



GROUND INVESTIGATION GUIDELINES 01 - CONTRACT DOCUMENTATION

Introduction

These guidelines aim to provide individuals seeking to procure GI services an understanding of the documentation involved in both tendering and contracting for these works. Indeed tendering or contracting for any type of civil engineering works in Hong Kong will follow the basic principles presented in the following sections.

As set out in the GI Procurement Guidelines (which should be read in conjunction with this document) there are a number of Government, Corporate and private clients who may seek to let GI contracts. Each of these parties may have their own specific documentation, but all will follow the basic framework as detailed in these guidelines.

Types of Contract

Depending on the client body, a number of different types of contract can be utilised to procure GI services in Hong Kong. These types are set out as follows:

- GEO Term Contract – Contract let by the GEO to serve works departments of HKSARG and prepared by a Consultant for either a specific type of works (e.g., an LPM year based or marine term contract usually over 2 years), or on a regional basis (NTE & NTW). For regional works and many specific types of GI the GEO lets its own contracts and only in some cases do Consultants prepare and administer these contracts (e.g. LPM's). *These Term Contracts may be only for fieldworks or laboratory testing or combining both into a single contract.* Works are subdivided into separate fieldwork and laboratory Works Orders with their scopes usually defined by the scale of the investigations, ie., on the large scale individual projects (regional basis, multiple fieldwork and laboratory Works Orders) and at the small scale by individual sites (LPM slope feature with a single Works Order for the fieldwork and laboratory testing). These are usually “Schedule of Rates” contracts (otherwise known as “Fixed Rates” contracts);
- Government Term Contract – A government department lets its own 2 year based GI Contract, e.g., Housing Authority. These contracts are usually again Works Order based and here Consultant's may administer these contracts. It should be noted that there may be significant differences in the interpretation &/or content between these types of contract and the GEO Term Contracts. Again these are usually “Schedule of Rates” contracts. Most recently an ‘Urban’ Term Contract has been awarded whereby GI Contractors were asked to mark up or down by a limited % amount, variations to quoted fixed rates for works. These percentages were then calculated, by use of tender documented defined weighting factors, to produce a ‘Value for Tender Assessment’. This format is also now being used for other GEO Term Contracts.
- Government Client using a GEO Term Contractor by use of a Works Order system (separate works orders for field and laboratory work). The scope of works will be less than HK\$3M and in the normal case it is a government department's Consultant that identifies the required scope of works, gathers data on utilities and obtains permissions from DLO, and deals directly with the GEO on their behalf. The GEO will determine if and when the required works can be undertaken and will liaise with the other government departments in securing the necessary funds to carry out the works. Again these are usually “Schedule of Rates” contracts;
- Government investigation works over HK\$3M (HK\$6M for marine based investigations) or Corporation/private clients with the scope of works (both fieldwork and laboratory testing) let as a single contract. Here the Consultant produces the tender and contract documents for approval and lets and administers the Contract as the Client's ‘Engineer’;
- Schedule of Rates Contracts – usually GEO or other government term contracts where the initial scope of works is based on general estimates requiring a certain degree of flexibility due to the type and amount of works that may occur within the Contract period. Here the Contractor's agree to fixed rates for all identified types of GI, whose rates will not

change through the contract period irrespective of the amount of works completed;

- Remeasurable Contracts – mainly private or large scale government GI contracts for a specific site. Here the scope of works is much more clearly defined by an ‘Engineer’s’ estimate. Rates for different types of works may be re-negotiated if a type of work is significantly more or less than that quoted in the Contract document.

Presently tenders can be called by either the issuing of hard copy tender documents or more increasingly by electronic dissemination. The computer based tendering system also involves the production of electronic gazettal notices, press releases and tender notices. At present due to software incompatibility between parties most tenders are let based on paper contracts.

Increasingly in the Hong Kong market Government and private clients are requiring Consultants making design tender bids to incorporate lump sums for GI costs, ie., letting and supervising contracts by themselves.

Required Elements of Tender/Contract Documents

The following is a general checklist, in notional order, of the necessary documentation sections required for a GI Tender/Contract Document. Those shown in red are exclusive to Tender Documents, those shown in blue are exclusive to Contract documents, while those in black are common to both:

- Optional Notes for Tenderers
- Tender Submission Requirements
- Contents
- Conditions of Tender
- Articles of Agreement
- Correspondence Forming Part of the Contract
- Form of Tender
- General Conditions of Contract HKSAR for Civil Engineering Works 1999 Edition, or Corporation/Private Client Conditions
- Special Conditions of Contract
- Particular Specification
- Appendices to Particular Specification
- General and Particular Preambles to the Bill of Quantities
- Bill of Quantities
- Drawings

Notes on Required Elements of Tender/Contract Documents

- Optional Notes for Tenderers – Notes provided to the prospective tenderers setting out tender submittal address, query procedures, inspection of any documents forming part of the tender information but held by the Engineer/Client, a summary of important points set out in the tender that the Contractor should consider (e.g., financial and contractual matters, quality assurance requirements and any special conditions of contract) and if applicable provision of a checklist for tenders deposited in Government Secretariat Tender Box.
- Tender Submission Requirements – The major Corporations and private clients require prospective tenderers to submit technical information, ie., method of execution of the works, method statements, ETWB approved resources, company owned equipment, driller employment and CITA training records, project experience, etc. This information is used in part by these parties to help in the tender evaluation process.
- Conditions of Tender – Subdivided into ‘General’ and ‘Special Conditions of Tender’. The ‘General’ conditions cover a summary of documents issued and not issued to the tenderers, the required submissions from prospective tenderers, and issues requiring the tenderers’ attention. The ‘Special’ conditions section covers specific requirements and statements that the prospective contractors must present in their tenders, as well as certain conditions of tenders. These include, but are not limited to the following:
 - A programme of works;
 - Viewing of existing documentation relevant to the tender;
 - Proposal for alternatives to the use of hardwoods;
 - Information on Contractor’s Joint Ventures;
 - Copyright of the tender provided;
 - Notes on Tender Addenda;
 - Proof of ISO 9000 Certification of Contractors;
 - Any statement of convictions or suspensions;
 - Notes on the Engineer’s powers;
 - Notes on liquidated damages including method of calculation;
 - Pricing of the Bill of Quantities (BQ) and consideration of unreasonably low priced tenders;

- Notes on clarifications after the close of the tender period;
 - Information on Contractors present work commitments;
 - Notes on submittal of electronic tenders;
 - Letters of indemnity;
 - Form of Bond;
 - Method of works;
 - Relevant project experience;
 - List of resources or equipment; and
 - Safety plans.
- **Articles of Agreement** – Are a legal undertaking entered into between the Employer and the Contractor, setting out details of the Employer and Contractor.
- **Correspondence Forming Part of the Contract** – In this section of the document relevant copies of correspondence pertaining to the Contract are provided. These may consist of the ‘Letter of Acceptance’ from the Employer of a Tenderer’s bid, agreement of liquidated damages, agreement of substantially over or under priced items (in relation to other bids received), and details of any Tender Addenda.
- **Form of Tender** – Is the written offer to execute the works. It states the salient particulars of the offer such as the total price of works, completion times for sections of the works, and the method of liquidated damages calculation, and details of authorised signatories.
- **General Conditions of Contract (GCC)** – Usually HKSARG GCC for Civil Engineering Works, 1999 Edition and which are simply referenced in the Tender document and may appear in full in the Contract document. If a Term Contract is being tendered/awarded the HKSARG GCC for Term Contract for Civil Engineering Works, 2002 Edition must be referenced. For Corporation or private contracts the GCC employed are based on the standard HKSAR 1999 edition, however there may be significant differences.
- **Special Conditions of Contract (SCC)** – This really is dependent on the type of works and the site that the works will be undertaken on. However, many SCC are common to a number of projects with many being slight rewordings of standard government conditions of contracts. A possible list of topics that may appear in this section of the tender document is supplied as follows:
- Allowances for typographical errors;
 - Definitions of individuals, private companies or Government departments relevant to the tender;
 - The use of one word to import gender;
 - Duties and powers of the ‘Engineer’ and ‘Engineer’s Representative’;
 - Works subject to excision;
 - Deletion of contract price fluctuations;
 - Third party claims in respect to damage to and on agricultural lands;
 - Subcontracting, ie., what type of works and who these works can be subcontracted to;
 - The use of named specialists that must be employed to carry out certain works on the contract;
 - Temporary utility supplies;
 - The use of Qualified Tradesman and Intermediate Tradesman;
 - Assessment of liquidated damages;
 - ISO 9000 certification of the contractor;
 - Year 2000 warranty for contract computer facilities;
 - Details of the place of arbitration if contract disputes reach this stage;
 - Disturbance to the progress of the Works;
 - Procurement and type of Third Party Insurance required by the Contractor;
 - Sectional commencements;
 - Provision of lands or places for temporary accommodation;
 - Information not to be divulged by the Contractor;
 - Ownership and copyright;
 - Ordering Variations during the maintenance period;
 - Interim certification after determination;
 - The Engineer’s powers to not accept unremedied effects;
 - Contract information to be used for cost estimation or cost analysis for the Employer’s other works; and
 - Enhanced site cleanliness requirements
- **Particular Specification** – Within this section of the document the exact technical method in which the detailed works are to be undertaken is set out. Here HKSAR Government standard, (e.g. the General Specification for Civil Engineering Works), as well as international

standards, are referenced and any amendments stated. This section is subdivided into :

- Corrigenda to the general specification for Civil Engineering Works;
 - Contract Particulars; to avoid delays it is good practice to include in this section of the document relevant contact details of government or commercial companies which the Contractor will be required to interface for access or for obtaining permits;
 - General details including Interpretation of Documents, Contractors Staffing (with all having relevant experience and where necessary GEO and BD approval) Safety, Damage, Site Cleanliness & Establishment, Photographs & Environmental Protection; and
 - Geotechnical Works subdivided into General, Ground Investigation, Instrumentation, Laboratory Testing and Other Tests (to be defined on a contract by contract basis). It should be borne in mind that advice may be required from Contractors or specialists alike for the most appropriate specification in undertaking certain sampling or insitu/laboratory testing (this is especially true for geophysics, complex down-the-hole insitu testing and geoenvironmental investigations). This has the advantages of not only gaining the correct design information, but also allows a better understanding of the required works for Tenderers, ensures a workable specification and avoids the potential for claim situations and delays.
- Appendices to Particular Specification – Details providing general summaries of each section of the works required, standard forms to be issued, copies of statutory/government ordinances, conditions, or guidelines to be followed, details of equipment to be provided to the Engineer or details on Works Areas.
- General and Particular Preambles to the BQ – The ‘General’ section deals mainly with the method of measurements that are to be used in the contract (usually the Government ‘Standard Method of Measurement for Civil Engineering Works, 1992 Edition’ and related corrigenda), general directions on the form of the BQ, general details of the item coverage, consideration of unpriced items and work affected by non-tidal and tidal works, attendance to subcontractors, adjustment items and the cost of testing of materials and

workmanship. The ‘Particular’ section covers any amendments to the standard method of measurements and item coverage of specific ground investigation works

- BQ - Subdivided into usually Preliminaries (provision of the Contractor’s and Engineer’s office, the Engineer’s equipment and transport, corestores, traffic management, insurance, waste management and cleaning & tidying of the site) Fieldworks (subdivided into establishment, moves, drilling, sampling, general insitu testing, specialist surveying/testing, and field installations), Laboratory Testing (usually subdivided into soil & water, rock, chemical &/or specialist) and Reporting (Draft and Final of both Fieldwork & Laboratory testing).

There is no such thing as a ‘Standard’ GI Contract Document. Contract documents are developed and improved over time in relation to changes in law, technical advances, changes in methods of measurement, and based on experience gained on other similar contracts. Individuals producing contract documents should be aware of the implications of arbitrarily copying previously used documentation without the knowledge of its applicability and any previously identified problems.

However thorough Contract documents are collated in respect of the possible sampling, insitu and laboratory testing and reporting requirements, unforeseen ground conditions or significant changes in the GI requirements may become apparent after an award of a Contract. In this respect The Engineer can request the GI Contractor to provide new rates for undertaking works that do not form part of the Contract. The Engineer must supply a Specification for these additional works and the amount of work actually required (providing a BQ unit of measure). In addition, The Engineer may indicate the period in which this work must be completed by (field/laboratory/reporting) or request the Contractor to provide such indication. It should be remembered that these additional works may have a programme implication which if on the critical time line could result in an Extension of Time (EoT) claim by the Contractor.

Differences in the interpretation of Contract documents between different parties are common place in all types of Contract. Inevitably the rights and wrongs of different opinions must be considered by all interested parties with an acceptable solution agreed and preferably without the need for arbitration. In practice, as GI contracts are of relatively low value compared to construction contracts, arbitration is not common.