## topping out

## **A Better Way**

BY DAVID CROW

## Perhaps gearing up with new tools can enhance your steel detailing productivity.

**IF YOU STILL CHECK** the old fashioned way, and by that I mean every detail has to have yellow or red on it, the following setup may help. It is also a very productive setup for detailing as well, with a few changes.

Over the past few months I have added multiple monitors to my desktop—six, to be exact. I now sit in front of three 27-in., one 21-in. and two 19-in. monitors, all operated from one mouse and one keyboard. While I'm not sure what that is doing for my health, I do know I no longer have to wear my glasses to see what's on designs, addendums, and shop drawings. That alone makes it worth my investment.

I have also started using software from Bluebeam to view and check the drawings. Part of the reason I went for additional monitors was to take better advantage of the software's capabilities.

This software allows me to add highlighting of my choice, yellow for correct, and a red pen for wrong. It also allows me to save things I draw for future use on another check print and paste in as needed. I can take snapshots of a correct detail on any PDF or AutoCAD drawing and paste it into the drawing I am checking. I also have used it to create my own stacked-fractions.

When I first started using this software I was not going as fast as when I was using paper prints, markers and red pens. Now one click changes my mouse from marker to pen and there are numerous other shortcuts as well. I also have the DetailCAD genie set up for my calculator on triangles, bracing, addition of numbers, and beam size references, allowing me to be free of handheld calculators and steel dimension references. Needless to say, our plotter paper supplier has lost business.

My setup is as follows: The designs are open on one monitor, erection drawings on another, detail sheet on another, AutoCAD on another, sections for designs on a smaller one, genie on one, and other programs spread out as needed. The software allows me to split my screen multiple times; today I



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had about 25 drawings open at once, plus probably six AutoCAD drawings. My computer is old but still pretty fast running this many applications.

I highlight the designs as I check off each piece or section so that I can make sure everything from the design to my drawings matches and is detailed. If I have dimensional problems, I dimension on the designs with Bluebeam and send it back to the engineer to get verification.



By using multiple large format monitors, all the necessary documents can be kept open for cross referencing without having to flip from window to window.

My process for scrubbing goes this way: Check prints are opened on one monitor and AutoCAD on another, so the detailer never has to look away from the screen. Back checking marks and remarks are added to the check print by the detailer/scrubber, again using Bluebeam. If I have outside people working, I simply email the PDF and it is scrubbed and sent back to me where I back check any changes and highlight them in blue as I review the scrubbing. Questions from shop or field—occasionally they do happen—are easier to handle because I do not need to roam around the office looking through mounds of drawings to find a check print they are all on the network drive.

Before I started using this software we were taking pictures of the check prints with a camera, emailing them as needed and storing them on the hard drive. That was necessary because we have some people working outside our office. This procedure cut out UPS from our food chain, but now that procedure is being replaced by even better ones.

In this economy, I had to cut costs and be more efficient, so I sprang for new hardware and software. It took two jobs of checking for me to overcome the learning curve, but on the most recent job I can see a payback from my investment. I can now say I will not go back to checking the old way. It's kind of like the first time I tried AutoCAD or an automated detailing program and thought I could never be as fast with that as with a pencil. I have again been proven wrong, and in this case, that's not a bad thing.

I think I paid in the neighborhood of \$1,600 for monitors and video cards, plus about \$150 for the software. I did the upgrades myself so the labor cost was just my time. I know it is very difficult in these economic times to spend money on extra equipment, but for me the investment was worth it.

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