

JOBSITE LOGISTICS



Tarpping and Taping Protecting work on the jobsite

BY RICHARD A. BLAINE

Remodeling a home can be grueling and expensive. With all that goes on at a jobsite, it's important to pay close attention to jobsite protection—not protection from criminal activity, but from the remodeling process itself. Damage to the existing house and to the new products and materials being installed can occur during any phase of a project and can be disruptive to the schedule and costly to repair.

As the senior lead carpenter for a design/build remodeling company, I am responsible for jobsite protection and for the protection of everyone working on the job, as well as for ensuring that the jobsite is safe for the homeowners. Knowing what's going to hap-

pen next at the job and knowing which subs are going to be on site and when they're going to be there allows me to prepare for possible problems.

Before every job breaks ground, we sit down with the homeowners and have a preconstruction meeting during which we explore where problems are likely to occur and what items may have particular value to clients—for example, they may want to reuse the refrigerator or protect an ornamental tree in the yard. This meeting is also the time to tell homeowners about the dust and debris the job will generate and how we plan to control it. Once this meeting is over, we all have a better understanding of what

Photos: Richard A. Blaine



needs to be protected. Half of our protective measures are a matter of common courtesy, while the other half are just common sense.

Our typical project may last from one to four months and require extensive work both inside and outside the house, using a variety of protection methods. Because jobs usually start with the exterior, I will start there.

OUTSIDE THE HOME

A remodeling job is a highly visible project. Potential clients will notice a clean, organized, and safe site. They will also notice unsightly piles of trash and unprotected lumber in the yard, which looks unprofessional. We think of it this way: Our company's sign in the yard or on the side of the house tells passersby what great work we do; a messy jobsite would tell them something else entirely.

Before construction begins, we often stake out areas of the property that the homeowners have asked us to protect. For example, we use silt fencing or orange plastic construction fencing around the drip line of an apple tree in the yard to keep everyone

away from the area. We are especially careful if we start a job in fall or winter—what might look like a pile of dead leaves could be a prized perennial garden.

Material storage. We ask the homeowners beforehand where they want materials stored. Ideally, we store lumber inside the building, but when that's not possible, we cover materials with 6-mil plastic sheeting or tarps secured with ropes or bungee cords (1).

It's not a bad idea to check with the town about storing materials. On one job several years ago, a county inspector required us to move lumber that we'd stacked and covered in an alley that we had incorrectly assumed belonged to the homeowners.

Roll-offs. We assist our roll-off drivers with placement of the dumpsters in an approved location and place traffic cones at the corners if the bins are left on the street (2). Check with the town: Some local municipalities might require a permit to leave a container on the street; others may require that it be tarped at the end of the day—which is a good idea anyway, as it prevents wind from blowing trash around. A tarp might also discourage neighbors from dumping unwanted debris after dark.



Deliveries. Heavy concrete trucks can crush a driveway faster than they can pour one. Think ahead about where the driver will want to unload and take any precautions you can.

Give some forethought to the most suitable place for washing out the concrete chute after the delivery. Most roll-out dumpsters are not watertight and should not be used if the drain water will leak off the site. If there isn't a suitable place on site that will not drain onto another property or into a storm sewer, you may need to work with the ready-mix supplier to provide a washout bin.

It's also important to know where to locate the portable toilet. I always try to be on site when it gets delivered so the driver puts it in a place the homeowner and I have agreed to.

Traffic. For the most part, our employees and the subs we use are courteous and respectful of the homeowner's property. However, we sometimes define acceptable parking areas for their vehicles. You shouldn't need to tell someone to use the walkways instead of wearing a path across the lawn, but a traffic cone can be an effective reminder (3).

Tarpping in. Until a job is dried in, keeping water out of the house's interior is paramount. The most important thing we do

for exterior protection is tarp the job thoroughly. We generally use standard blue tarps (4), which are inexpensive and sometimes last a few jobs, depending on how long they are in place.

Blue tarps will hold up well against heavy rains and wind only if they are installed correctly. The tarp's edges must be placed over the roof peaks and along side walls and screwed down using furring strips—which can be made from ripped plywood and lumber—to keep edges tight. These strips prevent wind from causing the tarp to flap, which will quickly wear it out, or from getting underneath the tarp and ripping it. Placing old towels or insulation over sharp corners of the framing helps prevent tearing (5).

Water is heavy and will collect anywhere the tarp is not taut, so I try to anticipate where water is going to flow. Until the roof sheathing is installed, you may need to use temporary "ribs" or other members to prevent the tarp from drooping.

Sometimes, even these measures are not enough. Temporary "tent poles" may be needed to channel water out of trouble areas (6). Remember: Tarps aren't a set-it-and-forget-it measure. Whenever it rains or is really windy, I closely monitor the tarps for leaks, pooling water, and torn areas.

Window and door openings. Once we've completed the exterior framing, we leave window and door openings covered with the housewrap, which keeps rain and snow from getting into the house. And until the doors and windows are installed, we screw pieces of plywood over the rough openings from the inside to prevent falls and to keep out unwanted visitors (7).

Here are a few more points about doors and windows. Whenever we take delivery on a window order, I count all the insect screens and make sure they all arrived with the order. Then I store them in a garage or an attic, safely out of harm's way.

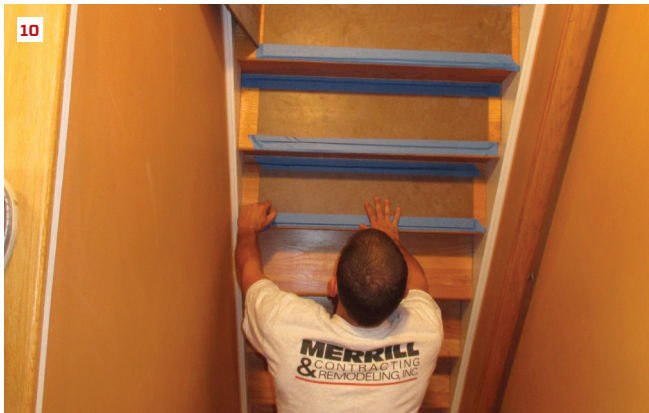
On a recent job we did, an expensive mahogany front door was the main passageway into the home. I removed the mahogany door, stored it in a safe place, and made a temporary plywood door, complete with a lockset, that everyone could use until the job was just about complete.

Landscaping close to the house can be subjected to a lot of abuse, especially if the job entails roofing or siding work. Our roofing and siding subs are responsible for tying back and covering shrubbery or flower beds, but as always, the buck stops with me, so if their protection measures are inadequate, it's my job to make things right (8).

ON THE INSIDE

Protecting the interior of the house is an ongoing task. Before the job starts, we protect what's already in the house, and then, as the job progresses, we protect the work we've finished. Typically, before interior work begins, I cover the floors as needed, seal off rooms, and move or protect the furniture, appliances, and existing trim or woodwork that could get damaged.

I like to use padded movers' quilts to protect existing appliances and immovable built-ins and large pieces of furniture (9), and then cover them with plastic sheets. Do it correctly at the beginning of a job, and you won't have to worry about it again.



Staircases can get a lot of traffic. I cover carpeted stair runners with a roll of sticky-backed plastic sheeting that adheres to the carpet's nap without leaving any residue when it's removed. Blue painter's tape holds the plastic to the edges of the stairs.

I cover wood treads with rips of inexpensive lauan plywood, also held in place with blue tape (10). You should also think about covering banisters and newel posts.

Full sheets of lauan work well to cover the entire area of a floor during the job. I duct-tape the seams to keep dust and grit from getting between the sheets.

Another good option for covering floors is Homasote (homasote.com). This panel stock is made from recycled cellulose, which helps absorb sound. And because the panels are thick and soft, they make an excellent cushion over finished floors, especially if we need to set up a table saw or staging in a room.

I've often used protection products made by Ram Board (ramboard.com). Ram Board is 46-mil-thick 100% recycled paper that comes in 38-inch-wide, 100-foot-long rolls (11). You can spill a little paint or coffee on it, and it won't soak through, but the material is permeable. According to the website, Ram Board can be laid over

concrete floors without affecting the curing process.

I've also used the company's Ram Jamb for protecting finished door jambs. Available in 36- or 60-inch lengths, they are heavy-duty, molded paper products that snap in place over jambs from 4 to 9 inches thick and stay in place without tape.

To cordon off rooms, we use Zip Wall (zipwall.com), especially on wider openings (12). Temporary stud walls hung with plastic and painter's tape work well, too, if an opening is going to be exposed for the length of a job.

I cover passageways with plastic sheeting held in place with painter's tape. If a doorway will still get used, I'll often use sheets on both sides of the opening and leave one side loose; that way, people can get through one side without completely exposing the other (13).

Existing countertops and vanity tops should be protected because workers are always tempted to use flat, horizontal surfaces as work tables. I like to cover them with movers' blankets and a plastic sheet or a thick piece of cardboard.

I take the same measures with new countertops immediately after installing them. Preventing the expense and embarrassment



of a hammer chipping a custom marble countertop is well worth the time.

Bathtubs also need protection. If you just use plastic sheeting or even a moving blanket, it will sag and fall into the tub. I like to tape a moving blanket around the edge of the tub and drape it down the side, then cut a piece of $\frac{3}{4}$ -inch plywood to fit tightly over the blanket (14). Quarter-inch lauan won't support the weight of the first guy who sits or stands on it.

What you do about dust from drywall and floor sanding during a remodel can make or break your reputation with clients. You might have made it through the rest of the project without stomping on a single flower bed or putting even the smallest scratch on a wall, but if the whole house gets covered in fine dust from the drywallers or floor sanders, things can turn sour.

I spend at least five hours every week on jobsite protection of one type or another, and I'm especially careful to check and recheck everything before the dust storms begin. If the house has a forced-air system, I tape furnace filters over all the return ducts (15). Box fans propped in windows and doors can exhaust a lot of dust to the outdoors (16). The fans are also handy for pulling noxious fumes

out of a building. Just recently I set up fans to get rid of the strong smell of a coating we were applying to basement walls.

WORKER AND HOMEOWNER PROTECTIONS

The employees in your company need to be thought of as well. New workers need to be taught the basics, including proper safety procedures for power tools, ladders, and fall protection. Wearing the proper safety equipment is a requirement. We hold periodic safety meetings with all employees present where we discuss a wide range of safety issues and where we hand out protective equipment.

A few rolls of plastic caution tape can go a long way toward warning people of a falling hazard. Even better are temporary railings and barriers made from 2-by stock. I always point out danger zones to homeowners and make sure their kids know that the jobsite is not an after-hours playground and that everything on the jobsite—tools, piles of material, stacked-up doors, windows, roofing, siding—is always and unconditionally off limits. As an extra precaution, workers should always leave power tools unplugged and covered when they're not being used.



ULTIMATE RESPONSIBILITY

While many of the protection measures I take are really just a matter of common sense and common courtesy, you can't underestimate how quickly things can happen. On one job, I watched an electrician make a cut with a Fein Multimaster, shut off the tool, then set the still-oscillating blade down on a finished countertop. The blade skittered across the surface, leaving a long scratch.

Was it my fault for not making sure the counter was covered or his for putting down the tool? Ultimately, it was mine.

At some point we have all heard a subcontractor or an employee say, "I didn't do that," or "I don't know how that happened." Once damage has occurred, it doesn't matter who did what; the problem must be rectified in a manner acceptable to the client. It is important to remember that subs are an extension of your company and should be included in decisions, details, and expectations. Their knowing what their job is and how you expect that job to be done can help prevent problems. We tell our subs that they are responsible for cleaning up any debris from the work they do.

The subcontractors' crews also need to work in the same professional manner. Make sure they don't learn a valuable lesson at your expense. Mistakes do happen, but a lot of them can be avoided.

A CLEAN SITE IS A SAFE SITE

On Monday through Thursday, we knock off work at 3:00 and spend a half-hour straightening up. Cords and hoses are coiled up and tools are put away. Scraps are chucked in the dumpster or piled neatly if they might be used later. Before we leave for the day, all the floors are swept.

On Fridays, we spend the last hour of our day cleaning up, taking special care that all hazardous areas are safe for the weekend, when homeowners will inevitably want to walk through the project, often showing off the work being done to family and friends. Their safety and the protection of their home is my responsibility. I'm usually the last one to leave the site at the end of every work day, and I always do a final walk through before leaving.

Once we have completed a project, an independent company sends our clients a job survey that they can answer online or mail in. The results are then sent to us. We ask clients to rate us on such aspects as cleanliness, jobsite safety, post-job clean up, dirt- and dust-control, and courtesy; our final question asks how likely it is that they will recommend us to future clients.

There are many good products available for protecting all areas of a jobsite. Efforts, or the lack thereof, to protect the clients' home and belongings are always noticed. When clients see that you are putting cardboard, drop cloths, or moving blankets over their new kitchen countertops, they feel more confident in your work and in their choice of contractor.

Some steps to prevent problems may go unnoticed by the clients or the boss, but not covering the glass-doored wine cooler will be noticed—especially if it gets broken. Producing a high-quality job while protecting the clients' home and investments will make it much more likely that they will recommend your company to a future client, making all the extra precautions well worth the time and effort.

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