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February 19, 2009

**TO: PARTIES INTERESTED IN ANCHORAGE TO CONCRETE**

**SUBJECT: Acceptance Criteria for Post-installed Adhesive Anchors in Concrete Elements (AC308), dated October 2008**

Dear Madam or Sir:

Since the approval of AC308 in June 2005, the ICC-ES staff has had the opportunity to review several applications for evaluation reports on adhesive anchors in concrete. We acknowledge the data submittal requirements, outlined in AC308, are extensive. One item we have noted on several submittals concerns the differences between the extent of tests performed and the intended scope of recognition in the evaluation report. A related issue involves differences in the scale of testing offered among laboratories providing proposals on the same scope of recognition for a particular anchor system. Some of the disparities can be attributed to referencing superseded versions of AC308. The most current version is available on the ICC-ES website ([http://www.icc-es.org/criteria/pdf\\_files/ac308.pdf](http://www.icc-es.org/criteria/pdf_files/ac308.pdf)). Our expectation is that all of the tests specified in AC308 for a stated scope of recognition will be performed.

When differences are discovered during the review of the data, ICC-ES informs the report holder of the issues. Usually, the resolution of these issues increases the time needed to issue the evaluation reports. In some cases, additional tests are needed or the resulting scope of recognition is less than what the report holder intended.

To avoid recurrence of these circumstances, the ICC-ES staff suggests that testing laboratories present a test plan to ICC-ES outlining the expected scope of recognition and detailing the testing to accomplish the objective, if the testing will not include all the tests and applicable requirements in AC308. The ICC-ES staff is willing to review and comment on test plans prepared by laboratories, to avoid any confusion among the affected parties on whether the testing is adequate to support the scope of recognition proposed for inclusion in the ICC-ES evaluation report.

AC308 Annex A Section 4.0 is the most critical section in regard to preparing a test plan. Some of the examples where deviations have occurred are listed below:

1. The AC308 Annex A Tables 4.1, 4.2, 4.3, and 4.4 require that, generally, all anchor diameters be subjected to the tests. Certain reliability and service condition tests, however, can be performed on the smallest, medium and largest diameters as indicated by footnote "a" to all tables. Also, as permitted

by footnote “b” to all tables, certain reliability and service condition tests may be conducted on one diameter only ( $1/2$  inch). Further, tests conducted for sensitivity to installation direction are required to be performed on anchors of the largest diameter.

2. When selecting the proper effective embedment ( $h_{ef}$ ) for each test, the limitations in Annex A Section 1.2.2.3 and 1.2.2.4 are required to be observed.
3. Often, more than one anchor element (anchor steel) is proposed with each adhesive type. The distinctions include threaded rods, deformed reinforcing bars, and proprietary configurations; coated and uncoated surfaces; and carbon and stainless steels. Annex Sections 4.5 and 4.6 address the requirements for additional tests to establish the effects these variations have on overall anchor performance.

In order to gather more information on the interpretations of AC308, ICC-ES plans to send a pro forma request for proposal to the accredited laboratories and ask for a test plan as a response. The plans will then be assessed for differences and the results will be distributed to the accredited laboratories.

If you have any questions, please contact Mahmut Ekenel, Ph.D., P.E., staff engineer, or the undersigned at (800) 423-6587, extension 3260. You may also reach us by e-mail at [es@icc-es.org](mailto:es@icc-es.org).

Yours very truly,



Brian Gerber, S.E.  
Principal Structural Engineer

BG/ME/gh

cc: Evaluation Committee