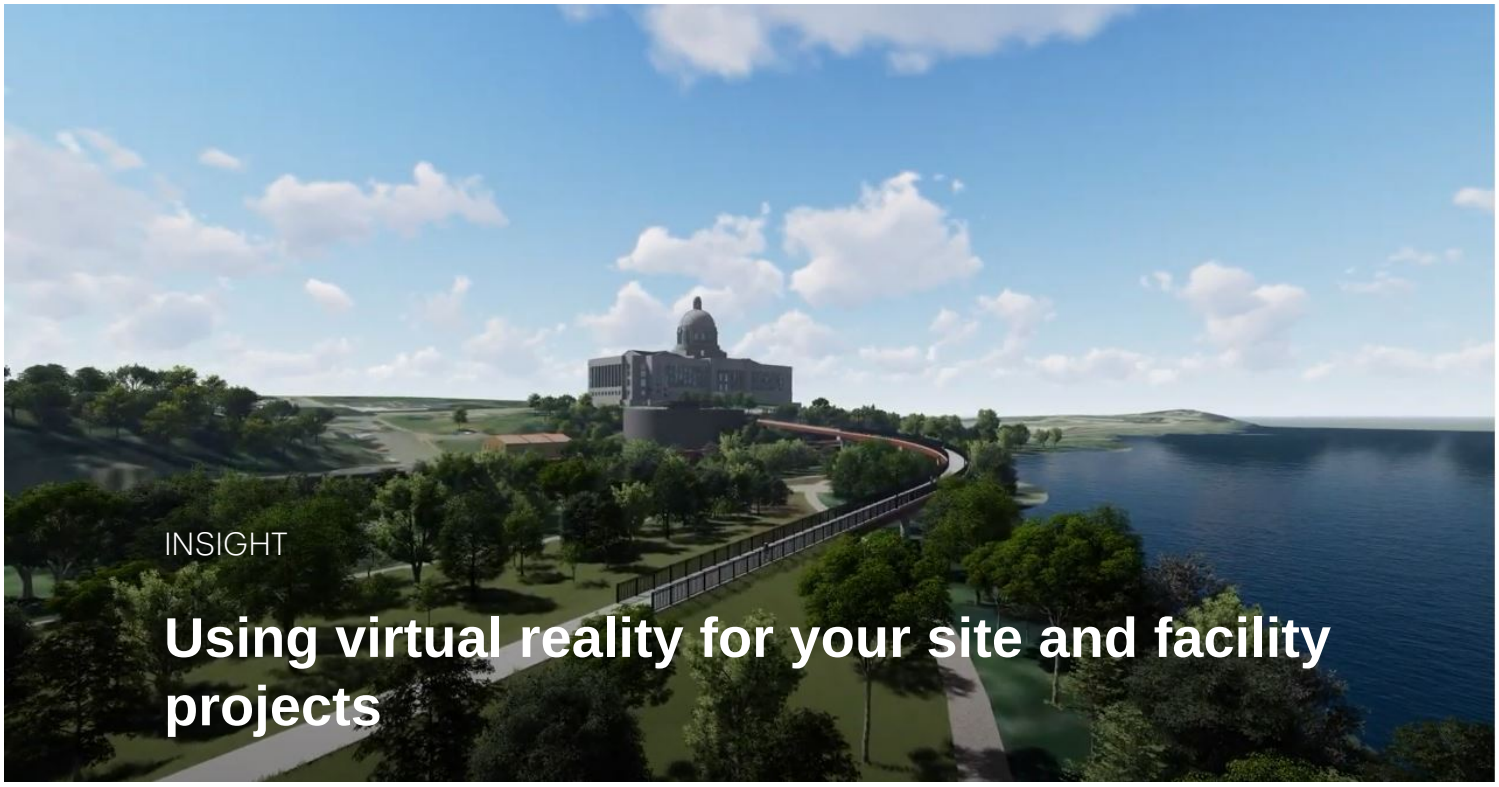


INSIGHT

Using virtual reality for your site and facility projects

Infrastructure is ever changing and evolving. It is no surprise that technology advancements are making their way into every part of design and construction, with virtual reality (VR) being one of the more powerful options—particularly when working on site development and facility design projects.

VR refers to computer technology that simulates a real environment for users. While VR's first applications were mostly for entertainment and gaming, this technology is quickly establishing itself as a useful tool for visualizing site and facility designs during the planning phase.

Virtual first-person perspectives allow users to experience designs beyond measurements on sheets of paper. With VR technology, staff and even prospective clients can enter site and facility model simulations and experience how they will feel in real life.

Ultimately, the goal of VR is to arrive at better designs that save cost and increase efficiencies, and also to determine if projects function as users and clients desire before construction starts.

For example, while exploring the potential to construct the Bicentennial Bridge, virtual reality simulations helped engage, inform and inspire public and private partners in Jefferson City, Missouri. Moving into construction phase now, Bicentennial Bridge will connect the City's Capitol Complex to an adjacent 30-acre island on the Missouri River. The bridge will support bike and pedestrian traffic across the Union Pacific Railroad's Tucumcari Line.

To illustrate the experience of travelling across this potential bridge, Bartlett & West created a video fly-through of the proposed design but also shared VR goggles with the local Parks and Recreation Commission and City Council members. This allowed them to experience the potential of the project in virtual first-person.

At the time, feedback from government officials described the simulated design concept as "really incredible" and "breathtaking and exciting."

To view a video fly-through of the Bicentennial Bridge's early design concept, **click here**.