

# SAVVY DESIGNERS CHOOSE MODULAR WALL DESIGN SYSTEMS

for Appearance, Cost & Schedule Savings, Productivity

BY CHARLES OSTRANDER, PE

Hollow metal door frames in masonry must be designed correctly. Hollow metal door frames, in general, are for 30" wide by 70" high doors with a 2" trim piece around the frame, making the frame become 34" wide by 72" high. But 72" is not modular in height (in brick or block), is architecturally unsightly with rip and has associated extra cost involved. Knowledgeable architects, general contractors or construction managers who order and supply hollow metal door frames for masonry always order the metal frame to have a head trim piece of 4" instead of 2" for no additional cost or a nominal \$15 premium per door frame.

## DO YOU WANT TYPE I, II, OR III?

The hardware schedule for doors must be in place before the masonry begins to be laid. This allows the hollow metal frame manufacturer to include any special dead

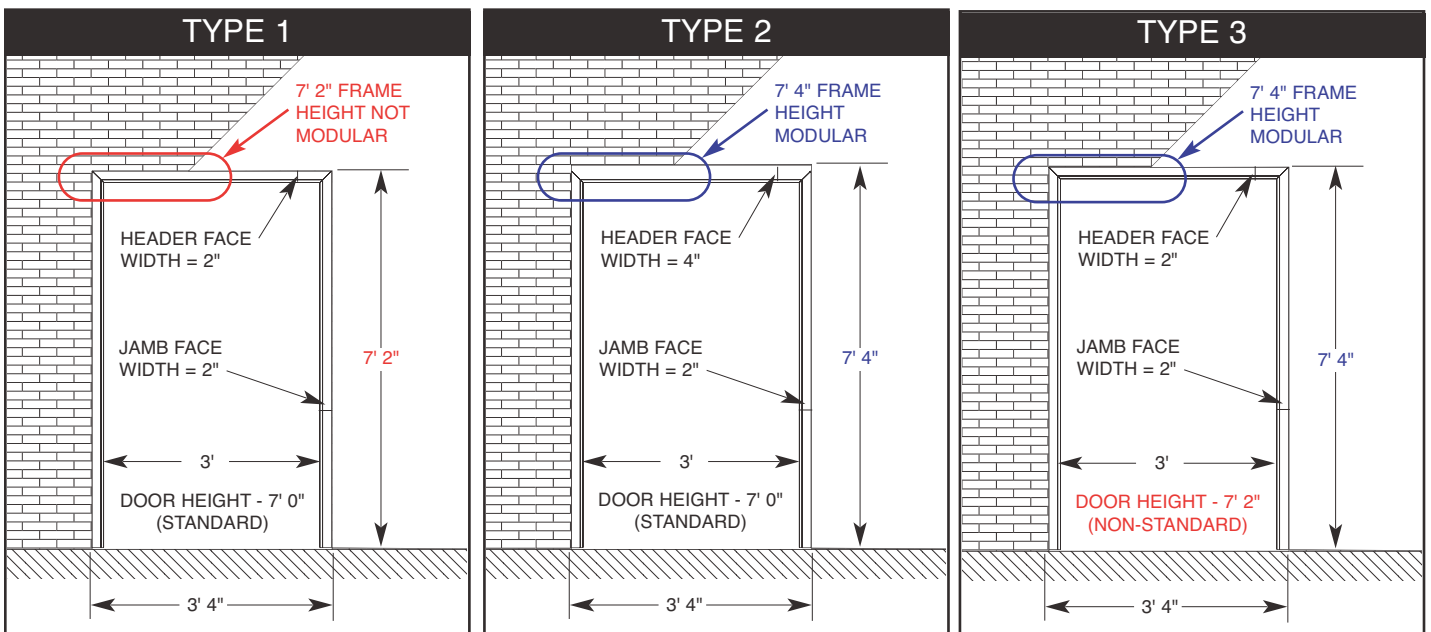
bolts or security system strike plates for the masonry frames supplied. Skipping a hollow metal door frame and coming back out of sequence to install the masonry around the late arriving frame will cost the GC or CM about \$500 to remobilize and setup in order to install the missing masonry out of sequence.

## TYPE II SAVES TIME AND MONEY AND LOOKS BETTER

In masonry, the use of modular frames, Type 2, with 4" headers for economy and design, are highly recommended. There may be a slight increase in hollow metal frame costs, but this can be easily offset by the elimina-



Figure A. Non-modular (2" trim) standard hollow metal frame with cut units



ESTIMATED PRICE: Frame \$153 / Door \$350

AVAILABILITY: 5 Business Days

ESTIMATED PRICE: Frame \$163\* / Door \$350

AVAILABILITY: 5 Business Days

ESTIMATED PRICE: Frame \$164 / Door \$450

AVAILABILITY: 12 Business Days

\* In sufficient quantities, can be produced for same price as Type 1

tion of cutting the top CMU above each door frame. There is no increase in delivery with this 4" header compared to other frames. The mason contractor saves at least three cuts in the block wall. It looks like a planned masonry opening rather than an afterthought of the designer or CM.

With a Type III hollow metal frame and door as detailed (at left), there is an increase in costs of approximately \$120 per opening and a delay of delivery of at least two weeks for that nonstandard size door and frame. Hollow metal frames should be ordered and delivered for the masonry before other door frames in the project are scheduled for delivery. For economy and speed, frames should be set before the walls are built. If a mud slab, granite or marble floors are to be installed at a later date, this additional thickness and under door clearance would be added to the height of the frame. **ME**

## EXAMPLE 1



## EXAMPLE 2



**QUESTION:** Which door frame will you be designing?

Example 1 or Example 2?

**ANSWER:** the modular frame in Example 1 with a 4" header if you are savvy and want the best appearance, cost and schedule savings as well as productivity!