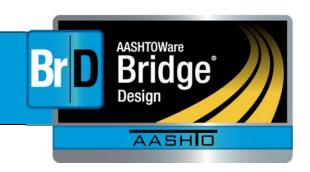
# **AASHTOWare**

Bridge Design™



#### **Features**

- ✓ Superstructure and substructure design in accordance with AASHTO LRFD Specifications
- Supports two or three dimensional bridge descriptions
- √ 3-D description serves as the basis for 3-D modeling and analysis
- ✓ Computational engines supports both line girder and 3-D analysis

## **AASHTOWare® Goals/Benefits**

- ✓ Pooling resources to produce significant cost savings
- ✓ Software developed "by DOTs for DOTs"
- ✓ Best practices approach
- ✓ Focus on universal requirements meet 90% of common needs
- ✓ Built in flexibility allows software customization to meet unique needs (i.e. the remaining 10%)

#### Who can use AASHTOWare Bridge Design software?

State DOTs, Local Agencies, plus District of Columbia, Puerto Rico, FHWA, Canadian Provinces, engineering design consultants, and educational institutions within the jurisdiction of AASHTO Member and Associate Member Departments



## **About the Software**

AASHTOWare Bridge Design uses a common database with AASHTOWare Bridge Rating to allow an organization to store a detailed description of each bridge, which is independent of the analytical engine, method of analysis, and specification. Among the benefits are:

- ✓ Design a bridge using multiple analysis programs and versions of the LRFD specification from the same description and input
- ✓ Upgrading and/or replacing components of the system, including the structural analysis engine, specification checking software, and user interface while preserving the basic bridge data
- ✓ Easily linking to other related software systems, including bridge management systems such as AASHTOWare Bridge Management

AASHTOWare Bridge Design 6.8 contains a number of new capabilities and features including:

- ✓ Specification checking of steel diaphragms and lateral bracing
- ✓ 2016 updates to LRFD Specifications
- ✓ Numerous user requested enhancements

New standalone tools come with AASHTOWare Bridge Design 6.8:

- ✓ Prestressed Concrete Design Tool
- ✓ Regression Comparison Tool

## **Product Information**

- ✓ AASHTOWare Bridge Design & Rating Technical Support - https://aashto.mbakercorp.com
- ✓ Rating & Design Bridge User Group (RADBUG) http://aashtobr.org
- ✓ AASHTOWare <a href="http://www.aashtoware.org">http://www.aashtoware.org</a>
- ✓ AASHTOWare FY2017 Catalog -http://www.aashtoware.org/Documents/FY201

   7 Catalog-FINAL.pdf



# **AASHTOWare Bridge Design**™

#### **Current Features**

# **Bridge Configurations and Capabilities Superstructures**

- ✓ Simple spans, continuous spans, hinges (steel and reinforced concrete)
- ✓ U. S. customary and S.I. units
- ✓ Girder-line and 3D-FEM analyses
- ✓ Parallel and flared girder configurations
- Reinforced concrete tee beams, slabs, I-beams, and multi-cell box beams
- ✓ Reinforced concrete box culverts
- Pre-stressed concrete box, I, tee, and U-beams (precast, pre-tensioned, and continuity for live load)
- ✓ Harped strands and de-bonded strands
- ✓ Steel rolled beams (including cover plates)
- ✓ Steel built-up plate I-girders
- ✓ Steel welded plate I-girders (including hybrid)
- ✓ Parallel, tapered, parabolic, and circular webs
- ✓ Transverse and longitudinal stiffened
- ✓ Frame structure simplified definition
- √ 3-D analysis of steel and concrete multi-girder superstructures
- ✓ 3-D analysis of curved steel multi-girder superstructures

#### **Substructures**

- ✓ Analysis and spec-checking of bridge piers including wall, hammerhead and multi-column pier bents
- ✓ Single drilled shaft for substructure

#### **Design/Specification Checking Features**

- ✓ LRFD specification checking with detailed computation reporting
- ✓ Design ratio graphs and summary reports
- ✓ Wizards for simplifying the modeling of steel and prestressed concrete bridges
- ✓ AASHTO engine for LRFD design reviews/ specification checking

#### **Output Reporting Features**

- ✓ Sophisticated set of output reports to help the designer understand the performance of a new bridge
- ✓ Tree-structured graphical representation of the LRFD specification indicates whether each article is passed or failed and provides access to the detailed calculations for the bridge and the specification text
- Suite of X-Y plots show moments, shears, deflections, actual versus capacity envelopes, and other valuable information

# Licensing

Description	Annual License Fee
Single Workstation	\$ 10,000 (first copy)
	\$ 8,500 (copies 2+)
Unlimited Users	\$ 37,500
Special Consultant Option	\$ 4,100 per copy
Agency Sponsored Consultants	\$ 33,000 (10)
	\$ 60,000 (20)
	\$ 90,000 (30+)
Developer	\$ 500
Educational (classroom instruction)	FREE

The complete list of licensing options with full explanation can be found at <a href="http://www.aashtoware.org/Bridge/Pages/Annual-Fees.aspx">http://www.aashtoware.org/Bridge/Pages/Annual-Fees.aspx</a>

Service Units are optional fixed-fee units of contractor-provided service offered to licensees for consultation and support to assist in implementation or customization of the software. Examples of services provided:

- ✓ Preparing and importing data
- ✓ Specialized software training
- Agency-specific modifications or customized reports
- ✓ Agency-specific enhancements

#### **Contacts**

AMERICAN ASSOCIATION
OF STATE HIGHWAY AND
TRANSPORTATION OFFICIALS



Judy Skeen, P.E. AASHTO Project Manager 444 North Capitol Street NW, Suite 249 Washington, D.C. 20001 Phone: 512-963-1465

jskeen@aashto.org



Jim Duray, P.E.
Baker Project Manager
Michael Baker International
Airside Business Park
100 Airside Drive
Moon Township, PA 15108
Phone: 412-269-6410
jduray@mbakerintl.com