DORMER FRAMING

We had a house in Roswell NM, USA that was 26' from ground elevation to the top cap plate, 41' to the highest ridge.
This is the same house where we built the **curved plywood beams, carpentry procedures article.**
Billy Neece and I decided to build a lot of the gable frames on the ground and take them up with a telehandler. Certificate of certification or not this is a machine that can kill a lot of people in a short period of time. I never have met a carpenter that did not know everything there was to know about a telehandler, but I have only met a handful that was real operators.

We framed this dead dormer the very same as you would on the roof. 10/12 pitch is a dangerous and difficult roof to work on (toe boards). The only measurement I had to work with was the window 2/8x4/0. I scaled the width of the face frame (window wall) on the plans to be 4' wide and 5' high.
I went from there and calculated the length of the ridge, rake length of frame and popped the run length on the concrete floor, and then I built a frame support from the front of the dormer to support the frame at a height that coincided with the 10/12 pitch. From the top of the support frame to the popped line it was exactly the same angle as the roof. This gave us a plane for the bottom of the dormer.

As you can see we had square cut rafter tails which creates compound miters on you subfacia corners. We had about 30 carpenters on this job and I picked out three of them that wanted to learn something (and would listen) and taught them how to make a compound miter cut with a circular saw, twice as fast as a compound miter saw and just as accurate if you know what you are doing.
The reason it is twice as fast is that you don't have to locate the member on the miter saw (within a 1/8") and half the time carpenters don't have it perfectly aligned with the fence and the angle is off.
I can make a compound cut before someone else picks up their board to take it to the miter saw and positions it properly to the fence. You can too.

By the time we finished the frame we had about 8 carpenters that could cut a compound miter with a circular saw. We built guides out of plywood and 1x2's.

We then sheathed it with 5/8" osb, added some roof cleats to the bottom to attach it to the roof.

For some of you that have argued with me saying "nailing on osb with a frame nailer is OK", I will tell you again. A frame nailer will shoot the nails almost all the way through a piece of 5/8 osb and I have seen them go all the way through 7/16. A deck stapler is the only air tool to use for osb. Screws are really good also, if you some a few days of spare time. The first time you have an inspector walk up to a wall and kick the osb from the inside and it falls off, you will go buy a deck stapler. I have seen many inspectors do this very thing, and I am proud of them, for once, every inspector (and you are one if you didn't know it) should do this. A good way to learn the code is inspect your project before the inspector comes and you will learn the code.

Here we have the completed dead dormer attached to the boom on the telehandler.

This is hard to see but I have two carpenters up there and they have two tapes finding the center between the two gable frames and will pop a center line for the dormer frame.

A dead dormer has no opening into the house, a live (lighted) dormer is open and you can see it from the floor and it let's light in.

Here I have set the dormer on the roof and let it slide down to the cleat they nailed on the roof for the bottom of the dormer to rest on while they screwed the dormer cleats to the rafters (not to the osb only).
I have the boom stabilizing the dormer for safety.

This is another roof frame we built on the ground and set it on a framed 2' extended pony wall we had to build. I didn't read the plans correctly and missed the elevation the ridge and cap plate, so we had to build the pony walls and raise it up. Not the first time I have done this and probably won't be the last.

That is me on the ladder aligning the frame to the cap plates. I have a very trusted carpenter on the telehandler.
I ran the telehandler getting the frame to the roof, my telehandler trainee said he would run it until after I got it above the cap plates, I didn't blame him because moving the joy stick 1/8" moves the extended 40' boom about 16" and the wrong move could result in losing the roof or killing someone. Driving over a 2x4 or a hole can do the same thing.
If you have read this and are doing this kind of work or if you own or operate a telehandler you should read the article I wrote concerning telehandlers.

http://carpenterbooks.com

Bob Johnston, carpenter