TRB Snap Search: Construction

TRB's involvement in research on Construction from 2021-2022

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](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 Construction within the past year.

**Subject Webpage**

- Construction 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**

- Airport Cooperative Research Program (ACRP)
  - Report 214 - BIM Beyond Design Guidebook
  - WebResource 11 - Construction Safety and Phasing Plans

- National Cooperative Highway Research Program (NCHRP)
  - Report 965 - Mitigation of Weldment Cracking in Steel Highway Structures Due to the Galvanizing Process
  - Report 960 - Proposed AASHTO Practice and Tests for Process Control and Product Acceptance of Asphalt-Treated Cold Recycled Pavements
  - Synthesis 583 - Implementation of Subsurface Utility Engineering for Highway Design and Construction
  - Synthesis 580 - Practices for Ensuring the Smoothness of Concrete Bridge Decks
  - Synthesis 578 - Use of Unmanned Aerial Systems for Highway Construction
  - Synthesis 574 - Temporary Pavement Markings Placement and Removal Practices in Work Zones
  - Synthesis 570 - Practices for Closing Out Highway Projects from Substantial Completion to Final Payment
  - Synthesis 566 - Practices for Bridge Approach Systems
  - Synthesis 563 - Performance Metrics for Public–Private Partnerships
  - Synthesis 560 - Practices for Construction-Ready Digital Terrain Models
  - Web-Only Document 299 - Investigating the Relationship of As-Constructed Asphalt Pavement Air Voids to Pavement Performance
  - Web-Only Document 298 - Developing a Systematic Approach for Determining Construction Contract Time

- Transportation Research Circulars
  - E-Circular 274 - Quality Assurance: Past, Present, and Future
  - E-Circular 272 - Technology Exchange on Local Roads Bridge Programs
Current & Upcoming Projects

- **Current Projects**
  - [ACRP 02-90](#) - Development of Airport Construction Emission Inventory Tool (ACEIT) Version 2.0
  - [ACRP 11-02/Task 30](#) - Research Roadmap in the Area of Design and Construction of Airport Facilities and Infrastructure
  - [NCHRP 02-25](#) - Workforce 2030–Attracting, Retaining, and Developing the Transportation Workforce: Design, Construction, and Maintenance
  - [NCHRP 03-132](#) - Guidance for Safe and Effective Temporary Traffic Control for Mobile Operations on Two-Lane Two-Way Roadways
  - [NCHRP 03-140](#) - Guidelines for Applications of RFID and Wireless Technologies in Highway Construction and Asset Management
  - [NCHRP 05-24](#) - Guidelines for Vehicle and Equipment Color, Marking, and Lighting
  - [NCHRP 09-64](#) - Developing Laboratory Methods and Specifications to Test Tack Coat Materials
  - [NCHRP 10-102](#) - A Guidebook for Risk-Based Construction Inspection
  - [NCHRP 10-109](#) - Modern Solutions to Safe and Efficient Work Zone Travel
  - [NCHRP 10-110](#) - 3D Modeling Guide for Construction Inspection
  - [NCHRP 11-08](#) - Improving Rights-of-Way Acquisition and Compensation Practices for Utility Relocation
  - [NCHRP 12-95A](#) - Proposed AASHTO Guidelines for Adjacent Precast Concrete Box Beam Bridge Systems
  - [NCHRP 12-120](#) - Stainless Steel Strands for Prestressed Concrete Bridge Elements
  - [NCHRP 14-43](#) - Construction Guide Specifications for Cold Central Plant Recycling and Cold In-Place Recycling
  - [NCHRP 14-44](#) - Guide Specifications for the Construction of Slurry Seals, Scrub Seals, and Tack Coats
  - [NCHRP 14-46](#) - Guidelines for the Maintenance and Construction of Rumble Strips
  - [NCHRP 15-69](#) - Utility Conflict Impacts During Highway Construction
  - [NCHRP 15-71](#) - Contingency Factors to Account for Risk in Early Construction Cost Estimates for Transportation Infrastructure Projects
  - [NCHRP 18-18](#) - Design and Construction of Deck Bulb Tee Girder Bridges with UHPC
  - [NCHRP 20-06/Topic 25-03](#) - Managing Enhanced Risk in the Mega Project Era
  - [NCHRP 20-06/Topic 25-05](#) - The Legal Issues Associated with Consequential Damages Provisions in Construction Contracts
  - [NCHRP 20-06/Topic 25-06](#) - Legal Issues and Strategies for Best-Value Procurement for Highway Construction
  - [NCHRP 20-07/Task 35R](#) - Reducing Risks to Worker Safety in Work Zones Due to Distracted Drivers
  - [NCHRP 20-44(26)](#) - Implementing Guide Specifications for the Construction of Chip Seals, Micro Surfacing, and Fog Seals
  - [NCHRP 20-44(29)](#) - Training for Highway Construction Noise Prediction Model-RCNM2.0
  - [NCHRP 20-102(28)](#) - Preparing Transportation Agencies for Connected and Automated Vehicles in Work Zones
  - [NCHRP 23-05](#) - Guidance for Training and Certification of Construction Inspectors for Transportation Infrastructure
  - [NCHRP 25-60](#) - Watershed Approach to Mitigating Hydrologic Impacts of Transportation Projects
  - [NCHRP 25-62](#) - Improving the Efficiency and Consistency of Section 106 Compliance for State DOTs: Strategies for Project-Level Programmatic Agreements and Postwar Commercial Properties
  - [NCHRP 25-63](#) - Handbook on Deterring and Excluding Bats from Transportation Structures
  - [NCHRP 25-64](#) - Considering Greenhouse Gas Emissions and Climate Change in Environmental Reviews: Resources for State DOTs
  - [NCHRP IDEA 20-30/IDEA 226](#) - A Smart IoT Proximity Alert System for Highway Work Zone Safety
  - [NCHRP Synthesis 20-05/Topic 52-01](#) - Highway Infrastructure Inspection Practices for the Digital Age
  - [NCHRP Synthesis 20-05/Topic 52-06](#) - Agency Inspection and Monitoring of Quality Control Plans for Use in Administering Quality Assurance Specifications
  - [NCHRP Synthesis 20-05/Topic 52-11](#) - Use of Smart Work Zone Technologies for Improving Work Zone Safety
  - [NCHRP Synthesis 20-05/Topic 52-14](#) - Models as Construction Contract Documents
  - [NCHRP Synthesis 20-05/Topic 52-19](#) - Technological Capabilities of DOTs for Digital Project Management and Delivery
  - [NCHRP Synthesis 20-05/Topic 53-02](#) - Practices to Motivate Safe Behaviors with Highway Construction and Maintenance Crews
  - [NCHRP Synthesis 20-05/Topic 53-07](#) - Curing Practices for Concrete Pavement
  - [NCHRP Synthesis 20-05/Topic 53-09](#) - Use of Unmanned Aerial Systems for Highway Stormwater Inspections
  - [NCHRP Synthesis 20-05/Topic 53-11](#) - Resilient Design with Distributed Rainfall-Runoff Modeling
  - [TCRP J-05/Topic 20-01](#) - Legal Issues in Transit Mega Projects--Case Studies
• **Upcoming Projects**
  - NCHRP 08-155 - Researching and Responding to Racial Disparities in Construction
  - NCHRP 10-111 - Guide for 3D Model Viewers for Construction Inspection
  - NCHRP 10-112 - Guidelines for Digital Technologies and Systems for Remote Construction Inspection for Highway Infrastructure Projects
  - NCHRP 10-113 - Quality Management for 3D Model-Based Project Development and Delivery
  - NCHRP 10-115 - Guidebook on Progressive Design-Build for Transportation Projects: Project Planning through Project Implementation
  - NCHRP 10-116 - Variability in Pavement Materials and Construction
  - NCHRP 10-118 - Guidance for Efficient Timelines and Incentives/Disincentives for Accelerated Bridge Construction Projects
  - NCHRP 10-119 - Guidance for Implementing Utility Investigations in Alignment with Project Delivery
  - NCHRP 10-120 - Guidance for Including Right-Of-Way and Utilities in Value Engineering Studies
  - NCHRP 12-124 - Design of Stud Shear Connectors in Composite Steel Bridges
  - NCHRP 10-125 - Update to the AASHTO LRFD Bridge Construction Specifications
  - NCHRP 14-48 - Guidance for the Construction of Sand Seals and Ultra-thin Bonded Wearing Courses
  - NCHRP 17-121 - Using Advanced Technologies to Reduce Commercial Motor Vehicle Crashes in Work Zones
  - NCHRP 20-06/Topic 26-02 - Analysis of Arbitration and Holdings in Construction Disputes
  - NCHRP 22-56 - Development of Non-proprietary Prefabricated Solutions for Concrete Barrier Systems for Accelerated Bridge Construction
  - NCHRP 23-22 - Alternative Project Delivery Methods: Assessing and Allocating Risk to Increase Competition
  - NCHRP Synthesis 20-05/Topic 54-01 - Practices to Identify and Mitigate PFAS Impacts on Highway Construction Projects and Maintenance Operations
  - NCHRP Synthesis 20-05/Topic 54-04 - Mobile Devices as a Tool for Digitalized Project Documentation and Inspection
  - NCHRP Synthesis 20-05/Topic 54-12 - Programmatic Implementation of Alternative Delivery Methods by State Transportation Agencies
  - TCRP J-05/Topic 19-04 - Transit Sponsor and Contractor Delay Damages and Remedies Due to Third Parties - Transit Facility Improvements-Common Legal Issues and Solutions

Reports from the **National Academies Press** on Construction
  - Investing in Resilient Infrastructure in the Gulf of Mexico: Proceedings of a Workshop
  - Exploiting Advanced Manufacturing Capabilities: Topology Optimization in Design: Proceedings of a Workshop
  - Service Life Assessment and Predictive Modeling for an Aging Critical Infrastructure
  - Bringing Fusion to the U.S. Grid

**Committees & Panels**

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

**TRB Standing Committees** – Search by transportation mode and committee topic
  - ACP55 – Traffic Control Devices
  - AJE60 – Contracting Equity
  - AKC10 – Construction Management
  - AKC20 – Project Delivery Methods
  - AKC30 – Quality Assurance Management
  - AKC40 – Construction of Bridges and Structures
  - ACK50 – Concrete Pavement Construction and Rehabilitation
  - ACK60 – Asphalt Pavement Construction and Rehabilitation
  - ACK70 – Fabrication and Inspection of Metal Structures
  - AKD70 – Geospatial Data Acquisition Technologies
  - AKG50 – Transportation Earthworks
  - AKG70 – Foundations of Bridges and Other Structures
  - AKG90 – Stabilization of Geomaterials and Recycled Materials

Page 3
Recent and Upcoming Events

Upcoming TRB Conferences – Use left hand menu to filter events

Geospatial Data Acquisition Technologies in Design and Construction Summer Committee Meeting
July 25-27, 2022
Washington, D.C.

TRB International Conference on Low Volume Roads
July 23-26, 2022
Cedar Rapids, IA

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