

CONSTRUCTION LAW

Impact of AI on Construction: Is the Industry Adapting?

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Generative artificial intelligence (AI) has the potential to transform the real estate industry, but are owners and developers and construction managers adapting to its rise?

Owners and Developers are Warming to the Use of AI. Owners and developers are using generative AI technology to analyze their working capital, performance and historical data, as well as patterns and trends in comparable buildings and capital improvements. As AI continues to collect and compare volumes of data from similar buildings and projects, and factors that impact project costs, including risks with procurement, labor availability, cost overruns and schedule delays, AI will enable building and project owners to use the data to identify and mitigate potential project risks and provide real-time progress tracking and analysis.

AI, when properly trained, can enable owners and developers to better manage their

development budgets (tracking costs and commitments against budgets), predict performance, pin-point anomalies, identify risks and opportunities to improve, reallocate resources from low to high-risk areas, and more effectively plan projects.

By leveraging this data, owners and developers have the ability to implement better strategies for project completion and create more accurate cost and time estimates for current and future construction.

AI users often expect that the technology will be consistent, accurate and adaptable and will help to standardize the data. Generative AI platforms, however, are still susceptible to erroneous outputs. To avoid poor outcomes, AI users must carefully analyze and validate the outputs of AI technology to avoid improper



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reliance and mitigate risks that arise from inaccurate or false AI-derived insights. Owners and developers who are cautious in their use of AI will be better positioned to monitor their working capital and drive efficiencies across their portfolios.

Construction Managers Have Embraced the Use of AI. Construction managers have been quicker to embrace AI technology to more efficiently manage their construction projects. AI platforms can be used to track and optimize workflows, prioritize tasks, forecast cost overruns, predict and minimize schedule impacts and create safer job-sites. Construction managers are using AI

Owners, developers and construction managers are embracing the AI revolution at different paces

to streamline project management, monitor progress and better coordinate trade contractors operating within a construction site. Interestingly, AI programs can even provide access to a virtual recreation of the construction site permitting real-time decision making and facilitating smarter construction.

AI platforms can be used to analyze historical project data to create schedules for current projects with more realistic milestone dates. They can also be used to analyze completed work against remaining milestones to predict project outcomes and explore alternate construction methods to reduce schedule and cost impacts.

AI technology is also seeing widespread implementation across the construction industry to combat the many issues presented by safety hazards on construction sites. AI technology is improving job site safety long before any work begins by identifying construction managers with proven safety records. AI can also help curate a safety program tailored to the specific needs of the retained construction manager. Additionally, AI technology can help to analyze construction site images for safety hazards to prevent jobsite accidents.

Construction managers who embrace AI technology appear to have an extra tool in their toolbox, making them better suited to assess the unique risks presented by each project.

Contracting Parties Take Pause in Relying upon AI Construction Contract Reviews. The real estate industry has understandably resisted the full use of AI platforms to review construction agreements. Well-drafted contract documents are required to ensure project scopes are delivered on time and on budget and that risks are properly allocated between contracting parties.

Unfortunately, while a contract can typically be prepared quickly, the negotiation and redlining of contract drafts can be particularly drawn out if not properly streamlined. The question worth asking is whether AI can be effectively used to address risks and each party's related liabilities and condense the negotiation period.

AI users should be aware that while these platforms claim that their technology will reduce contract review time and help the user identify critical risks, these platforms

also disclaim responsibility for the output, which should be validated by the users and their legal counsel.

This technology permits the platform to collect and use the inputted data (typically to optimize the algorithms the platform uses to assess the data) and clarify that the platform is really identifying “trends” relating to the contract provisions, disclaiming responsibility for the output, which may be based on inaccurate or unreliable sources.

Accordingly, parties can use AI platforms to perform initial reviews of construction contracts but would be prudent to validate the output with their legal counsel.

Conclusion

Owners, developers and construction managers are embracing the AI revolution at different paces. While there is value in using AI-powered technology to analyze performance and historical data, patterns and trends in comparable

buildings and capital improvements to manage projects and portfolios more efficiently and safely, human validation of generative AI output remains essential.

Similarly, while AI platforms can be a resource to help parties analyze trends with construction contract terms, parties would be prudent to consult with their legal counsel to ensure that their contracts are properly drafted to address the risks and each party’s related liabilities. The continued rise of AI will undoubtedly permit the algorithms to “get smarter” over time and owners, developers and construction managers, among others, should keep abreast of the advancements with AI technology to stay ahead of the curve.

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