TRB Snap Search: Maintenance & Preservation

TRB's involvement in research on Maintenance & Preservation from 2019-2020

The Transportation Research Board (TRB) provides innovative, research-based solutions to improve how we move. TRB is part of the National Academies of Sciences, Engineering, and Medicine, an independent, non-profit institution that provides objective advice on scientific, engineering, and medical issues.

A resource to the nation and to the transportation community worldwide, TRB provides an extensive portfolio of services:

- Opportunities for information exchange on current transportation research and practice
- Management of cooperative research and other research programs
- Analyses of national transportation policy issues and guidance on federal and other research programs
- Publications and access to research information from around the world

All available Snap Searches can be accessed online here: [http://www.trb.org/InformationServices/Snap.aspx](http://www.trb.org/InformationServices/Snap.aspx)

**TRB Research**

TRID – The world's largest and most comprehensive bibliographic source on all modes and disciplines of transportation

- Click here to view search results on TRB published research on Maintenance & Preservation within the past year.

**Subject Webpage**

- [Maintenance & Preservation Research at TRB](http://www.trb.org/)

**Recent Reports & Publications**

- **Airport Cooperative Research Program (ACRP)**
  - Report 203 - Guidelines for Collecting, Applying, and Maintaining Pavement Condition Data at Airports
  - Synthesis 96 - Practices to Mitigate Alkali-Silica Reaction (ASR) Affected Pavements at Airports
  - Synthesis 94 - Attracting Investment at General Aviation Airports Through Public–Private Partnerships

- **IDEA Safety Projects**
  - Report 35 - Non-contact Deflection Monitoring System for Timber Railroad Bridges

- **Letter Reports**
  - Long-Term Infrastructure Program - Letter Report: January 2, 2020
  - Long-Term Infrastructure Program - Letter Report: January 30, 2019

- **National Cooperative Highway Research Program (NCHRP)**
  - IDEA Report 204 - Biomimetic Antifreeze Molecules: A Novel Solution to Deicing Salts and Air-Entraining Admixtures
  - IDEA Report 202 - Vertical Electrical Impedance Scanner for Concrete Bridge Deck Assessment without Direct Rebar Attachment
  - Report 912 - Guidelines for Detection and Remediation of Soluble Salt Contamination Prior to Coating Steel Highway Structures
  - Report 889 - Performance Measures in Snow and Ice Control Operations
  - Report 750 - Strategic Issues Facing Transportation, Volume 7: Preservation, Maintenance, and Renewal of Highway Infrastructure
  - Synthesis 556 - Asset Management Approaches to Identifying and Evaluating Assets Damaged Due to Emergency Events
- Synthesis 544 - Concrete Technology for Transportation Applications
- Synthesis 540 - Leveraging Private Capital for Infrastructure Renewal
- Synthesis 539 - Landscape Development and Management Practices for Urban Freeway Roadsides
- Synthesis 537 - Impact of Asphalt Thickness on Pavement Quality
- Synthesis 534 - Emerging Technologies for Construction Delivery
- Synthesis 533 - Very Short Duration Work Zone Safety for Maintenance and Other Activities
- Synthesis 531 - Automated Pavement Condition Surveys
- Web-Only Document 275 - Potential Section 106 Exempted Categories or Program Comments for Federal Highway Administration Projects: National Streamlining Opportunities

- Transit Cooperative Research Program (TCRP)

- TRB Special Reports
  - Report 330 - Performance of Bridges That Received Funding Under the Innovative Bridge Research and Construction Program

- Transportation Research Circulars
  - E-Circular 254 - Workshop on the Use of Traffic Speed Deflection Device Data in Network- and Project-Level Pavement Decisions
  - E-Circular 248 - 12th International Conference on Low-Volume Roads
  - E-Circular 246 - Structural Monitoring

Current & Upcoming Projects

- Current Projects
  - ACRP 02-87 - Determining Airfield Pavement Deicer and Anti-Icer Contributions to Airport Stormwater
  - ACRP 09-18 - Rapid Airfield Concrete Pavement Slab Replacement and Patching
  - ACRP 09-19 - Airfield Pavement Markings - Effective Techniques for Removal and Temporary Applications
  - NCHRP 01-61 - Evaluation of Bonded Concrete Overlays on Asphalt Pavements
  - NCHRP 02-25 - Workforce 2030--Attracting, Retaining, and Developing the Transportation Workforce: Design, Construction, and Maintenance
  - NCHRP 02-26 - Implementation of Life-Cycle Planning Analysis in a Transportation Asset Management Framework
  - NCHRP 06-18 - Guide for Snow and Ice Control Operations
  - NCHRP 09-57A - Ruggedness of Laboratory Tests to Assess Cracking Resistance of Asphalt Mixtures
  - NCHRP 10-102 - A Guidebook for Risk-Based Construction Inspection
  - NCHRP 12-115 - Guidelines for Risk-Based Inspection and Strength Evaluation of Suspension Bridge Main Cable Systems
  - NCHRP 13-06A - Guide for the Formulation of Long-Range Plans and Budgets for Replacement of Highway Operations Equipment
  - NCHRP 14-36 - Proposed AASHTO Guide for Bridge Preservation Actions
  - NCHRP 14-41 - Permanent Vegetation Control Treatments for Roadsides
  - NCHRP 14-42 - Determining the Impact of Connected and Automated Vehicle Technology on State DOT Maintenance Programs
  - NCHRP 14-43 - Guide Construction Specifications for Cold In-place Recycling and Cold Central Plant Recycling
  - NCHRP 15-50(01) - Implementation Assessment of 3R Design Guidelines
  - NCHRP 20-06/Topic 24-05 - Fix It, Sign It, or Close It: State of Good Repair in an Era of Budget Constraints
  - NCHRP 20-50(18) - LTPP Data Analysis: Significance of As-Constructed Asphalt Pavement Air Voids to Pavement Performance
  - NCHRP IDEA 20-30/IDEA 205 - MRI Bridge Analysis and Multi-Modal Imaging Using Optimal Multi-Coil Resonant Coupling
  - NCHRP IDEA 20-30/IDEA 208 - Determining Bridge Deck Chloride Quantities with Ground Penetrating Radar
  - NCHRP IDEA 20-30/IDEA 222 - Mixed Reality Assisted Infrastructure Inspections
  - NCHRP Synthesis 20-05/Topic 51-07 - Practices for Assessing and Mitigating the Moisture Susceptibility of Asphalt Pavements
  - NCHRP Synthesis 20-05/Topic 51-08 - Practice and Performance of Cold In-Place Recycling and Cold Central Plant Recycling
• **Upcoming Projects**
  - ACRP 09-20 - Quantifying the Impacts of Delayed Maintenance of Airport Assets
  - ACRP 09-21 - Guidelines for the Effective Transition of Asset Data from Design/Construction to Operations and Maintenance
  - ACRP 11-03/Topic S09-09 - Automated Pavement Condition Survey Practices at Airports
  - NCHRP 06-19 - Develop a Guidebook for the Use of Non-Chemical Methods for Removing Snow and Ice from Roadways
  - NCHRP 10-105 - Verification of Traffic Speed Deflection Devices' (TSDDs) Measurements
  - NCHRP 12-122 - Evaluating and Implementing Unmanned Aerial Systems (UAS) into Bridge Management Methods Through Element-Level Data Collection
  - NCHRP 13-08 - Guideline for Decision Making for Repair vs. Replacement of Highway Maintenance Equipment
  - NCHRP 14-44 - Guide Specifications for the Construction of Slurry Seals, Scrub Seals, and Tack Coats
  - NCHRP 14-45 - Guidelines for Response Planning, Assessment, and Rapid Restoration of Service of Bridges in Extreme Events
  - NCHRP 14-46 - Rumble and Mumble Strip Preservation Treatment Options
  - NCHRP 18-20 - AASHTO LRFD Design, Installation, and Standard Practice of Testing for Cured In-Place Pipe Liners
  - NCHRP 20-102(28) - Preparing Transportation Agencies for Connected and Automated Vehicles in Work Zones
  - NCHRP 20-123(07) - Update proposed Manual for the Maintenance of Roadways and Bridges
  - NCHRP 23-08 - A Guide for Incorporating Maintenance Costs into a Transportation Asset Management Plan
  - NCHRP 25-63 - Evaluating and Improving Current Practices for Temporarily Deterring Bat Use of Bridges and Similar Structures
  - NCHRP 20-05/Topic 52-01 - State of Practice on Infrastructure Inspections for the Digital Age
  - NCHRP 20-05/Topic 52-02 - Current Practices in Bridge Asset Management Decision-Making
  - NCHRP 20-05/Topic 52-03 - Practices for Ensuring Bridge Surface Smoothness
  - NCHRP 20-05/Topic 52-07 - Use of Pavement Data Collection Technology for Pavement Data Quality Management and MAP-21 Target Setting
  - NCHRP 20-05/Topic 52-09 - Use of Safety Management Systems in Managing Highway Maintenance Worker Safety
  - NCHRP 20-05/Topic 52-12 - Rehabilitation of Culverts and Buried Storm Drain Pipes
  - NCHRP 20-05/Topic 52-17 - Use of Rejuvenators in Asphalt Concrete Mixtures Containing High RAP

Reports from the [National Academies Press](https://www.nap.edu/) on Maintenance & Preservation

- Effectiveness and Impacts of Dust Control Measures for Owens Lake
- A Research Review of Interventions to Increase the Persistence and Resilience of Coral Reefs
- In-Time Aviation Safety Management - Challenges and Research for an Evolving Aviation System

Committees & Panels

Sign-up to be a committee "Friend"

**TRB Standing Committees** – Search by transportation mode and committee topic

- ACP55 - Traffic Control Devices
- AKB40 - Testing and Evaluation of Transportation Structures
- AKC60 - Asphalt Pavement Construction and Rehabilitation
- AKG30 - Geo-Environmental and Climatic Impacts on Geomaterials
- AKM90 - Polymer Concretes, Adhesives, and Sealers
- AKP10 - Pavement Condition Evaluation
- AKR10 - Maintenance and Operations Management
- AKR20 - Roadside Maintenance Operations
- AKR30 - Maintenance Fleet and Equipment
- AKR40 - Winter Maintenance
- AKR50 - Road Weather
- AKT10 - Pavement Management Systems
- AKT20 - Pavement Preservation
- AKT30 - Pavement Maintenance
- AKT40 - Structures Maintenance
- AKT50 - Bridge and Structures Management
- AKT60 - Bridge Preservation
- AR050 - Railroad Infrastructure Design and Maintenance
- AR060 - Rail Transit Infrastructure Design and Maintenance

**Task Forces** - Search for *task force* under committee here

**CRP Panels**
- Project Panels Related to Maintenance & Preservation

**Councils**
- A001C – Young Members Coordinating Council

**Recent and Upcoming Events**

**Upcoming Conferences** - Left hand menu "upcoming conferences by topic"
*(Conferences cosponsored by TRB are denoted with an asterisk.)*

- **Transportation Asset Management Summer MegaMeeting***
  
  *July 13, 2020*
  
  *Online*

- **International Conference on Advances in Materials and Pavement Performance Prediction (AM3P)**
  
  *August 5, 2020*
  
  *Online*

- **2020 International Conference on Winter Maintenance and Surface Transportation Weather and Winter Maintenance National Peer Exchange**
  
  *September 21, 2020*
  
  *Atlanta, Georgia*

- **GeoMEast International Conference 2020: "Sustainable Civil Infrastructures"***
  
  *November 8, 2020*
  
  *Cairo, Egypt*

- **10th International Conference on Bridge Maintenance, Safety, and Management (IABMAS2020)**
  
  *April 11, 2021*
  
  *Sapporo, Japan*

- **International Conference on Managing Pavement Assets (ICMPA)**
  
  *June 8, 2021*
  
  *Chicago, IL*

- **10th International Conference on Structural Health Monitoring of Intelligent Infrastructure***
  
  *June 30, 2021*
  
  *Porto, Portugal*

- **GeoChina 2021 International Conference***
  
  *July 19, 2021*
  
  *NanChang, Jiangxi, China*

- **12th International Conference on Concrete Pavements***
Webinars – View upcoming webinars, suggest a webinar or add registration information

Past Webinars

- Maintenance and Preservation

TRB’s Transportation Research Information Services (TRIS)

TRIS includes the TRB Library and the TRIS Databases (listed below) which are available free on TRB’s website.

The TRB Library provides information services to TRB staff, sponsors, TRB Committee members and panels and researchers. Access to the TRB Library is a benefit to TRB sponsors and TRB committee members.

In cooperation with your State DOT Library or Information Service, the TRB Library provides:

- Reference and research assistance
- Literature searches
- Articles for TRB Committee work

The TRB Library provides training on effective and efficient use of the following TRIS resources:

TRID – The world’s largest and most comprehensive bibliographic source on all modes and disciplines of transportation - trid.trb.org

Publications Index (PubsIndex) Database – The papers, articles and reports published by the Transportation Research Board, Highway Research Board, Strategic Highway Research Programs or the Marine Board - pubsindex.trb.org

Research in Progress (RiP) Database – Current or recently completed transportation research projects - rip.trb.org

Research Needs Statements (RNS) – Research needs as identified by TRB Technical Activities standing committees - rns.trb.org

Contact the Library at TRBLibrary@nas.edu or (202) 334-2989