PSBeam™ V4

Prestressed Concrete Bridge Girder Design in Accordance with AASHTO Specs

Includes Load Rating!

PSBeam V4 is a high-performance Windows-based program for the design and analysis of simple-span or continuous precast, pretensioned or post-tensioned precast concrete bridge girders.

Support is included for both AASHTO LRFD and Standard Specs. Instantly, you can switch between them to see just where the differences between them really are. There's no better way to learn LRFD!

PSBeam V4 sets a new standard for plant-cast prestressed bridge girder design. Now you can extend spans by segmenting girders and including post-tensioning--all within PSBeam.

PROFESSIONAL GRADE

PSBeam is professional grade software. It's the tool of choice for professional engineers who demand results. They know they can count on PSBeam's rock-solid reliability to deliver the results they need. And it has the features they need to get the job done quickly and efficiently.

◄ Main Screen is Flexible and Intuitive

PSBeam's straightforward, intuitive interface helps you get up to speed quickly and efficiently.

PSBeam utilizes a state-of-the-art computational engine to perform extremely fast, real-time calculations. Design changes are processed immediately, allowing you more time to explore alternate design scenarios.

Graphical output helps you quickly understand the results. And clear, highly-readable design reports show you the details behind the calculations.
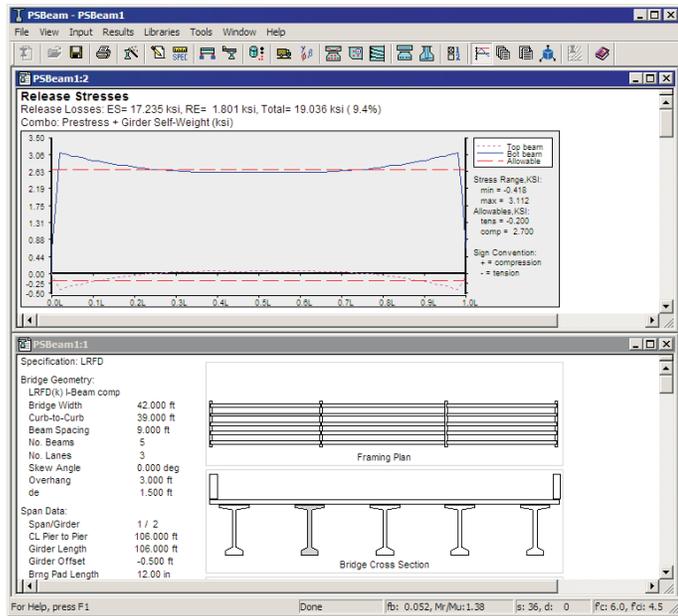
Pretensioned or Post-Tensioned ►

Virtually any pretensioning pattern can be handled by PSBeam, including debonding. And now, with V4, you can extend spans using spliced girder technology: Subdivide long, heavy girders into shorter, more easily manageable segments.
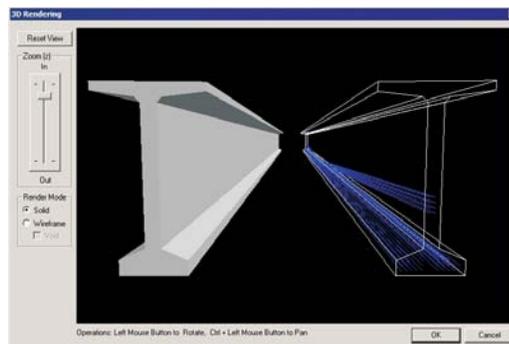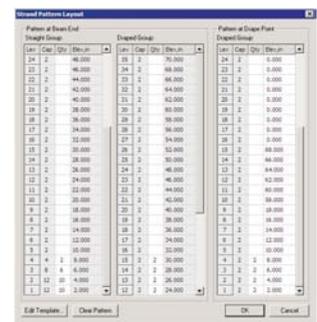
Key Features

- ☑ Continuous, multi-span structures
- ☑ Time-dependent restraint moments
- ☑ Design & permit vehicles
- ☑ Section, truck & rebar libraries
- ☑ Section properties generation
- ☑ Pretensioning & post-tensioning
- ☑ True 3D visualization
- ☑ Load Rating per LRFR & LFD
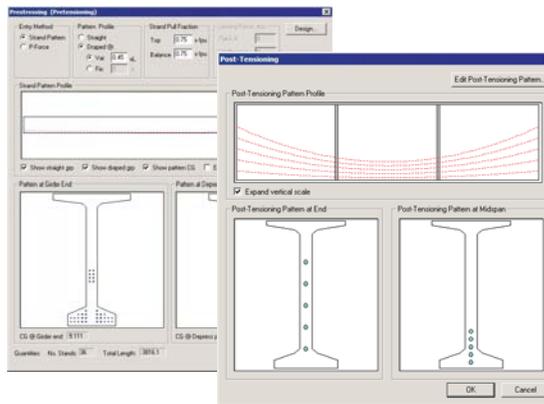
Spreadsheet-like data grids facilitate rapid input and editing.

▼ New Data Grids

◄ 3D Visualization

Powerful OpenGL graphics provide a perspective that numbers alone cannot. View your designs in 3D to ensure they are correct *and* constructible. And PSBeam is now ready for the future of integrated design.

Eriksson technologies

PSBeam V4 Features

Eriksson technologies

System Features
■ MS Windows 2000/XP/Vista
■ Network/WAN compatible
■ No copy protection

Design Specifications
■ AASHTO LRFD 4th ed. thru 2009
■ AASHTO Standard Specs
■ Hot switch between specs

Simple-Span or Continuous
■ Simple-span girders
■ Multi-span continuous structures
■ Single or multiple segments
■ Auto positive restraining moments
■ Full length beam design

Geometry
■ Overall, release, & design spans
■ Skew angle
■ Interior & exterior cases
■ Composite or non-composite

Superstructure Types
■ I-Girders, bulb tees
■ Box beams
■ Slabs (solid & hollow-core)
■ Dts and channels
■ User-definable sections

Section Properties
■ Auto property generator ▶
■ Option to transform strands
■ Slab & haunch regions
■ End blocks (PT girders)
■ Supplemental overlay

System Libraries for:
■ Girder sections
■ Prestressing strands
■ Live load vehicles

Prestressing
■ Pretensioning
■ Post-tensioning

Prestressing Steel
■ All popular strand types
■ Low-relaxation & stress-relieved
■ Computed or specified losses

Include Rebar in Design
■ Rebar library
■ Top tension rebar at release
■ Supplement flexural capacity
■ Bottom tension tie (shear)

Debonding
■ End debonding
■ Interior (midspan) debonding
■ All effects accounted for in analysis
■ Debond straight and draped patterns

Top Tension Steel at Release
■ Auto sensing of requirements
■ Required area of rebar at 100th pts.

Load Table Generation
■ Span vs. Strands required
■ Up to 4 beam spacings
■ Same format as PCI BDM
■ Full calculation details

Auto Design Capabilities
■ Straight patterns
■ Draped patterns
■ Debonding (straight or draped)

Dead Load
■ Auto calculation of beam & deck wt.
■ Diaphragms - easy entry
■ Barriers & FWS
■ Other uniform loads

Live Load
■ Ultra-fast moving load algorithm
■ HL-93, HS25, HS20, H20, etc.
■ Design or permit vehicles
■ User-defined trucks
■ Pedestrian loading

Live Load Distribution Factors
■ Program-computed or manual entry
■ All cases by both specifications
■ Interior & exterior cases
■ Widely-spaced beams

All Critical Design Checks
■ Stresses at release and final
■ Flexural strength
■ Shear - vertical and horizontal
■ Girder reactions and end rotations
■ Camber and deflections
■ Bursting steel
■ Stability analysis (Mast)
■ Handling and shipping stresses

Dual Units
■ US Customary
■ Metric
■ Hot-switch between systems

Output Options
■ Highly-graphical output
■ Design reports: detailed & brief (2 pp.)
■ At-a-glance status bar
■ Export results to other programs

Program Documentation
■ Comprehensive user manual
■ Step-by-step tutorial problems
■ In-depth theory section
■ QC Manual - 200+ pg. document
■ Nine benchmark problems

Integrated Design
■ Integration ready
■ 3D data representation
■ Compatible with ET-Pier, ParaBridge
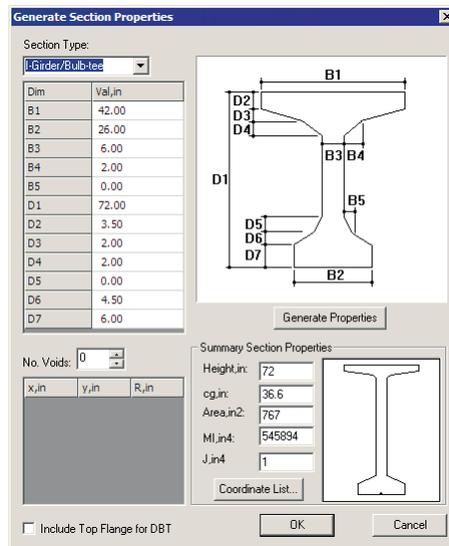
Take a Demo!

Try PSBeam **FREE** for 20 days. Take a fully-functional copy out for a test ride and experience it for yourself. There's no cost or obligation.

Run the tutorial problem included in the comprehensive user manual, and you'll be up to speed in no time. Then run your own problems and see just how quickly and easily switching to PSBeam can be.

To order your free demo, visit **ErikTech.com** or **LRFD.com**, or call toll-free at 1-866-374-5776 (866-ERIKSSON)