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<th>ID CODE</th>
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<th>PUBLISHER/YEAR</th>
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<tr>
<td>BR 15</td>
<td>AASHTO LRFD Bridge Design Specifications</td>
<td>This manual is on the AASHTO LRFD Bridge Design Specifications 2003 Interim Revisions as approved by the AASHTO Subcommittee on Bridges and Structures</td>
<td>AASHTO</td>
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<tr>
<td>BR 15</td>
<td>AASHTO Maintenance Manual - The Maintenance and Management of Roadways and Bridges</td>
<td>This manual is intended for those early in their careers to help them understand the processes, methods and materials applied to maintain bridge and highway systems. Based on information contained in AASHTO Maintenance Manual (1987), AASHTO Manual for Bridge Maintenance (1987) and the Guide for Bridge Maintenance Management (1980), and materials contributed by state DOTs, the FHWA and transportation consultants.</td>
<td>AASHTO 1999</td>
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<tr>
<td>BR 15</td>
<td>Assessment Of Physical Condition Of Concrete Bridge Components</td>
<td>This workbook was prepared from SHRP developed research reports in the areas of physical assessment of concrete bridge components and repair, protection, and rehabilitation of reinforced concrete bridge decks and substructures.</td>
<td>FHWA 1996</td>
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<tr>
<td>BR 15</td>
<td>Bridge Maintenance On Local Roads</td>
<td>This report presents a reliability-based procedure to determine the optimal allowable loads on highway bridges considering both static and dynamic effects.</td>
<td>Ghosn, Schilling, Moses, and Runco 1995</td>
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<tr>
<td>BR 15</td>
<td>Bridge Scour in Nonuniform Sediment Mixtures and in Cohesive Materials: Synthesis Report</td>
<td>This report is a summary of a six-volume series describing detailed laboratory experiments conducted at Colorado State University for the Federal Highway Administration as part of a study entitled &quot;Effects of Sediment Gradation and Cohesion on Bridge Scour.&quot; This report will be of interest to hydraulic engineers involved in preparing guidelines for bridge scour evaluations.</td>
<td>FHWA 2004</td>
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<td>BR 15</td>
<td>Cathodic Protection of Reinforced Concrete Bridge Components</td>
<td>This report describes a two-year investigation of cathodic protection (CP) systems installed on interstate highway bridges in North America. The performance of 287 systems, approximately 90 percent of the highway agencies systems, was reviewed through analysis of questionnaire responses and select field investigations. Overall, a majority of the systems were working well but systems in marine or other continuously wetted environments did not perform as well.</td>
<td>SHRP 1992</td>
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<td>BR 15</td>
<td>Compilation and Evaluation of Results from High-Performance Concrete Bridge Projects, Volume I: Final Report</td>
<td>This report describes the use of High-Performance Concrete (HPC). In this four part report it describes collecting and compiling information from each joint State-FHWA HPC bridge project and other HPC bridge projects; a review of the AASHTO standard specifications for highway bridges for provisions that directly impact the use of HPC; the development of proposed revisions to the AASHTO specifications; the development of specification recommendations.</td>
<td>FHWA 2006</td>
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<tr>
<td>BR 15</td>
<td>Compilation and Evaluation of Results From High-Performance Concrete Bridge Projects, Volume II: Final Report</td>
<td>This report contains an evaluation of the effect of high-performance concrete on the cost and structural performance of bridges constructed with high-performance concrete bridge decks and high-strength concrete girders.</td>
<td>FHWA 2006</td>
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<td>BR 15</td>
<td>Cold Temperature Effects on Stress-Laminated Timber Bridges - A Laboratory Study</td>
<td>This study describes the performance of stress-laminated bridges in extremely cold climates.</td>
<td>USDA 2003</td>
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<td>BR 15</td>
<td>Concrete Bridge Protection and Rehabilitation: Chemical and Physical Techniques - Corrosion Inhibitors and Polymers</td>
<td>This report is divided into two parts: Part One deals with improving existing techniques while Part Two deals with developing new techniques.</td>
<td>SHRP 1993</td>
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<td>BR 15</td>
<td>Concrete Bridge Protection and Rehabilitation: Chemical and Physical Techniques - Feasibility Studies of New Rehabilitation Techniques</td>
<td>The objective of this study was to examine and develop feasible chemical methods for the corrosion protection of reinforcing steel in concrete bridges. A broad spectrum of chemicals were evaluated, corrosion inhibitors, chloride scavengers, and polyaphrons.</td>
<td>SHRP 1993</td>
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<td>BR 15</td>
<td>Concrete Bridge Protection and Rehabilitation: Chemical and Physical Techniques - Price and Cost Information</td>
<td>The purpose of this report is to provide cost information on chemical and physical techniques for concrete bridge protection and rehabilitation. The information provided in this report constitutes an essential component in the process of determining life-cycle costs for ranking of alternative protection/rehabilitation techniques.</td>
<td>SHRP 1993</td>
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<td>BR 15</td>
<td>Fiber Reinforced Polymer Composite Bridges of West Virginia</td>
<td>The use of Fiber Reinforced Polymer (FRP) composites (glass fabrics with thermoset resins) for bridge construction is a new development in West Virginia. This FRP composite technology has been the material of choice in the aerospace industry since 1960s. This publication has been prepared to provide an overview report on West Virginia's new FRP Composite bridges initiatives to engineers, decisionmakers, and the general public.</td>
<td>WVIRGINIA UNIV 2001</td>
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<td>BR 15</td>
<td>Field Performance of Timber Bridges</td>
<td>This report summarizes the results from a 5-year field monitoring program, which was initiated when the bridge was constructed near Byron, Maine, in November 1993. During the field monitoring program, data were collected related to wood moisture content, force level of stressing bars, behavior under static truck loading, and overall structural condition.</td>
<td>Dagher, Altimore, Caccese, and Ritter 2000</td>
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<td>BR 15</td>
<td>Guidelines for Bridge Management Systems</td>
<td>This guidelines will help agencies develop bridge management systems to evaluate current conditions and future needs, and determine the best mix of maintenance and improvement work over time. Sets out the minimum requirements for establishing a bridge management system.</td>
<td>AASHTO 1993</td>
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<td>BR 15</td>
<td>Highway Bridge Inspection: State-of-the-Practice Survey</td>
<td>This report documents the findings of a State-of-the-Practice Survey for the inspection of highway bridges. State Department of Transportation (DOTs) were the primary agencies surveyed, however, local DOTs and contractors were also surveyed. Information sought included data regarding the typical compositions of bridge inspection teams, administrative requirements placed upon bridge inspections, and use of nondestructive evaluation during bridge inspections. This report will be of interest to bridge engineers, designers, and inspectors who are involved with the inspection of our Nation's highway bridges.</td>
<td>FHWA 2001</td>
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Improving Highway Safety At Bridges On Local Roads and Streets

This pamphlet is intended as a general guide to effective, low-cost methods of improving and enhancing bridge and bridge approach safety. It is not a design manual or a substitute for engineering knowledge, experience, or judgment. Technical safety information such as bridge standards, crash-worthy approach rail systems and their attachment to the bridge rail, highway and bridge width, and development of highway alignments can be found in the material listed in the references. The guidance and information included in this pamphlet are based on actual situations and common existing bridge and roadway features identified through national reviews. Some of the information provided in this pamphlet reflects a type of cost-effective improvement that can be made as a temporary measure before a bridge and/or bridge approach is reconstructed to current standards.

Innovations in Steel Bridges Around the World

The countries in which International Iron and Steel Institute (IISI) steel-producing member companies are located produce over 70 percent of total world steel production. IISI undertakes research into economic, financial, technological, environmental and promotional aspects of world steel and into various raw materials and human resources matters on behalf of its members. It also collects, evaluates and disseminates world steel statistics.

Inspection of Timber Bridges Using Stress Wave Timing Nondestructive Evaluation Tools

The purpose of this document is to provide guidelines on the application and use of the stress wave timing inspection method in locating and defining areas of decay in timber bridge members.

Integrity of Infrastructure Materials and Structures

This report is on corrosion of bridges, both of steel and reinforced concrete construction.

Investigation of the Adequacy of Current Bridge Design Loads In the State of Michigan

This report presents the process and results of a joint research effort between Michigan Technological University and Wayne State University to examine the adequacy of current vehicle loads used to design bridges in the State of Michigan.

Job Site Evaluation of Corrosion-Resistant Alloys for Use as Reinforcement in Concrete

Economic considerations have historically precluded consideration and widespread use of high-performance (corrosion-resistant) reinforcements such as stainless steels in bridge construction. This investigation was a component of the Innovation Bridge Research and Construction (IBRC) Program that was authorized by Congress in the Transportation Equity Act for the 21st Century (TEA-21) legislation.

LTAP Bridge Maintenance Training

Includes presentation and reference manual. Reference manual covers approach maintenance, desk maintenance procedures, deck joint maintenance, railing, cleaning deck drains and installation of pipe drains, bearings maintenance and repair, maintenance of bridge seats and caps, debris removal from channel and scour protection and repair. Presentation covers: course objectives; why preventive maintenance?; consequences of deferring maintenance; basics of preventive bridge maintenance; approach maintenance; deck and rail maintenance; maintenance of deck joints; maintenance of bridge bearings; maintenance of bridge seats, caps, substructure and pilings; the waterway and other environmental issues; and scour protection.
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<td></td>
<td>Modern Computational Environment for Seismic Analysis of Highway Bridges</td>
<td>This is the final report documenting a Federal Highway Administration in-house study of ALADDIN, a new scripting language and tool kit for the interactive matrix and finite element analysis of structures. ALADDIN simplifies and facilitates the computer modeling of structures. This study will be of interest to researchers in the structural dynamics area, bridge designers and other structural engineers.</td>
<td>FHWA 1999</td>
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<td>Multiple Corrosion Protection systems for Reinforced Concrete Bridge Components</td>
<td>Eleven systems combining epoxy-coated reinforcement with another corrosion protection system are evaluated using the rapid macrocell, Southern Exposure, cracked beam, and linear polarization resistance tests. The results presented in this report represent the findings obtained during the first half of a 5-year study that includes longer-term ASTM G 109 and field tests.</td>
<td>FHWA 2007</td>
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<td>Reliability of Visual Inspection for Highway Bridges, Volume I: Final Report</td>
<td>This report documents the findings of the first comprehensive study of the inspection process since the adoption of the National Bridge Inspection Standards. The study provides overall measures of the reliability and accuracy of bridge inspection, identifies factors that may influence the inspection results, and determines what procedural differences exist between various State inspection programs. This report will be of interest to bridge engineers, designers, and inspectors who are involved with the inspection of our Nation's highway bridges.</td>
<td>FHWA 2001</td>
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<td>Reliability of Visual Inspection for Highway Bridges, Volume II: Appendices</td>
<td>This report documents the findings of the first comprehensive study of the inspection process since the adoption of the National Bridge Inspection Standards. The study provides overall measures of the reliability and accuracy of bridge inspection, identifies factors that may influence the inspection results, and determines what procedural differences exist between various State inspection programs. This report will be of interest to bridge engineers, designers, and inspectors who are involved with the inspection of our Nation's highway bridges. This volume is the second in a series of two.</td>
<td>FHWA 2001</td>
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<td></td>
<td>Role of Concrete Bridges in Sustainable Development</td>
<td>This volume presents the proceeding of the symposia organized under the umbrella of Celebrating Concrete: People and Practice, and international meeting organized by the University of Dundee's Concrete Technology Unit. Contents include 1. Innovative Concrete Bridges, 2. Design and Construction, 3. Loading Considerations, 4. Aesthetics of Concrete Bridges, 5. Whole Life Cycle Economics For Sustainability, and 6. Exploiting Design.</td>
<td>Dhir, Newlands, and McCarthy 2003</td>
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<td>Seismic Retrofitting Manual for Highway Structures: Part I - Bridges</td>
<td>This report is the first of a two-part publication entitled: Part 1 Bridges.</td>
<td>FHWA 2006</td>
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<td>Seismic Retrofitting Manual for Highway Structures: Part II - Retaining Structures, Slopes, Tunnels, Culverts and Roadways</td>
<td>This report is the first of a two-part publication entitled: Part 2 Retaining Structures, Slopes, Tunnels, Culverts and Roadways.</td>
<td>FHWA 2006</td>
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<td>Shore Mechanically Stabilized Earth (SMSE) Wall Systems Design Guidelines</td>
<td>The purpose of this design guideline is to serve as the FLH standard reference for roadway projects using shored MSE walls.</td>
<td>FHWA 2006</td>
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<td>Standards for Hardwood Glulam Timber Bridge Design</td>
<td>This series of standard drawings is to provide a rapid means of producing design drawings for single span timber bridges in the 18 to 90 ft. span range. By selecting the appropriate standard format plan sheets and inserting basic geometry and job specific information, the designer generates a complete set of contract drawings ready for construction. The timber bridges provided for in this series utilize hardwood glulam timber beams and hardwood glulam timber decks as basic elements of the superstructure. It is recommended that a complete set of drawings assembled from these standards be submitted to a registered professional engineer for review and approval to ensure adequate design, and perform a subsurface investigation prior to beginning the foundation design.</td>
<td>Pennsylvania 1994</td>
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<td>Standard Plans for Timber Bridge Superstructures</td>
<td>Provides basic design information on specific timber bridge types, standard plans and specifications should assist engineers who are not familiar with timber design.</td>
<td>Wacker and Smith 2000</td>
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<td>Standard Specifications for Highway Bridges</td>
<td>The structural design standards used by state bridge engineers, engineering colleges and universities, and practicing engineers worldwide. Now features separate tables of contents for figures and tables. Updates provided on bridge web site for download and printing. Includes easy-to-use CD-ROM.</td>
<td>AASHTO 2002</td>
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<td>Steel Bridge Fabrication Technologies In Europe and Japan</td>
<td>The objective of this scanning tour was to conduct a broad overview of newly developed manufacturing techniques that are in use abroad for steel bridge fabrication and erection. The trip focused on the role of steel production, design, innovation, and fabrication in modern steel fabrication facilities. As a result of the review, the team identified six high-priority areas on which the U.S. industry should focus. Within each of these areas, the team made recommendations for further research, pilot studies, and modifications to existing procedures that will further modernize structural steel fabrication facilities in the United States.</td>
<td>USDOT FHWA 2001</td>
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<td>Stream Stability and Scour at Highway Bridges - Participant Workbook</td>
<td>At the conclusion of this lesson the participant shall be able to understand the magnitude of the stream stability and scour problem at highway crossings; understand the course objectives; and understand the course outline, organization, materials, and relationship to HEC-18 and HEC-20.</td>
<td>NHI 1993</td>
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<td>Timber Bridges 2002 Award Winners</td>
<td>The award winning bridge designs submitted to the 2002 National Timber Bridge Awards.</td>
<td>APA 2002</td>
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<td>BR 15</td>
<td>User's Manual for BRI-STARS (Bridge Stream Tube Model for Alluvial River Simulation)</td>
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<td>This User's Manual provides guidelines for the installation, operation and usage of the BRI-STARS (Bridge Stream Tube model for Alluvial River Simulation) model. This manual presents the background on the methodologies used by the model, formulations for governing flow and sediment routing procedures used to develop the model and the optional local scour equations and sediment transport algorithms that are accessible through the model. This manual and the associated BRI-STARS software will be of interest to hydraulic engineers, bridge engineers, and geologists involved in bridge scour evaluations and modeling of general scour in alluvial streams in the vicinity of bridge crossings and highway encroachments. BRI-STARS is especially useful for sites where contraction scour and/or effects of in-stream mining activities are major concerns.</td>
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<td>FHWA 2000</td>
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<th>User's Primer for BRI-STARS (Bridge STREAM Tube Model for Alluvial River Simulation)</th>
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<td>The User's Primer provides installation, and operation guidelines for the BRI-STARS (Bridge Stream Tube model for Alluvial River Simulation) model and a brief description of the model capabilities. This primer is intended to assist users in applying version of the BRI-STARS model and was developed as a stripped down version of the User's Manual to facilitate training exercises. This primer also provides instructions for use of utility programs included with the BRI-STARS model. BRI-STARS will be of interest to hydraulic engineers, bridge engineers, and geologists involved in bridge scour evaluations and modeling of general scour in alluvial streams in the vicinity of bridge crossings and highway encroachments. BRI-STARS is especially useful for sites where contraction scour and/or effects of in-stream mining activities are major concerns.</td>
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<td>FHWA 2000</td>
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