



## **Release Notes for Beam V3.3.1**

### **New/Changed Features in V3.3.1**

- There are no new features in V3.3.1. This release contains bug fixes only. However, the reporting of  $A_{v,min}$  and the exceptions to the minimum shear reinforcement requirement has changed. See item 1067 below.

This release fixes some bugs introduced in the previous release. The list of unresolved issues shown below will be addressed by a maintenance release to follow in a few months.

### **Bugs Fixed in V3.3.1**

- 1003 The bug that caused  $A_{v,min}$  to often be reported as 0.000 in<sup>2</sup>/ft at 0.00 ft. from left end is fixed.
- 1067 The exceptions to the minimum shear reinforcement requirement,  $A_{v,min}$ , for ACI 318-08 and -11 editions now are checked and reported correctly. Also, the reporting of  $A_{v,min}$  has changed. In the new version, the calculated value is always reported. If an exception is applicable, a note indicates which condition applies. Previous versions reported  $A_{v,min}$  as zero when an exception was applicable. Now, with both pieces of information shown, it's up to you to decide if you will use the minimum or the exception for your design. IntelliPrint still ignores locations where an exception is applicable when it determines the maximum value for  $A_{v,min}$ .
- 1071 Now makes the check for the maximum allowed value for  $V_s$  from ACI 318-08 Sect. 11.4.7.9 (similar in other editions of the code) and a non-conforming section is reported with the note "Vs too high" on the line of the Vertical Shear Reinforcing table.
- 1072 The table for entering Standard Draping information now accepts entries as it should. The data wasn't visible in V3.3.0.

### **New/Changed Features in V3.3.0**

- Building code selections for ACI 318-11 and -08 are added.

This release gets the ACI 318 updates to users. There are unresolved issues that will be addressed by a maintenance release to follow relatively quickly.

### **Bugs Fixed in V3.3.0**

- 783 Open file from command line fixed (affects double-click also).
- 973
- 842 DT shear reinforcement waiver from PCIFSRAD Project No. 2 now shows as appropriate.
- 970 The value for "Final cantilever deflection with live load on cantilever only" has been removed from the report. The values reported by V3.1 and V3.2 were wrong and the fix is more complex than what we were willing to undertake for this release. It will be returned to the report in the
- 971

future.

- 982 ACI 318-11, -08 code options are available.
- 985 Added option to change the Edit Input window size.
- 987 The Help better describes the deflection calculation for the rational method and for the multipliers from the PCI Handbook. *BEAM* uses the curvature integration method (also described in the Help) for all three methods of loss calculations. The extended cracked moment of inertia is available only when the rational method is selected for losses.
- 990 Wind factor for 2005 LC3 now defaults to 1.0. The factor is for wind or seismic so 1.0 is a better default.

### **New unresolved issues in V3.3.0**

- 259 Variable flange thickness will accept a zero entered for the thickness but will ignore the entry in the calculations.
- 309 Maximum load envelope doesn't recognize a negative moment (uplift) case that needs to be examined.
- 535 Some warnings that don't get displayed if the section of the report in which they appear isn't selected for inclusion.
- 537 Distributed loads that change from positive at one end to negative at the other end (or vice versa) aren't handled properly.
- 632 Need consistency checks on General Section data.
- 730  $V_{cw}$  sometimes is wrong when a harp point coincides with a location in the report.
- 762 For simply supported pieces, the member length used to calculate strand development doesn't use assigned bearing length.
- 766 Need a 5<sup>th</sup> load case.
- 827 The values reported for  $V_{cw}$  and possibly other calculated shear values sometimes are far out of the expected range.
- 855 Crashes when entering data.
- 867 INTPRT crashes sometimes when strand values are unusual.
- 883 An example with Zia-Hsu selected reports torsion reinforcing required in the Vertical Shear section but Combined T&V shows zeros for  $A_v+2A_l$  and  $A_l$  steel. The  $A_{s,min}$  value is not zero. I believe this is correct but needs a note to explain the situation.

- 894 Run as admin during installation.
- 953 Ultimate moment for wide sections.
- 958 USB 3.0 incompatibility.
- 1000 Initial stresses are often wrong for pieces where strand development from the ends may overlap. This is especially likely when debonding strand.
- 1006 Show calc'd stirrup dimensions.
- 1010 Report details of strain compatibility calculation.
- 1023 Initial stress top tension steel requirements for cantilevers can be wrong when the lift points don't coincide with final support points.
- 1027 Final Tension Stresses multiplier on the Serviceability page is ignored until the value is below 7.5.
- 1030 Strand input with debonding is hard to interpret, in particular, the coordination between levels on the End Patterns page and the Debonding page.
- 1033 Allow user to modify the release tension factor.
- 1034 Design for precast only members that has none of the prestress sections in the report.
- 1036 Report the torsion limit value that triggers the \*\*\* in the Vertical Shear section of the report.
- 1037 Suppress warning for high-strength concrete. But are there other requirements on the use of high-strength concrete? Solicit users for suggestions.
- 1046 Add option to display (report) details of the losses calculation.
- 1054 Break out special live loads in deflections.