

This manual has been prepared to provide Washington State Department of Transportation (WSDOT) bridge design engineers with a guide to the design criteria, analysis methods, and detailing procedures for the preparation of highway bridge and structure construction plans, specifications, and estimates.

It is not intended to be a textbook on structural engineering. It is a guide to acceptable WSDOT practice. This manual does not cover all conceivable problems that may arise, but is intended to be sufficiently comprehensive to along with sound engineering judgment, provide a safe guide for bridge engineering.

A thorough knowledge of the contents of this manual is essential for a high degree of efficiency in the engineering of WSDOT highway structures.

This loose leaf form of this manual facilitates modifications and additions. New provisions and revisions will be issued from time to time to keep this guide current. Suggestions for improvement and updating the manual are always welcome.

All manual modifications be approved by the Bridge Design Engineer.

The Federal Highway Administration has agreed to approve designs that follow the guidance in the *Bridge Design Manual*; therefore, following the guidance is mandatory for state highway projects. When proposed designs meet the requirements contained in the *Bridge Design Manual*, little additional documentation is required.

The electronic version of this document is available at:
www.wsdot.wa.gov/publications/manusl/m23-50.htm

Mark Gaines, P.E.
Bridge and Structures Engineer

Debbie Lehmann, P.E.
FHWA Washington Division Bridge Engineer