

**Foundation Works
(Driven Steel Bearing Piles)**

In giving this approval of plans, I hereby impose the following conditions under item 6 in section 17(1) of the Buildings Ordinance:

- (a) For welding of structural steel works, welding procedures and welders should be assessed/tested in accordance with the appropriate provisions of the Annex A to the Code of Practice for the Structural Use of Steel 2011. Before driving in spliced sections of the piles, non-destructive tests on a representative number of welded joints should be carried out with a sampling rate of not less than 10% of the total number of welded joints in accordance with the appropriate provisions of the Annex A to the Code of Practice for the Structural Use of Steel 2011 and by a laboratory* accredited under the Hong Kong Laboratory Accreditation Scheme (HOKLAS)^. The test reports@, with the joint locations clearly specified, should be submitted within 21 days after testing.
- (b) Test driving on pile no.(s) *[please refer to approval letter for details]* should be carried out to verify the design assumptions before driving, other than pitching the first section, of any other piles. The Buildings Department should be notified of the time and date of the test so that the test driving may be witnessed by a representative from the Department.
- (c) *Trial pile* – Test driving on pile no.(s) *[please refer to approval letter for details]* should be carried out before driving other working piles in order that the design assumptions and the performance of the piles under the particular ground condition can be verified. A consent to the commencement of the trial piles will be required. After installation, Form BA14 certifying completion of the trial piles should be submitted and the trial piles should be tested by the imposition of a test load in accordance with the procedures and criteria specified in the Code of Practice for Foundations 2017 by a laboratory* accredited under HOKLAS^. The Buildings Department should be notified of the time and date of the test so that the test driving and the corresponding loading test may be witnessed by a representative from the Department.

2. You are reminded that site supervision of the foundation works by a team of supervisors shall be provided each by the Authorized Person, the Registered Structural Engineer and the Registered Specialist Contractor in accordance with the Technical Memorandum for Supervision Plans 2009 and the Code of Practice for Site Supervision 2009 (2021 Edition) to ensure that the quality of the foundation works is up to standard and that the works are carried out in accordance with the plans approved and in such a manner as not to render inadequate the margin of safety of, or impair the stability of, or cause danger to any building, structure, land, street or services. Details of site supervision for the foundation works shall be included in the supervision plan and submitted prior to or at the time of application for consent to the commencement of the foundation works.

3. Under Building (Administration) Regulation 10, the following documents are required to be submitted:

- (a) For structural steel classified as Class 1 or 2 in accordance with the Code of Practice for the Structural Use of Steel 2011, a copy each of the mill certificates of the structural steel used, which should be submitted within 60 days of the delivery of the structural steel to the site and appended with a statement signed by the Registered Structural Engineer to confirm that the requirements of chemical composition and mechanical properties appropriate to the class and grade of steel have been complied with and that the structural steel used is produced from a manufacturer with an acceptable Quality Assurance system.
- (b) One set of foundation record plans and report together with the Form BA14 required under Building (Administration) Regulation 25 to certify the completion of the foundation works. The record plans should include details of the characteristic features of the site and the identification, location, size, depth and level of each pile as constructed. The report should include for each pile the date of installation, the quality and quantity of materials used and the driving performance.

4. Where structural steel of Class 2 is used, the following conditions are imposed under item 6 in section 17(1) of the Buildings Ordinance:

Sampling and testing of structural steel should be carried out in accordance with the Annex D to the Code of Practice for the Structural Use of Steel 2011. Testing should be carried out by a laboratory* accredited under HOKLAS[^]. The test results[@] should be appended with a statement signed by the Registered Structural Engineer who has prepared the plans and submitted within 60 days of the delivery of the structural steel to the site for confirmation of the followings:

- (i) All structural steel used for the construction and the test specimens covered by the test reports are in accordance with the classes and grades of steel shown in the approved plans.
- (ii) Sampling and testing of structural steel used have been carried out in accordance with the Code of Practice for the Structural Use of Steel 2011.
- (iii) The acceptance criteria appropriate to each class and grade of steel used have been complied with.
- (iv) Testing of steel has been carried out by a laboratory* accredited under HOKLAS[^].

5. If trial pile testing is required in paragraph 1(c) above, consent to the commencement and carrying out of the working piles works will not be given until the report¹ of all trial piles has been submitted and found satisfactory.

¹ The report should comprise both driving test result and proof load test report.

6. Consent to the commencement and carrying out of the pile cap and superstructure works will not be given until the test reports specified in paragraphs 1(a) and 4 above, and the mill certificates of the structural steel used, the foundation record plans, report and Form BA14 specified in paragraph 3 above have been submitted and found satisfactory, and that the required proof tests have also been satisfactorily carried out by a laboratory* accredited under the HOKLAS^.

7. All significant signs of distress during the construction works should be reported promptly to the Buildings Department. Where the ground settlement reaches or exceeds the trigger value of the “Alarm Level” defined in the monitoring scheme, the Chief Highway Engineer/Research and Development, Highways Department (Attention: Land Surveyor/Geographic Information System, telephone number: 2762 3498, fax number: 2714 5290, email: lsgis.rnd@hyd.gov.hk) should be notified promptly together with the relevant details of the monitoring.

* A Directory of Accredited Laboratories in Hong Kong is obtainable from the Hong Kong Accreditation Service (HKAS) Executive, Innovation and Technology Commission.

A laboratory’s accreditation for an individual test or calibration may be granted, modified or withdrawn at any time. Up-to-date information on accredited laboratories and their scopes of accreditation are available on the internet at the HKAS website at <http://www.itc.gov.hk/hkas/>.

^ Test to be carried out by a laboratory* accredited under the HOKLAS or by other laboratory accreditation bodies which have reached mutual recognition agreements/arrangements with the HOKLAS for the particular test concerned.

@ The test carried out by an accredited laboratory should be within its scope of accreditation. To ensure this, test results should be reported on a HOKLAS Endorsed Certificate or equivalent Certificate/Report issued from other laboratory accreditation bodies which have reached mutual recognition agreements/arrangements with the HOKLAS.