Cheng Yu, J Civil Environ Eng 2016, 6:5 (Suppl)
http://dx.doi.org/10.4172/2165-784X.C1.007

2nd World Congress and Exhibition on

Construction & Steel Structure

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Screw connections in cold-formed steel clip angles subjected to uplift forces

The paper presents a test program aimed at investigating the pull-over strength of screws installed on the anchored leg of the cold-formed steel clip angle connectors. Initial confirmatory tests showed that the tested pull-over strength was significantly less than the predicted values that were determined using AISI S100 (2012). Therefore, additional specimens were tested in order to develop an appropriate design method for the pull-over strength of screws used in CFS clip angles. The test results indicated that the pull-over strength of screws when used in clip angles would experience 50% reduction in nominal strength. A proposal to revise the current design provision in AISI S100 was presented in this paper along with complete details of the test program.

Biography

Cheng Yu is an Associate Professor in the Construction Engineering Technology program at the University of North Texas. He completed his PhD in Civil Engineering from the Johns Hopkins University. He is the Author of numerous articles on cold-formed steel behavior and design and serves on the AISI Committee on Framing Standards.

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