ◎ FY2013 NCHRP Program Funding
- ◎ NCHRP Materials and Tests Projects
 - ◎ Funded (FY2013)
 - ◎ Awarded (FY2012)
 - ◎ Status of Related Projects
- ◎ NCHRP Products Developed for AASHTO SOM
- ◎ FY 2013 and 2014 Schedule



NCHRP: AN AASHTO PROGRAM

- ⊙ Started in 1962 – 50th Anniversary was on June 19, 2012
- ⊙ Sponsored by state DOTs and DC
- ⊙ Voluntary contributions from SP&R funds
- ⊙ About \$35 million/year
- ⊙ Applied research - addresses all aspects of highways (including all topics covered by SOM's 21 technical sections)
- ⊙ Research topics are proposed by state DOTs, AASHTO committees, and FHWA
- ⊙ Panels composed of state DOTs professionals, industry, academia, and consultants monitor the research
- ⊙ Research products are intended for implementation by state DOTs and industry/provided to AASHTO for adoption/dissemination or published/distributed by the NCHRP



TYPES OF NCHRP PROJECTS (OF INTEREST TO SOM)

◎ **Research Projects**

Selected by SCOR once/year (March)

◎ **Research for AASHTO Standing Committee on Highways (20-07 projects/tasks)**

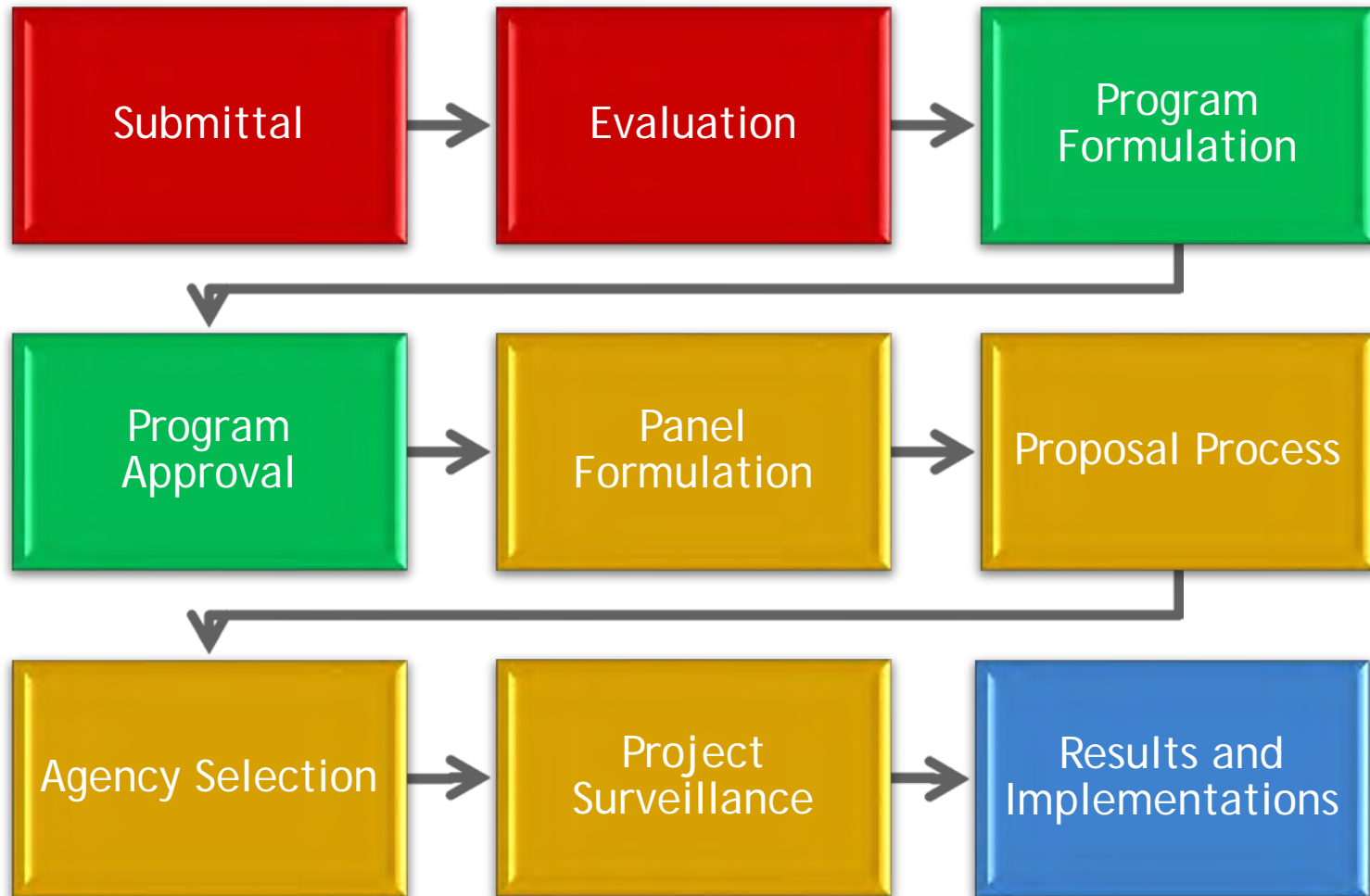
Selected by NCHRP Project Panel SP20-07 twice/year (May and October)

◎ **Synthesis of Information Related to Highway Problems (20-05 synthesis topics)**

Selected by NCHRP Project Panel SP20-05 once/year (in May)



NCHRP PROGRAM CYCLE -1





NCHRP PROGRAM CYCLE - 2

Submittal & Evaluation

- NCHRP solicits problem statements from authorized sources: DOTs, AASHTO Committees/Subcommittees, and FHWA (July-September)
- FHWA and NCHRP evaluate problem statements
- AASHTO Committees/Subcommittees rank and comment on problems statements in their respective areas
- SCOR and RAC rate the candidates in a mail ballot to set priorities for the SCOR meeting in March



NCHRP PROGRAM CYCLE - 3

Formulation & Approval

- NCHRP sends a summary report to the SCOR
- SCOR meets to formulate the NCHRP Program (late March)
- FHWA approves of conformance with Federal-aid requirements
- SCOR sends a report to the AASHTO Board of Directors requesting approval of the projects
- AASHTO refers program to the NAS for administration
- NAS reviews for acceptance



NCHRP PROGRAM CYCLE - 4

- NCHRP solicits panel nominations (May-June)
- NCHRP/NAS appoints panel members
- Panel prepares RFP (July-September)
- NCHRP solicits proposals
- Panel reviews the proposals and makes recommendation for award of contract
- NCHRP/NAS negotiates and executes a contract
- NCHRP administers the project



Execution



FY2013 NCHRP PROGRAM FUNDING



FY2013 NCHRP PROGRAM FUNDING

\$26,465,000

Continuation

17 Projects

\$9,475,000

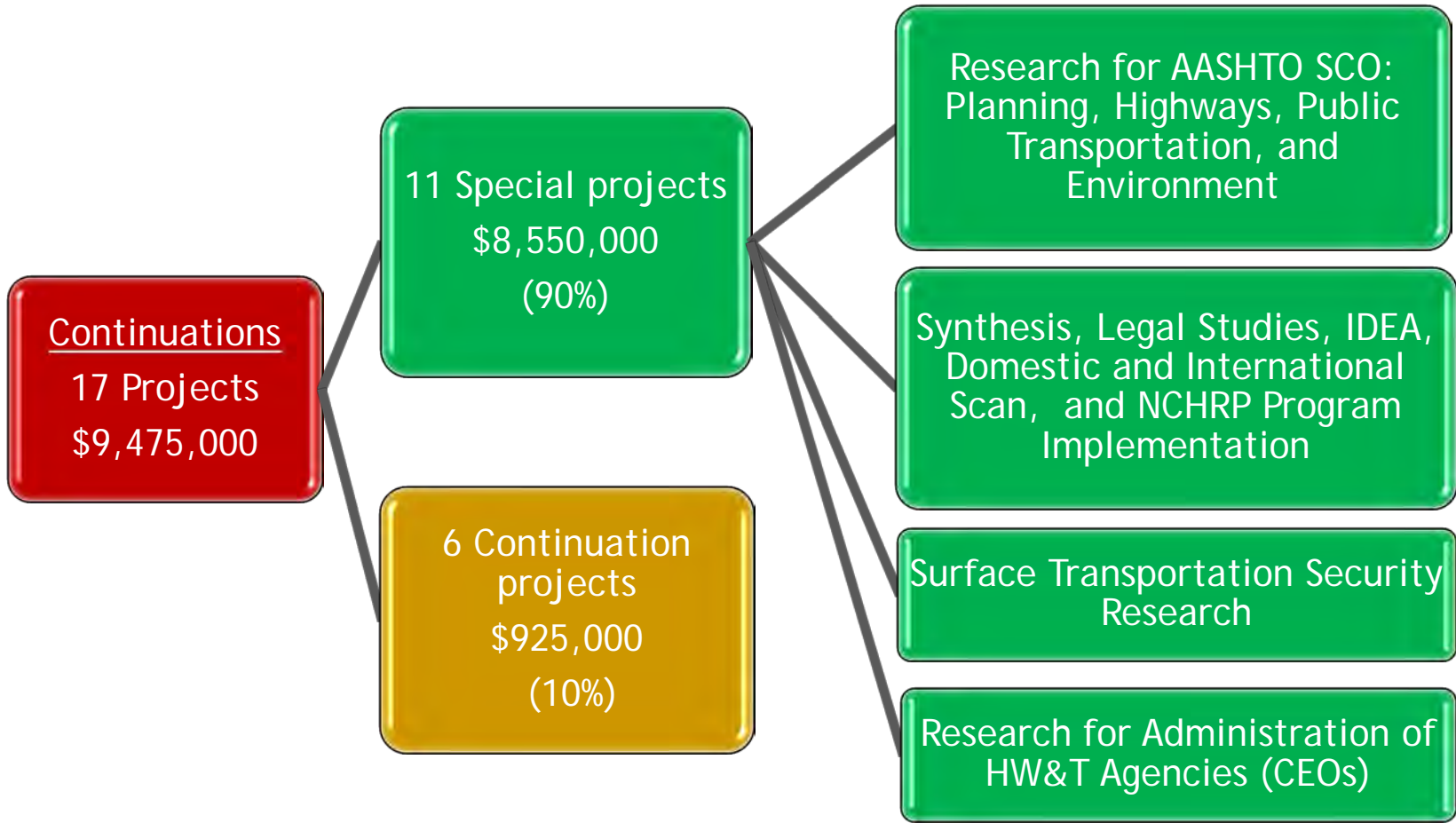
New

42 Projects

\$16,990,000

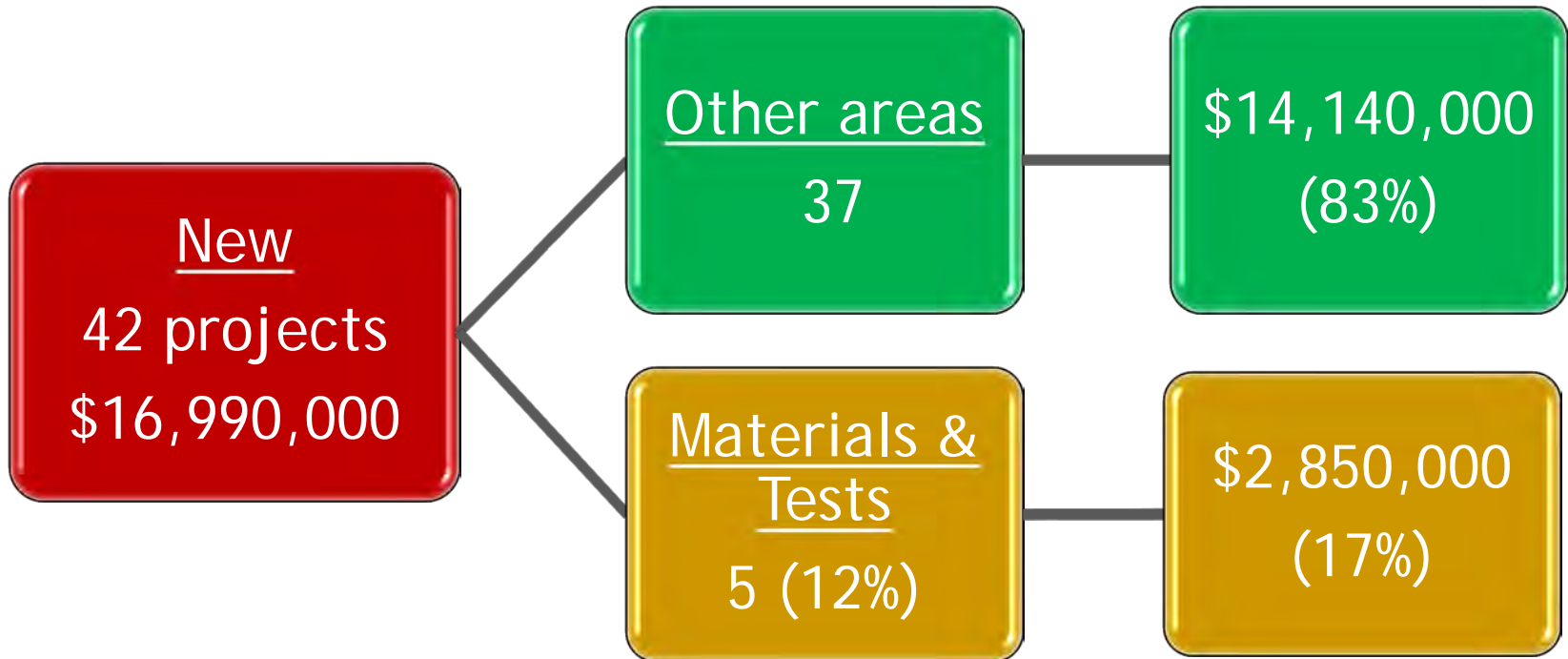


FY2013 NCHRP PROGRAM CONTINUATION PROJECTS





FY2013 NCHRP NEW PROJECTS





FY 2013 NCHRP NEW PROJECTS

Submitted

Programmed

⊙ Member Dept.	53	13
⊙ AASHTO COM.	62	27
⊙ FHWA	4	2
⊙ TOTAL	119	42
⊙ SOM	3	2



FY2013 NCHRP MATERIALS AND TESTS FUNDED PROJECTS



FY2013 NCHRP MATERIALS AND TESTS FUNDED PROJECTS

Project	Title	Funds
04-39	Field Performance of Corrugated Pipe Manufactured with Recycled Polyethylene Content	\$600,000
09-54	Improve Long-Term Aging for Asphalt Mixture Performance Tests and Cracking Models	\$800,000
09-55	Recycled Asphalt Shingles in Warm Mix Asphalt Mixtures	\$600,000
10-92	Risk Assessment of Materials Inspection, Testing and Acceptance Practices	\$400,000
10-93	Methods for Characterizing Roughness of Urban Pavements	\$450,000



FY2013 NCHRP MATERIALS AND TESTS FUNDED PROJECTS

Project	Title	Fund
20-07/Task 331	Report on the Methods and Standards to Measure the Permeability of Concrete	\$50,000



FY2012 NCHRP BRIDGE AND STRUCTURE AWARDED PROJECTS



FY2012 NCHRP MATERIALS AND TESTS PROJECTS

Project	Title	Status
09-51	Material Properties of Cold-In-Place Recycled and Full-Depth Reclamation Asphalt Concrete for Pavement Design	In progress
09-52	Short-Term Laboratory Conditioning of Asphalt Mixtures	In progress
09-53	Properties of Foamed Asphalt for Warm Mix Asphalt Applications	In progress
10-88	Developing Precision and Bias Statements for AASHTO Standard Methods of Test TP 98 and TP 99	Pending



FY2012 NCHRP MATERIALS AND TESTS PROJECTS

Project	Title	Status
20-07/Task 280	AASHTO Materials "C" Specifications	In progress
20-07/Task 284	Establish Test methods for 100 Year Service Life for HDPE Thermoplastic Pipe in the AASHTO LRFD Bridge Design Specifications	Pending
20-07/Task 311	Development of War mix Asphalt Technology Evaluation Program	In progress
20-07/Task 319	Evaluating Applicability of the Dual Ring Test Procedure for Assessing The Cracking Tendency of Repair Materials	Pending



NCHRP MATERIALS & TESTS PROJECTS (1997-2012)



NCHRP MATERIALS AND TESTS PROJECTS STATUS (1997-2012)

- ◎ 75 Completed; published in the NCHRP report series/adopted by AASHTO
- ◎ 25 In progress
- ◎ 5 Contract pending
- ◎ 5 In development (new)



NCHRP PRODUCTS DEVELOPED FOR AASHTO SOM



NCHRP PRODUCTS DEVELOPED FOR SOM

- ◎ Test Methods
- ◎ Precision and Bias Statements
- ◎ Specifications
- ◎ Others (research plans, strategic planning, etc.)



NCHRP FY 2013 & 2014 SCHEDULE



FY 2013 PROGRAM CYCLE

- ◎ March 20-21, 2012: FY 2013 projects selected
- ◎ April 2012: Program announcement
- ◎ April 29, 2012: Solicit panel nominees
- ◎ AASHTO Board of Directors approval of funding allocation and recommended research program
- ◎ National Academies acceptance
- ◎ Panel formation
- ◎ July-December 2012: 1st and 2nd panel meetings (develop RFPs and select agencies)
- ◎ February 1, 2013: FY 2013 authorization
- ◎ February-March 2013: Contracting



FY 2014 PROGRAM CYCLE

- ◎ July 2, 2012: Solicitation of problem statements
- ◎ Sept. 17, 2012: End date for problem statements
- ◎ Nov. 17, 2012: Respond to submitters
- ◎ December 3, 2012: End date for submitter comment
- ◎ January 4, 2013: Mail candidates to SCOR/RAC
- ◎ February 20, 2013: SCOR/RAC ballots due
- ◎ March 6, 2013: Ballot summary report to SCOR
- ◎ March 26-27, 2013: SCOR meeting/project selection



ACKNOWLEDGEMENTS

- State DOTs/AASHTO
- Members of AASHTO SOM and its Technical Sections
- FHWA
- NCHRP Panel Members
- Research Teams



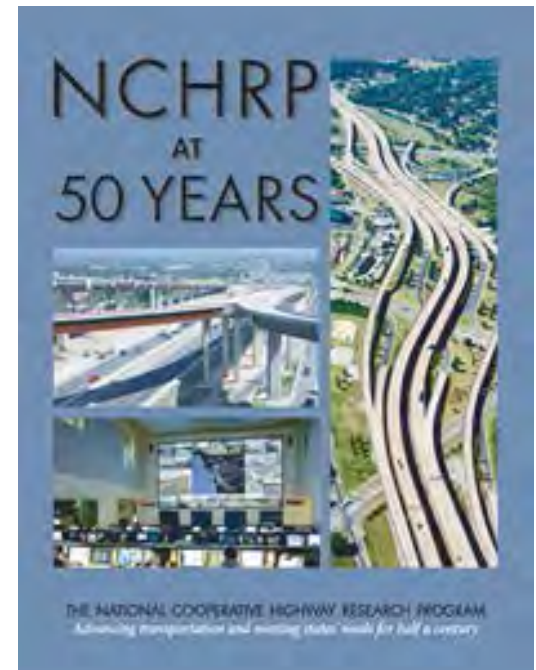
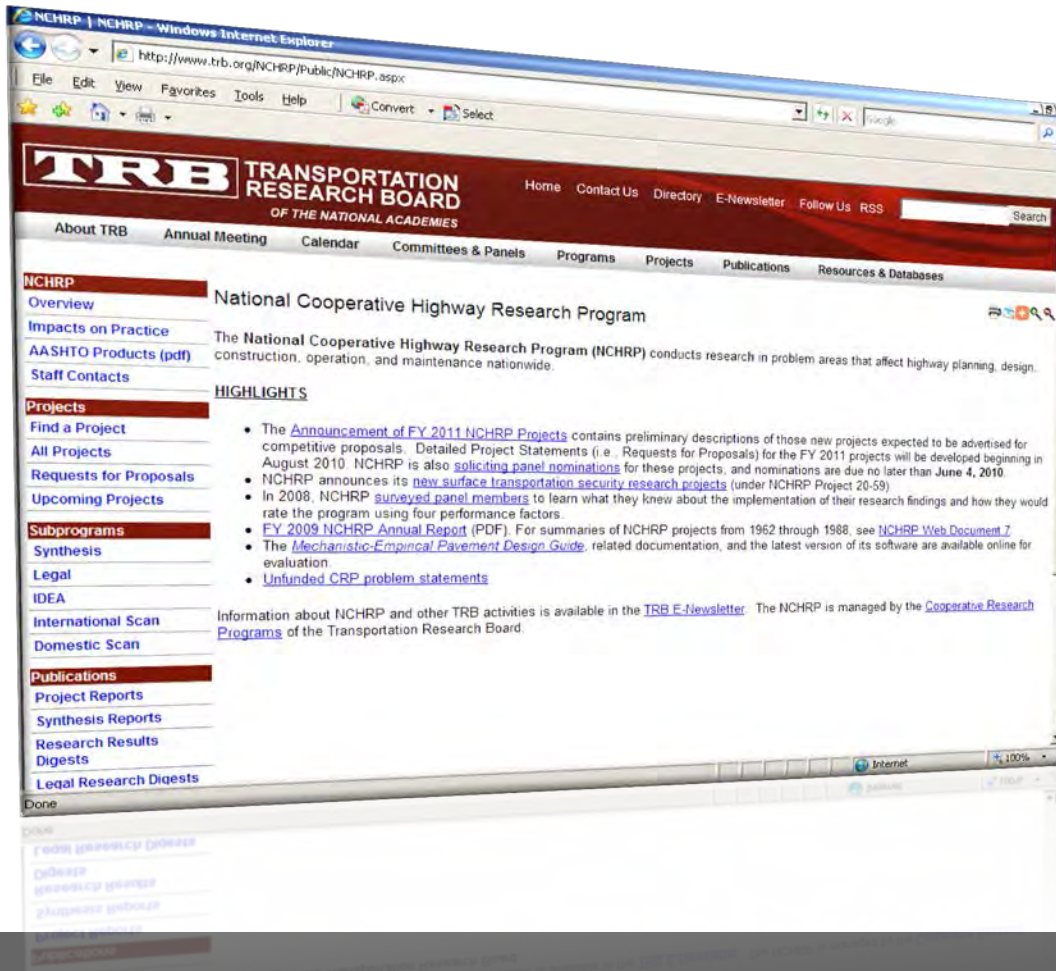


INFORMATION AVAILABLE

- ◎ A handout (list of current and recently completed projects related to selected materials topics) is available:
 - ◎ It identifies status of projects (completed, in progress, or anticipated).
 - ◎ It identifies available publications (reports, digests, web documents, etc.)
- ◎ Specific information or questions, contact Amir N. Hanna (ahanna@nas.edu/202/334-1432)



HTTP://WWW.TRB.ORG/NCHRP





CONTACT INFORMATION

- ◎ **NCHRP**
Advancing transportation and meeting states' needs for half a century
- ◎ **WWW Homepage**
<http://www.trb.org/NCHRP>
- ◎ **Contact:**
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