Summary of Decisions of the Structural Engineering Committee
SEC 2/2005 held on 1.2.2005

(a) Case 2/2005

Issue : Proposed use of 36 mm diameter proprietary made threadbar (Grade1080/1230) for Soil Nail Socketted into Rock

Recommendation : (1) To accept the use of 36 mm diameter proprietary made threadbars (Grade 1080/1230) complying with BS4486: 1980 (Hot rolled and hot rolled and processed high tensile alloy steel bars for the prestressing of concrete) for soil nails socketted into rock be accepted.

(2) To accept the bend and rebend tests specified in CS2 be exempted.

Decision : Noting the background information provided, members have no objection in principle to the recommendations subject to the following conditions :

(i) The guaranteed yield strength of the proprietary made threadbars shall be 1080 MPa, the ultimate tensile strength shall be 1230 MPa and the minimum elongation shall be 10%.

(ii) The mechanical couplers shall be staggered so that not more than half of the total number of proprietary made bars shall be spliced at any cross section.

(iii) No welding shall be carried out to the proprietary made bars.

(iv) Material testings on the proprietary made threadbars and couplers shall satisfy the following requirements:-

(a) Two times of the required rate of testing upon material delivery as stipulated in Table 9 of CS2:1995 or 6 nos. whichever the more.

(b) Tension test shall be carried out in accordance with Cl.6.2 of CS2:1995.

(c) The coupled bar test shall comply with the requirements as stated in Cl.3.12.8.16.2(a) of BS8110:Part 1 :1997.

(d) Except the requirements of items (a) and (c), the sampling,

testing and reporting system, other than checking the chemical composition, performing the bend and rebend tests and testing by HOKLAS accredited testing laboratories, will follow the recommendations of CS2:1995. The tensile tests will be witnessed by a RSE's representative who is versatile with the HOKLAS requirements.

(v) Without prejudice to the above, the physical, chemical and mechanical properties of the proprietary made threadbars shall comply with the requirements of BS4486:1980.

(vi) Mill certificates and test reports of the proprietary made bars and mechanical couplers shall be submitted to the Building Authority for record.

(vii) Full time qualified supervision on bar fixing and splicing of the proprietary made bars shall be provided.

(b) Case 3/2005

Issue : Proposed steel pipe pile foundation founded on soil designed by static method and to be driven to final set by using a modified Hiley Formula

Recommendation : To accept static method using a combination of shaft friction and end bearing, and verification by driving the pile to final set by using a modified Hiley Formula be accepted to determine the bearing capacity of steel pipe pile foundation subject to the satisfactory performance of trial pile tests and verification of the design assumptions by PDA measurements and pre-accepted computer analysis.

Decision : Noting the background information provided, members endorsed the recommendation subject to the condition that a stringent quality control measures shall be exercised to ensure the alignment of rock anchors installed inside the steel pipe pile.