

<p><b>BRADD</b> No. 060 July 5, 2023</p>	<p><b>Release of Version 3.2.8.0</b></p>
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PennDOT's Bridge Automated Design and Drafting Software (BRADD) has been revised as described in the attached Summary of June 2023 Revisions - Version 3.2.8.0. This release has been updated for the December 2019 Release of Design Manual Part 4 (DM-4) and the current master items catalog (Pub 408) item numbers and descriptions after April 2020 changes. Additional revisions are included in the Summary of revisions below.

Consultants and others with a license can obtain BRADD Version 3.2.8.0 by paying the update license fee indicated in the table below. Use the Update Form located in the Ordering/Updating section on the PennDOT BRADD Software website at <http://bradd.engrprograms.com/>.

License Holder	New License	Current License Version			
		Version prior to 3.2.4.0	3.2.4.0 thru 3.2.5.0	3.2.6.0 thru 3.2.6.1	3.2.7.0 thru 3.2.7.1
<b>Private Organizations (e.g., Consultants)</b>	\$5,000	\$5,000	\$4,500	\$3,000	\$1,500
<b>Educational Institutions for Consulting Use</b>	\$5,000	\$5,000	\$4,500	\$3,000	\$1,500
<b>Educational Institutions for Educational Use Only</b>	\$500	\$500	\$450	\$300	\$150
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<b>State Transportation Agencies outside PA</b>	Free	Free	Free	Free	Free

Note: Costs shown will 6% require sales tax if applicable (See ordering/update forms).

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

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**Summary of revisions for version 3.2.8.0**

Please see the attached Summary of Revisions for the operational issues that have been addressed since the release of the 3.2.7.0 version and 3.2.7.1 patch.

The mailing address for orders is:

BRADD Manager  
Pennsylvania Department of Transportation  
PennDOT Bureau of Bridge  
400 North Street, 7th Floor  
Harrisburg, PA 17120-0094

Please direct any questions to:

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400 North Street – 7th Floor | Harrisburg, PA 17120-0094  
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## SUMMARY OF JUNE 2023 REVISIONS – VERSION 3.2.8.0

Since the release of BRADD Version 3.2.7.1, several operational issues have been addressed. This release of BRADD Version 3.2.8.0 contains the following revisions:

1. The February 2023 Edition of the BD Standards (April 2016 Edition, Change 6) have been incorporated into BRADD. (TFS 5740, TFS 5842)
  - a. With the inclusion of BD-601M, Change 5, the Deck Slab Lap Splice Lengths are specified. These changes have been incorporated into BRADD designs and details. (TFS 5822)
  - b. With the inclusion of BD-628M, Change 5, have added a quantity for Compression Seals to the Approximate Quantities table. (TFS 5840)
  - c. With the inclusion of BD-667M, Change 5, the splice length minimums are no longer specified for integral abutment designs. BRADD now uses the lap splice lengths from BC-736M for integral abutment designs. (TFS 5843)
  - d. To match BD-667M, Change 5, the test levels for various barrier types have been updated in the input menus help. (TFS 5835)
2. The February 2023 Edition of the BC Standards (September 2016 Edition, Change 5) have been incorporated into BRADD. (TFS 5739, TFS 5842)
  - a. With the inclusion of BC-736M, Change 4, the Development Length and Length of Lap Splice have changed. These changes have been incorporated into BRADD designs and details. (TFS 5821, TFS 5862)
  - b. With the inclusion of BC-775M, Change 4, the geometry of interior diaphragms for adjacent box beams have changed. These changes have been incorporated into BRADD designs and details. (TFS 5824)
  - c. With the inclusion of BC-767M, Change 2, the Neoprene Strip Seal Dam Opening Width has a minimum value of 2 1/2". (TFS 5837)
3. The 2020 Publication 408 (Changes 4 & 5, through October 2022) has been incorporated into BRADD. (TFS 5813)
4. The December 2021 update to Pub 13M (DM-2) was included in BRADD. (TFS 5826)
5. BRADD has been updated to use PSLRFD version 2.15.0.0 (June 2022) (TFS 5803)

6. BRADD has been updated to use ABLRFD version 1.18.0.0 (March 2022). Also removed warning messages about "Invalid Break Distance" from ABLRFD output. (TFS 5736, TFS 5832)
7. In accordance with the abutment stem sections shown in BD-621M, BRADD now checks user input values and designed values to ensure that the specified minimum values or specified values are not violated. (TFS-5810)
8. Barrier type 45" F-Shape can now be designed. (TFS 5747)
9. When starting up the BRADD GUI with a CONNECT Edition of MicroStation (like Open Roads Designer), a check will be made to ensure that the BRADD workspace is properly in place. Previously, this check was only performed during Installation Setup and changes to the MicroStation program in the Options menu. (TFS 5868)
10. BRADD is now compiled using Intel® Fortran Compiler Classic 2021.4.0. (TFS 5802)
11. BRADD now supports the Windows 11 operating system, in addition to Windows 10. (TFS 5818)
12. For integral abutments with diaphragms, BRADD now slopes the bearing seat between beams. (TFS 5470)
13. Fixed a problem in which the "Bearing Seat Elevation View" detail for I-beams on integral abutments was detailing the bearing pad wider than the bottom flange. BRADD now more properly details the bearing pads. (TFS 5861)
14. U-Wing wingwalls carrying barriers cannot be designed shorter than the barrier termination length. (TFS 5712)
15. Removed the "Optimize for f'c of Beam" option from the "Beam Strength & Material Properties" menu for prestressed concrete beams. (TFS 5806)
16. Fixed a problem in which BRADD reported that the transverse sleeper slab bars varied in length. BRADD now properly reports that these bars have a constant length. (TFS 5829)
17. Before the implementation of the MASH barrier standards, a pair of barmarks were defined for the curb reinforcement in the 10-degree flareback for F-shape barriers. These bars are no longer necessary and have been removed. (TFS 5834)