

TRB TRANSPORTATION RESEARCH BOARD

TRB Snap Search: Bridges & Other Structures

TRB's involvement in research on Bridges & Other Structures from 2020-2022

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>

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 Bridges & Other Structures within the past two years.

Subject Webpage

- [Bridges & Other Structures Research at TRB](#)

Specialty Report

- [Critical Issues in Transportation 2019](#)
- [COVID-19 Addendum to Critical Issues in Transportation](#)
- [Racial Equity Addendum to Critical Issues in Transportation](#)

Recent Reports & Publications

- [Innovations Deserving Exploratory Analysis \(IDEA\)](#)
 - [Safety Report 39](#) - Non-Contact Scour Monitoring System for Railroad Bridges
- [National Cooperative Highway Research Program \(NCHRP\)](#)
 - [NCHRP 20-44\(04\)](#) - Implementing Products from NCHRP Research on Adhesive Anchor Systems
 - [NCHRP IDEA 20-30/IDEA 208](#) - Determining Bridge Deck Chloride Quantities with Ground Penetrating Radar
 - [IDEA Report 202](#) - Vertical Electrical Impedance Scanner for Concrete Bridge Deck Assessment without Direct Rebar Attachment
 - [IDEA Report 189](#) - A Novel Vision Sensor for Remote Measurement of Bridge Displacement
 - [Letter Report](#) - Long-Term Infrastructure Program – January 2, 2020
 - [NCHRP 20-07/Task 424](#) - AASHTO Guidelines for the Operation of Movable Bridges from Remote Locations
 - [Report 971](#) - Revised Clear-Water and Live-Bed Contraction Scour Analysis
 - [Report 965](#) - Mitigation of Weldment Cracking in Steel Highway Structures Due to the Galvanizing Process
 - [Report 962](#) - Proposed Modification to AASHTO Cross-Frame Analysis and Design
 - [Report 958](#) - Electrochemical Test Methods to Evaluate the Corrosion Potential of Earthen Materials
 - [Report 951](#) - AASHTO Load Rating Provisions for Implements of Husbandry
 - [Report 950](#) - Proposed AASHTO Guides for Bridge Preservation Actions
 - [Report 949](#) - Proposed AASHTO Guidelines for Performance-Based Seismic Bridge Design
 - [Report 935](#) - Proposed AASHTO Seismic Specifications for ABC Column Connections
 - [Synthesis 577](#) - Collaborative Practices for Performance-Based Asset Management Between State DOTs and MPOs
 - [Synthesis 566](#) - Practices for Bridge Approach Systems
 - [Synthesis 562](#) - Repair and Maintenance of Post-Tensioned Concrete Bridges
 - [Synthesis 556](#) - Asset Management Approaches to Identifying and Evaluating Assets Damaged Due to Emergency Events

- [Synthesis 551](#) - Highway Hydraulic Engineering State of Practice
- [Synthesis 546](#) - Use of Weigh-in-Motion Data for Pavement, Bridge, Weight Enforcement, and Freight Logistics Applications
- [Synthesis 544](#) - Concrete Technology for Transportation Applications
- [Web-Only Document 307](#) - Recommended Guidelines for the Selection of Test Levels 2 Through 5 Bridge Railings
- [Web-Only Document 294](#) - Revised Clear-Water and Live-Bed Contraction Scour Analysis Training Manual
- [Web-Only Document 292](#) - Roadside Hardware Replacement Analysis: User Guide
- [Web-Only Document 278](#) - Context-Sensitive Design Options for Workhorse Bridges in Rural Historic Districts—Practitioner’s Guide and Research Report
- [Web-Only Document 269](#) - Guide Specification for Service Life Design of Highway Bridges
- [Transportation Research Circulars](#)
 - [E-Circular 273](#) - History and Future Perspectives on Foundation Design for Transportation Structures
 - [E-Circular 272](#) - Technology Exchange on Local Roads Bridge Programs
 - [E-Circular 257](#) - Primer on Bridge Load Testing

Current & Upcoming Projects

- [Current Projects](#)
 - [NCHRP 08-139](#) - Guide for Preventing and Mitigating the Risk of Bridge and Tunnel Strikes by Motor Vehicles
 - [NCHRP 12-95A](#) - Proposed AASHTO Guidelines for Adjacent Precast Concrete Box Beam Bridge Systems
 - [NCHRP 12-115](#) - Guidelines for Risk-Based Inspection and Strength Evaluation of Suspension Bridge Main Cable Systems
 - [NCHRP 12-116A](#) - Proposed AASHTO Specifications for Design of Piles for Downdrag
 - [NCHRP 12-117](#) - Guidelines for Corrosion Protection of Steel Bridges Using Duplex Coating Systems
 - [NCHRP 12-118](#) - Design and Construction Specifications for Bonded and Unbonded Post-Tensioned Concrete Bridge Elements
 - [NCHRP 12-119](#) - MASH Railing Load Requirements for Bridge Deck Overhang
 - [NCHRP 12-120](#) - Stainless Steel Strands for Prestressed Concrete Bridge Elements
 - [NCHRP 12-121](#) - Guidelines for the Design of Prestressed Concrete Bridge Girders Using FRP Auxiliary Reinforcement
 - [NCHRP 12-122](#) - Proposed AASHTO Guidelines for Applications of Unmanned Aerial Systems Technologies for Element-Level Bridge Inspection
 - [NCHRP 12-123](#) - Proposed AASHTO Guideline for Load Rating of Segmental Bridges
 - [NCHRP 20-07/Task 428](#) - Update of the 2012 AASHTO Guide Specification for Design of Bonded FRP Systems for Repair
 - [NCHRP 20-123\(10\)](#) - AASHTO Committee on Bridges and Structures Strategic Plan, Operating Guidelines, and Research Roadmap Development
 - [NCHRP 22-33](#) - Multi-State In-Service Performance Evaluations of Roadside Safety Hardware
 - [NCHRP 22-35](#) - Evaluation of Bridge Rail Systems to Confirm AASHTO MASH Compliance
 - [NCHRP 22-41](#) - Proposed Modification to AASHTO LRFD Bridge Design Specifications, Section 13—Railing
 - [NCHRP 22-43](#) - Proposed AASHTO Guidelines for Implementation of MASH for Sign Supports, Breakaway Poles, and Work Zone Traffic Control Devices
 - [NCHRP 23-08](#) - A Guide for Incorporating Maintenance Costs into a Transportation Asset Management Plan
 - [NCHRP 24-48](#) - A Methodology for Determining Scour Depth around Structures in Gravel-bed Rivers
 - [NCHRP 25-61](#) - Development of On-Bridge Stormwater Treatment Practices
 - [NCHRP 25-63](#) - Handbook on Detering and Excluding Bats from Transportation Structures
 - [NCHRP IDEA 20-30/IDEA 205](#) - MRI Bridge Analysis and Multi-Modal Imaging Using Optimal Multi-Coil Resonant Coupling
 - [NCHRP IDEA 20-30/IDEA 210](#) - Material Characteristics of Cu-Based Superelastic Alloys for Applications in Bridge Columns to Improve Seismic Performance
 - [NCHRP IDEA 20-30/IDEA 213](#) - SEAHIVE – Sustainable Estuarine and Marine Revetment
 - [NCHRP IDEA 20-30/IDEA 215](#) - Achieving Resilient Multi-Span Bridges by using Buckling-Restrained Braces
 - [NCHRP IDEA 20-30/IDEA 220](#) - Bridge Deck Sealant Monitor: Thermal Sealcheck
 - [NCHRP IDEA 20-30/IDEA 222](#) - Mixed Reality Assisted Infrastructure Inspections
 - [NCHRP IDEA 20-30/IDEA 223](#) - Fatigue Crack Inspection Using Computer Vision and Augmented Reality
 - [NCHRP IDEA 20-30/IDEA 227](#) - Adjustable Cross-frames for the Erection of Steel Girder Bridges
 - [NCHRP IDEA 20-30/IDEA 230](#) - Automated Data and Feature Extraction from Bridge Plan
 - [NCHRP Synthesis 20-05/Topic 51-13](#) - Load Rating of Bridges and Culverts with Missing or Incomplete As-Built Information
 - [NCHRP Synthesis 20-05/Topic 52-02](#) - Current Practices in Bridge Asset Management Decision-Making
 - [NCHRP Synthesis 20-05/Topic 52-03](#) - Practices for Ensuring Bridge Surface Smoothness

- [NCHRP Synthesis 20-05/Topic 52-05](#) - Implementation of Subsurface Utility Engineering for Highway Design and Construction
- [NCHRP Synthesis 20-05/Topic 53-11](#) - Resilient Design with Distributed Rainfall Modeling
- [NCHRP Synthesis 20-05/Topic 53-12](#) - Practices for Adding Bicycle and Pedestrians Access on Existing Vehicle Bridges
- [NCHRP Synthesis 20-05/Topic 53-13](#) - Practices for Steel Bridge Fabrication and Erection Tolerances
- [Safety IDEA Project 37](#) - Measuring Behavior of Railroad Bridges under Revenue Traffic using Lasers and Unmanned Aerial Vehicles (UAVs) for Safer Operations: Implementation
- [Safety IDEA Project 45](#) - Development of a Fatigue Load for Railway Bridges
- [Upcoming Projects](#)
 - [NCHRP 10-111](#) - Evaluation and Selection of 3D Model Viewers for Construction Inspection
 - [NCHRP 12-124](#) - Improved Demand Predictions on Shear Studs for Composite Steel Bridge Design
 - [NCHRP 14-45](#) - Guidelines for Response Planning, Assessment, and Rapid Restoration of Service of Bridges in Extreme Events
 - [NCHRP 22-56](#) - Development of Prefabricated Concrete Barrier Systems for Accelerated Bridge Construction
 - [NCHRP 24-51](#) - Effects of Construction Installation Methods on the Design and Performance of Drilled Shaft Foundations

Reports from the [National Academies Press](#) on Bridges & Other Structures

- [Service Life Assessment and Predictive Modeling for an Aging Critical Infrastructure](#)
- [Evolving the Geodetic Infrastructure to Meet New Scientific Needs](#)
- [A Vision for NSF Earth Sciences 2020-2030](#)

Committees & Panels

[Sign-up to be a committee "Friend"](#)

[TRB Standing Committees](#) – Search by transportation mode and committee topic

- [AKB00](#) - Bridges and Structures
- [AKB10](#) - Innovative Highway Structures and Appurtenances
- [AKB20](#) - Steel Bridges
- [AKB30](#) - Concrete Bridges
- [AKB40](#) - Testing and Evaluation of Transportation Structures
- [AKB50](#) - Seismic Design and Performance of Bridges
- [AKB60](#) - Tunnels and Underground Structures
- [AKB70](#) - Culverts, Buried Bridges and Soil Structure Interaction
- [AKC40](#) - Construction of Bridges and Structures
- [AKC70](#) - Fabrication and Inspection of Metal Structures
- [AKM50](#) - Advanced Concrete Materials and Characterization
- [AKG70](#) - Foundations of Bridges and Other Structures
- [AKM60](#) - Properties of Concrete
- [AKM70](#) - Durability of Concrete
- [AKT40](#) - Structures Maintenance
- [AKT50](#) - Bridge and Structures Management
- [AKT60](#) - Bridge Preservation
- [AR050](#) - Railroad Infrastructure Design and Maintenance
- [AR060](#) - Rail Transit Infrastructure Design and Maintenance
- [B0024](#) – Research and Technology Coordinating Committee
- [B0147](#) – Bridge Data Analysis Working Group
- [B0162](#) – Review of Federal Highway Administration Infrastructure R&D – Expert Task Group on Bridges

[Task Forces](#) - Search for *task force* under committee here

CRP Panels

- [Project Panels Related to Bridges and Other Structures](#)

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.)

[TRB Virtual Careers in Motion Networking Fair](#)

December 8, 2021

Washington, DC

[Accelerated Bridge Construction Conference*](#)

December 8, 2021

online

[American Society of Civil Engineers \(ASCE\) Geo-Congress 2022*](#)

March 20, 2022

Charlotte, NC

[11th International Conference on the Bearing Capacity of Roads, Railways, and Airfields*](#)

June 28, 2022

Trondheim, Norway

[Bridge Engineering Institute Conference*](#)

June 1, 2023

Singapore

[Upcoming Events](#) – In the Upcoming Events tab under Types, choose what event you are interested in, search titles by keyword

[Past Events](#) - In the Past Events tab under Types, choose what event you are interested in, search titles by keyword

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:

- **Transportation Research International Documentation (TRID)** – trid.trb.org - The world's largest and most comprehensive bibliographic source on all modes and disciplines of transportation
- **Transportation Research Thesaurus (TRT)** – trt.trb.org – A tool to improve the indexing and retrieval of transportation information.
- **Research in Progress (RiP) Database** – rip.trb.org - Current or recently completed transportation research projects
- **Research Needs Statements (RNS)** – rns.trb.org - Research needs as identified by TRB Technical Activities standing committees
- **Publications Index (PubsIndex) Database** – pubsindex.trb.org - The papers, articles and reports published by the Transportation Research Board, Strategic Highway Research Programs or the Marine Board

Contact or Questions: TRBLibrary@nas.edu