

N-Circle Railroad Update 24 – June 7, 2025

Building a Laser-Cut Wood Barn Kit

After my first forays into building laser-cut wood kits with the chicken coop and maple sugar house in Update 23, I moved on to building the barn for the farm, using the American Model Builders Country Barn kit, purchased in 1995.

[N-Circle_25-05-07_CountryBarn_Cropped](#)



This kit comes with detailed instructions for assembling the structure, more complete than for the Maple Sugar House. However, they do not mention anything about painting the structure or anything about avoiding warping when painting – apparently, they assume one to be experienced with building wood kits before attempting this advanced skills kit. They also do not discuss painting the trim, which without the knowledge of an experienced modeler would make it difficult to produce the quality of the photo on the box. The instructions tell you how to assemble the pieces in the kit but provide no guidance on how to paint a nice-looking final product.

I brush painted the main walls with Tamiya acrylic red paint without applying a primer first. I painted both sides as many recommend, then placed the pieces between two solid, flat plates with weights on them, to prevent warping. This worked fine for the smaller pieces. The large end walls started to bend while painting but were straight after pressing and drying. Though

apparently not totally dry, the next day they were both somewhat curved. Fortunately, the roof structure will hold them straight when everything is assembled and glued in place, as will be discussed below.

One needs to use a bristle brush for painting the walls – a micro-brush would not get the paint into the grooves of the clapboards, unless applied very thick.

I painted the windows and doors trim with Polly Scale acrylic paint while still in the wood sheets. Here, a micro-brush worked well for these very narrow, smooth surfaces. Painting them after removing them would be very difficult. However, the problem with laser-cut wood kits is that you cannot get the paint onto the sides of the piece the way you can with plastic parts which typically have a large gap between them and their supporting sprue. This is not a problem for the windowpane inserts, as their edges will be within the thickness of the wall. But for the outer window frames and bracing on the doors, you need to apply more paint to the edges before attaching them, otherwise you will have a brown edge on all sides. Adding white paint to these edges without getting paint on the red wall would be very challenging after attaching them to the structure.

I attached the windows and doors to the walls before assembling the structure. The instructions say to attach all of these parts after assembling the main walls, but I cannot imagine aligning and pressing all of them onto the very fragile assembled structure, or why they even recommend their sequence.

The instructions appear to assume that the peel-and-stick outer window frame will hold the inner frame in place. But I did not trust this, so I inserted the windowpane frames into the wall openings and secured them first with a bit of wood glue on the inside edges and let that dry before applying the stick-on outer frames later.

The paper backing on the peel-and-stick window frames can be removed by carefully getting a corner started with the tip of a sharp hobby knife. But be forewarned that this paper is in two layers, so it is possible to only remove the top layer, find the part doesn't stick, and realize that you still have to remove another thin layer of paper! Very tedious work!

The lower barn doors are peel-and-stick, but I also applied a bit of wood glue along the edges of the opening. I used the whole door in the closed position on one end and cut the other door down the center to have it in the open position. With the framing bracing already attached to the outside of the door, it was relatively easy to carefully cut down the center with a sharp hobby knife.

Fortunately, I realized before it was too late that you should not install the upper hayloft doors until after the roof structure is assembled, because you may not be able to pass the lift beam over the top of the doors later.

The clear wind glazing pieces are not peel-and-stick, so I used Micro-Scale Krystal Klear to attach them from the inside. This left some visible lines where the Krystal Klear ran onto the windowpane, but it is not going to be noticeable on these tiny N-scale windowpanes from any distance, especially with the interior of the barn dark.

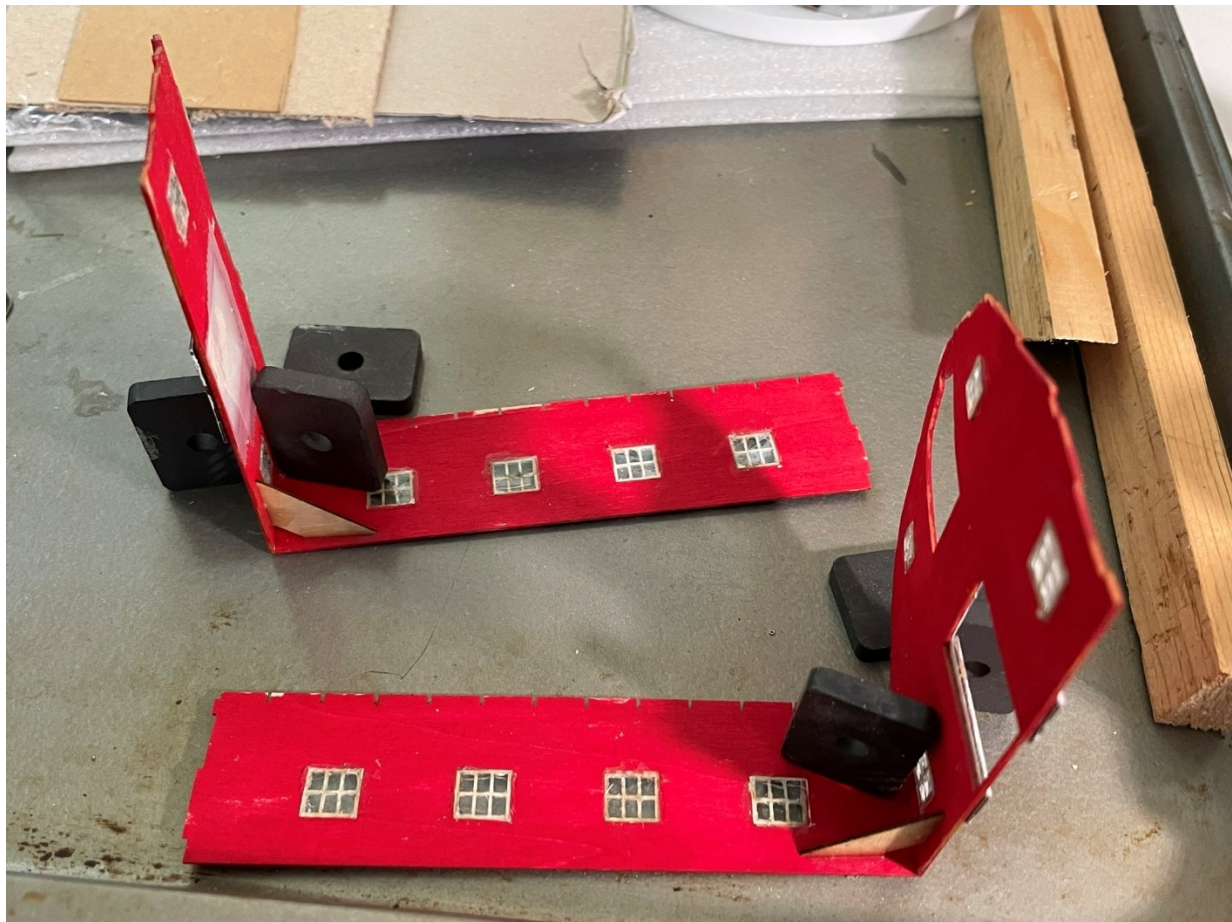
The window glaze has a very thin brown paper backing that has to be peeled off. This can be done with the tip of a sharp hobby knife, like with the window frames above. But given that the glaze is not peel-and-stick, I don't know what the purpose of this backing is – it is only “protecting” one side of the sheet. After meticulously removing the paper from about half the windows after cutting the pane from the sheet, I realized this was entirely unnecessary tedium,

and removed the rest of the backing as one piece from the whole sheet before cutting out the remaining panes ... much easier!

I assembled the cupola first before tackling the main structure, again out of order with the instructions, but providing some advance practice. This was fairly easy, as the slots in the two roof panels hold everything square while the glue is drying. I applied extra wood glue to the inside corners after the initial assembly, to keep the structure strong.

Corner magnets or similar clamping tools are a requirement to have any hope of assembling the four free-standing main walls so that they are square. I did two opposite corners first, seen here, and let the glue dry for a day before doing the other two. I used rectangular magnets purchased from Radio Shack years ago on an old steel baking sheet. Holding the panels in this orientation made it easier to attach the corner reinforcement triangles than if the walls were upright.

[N-Circle_25-05-28_CountryBarn](#)



Sooo... what's wrong with this picture...? Look at the pieces carefully...the sections are glued together in the wrong orientation to create the four sides of the barn! Both should have the end panel on the left, to then create the four sides when these two halves are put together! Fortunately, I was able to separate the joint in one corner without damaging the panels and could then glue it correctly. Another valuable modelling lesson: Think before you glue!!

After the joints were dry, I added sections of square wood toothpicks glued into the insides of the four corners to give the joints more strength, which will be visible in the next photo.

The very fine roof trusses seem like a nice detail, but they are very delicate and to me are unnecessarily complex, as they cannot be seen after the structure is complete. Nonetheless, they can be cut from their supporting sheet by cutting the bridge in the laser-cut at four points on each truss.

Attaching the trusses to the side walls was reasonably easy, just be sure that they are all fully down in the slot before applying a drop of wood glue on both sides of the joint. I let these joints dry before installing the ridge pole. This is a tricky task, making sure this piece is fully seated in the slot for all twelve roof trusses. Once it was in place, I applied a drop of glue to all four faces of all twelve trusses, to make sure everything would stay together in later handling! Here we see the structure just after this gluing.

[N-Circle_25-05-30_CountryBarn](#)

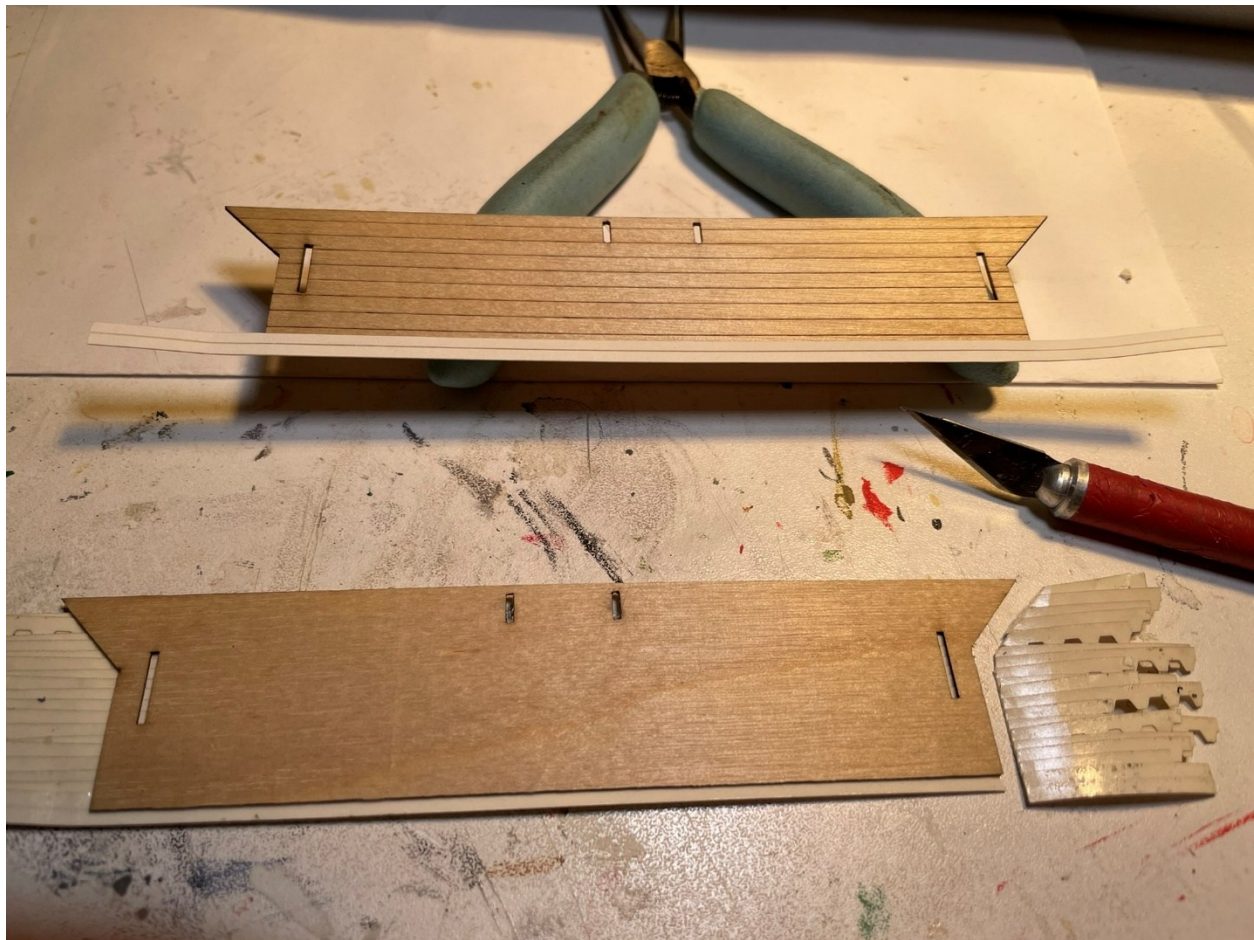


As you can see in the above photo, the end walls did warp outwards – they seemed to more over time, as they were not this bad after the initial painting. I did not attempt to glue them to the ridge pole at this point while the truss joints with the ridge pole were still wet, but decided to wait until later when attaching the roof panels, which hopefully will hold everything in alignment.

Peeling and sticking the rows of roof shingles is a very tedious task, to align each strip to the one below it. The end effect is a nice 3-dimensional surface, though.

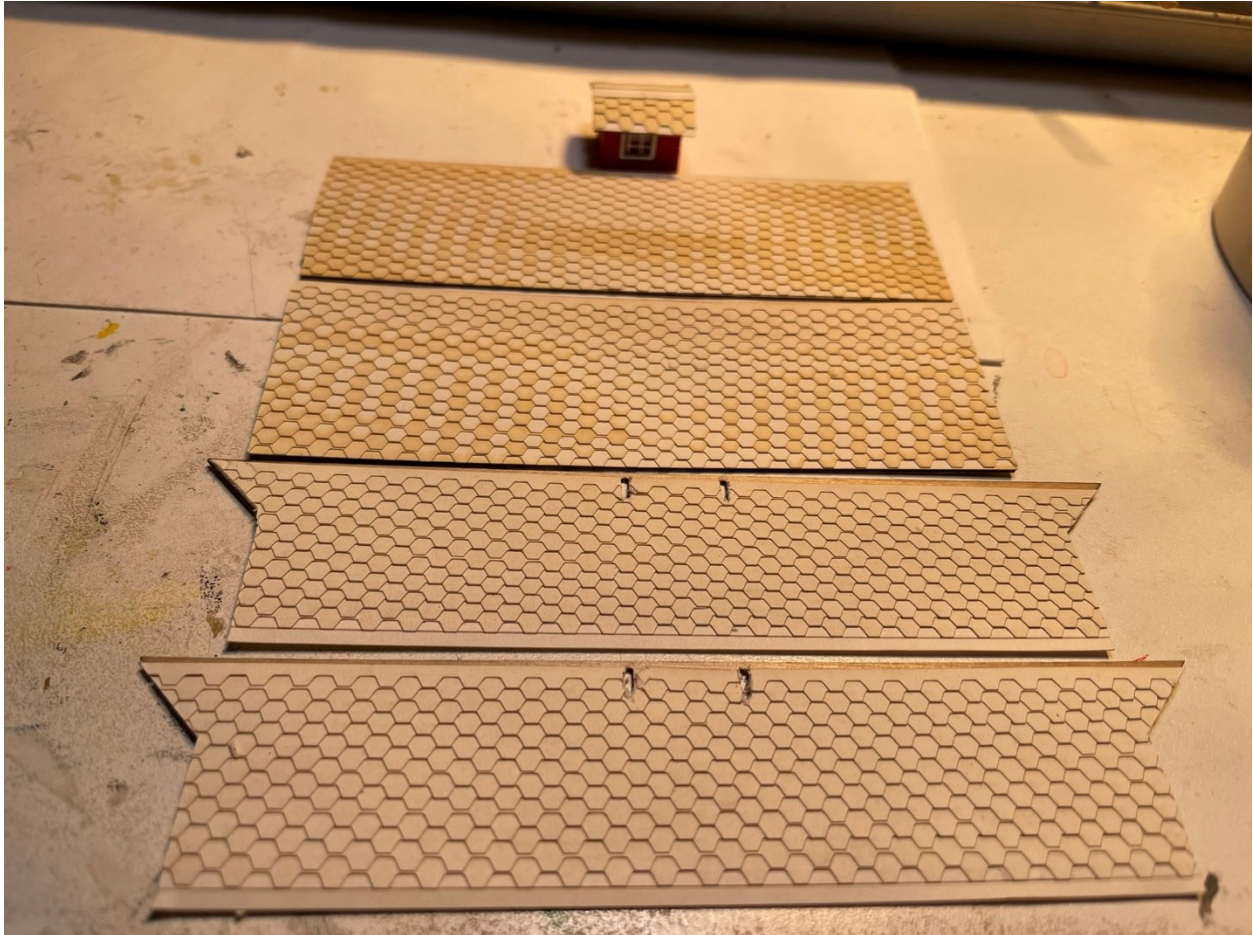
The instructions say to apply the shingles to the lower roof panels before gluing them to the walls, but to glue the upper roof panels to the structure before applying the shingles to them, to allow placing a flashing strip between the two sections before placing the shingles upwards from there. In my opinion, you would have to be insane to attempt this... Just place the flashing strip along the bottom of the two upper sections, as shown on the upper panel of the next photo and attach the shingles with the panels on the workbench, like done for the lower sections. Then when glueing the upper panels to the building, just overlap the flashing strips over the lower panels and press them down. Having to apply the shingles to the roof panel with it already on the building and trim the ends off would be a major challenge. This photo shows that it was easy to place the panel shingles-down on the workbench and trim off the ends of the strips on the right by cutting along the end of the panel with a sharp hobby knife.

[N-Circle_25-06-01_CountryBarn-1](#)



There are 90 strips of shingles across the four main roof sections and the cupola – you can count'em here...!

[N-Circle_25-06-01_CountryBarn-2](#)



Note that I remembered to cut out the holes to mount the cupola, unlike the smokestack on the maple sugar house in Update 23...

Again, with these laser-cut pieces, I had to paint the edges of the corner trim boards after removing them from their frame and before attaching them. I also added white touchup paint to the gaps between the window frames and the inner windowpanes as needed – the peel-and-stick method does not make perfect alignment easy, and there were places where the red barn boards showed through between the inner and outer white frames. I also painted the edges of the roof panels before attaching them to the structure. So, a lot of detail painting with a fine-tipped wooden toothpick was required.

Not being confident how well the peel-and-stick corner trim boards will stay on the structure over time, I applied a drop of wood glue to the top ends, where it will not be visible under the eaves, as seen here on the cupola.

N-Circle_25-06-02_CountryBarn-1



With the glue of the barn's roof truss structure dry and stable, I then tackled bending the warped outer walls back inward and glueing them to the ends of the ridge pole. In the next photo we see the magnets used again to hold the walls inwards, with a liberal amount of glue around their intersection with the ridge pole and hoist pole. Hopefully this will hold until the interlocking roof panels are glued to the tops of the walls.

[N-Circle_25-06-02_CountryBarn-2](#)



Attaching the roof panels is not easy – while the tabs in the end walls fit into the slots in the underside of the roof panels fine, you cannot see that alignment from above. I ended up placing the panel on the work bench shingles side down, then aligning the structure over it, as seen next. Given there was still a slight bow in the walls, this took some pressure to get the tabs on both ends into their respective slots. The clamp in the photo provided some weight to hold that end into the roof slot.

I did the four panels one panel at a time and let the glue dry between – the alignment is so tricky that it would be difficult to align a second panel without dislodging the first.



As mentioned above, make sure the upper hay loft doors will fit under the hoist pole before glueing them into the openings in the walls. I had to trim them a bit before they would fit.

I painted the shingles after glueing the roof panels to the building. The shingles provide a thin paper layer which prevented the paint from soaking into and warping the wood roof panels, which is good. I applied a coat of acrylic medium grey first, then a second coat of a bit darker grey. Painting the shingles is also a tedious task using a bristle brush, as it is a challenge to cover the light color of the shingle material in all of the cracks and crevasses of the overlaid 3-D structure. I suppose this would be easier with an airbrush. I thinned the second coat with water, and it went much easier, filling in the cracks.

After everything was assembled, I added a wood floor inside the open door using a section of the wood sheet left over from the middle of the roof trusses.

The following two photos show the completed structure up close. It would be good to add some weathering chalks to the roofs at some point, they are too shiny, clear grey now. But this completes the building of the kit.

N-Circle_25-06-07_CountryBarn-4



N-Circle_25-06-07_CountryBarn-3



In this next photo, we see the barn on the layout, with the new chicken coop in the foreground and the maple sugar house in the background. In the future I will re-arrange this farm scene, adding a fenced-in pasture with animals, etc., but this sets the preliminary scene for now.

[N-Circle_25-06-07_CountryBarn-7](#)



The entire building of the barn kit took about 18 hours over many, many sessions; this is a complex kit with many careful steps requiring glue and paint drying between them.

This is a high-quality kit – the pieces are all very well defined and cut, and interlock together exactly as they should. But unless you are an experienced N-scale model builder with excellent near vision and steady hands, I would not attempt this kit. The instructions provided are not nearly sufficient to guide an inexperienced model builder to produce a final quality model. And the details are not going to be noticeably better when placed next to a quality plastic kit on a typical layout.

After building this kit, I have to say that I am not a fan of peel-and-stick construction. When attaching tiny N-scale detail parts, I would rather be able to position them in place while the glue is still wet, then have to try to do final alignment by working against the part stuck to the side of the building. But I have to give them credit, the sticky surface was still good thirty years after the kit was manufactured!

And though my kit was thirty years old, and American Model Builders/Laser Kit went out of business a little over a year ago, I could still find multiple copies of the kit for sale on eBay today, if you want to give it a try!

This final photo and the previous view from the other side pull together the work from the past few months to show a much improved and interesting scene for videos of trains entering the North Yard from the west. This view of a 1950s Canadian National freight train approaching the yard captures:

- The construction scene from Update 20
- The Yard Signal Tower from Update 21
- The new backdrop from Update 22
- The maple sugar house from Update 23
- And of course, the barn from this Update 24

[N-Circle_25-06-07_CountryBarn-8](#)



This country barn is generic enough to be used for all four operating scenarios of the N-Circle Railroad, though it would probably more commonly be found in the north than the south.

Initially this barn is just placed on a flat scenery panel, but for a later “permanent” scene, it would be good to add a low stone foundation under it, with ramps up to the two end doors. Someday I also need to come up with a rope block-and-tackle to go on the end of the hayloft hoist pole. Nothing is provided in the kit for this.

In conclusion, a general modelling tip: I have found that the plastic stirrer from a Starbucks coffee take-out cup works great for preparing paints! The small size works well in Polly-S and Polly-Scale bottles, and the plastic wipes off clean on a paper towel, so it can be reused indefinitely. Better than a wooden stick, which holds the paint even if wiped off. And the knob on the end does a better job of mixing up paint on the bottom of the bottle.