For Estimators

Estimator's Edge

What Makes Estimating Metal Framing So Difficult?

When I put together a full package bid, including metal framing, drywall, exterior insulation and finish systems, plaster systems, acoustical ceilings and direct-to-steel fireproofing, the metal framing scope is the one that I consistently feel the most uncomfortable about. Why is that? What makes estimating metal framing so difficult? Why is it that I feel like I am guessing too much for metal framing and not for the other scopes of work?

Most people who bid drywall do so by the piece or by the square foot; it's the same with plaster and EIFS. Most estimators quantify the work in the same way Therefore, barring a sizeable quantity error, their bids are similar, with similar material quantities needed and similar labor needs. But metal framing is different.

Some estimate metal framing by the lineal foot. There is some merit to this. If the installer must handle each lineal foot of material to complete the installation, then you can understand this technique. There would be a direct correlation between material used and the labor needed to install it. But this technique has some weaknesses. First, it does not take into account the use of materials in different conditions—for example, using channel iron inside a wall cavity as a stiffener versus as a ceiling support. A different problem is illustrated by estimating small soffits. What about conditions when it takes a lot of time to cut and install a very small amount of material?

Another technique commonly used to estimate the framing labor is to use area, such as square foot or square yard (for those of you who are old-line plasterers). This is a credible method too. After all, to properly frame a wall, you have to install track, studs, etc., and the end result is that you will have a certain area framed. But the obvious problem with this method is similar to problems in the first example. An estimator will have to guess the labor rate.

Another problem is when you add materials, or change materials. For example, in drywall framing, a 25-gauge stud and track should have a labor rate different from a 20-gauge stud and track system-right? What about the projects that require you to use a 20-gauge track and 25-gauge studs? What about walls that require bridging and/or bracing? What about the 30-foot high walls versus the normal 9-foot wall? Shouldn't these walls require different rates, too? Logically, to use this method, you would need a sizeable list of labor costs that would account for all the different conditions.

Probably the most popular method for estimating metal framing is the lineal-foot-of-condition method. For example, each lineal foot of framed wall using 25-gauge track and studs will be at a cost of $X As an estimator, it is easy to quantify the work by condition types, and it is easy to price. However, it is very difficult to adapt to conditions that are not "normal."

Another method used by some estimators is to price labor by the piece of material. This method is not easy to quantify. It requires that we quantify the condition amount, and then calculate the amount of pieces of material necessary to construct the condition. Labor is then priced by the length and the type of material. For example, a 4-foot stud will take essentially the same amount of time to install as a 2-foot stud. In framing a wall, there will be different labor rates grouped by the time it will take the installer to complete the installation, which will always have a relationship to the length of the material, but not directly, The assigned labor cost will always be affected by the type of material and the installation technique required by the details.

As you can see, there are different estimating techniques, and they all have conditions where they work fine . . . but they all have conditions where they won't work as well. The result is that estimating metal framing could require a lot of guesswork. If you understand each of the above techniques, understand the strengths and weaknesses of each, and use combinations of them to estimate and then verify, you will come closer to the "truth" and your guess will be more accurate.

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