Building Information Modeling (BIM) is changing the way construction projects are delivered.

BIM is a process for creating and using three-dimensional electronic models to represent the physical characteristics of structures. BIM models are used for the conception, design, construction, and even operational parameters of a building or facility.

Legal Issues With BIM Integration Level

The technological advances BIM offers are exposing a number of new legal issues as the current law is forced to adapt. Recent advances in technology and standards have led to increased inter-operability among models and participants and increased amounts of parametric data that can be contained within the model. Once seen simply as “CADD on Steroids,” BIM has the potential to become a fully interoperable information warehouse that stores every piece of information that a building owner may need about a facility throughout its life cycle.

Here are four issues about BIM to keep in mind:

1. BIM is at a “adolescent” stage of development due to technological and proprietary challenges.

Most BIM projects currently utilize several models which are linked but not fully interoperable. The models can communicate at varying levels but usually cannot significantly and automatically modify each other. This is known as the “federated model.” Presently, most BIMs are based on the “federated” model, with limited interoperability.

2. As BIM develops toward increased interoperability, the traditional legal relationships will likely be altered.

The following primary legal issues have emerged from the increased interoperability of BIM:

- The ownership of model and copyrighted material;
- Shared responsibility for professional design;
- Whether the model is a contract document;
The reliance on and responsibility for accurate data entry;
The Economic Loss Doctrine / contractual privity; and
Retrenchment of the Spearin Doctrine

3. Very limited case law exists defining the BIM relations and addressing scope changes arising from changes in the model.

No appellate cases have discussed how BIM may alter traditional legal relationships. No statutes exist to provide guidance. Relations among project participants are described by their contracts and are still developing.

4. Traditional change order law will probably control BIM-related changes claims, requiring detailed showings as to each scope change and the dollar impact of each.

Contractors must still track and prove entitlement and amount for each scope change. Additional BIM operator time could be compensable if adequate agreements about BIM operator obligations are detailed in the contracts.