N-Circle Railroad Update 23 – June 6, 2025

The next step in the building of the N-Circle Railroad layout was to develop the farm scene on the west endcap.

Building a Laser-Cut Cardboard Chicken Coop Kit

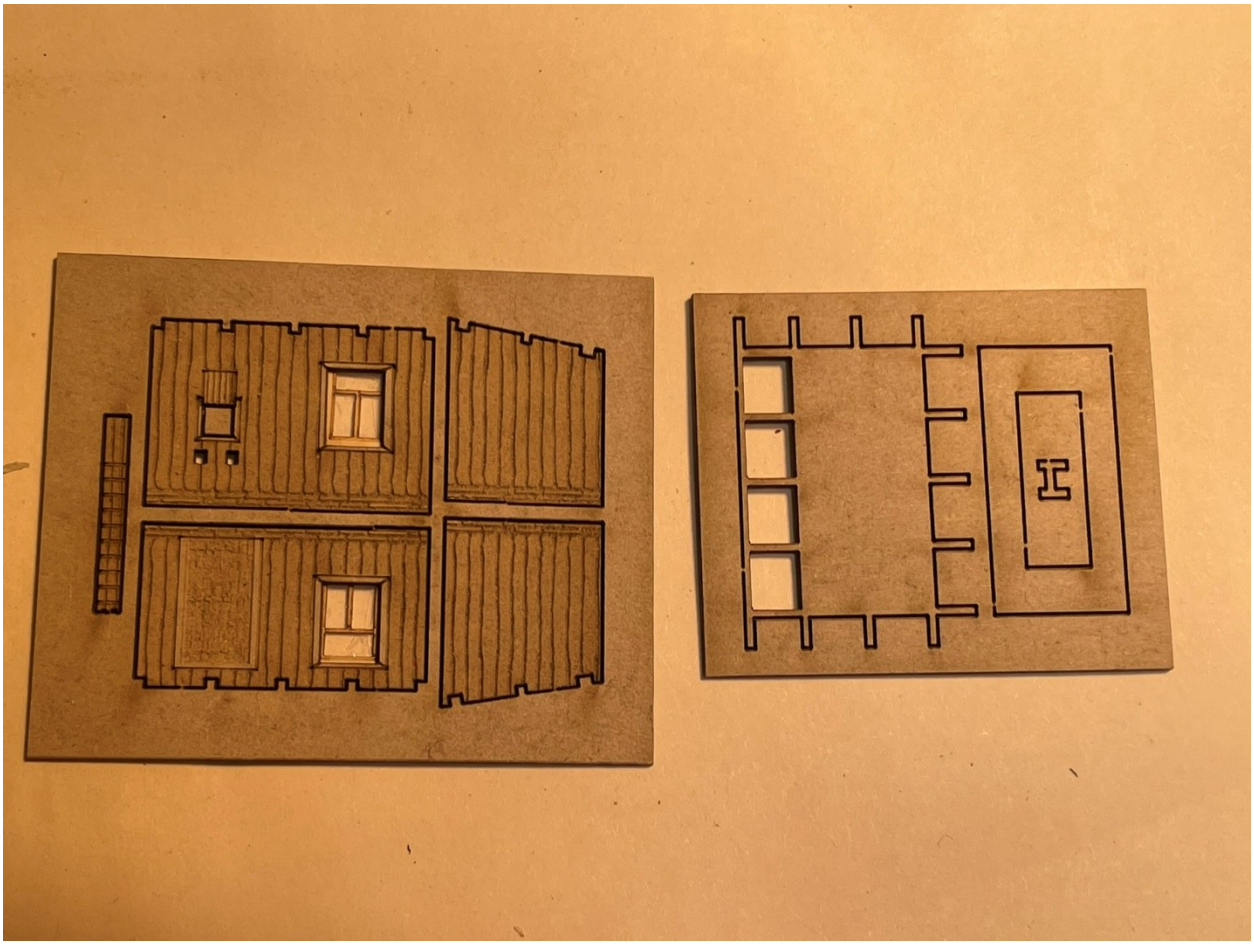
I started with the Noch Chicken Coop kit, part number 14678. This was a very simple kit, with only a few parts. There are no written instructions, just diagrams showing the order in which to glue the parts together. Therefore, one needs to have basic kit building skills to build this kit.

N-Circle_25-05-03_Noch_ChickenCoop

The parts are made from thin, solid cardboard, very similar to laser-cut wood. I used white glue to assemble the structure and did not paint it, as it has natural wood-colored walls. However, I replaced the frosted window film that came in the kit with clear acetate left over from the windows for the Atlas Signal Tower, so the hens can see out.

Here we see the parts before separating them from the plates.

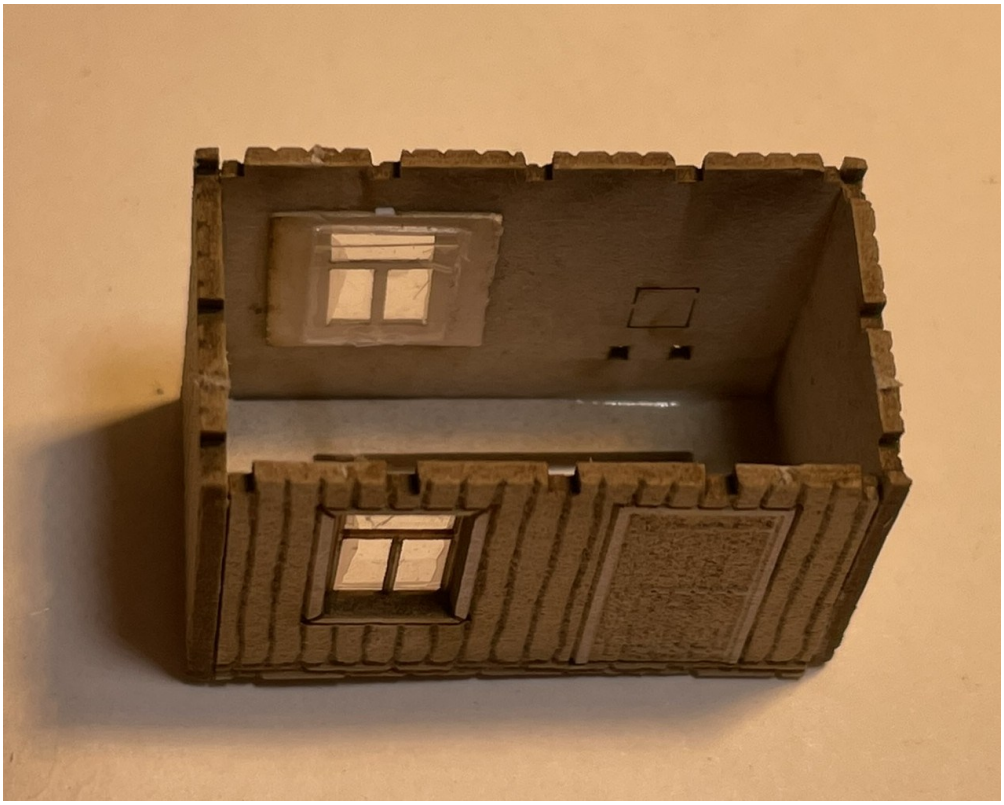
N-Circle_25-05-04_Noch_ChickenCoop



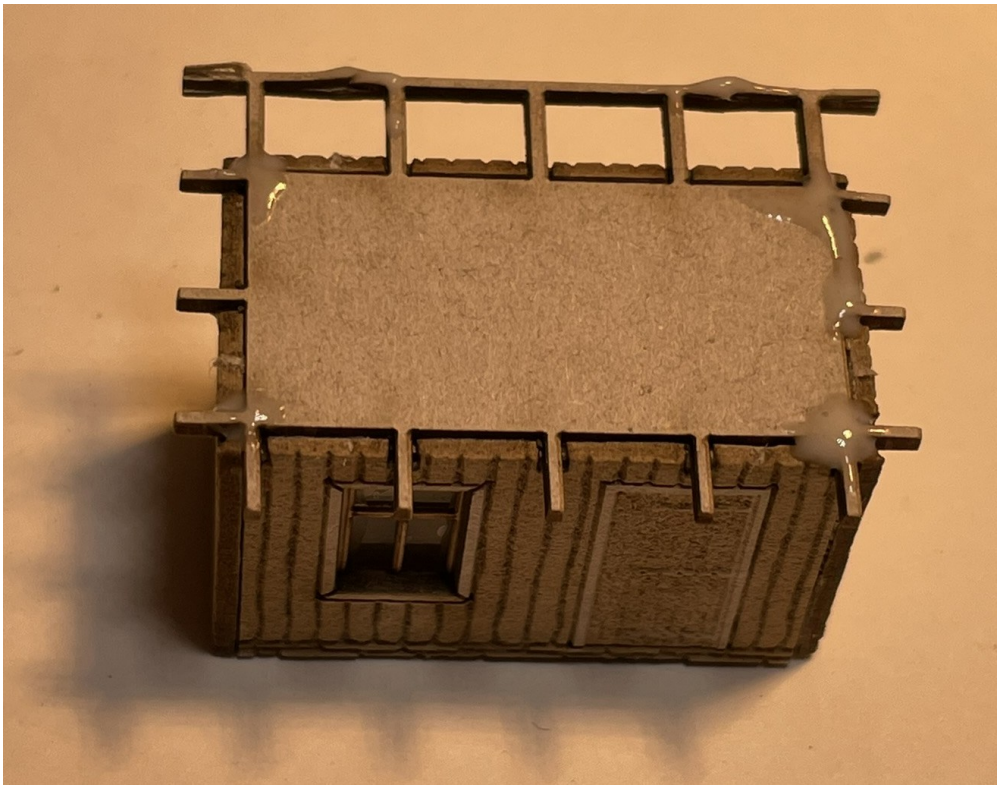
Before beginning assembly, you want to cut out the small chicken door on the front wall. The instructions provided no guidance on this, and I had to do it after assembly and the glue had dried. I was successful without damaging the building, gently using a sharp point hobby knife with the building resting on its back on a piece of soft foam rubber. Fortunately, it came out with only light pressure, but that's not how you want to do it. Otherwise, I considered just placing a large chicken at the top of the ramp to block the view of the door…

When assembling the structure, you want to install the roof structure immediately after the four walls, so there is some give in the wet glue on the walls to ease aligning the roof support legs into the notches in the top of the walls, as seen in the following two pictures. The instructions provide no guidance on this either. Note that in the following photo, yes, there are small globs of white glue on top of some of the joints, but that is not a problem as the structure will be covered by the roofing.

N-Circle_25-05-04_Noch_ChickenCoop_Assembly-1_Cropped



N-Circle_25-05-04_Noch_ChickenCoop_Assembly-2_Cropped.



The ramp is also a bit tricky, as again no instructions are provided, but after cutting it from the backing, you have to bend the top platform slightly, so it aligns horizontally with the ramp support under the door, and the ramp is at the correct angle to reach the ground. This wants to be done with test alignments before applying glue to the ramp to attach it to the building.

The final step of course was to add a couple of chickens on the ramp. These two came from a set of pre-painted Kato/Preiser farm animals. They came with a bright green base under their feet, in anticipation of being placed in grass. So, a tiny bit of brown paint on the bases was required before attaching them to the coop with white glue.

Admire the chickens in this close-up photo of the finished coop…once on the layout, an N-scale chicken pretty much looks like an untended piece of dust…!

N-Circle_25-05-07_Noch_ChickenCoop_Final-1_Cropped

The back of the building is not very interesting, but in case you were wondering, there is a door to get in to get the eggs…

N-Circle_25-05-07_Noch_ChickenCoop_Final-2_Cropped

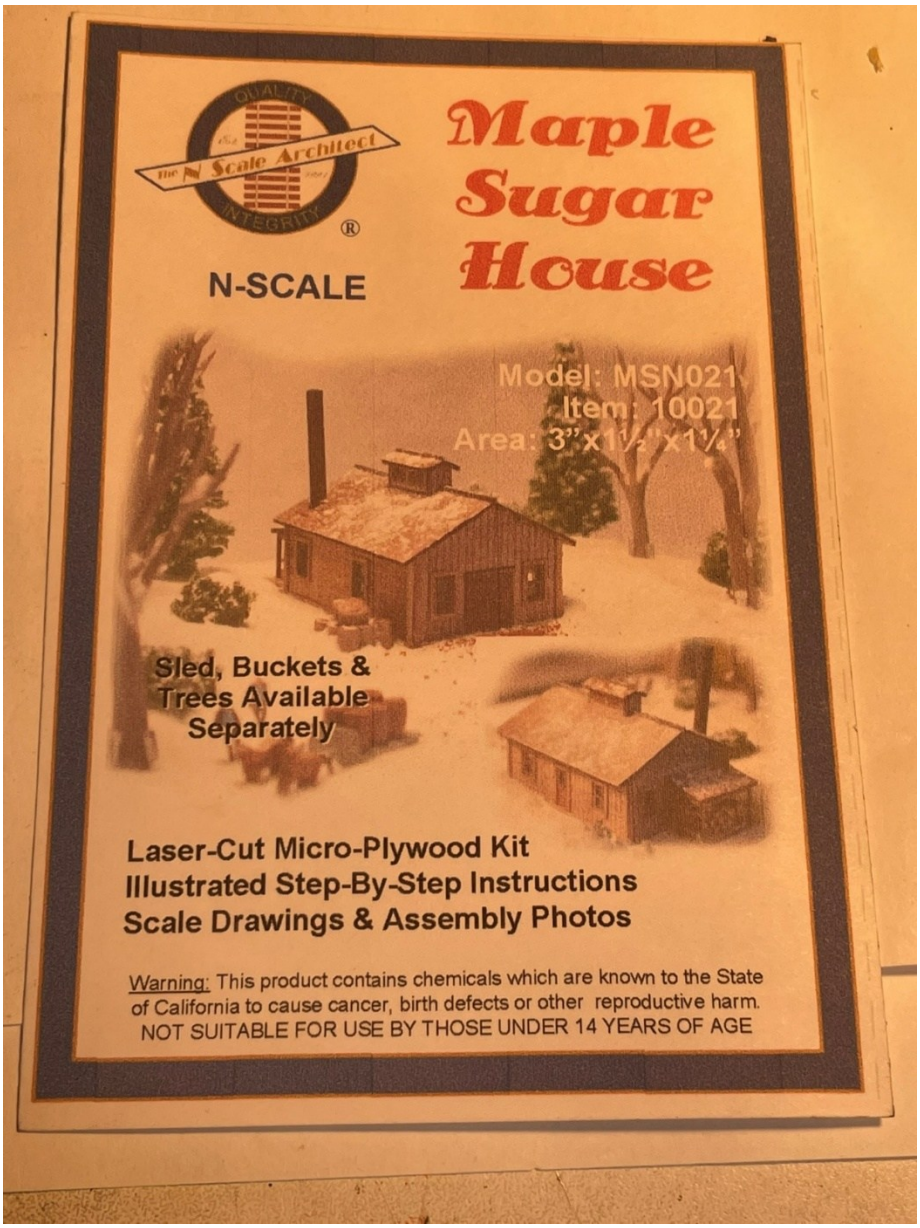
This kit only required about two hours to complete over five work sessions.

Building a Laser-Cut Wood Maple Sugar House Kit

The next project took the modeling skills up a level, my first build of a laser-cut wood kit, which I have been anticipating for a while. Before starting, I did some research on the web, reading a couple of articles and watching a couple of YouTube videos about building wood kits. I am not going to recommend specific ones to see, there is plenty of material on the web, easily found with Google searches.

The first project was the N-Scale Architect New England Maple Sugar House; shown here. This kit came with very complete and detailed instructions.

N-Circle_25-05-07_MapleSugarHouse



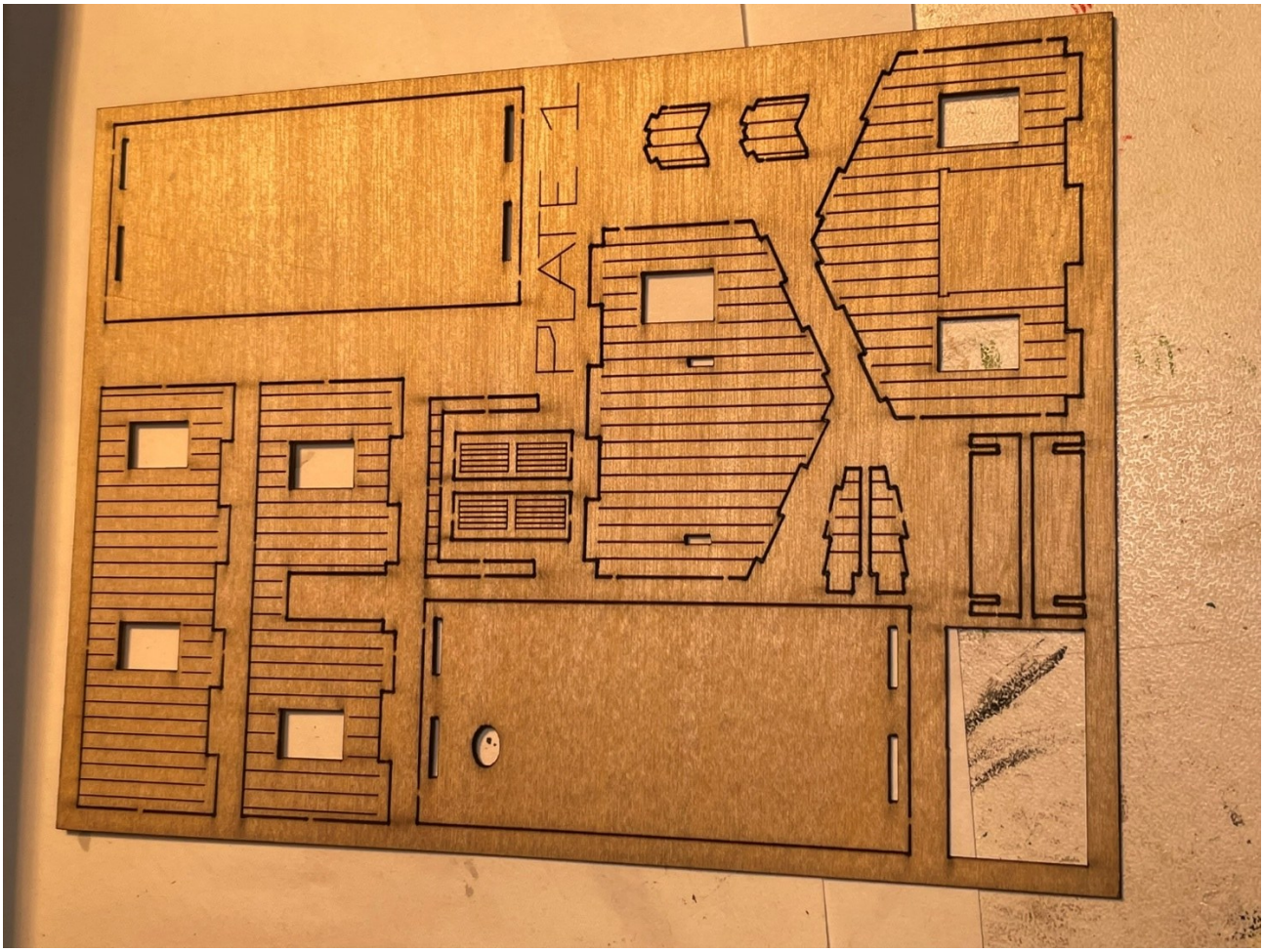
A Vermont maple sugar house is not typically finely painted and decorated, unless it is a roadside tourist trap. They more often just have weathered wood siding. Since this one will be across-the-tracks on the edge of the farm, I went with the simple weathered look.

One should do some research before beginning your first wood kit. Water-based acrylic paints applied to only one side can cause the pieces to warp. I first applied Vallejo grey acrylic primer on the base for a cement color. I only painted the top side and the edges, and the piece did not warp, perhaps because this piece is thicker wood than the other parts of the kit.

Having purchased a small bottle of black India ink a few years ago for the purpose of weathering wood kits, I decided it was time to try the technique. Research on the web said to create a weathering mix using a tablespoon of black India ink in one pint of 70 percent isopropyl alcohol. One pint = 32 tablespoons. Thus 1 tablespoon ink in a pint of alcohol equals a 1/32 ratio. I didn't need a pint of material to weather fewer than ten square inches of N-scale walls, so I measured out 64 drops of alcohol with an eye dropper and added a couple of drops of ink. This mix didn't do much, so I added another four or five drops of ink, then applied the mix with a Q-Tip.

The following photos show the "Before" and "After" of the weathering.

N-Circle_25-05-12_MapleSugarHouse_Before_Weathering



N-Circle_25-05-12_MapleSugarHouse_After_Weathering

The piece did not show any signs of warping, but I placed it under a block of wood with weights while it dried to be sure.

To create some contrast in the colors of the building, I used Polly Scale BAR Grey acrylic paint thinned with water on the window frames and doors. This also did not appear to cause warping, but I placed it under a weighted block of wood overnight also, to be safe.

I also used the BAR grey paint as a second coat to darken the edges of the base, the Vallejo grey seemed too light.

The instructions recommended using a marker to darken the louvers on the clerestory (the roof-top steam vent cupola). An Ultra Fine Point Sharpie black marker worked great for this and only took seconds to apply.

The peel-and-stick window frames are a pain to align properly. I think I would rather attach pieces like this with glue – it would be much easier to move them around slightly while the glue is still wet. I put a small amount of wood glue around the inside of the window frames to make sure they stay in place, and a small bead under the bottom of the outside frames, to hopefully

prevent the peel-and-stick from allowing them to slide in the future. I also applied a drop of glue on the main door before attaching it, to ensure it remains firmly in place.

I believe the window glaze is supposed to be peel-and-stick, but I could not get anything to peel on them, so I glued the pieces into the window openings with old-fashioned Elmer's white glue, and they are fine. I little bit of glue hazing in a few corners looks like old windows…

Painting the window and door frames while still in the panel is easier. But when removed, you end up with light-colored nubs where you cut them from the panel, which need to be touched up with the color of the frame. This probably should be done before attaching them to the walls, but I did it after using a very fine point toothpick to apply a drop of paint to the spots.

After assembling the walls, it became more apparent that the natural grain of the wood sheets ran perpendicular to the long dimension of the siding boards, which doesn't make sense. The India ink wash accentuates this. I would be curious to know if this is how they always align the panels in their kits, or just mine.

I used TiteBond III wood glue, recommended as the "ultimate" glue to use for assembling wood kits. It was probably over-kill for this kit, but I already had the bottle, and it's enough for all the kits I am likely to build.

I did not add wood bracing to the interior corners of the structure, as is typically recommended for wood kits, as the tabs on the walls interlock very solidly with the base and the roof panels, so it did not seem necessary to ensure rigidity of the final structure.

Assembling the clerestory was perhaps the most challenging modeling work I have done to date. The four tiny sides have to be assembled in free space, they do not interlock. It is not obvious from the instructions that the end panels have to be the outside of the corner joints. This becomes apparent when you add the roof panels, as they have slots to accept the tabs on the ends walls. Having violated the cardinal rule of "check the alignment of all parts before beginning assembly," I had to pull the four walls apart – fortunately the glue was still wet – and start over. But at that point it was a sticky challenge, as there is now glue on both faces of the corner joints when trying to hold the pieces and achieve proper alignment. Fortunately, once you get the roof panels in place, they hold the alignment of the structure.

Attaching the metal roofing is also a challenge, measuring and cutting it to the exact dimensions required for the five roof sections. The kit only contains enough material for one copy of each required panel, so there is no room for error to redo one. I had to use a narrow shim across the top of the woodshed roof to cover an edge that was cut too short. The material easily crinkles, creating permanent blemishes in the surface. One needs to be very careful in this step. Personally, I prefer a solid plastic roof…

I attached the roofing with Elmer's white glue, which may not have been a great choice. Gorilla Glue may have been a better choice, but I was reluctant to risk making too much of a mess. I later went back and touched up some of the raised edges and corners with a drop of superglue.

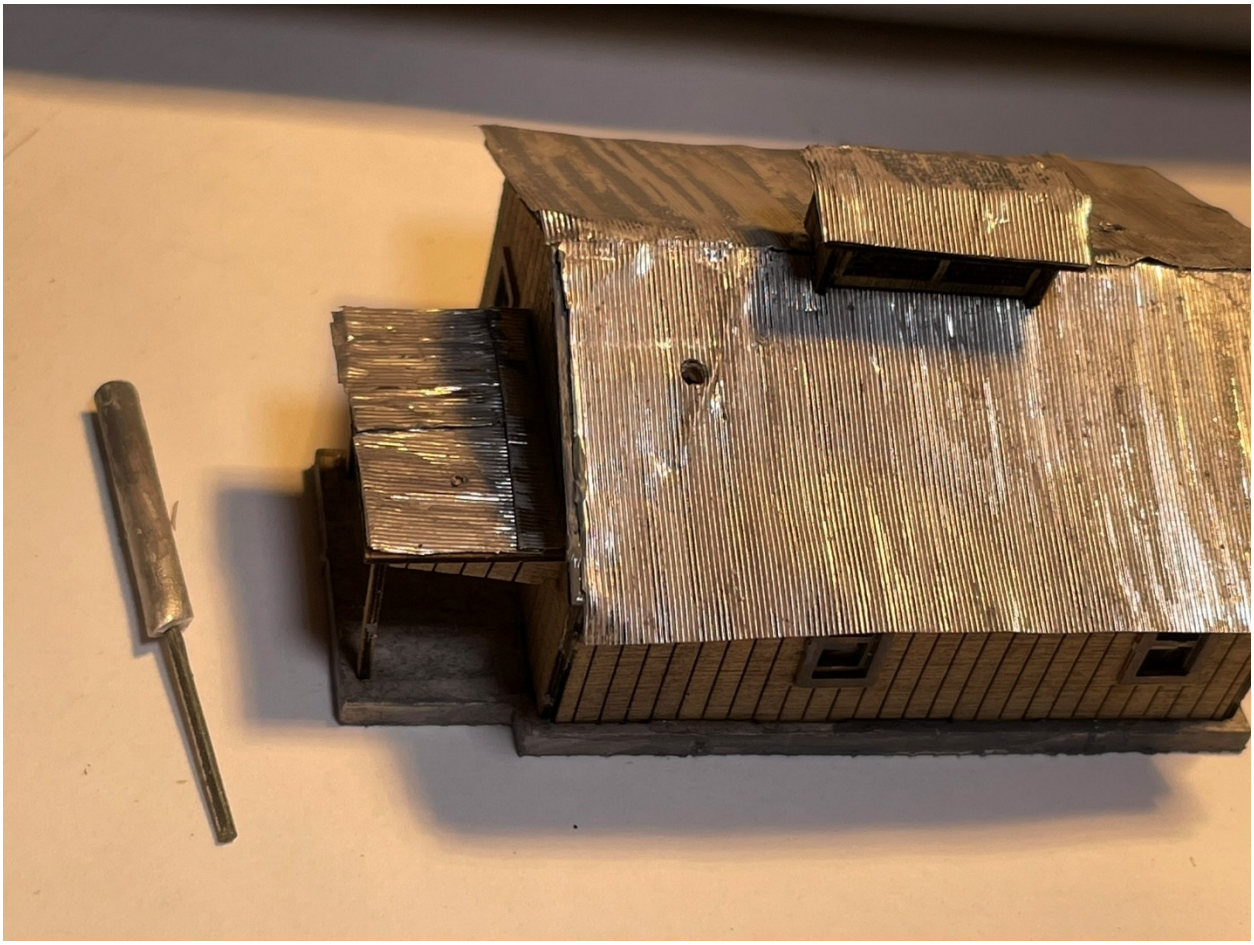
The kit comes with wood ridge pole pieces to insert in the gap in the peak of the main and clerestory roofs, but they looked too difficult to contemplate attaching, so I just butted together the sheets of roofing. I later added some dark grey paint to the butted joints – it kinda looks like patching tar like you might find on an old country roof…

I attached the clerestory using Superglue, as I wasn't sure what would bond best with the roofing. It took a while to set, but it did eventually.

I painted the smokestack silver, then later applied a grey wash on the upper section to look like smoke soot residue. The directions said "Redrill the hole in R2" … I failed to recognize that you have to drill a hole through the metal roofing aligned to the hole in the wood panel for the smokestack to go through before everything is assembled… Afterwards, it is very difficult to know where the hole is to be from above, as the roofing is too stiff to "feel" the hole below, and the bottom of the structure is all boxed in, so you cannot see the hole from beneath.

Therefore, I came up with a "Plan B" to attach the pipe from above. Just glueing it to the roofing would not be sufficiently stable, so I cut a piece from a thick metal paper clip that fit in the pipe, to then insert into a small diameter hole drilled in the roof. At first, I considered using a wood toothpick but then realized that it could easily break off in handling. The metal pin will not break, and if it pulls out, it can be easily re-glued. The next photo shows the pin inserted in the pipe, after cutting the pipe to the proper height. The pipe needs to be cut at an angle to match the pitch of the roof, I used plastic sprue cutters. And of course, I first managed to drill the hole in the wrong corner of the roof and had to fill it with a drop of white glue and an overlay of grey paint. Hopefully it will look like another intentional roof tar patch…

N-Circle_25-05-17_MapleSugarHouse_SmokeStack_1



The kit came with a pewter firewood stack to go in the woodshed on the rear. However, in 2019 I had gathered a collection of small twigs to use for firewood, so I decided to put them to use. Don’t ask me what species of tree the twigs were from, but they were easily cut to lengths using a plastic sprue cutter.

N-Circle_25-05-15_MapleSugarHouse_Firewood_1

I then glued the firewood to a plastic palette. I think the final piece looks better than the pewter casting in the rear of this photo, even after I had added some wood coloring to the casting in case I use it someday elsewhere.

N-Circle_25-05-15_MapleSugarHouse_Firewood_2_Cropped

In the next photo we see the smokestack glued in place and the wood stack glued into the in the finished structure.

N-Circle_25-05-18_MapleSugarHouse_Final_1

And the next two photos show the other sides of the finished structure.

N-Circle_25-05-18_MapleSugarHouse_Final_2

N-Circle_25-05-18_MapleSugarHouse_Final_3

Some of the defects are visible in these close-up photos of the finished structure, but like many N-Circle projects, it will “look good from five feet…!” Perhaps this update should have been titled: “How Not to Build the N-Scale Architects New England Maple Sugar House Kit” … but hopefully you can learn from and avoid my mistakes!

The kit took about eight and a half hours to complete; it probably could be done in less time without the mistakes!

If this kit were used in a scene during spring sugaring season, it would be interesting to cut out the main door and have a boiling hearth and figures visible in the interior. But since the scenery on the N-Circle Railroad is set in the summer, I built it with the door closed, shut down after the end of the sugaring season.

I can’t say this first attempt at building a laser-cut wood kit was all that successful or enjoyable. It definitely requires a higher skill level than most styrene kits, having to work with many dissimilar materials. But I have another 20 or so wood kits under the layout to build “someday,” so hopefully my skill levels will improve…

Anyway, here is a photo of the sugar house on the layout

N-Circle_25-06-06_MapleSugarHouse_1

With the new backdrop in place from the previous Update 22, I built a scenery panel for the outer comer of the northwest module to create a home for the sugar house scene, just across the tracks from the farm. I used foam-core board like for the other scenery panels, and the Power Point vernier grid technique from Update 22 to design a driveway around the sugar house. The outer radius of the roadbed for the Kato UniTrack outer mainline track on a 90-degree T-Trak module is 12 ¾ inches, so I drew and cut an arc of that radius from the inner corner of the foam-core board. The spacing of the panel around the track is crude as can be seen in the photo, but it is a start for creating initial scenery for this area of the layout.

I purchased a set of Woodland Scenics 3-5-inch deciduous trees for maple trees around the sugar house; they look proportional to the building and blend well with the new backdrop. For now they are attached to the scenery panel with a square of double-stick tape under the base. I added some vehicles to complete the scene - note the stack of firewood that came with the kit now re-purposed as a load for the red flatbed trailer detailed in Update 19. The trailer may be a bit over-loaded…

The whole scene is too close to a double-track railroad mainline, but with the limited space available on a small layout, this kind of “scene compression” is often required.

This maple sugar house scene will work for both 1950s and 1980s Vermont operations of the N-Circle Railroad but probably should be replaced with a more generic scene for Louisiana operations!