

# FIDIC and BIM: Missed Opportunity or Turning the Corner?

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**Building Information Modeling (BIM) is becoming an essential part of construction project delivery and as a result some standard form contracts have moved to provide clauses to assist with the implementation of BIM.**

FIDIC is planning to release a new edition of its contract suite later this year and so far there is no indication that it will include clauses which assist with BIM facilitation.

As with any new construction management tool, BIM raises legal challenges that need to be recognized and resolved.

The questions that we keep getting asked are:

- How do we expect BIM to be addressed by FIDIC?
- How do other contract suites deal with the BIM issue?
- What impact does this have on the drafting of my bespoke contract?

### **Missed Opportunity?**

Should FIDIC decide to not add BIM facilitating clauses, it raises the question as to how BIM may be addressed in the new FIDIC suite of contracts. It also raises a more important question: how should the contractual issues that arise as a result of the use of BIM be addressed given the needs of the construction industry within the UAE today?

It is the collaborative elements involved in BIMs successful use that raise the most contractual uncertainty, particularly in an industry that is adversarial by nature and where participants are expectedly cautious about their own self interest.

Despite this, from a local perspective, the use of BIM has been gaining traction. More and more architects, engineers, and contractors, are using BIM for their own benefit after realizing that its use can have a real and positive impact on project delivery and bottom line. This move to BIM adoption has also been driven by the foresight of public authorities, such as Dubai Municipality mandating the use of BIM on major projects and the adoption of BIM as part of various rating schemes.

As the gradual adoption of BIM continues, there may be confusion as to how to contractually manage its implementation in the absence of guidance in the FIDIC general conditions.

However we understand that various FIDIC committees are taking the time to consider the best approach in deciding how to address BIM throughout the FIDIC rainbow suite.

Encouragingly, FIDIC has provided a tentative timetable to deliver drafting instructions sometime in 2017.

### **Turning the Corner**

How might FIDIC propose to address the adoption of BIM?

It may be that the most sensible and likely outcome is that FIDIC will introduce a mechanism to address the use of BIM through a guidance note. This may include a protocol document and an execution plan that clearly addresses the contractual issues inherent in implementing BIM.

The use of a guidance note provides a flexible mechanism for the adaptation of BIM across FIDIC's various contracts and allows contractors to adapt their particular conditions of contract to suit the project environment.

Other popular standard form contracts, such as the Joint Contracts Tribunal (JCT) and NEC Engineering and Construction Contract (NEC3) have taken a similar approach.

A criticism of using a protocol is that it may fail to address the contractual issues that arise during a BIM project.

For example the CIC BIM Protocol, developed in conjunction with the Government of the United Kingdom, lacks sufficient detail to be used effectively. An illustration of this is that it has been criticized for failing to address collaborative information sharing in the BIM common data environment despite this being a fundamental aspect of BIM implementation.

Criticisms of BIM protocols are hardly surprising given that BIM can mean so many different things to different people and organizations and having a singular protocol may not meet every project need. It also demonstrates that the contractual implications of using BIM are still evolving and will vary from project to project. If a protocol does not deliver a foundation of trustworthiness, safety and security over the digitally built assets, the effectiveness of its use are significantly diluted.

BIM, as has been said before, can only be as good as the people who use it and while the protocols developed for use by other standard form contracts may be diamonds in the rough, it is here where a FIDIC guidance note has the opportunity to distinguish itself.

With the updates to the rainbow suite expected in 2017 focusing on a more collaborative contractual approach, FIDIC has the chance to carry this trend through to any BIM guidance note and suggest an appropriate BIM risk allocation. For example the proposed new early warning procedure may be aided by the use of BIM as an early warning tool, identifying potential clashes between design and construction at an earlier stage in the construction cycle.

### **Risks to be Mitigated**

We expect the drafting of the guidance note to include (at a very minimum) a protocol which includes clauses on the following broad categories for BIM implementation:

#### **i. Process and Data**

BIM is, at its heart, a management tool that establishes processes. In order to utilize BIM to its fullest, any protocol should include clear and accepted processes which establish each party's responsibilities.

For example, the protocol may establish a mechanism for dealing with changes in design and variations, stating how to notify all design team members. This may include the appointment of a BIM Manager to oversee design changes.

A protocol may also specify the design information to be included within that model, which party will host or store that model and data, and what security should be provided to ensure there are back-ups of the data.

#### **ii. Interoperability**

There remains a risk of a loss of data integrity where different systems and software are used. To reduce this risk, a protocol is expected to specify compatible software programs that may be used as well as providing a procedure to minimize the risk of errors in the data infecting the design.

#### **iii. Standardization and Consistency**

Given the collaborative nature of BIM it is important to have a standardized dictionary. A protocol may include defined terms, confirm deliverables and specify how compliance is demonstrated.

As a practical note, contract conditions should include that the protocol terms and outcomes are to be included in all subcontracts that have a design responsibility.

#### **iv. Copyright and Ownership**

Traditionally the position has been that each party will own the copyright for each element of the model for which they are responsible for the design. This is expected to continue in the FIDIC protocol. Where parties are to be working on the model for which another party is responsible for the design, the protocol may grant a non-exclusive license. This may also extend to where the owner is to use the model for maintenance purposes before handing over of the project.

The protocol is also likely to define when ownership of the model will vest in the employer or end user.

#### **v. Risk Allocation**

A protocol may also include a provision for the inclusion of a form of warranty for the data provided in the model by the various designers.

#### **vi. Collaboration**

To assist with collaboration a protocol may include requirements on all designers to attend coordination meetings and to work with the BIM Manager.

#### **Conclusion**

FIDIC has instructed three committees to investigate how best to address BIM across its suite of contracts. This is a sensible approach. We expect that FIDIC will release a guidance note with a protocol explaining how to implement BIM under each contract. It is expected that this guidance note will follow the same philosophy being adopted for the proposed revised rainbow suite focusing on proactively managing the project and actively avoiding disputes, as well as addressing the contractual issues that inherently arise during a BIM-enabled project.

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