INTRODUCING THE FIDIC EMERALD BOOK

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Earlier this year FIDIC released its new "Emerald Book" - Conditions of Contract for Underground Works. This addition to the FIDIC suite seeks to fill a gap amongst standard forms as a specialist contract for use on underground projects, including tunnelling works. We provide an overview of the key features of the Emerald Book below.

A new approach to risk allocation

The Emerald book sets out a distinctive approach to risk allocation designed specifically with underground projects in mind. In particular:

- Risk allocation is based on a Geotechnical Baseline Report ("GBR") and a Schedule of Baselines and Geotechnical Data Report ("GDR").
- The intention is that Employer should carry out significant investigations prior to tendering the works to obtain as much information as possible regarding subsurface risk (including water risks).
- Foreseeable risks (i.e. those risks identified in the GBR) are allocated to the party best placed to manage them.
- The Employer takes the risk associated with conditions worse than those set out in the GBR, but also gets the benefit where conditions are more favourable than those set out in the GBR – the Time for Completion time can be shortened and the Contract Price reduced.
- The Contractor assumes the risk of delivering the works where conditions are as per those expected in the GBR – the Contractor designs the works in accordance with the GBR and the Employer's Requirements.
- Anything outside the scope of GBR is deemed to be Unforeseeable, entitling the Contractor to additional time/money.

The Contractor is required to complete and maintain a Contract Risk Register and prepare and maintain a Contract Risk Management Plan (concepts familiar from the NEC suite of Contracts) – recognition that much can go wrong in projects of this nature.

Excavation and lining works

- Specific provision is made for excavation and lining works;
- These works are recognised as being a key part of the Works themselves, and difficult to accurately scope out/quantify at tender stage.
- These works are therefore paid for on a remeasurement basis - rates and prices are set out in the Bills of Quantities.
- These are divided into Fixed rate items, Time related rate items and Quantity related rate items.
- These rates also allow a mechanism for valuation of prolongation costs in the event of Unforeseeable subsurface conditions being encountered.

Payment and performance security

 The Contract provides for an Advance Payment Guarantee as well as Performance Security being delivered by the Contractor. Advance payments are likely to be necessary where high value plant is to be paid for up front.



- There is provision for a JV Undertaking to provide for joint and several liability between the JV parties, to allocate a leader and to set out their individual scopes where relevant.
- As in other FIDI contracts, the Employer must provide details of its financial arrangements for the project, and revisit these where project costs increase.

Engineer's role, dispute avoidance and resolution

- The role of the Engineer and the dispute resolution provisions of the Emerald Book are similar to those in other FIDIC books:
- The Engineer acts as Employer's Agent and has specific role in respect of monitoring progress of the Excavation and Lining Works
- The Engineer is also required to determine certain matters as between the parties, There is a specific statement that the Engineer will act impartially in this role. The Engineer must

be wary of conflicts of interest.

- Where either party is dissatisfied with the Engineer's decision the matter is referred to a Dispute Avoidance/Adjudication Board (appointed for the duration of the contract).
- Where a party remains dissatisfied, the matter will be referred to Arbitration (ICC rules).

Considerations for early adopters

- The agreement of the GBR is likely to be an involved process requiring significant negotiation. As this is so central to the Contract (with time and cost both hinging on it) it will be crucial to get it right before it becomes contractual.
- As with other FIDIC forms, the Contract places a fitness for purpose obligation on the Contractor. The Employer will need to ensure that the intended purpose is stated clearly in the Employer's Requirements in order to

benefit from this – including any expected lifetime of the works.

- The Contract provides that the Employer is required to obtain all permits, licenses and consents stated in the Employer's Requirements to be its responsibility, and that the Contractor is required to obtain any others. The Employer is also responsible for allowing the Contractor access to the Site—which could be complicated in respect of tunnelling contracts affecting ground in the ownership of a number of different parties. It will remain important to ensure that the full jigsaw of permissions and consents is in place prior to work commencing, and that sufficient time is allowed for this exercise (as negotiations could be lengthy).
- The Contractor is required to take measures to limit nuisance to third parties but it is likely that in tunnelling projects third party interests will need to represented much more robustly than this. In particular, landowners consenting to tunnelling under their property are likely to

- require collateral warranties with clear undertakings as to the manner of working, ability to call upon the Contractor's insurances and perhaps even rights to scrutinise and input into methodology, as well as indemnities in event of any loss being suffered. Additional contractual provisions are likely to be driven by discussions with the third parties themselves.
- Although an Advance Payment Guarantee is provided for, the Employer may wish to consider whether further comfort is required in respect of expensive tunnelling equipment or specialist materials. Where costly items are paid for in advance, ownership may be agreed to vest in the Employer as the item(s) is/are fabricated (before shipment/delivery). It is never possible to provide a 100% safeguard against supplier insolvency, particularly where dealing with foreign suppliers, but direct contractual links can assist. Seeking advice in respect of insolvency laws in the local jurisdiction may also be prudent.

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