

CivilFEM Class3 Error report

ERROR NO: 2009-05
TECH. ID: 2009-432

First incorrect version: 11.0 rev4a

Corrected in: 12.0 SP1

Description of Error:

The interaction diagram for the ACI349 code has a slight deviation on the part where the PHI value is interpolated. For PHI values of 0.7 and 0.9 the results are correct.

Keywords:

ACI Check

GUI Access:

Suggested User Action For Running on Uncorrected Version:

There are no workarounds or alternative ways to run the model avoiding this error. The best solution would be to slightly decrease the strength of the section so the provided solution fulfills the ACI349 code. To achieve this decrease, three actions may be taken:

- Decrease the strength of the materials (around 95% of the design value).
- Decrease the reinforcement amount.
- Use a constant PHI value of 0.7 using the member properties.

These options will provide a safe interaction diagram for the part where the reduction factor is interpolated but will penalty the section strength on the rest of the diagram.

Comments:

The values provided by CivilFEM for the strength reduction factor are very close to the values referenced by the code, with a maximum difference of 4.5%.

Author:

Date:

Signature:

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10/07/2009

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20/07/2009

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20/07/2009