Summary of Decisions of the Structural Engineering Committee
SEC Meeting 2/2015 held on 26.2.2015 & 9.4.2015

(a) Case 8/2015

Issue: Use of 63.5 mm diameter high strength BBV Grade 75 (grade 555/700) hot rolled thread bars and BBV Straight Round coupler in Mini-piles socketed into Rock

Recommendation: To accept the use of 356mm diameter mini-piles foundation comprising 5 numbers of 63.5mm diameter high strength BBV Grade 75 (Grade 555/700, i.e. f_y = 520 MPa) hot rolled thread bars with BBV straight round coupler socketed into Grade III or better rock.

Decision: Having noted the background information and arguments together with the following clarifications made by RSE, members endorsed the recommendation.

(a) The allowable compressive stress of the BBV bars was taken to be 0.43 (i.e. 0.5/1.15) times the yield strength of the steel bars in the design;

(b) The allowable bond stress between BBV bar and grout was taken to be 800kPa;

(c) The size of the permanent steel casing used was enlarged from 323mm to 356mm diameter and also 36mm diameter spreaders were to be used to increase the grout cover and bar spacing.

(d) Chemical composition of the BBV bars and the quality assurance and quality control documents were provided by RSE.

(e) All tests on the BBV Grade bars and the Straight Round Coupler with Lock Nut Big and pile head Anchor Nut system should be carried out by laboratory accreditation bodies which had reached mutual recognition agreements/arrangements with HOKLAS and witnessed by the RSE or his representative, who is to be a qualified professional engineer.