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## Site Investigation and Ground Investigation

### Introduction

"Site investigation" (地盤勘測) is defined in s.2 of Building (Construction) Regulation as "investigation of the physical characteristics of the site and includes documentary studies, site surveys and ground investigation". These works are carried out to obtain adequate geotechnical and other relevant data for the design and construction of building works such as foundation and site formation works. This practice note sets out the acceptable standards of site investigation in general and ground investigation, which constitutes a major part of site investigation, in particular.

2. In this practice note, the term "site investigation" covers a broad scope of investigation including the topography and history of the site. "Ground investigation" refers to actual surface or subsurface investigation by such methods as boreholes and test pits, including on-site and laboratory tests.

### Technical Guidance Documents

3. The Geotechnical Engineering Office (GEO) Technical Guidance Note No. 1 provides a list of technical guidance documents including GEOGUIDE 2 (Guide to Site Investigation) and GEOGUIDE 3 (Guide to Rock and Soil Descriptions), and other relevant documents currently used by the GEO as de facto geotechnical standards in Hong Kong. Site investigation carried out in accordance with the recommendations of these technical guidance documents will be deemed to meet the minimum acceptable standards. For the standards of carrying out ground investigation field works and the acceptance criteria of ground investigation works, reference should be made to the Code of Practice for Site Supervision.

### Registered Specialist Contractor (Ground Investigation Field Works Category)

4. Ground investigation field works include all site operations in ground investigation and exclude laboratory testing of samples and field density tests. Ground investigation field works have been designated, by notice in the gazette, as a category of specialized works. A sub-register of registered specialist contractors (ground investigation field works category) (the 'RSC(GIFW)') has been established in the register of specialist contractors, and all ground investigation field works are required to be carried out by the RSC(GIFW). Detailed scope of work and registration requirements of the RSC(GIFW) can be found in Practice Note for Registered Contractors (PNRC) 38. Laboratory testing of samples obtained from site operations in ground investigation is beyond the jurisdiction of RSC(GIFW). Field density tests and all laboratory testing of samples obtained from the investigation are required to be carried out by laboratories which are accredited for carrying out the tests concerned, as outlined in PNAP 167.

5. The RSC(GIFW) are responsible for the carrying out of ground investigation field works mainly for the following purposes:

- (a) compiling a ground investigation report for submission to the Building Authority in support of a plan for approval under the Buildings Ordinance, including but not limited to, foundation plans, site formation plans, excavation and lateral support plans as prescribed under Building (Administration) Regulation 8(1) and 9;
- (b) compiling the geotechnical assessment for submission under Building (Administration) Regulation 8(1)(ba) with a general building plan. The assessment should include a suitable plan showing the scope and extent of the proposed ground investigation.

6. It is the duty of the RSC(GIFW) to ensure all information in the ground investigation reports submitted to the Building Authority are correct even though some of the actual operations eg geophysical surveys, might have been carried out by others. All drillhole cores and samples obtained during ground investigation (other than those samples selected for testing) are to be kept in good conditions for inspection by staff of the Buildings Department, and if necessary Geotechnical Engineering Office, until acknowledgement of the satisfactory completion of the site formation, foundation, or other related works has been given.

#### **Quality Supervision Requirements for Ground Investigation Field Works**

7. The details of the quality supervision requirements for ground investigation field works and the related administrative procedures are provided in the Technical Memorandum for Supervision Plans and the Code of Practice for Site Supervision.

8. A practice note similar to this one has been issued to all authorized persons, registered structural engineers and registered geotechnical engineers.

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Building Authority

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(Paragraph 3 revised, original paragraphs 4 to 6 and 10 to 22 and Appendices A to D deleted, paragraphs 7 and 8 added.)

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