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Hot topic:

BIM and contract law



**Kamil
Karibov**
Partner,
BEITEN
BURKHARDT
Moscow



**Ekaterina
Sidenko**
Associate,
BEITEN
BURKHARDT
Moscow

Building Information Modeling (BIM) is rapidly taking over the construction industry and is opening up new horizons for it. However, for now, it remains the domain of forward-thinking designers and facility managers. In this article, we would like to draw your attention to certain practical issues of adapting BIM in contract law.

WHAT IS BIM?

In its most basic sense, BIM is a three-dimensional model of a building. However, a BIM model's role as a "digital twin" can be more broadly supplemented, and in this sense can be executed in 4D (+time dimension), 5D (+cost dimension) and 6D (+lifecycle dimension), depending on the purposes for which the model is created in the project. It follows from this that the purpose of using a BIM model and its functionality should be thoroughly discussed with the client when preparing the design brief, and it should be enshrined in the contract.

BIM is also a method for both design and management of a project, which means that from the very beginning all key project participants (including key subcontractors and suppliers) must be deeply engaged in the design process. This also means all project participants maintaining direct communications throughout the project (in contrast to the traditional hierarchy determined by project functions and levels of legal liability). It is this high level of project cooperation (virtually in real time) that is a precondition for the effectiveness of BIM, but it also gives rise to the majority of legal issues as to how not to diffuse liability and increase risks.

MOVEMENT TO BIM

One of the first buildings to use BIM in its construction is located in Hong Kong (2008). From that point, everything just went onwards and upwards.

In the Netherlands, BIM has been mandatory in central government projects in the office sector since 2011.

Other leaders in introducing BIM include the United Kingdom, Singapore, China (Hong Kong), Canada, Australia, and the United States.

In Russia, as in many other countries, the application of BIM is not mandatory, but pilot projects are already in progress. However, it is merely a matter of time before the existing situation changes. A national standard on design management in construction (GOST R 57295-2016) has already been developed and a professional standard (BIM Manager) is being readied for release. Moscow authorities have announced that they would like to use BIM as part of state oversight of construction.

CONTRACTUAL ISSUES OF BIM

Any lawyer drafting a contract agreement for design and construction using BIM will be faced with a multitude of conceptual issues that require an adequate legal response, such as:

- Is the BIM model an independent work that is deliverable, or is it solely a method of design?
- Does the BIM model fall under the traditional concepts of design documentation, working documentation, and as-built documentation?

- How does BIM affect the roles of the project stakeholders?
- How does BIM affect the contractual obligations of the parties to the contract (especially from the standpoint of collaborative work)?
- How does BIM affect contractual liability?
- How should the process of production, upgrade, and use of a BIM model be integrated into the contract(s)? What contractual provisions support BIM?

The scope of this article does not allow us to discuss ways of resolving these issues. We will only mention that the use of BIM will lead to a sea change in traditional concepts of the parties to a contractor contract, the functions they perform, and the types of contracts.

For example, two new roles with unique functions appear in projects using BIM – the BIM Manager and the BIM Coordinator. The difference lies in the fact that the BIM Manager does not perform design work and is not responsible for its results. The need for such a figure is due to the fact that BIM makes use of fairly complex databases (under the general name of the Common Data Environment), which must be maintained by a technical specialist. In contrast, the BIM Coordinator is the person who integrates design solutions and is the “keeper of the BIM model”. This project function is usually performed by the chief designer or the project manager.

In international practice, both bilateral and alliance contracts are used in BIM projects. In Australia, for example, such an agreement stipulates that the commercial interests of the parties depend on the project’s total profit, and the parties bear the associated risks. The parties also undertake to avoid disputes and resolve any problems among themselves based on the optimal solution for project implementation. This goal is written into the contract as legally binding.

Other types of alliance contracts are also built using the same principles – the American Integrated Project Delivery Contract (IPD) and the British Project Partnering Contract (PPC2000).

A specific form of contractual arrangements under BIM projects is the use of a BIM protocol, i.e. standard terms and conditions for relations between participants in a BIM project attached to a contract that are binding for all parties. In the United Kingdom, the use of the CIC BIM Protocol (Second Edition, 2018) is common practice for all types of standard contracts (JCT, NEC). The general global trend is also headed toward the implementation of standardised BIM protocols.

Russian law allows both bilateral and multilateral agreements to be concluded and does not prevent the use of standard forms. All of these approaches have their own advantages and disadvantages, as well as a number of special features.

BIM AND INTELLECTUAL PROPERTY

BIM and the specifics of the applicable management processes are brought to the forefront when resolving issues concerning intellectual property.

One of the key questions is whether the BIM model is subject to copyright as an architectural creation. Is the BIM model intrinsically creative if it is created as part of the corresponding computer program in which many parameters are set by the technical design standards? Perhaps here one should take into account the position expressed above by the Russian Supreme Commercial Court that only the architectural element of the design documentation is protected. Accordingly, legal protection might not be available for the BIM model in its entirety, but only for the architectural solutions that it contains.

The collective method of creating a BIM model also mediates another practical problem – co-authorship and its proof. This presupposes, in turn, the need for all project participants to provide one another mutual rights to use their contributions for the creation of a federated BIM model. Taking into account that there may be several such parties, and the fact that who these parties are cannot always be determined beforehand, the question arises on the provision of “reciprocal” licenses.

Another important question concerns whether to give the owner of the facility the rights to use a BIM model. Since a BIM model is designed to be used throughout the entire life cycle of the facility, a precise definition of “permitted use” must be given in the contract.

SUMMARY

The digitalization of the construction industry involves much more than just the introduction of online services for the implementation of state functions. BIM makes possible a quantum leap in the creation of a quality urban planning environment while significantly minimising the timeframes and costs of its construction and use. This process demands not only the implementation of new technical and professional standards but also new contractual terms and conditions. Only in this way can the undeniable advantages of BIM ensure the protection of rights and the balance of interests of all project participants.



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The AEB Real Estate Committee was founded in 2003 and brings together real estate professionals from a variety of areas including developers, investors, financiers, consultants, project and facilities managers, and other service providers.

The Real Estate Committee has three primary objectives around which its activities are structured: to facilitate the exchange of information regarding real estate and development issues in Russia; to influence existing procedures in order to increase the attractiveness of foreign and domestic investment; and to establish a 'bridge' between the AEB, the Moscow Government, the State Duma and other relevant governmental bodies.

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For more information please contact:

Saida Makhmudova, Committee Coordinator, at saida.makhmudova@aebrus.ru