



[CASE STUDY]

Impact & Innovation: The Evolving Impact of Computer-Aided Design



MARK THOMAS

FIRM SIZE

500

FIRM TYPE

Infrastructure
Civil Engineering

FOCUS AREA

Commercial

TOOLS



SOLUTIONS



A trusted partner
for CAD licensing needs



First tier technical support



Dedicated client managers

IMPACT



A scalable license module to
meet our growth expectations



Immediate access to our software platforms



Alternative storage solutions

ABOUT MARK THOMAS

Mark Thomas is one of the West's leading civil engineering consultants, specializing in transportation infrastructure. They provide comprehensive civil engineering services for a wide range of projects, from local street improvements to major highway and interchange upgrades. Their expertise includes localized widening, gap closures, realignments, intersection upgrades, grade separations, arterial reconstructions, highway widenings, and full interchange design. Whether delivering small-scale improvements or managing complex, multi-jurisdictional corridors, we bring a proven track record of thoughtful, high-quality solutions.

Recently, we spoke with Richard Robison about this impactful and critical technology. Richard is the company-wide CAD manager for Mark Thomas.

Mark Thomas is an engineering and construction management firm in California that was ranked #8 in civil engineering services in the State of California in Engineering News-Record's 2023 Top Design Firm rankings.

How widely is CAD used throughout your firm?

Mark Thomas has approximately 250 CAD system users, primarily in the landscape, civil, structures and transportation disciplines.

“Each discipline has explicit needs, so we customize the CAD specifications to highlight the resources needed for each user group.”



Richard Robison
CAD manager, Mark Thomas



Central City Mobility

Mark Thomas provided preliminary and final design for bicycle improvements along more than 70 blocks in downtown Sacramento, Calif.

How do you determine the best solutions for the unique needs of so many internal system users?

I've maintained a partnership with ARKANCE since the early 2000s. They counseled us initially by providing training and local tech support. Today, the company remains a trusted advisor, offering competitive software pricing and highly valued guidance. ARKANCE is well-aligned with Autodesk, so they are able to efficiently support our diverse software needs. In addition, different members of our teams talk with their staff weekly to provide strategic advice for improving processes and to examine emerging software options and needs. We talk openly to share the pros and cons of various AEC technology solutions.

What do you see ahead for computer-aided design?

Mark Thomas is open to innovation, evaluating Autodesk Construction Cloud (including the potential use of ABC Pro) and leveraging ARKANCE's broad product offerings (e.g., Bluebeam, Egnyte, etc.) for comprehensive tech needs. Currently, we're expediting a routine that allows users to exchange information that will automatically update into the user files.



Which tools are creating new efficiencies for you?

We really enjoy using the Autodesk Construction Cloud. We see it as a forefront tool for collaboration with other consultants and peers, particularly for large projects. We are currently using it between offices and are seeing value. For example, we had users challenged by program opening speeds that took three or four minutes to launch. That has been cut to 10 seconds with the cloud. It is very, very efficient. With a pilot test under our belt, we have now introduced it to all 250 internal CAD users.

“We will continue to focus on issues related to internal workflow and incorporate Autodesk add-ons and streamline workflows.”

Richard Robison

CAD manager, Mark Thomas

“We know that 3D and 6D technologies will impact visualization, takeoffs and schedules and will result in real-time savings.”

Richard Robison

CAD manager, Mark Thomas

What specific impact will emerging technologies have on the transportation infrastructure environment?

At Mark Thomas, I see us using 3D capabilities and then bringing that work into the decision-making environment. Artificial intelligence will help us create better corridor designs by creating in 3D within a BIM model, and then we can bring this knowledge right into the construction drawings. It will be a game changer that we will use for projecting design alternatives, and it will truly bring us to the next stage.

About ARKANCE

ARKANCE provides technology solutions for architecture, engineering, construction and manufacturing firms. An Autodesk Platinum Partner and an Autodesk Construction Cloud Elite Partner, the company provides Autodesk software, implementation, training, systems integration, workflow optimization, technical support, digitalization and sustainability consulting.



Olive Mill Roundabout

Mark Thomas provided the final design to convert the existing intersection to a roundabout in Santa Barbara, Calif.

Reach out to your local representative for more information.
Together we will find the solution that fits your needs.

CONTACT SALES

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