THE "CANADIAN"

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CANADIAN ASSOCIATION OF RAILWAY MODELLERS
FOUNDED IN 2003

WINTER 2024 ISSUE #86

IN THIS ISSUE

a quarterly publication of the "Canadian Association of Railway Modellers"

THE CANADIAN ASSOCIATION
OF RAILWAY MODELLERS

Founded October 15, 2003
Founding Members: John Johnston, Peter Moffett,
David King, Lex Parker

PUBLICATION SCHEDULE FOR *THE CANADIAN*

***The Canadian* is published four times per year.**

Submission by authors or Chapters should be submitted by the following dates.

Spring Issue: February 1
Summer Issue: May 1
Fall Issue: August 1
Winter Issue: November 1

MEMBERS AREA PASSWORD

USERNAME: gondola
PASSWORD: hopper

COVER PHOTO BY DON JANES: Canadian Pacific Alco S2 #7098 passes State Line Farm Supply in Wells River on the HO Scale Green Mountain Division layout of Don Janes.

observation platform
john johnston: editor

SEASON'S GREETINGS TO ALL OF OUR MEMBERSHIP

As we are approaching this holiday season and the new year of 2024, let me wish each one of you and your families a happy and joyous holiday and a healthy and prosperous new year.

DON JANES IN THIS MONTH'S CRAFTSMAN

CARM contributor Don Janes who has an article in this Issue on his CP and CV Alco switchers has his layout featured in the December Issue of Railroad Model Craftsman. If you get the chance to get the Issue it is a beautiful layout and an excellent article.

SERGE LEBEL ON YOU TUBE

Another shout out to a CARM contributor. Part 2 of the article on Serge Lebel's Canadian National Railways Sanmore Subdivision is in this Issue. Serge has an excellent You Tube Channel which you should check out. It can be found at:

https://www.youtube.com/@sergelebel1239/videos

You can also easily find it by typing Serge Lebel into the Search tool on You Tube.

LAYOUT MAINTENANCE AS WE GET OLDER

I read with interest the Members Submission by Andy Panko who talks about how he designed his control panel wiring to accommodate his arthritis and assist him by keeping all of the maintenance above the layout.

I have been dealing with a short which has been defying being found, more on that later. In any event when my club group was over last week I was bemoaning having to climb under the layout to trace wiring. One of our guys is in his 40's and he remarked that his dad was experiencing similar problems and couldn't get under his layout any more. I know his Dad quite well and he has a beautiful HO layout based on the BC Railway. In any event, it drove home the issue that we have a tendency to put things like tortoise machines or wires into the most inaccessible locations when we are building layouts and we are younger without giving any thought to the passage of time and how we will deal with it in the future.

So I am sharing a pearl of wisdom learned the hard way. Keep everything under the layout accessible. It will be worth any extra effort you have to put into design. As for that short, looks like a miswired reversing circuit.

John Johnston: Editor

Chairman's Report

Welcome back to the lost Internet members who changed email addresses without telling CARM. We tracked you down and reactivated you. General members don't *have to* provide their email address. There are good reasons, though, if you do have an email address to let us know what it is.

1: If you move and forget to tell us, we can email and ask for your new mailing address.
2: If you have a Paypal account, renewing your membership is simpler by email. We pay the PayPal fee but you save postage.
3: If we don't have your email address, we can't send invitations to our online meetings and you'll miss out on things you might have liked to see.
4: Often our Annual Meetings and Special Meetings are online. Verifying that those attending are members and entitled to vote is simplest if we have their email addresses so they can register in advance. (it also helps to use your real name instead of something anonymous like "IPad4")
5: Communicating within Chapters whether about meetings and activities or about elections is more efficient with email.

If you have either an email address or a home address you haven't told us, please let us know.

Ian McIntosh

Chapter Reports

TORONTO CHAPTER:

An election was held to elect officers for the next three years (November 2023-November 2026). James Rasor was re-elected to the post of Secretary and Ian Jameson was re-elected to the post of Treasurer. As there were no nominations for Chairperson, the position is vacant.

ONTARIO MIDWESTERN CHAPTER:

The weather co-operated completely for the CARM Steam Up Day at Mike Mason's railway. Mike completed the layout during Covid. The track climbs 10 feet from the lowest point to the summit. A great work out for any locomotive. A run takes 32 minutes to complete the mile plus long track system which runs through old wooded areas, across a long elevated trestle and across expansive fields.

PHOTO BELOW: Mike Mason fires up his CPR D-10.

PHOTO ABOVE: Mike Mason and Allan Robinson run a double header filled with Chapter members.

PHOTO BELOW: The long trestle.

Adding Weight to Intermountain N Scale Two Bay Covered Hoppers

By William Waithe

To meet the need for an increased demand for cement hoppers for an industry on the CN Weston Subdivision, I purchased some additional Intermountain Two Bay Covered Hoppers. Because of their construction, adding weight inside by cutting opening the tops of the cars was not feasible nor desirable due to the possibility of damage to the upper structures.

Weight was therefore added underneath the car bodies in the following fashion:

(1) I filled the underbody cavity between the unloading doors with Liquid Gravity (Deluxe Materials, LT) and sprayed (misted) the area with a 50/50 mix of alcohol and water and then saturated the area with a 50/50 solution of Welbond and water. I then left it to dry overnight. Using lead strips (e.g. Amazon fishing weight sinkers), I folded 3-4 compressed layers of lead strip to fit between the unloading bay doors and fixed them in place with contact cement adhesive.

PHOTO ABOVE: From Top to Bottom: Liquid Gravity (LG) and PVA/ water binder; Two Bay Hoppers with lead weight fixed over the dried LG mix; LG beads; side view of Hopper with the lead weights in place, a lead strip roll and contact adhesive.

The finished cement hoppers weigh 38 grams.

(2) I then made side panels using 3 x 17 mm. pieces of styrene and attached them with cyanoacrylate (CA) glue and then painted the side panels to match the car bodies. I then weathered the cars.

All rolling stock on the layout is adjusted to a goal of 40 gm. (1.4 oz) irrespective of car length. This represents about 30% more than NMRA standards, where, for example, an N scale 50 ft. boxcar would weigh 31 gm. (1.1 oz.). The increased weight decreases the chance of derailments when operating on code 55 track and turnouts.

Material for the Canadian should be sent to:

John Johnston
41 Glenview Place,
Hamilton, Ontario, L9C 6H9
or by
e-mail at editor@caorm.org

B&M Double Sheathed 40' Boxcar "Getting the Weathering Right"

by George Dutka

Sometimes for me it takes a few trips to the work bench for a freight car to get the right effect, or at least one that I like. For many weathering a $50 plus freight car can be a bit nerving but if one uses PanPastels it is easy, PanPastels can be washed off. Using PanPastels one can get the right effect while ones confidence is not taken to the brink. Weathering workbench projects need to be pleasant.

For my B&M Rapido boxcar, the car has made the trek three times to my workbench since being purchased back in 2020 for additional weathering. I originally just applied flat finish some red iron oxide extra dark and raw umber shade PanPastel powders over the sides with a bit of AK dark rust powder in the mix. I even used my finger to get the colors to blend in better. Fingers can make good brushes. A silver pen dabbed on the hose bag glad hand tips and angle cock handle is also applied. On the wheels a coat of AK railroad wash and AK dark rust powder is applied while the trucks are dusted with AK dark steel powder.

PHOTO ABOVE: My Rapido B&M double sheathed boxcar with its original weathering in use on my layout. The car is good to go and actually does not need anymore work done to it but I can't leave things alone when I think I can take the

All three AK tones come in a combination set which I feel is a great deal. They get a lot of use at my workbench. The couplers are coated with AK dark rust deposits and AK rust streaks, both are liquids. A return visit a couple of months later had me painting the roof Craftsmart graphite acrylic more as a wash than a full coat. Any craft of modeling gray paint will work. The roof is going to look like much of the paint has come off leaving the galvanized roofing showing through. It is a neat effect I have used a number of times lately. I like the effect to appear different on each model so the

PHOTO BELOW LEFT: The three tones used to complete the original weathering. One can see I also used my finger to get the effect I wanted.

PHOTO BELOW RIGHT: The boxcar just before it headed back to the workbench for weathering job number two.

acrylic paint is applied heavy or light on each car. The powder overcoating I do the same, light and heavy.

Once the acrylic paint on the roof was dry I applied PanPastel neutral gray shade mainly in the center of the roof panels. One can also use a brownish PanPastel also to reflect the original paint. I like using PanPastel raw umber shade on the roof panels too occasionally. On the sides I ran AK pencil marks randomly in groups of 3-5 different lengths in the colors dirty white or rubber (blackish brown). On the doors I also used AK pencils but in the rust tones. I ran a damp brush over the rust pencil marks to blur them a bit. AK pencil lines are water soluble and can also be washed off if the effect does not look right by using a wet brush. On the running board in the grooves I ran the AK rubber pencil over the surface. All looks great at this point although I think I might have overdid the AK pencil work a bit.

PHOTO ABOVE: AK's Rolling Stock weathering set is a nice addition to one's tones. It includes railroad wash (liquid), dark steel and dark rust (powders). I like using these two AK pencils also on my models, rubber and dirty white.

In June 2023 the boxcar came back to the workbench for some more weathering work. I decided to go over the sides once again using two PanPastel colours, red iron oxide extra dark and paynes grey extra dark #840. The red iron toned down the pencil marks well, although you can still see them through the powder, which I feel is a better effect. The paynes extra dark (which is more of a black) is used to highlight the upper and lower edges of the car and some areas of the doors. I feel the car looks a lot better now and is ready once again for regular service on my layout the White River Division.

As you can see I am never afraid to bring models back to the workbench to try something new. I feel every effort is a learning experience well worth my time. I have come up with some better effects the last few months calling back some of my older rolling stock for a facelift. But that is for another time.

PHOTO RIGHT: The car has now completed weathering number two with a coat of acrylic gray on the roof, and AK pencil markings on the sides.

PHOTO LEFT: On the workbench for a third time the AK pencil markings are overcoated with two tones of PanPastels, just enough to dull down the pencil lines effects but allowing them to still show through.

CV AND CP ALCO SWITCHERS

BY DON JANES

While in Arizona this past winter I purchased a couple of Atlas Alco switchers for projects I had in mind. I wanted to model one of the three ALCO CPR S-2's that were built for and assigned to their Vermont operation and a Central Vermont S-4 to work in one of my CV yards on my layout. Both models I have added DCC/Sound with ESU sound decoders.

The first unit, CP 7098 was built from an older yellow box Atlas S-2. I have always wanted to add a CP switcher in the early "Smiley Face" paint scheme used between about 1950 and 1954. This older model required quite a bit of work to get it looking the way I wanted it. I had to carve off all the molded-on grab irons and other details and add new wire grabs. There were other modifications I had to make to get it looking like a CP unit. Once it was ready to paint, I primed it with Tamiya gray primer then gave it a coat of TruColor CP Maroon paint. The maroon went on very smooth and had a nice shine for decals. I ordered a set of Blackcat CP decals for the lettering and yellow panel areas. The decals went on very nicely and once the decaling were done, I gave it a coat of Tamiya flat finish. I am very happy with how the engine turned out and it makes a nice addition to my CP roster of maroon and gray locomotives.

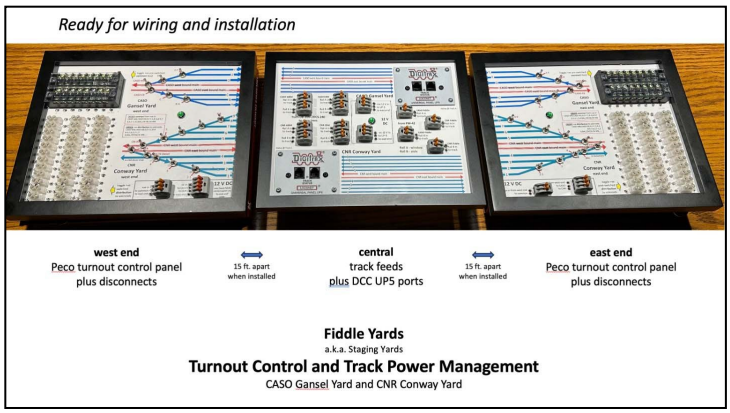
The other switcher I built was CV 8015, one of several S-4's on the CV roster. This model is late run Atlas Gold series model that came sound equipped. It started as a B&M model which I stripped and repainted. This model required less work as it already had separate grabs, cut levers and other details. I added a few extra details to match my other CV engines, but most of the detail work was already done. I painted the model with a mixture of Floquil Engine Black and Grimy Black paint. All the decals came from an Accu-cal decal set for CN, CV and GT engines. Any yellow paint was done with TruColor CN Yellow which is a perfect match for the decals. Both models received new LED lights and ESU Mini Power Packs.

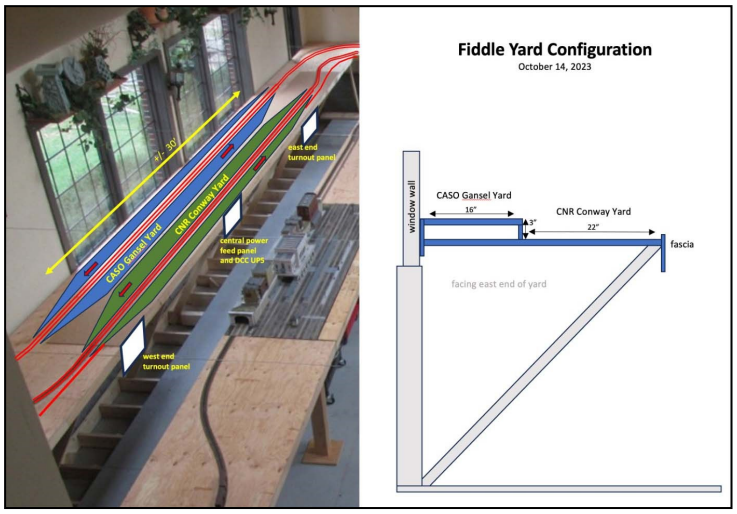
MEMBER'S SUBMISSIONS

CONTENT AND PHOTOS FROM A WIDE VARIETY OF MEMBERS

DR. ANDY PANKO PhD. (Niagara on the Lake, ON)

Not sure if these are appropriate for The Canadian right now, in that this part of my project is in the very early stages of its life, and no wiring is attached to any of these control panels. The panels look way more complicated than they have to be (hence all the connection points on top of the panels, rather than underneath). Note the panels are built in inexpensive Walmart 8"x10" picture frames, with the glass substituted by Plexiglas from Amazon (the Plexiglas is drillable).





Because the whole project is being done in stages, the panels have to be built first and connected later on, when the benchwork is completed and the track switches are installed. Add that reason to two others – 1) my arthritis precludes me from climbing under the layout to solder connections, hence everything is on top, front and centre, and 2) my paranoia about everything having a label, and connections being able to be identified and isolated when (not if) things go awry later.

BRUCE LECKIE (Brinston, ON)

Hardworking critter #11 is spotting a car at IWP (Irrelevant Widget Producers) on the new Windy Bay module, part of the Dirty 30 setup. Look for this module and others at Springfield in January.

GORD MACBRIDE (Markham, ON)

This is a picture of some of the projects I am working on. They are awaiting dusting, finishing, detailing and weathering before being 'planted' on my HO layout. I have been retired 27 years and just can't seem to find enough time. Go figure.

TOM MARSH (Houston, TX)

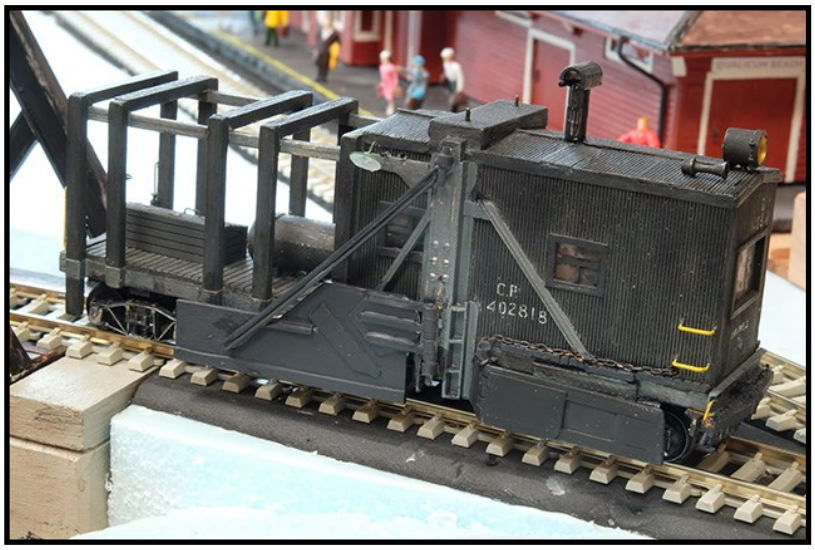
This picture, taken May 20, 2023, in Houston, Texas, was my first shot of a CPKC train. As expected, we've seen an increase in the number of CP-painted locomotives passing through our area since the merger of CP and KCS. Now when is that new paint scheme going to appear?

IAN McINTOSH (Regina, SK)

While at Winnipeg Mega Train in 2022, I purchased three small trackside building kits. My layout had been in need of these types of additions. I had one kit under construction on my work bench for quite some time. What I thought would be a relatively easy quick build became a major challenge. This kit was a plastic kit, and is made from what they describe as UC2/3. They also indicate that there may be warping on parts, and how to correct this. Serious understatement! Most major parts were warped. They advised using heat to soften the plastic and apply flat weights to hold the heated parts flat. I used very hot, near boiling, water a number of times for this process to good success. Gluing the still somewhat warped parts was a challenge. I initially used two variants of plastic glue, but had very limited success in keeping the parts attached. Gorilla super glue and heavy elastic bands to the rescue!

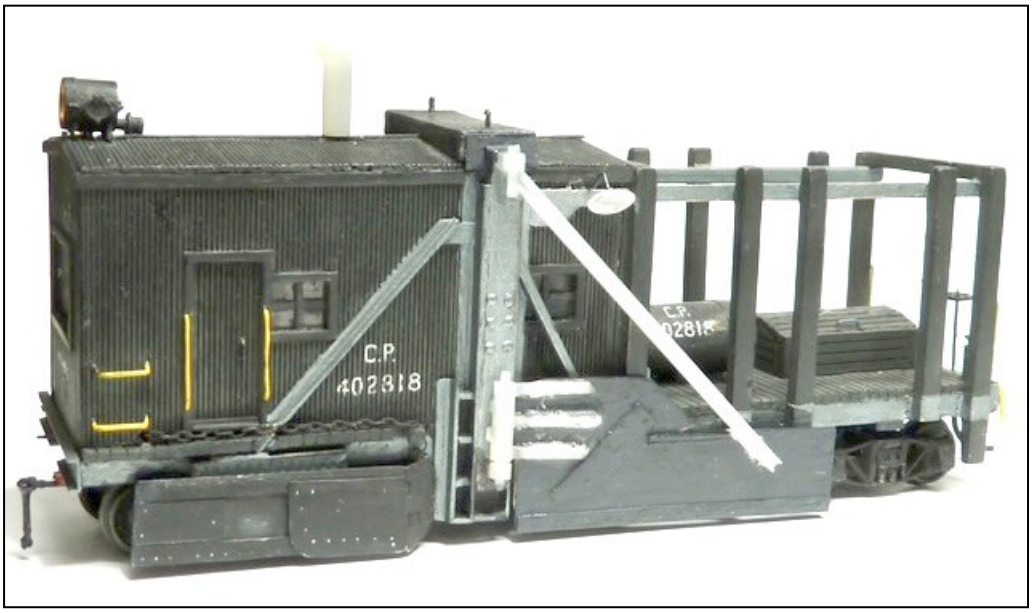
I have brush painted both interiors and exteriors using Polly Scale, Testors, and Floquil paints. I installed clear acetate sheet for windows, and installed an LED for lighting in the bunkhouse. At the end of the day, I was pleased with the outcome. Quite the challenge! Good to clear them off of the workbench! And they do look great on the layout!

RICHARD CARNEGIE (Qualicum Beach, BC)



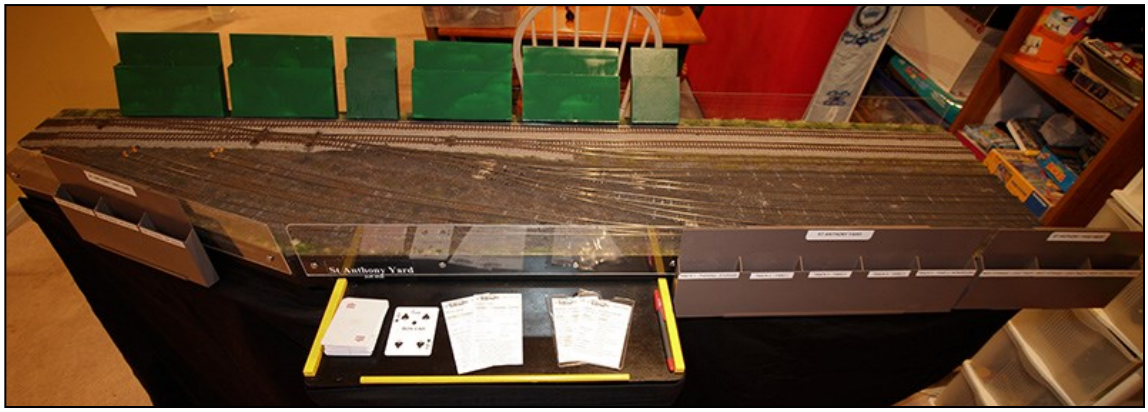
Here is a brief account of one of my scratch-building projects that nearly didn't get finished! CP's Jordan Spreader (402818) was a fixture outside the Museum of Science and Technology in Ottawa in the 1970's. I was a volunteer in the Saturday morning crew that greased and polished steam engines on display. After looking at the spreader many times, I decided to scratchbuild this interesting piece of maintenance equipment, but family life happened and the partially built spreader sat in a box for over 40 years.

The recent effort to complete it was largely due to the availability of 3D printing of special parts in plastic. I designed five key parts on line and had them printed. They are unpainted in the second photo. (long strut, two part hinges, stack, floodlight covers).



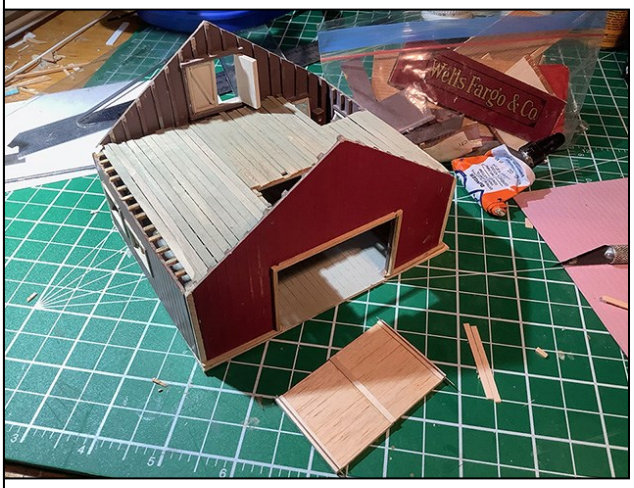
JEFF HILL (Ottawa, ON)

Most of my time the past few months has been spent developing operations tools for two modular groups. Across the front of the east ladder portion of my St Anthony Yard module are three car card holders I built from styrene this past summer to support operations with the Ottawa Valley HOTRAK club. I'm building the 6 green ones in back for another HOTRAK member. Also, some of the operations tools I'm developing for the Dirty Thirty On30 Modular Gang are spread out one of the bolt-on shelves constructed for the yard this past summer, which provide handy working surfaces for paperwork.

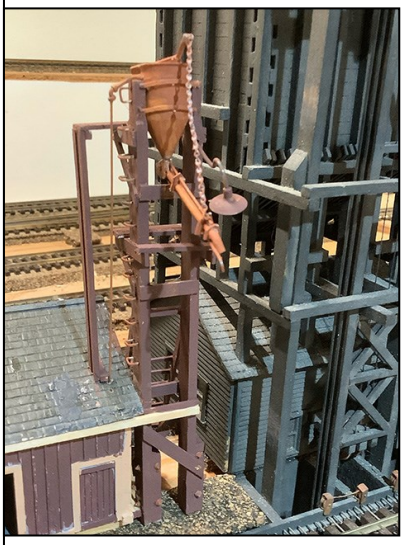


PETER HALL (Kenora, ON)

I've been repairing and finally completing mostly Campbell Structures that have sat on a shelf or been damaged from successive moves over the years. Many I started when I was 18 or 19 and at 68 figure it's time to finish them all. So, off the shelf and onto the workbench!



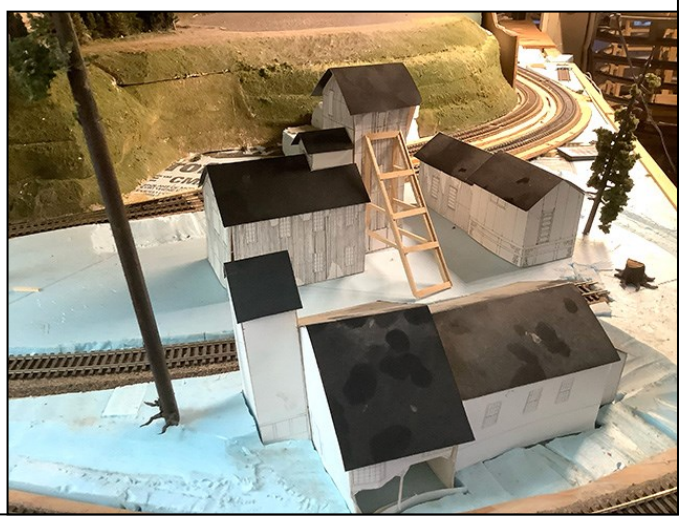
The **photo on the left** is a Suydam Wells Fargo barn which has languished the longest and is my newest repair. New attic floor, building back doors to match the originals I scratch built in the 70s. (The previous ones disappeared long ago.) Doors and windows open and the hinges are carved basswood inserted into holes drilled with an old needle. The phosphor bronze wire is a new upgrade for hinges. The roof will be metal sheeting over the original pink coloured Suydam roofing, which is next.



The **two photos to the right** are a scratch built water tower. I couldn't afford the kit back then, now I own two! (Unbuilt as yet) I enclosed it with basswood sheets as the exposed balsa legs had pretty much disintegrated over the years. There's a disc of styrene inside the tank to imitate the water level, walls painted different tones of grey to give an illusion of depth.

Another project was to finally build the sand tower for the Campbell Sand facility. See the **photos on the left and bottom left.** The build was just too complicated at the time for me for some reason. In any case when I tackled it I ended up scratch building a new styrene delivery tube as it was too brittle to drill for the "actuator" wires.

Once the stable is done I'm tackling a new build The Right of Way Mine in Porcupine. I've drawn plans and built a mock-up. Fortunately I also ordered the Campbell metal sheathing before they went out of business! I worked out dimensions with the Google Maps measuring tool, so things are pretty close to scale, at least the footprint is! As you can see from the **photo bottom right**, the dust on the roof shows it's been sitting there for a while! I plan on sending the blueprints and build sequence pictures for this publication once it's completed. Hopefully it's not another 50 years! Note: The brown area on the ridge behind is where our cat chills out, so it won't ever have more scenery other than cat fur "grass".



Suitcase to Tabletop

By Tom Hakala

Our group is called Bluewater Modellers we have built a number of dioramas for museums around the Grey Bruce region over the past 10 years. The last project we did was an operating N scale portable layout for the Community Waterfront Heritage Centre or Marine & Rail Museum of Owen Sound. The project started around five years ago when the director of the museum asked us if we could build a “Suitcase” layout to take to schools and seniors residences to demonstrate how the local railways operated.

The museum is housed in the former CNR station on the west side of Owen Sound , so we felt that would be a good starting point for building the layout. We decided to model the layout as the west harbor area looked in the 1950s.
We did modify and condense some areas and we designed the track so we could demonstrate switching in the foreground or run trains in a loop when nobody is operating it.

Our group is made up of five retired modeling and rail and ship enthusiasts including, Clive Morgan, Brian Swanton, Stan McClellan, Mike Marshall and Tom Hakala. Clive created a CAD drawing of the proposed layout and we soon realized that the suitcase idea was not practical . We enlarged the layout to 60” x 28” so it could fit through most doorways and we added handles on each end to carry it.

With the new concept, Clive did final drawings and Brian built the layout base. Tom, Stan and Mike constructed buildings that were located on the west harbor around the railway operations. Stan and Mike also built boats to go along the harbor wall.

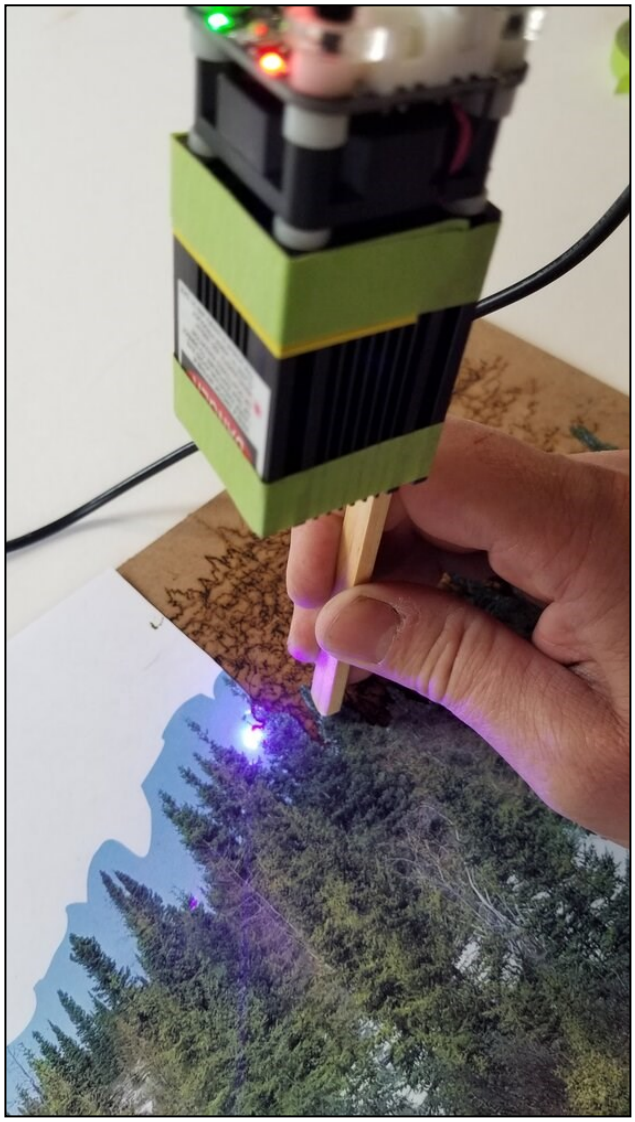
For a backdrop Tom took photos of individual homes that are situated along the street behind our layout. He also found photos from the old Kennedy factory online . He stitched the images together in Photoshop to create a panorama background.

The production was delayed by COVID but was finally finished in 2022 and brought to the museum. Since then we have added a push button system so museum visitors can operate the trains themselves.

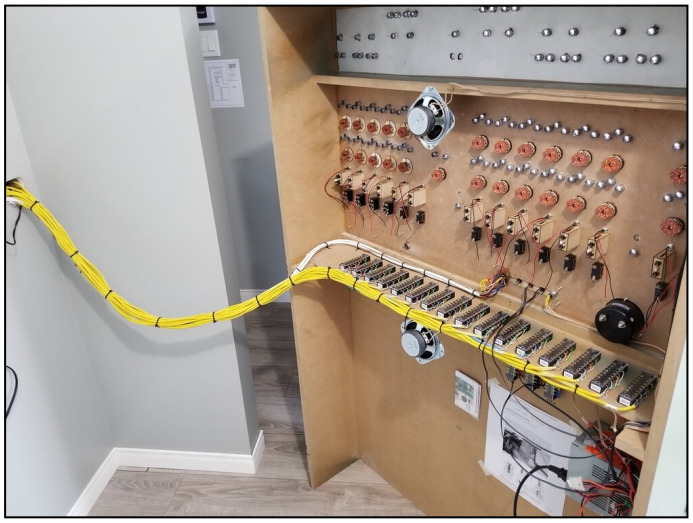
Living large In O Scale 2-Rail
The Canadian National Railways Sanmore Subdivision
PART 2: Electronics, signalling, scenery & Operations
Article & Photos by Serge Lebel

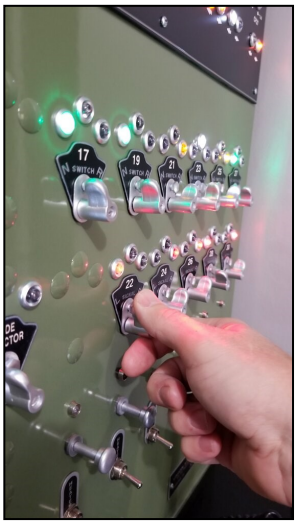
EDITORS NOTE: PART 1 of the Canadian National Sanmore Subdivision can be found in the Fall 2023 Issue.

My backdrops are made from 1/8" hardboard (52 3'x8' sheets laid on the long side) which I painted and added home made photo backdrops. The backdrops are just photos I took with my phone, printed on 11"x17" sheets of paper and cut with a freehand laser tool I made (see my tutorial video on Youtube "Serge Lebel CN Sanmore Subdivision episode no.8) and pasted in place with Modpodge. (**See photos above and left)** Very cheap and easy, and it looks better than anything I could have painted using artists' paints and brushes.

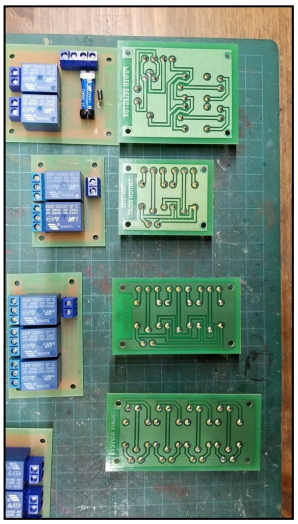


I am very lucky to have the opportunity to see railroad operations from the inside. Because of my job, I get to learn all the rules, operating instructions, and handling of long trains in real life, and this is just the experience I needed in order to design a layout that would operate like the prototype. I model the Canadian National Railway in the current era, but decided to freelance my own subdivisions to allow me to incorporate some of the operational components I see on the QNS&L. One such component is the signaling. In today's technology, CTC control is all done via computers. But on my layout, I wanted to have the good old CTC machine **(See photo right)** with all the mechanical parts, bells and lights that offers more "hands-on" pleasure, so I had no choice but to scratchbuild that too. The CTC machine was built in my shop using fiberboard, which I painted with an automotive basecoat/clearcoat





process for that metal look. I used knobs and plates from Rix Products and the rest of the plates I made in my studio. **(See photos above)**



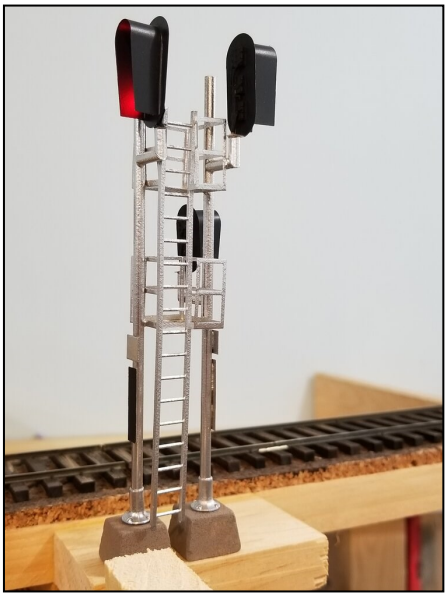
On the layout, since I am using DCC for track power, I designed some PC boards to hold all the relays I needed to build the signal logic. After etching my own boards to test the circuits, I sent my drawings to a service provider to have the pc boards etched. **(See photo left)**

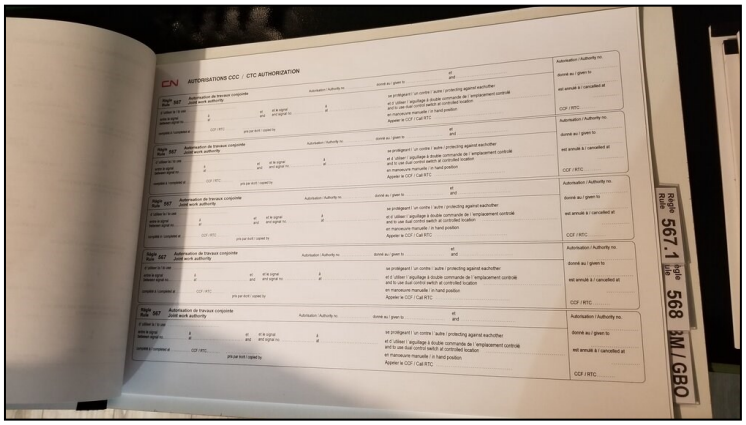
In my shop, I made some relay cabinets out of wood and Masonite. **(See photo bottom left)** Each controlled location has it's own signal bungalow incorporated in the fascia, **(See photo bottom centre)** as well as the turnout controls in the instances where it is instructed by the dispatcher to take the turnout in manual mode. These have "official railway switch locks" which all use the same key (14 in total on the layout) so my operators have their own switch key assigned to them. **(See photo bottom right)**

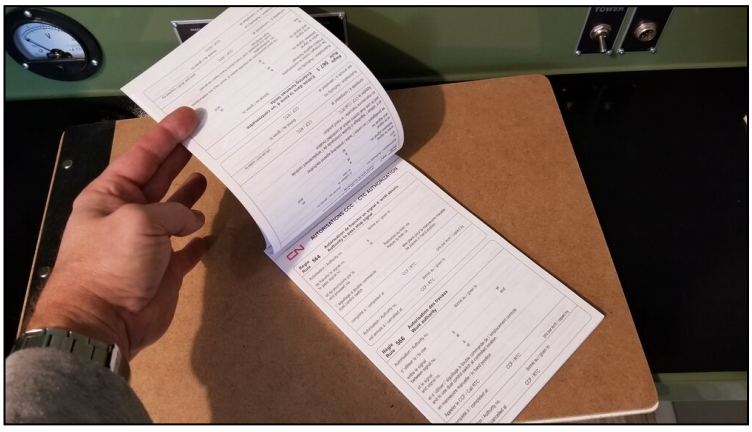
I have been an N scale signal manufacturer since 2001, producing operating brass custom signals and various laser cut structures, so it was normal that I would design and build my own O scale signals for this layout. All these signals are based on actual prototype used here on the QNS&L. I don't know, or care if CN ever had these, but they look good on the layout and make my operations that much more realistic! **(See photos next page)**

All these signals are scratchbuilt out of brass. Building an entire detection and signaling system was a big task that took me well over a year to complete, but I can now have more realistic operations. I even made my own rule book, timetable and operating instructions, as well as all the pads for the written forms and the dispatcher's log, so operators who want to live the full immersive railroad experience can have a proper training and operating session! **(See photos next page)**

While we are on the subject of being realistic. I know many of you will look at my CN locomotives and have the hairs on the back of your neck stand up. I know none of them are accurate models and the road numbers just don't make any sense. Please understand that in O scale 2-rail, there is not a very large selection of models available in plastic, so I have to use whatever is out there. Because this is an operating layout, I don't want to spend years converting locomotives into accurate models, nor do I see any value in buying expensive brass models for this purpose. Same goes for my rolling stock.

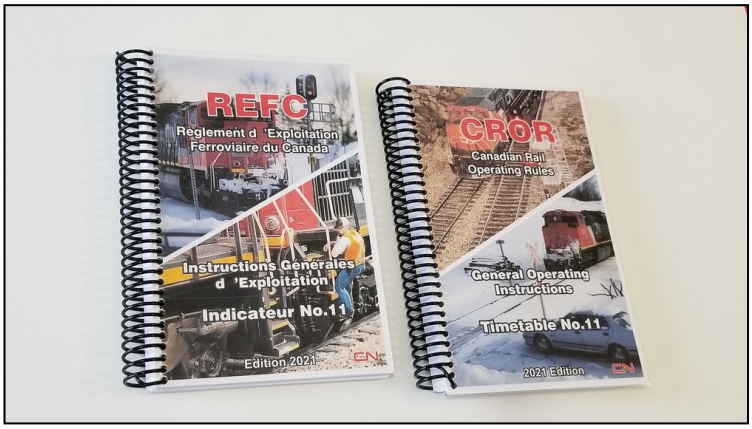






So for my own needs, I try to modify the plastic locomotives just enough to give them that Canadian prototype feel, and I paint and weather the heck out of them.

At the time of writing this article, I am now 7 years into the construction of the layout. Track is 98% completed, signaling/CTC is 100% functionnal, and the scenic hardshell base is done all around the layout. I am now at the point where I can focus on one section of the layout at a time and finish it. My goal is to have the layout almost finished by the time I retire from the



railroad in 9 years. By then, I am hoping to just host operating sessions and build custom models for others.

Scenery is sort of a new thing for me. I say that because the last time I did scenery was over 20 years ago on my last N scale layout. Products and techniques have changed so much since! We are far passed the good old foliage clumps and wirebrush trees!! I just recently started scenery on my layout so I am still very much in the learning phase, but I have a good feeling it will be more than okay. After all, I just need a basic stage on which to run the trains. But if it looks good, that will make it that much more enjoyable!

Grand Trunk Western's Delray Tower
A Two Storey Interlocking Tower

By George Dutka

One of the newer offerings from ITLA Scale Models Inc. is a two-storey mechanical equipment building which is inspired by the Pelton Tower that once stood in Windsor just west of ex-Conrail/NYC yard. The ITLA kit **(photo 1)** is a smaller structure that will work well in several scenarios which might be industrial or railroad related. Mine has been fashioned to emulate the GTW tower at Delray in the core area of Detroit. It is not an exact match but my version of what I passed by on a regular bases while working the London East to Flat Rock job.

The kit is not a hard build. The corner wall joints are dovetailed and line up well requiring minimal cleaning. There were a few gaps at the corner joints which I fixed by running some canopy glue down the seams. I just added the glue to my finger and ran it along the areas requiring a fill.

I normally assemble most of my kits first than paint them, but for this one I painted all the detail parts before removing them from the sheeting. **(photo 2)** This was done with AK dark rust deposits followed by AK rust streaks. The windows are painted MIG Rail Center white. I saw a view

of the Pelton tower when it was coming down. It had a copper patina roof. This I did using Dollar Tree deep turquoise acrylic followed by a coating of Bragdon dark rust and PanPastel raw umber shade.

Once the walls are assembled, I painted the structure Tru-Color matte dark red brick then matte RR tie brown while still wet. These are spray can colour that Tru-Color offer. All concrete is done with Anita's acrylic rainy-day grey. I randomly applied Roberts Brick Mortar Formula; **(photo 3)** I did not want all the mortar to be colored. This was followed by a light coat of PanPastel raw umber shade.

I felt the brickwork looked too uniform so I dry brushed in some areas using MIG Rail Center dark grey, changing the brick coloring in small brick groups. **(photo 4)** AK

slimy grime dark is applied as a wash along the lower edges of the brick walls. The structure now looks like it has been around a long time.

Staircase, Ladder and Downspout

The kit did not come with a downspout. The structure has a flat roof and one would be required to funnel the water

down. I added one made from stripwood on the rear wall. A small rainwater collector is made from the same wood and attached on the roofs corner.

The ladder went together well and was rusted up with AK rust steaks and Bragdon dark and light rust powders. The staircase was a bit of a chore. I began by trying to build it as a separate section but with so many small steps and flimsy sides I decided to glue the step rail to the wall add the deck platform and outside railing. I then just glued the steps in-between. Being attached to the wall made the step rails more secure and easy to handle. There are also two braces under the stairs which also help support it. **(photo 5)**

Signs and Details (photo's 6, 7,8)

I used copies of the original Delray signs found in a GTW book that were the right size. There were two styles of signs on this structure. All four walls got one of the two styles of signs. On the front wall I also added a large GTW herald made by photocopying a decal set. Many of the GTW building had larger heralds attached at times. I also added a GT noodle sign on one end which is made from a GTW engines front end logo. Other signs are from my sheets of signs that I save and copy. The kit comes with some nice color signs if required.

I added some trash to the roof of the structure adding extra interest along with an antenna which would have been used at one time for two-way radio operations. It is a FOS detail. A milk crate added on the top of the stair landing is 3-D printed by Dave's Decals. A Tichy barrel is added under the stairway. Some boards and newspapers are also scattered around.

I glued a bit of scenery along the bottom edges of the brickwork so the model looks finished when dropped into a scene. This was done with flock and turf grass green coarse from Scenic Express, Mini Natur blossoms and Martin Welberg medium green weeds.

My New Tower (photo 9 and rear cover)

I really like how the tower turned out. It was not all that hard to construct with paint and stains covering well on the laser cut wood. Although the size is smaller than what one would expect from a tower it fits in nicely as one can see in the scene I set up with a building flat plus equipment. My tower will be included in a yard scene that I am modeling as a diorama.

PHOTO ABOVE: Central Vermont Alco Switcher #8027 on a caboose hop through Waterbury on the Green Mountain Division layout of Don Janes.

PHOTO BELOW: George Dutka has set up a scene for Delray Tower which reveals its true size. The tower appears to fit in well with the rolling stock and background structures even though it is undersized.