SHRP2 SOLUTIONS
TOOLS FOR THE ROAD AHEAD

GeoTechTools (R02)

Geotechnology selection guidance and engineering tools for embankment, ground improvement, and pavement support applications

Challenge

Many projects require geotechnical solutions that enable innovative project construction in restricted space and in challenging soil conditions. Many geotechnical solutions are either not widely used or are relatively new. As a result, the full benefits of these techniques are not realized as widely as they could be.

Solution

By assembling all the information needed to select, design, control quality, and specify soil improvement technologies for embankment construction, embankment widening, and pavement support into one convenient and comprehensive system, SHRP2's GeoTechTools system provides transportation agencies and their contractors with the information to use proven technologies with confidence.

www.GeoTechTools.org is a web-based decision-making tool that has identified more than 46 geotechnical solutions for design and construction of embankments on soft soils, embankment widening, and pavement foundations. The website's extensive and organized engineering tools collectively help engineers and project managers select and apply the most appropriate solution to site-specific problems and conditions.

Benefits

GeoTechTools accelerates the design and construction process by providing practitioners with a convenient and efficient way to identify and apply the best geotechnical solutions to site-specific conditions and issues based on performance requirements. Using the tool can help agencies choose the technology that is the fastest to build, or that will complete the overall project faster.

The Implementation Assistance Program

Implementation assistance is available to help State departments of transportation (DOTs), metropolitan planning organizations (MPOs), and other interested organizations deploy SHRP2 Solutions. A range of opportunities is available to raise awareness of SHRP2 Solutions and to encourage early adoption of these products. Application periods are offered approximately twice per year. Each product selected for implementation assistance has the potential to deliver more efficient, cost-effective programs to meet the complex challenges facing transportation today.

Save Lives

More informed decisions on geotechnical solutions reduce risk and help to minimize construction claims, thus reducing the potential for workzone accidents.

Save Money

Examining a variety of potential geotechnical solutions and selecting the best suited to project specific conditions will reduce construction costs for owners and contractors.

Save Time

The most efficient geotechnical solution for a particular project may be the technology that can be more quickly constructed or the technology that can get the overall project completed more quickly. GeoTechTools provides the information to first determine appropriate technologies for a project, and to then compare relative construction times.

RENEWAL

One of four SHRP2 focus areas, Renewal products help transportation organizations rapidly build and restore highway infrastructure that lasts longer while minimizing user disruption and delay.

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Visit: www.fhwa.dot.gov/GoSHRP2
Learn more about products, case studies, and implementation assistance.

How can you learn more?

Visit: www.fhwa.dot.gov/GoSHRP2

- Additional product information
- Information about how this product is being used in the field
- Contact information for peers who are familiar with this product
- Links to research reports

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About SHRP2 Implementation

The second Strategic Highway Research Program (SHRP2) is a partnership of the Federal Highway Administration (FHWA), the American Association of State Highway and Transportation Officials (AASHTO), and the Transportation Research Board (TRB). TRB completed the research, and now FHWA and AASHTO are jointly implementing the resulting SHRP2 Solutions that will help the transportation community enhance productivity, boost efficiency, increase safety, and improve the reliability of the Nation's highway system.