

BY JOHN SPIER

Rules for Better Framing

A couple of decades ago, a young fellow by the name of Ben Morton came to work for me for a summer. He had just finished a two-year college program in building construction technology at Eastern Maine Community College, and I was his first real-world employer. It was a temporary job while he saved up enough money to through-hike the Appalachian Trail, which he subsequently did. He was a big, good-natured, easy-going kid, nice to have around; he naturally got the sobriquet “Gentle Ben.”

One day early on, I had him help me build a set of stairs in a house that I was remodeling. The next day, I pointed him at the rough opening in the floor to the basement and told him to build the stairs. He was in disbelief, but I said, “Look, I showed you how to do it, just figure it out. I’m right upstairs if you have any questions.” It took him all day, but he did a great job; those stairs are still there.

About 10 years later, he had gone on to start his own construction company, Ben Morton Builder (benmortonbuilder.com), in coastal Maine, and has become a truly extraordinary framer who has left me far behind in the sawdust. He told someone once that my trusting him to build those stairs was the best thing anyone had ever done for him. He’s also told me that he has incorporated what I call my “Rules for Framers” in his company handbook. Here they are:

A DOZEN RULES FOR GOOD FRAMING

Whether you’re the guy reading the plans or the guy banging the nails (or both), there are two general parts to being the framer

that everyone wants to work with. The first is to understand and appreciate the big picture; you have to see the framing as an integral component of a complex project where all of the systems and subs have to work together efficiently. The best way to gain this understanding is to work with and learn from seasoned professionals in all of the other trades.

The other part is to master the thousands of tricks and techniques that make assembling wood easy and efficient. This comes with experience, from apprenticeship, from learning to select good tools and use them well, and from paying attention to minimizing wasted time, energy, and material. The rules listed here focus on the macro and management element.

1. Learn the plans. If you’re building a ranch house with 8-foot walls on a slab and trusses on top, you can probably just show up and do it. But most modern custom homes are a lot more complicated than that. Take the prints home and study them. Reconcile the plans, sections, and elevations, and study the details. Trace the load paths, and figure out the engineering and hardware. Compare the architectural plans with the structural plans and make sure they match. Get your mind wrapped around the whole building and how it goes together.

2. Do your homework. Make sure you have all the information you’re going to need. Study the architectural details and manufacturer’s specs, and create a schedule of rough-opening dimensions (don’t trust the list that some draftsman pasted into the plans). Download and print the framing specs for every piece of equipment



Pictured at left is Ben Morton, who owns Ben Morton Builder, a residential and light commercial construction company in Raymond, Maine. Following graduation from Eastern Maine Community College, Morton spent the summer of 2006 working as a laborer for the author. It was Morton’s first construction job.



At left, Morton is operating a Manitou MRT 2260 Vision+, one of the two Manitou rotating telehandlers that his company owns. Though he's in the machine's cab here, most of the time he works outside thanks to the this telehandler's remote control functionality.



Morton likes to break a project down into the largest liftable pieces possible, then assemble them with the help of a telehandler to avoid working off of ladders. On a large, complex project like this one, having what you need on site when you need it—see Rule #3—is critical in keeping the job moving.

in the house: fireplaces, wall ovens, elevators, dumbwaiters, air handlers, you name it. Review the plumbing specs and know where the drains and valves are or whether you need a dropped section of floor. Figure out if there's anything that won't fit through the doors or windows later.

3. Get what you need on site. Do a materials takeoff, and break it down into delivery packages that work logistically. If you need structural steel, get it specified and ordered, and figure out how you're going to move it. Stay ahead of your requirements so that you're not waiting for anything, but bring materials in as you need them so you're not working around them or trying to uncover them. Also, get all of the framing hardware, hangers, straps, sill seal, adhesive, nails, anchors, and other sundry materials you will be using.

4. Get a good start. I like to start small, working alone or with just one helper for a few hours to get the layout done, lines snapped on the foundation walls, and perhaps the mudsills installed. There's no such thing as a perfect foundation or framing job, but if you start out as close to it as possible, you'll still be within tolerances at the ridge.

5. Come to work prepared. Nothing causes mistakes faster than a crew of young framers standing by with saws and nail guns while you're scratching your head figuring out where to start or what to do next. So, while I'm doing my homework, I develop cut lists and figure out a logical framing sequence. Reducing a stack of lumber to piles of studs, trimmers, headers, sills, sill jacks, cripples, and blocks will keep a crew busy, as well as make the framing process smoother, faster, and more efficient. Good cut lists also specify



A remote control allows Morton to follow the boom of the telehandler around and physically see what he's lifting from any angle. Having a clean and organized jobsite—the author's Rule #11—helps Morton to move around safely while operating the machine.

the material that those pieces come out of; minimize waste by ordering 18-foot stock for 9-foot headers, or 14-foot stock for 81-inch jacks.

I also bring a working set of plans, with notes and sketches, dimensions, diagonals, details, drain locations, and other reminders written on it. For complicated frames, I'll use colored highlighters to identify structural elements or critical details.

6. Know the five commandments. Level, square, plumb, straight, and flat are all interrelated. The first three are directly connected; if you put a square wall on a level surface, the top will also be level and the ends will be plumb. And, if you get it straight, it will also be flat, and vice versa. Levels, lasers, lines, measurements, and vigilance are your tools here; don't let anything get away from you.

7. Maintain a common layout. Everything on layout from sill to ridge should align vertically, in both directions. This makes the whole go more smoothly, especially for the sub trades: A plumber drilling a hole in a framing bay upstairs should know that he'll find the same bay underneath. It's also useful later to be able to find a framing member (or an open bay) anywhere in the house by knowing where to measure from.

8. Symmetry is your friend. Symmetry gets mixed reviews in the world of architecture these days, but for a framer, it's crucial. Identical things should be identical; they're faster and easier to build that way, and they look better when you're finished. If you see a row of identical dormers or windows, or matched gable ends, cut all of the pieces at once and assemble them in sets.

9. Think like a subcontractor. The best framers are people who have built a few houses from start to finish. Understanding what the other trades need is key to building a good house with minimal wasted time. The drywallers and finish carpenters need nailers and blocking, the mechanical trades need room and clear routes for their pipes, wires, ducts, and equipment, and everything needs to fit in where it belongs. Even the simplest courtesies, like not putting nails where someone will need to drill, go a

long way toward efficiency. The easier you make their jobs, the less they'll hack up yours!

10. Get it right as you go. "I'll fix that later" is a recipe for frustration, poor quality, and sometimes disaster. Also, the first corollary to Murphy's Law is that errors always multiply; they never cancel each other out. The more you pay attention and do correctly as you go, the shorter your punch list will be at the end.

11. Keep a clean site. A clean, organized site is a safe site, one that doesn't waste time and material, and it's also a pleasant place to work and your best advertising. Take the time every afternoon to sort and stack scrap, sweep the floors, and maintain and put away your tools and equipment. Start each day fresh; if you arrive to yesterday's mess, you'll be tired before you even get moving.

12. When it's done, it's done. At the end of your framing job, it should be ready for everyone else to do theirs without your needing to come back. Walk through the whole job with a long level, checking for level and plumb. Pass it over critical walls to check for bowed studs. Police each room for missing nailers, loose ends, fat openings, protruding nails, unfastened hardware, etc. Leave the subs some neat piles of scrap for blocking or mounting boxes and equipment. And leave the whole place broom clean, including the wall cavities.

PAYING IT FORWARD

In addition to his construction success, Ben is back at the community college he attended as a student, now mentoring young people who want to work in the trades. Somehow, he has managed to find the time to chair the advisory board for that college. But he's also found a way to balance work and family life, hiking and canoeing with his wife, Kate, and—in the winter—trading in his hammer for an ice ax to climb mountains.

John Spier owns Spier Construction, a building and remodeling company on Block Island, R.I.