

Summary of Decisions of the Structural Engineering Committee
SEC 13/2012 held on 30.10.2012

(a) Case 13/2012

Issue: To accept socketed steel H-pile formed by the welding of two steel plates to the flanges of a steel H-pile

Recommendation: To accept a modified socketed steel H-pile formed by welding two 245mm x 30.4mm Grade 450J0 steel plates to a 305x305x223 kg/m Grade 450J0 steel H-pile.

Decision: Members endorsed the recommendation subject to the following conditions:

- (a) A trial pile should be conducted to verify the design assumptions. Consent to working piles would not be given until the trial pile test result has been submitted and found satisfactory.
- (b) A quality assurance proposal on the entire pile assembly process should be submitted prior to giving consent to the works. The proposal should distinguish clearly the works that would be carried out in factory and those at site and the details of quality supervision of the works provided. The factory carrying out the works must bear ISO 9000 quality assurance certification.
- (c) Verification test should be carried out to confirm the extensive welding works would not cause adverse effect to the flanges of the steel H-section. A sample should be cut from the assembled pile section for testing the strength of welding and the test proposal should be submitted to the BA for agreement.
- (d) A mock up trial module to simulate the actual construction should be set up to demonstrate the effectiveness of grouting works, details of the proposal should be submitted to the BA for agreement.
- (e) The local stress concentration effect should be duly assessed.