The National Academies of Sciences · Engineering · Medicine

TRANSPORTATION RESEARCH BOARD

TRB Snap Search: Bridges & Other Structures

TRB’s involvement in research on Bridges & Other Structures from 2018-2019

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

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 year.

Subject Webpage
- Bridges & Other Structures Research at TRB

Recent Reports & Publications

- Innovations Deserving Exploratory Analysis (IDEA)
  - Safety Report 32 - Railroad Bridge Inspections for Maintenance and Replacement Prioritization Using Unmanned Aerial Vehicles (UAVs) with Laser Scanning Capabilities

- National Cooperative Highway Research Program (NCHRP)
  - Letter Report - Long-Term Infrastructure Program – January 23, 2018
  - Report 872 - Contribution of Steel Casing to Single Shaft Foundation Structural Resistance
  - Report 883 - Fracture-Critical System Analysis for Steel Bridges
  - Synthesis 517 - Corrosion Prevention for Extending the Service Life of Steel Bridges
  - Web-Only Document 243 - Recommended Guidelines for Prefabricated Bridge Elements and Systems Tolerances and Recommended Guidelines for Dynamic Effects for Bridge Systems
  - Web-Only Document 245 - Bridge Superstructure Tolerance to Total and Differential Foundation Movements
  - Web-Only Document 251 - Spot Painting to Extend Highway Bridge Coating Life: Volume 1: Guidance
  - Web-Only Document 251 - Spot Painting to Extend Highway Bridge Coating Life: Volume 2: Research Overview

- Transportation Research Circulars
  - E-Circular 224 - Eleventh International Bridge and Structures Management Conference

Current & Upcoming Projects

- Current Projects
  - 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 20-07/Task 410 - Load Rating for the Fast Act Emergency Vehicles Ev-2 and Ev-3
  - NCHRP 20-24(124) - Performance Management Reporting Peer Exchange
  - NCHRP 22-35 - Evaluation of Bridge Rail Systems to Confirm AASHTO MASH Compliance
  - NCHRP 25-25/Task 102 - Artificial Bat Roost Mitigation Designs and Standardized Monitoring Criteria

Updated 11/14/2018
- **NCHRP IDEA 20-30/IDEA 202** - Vertical Impedance Scanner for Concrete Bridge Deck Assessment without Direct Rebar Attachment
- **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 Synthesis 20-05/Topic 49-03** - Bridge Demolition Practices
- **NCHRP Synthesis 20-05/Topic 50-03** - Use of Weigh-in-Motion Data for Improving Pavement, Bridge, Weight Enforcement, and Freight Logistics Practices

**Upcoming Projects**
- **NCHRP 12-116** - Design Specifications for the Static and Seismic 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 20-07/Task 415** - Proposed AASHTO Guidelines for Bottom Flange Limits of Steel Box Girders
- **NCHRP 22-33** - Multi-State In-Service Performance Evaluations of Roadside Safety Hardware
- **NCHRP 24-48** - A Methodology for Determining Scour Depth around Structures in Gravel-bed Rivers
- **NCHRP 25-25/Task 118** - Context-Sensitive Design Options for Workhorse Bridges in Rural Historic Districts

**Reports from the National Academies Press on Bridges & Other Structures**
- [Frontiers of Engineering - Reports on Leading-Edge Engineering from the 2017 Symposium](#)

**Committees & Panels**

**Sign-up to be a committee "Friend"**

**TRB Standing Committees** – Search by transportation mode and committee topic
- **AF000** - Design and Construction Group
- **AFD30** - General and Emerging Pavement Design
- **AFF00** - Structures
- **AFF10** - General Structures
- **AFF20** - Steel Bridges
- **AFF30** - Concrete Bridges
- **AFF40** - Testing and Evaluation of Transportation Structures
- **AFF50** - Seismic Design and Performance of Bridges
- **AFF60** - Tunnels and Underground Structures
- **AFF70** - Culverts and Hydraulic Structures
- **AFF80** - Structural Fiber Reinforced Polymers
- **AFH40** - Construction of Bridges and Structures
- **AFH70** - Fabrication and Inspection of Metal Structures
- **AFN00** - Concrete Materials
- **AFN10** - Basic Research and Emerging Technologies Related to Concrete
- **AFN20** - Properties of Concrete
- **AFN30** - Durability of Concrete
- **AFH40** - Concrete Materials and Placement Techniques
- **AFS30** - Foundations of Bridges and Other Structures
- **AFS40** - Subsurface Soil-Structure Interaction
- **AFD30** - Structures Maintenance
- **AHD35** - Bridge Management
- **AHD37** - Bridge Preservation
- **AHD45** - Corrosion
- **AR050** - Railroad Track Structure System Design
- **BO024** – Research and Technology Coordinating Committee
- **BO147** – Bridge Data Analysis Working Group

**Task Forces** - Search for *task force* under committee here
- **AB020T** – Value of Transportation Infrastructure

**CRP Panels**
- Project Panels Related to Bridges and Other Structures

**Councils**
- **A0040T** – Young Member Council
Recent and Upcoming Events

**Upcoming Conferences** - Left hand menu “upcoming conferences by topic”
*Conferences cosponsored by TRB are denoted with an asterisk.*

- **Bridge Engineering Institute Conference 2019 (BEI-2019)**
  *July 22-24, 2019*
  Honolulu, Hawaii

- **Ninth International Conference on Structural Health Monitoring of Intelligent Infrastructure (SHMII-9)**
  *August 4-7, 2019*
  St. Louis, Missouri

- **International Accelerated Bridge Construction (ABC) Conference**
  *December 11-13, 2019*
  Miami, Florida

**Webinars** – View upcoming webinars, suggest a webinar or add registration information

**Past Webinars**
- Bridges and Other Structures

**TRB’s Transportation Research Information Services (TRIS)**

TRIS includes the TRB Library and the TRIS Databases (listed below) which are available for 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](http://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](http://pubsindex.trb.org)

**Research in Progress (RiP) Database** – Current or recently completed transportation research projects - [rip.trb.org](http://rip.trb.org)

**Research Needs Statements (RNS)** – Research needs as identified by TRB Technical Activities standing committees - [rns.trb.org](http://rns.trb.org)

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