

CORE OBJECTIVES (GEL)

1. Procedural	Code	ES Initials & Date of Assessment			
		G	K	E	C
1.1 Be familiar with the system for recording, checking, filing and retrieval of drawings, calculations, correspondence and project data.	E				
1.2 Understand the procedures for project implementation.	K				
1.3 Be familiar with the procedures and requirements of Quality Assurance.	E				
1.4 Have knowledge of the sources of and procedures for accessing geotechnical data in the public domain.	K				
1.5 Be familiar with the procedures for making submissions to regulatory/checking authorities.	E				
1.6 Have experience in dealing with various parties involved with or having an interest in a project through meetings and/or correspondence.	E				
1.7 Be conversant with Regulations, Design Standards, Code of Practice and Technical Memoranda in regular use by the discipline.	C				

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2. Investigation and Design	Code	ES Initials & Date of Assessment			
		G	K	E	C
2.1 Site investigation (a) Be able to collect and collate information, and to conduct desk studies and API. (b) Be able to conduct and record results of field inspections and mapping. (c) Be able to plan a ground investigation.	C C C				
2.2 Material testing (a) Understand laboratory practice and techniques for selecting, preparing and testing soil, rock and construction materials specimens. (b) Be able to specify laboratory test requirements and interpret test data in deriving design parameters.	K C				
2.3 Ground modelling (a) Be able to identify, describe and classify soil and rock materials and mass characteristics. (b) Be able to formulate geological/geotechnical models from desk study and field data.	C C				
2.4 Be able to identify engineering problems and technical and financial evaluation of alternative solutions.	C				
2.5 Be able to produce sketches and working drawings and correlate them with technical specifications.	C				
2.6 Be familiar with computer techniques applicable to engineering geology, geotechnical analysis and design which are in regular use in the office.	*C/E				
2.7 Be able to assess effects of engineering works on adjacent land and properties including the surface and ground water regime, and vice versa.	C				
<i>*As appropriate to the company</i>					

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2. Investigation and Design	Code	ES Initials & Date of Assessment			
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<p>2.8 Be competent in the assessment of and geotechnical design of works associated with at least two, and preferably more, of the following *:-</p> <ul style="list-style-type: none"> (a) slope /retaining wall stability (b) rockfall /natural terrain hazards (c) foundations (using non-prescriptive approach) (d) deep excavations (e) tunnels/underground caverns (f) dredging and reclamation (g) ground improvement (h) sub-surface drainage measures (i) natural resources exploitation (such as quarrying) 	C				
<p>2.9 Safety In Design</p> <p>Know the requirements for safety in problem solving by being familiar with the regulations applying to your work</p>	C				
<p>2.10 Sustainability</p> <ul style="list-style-type: none"> (a) undertake engineering activities in a way that contributes to sustainable development (b) understand and secure stakeholder involvement in sustainable development 	K				
<p>* Or as set out by the company in the <i>Specific Objectives and approved by the HKIE</i></p>					

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3. Construction and Site Supervision	Code	ES initials and Date of Assessment			
		G	K	E	C
3.1 Have experience in planning and programming works on site to meet changing conditions.	E				
3.2 Have experience in keeping site records.	E				
3.3 Be familiar with supervising ground investigation work, field tests and installation of field instruments.	E				
3.4 Be familiar with geotechnical monitoring methods and procedures.	E				
3.5 Understand the use of surveying and setting out techniques in construction.	K				
3.6 Be familiar with plant and equipment commonly used in the execution of geotechnical works.	E				
3.7 Be able to supervise the execution of at least one , and preferably more, of the following geotechnical works*:- (a) slope / retaining wall construction (b) rockfall / natural terrain hazard control (c) foundations (d) deep excavations (e) tunnels / underground cavern construction (f) site formation / reclamation (g) ground improvement (h) sub-surface drainage measures (i) natural resources exploitation (such as quarrying)	C				
3.8 Safety at Work Have a critical approach to safety matters in the implementation process and to the observance of safe working practice	C				
* Or as set out by the company in the Specific Objectives and approved by the HKIE					

CORE OBJECTIVES (GEL)

4. Financial	Code	ES Initials & Date of Assessment			
		G	K	E	C
4.1 Understand the economic aspects of project appraisal including cost benefits, discounting and financial risks.	K				
4.2 Understand the processes and elements of project cost control.	K				
4.3 Be familiar with the preparation of cost estimates.	E				
4.4 Be familiar with measurement and payment certification procedures.	E				
4.5 Understand the procedures for and assessment of cost variations.	K				
4.6 Understand the use of cost and price fluctuation clause in a contract.	K				

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5. Contractual	Code	ES Initials & Date of Assessment			
		G	K	E	C
5.1 Understand the relative merits of implementing construction works by using various forms of contracts.	K				
5.2 Be familiar with preparation of technical specifications.	E				
5.3 Be familiar with the preparation of tender/contract documents.	E				
5.4 Be familiar with taking off quantities and preparing Bills of Quantities in accordance with a Standard Method of Measurement.	E				
5.5 Understand the contractual relationship and relative roles and responsibilities between the Client/Employer, Engineer and Contractor in project implementation.	K				
5.6 Understand the role of the Engineer and his Representative and their responsibilities under the Contract, to the Client/Employer and to the public.	K				
5.7 Understand the circumstances and risks which may affect contract costs and construction period.	K				
5.8 Know the procedures in dealing with contract risks and claims.	K				