



## A 3D Picture's *Dollars* Worth a Thousand ~~Words.~~

*Structural steel contractor and metal fabricator, Frank Portschy, uses Cobalt™ to design and create everything from machine parts to architectural staircases.*

Becoming interested in welding when he was 14, he tells the story of how he went to work as a fabricator in a nearby machine and welding shop, laying out designs with a calculator, paper and a chalk line on the floor. The shop got its first computer and CNC mill in the late 1980's. Later they upgraded their computer and moved to Ashlar's original software, Vellum® software. When Portschy saw the power of Vellum and the unlimited size of the objects he could draw, he realized he had to know this software. With no CAD or even basic computer training, he started to learn Vellum on his own time and soon began doing drawings for the shop. Not long after, he realized he could run his own business doing drawings for the shop and other customers. Portschy says:

« *It's kind of neat that I was able to learn it without having to go to school and [I could do it] at night. It was really fast. I was able to make money right away with it.* »

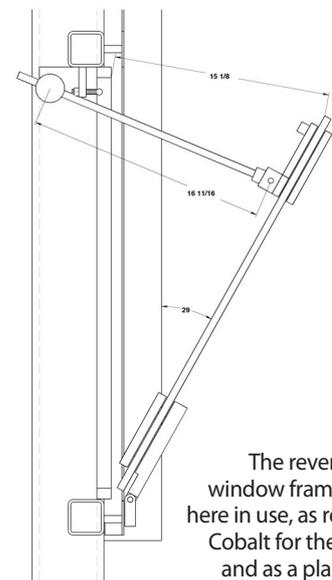
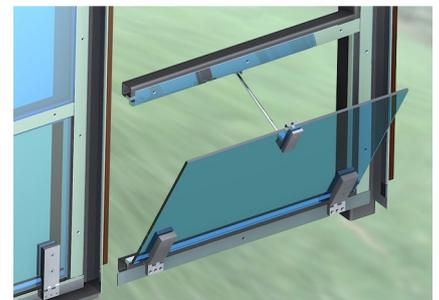
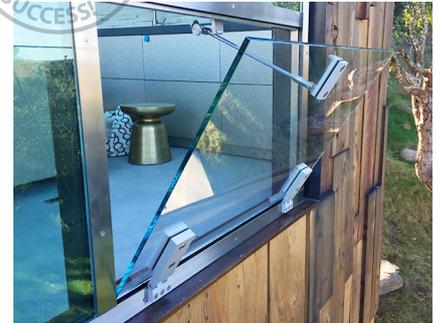
Portschy moved from Vellum 2D on to Vellum Solids which then became Cobalt in 2001. Fast-forward 20-some years and a customer of that machine shop hired him as their designer-fabricator-chief supervisor. Portschy tells us, "Cobalt was one of the attractions for me to work for them because I could send his client renderings of the parts or structures before they did anything and that really attracted his clients."

Today Portschy is self-employed as a certified structural steel contractor, working mostly out of his own residential garage, doing architectural metal work, ranging from staircases to skylights, soap dishes to concrete-embedded fasteners.

Portschy does all of his drawings in Cobalt. He finds a rough 3D photo-rendering invaluable, not only for selling customers but also for faster fabrication. Trying to marry a complicated set of 2D elevation and plan drawings for multiple parts overwhelms not only customers, but many fabricators as well. A 3D picture is worth thousands of dollars...not to mention words.

Other features that he values in Cobalt include the Show/Hide command keys allowing him to isolate just a few parts out of many so he can work them together. The multiple-part balance-point for the Center of Gravity function is crucial when they're using a crane to get odd-shaped fabricated structures into place. He also likes the way Cobalt translates into SolidWorks using the SAT export. Because it strips all of the history, Portschy easily retains control of the drawing and makes any changes himself rather than blaming someone else for a miscommunication.

Portschy is often asked what he uses to create his drawings. He sees his colleagues working with AutoCAD and keeps encouraging them to buy Cobalt, if for no other reason than they'd be more productive. Through him, Cobalt is gaining recognition among architects and structural engineers in the San Francisco Bay Area. 



The reverse hopper window frame is shown here in use, as rendered in Cobalt for the customer and as a plan drawing.

### Background / Contact

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