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

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

- 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 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

- 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 08-03 - Construction Safety and Phasing Plans
  - ACRP 11-02/Task 30 - Research Roadmap in the Area of Design and Construction of Airport Facilities and Infrastructure
o NCHRP 02-25 - Workforce 2030—Attracting, Retaining, and Developing the Transportation Workforce: Design, Construction, and Maintenance
o NCHRP 03-132 - Guidance for Safe and Effective Temporary Traffic Control for Mobile Operations on Two-Lane Two-Way Roadways
o NCHRP 03-140 - Guidelines for Applications of RFID and Wireless Technologies in Highway Construction and Asset Management
o NCHRP 05-24 - Guidelines for Vehicle and Equipment Color, Marking, and Lighting
o NCHRP 09-64 - Developing Laboratory Methods and Specifications to Test Tack Coat Materials
o NCHRP 10-102 - A Guidebook for Risk-Based Construction Inspection
o NCHRP 10-109 - Modern Solutions to Safe and Efficient Work Zone Travel
o NCHRP 10-110 - 3D Modeling Guide for Construction Inspection
o NCHRP 11-08 - Improving Rights-of-Way Acquisition and Compensation Practices for Utility Relocation
o NCHRP 12-95A - Proposed AASHTO Guidelines for Adjacent Precast Concrete Box Beam Bridge Systems
o NCHRP 12-120 - Stainless Steel Strands for Prestressed Concrete Bridge Elements
o NCHRP 14-43 - Construction Guide Specifications for Cold Central Plant Recycling and Cold In-Place Recycling
o NCHRP 14-44 - Guide Specifications for the Construction of Slurry Seals, Scrub Seals, and Tack Coats
o NCHRP 14-46 - Guidelines for the Maintenance and Construction of Rumble Strips
o NCHRP 15-69 - Utility Conflict Impacts During Highway Construction
o NCHRP 15-71 - Contingency Factors to Account for Risk in Early Construction Cost Estimates for Transportation Infrastructure Projects
o NCHRP 18-18 - Design and Construction of Deck Bulb Tee Girder Bridges with UHPC
o NCHRP 20-06/Topic 25-03 - Managing Enhanced Risk in the Mega Project Era
o NCHRP 20-06/Topic 25-05 - The Legal Issues Associated with Consequential Damages Provisions in Construction Contracts
o NCHRP 20-06/Topic 25-06 - Legal Issues and Strategies for Best-Value Procurement for Highway Construction
o NCHRP 20-07/Task 358 - Reducing Risks to Worker Safety in Work Zones Due to Distracted Drivers
o NCHRP 20-44(26) - Implementing Guide Specifications for the Construction of Chip Seals, Micro Surfacing, and Fog Seals
o NCHRP 20-44(29) - Training for Highway Construction Noise Prediction Model-RCNM2.0
o NCHRP 20-102(20) - Preparing Transportation Agencies for Connected and Automated Vehicles in Work Zones
o NCHRP 23-05 - Guidance for Training and Certification of Construction Inspectors for Transportation Infrastructure
o NCHRP 25-60 - Watershed Approach to Mitigating Hydrologic Impacts of Transportation Projects
o 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
o NCHRP 25-63 - Handbook on Deterring and Excluding Bats from Transportation Structures
o NCHRP 25-64 - Considering Greenhouse Gas Emissions and Climate Change in Environmental Reviews: Resources for State DOTs
o NCHRP IDEA 20-30/IDEA 226 - A Smart IoT Proximity Alert System for Highway Work Zone Safety
o NCHRP Synthesis 20-05/Topic 52-01 - Highway Infrastructure Inspection Practices for the Digital Age
o NCHRP Synthesis 20-05/Topic 52-04 - Use of Unmanned Aircraft Systems for Departments of Transportation
o NCHRP Synthesis 20-05/Topic 52-05 - Implementation of Subsurface Utility Engineering for Highway Design and Construction
o NCHRP Synthesis 20-05/Topic 52-06 - Agency Inspection and Monitoring of Quality Control Plans for Use in Administering Quality Assurance Specifications
o NCHRP Synthesis 20-05/Topic 52-11 - Use of Smart Work Zone Technologies for Improving Work Zone Safety
o NCHRP Synthesis 20-05/Topic 52-14 - Models as Construction Contract Documents
o NCHRP Synthesis 20-05/Topic 52-19 - Technological Capabilities of DOTs for Digital Project Management and Delivery
o NCHRP Synthesis 20-05/Topic 53-07 - Curing Practices for Concrete Pavement
o NCHRP Synthesis 20-05/Topic 53-11 - Resilient Design with Distributed Rainfall-Runoff Modeling
o TCRP J-05/Topic 20-01 - Legal Issues in Transit Mega Projects--Case Studies

• **Upcoming Projects**
  o NCHRP 08-148 - Utility Abandonment, Out of Service Plant, and Decommissioning without Removal on Public Right of Way
  o NCHRP 08-155 - Researching and Responding to Racial Disparities in Construction
  o NCHRP 10-111 - Evaluation and Selection of 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 - Design Review and 3D Model Quality Management for Model-based Design and Construction
NCHRP 12-124 - Improved Demand Predictions on Shear Studs for Composite Steel Bridge Design
NCHRP 14-48 - Construction Guide Specifications for Pavement Treatments - Sand Seals and Ultra-thin Bonded Surface Treatments
NCHRP 20-06/Topic 26-02 - Analysis of Arbitration and Holdings in Construction Disputes
NCHRP 22-56 - Development of Prefabricated Concrete Barrier Systems for Accelerated Bridge Construction
NCHRP Synthesis 20-05/Topic 53-02 - Practices to Motivate Safe Behaviors with Highway Construction and Maintenance Crews
NCHRP Synthesis 20-05/Topic 53-09 - Use of Unmanned Aerial Systems for Highway Stormwater Inspections
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
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
AIE60 – 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
AKM50 – Advanced Concrete Materials and Characterization
AKM60 – Properties of Concrete and Constituent Materials
AKM70 – Durability of Concrete

Task Forces - Search for task force under committee here

CRP Panels
Project Panels Related to Construction

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 Infrastructure Innovations for Durability and Resilience (TriDurLE 2021)*
December 6, 2021
Online

TRB Virtual Careers in Motion Networking Fair
December 8, 2021
Washington, DC

Accelerated Bridge Construction Conference*

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December 8, 2021
Online

American Society of Civil Engineers (ASCE) Geo-Congress 2022*
March 20, 2022
Charlotte, NC

International Conference on Roundabouts
May 15, 2022
Monterey, CA

Geospatial Data Acquisition Technologies in Design and Construction Summer Committee Meeting
July 1, 2022
Austin, TX

International Conference of International Society for Intelligent Construction*
September 6, 2022
Guimaraes, Portugal

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