Installers Dream Home

By George Porter

What if an installer could design a home so it would be easy to put on a site with a minimum amount of time and expense? The factories could actually design and build a self-leveling, self-jacking and self- supporting home if they wanted to. The travel trailer industry has lots of homes like that! All you do is flick a switch and jacks with pads drop down under the home and a sensor unit adjusts each jack so the unit becomes level, you don't even have to go outside. Sounds great doesn't it. Travel trailers don't have anchors and we need them so I guess we could have small cannons under the home shoot some big arrows tied to chains into the ground and that would complete the installation! Well… don't get your hopes up, I doubt if any such rigs will ever see the manufactured housing industry. 'Till then your jobs are safe. But, we could make it easier than it is right now with just a little effort.

For instance, suppose we could eliminate all perimeter and marriage wall blocking and still have the proper support where it is needed. When you are pouring footings this would eliminate a lot of measuring and checking. Except for the width of the I-beams and the length of the home, they would all be the same! This is how you would do it: for all openings over 4 feet and under 6 feet you would simply add an extra floor joist at each end of the opening when you built the floor. This strengthened support at the sides of the opening would easily hold nearly every home with a thirty pound roof load or less. For 40-pound roofs you could go to 2 X 8 or 10-inch joists throughout the home. What this does is transfer all the weight back to the frame of the home without bending the ends of the floor joist too much.

The marriage walls or other openings larger than 6 or 8 feet will need a different treatment. The weight concentrated there is much greater than the smaller openings and if you tried the floor joist thing you would be causing a lift on the other side of the home, really, the calculations have been done. The floor joist will act like a seesaw on the frame and bad things will happen!

Here is what you could do: Have you ever seen an oriental pagoda? It is a wooden structure that usually looks like a "T" with two legs or maybe two "T"'s put together. The sides hang over the supports at each end. If such a structure was built into the home within an interior lateral wall and lined up with the ends of the marriage wall opening, it would carry the redistributed roof load and the floor joists would carry the floor load. Now of course these walls would have to be lined up with each end of the opening, but that would not be much of a problem because most of the time there is a wall there anyway. When there was not, you could extend the ridge beam until you got to one. Not really a big deal. Just to make sure you have the picture; you will have an interior wall, probably the separating wall between the first bedroom and the living room, with this double "T" built into it. The legs of the "T" will rest right above the I-beams and the ends of the cross piece on top extends to the sidewalls where they will hold up the roof rafters. The cross pieces will bring the roof load back to the beams and you will not need to block it. This cross piece could even be a beefed-up rafter (All of this for about the price of one

service call) If all this is just too hard to do then at least we should put a 2X8 plate in the floor under each sidewall opening so we would have something to block on. The edge of a 2x6 is not much surface to catch (1 1/2") and it would at least spread the load between two joists and a sill.

So... we now have a home that can be supported by only the I-beams, that takes a lot of trouble out of the deal for an installer but what else could we do.

How about close-up? I have thought of using Velcro around the marriage line! Just squeeze it together and that's it! My engineer friends just stare at me when I mention it so I guess it probably won't work. (They don't like my big magnets idea either)

Ok, what problems could we solve at the marriage line? How about a tight fit at the ceiling? Usually there two scenarios for the closure, one is where the ceiling gets tight before the roof and the other is where the roof gets tight before the ceiling. When case #2 happens you can tighten the ceiling up (sometimes) at the openings, but there is not too much you can do when two solid walls don't meet. The mating gasket will hopefully seal this area but it would be better if it were tight. Additionally, if you pull it together at the openings such as doorways, and can't do the same for long walls, then the marriage lines of the home are not straight. This can make a possible problem in lining up lateral doorways etc.

The box is supposed to be square and when it is off a little bit you can't easily fix it in most homes. What if there were accesses to the marriage line at the top of the ceiling? From the inside of a batten house there could be a small lag behind each batten on the marriage wall. That would be about one lag every 2 feet. (Every four feet, each side) That might be enough and you would still have the roof if you needed more. In a 5/12 or 7/12 roof there is access from the top and most of these homes require bolts and/or lags at the attic floor anyway. At any rate, if the home was adjustable at the ceiling as well as at the roof, a better job could be done on close-up and trim out would be easier.

What about perimeter enclosure? If the customer wants vinyl skirting it is generally attached to the side of the home at the first four-inch lap in the siding, causing it to wrinkle up when the first temperature change hits. Some manufacturers want you to bore 1/2 inch holes in the siding and loosely attach the skirting top track to the home through the holes. Theory is that the siding can then move behind the top track of the skirting and not get bound up and wrinkle. Well… first of all, loose top tracks don't hold skirting very well and will at least make noise in the wind. Also, do you really want 100's of 1/2 inch holes in the siding right at the floor level of the home? Not me thanks!

Here is what I would do if I were building a home. Remember the built in 2x8 under the doorways etc. so we could support the home? Well… I would run it all the way around the home but back from the edge about an inch. Kind of stuck under a bit, then I would attach a treated 1X4 to the recessed vertical edge so the four-inch side faced out. This is where the skirting would go, tucked under the edge of the home about 1/2 inch. Can't get water behind it, and won't mess up the siding. For homes on block perimeter foundations

you would leave off the 1X4 and now you have a big sill to attach to the foundation wall plate. (It's an anchor system)

These are just ideas, but several of them are in use today by a few manufacturers. I also have a few requests for things this industry has never done:

#1. Can we please have aluminum wheels, axels and hitches on our homes? (Either these things are getting heaver or I am getting older)

#2. Can we have three axels with duel wheels instead of six with single wheels? (It would sure make going around tight turns easier on the home)

#3. Can installation please become at least 50% as important as sales someday?