

Our company, TimberHomes Vermont is a worker-owned, design/build timber frame construction company with a shop in Vershire and a new facility nearing completion in Montpelier. Between the two shops, we currently have 13 employees, six of whom are owners.

At the heart of what we do and at the center of our image as to what it means to be "green" is the use of locally sourced timbers and boards. Our timber frames and the product line of trailhead kiosks and park structures are all cut from White Pine, Black Cherry, White Cedar, White Oak and occasionally Hemlock. We purchase a great deal of our materials from a handful of smallish sawmills, which span the state, from Albany to Putney.

In 2013, we received a grant for \$12,000 for two things: the first being to make some physical improvements to our shop in Vershire (which was the only shop we had at that point), and secondly to do a feasibility study for the fabrication of wall panels from locally sourced materials to apply to the outside of our timber frames.

I will start by talking about the wall panels. For those of you who don't know, timber frames are often wrapped in SIPS, or structurally insulated panels, which are typically a sandwich of sheetrock, foam insulation, and plywood. These panels do make a lot of sense in that they are quick and easy to install. However, there have, in our opinion, some large problems. Pests such as mice and ants love to nest in foam, and once they're in there, they're hard to remove. And while foam does offer the highest R-Values as insulation, the carbon footprint behind them is off the charts compared to our preferred insulation, cellulose, which is largely recycled paper.

Our plan was to try building wall panels, which would be comprised of local rough sawn boards to replace the plywood, framing stock, strapping holding in place an air sealing membrane. The idea being that the panels would be ready for blown-in cellulose after being installed.

The result of our study was fruitful in that we have been successful on occasion building small wall panels. However, we did find that constructing large panels in our Vershire shop, which is a converted three bay garage with regular sized doors, was difficult due to the facility's physical limitation. We did, though, gain some important knowledge, which we intend to use at our Montpelier Shop whose 24' wide doors (and perhaps one day a bridge crane) is just now being completed. Though it's taken a while, the construction of wall panels suitable for a whole house finally seems feasible on a larger scale.

The second half of the grant was to make the necessary improvements to our Vershire shop for the purpose of building wall panels. We built up a new floor over the existing concrete slab, which was quite uneven and in very poor repair. We also

built heavy-duty ramps and carts (or piano dollies) to assist getting large stacks of raw materials into the building and finished products out for storage and shipment.

Though not necessarily related to wall panels, the result of these improvements had a hugely positive effect on our business. Suddenly with very little effort (in part thanks to a forklift), it was possible for us to roll in large stacks of wood to be worked and then roll out finished product for storage or shipment. The shop was ready for an increase in timber frame and trailhead kiosks sales.

From that point forward, the Vershire shop became an incredibly productive place where 5-6 people work. Thanks to the Working Lands improvements, not to mention the thousands smaller of improvements since then, the shop became a well-oiled, smooth running profit center, churning out value added wood products. Happily I can report that there appears to be no end in sight!

On a cultural level, the importance of our little shop in the middle of a tiny town cannot be overstated. The support, even enthusiasm, of Vershire's residents for our presence is palpable.

In terms of the wood products industry, we have become a very reliable partner to the select group of vendors whom we patronize. Last year, TimberHomes purchased over \$300,000 from the small mills and lumber yards up and down the state. In terms of our own income, we experienced a good deal of growth over the last couple of years. We ended 2018 at \$1.3 million in total income This is was up from just under \$1 million in 2017 and up from the prior decade where we hovered around the \$500,000-\$600,000 every year. It's clear to us now that we have a good thing going!

As we complete our new shop in Montpelier, we hope to still grow further. In the interest of full disclosure, I must tell you that I did recently apply for a second Working Lands Grant asking for cost share help to outfit the Montpelier Shop. Though our income has risen significantly, it hasn't as of yet translated into large profits. We believe that this will change as soon as our infrastructure is complete. However, we're not there yet.

While obviously there are a large number of factors at play, I hope that TimberHomes will be viewed as Working Lands success story. The grant funding we received helped to put our operation on track for success, both in terms of production and income. Our experience has been without question the case where a little help went a long way. Thank you for your support of this program.

-Timo Bradley
Member-Owner, TimberHomes Vermont