# Standard Specifications for Movable Highway Bridges

## 1988




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**Prepared by the Highway Subcommittee on Bridges and Structures**

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# INTRODUCTION

The first movable highway bridge specifications adopted by the American Association of State Highway and Transportation Officials was published in 1938. This publication was revised and updated by the editions of 1953, 1970, and 1978.

The 1970 Edition included certain American Railway Engineering Association (AREA) specifications that applied to movable bridges. The use of this data was approved by the AREA with the following qualification:

> "The recommended standards and specifications of the AREA duplicated herein were prepared by that Association to apply to railway bridges. The AREA expresses no opinion as to their suitability for highway bridges and cannot be responsible for any highway applications thereof that may be adopted."

This edition of the specifications includes some data from the AREA specifications and specifications for Hydraulic Systems taken from the current AREA specifications with some modifications. Therefore, the AREA qualification given above continues to apply to these specifications.

A commentary has been included in this edition and provides comments on many of the specification changes.

The American Association of State Highway and Transportation Officials wishes to express its sincere appreciation to the AREA and to those consultants and representatives of industry who have been most helpful in the improvement of these specifications.

It is intended that these specifications be used in conjunction with the Standard Specifications for Highway Bridges.

Suggestions for further improvement of the specifications are welcomed. They should be sent to the Chairman, Highway Subcommittee on Bridges and Structures, AASHTO, 444 North Capitol Street, NW, Suite 225, Washington, D.C. 20001. Inquiries as to the intent or application of the specifications should be sent to the same address.



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# DIVISION I
# GENERAL PROVISIONS

## SECTION 1. GENERAL

### 1.1.1. General

These specifications cover the design, fabrication, and erection of movable highway bridges.

The requirements for fixed span bridges, as given in the latest edition of the Standard Specifications for Highway Bridges of the American Association of State Highway and Transportation Officials, shall apply to movable bridges except as otherwise provided herein.

The structural, mechanical, and electrical design will be furnished by the State, unless it is stated in the invitation for bids that such designs, or specified portions of them, are to be furnished by the Contractor.

The State shall, with its invitation for bids, furnish a copy of the contract form together with site plans and a full description of the requirements for the structure. These requirements shall make clear the division of responsibility between the State and the Contractor for designing, furnishing and erecting or installing all components of the structure, and shall fully specify or describe all of such components which are the responsibility of, or affect the work of, the Contractor.

The Contractor or Contractors shall furnish and erect the structure ready for operation and to receive traffic, except for such components as are specified to be furnished or installed by the State.

### 1.1.2. Abbreviations

The following abbreviations are used herein:

| | |
|---|---|
| AASHTO | American Association of State Highway and Transportation Officials |
| AFBMA | Anti-Friction Bearing Manufacturers Association |
| AGMA | American Gear Manufacturers Association |
| AISI | American Iron and Steel Institute |
| ANSI | American National Standards Institute |
| AREA | American Railway Engineering Association |
| ASME | American Society of Mechanical Engineers |
| ASTM | American Society for Testing and Materials |
| AWS | American Welding Society |
| IEEE | Institute of Electrical and Electronics Engineers, Inc. |
| IPCEA | Insulated Power Cable Engineers Association |
| MUTCD | Manual on Uniform Traffic Control Devices for Streets and Highways |
| NEC | National Electrical Code |
| NEMA | National Electrical Manufacturers Association |
| NFPA | National Fluid Power Association |
| SAE | Society of Automotive Engineers |
| UL | Underwriter's Laboratories |

### 1.1.3. Defects

If any defects due to faulty workmanship or erection, or defective material, in any mechanical or electrical equipment or due to any design prepared by the Contractor are found within one year after the date of acceptance, the Contractor shall remedy such defects at his own expense. If necessary, the State may remedy such defects at the expense of the Contractor.

### 1.1.4. Time of Opening

The normal length of time for opening the bridge after the ends are released shall be as specified on the proposal drawings or invitation to bid, for both the main and the auxiliary powers.

### 1.1.5. Drawings

The Contractor shall furnish complete erection, shop detail and working plans of the structural and machinery parts,



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