

West Hills Construction, Inc.

Customer Success Story

Autodesk® Inventor®
AutoCAD® Mechanical
AutoCAD® Electrical
Autodesk® Vault Manufacturing
Autodesk® Showcase®
Autodesk® 3ds Max®
Autodesk® Maya®
AutoCAD®

Inventor software enables West Hills Construction to generate production-ready models, and Vault Manufacturing helps us capture immediate feedback, preventing costly errors later in the process. On a job of this nature, Autodesk software may have saved us from misquoting by \$200,000 in net profit.

—Rusty Wood
President,
West Hills Construction, Inc
Alternative Energy Division

Autodesk®

Solar smarts.

West Hills Construction meets sustainable building challenges with the Autodesk® solution for Digital Prototyping.

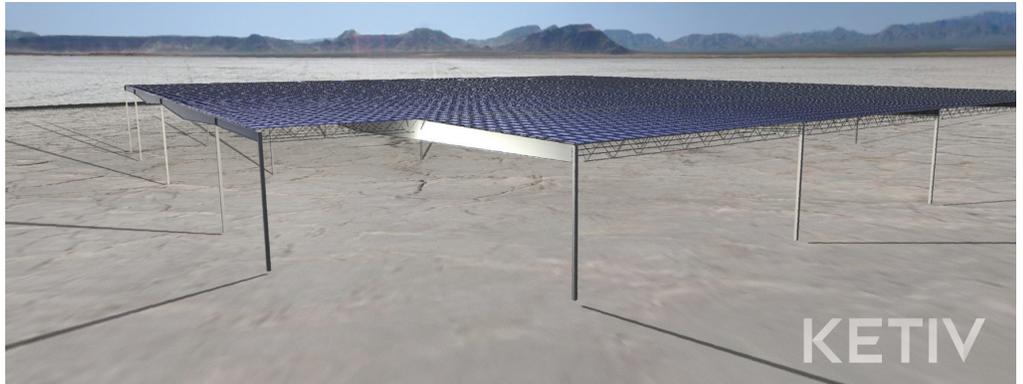


Image courtesy of West Hills Construction, Inc.

Project summary

West Hills Construction is a company with a fast-growing alternative energy division that specializes in green energy solutions, including photovoltaic, wind turbine, hybrid air conditioning, and fuel cell technology systems. For existing buildings, the California-based company surveys customers' total energy needs by analyzing the last 12 months' worth of electric and gas bills. It uses this summary to design a correctly sized solar system for each site, as well as provide a detailed financial analysis that outlines the cost savings.

In both retrofit and new construction, West Hills Construction uses Autodesk® Inventor®, AutoCAD® Mechanical, AutoCAD® Electrical, AutoCAD®, Autodesk® Vault Manufacturing, Autodesk® Showcase®, Autodesk® 3ds Max®, and Autodesk® Maya® software to:

- Save hundreds of thousands of dollars with accurate cost estimates
- Reduce the need for outside architectural consultants
- Implement 3D shadow-casting to plot optimum solar panel locations
- Win new business with high-quality sales presentations

The Challenge

According to Rusty Wood, vice president of West Hills Construction's alternative energy division, the company was contracted to design a one-of-a-kind sustainable structure that would make maximum use of photovoltaic panels—something it was able to do while still in training with Autodesk provider KETIV Technologies. “When we adopt a software program, we adopt the training,” says Wood. “It’s one of the most important reasons we were able to step up and implement so quickly.”

The Solution

West Hills Construction used Digital Prototyping to improve every aspect of the design and construction of the new 37-foot-tall, 86,000-square-foot building. A 2D diagram with the site layout was prepared using AutoCAD, AutoCAD Electrical, and AutoCAD Mechanical software—then imported into Inventor software to deploy piping, electrical conduits, and control panels. “A big advantage of the Autodesk solution is its ability to show shadows in 3D based on coordinates of latitude and longitude,” says Wood. “This helped us to easily achieve optimized spacing between rows of ground mounted photovoltaic arrays for squeezing them together and adding more rows.”

To seamlessly manage the data throughout the design workflow, West Hills Construction implemented Vault Manufacturing—and to win the business, it used Showcase, 3ds Max, and Maya for creating client presentations with superior visual fidelity.

The Result

The benefits of Digital Prototyping couldn't be clearer for Wood. “Inventor enables us to quickly generate accurate production-ready models, and Vault Manufacturing helps us capture immediate feedback, preventing costly change orders later in the development cycle,” he says. “On a job of this nature, Autodesk software may save us from misquoting by \$200,000 in net profit.”

Doing design work in-house also means not farming work out to an architect, saving additional costs and keeping West Hills Construction's ideas proprietary. “With Autodesk software and the ongoing support and expertise of KETIV Technologies, we are now light years ahead of anything our competitors are going to produce,” says Wood. “In short, it's creating a strong business for us—exactly what we hoped it would do.”

For more information on completing projects faster with the Autodesk solution for Digital Prototyping, visit www.autodesk.com/digital-prototyping.

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