

LICENSE FEE SCHEDULE

INITIAL SOFTWARE LICENSE FEE*

EngAsst.....	\$ 300
ABLRFD.....	\$ 1500
BPLRFD.....	\$ 600
BXLRFD.....	\$ 1500
FBLRFD.....	\$ 1500
PAPIER.....	\$ 1000
PSLRFD.....	\$ 1500
SPLRFD.....	\$ 600
STLRFD.....	\$ 1500
ABUT5.....	\$ 500
ARCH.....	\$ 500
BAR7.....	\$ 500
BOX5.....	\$ 500
BRGEO.....	\$ 500
BSP.....	\$ 500
CAMBR.....	\$ 500
CBA.....	\$ 500
CLLMR.....	\$ 500
GRPRO.....	\$ 500
HGEO.....	\$ 500
PS3.....	\$ 500
SIGN.....	\$ 500

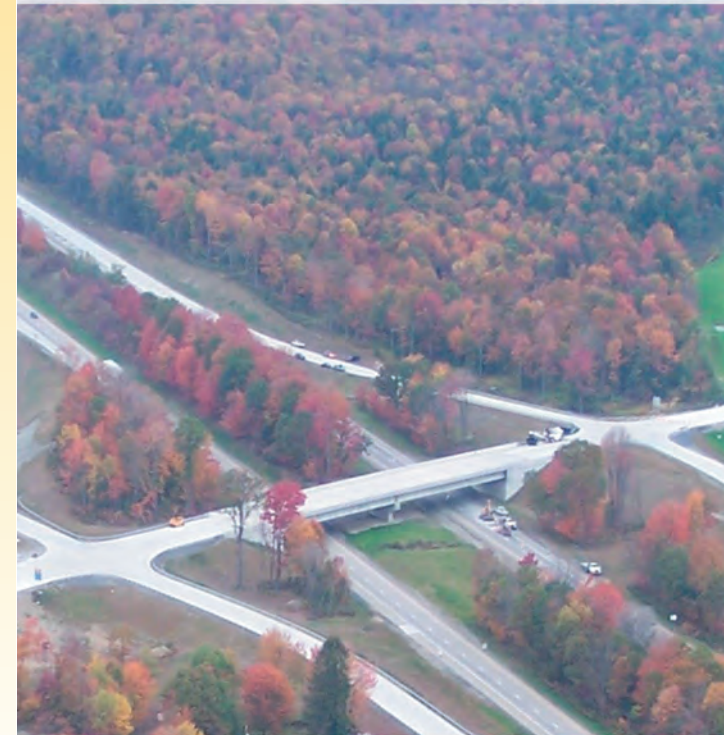
* No fee required for State and Federal Transportation Agencies. The Local Government Agencies' and Educational Institutions' license fee is \$100.

For more information, please visit our Software Support
Web site at: <http://penndot.engrprograms.com>

Or contact:

Pennsylvania Department of Transportation
Bureau of Business Solutions and Services
Highway/Engineering Applications Division
Phone: 717.787.8407 | Fax: 717.705.5529
E-mail: PenndotBisEngineer@pa.gov

PennDOT Engineering Software



PENNDOT ENGINEERING SOFTWARE

PennDOT has long been a leader in the development of software for highway and bridge design, analysis and load rating. PennDOT began developing engineering software for internal use in the late 1960s to automate and standardize highway and bridge design calculations. PennDOT has continually provided resources to support and maintain existing software, and develop new software since.

PennDOT began licensing its Engineering Software to external users in 1988. More than 20 individual engineering programs are available, along with a Graphical User Interface to facilitate their use. More than 4,600 software licenses have been issued to more than 650 public and private organizations nationwide.

A list of PennDOT's available Engineering Software follows.

ENGINEERING ASSISTANT

ENGASST – ENGINEERING ASSISTANT

A Windows graphical user interface (GUI) for all of PennDOT's engineering programs. EngAsst provides a user-friendly Windows-based environment to create new input files, modify existing input files, import input files, run the associated engineering programs and view output, and is supported on Windows NT, 2000, XP and Vista operating systems.

LOAD-AND-RESISTANCE FACTOR DESIGN (LRFD) BRIDGE DESIGN SOFTWARE

The following programs adhere to the AASHTO LRFD Bridge Design Specifications and the PennDOT Design Manual Part 4, and use either metric (SI) or U.S. customary units.

ABLRFD - LRFD ABUTMENT AND RETAINING WALL ANALYSIS AND DESIGN

Analyzes and designs bridge abutments, wing walls or gravity walls on spread footings, footings on piles or caissons, or footings on pedestals.

BPLRFD - BEARING PAD DESIGN AND ANALYSIS

Designs and analyzes elastomeric bearing pads, including plain pads and laminated pads, with or without a hole for simple-span or continuous-span prestressed concrete I-beam, box beam or adjacent box beam structures, and steel I-beam structures.

BXLRFD - LRFD BOX CULVERT DESIGN AND RATING

Analyzes, designs and rates single or twin-cell reinforced concrete box culverts or frames.

FBLRFD - LRFD FLOORBEAM ANALYSIS AND RATING

Analyzes and rates two-girder system steel floorbeams. The program analyzes: simple spans with no overhangs, floorbeams with cantilever overhangs continuous over the supports, and simple spans with fixed-end cantilevers. Cross-sections can consist of composite or non-composite wide-flange beams with or without cover plates, plate girder sections, or built-up sections.

PAPIER – PENNSYLVANIA PIER ANALYSIS

Analyzes and checks specifications for bridge piers. Pier types include hammerhead piers, wall piers, multiple-column piers, and multiple columns set on a solid shaft on individual or combined pile or spread footings.

PSLRFD - LRFD PRESTRESSED CONCRETE GIRDER DESIGN AND RATING

Analyzes, designs and rates simple or continuous-span pretensioned concrete beams. The cross-section can consist of composite or non-composite box, plank, I-beam or Bulb-T beams with straight, draped, or debonded strands.

SPLRFD – LRFD STEEL GIRDER SPLICE DESIGN AND ANALYSIS

Analyzes or designs steel girder splice components (web splice plates, web splice bolts, top flange splice plates, bottom flange splice plates, and bottom flange splice bolts) based on input loads. The splice girder section can be composite or non-composite, homogeneous or hybrid.

STLRFD – LRFD STEEL GIRDER DESIGN AND RATING

Analyzes, rates and performs specification checks for simple-span or continuous-span bridges, with a design option provided for simple-span girders only. The cross-section can consist of composite or non-composite wide-flange beams with or without cover plates, plate girder sections, or built-up sections.

LOAD FACTOR DESIGN (LFD) BRIDGE DESIGN SOFTWARE

The following programs adhere to the AASHTO LFD Standard Specifications for Bridge Design and the PennDOT Design Manual Part 4, and use only U.S. customary units.

ABUTS - LFD ABUTMENT AND RETAINING WALL ANALYSIS AND DESIGN

Analyzes and designs bridge abutments, spread-footing wing walls or footings on piles or pedestals.

ARCH – LFD ARCH ANALYSIS AND DESIGN

Analyzes and designs fixed or tied reinforced concrete-arch culverts. The arch can be defined by the intrados and extrados centers (up to three) or by the coordinates, segment lengths and thicknesses of segments, but must have symmetrical geometry and loading.

BAR7 - Bridge Analysis And Rating

Analyzes and rates bridges using Allowable Stress and Load Factor load rating methods, and also estimates fatigue life. The program can analyze simple-span concrete T-beam or slab bridges, or simple or continuous span steel bridges comprised of a deck, stringers, floorbeams and girders or trusses.

BOX5 – LFD BOX CULVERT DESIGN AND RATING

Analyzes, designs and rates single or twin-cell reinforced concrete box culverts or frames.

PS3 – LFD PRESTRESSED CONCRETE GIRDER DESIGN AND RATING

Analyzes, designs and rates simple-span pre-tensioned concrete beams of known cross-section (box, plank or I-beam) with straight, draped, or debonded strands.

MISCELLANEOUS ENGINEERING SOFTWARE

The following programs use U.S. customary units only, unless otherwise noted.

BRGEO - BRIDGE GEOMETRY

Calculates a bridge's station, offset, coordinates and elevation of its points of interest. The bridge may be defined entirely on a tangent or curve, including a spiraled curve, or on a combination of tangent and curved sections. Either all or part of the bridge may be on a vertical curve. Either SI or U.S. customary units can be used.

BSP - BEAM SECTION PROPERTIES

Computes the section properties of steel or prestressed concrete beams or girders. Properties can be calculated for steel wide-flange beams, plate girders, built-up sections, composite or non-composite, homogeneous or hybrid; and for prestressed concrete I-beams, box beams, plank beams with or without circular voids in either SI or U.S. customary units.

CAMBR - FIELD CHECK OF CAMBER

Aids field engineers in determining the acceptability of beams' measured elevations relative to the bridge deck's finish grade of the for simple-span bridges of any number of spans. The bridge alignment may consist of tangent, curved or spiraled sections. Either all or part of the bridge may be on a vertical curve. Either SI or U.S. customary units can be used.

CBA - CONTINUOUS BEAM ANALYSIS

Computes moments, shears, reactions, rotations and deflections of continuous beams for a given loading condition of a uniform load, a series of uniform or trapezoidal loads, a series of concentrated loads, a moving load, a support settlement, fixed-end actions due to creep and shrinkage or temperature gradient. Up to 50 spans, simple or continuous with in span hinges, can be analyzed using either SI or U.S. customary units.

CLLMR - COMPARISON OF LIVE LOAD MOMENTS AND REACTIONS

Computes the maximum moments and reactions in a simple-span girder or floorbeam due to any truck loading and then compares these with the moment and reaction due to an HS20 loading. A range of girder span lengths or floorbeam spacing may be specified.

GRPRO - GRADE PROFILE

Computes vertical curve data and profile grade elevations for a vertical alignment in SI or U.S. customary units. The program can also compute pavement widths and elevations including super-elevation transitions.

HGEO - HORIZONTAL GEOMETRY

Computes the horizontal geometry for horizontal alignments with P.I. points defined by either stations or coordinates alignment input, the offset from the primary alignment to the secondary alignment, and the equivalent station on the secondary alignment.

SIGN – SIGN STRUCTURE ANALYSIS

Analyzes and performs specification check for tapered tube, two-post planar truss, two-post tri-cord truss, four-post tri-cord truss, four-post four-cord truss, cantilever and centermount sign structures.