REPRINTED FROM

REAL ESTATE WEEKLY

BIM: BUILDING INFORMATION MODELING AND CONSTRUCTION PROJECTS

By David J. Pfeffer, Tarter Krinsky & Drogin LLP

DECEMBER 2013

In recent years, construction projects have seen increasing benefits from the use of advanced planning and design technologies. One such technology is Building Information Modeling (known as "BIM"), and it is helping cut costs for owners and streamline project development.

BIM is defined by the National Building Information Model Standard Project Committee as "a digital representation of physical and functional characteristics of a facility.[1]"Unlike traditional architectural plans or AutoCad, BIM allows for the creation of three-dimensional constructs that show all of the planned systems and build-outs on a construction project. For example, BIM can be used to design electrical and plumbing systems overlaying structural support schematics, helping project managers identify problematic intersection conflicts long before actual work commences on a development. Each project utilizing BIM typically has a BIM Manager who is generally responsible for overseeing the digital platform and updating shared information as plans are modified and work is completed on-site.

A project that utilizes BIM can drastically reduce construction delays and substantially eliminate cost overruns, which may be the difference between a profitable project and an abandoned job site. BIM is especially effective in streamlining subcontractor activity by facilitating reliable offsite prefabrication of building components, which decreases the need for stockpiling of materials at the job site, leading to reduced project waste and increased efficiency during construction. As an added bonus, BIM functionality extends past the completion of construction. In some situations, the exacting detail of BIM designs can allow building managers to refer to the models as a substitute for physical inspection of problem areas, particularly when product and specific part information is preserved in digital form.[2]

This type of functionality means that BIM is particularly well suited for large projects, such as multi-building complexes and high-rise towers, especially those in an urban setting such as New York City. When traditional design methods are implemented on large projects, the intricacies of the design process, coupled with the number of parties that contribute to the design and construction phases, often results in unanticipated and costly design flaws, delays and cost overruns. BIM can help mitigate these risks, and owners and developers considering these types of projects should seriously consider integrating BIM into the design and management process of their projects.

Leading authorities within the industry have started to realize the benefits of BIM. Last year, the American

Institute of Architects ("AIA") updated its standard contract documents to include new language about BIM and other digital design tools.[3] This inclusion by the AIA reflects the degree to which BIM use is becoming an industry staple. Owners and developers who plan on utilizing BIM in their projects should ensure that their construction agreements adequately outline the responsibilities and obligations of BIM managers in order to maximize the benefits of utilizing BIM. The Construction Group at Tarter Krinsky & Drogin LLP has substantial experience assisting owners and developers to utilize BIM on their projects. For more information on BIM, and to determine if BIM is right for your project, speak to a Construction Group Attorney at Tarter, Krinsky & Drogin LLP.

[1] National BIM Standard - United States. National Building Information Model Standard Project Committee, available at http://www.buildingsmartalliance.org/index.php/nbims/faq/.

[2] Leite, Fernanda, et al., *A Formalized Representation for Supporting Automated Identification of Critical Assets in Facilities during Emergencies Triggered by Failures in Building System,* ASCE Journal of Computing in Civil Engineering (2001).

[3] See Paula Melton, *AIA Builds BIM into Contract Documents,* BuildingGreen.com, available at http://www.buildinggreen.com/auth/article.cfm/2012/10/2/AIA-Builds-BIM-Into-Contract-Documents/