TRB Snap Search: Geotechnology

TRB's involvement in research on Geotechnology from 2022-2024

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 Geotechnology within the past year.

Specialty Report

- Critical Issues in Transportation for 2024 and Beyond
- Critical Issues in Transportation 2019
- COVID-19 Addendum to Critical Issues in Transportation
- Racial Equity Addendum to Critical Issues in Transportation

Recent Reports & Publications

- National Cooperative Highway Research Program (NCHRP)
  - IDEA 221 - Development of In-Situ Cyclic Borehole Shear Soil Test Device
  - Report 1092 - Seismic Site Response Analysis with Pore Water Pressure Generation: Guidelines
  - Synthesis 617 - Prevention and Mitigation of Surficial Slope Failures on Fill Highway Embankment Slopes
  - Synthesis 612 - Moisture Measurement for Pavement Foundations and Slopes
  - Synthesis 601 - Practices for Local Calibration of LRFD Geotechnical Resistance Factors
  - Synthesis 588 - Design Practices for Rock Slopes and Rockfall Management
  - Web-Only Document 383 - Seismic Site Response Analysis with Pore Water Pressure Generation: Resources for Evaluation

- Transportation Research Circulars
  - E-Circular 283 - 13th International Conference on Low-Volume Roads

Current & Upcoming Projects

- Current Projects
  - NCHRP 10-121 - Guidelines for the Application of Ground Modification Methods for Highway Structures
  - NCHRP 12-125 - Earthquake-Induced Bridge Displacements
  - NCHRP 22-51 - Impact of Soil Stiffness on the Performance of Crash Testing and Roadside Safety
  - NCHRP IDEA 20-30/IDEA 244 - Development of a Compaction Quality Control Standard for the Small Diameter Pressuremeter
  - NCHRP Synthesis 20-05/Topic 55-03 - Asset Management Practices for Mechanically Stabilized Earth Walls

Updated 4/24/2024
• **Upcoming Projects**

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

- [Transportation and Infrastructure » Geotechnology](https://www.nap.edu)
- [Progress and Priorities in Ocean Drilling: In Search of Earth’s Past and Future](https://www.nap.edu)
- [Future Directions for Southern Ocean and Antarctic Nearshore and Coastal Research](https://www.nap.edu)
- [The Chemistry of Fires at the Wildland-Urban Interface](https://www.nap.edu)
- [The Potential Impacts of Gold Mining in Virginia](https://www.nap.edu)
- [Investing in Resilient Infrastructure in the Gulf of Mexico](https://www.nap.edu)
- [Biodiversity at Risk: Today’s Choices Matter](https://www.nap.edu)
- [Exploring a Dynamic Soil Information System](https://www.nap.edu)
- [Effectiveness and Efficiency of Defense Environmental Cleanup Activities of DOE’s Office of Environmental Management](https://www.nap.edu)
- [Next Generation Earth Systems Science at the National Science Foundation](https://www.nap.edu)

Committees & Panels

Sign-up to be a committee "Friend"

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

- AKB70 – Culverts, Buried Bridges and Soil Structure Interaction
- AKG00 – Geology and Geotechnical Engineering
- AKG10 – Engineering Geology
- AKG20 – Soil and Rock Properties and Site Characterization
- AKG30 – Geo-Environmental and Climatic Impacts on Geomaterials
- AKG40 – Mechanics and Drainage of Saturated and Unsaturated Geomaterials
- AKG50 – Transportation Earthworks
- AKG60 – Geotechnical Instrumentation and Modeling
- AKG70 – Foundations of Bridges and Other Structures
- AKG80 – Geosynthetics
- AKG90 – Stabilization of Geomaterials and Recycled Materials
- AKM80 – Aggregates

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

**CRP Panels** – Select CRP Panel and Synthesis Panel and search by subject

- D0153 - Proposed Enhancements to Pavement ME Design: Improved Consideration of the Influence of Subgrade and Unbound Layers on Pavement Performance
- D0159 - Proposed Enhancements to Pavement ME Design: Improved Consideration of the Influence of Subgrade Soils Susceptible to Shrink/Swell and/or Frost Heave on Pavement Performance
- D10121 - Performance-based Specification for the Application of Ground Modification Methods for Bridges, Retaining Structures, and Associated Geotechnical Features
- D10131 - Implementation of Full-Scale Laboratory Tests to Determine Performance Properties of Geosynthetic- Reinforced pavements
- D2251 - Evaluation of MASH 2016 soil specifications and procedures
- SN5218 - Design Practices for Rock Slopes and Rockfall Management
- SN5318 - Moisture Measurement for Foundations and Slopes for Pavements and Structures
- SN5415 - Prevention and Mitigation of Surficial Slope Failures on Highway Embankment Slopes

**Councils**

- A001C – Young Members Coordinating Council

Recent and Upcoming Events

**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 Webinar: Foundations in Shrink Swell Soil—Innovation and State of Practice**

*March 12, 2024*
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
- 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