



Taking the Challenge Out of Change

Curtins meets its deadlines with AutoCAD Civil 3D

“Using Civil 3D means I can stop worrying and focus on getting the best design possible to the client”

Terence Kwong, Civil engineer, Curtins

“There are always changes on every project,” says Curtins civil engineer, Terence Kwong. “But making these and still meeting the deadline is one of the critical challenges of the job.”

From what he says, it seems clear that Kwong is someone who takes pride in producing correct designs. He says that that using the right software has really taken the stress out of making adjustments at a late stage in the project.

Having previously used AutoCAD and also other products, he knows how sometimes a revision in a large project can take days to co-ordinate throughout drawings and other documents.

However, when recently he had to revise a road layout because of an oversight on the architects' drawings, it could be done in less than half an hour. “Using AutoCAD Civil 3D means I can stop worrying and focus on getting the best design possible to the client,” he says.

Established in 1960, and with 11 offices across the UK, Curtins Consulting is one of the country's foremost consulting engineering companies. With a strong bias towards structural, environmental, infrastructure and urban regeneration projects, it has a diverse but impressive portfolio across a range of sectors. Typical projects could involve anything from theatres and art galleries to bridges and industrial buildings.

Kwong joined the company around 18 months ago. He had a background in AutoCAD but more recently had been working with another widely used product.

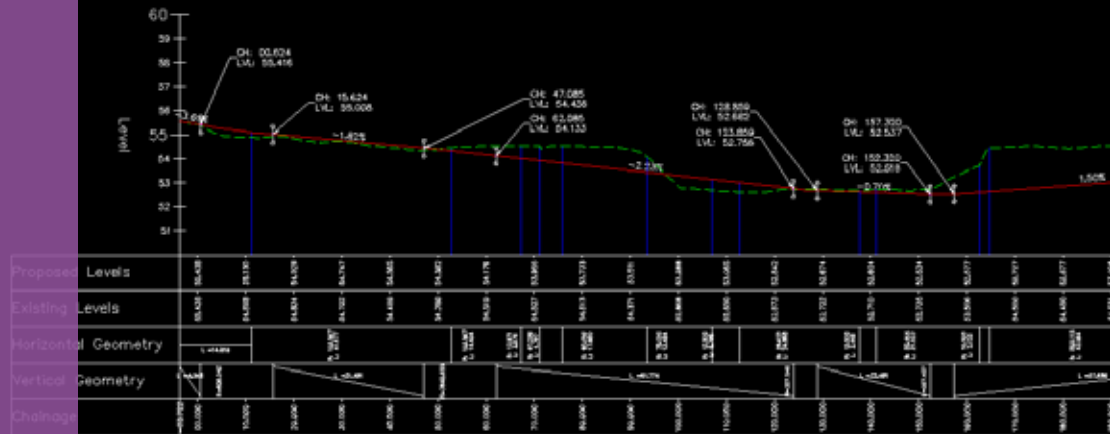
Curtins decided to try Civil 3D, using it in parallel with other packages. “The interface and drop-down menus were all clear and I felt as though I was working in a comfortable environment,” he says.

Because of this, he was soon up and running with the software. “I found it much more straightforward than what I had been using before. For example, it's easy to create an alignment from a polyline and you can actually manipulate a surface directly so that your design takes shape before your eyes.”

Kwong has recently been working on the conversion of a brownfield site with an old warehouse into an estate of around 100 houses in Worcester. “On this occasion, the architects had included a road layout on their design, so it appeared that all we needed to do was to take their CAD drawing and design the road fully, based on their layout.

“However, when we examined the preliminary road layout more closely, we realised that it wasn't wide enough for a refuse vehicle, so wouldn't get through planning.” Consequently, Kwong and the team had to completely re-design the layout in order to get the plans approved by the council.

“Previously, this would have been a major task, but using Civil 3D all we had to do was create a new alignment and regenerate the corridor. Even an experienced user would have taken three or four days to revise the design using the previous software.



Using Civil 3D it was done in a matter of hours," he says. "This meant we could re-issue the drawings on time and remain on schedule."

The dynamic model at the heart of Civil 3D greatly reduces the time it takes to implement design changes and evaluate multiple scenarios. Surfaces, cross sections, profiles, production drafting and more are dynamically linked and updated automatically, reducing costly errors and omissions

Kwong is just about to move to working on another development site. "This one is more complicated, as we have to design around an existing site with rapidly changing gradients, so I will really be putting Civil 3D to the test," he says.

"Civil 3D does cut time off the design process, but its real power comes in change and co-ordination. As time goes on, clients are becoming increasingly demanding. You could have been working on a project for a whole year, but suddenly something happens that is outside your control and it needs to be adjusted.

"This may happen one morning and a new design needed by the afternoon. Using Civil 3D you can be sure everything is co-ordinated automatically, so you can spend the short time you do have, ensuring that design is correct," he says.

It is clear that Kwong thinks that Civil 3D gives him and the team peace of mind that they can cope with most things project circumstances bring – and still deliver before the deadline.

"I can see that we may be expanding our use of the software," he says.

For more information

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