

To : All Authorized Persons,  
Registered Structural Engineers,  
Registered Geotechnical Engineers,  
Registered General Building Contractors,  
Registered Specialist Contractors and  
Registered Minor Works Contractors

30 March 2011

Dear Sir/Madam,

### **Construction Standard CS1:2010 – Testing Concrete**

The Development Bureau promulgated on 4 March 2011 the Construction Standard CS1:2010 (CS1:2010) superseding the CS1:1990. The CS1:2010 may be used with immediate effect.

#### **Special Features of the CS1:2010**

Same as the CS1:1990, the CS1:2010 comprises two volumes. Volume 1 generally covers site operation, including method of sampling concrete, testing of fresh concrete and making and curing test specimens. Volume 2 covers tests carried out by laboratories accredited under the HOKLAS. The content of the standard is primarily based on BS EN 12350, BS EN 12390, BS EN 12504, BS EN 13294, ISO 1920, RILEM TC 106 and ASTM C1202 with modification to suit local conditions and practices.

In addition to changes in the existing requirements for testing machines, test procedures and accreditation criteria, the CS1:2010 has the following tests newly included:

- (a) Introduction of a slump flow test for designed flow values between 340mm and 600mm;
- (b) Determination of stiffening time;
- (c) Determination of depth of penetration of water under pressure;
- (d) Determination of concrete's ability to resist chloride ion penetration;
- (e) Determination of alkali silica reaction potential by an ultra-accelerated mortar bar test; and

- (f) Determination of alkali silica reaction potential by a concrete prism test.

### **Transition Arrangement**

In order to allow sufficient time for transition to the CS1:2010, a phasing-out period to be expired on 30 September 2011 is allowed for the use of the existing CS1:1990. Commencing from 1 October 2011, submission of structural plans, including foundation plans, specifying the use of CS1:1990 will not be accepted.

However, for any new building development or alteration and addition (A&A) proposal, if application for approval of the structural plans or foundation plans has been made on or before 30 September 2011, subsequent submissions or amendments of the plans may continue to adopt CS1:1990.

### **Access for the CS1:2010**

CS1:2010 is available for sale at the Publications Sales Unit of the Information Services Department. Softcopy of the standard can be found at the CEDD website, [http://www.cedd.gov.hk/eng/publications/standards\\_handbooks\\_cost/index.htm](http://www.cedd.gov.hk/eng/publications/standards_handbooks_cost/index.htm).

Yours faithfully,



(KOON Chi-ming)  
Assistant Director/New Buildings 2  
for Director of Buildings