



# Architectural and Civil Engineering Support Services

## Showing the World Your Design

A good architectural project is a synergy between client need, visual impact, and sound engineering. It is also imperative that structures blend into the community and the environment. Tactus Technologies specializes in developing real-time 3D simulation to visualize projects months before the drawings and designs are finalized, and well before the first brick is laid. It is generally accepted that 80% of the cost of a project is committed during the first 20% of the design phase. Our technology will help you to achieve a better design process in the following ways:

- Visualizing and walking through the project in virtual reality before groundbreaking begins
- Carrying out design evaluation and solving problems before they are encountered during construction
- Presenting your design in an intuitive format to clients for review and feedback
- Conducting public design and plan reviews at town meetings and other public venues for community feedback and endorsement

### Tactus VR Solutions

Contact our offices for a detailed analysis of potential solutions at no cost to you. Tactus will assess your project's VR needs and quickly deliver a proposal detailing how your project can benefit from a Tactus solution.

## Urban Planning, Architectural Viz, and Simulation

Powered by our proprietary tViz™ virtual reality technology, Tactus can take your concept, blue prints, and ideas, and then generate a virtual reality flythrough of hundreds of design options.

### What is VR?

VR is not animation, nor is it CAD. Rather, VR allows users to experience a world in *real-time*, similar to a video game. The user can walk through a proposed school, drive around a planned parking lot, fly over a future building complex, or walk through a proposed office space configuration. The user determines where he or she goes in the virtual world, and using our Asynchronous Annotation Virtual Reality (AAVR™) technology, users can make notes and markup the screen, much like sports commentators do after a big play. Those notes and markups can then be sent to a central manager for compilation and review with the click of a button.

### Numerical Simulation

Often, visual simulation is not enough to make sound decisions. Tactus can add numerical simulation to allow designers and other stakeholders to see the results of their design configurations. The impact on traffic flow, for example, can be simulated and displayed as the user tries out various bridge configurations. Lighting can be numerically computed with each of several window configurations. ADA compliance can be tested by taking a virtual wheelchair through a proposed construction project.

### Gathering All Perspectives

Tactus enables users to experience hundreds or thousands of different configurations before final design decisions are made. We help you provide stakeholders with the opportunity to fully comprehend all of the choices that are currently on the table, and empower them to convey feedback in an intuitive way.

### Value Proposition

- Design and plan in 3D to save money in downstream problems
- Develop large projects
- Reduce development cycle-times by 15-20%
- Pre-empt construction problems during early design
- Increase first pass yields and reduce rework
- Accelerate design to construction cycle time
- Review CAD models, various FEM analysis, piping, electrical drawing etc. in 3D



A user drives over a proposed bridge design and stops to add comments along the way



An intersection is driven through for design review



A proposed building renovation is experienced firsthand in virtual reality



A proposed apartment complex and parking lot are flown through for investor review