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## Clarification Bulletin to AC 232, Acceptance Criteria for Anchor Channels in Concrete Elements

Recently, we have become aware of possible confusion regarding the external interpretation of specific text and review criteria contained in AC232, Acceptance Criteria for Anchor Channels in Concrete Elements. As the entity responsible for the content and publication of AC232, and to assist code officials and other interested parties with the acceptance of evaluation reports for anchor channels to the requirements of AC232, ICC-ES offers the following clarifications:

1. Regarding the determination of the strength of the channel lips in tension (Table 4.1, Test No. 2), Annex A section 7.3 indicates that the anchor channels may be tested either outside of the concrete in a tension testing machine, or cast into the concrete. In both cases, the channel shall not be strengthened, welded, or modified in any manner that is not representative of product that is intended for sale and evaluated under the scope of AC232.
2. Regarding the anchor channel bending strength tension tests (Table 4.1, Test No. 4), Annex A section 7.4 indicates that all sizes of anchor channels shall be tested. Interpolation of the bending strength for untested channels between two tested sizes is outside of the scope of AC232. Simple linear interpolation cannot be assumed to be correct since the bending capacity and degree of restraint are based on several parameters, including the section modulus of each particular channel, the spacing between anchors, and the distance from the anchor to the end of the channel.
3. Regarding the determination of the critical edge distance in tension,  $c_{ac}$ , (Table 4.1, Test No. 7), Annex A section 7.7 indicates that the tests shall be conducted with each channel size. There has been considerable discussion in industry regarding this topic, and there is ongoing testing and a proposal submitted for the June 2014 ICC-ES Evaluation Committee hearings to provide a numerical approach to determine  $c_{ac}$ , however, as no test results are yet available,  $c_{ac}$  should be based on testing in accordance with section 7.7.
4. Regarding the shear tests on anchor channels located at the edge of a concrete member (Table 4.1, Test No. 10), Annex A section 7.10 indicates that all anchor channel profiles, sizes, anchor types, and anchor connection types shall be tested. Any reduction in the number of configurations tested must conform to the specific requirements for grouping listed in Section 7.10.2. In lieu of testing, or if the channels

fall outside of the grouping requirements, a default value may be taken as detailed in section 7.10.2.1.

Designers, specifiers, code officials and contractors should carefully consider this information. ICC Evaluation Service has experts available to help on this and a wide variety of technical matters. Call Jeannie Woo at 1-562-699-0543 x3260 for immediate assistance.