

Bridge Project Development Manual
Manual Notice Archive

Manual Notice 2016-1

From: Gregg A. Freeby, P.E., Director, Bridge Division

Manual: Bridge Project Development Manual

Effective Date: September 01, 2016

Purpose

This manual provides guidance and outlines uniform procedures and policies for administering and developing projects involving bridges.

Contents

This revision constitutes a complete rewrite of the manual. The overall language was refined and condensed for clarification and better flow. Specific manual information still remains to help the user locate the correct manual for further information. All duplicate information in this manual was removed so as not to conflict with the Office of Primary Responsibilities' manuals.

The following sections have been specifically modified to reflect changes in TxDOT's organizational structure and to reflect updates to The Bridge Division Project Development Section's policies, practices, and procedures:

- ◆ Chapter 1 – Organizational Overview
 - Section 1 – “This Manual” updated the overviews in Chapters 5 and 6.
 - Section 2 – “Coordinating with Other Divisions and Sections” updated organizational information.
- ◆ Chapter 2 -- Bridge Programming and Funding
 - Section 1 – “Bridge Division’s Role” was updated with the federal definition of a bridge from the Highway Bridge Program section; the new transportation bill FAST Act, and information regarding the UTP’s Category 6 funding and its subprograms.
 - Section 2 – “Category 6 Funding” is a new section containing general information about the UTP’s Category 6 Structure Replacement and Rehabilitation funding such as: eligibility, programming, and change orders. Definitions from the Highway Bridge Program section were moved to this section if they were more general to the overall funding UTP category. Information was provided about Category 6 Developmental Authority.
 - Section 3 – “Highway Bridge Program” was condensed and cleaned up to clearly illustrate the program’s eligibility, programming, and prioritization methods. Table 2-1 was added to elaborate on the funding program’s annual selection process. Information was added to

the off-system HBP project section pertaining to the Participation Waived/Equivalent-Match Project Program.

- Section 4 – “Bridge Maintenance and Improvement Program” is a new section containing specific information about the funding program’s eligibility, prioritization and programming. Table 2-2 was included to elaborate on the funding program’s annual selection process.
- Section 5 – “Railroad Grade Separation Program” was condensed and streamlined to clearly illustrate the specific program's eligibility, programming, and prioritization methods. The railroad underpass project attribute weights were revised for the priority rating score. Table 2-3 was included to elaborate on the funding program’s annual selection process. The railroad agreement process for Exhibit A and B was further developed.
- Section 6 – “Rail Replacement Program” is a new section containing specific information about the funding program’s eligibility, prioritization and programming. Table 2-4 was included to elaborate on the funding program’s annual selection process.
- ◆ Chapter 3 -- Preliminary Design Features
 - Section 1 – “General Features” was updated with: the revised information about span lengths, new bridge railing, bridge beginnings and ends, excavation protection requirements, and staged construction procedures; the clarifications on horizontal alignments, sidewalks, bike paths, and illuminations; the complete rewrite of the design exceptions process to remove any non-bridge related design exceptions; the new preferred corrosion protection systems; and the removal of out-of-date detailed bridge joint information.
 - Section 2 – “Features Based on Bridge Location” was revised with minor clarifications in the following subsections: highway grade separation, structures over streams, railroad overpasses and underpasses, and pedestrian bridges.
- ◆ Chapter 4 -- Advanced Planning
 - Section 1 – “General Considerations” was updated with clarifications to the subsections: New Bridges, and Modifications of Existing Structures, specifically removing extraneous language about condition surveys and stage construction. Further information was provided in detour/temporary crossing structures and economic comparisons and alternate designs subsections. Major revisions and clarifications were provided in the environmental concerns subsection pertaining to lead-based paint and asbestos.
 - Section 2 – “Considerations Based on Bridge Location” was revised with minor clarifications in the following subsections: Highway Grade Separations, Structures over Streams, Highway-Railroad Grade Separations, Federally Funded Off-system Bridges, and Interchanges. Table 4-1 was updated with the two off-system bridges spanning Texas and Oklahoma. This subsection, bridges with adjacent states, was rewritten to include the required procedures for their project development from the formation of the agreement to post construction.

- Section 3 – “Agreements and Permits” has minor clarifications to the subsections: U.S. Army Corps of Engineers, Environmental Protection Agency, Railroad, and Local Government Agencies.
- Section 4 – “Utility Attachments” is revised to state that the Bridge Division is the Office of Primary Responsibility for all bridge utility attachments. All agreements will be stored in the Bridge Inspection Database. Information about temporary/saltwater pipelines was added to this section. The subsection concerning USGS gauging stations was rewritten to include the required procedures for developing and executing a USGS agreement.
- ◆ Chapter 5 – Bridge Plan Review Processes
 - Section 1 – “Preliminary Bridge Layout Review” was updated with revisions and clarifications to how PBLRs are submitted and the required submittal documentation for Bridge Division, federal, and railroad project review.
 - Section 2 – “Bridge PS&E Review” was rewritten to explain the Department’s new policy on Bridge Division’s role in the PS&E review process.
 - Section 3 – “Bridge Cost Information Review” is a new section pertaining to the Department’s federal requirement to provide the average unit cost data for all bridge class structures. Information provided assists the Districts with obtaining and entering the correct data for the Bridge Division’s annual unit cost calculations.
- ◆ Chapter 6 – Bridge Project Development Reference Information
 - Section 1 – “Bridge Project Development Submission Schedules” provides Table 6-1 for information about a typical bridge project’s schedule to assist with timely project development. Table 6-2 is a specific submission schedule for geotechnical work.
 - Section 2 – “Requests for Development of Bridge and Geotechnical Work” was revised to add specific information needed for bridge and geotechnical design detail requests.
 - Section 3 – “Other Relevant Information” provides a description of the National Bridge Inventory number and the P3B screen in Design Construction Information System (DCIS).

Contact

For more information about any portion of this manual, please contact the TxDOT Bridge Division.

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Manual Notice 2012-1

From: Gregg A. Freeby, P.E., Director, Bridge Division

Manual: Bridge Project Development Manual

Effective Date: December 12, 2012

Purpose

This manual provides guidance and outlines uniform procedures for administering and developing projects involving bridges.

Contents

This version updates departmental organization information in Chapter 1. It revises the Highway Bridge Program selection process in Chapter 2; revises bicycle and pedestrian policy, as well as updating the design exception process in Chapter 3; updates policies on required condition surveys for bridge rehabilitations, asbestos abatement and state funded historic bridge projects in Chapter 4; revises bridge layout submission requirements in Chapter 5; and revises PS & E submissions to include the Bridge Cost Information screen requirements for DCIS in Chapter 6. This version also corrects other minor editorial errors throughout.

Contact

For more information about any portion of this manual, please contact the TxDOT Bridge Division.

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Manual Notice 2008-1

From: William R. Cox, P.E., Director, Bridge Division

Manual: Bridge Project Development Manual

Effective Date: April 01, 2008

Purpose

This manual provides guidance and outlines uniform procedures for administering and developing projects involving bridges.

Changes

This revision includes removing links to the TxDOT Bridge Design Manual and updating the manual with references to the Load Resistance Factor Design method of bridge design as required by the American Association of State Highway and Transportation Officials. It also corrects other minor editorial errors.

Contact

For more information about the contents of this manual, contact the TxDOT Bridge Division.

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Manual Notice 2007-1

From: William R. Cox, P.E., Director, Bridge Division

Manual: Bridge Project Development Manual

Effective Date: July 01, 2007

Purpose

This manual provides guidance and outlines uniform procedures for administering and developing projects involving bridges.

Changes

This revision includes updated departmental organization information in Chapter 1. In Chapter 3 it sets out the membership of the Roadway Design Exception Committee, the Bridge Design Exception Committee and a joint subcommittee, the Roadway/Bridge Design Exception Committee. It includes in Chapter 4 the mandate by the Federal Highway Administration that Load Resistance Factor Design be used on all bridges for which preliminary engineering is initiated after October 2007. It corrects errors in the Chapter 5, Section 4 table on submission schedules and also corrects other minor editorial errors.

Contact

For more information about the contents of this manual, contact the TxDOT Bridge Division.

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Manual Notice 2006-2

To: Districts, Divisions, and Offices

From: William R. Cox, P.E., Director, Bridge Division

Subject: Manual Revision

Manual: Bridge Project Development Manual

Effective Date: July 01, 2006

Purpose

This manual provides guidance and outlines uniform procedures for administering and developing projects involving bridges.

Changes

This revision corrects errors in the Chapter 5, Section 4 table on submission schedules and removes approach slabs from the Chapter 6, Section 2 table on the roadway items section of the estimate.

Supersedes

This revision supersedes the 2006-1 version of this manual.

Contact

For more information about the contents of this manual, contact the TxDOT Bridge Division.

Manual Notice 2006-1

To: Districts, Divisions, and Offices

From: William R. Cox, P.E., Director, Bridge Division

Subject: Manual Revision

Manual: Bridge Project Development Manual

Effective Date: March 01, 2006

Purpose

This manual provides guidance and outlines uniform procedures for administering and developing projects involving bridges.

Changes

This revision updates the name of the federally funded Highway Bridge Program, adds information on load and resistance factor design (LRFD), updates a procedure for appraising an existing structure, and adds an index to the manual.

Supersedes

This revision supersedes the 2005-1 version of this manual.

Contact

For more information about the contents of this manual, contact the TxDOT Bridge Division.

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Manual Notice 2005-1

To: Districts, Divisions and Offices

From: William R. Cox, P.E., Director, Bridge Division

Manual: *Bridge Project Development Manual*

Effective Date: January 1, 2005

Purpose

This manual provides guidance and outlines uniform procedures for administering and developing projects involving bridges. This revision updates department organization information and corrects minor editorial errors.

Instructions

Revisions are distributed online only. This 2005-1 version supersedes the 2003-1 version.

Contents

The manual contains six chapters – Organizational Overview; Bridge Programming and Funding; Advanced Planning; Preliminary Design Features; Preliminary Layout Approval Process; and Plans, Specifications and Estimates (PS&E) Review.

Contact

For more information regarding any chapter or section in this manual, please contact the Project Development Section of the Bridge Division.

Manual Notice 2003-1

To: Districts, Divisions and Offices

From: Mary Lou Ralls, P.E.

Manual: *Bridge Project Development Manual*

Effective Date: June 1, 2003

Purpose

This manual provides guidance and outlines uniform procedures for administering and developing projects involving bridges. This revision updates terminology related to Unified Transportation Program (UTP) categories, clarifies approach-roadway eligibility requirements for HBRRP, expands structure design criteria to include Load and Resistance Factor Design (LRFD) recommendations, expands and clarifies preliminary layout requirements, and corrects minor editorial errors.

Instructions

Revisions are distributed online only. This 2003-1 version supersedes the 2002-1 version.

Contents

The manual contains six chapters – Organizational Overview; Bridge Programming and Funding; Advanced Planning; Preliminary Design Features; Preliminary Layout Approval Process; and Plans, Specifications and Estimates (PS&E) Review.

Contact

For more information regarding any chapter or section in this manual, please contact the Project Development Section of the Bridge Division.

Manual Notice 2002-1

To: Districts, Divisions and Offices

From: Mary Lou Ralls, P.E.
State Bridge Engineer

Manual: Bridge Project Development Manual

Effective Date: April 3, 2002

Purpose

This manual provides guidance and outlines uniform procedures for administering and developing projects involving bridges. This revision clarifies discussion of curbs on bridges and makes editorial adjustments that include correction of minor errors and addition of hyperlinks to recently published TxDOT online manuals.

Instructions

Revisions are distributed online only. This 2002-1 version supersedes the 2001-1 version.

Contents

The manual contains six chapters – Organizational Overview; Bridge Programming and Funding; Advanced Planning; Preliminary Design Features; Preliminary Layout Approval Process; and Plans, Specifications and Estimates (PS&E) Review.

Contact

For more information regarding any chapter or section in this manual, please contact the Project Development Section of the Bridge Division.

Manual Notice 2001-1

To: Districts, Divisions and Offices

From: Kirby W. Pickett, P.E.
Deputy Executive Director

Manual: Bridge Project Development Manual

Effective Date: October 1, 2001

Purpose

This manual will provide guidance and outline uniform procedures for administering and developing projects involving bridges.

Instructions

This manual replaces the Bridge Division Operations and Procedures Manual.

Contents

The manual contains six chapters – Organizational Overview; Bridge Programming and Funding; Advanced Planning; Preliminary Design Features; Preliminary Layout Approval Process; and Plans, Specifications and Estimates (PS&E) Review. It also contains an example of a condition survey, and utility attachment exhibits.

Contact

For more information regarding any chapter or section in this manual, please contact the Project Development section of the Bridge Division.