

PENNDOT e-Notification

Bureau of Information Systems
Application Development Division



BPLRFD

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Release of BPLRFD Version 1.3.0.0

PENNDOT's LRFD Bearing Pad Design and Analysis Program (BBLRFD) has been revised as described on the attached Summary of July 2005 Revisions – Version 1.3.0.0.

The new version has been placed on PENNDOT servers for use by the Districts. Consultants and others, who have a current license agreement for BPLRFD, can obtain Version 1.3.0.0 by submitting a Software Update Request form with the appropriate update fee. Updates for **BPLRFD Version 1.2** require an **update fee of \$300** (\$50 for governmental agencies and educational institutions). Updates for **BPLRFD Version 1.1 or 1.0** require an **update fee of \$600** (\$100 for governmental agencies and educational institutions).

The Software Update Request form can be obtained on the PENNDOT Engineering Software Support website at <http://penndot.engrprograms.com> by clicking on "Ordering/Updating" and, then, "Update Form".

Please direct any questions concerning the above to:

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Archived copies of all previously distributed e-Notifications can be obtained from the PENNDOT LRFD and Engineering Programs website at <http://penndot.engrprograms.com/home> and clicking on "e-Notification" and then "Mailing List Archives."

SUMMARY OF JULY 2005 REVISIONS - VERSION 1.3.0.0

Since the release of BPLRFD Version 1.2, several revision requests and user requested enhancements have been received. This release of BPLRFD Version 1.3.0.0 contains the following revisions:

1. The program has been enhanced to allow input files to be in a different directory than program executable. (Revision 009)
2. The file extension for the parameter definition file that contains various values for input parameters has been changed from .pdf to .pd to avoid association with Adobe Acrobat files. (Revision 011)
3. The contact information for Revision Requests in Chapter 9 has been updated. (Revision 012)
4. Construction or Pier Flexibility value is now included in the calculation of the Total DL+LL value for the Shear Deformations for Bearing Design output table. (Revision 013)
5. The minimum Live Load Reaction is now used to calculate the allowable horizontal shear force. The proper shear force is now used to display the correct message regarding the DL+LL anchorage requirement under the "Detailed Specification Checks" section of the output. (Revision 014)
6. Several minor pagination revisions to the output file have been made. (Revision 015 and 021)
7. Additional compiler settings have been activated to trap divide by zero errors. (Revision 016)
8. Before exiting, the program will pause and require the user to press the enter key. This will allow the user to scroll back to view the runtime messages. (Revision 017)
9. A copyright notice has been added to the program output for use during beta testing. (Revision 018)
10. A design history file is now created for all design runs of the program and is intended for use in troubleshooting design failures. (Revision 020)
11. The DM-4 reference in Chapter 5 Section 5.8 has been changed to the correct section number. (Revision 022)
12. The interior minimum layer thickness for box beams has been changed to 0.375 in for US units for consistency in the system parameter file. (Revision 023)
13. The program has been converted to be a Windows DLL (Revision 025)
14. The User's Manual has been converted into Microsoft Word. (Revision 026)

15. The Engineering Assistant and BPLRFD User's Manual have been modified to allow negative LL reactions on the LRX command. (Revision 029)
16. The images used by Engineering Assistant now contain caption text to help identify the image. (Revision 031)
17. The example input files have been modified to eliminate all input warnings. (Revision 036)
18. The hole size for single pads with dowel rods has been increased to 2.375" or 60 mm. This is because, for adjacent box beams, a 1.25" (32 mm) hole is not large enough to allow for drilling a 2" (50 mm) hole in the substructure unit as specified in BD-656M. (Revision 038)
19. Bearing pads with holes are no longer allowed for analysis or design with prestressed spread box beams. Pads with holes are only allowed for prestressed adjacent box beams. (Revision 039)