FLIMZIE

The Newsletter of the Rock River Valley Division Midwest Region, National Model Railroad Association



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The Rock River Valley Division, RRVD, is a local division of the Midwest Region of the National Model Railroad Association, NMRA. The RRVD serves NMRA members in areas of Green and Rock Counties of Wisconsin, and Boone, Jo Davies, Lee, Ogle, Stephenson, Whiteside, Carol, DeKalb and Winnebago counties in Illinois. The RRVD holds monthly meets typically the first Sunday afternoon of each month, September through May, in Rockford at the at YMCA formally The Lutheran Church of the Good Shepherd, 1829 North Rockton Avenue, Rockford, IL. They consist of various clinics on model railroading, model contests, drawings for door prizes for NMRA members. All are welcome. The meets start at 1:00 PM, and the doors open at 12:30 PM.

2023 BoD & Chairman Directory

Please use the following address to contact the RRVD organization or any of the following officers:

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Ken Mosny 815 / 965-4871 asstsuperintendent@rrvd-nmra.com

Office Vacancies

Division Publicity Chairman. This person would be responsible for contacting organizations (newspapers, local ad flyers, TV stations public announcements, magazines, etc.) that would publicize our meets, train shows, and other activities. If you are interested in serving in this capacity, contact Marty Hendrickx, 815-978-7326, <u>superintendent@rrvd-nmar.org</u>.

Flimzie Deadlines

The Flimzie is published once per month on the first of the month. It will be placed on the RRVD website for anyone that wants to read it.

The content for the Flimzie comes from you, our readers. Please submit your articles, pictures and editorial comments to the Editor, Ken Peterson, poplarken53@gmail.com, no later than 10 days before the 1st of the month, i.e., Jan 21, 2022, for a Feb 1st 2023 publication.

From the Editor

By Ken Peterson

Friends of the Flimzie, I need to point out that this publication is for you and by you. All the articles that appear here are written by members of the RRVD. If you don't submit articles for publishing, there is no content. When I took over as the editor, I wanted to change the Flimzie from a quarterly publication to a monthly one. Without articles from you, I may have to switch the Flimzie back to quarterly, or even occasionally, based on when I get content. This will be completely up to you.

Message From the Superintendent

By Marty Hendrickx

Well, as I write this report today is April 1st and no fooling we had a great train show last week in spite of the weather doing everything in its power to derail it. We had snow, sleet, rain, and wind but the people still came out. Our overall attendance was up mainly due to a large turnout of kids as our adult attendance was down slightly. The other good news was we sold out the 42,000 square feet Harlem Field House. Because of this our vendor count and table count exceeded all of our most recent train shows and the additional table sales made up for the slight drop in attendance. The last bit of good news was the show made a profit so we will have enough money to fund all our activities over the next year with a little left over to put in the bank.

I would like to thank everyone who made the show a success. First, all who help setup and take down the tables. This was a big task as we ordered 310 tables! This is the most tables we have ever rented, and we basically took every table Berg, who we rent from, could deliver. Next is the staff at Harlem High School who could not be more accommodating and helpful. Then all the vendors, layouts, museums and historical societies who participated in our show and is the reason all of the attendees came to our show. Lastly, but not least, all the folks who help promoted our show. We had folks who put out yard signs, handed out flyers and posted the show on their social media accounts. We had publicity on *The Morning Blend* on channel 23 and *My Stateline* channel 39 on the Wednesday before the show. We also had Facebook ads and print ads around town. All this effort got the people to come out in spite of the weather conspiring against us. We are already thinking about next year's show and hope to be announcing the 2024 date by early summer.

Next month we are hosting our fellow model railroaders in the South-Central Wisconsin Division from Madison at our joint meet. We are having the meet at the Paulson Agricultural Museum in Argyle, which also contains the KD Line club layout. The museum has a wide range of antique farm equipment and other interesting artifacts. The weather should be nice and hopefully you will be able to explore some of the other items outside of the main building. After the meet we will be visiting Gene Wheeler's CNW Sterling Sub and Harold Hereen's TP&W in Peoria, IL.

Bert Morris has been working on our June Junket and this year we will be going to the Illinois Railway Museum on June 3rd. June 4th is the rain day as the museum is an outdoor museum. This is a special event day as it is Railway Post Office Day. They will have railway post offices open for inspection and will have mail transfers from moving trains. RRVD will be sponsoring this event so we will be paying the admission fee for all members who attend. Spouses, significant others and guest you bring along will be at your expense, but they will get in on the reduced group rate. You must attend on this date to get in free.

We will also be having our RRVD potluck picnic in August but the exact date has not been set yet. This event is open to ALL members and we would sincerely like for as many members to attend as possible. We will be providing the grill meat and beverages with the exception of adult beverages which will be at the member's discretion. Everyone who comes is asked to bring either a main dish or desert. We will be announcing the date for this event at the next meet in May.

Well, that's it for now. I hope to see as many of you at our upcoming events as possible.

The Layout Design Column By Ken Peterson

If you attended the RRVD Show and Sale on March 25 or 26, you noticed that I brought my **Beer Line** layout instead of the **Portage and Westfield** layout that I recently described here. I wasn't able to complete the **Portage and Westfield RR** in time for the show. As you all know, life sometimes gets in the way of plans and disrupts them. The **Beer Line** layout was built in 2020 for the show that year. Then Covid hit, and the show was cancelled. Since no one had seen that layout, I took it to this year's show instead. It was a great success. Many people stopped by to view it and ask questions about the construction methods, the history of the Beer Line, the building and weathering techniques I used and its operations. The layout achieved one of

my goals for it. It opened the door for me to talk with many modelers that don't have a layout "because they don't have enough space". They left thinking that they could fit a small shelf layout like the Beer Line into their living space. They could have a small switching layout to enjoy until the day comes when they have the "large" space for a basement filler.

Now that the Show is past, I can regroup, and take my time to finish and detail the Portage and Westfield layout and get it ready for next year's Show.

The April meet of the RRVD-NMRA was held April 2. At that meet we did a round-robin style clinic. Four of us presented a clinic four times to four different groups. I presented a summary of road construction techniques I have used over the years. Ken Mosny presented a DIY Keep Alive Primer. For those who didn't make it, you can read a summary of his clinic in this Flimzie.

Road Construction Methods And Materials

By Ken Peterson

The following is a summary of methods and materials I have used to make roads on the various layouts I have built. I presented this at the latest RRVD meet. There are six methods I will name after the base material of the road. They are: soft white foam (1/8" thk), soft black foam (1/16"thk), concrete patching compound, vinyl spackling, styrene, and sifted limestone road fines. Except for the sifted limestone road fines, all methods can create similar looking roads.

The base materials:

- Soft white foam (1/8" thk) was purchased at Hobby Lobby
- Soft black foam (1/16" thk) was purchased at Hobby Lobby
- Styrene (I use styrene "For Sale" signs from a big box hardware store. They are cheap compared to styrene sheets bought at Hobby Land or Hobby Lobby)

• Concrete patching compound was purchased at Menards in a onepint plastic container.



• Vinyl spackling was purchased at Menards in a half gallon plastic container.



 Limestone road fines were scraped up from a country road at the end of a driveway. They had been washed down a driveway out onto the road after a hard rain. I scraped them off the road and ran them through several different screens and sieves until I only had a fine granular/dusty material left.



Sifted limestone fines

The paints:

- Black chalkboard spray paint was purchased at Hobby Lobby.
- Grey spray primer was purchased at Menards.
- Acrylic craft paints can be purchased at Hobby Lobby, Walmart, Michaels, etc. Pick light grey, dark grey, concrete, pavement, asphalt, etc. Whatever suits your eye.

Weathering chalks:

Pan Pastels, greys, white, tan, browns, etc. (I think any brand will work)

Forms:

- Balsa wood strips, 1/16" x 1/8"
- Styrene strips, 1/6" x 1/8"

Construction methods:

Soft white foam (concrete roads):

- The soft white foam comes in rolls. Make a paper or cardboard pattern of the road from the site on the layout. Transfer that to the soft white foam. Cut the road out of the foam using scissors. Lay it out on a surface you can spray paint on.
- Spray paint it with grey primer spray paint and let dry overnight.
- Next. I use weathering chalks to color the primed road to look like weathered concrete.
- Layout expansion joints on the surface lightly with a pencil. Use a ruler to carefully measure the spacings. Then go back and cut them in place with a #11 Exacto knife. Make the first cut shallow. Then turn the blade over and pass through the first cut wobbling the blade slightly to make the expansion joint wider.
- Add cracks in the road using the same knife techniques. Few cracks look better than too many cracks. This is a judgement call.
- Blacken the expansion joints and cracks with a #2 or softer lead pencil by tracing the cut marks.
- Prepare the surface on the layout where the road piece will be glued in place. Make it as smooth, dry and dust free as possible. Glue the road piece in place on the layout. Use the glue of your choice. I use Elmer's Glue-All. Weight it down as required to make firm contact with the surface. Let it dry overnight.
- Using painter's tape, cover the edges of the road. Add the limestone shoulder material. Wet it down with alcohol and the dilute white glue. Let it dry overnight. Then remove the tape.
- If you want to add colored striping to the road, do it now. There are several different methods. Decals and I do not get along at all, so my method is paint pens or tape and paint. The tape and paint method involves taping two strips of tape the width of the stripe apart on the road. Then using a sponge, dab lightly yellow or white paint on the stripe. Do not apply the paint too heavily. Road stripes only look solid and bright the day the county paints them.
- Using a small sponge or soft brush and apply lightly the weathering chalks to the road.



Soft white foam-concrete

Soft black foam (asphalt roads): Note, you can use soft white foam for asphalt roads also.

- The soft black foam sheets come in 12" x 18" sheets. Make a paper or cardboard pattern of the road from the site on the layout. Transfer that to the soft black foam. Cut the road out using scissors. Lay it out on a surface you can spray paint on.
- Spray paint it with blackboard chalk spray paint and let dry overnight.
- Choose the age of the asphalt road you want to model. New asphalt is very dark, and aged asphalt is various shades of light grey. For new asphalt, use black and dark grey weathering chalks to slightly lighten the black painted surface. For older, asphalt, use dark or light grey acrylic craft paint to lighten the road color. Use a sponge to dab it on lightly. Let the color to be uneven as real roads are. You can also use lighter grey weathering chalks to achieve the color of the road without painting.



Soft black foam-asphalt with patched hole



Soft black foam-concrete road



Soft black foam-new asphalt



Soft black foam-asphalt with chuck hole

Concrete patching compound (asphalt roads):

- Layout and draw the road on your layout surface. Using the balsa wood or styrene strips create forms along the edge of the road. You can also use layers of tape built up to the thickness of the road.
- Wet the surface of the road base. Apply a skim coat of concrete patching compound with a spreader that is wider than the spacing of the forms. Work the spreader back and forth as you are pulling it down the forms like you are striking off a concrete full size concrete pad. The purpose is to draw any bubbles out and bring the water to the surface. Repeat this to achieve a smooth surface. Dipping the spreader in water helps to get a smoother surface. Let it dry overnight. Remove the forms.
- Spray paint it with blackboard chalk spray paint and let dry overnight.
- Choose the age of the asphalt road you want to model. New asphalt is very dark, and aged asphalt is various shades of light grey. For new asphalt, use black and dark grey weathering chalks to slightly lighten the black painted surface. For older, asphalt, use dark or light grey acrylic craft paint to lighten the road color. Use a sponge to dab it on lightly. Let the color to be uneven as real roads are. You can also use lighter grey weathering chalks to achieve the color of the road without painting.



Concrete patching compound

Vinyl spackling (asphalt roads):

- Layout and draw the road on your layout surface. Using the balsa wood or styrene strips create forms along the edge of the road. You can also use layers of tape built up to the thickness of the road. Wet the surface of the road. Apply a skim coat of vinyl patching compound with a spreader that is wider than the spacing of the forms. Work the spreader back and forth as you are pulling it down the forms like you are striking off a concrete full size concrete pad. The purpose is to draw any bubbles out and bring the water to the surface. Repeat this to achieve a smooth surface. Sometimes dipping the spreader in water helps to achieve a smoother surface. Let it dry overnight. Remove the forms.
- Spray paint it with blackboard chalk spray paint and let dry overnight.
- Choose the age of the asphalt road you want to model. New asphalt is very dark, and aged asphalt is various shades of light grey. For new asphalt, use black and dark grey weathering chalks to slightly lighten the black painted surface. For older, asphalt, use dark or light grey acrylic craft paint to lighten the road color. Use a sponge to dab it on lightly. Let the color to be uneven as real roads are. You can also use lighter grey

weathering chalks to achieve the color of the road without painting.



Vinyl patching compound

Styrene (concrete roads):

- The styrene comes in sheets of different sizes. Choose the size and thickness that best fits the roads you are creating. Make a paper or cardboard pattern of the road from the site on the layout. Transfer that to the styrene sheet. Cut the road out using scissors. Lay it out on a surface you can spray paint on.
- Spray it with the primer grey spray paint. Let it dry overnight.
- Prepare the surface on the layout where the road piece will be glued in place. Make it as smooth, dry and dust free as possible. Glue the road piece in place on the layout. Use the glue of your choice. I use Elmer's Glue-All. Weight it down as required to make firm contact with the surface. Let it dry overnight.
- Using painter's tape, cover the edges of the road. Add the limestone shoulder material. Wet it down with alcohol and the dilute white glue. Let it dry overnight. Then remove the tape.
- Layout expansion joints on the surface lightly with a pencil. Use a ruler to carefully measure the spacings. Then go back and cut them in place with a #11 Exacto knife. Make the first cut shallow. Then turn the blade over and drag the back of the blade through

the first cut to make the expansion joint wider. Repeat this procedure to create cracks in the concrete.

• Use a dilute ink wash to accent the expansion joints. You can also use a soft lead pencil to trace the expansion joints or cracks.



Styrene

Sifted limestone road fines:

- Layout and draw the road on your layout surface. Smooth the surface of the road area.
- Using the balsa wood or styrene strips create forms along the edge of the road. You can also use layers of tape built up to the thickness of the road. Wet the surface of the road.
- Apply sifted limestone road fines between the forms and level the fines with a spreader that is wider than the spacing of the forms. Work the spreader back and forth as you are pulling it down the forms. Add more fines to fill in any low spots. Repeat this to achieve a smooth surface.
- With a fine mist type sprayer, carefully spray alcohol on the limestone fines. Apply and saturate the fines with dilute glue. Add a very light dusting of fines over the wet fines. Let it dry overnight. Remove the forms.



Sifted limestone fines

What Are Friends For? Chapter 14

Gary D. Loiselle

I apologize for leaving Chapter 13 seemingly unfinished. I debated whether to go on and on, or divide things up and be able to add more to the story. Besides, now our editor has material for one more edition of the Flimzie. WAFF?

I began Chapter 13 by explaining that our friend Larry Cich came to me with an idea to create a diorama to display the SOO Line's potato car. The car was to be the focus of the SOO Line Historical Technical Society Convention in Duluth, MN in 2016. After competing what I thought was what Larry had in mind, **(Photo 1)** he clarified that he was thinking of car loading, not unloading. Options include scrapping what was done or adding on.

Add-on it is. (**Photo 2**) Same length but only nine inches wide. The background scenery was no problem. Painted back board, and commercial scenery that I was waiting to use somewhere (**Photo 3,4**) I wanted to

include an engine and cars with limited space was a little more challenging. Just by chance, my SOO locomotive and potato cars are about 6 inches long, most photos now are 4 x 6, wah lah....close up shots of my engine and cars, printed and copied on paper, and trimmed to fit.

The truck scale is the deck portion of a bridge kit that was waiting in my scrap box. The tapered approach and off-ramp to the "scale" are cut from the ends of wood shims. (**Photo 5**) The concrete barriers are commercial. The sign on the approach to the scale is a detail I thought would be interesting detail appropriate for a Wisconsin location. (**Photo 6**) The loads of "potatoes" in the trucks are a combination of CHIA seed that is in the spice aisle at the grocery store and Painter's Touch Nutmeg colored spray paint from Menard's. (**Photo 7,8**) I also must confess that I have accumulated a fair-sized inventory of "stuff" for doing scenery. (**Photo 9**) How about you?

I must say this project is a fine example of the phrase "MODEL RAILROADING IS FUN". An unexpected, but, much appreciated surprise, as a result of Larry's idea and my efforts, I was awarded first place in the popular vote contest. WAFF, Gary.



Photo 1



Photo 2



Photo 3



Photo 4

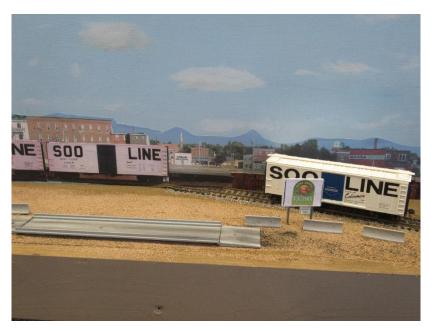


Photo 5



Photo 6



Photo 8





Photo 9

Photo 7

A DIY Keep Alive Primer:

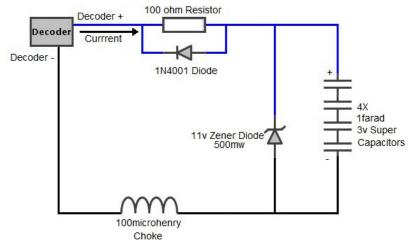
A Practical Lost Cost Keep Alive for a Small HO Locomotive

By Ken Mosny

Keep alives are only possible because of the innovation of super capacitors. Ordinary capacitors have values measured in micro (μ) farads (f) which are millionths of a farad. This is because the farad is numerically an extremely large electrical unit. A 330 μ f capacitor, a large common size, is 330 millionths of a farad or 0.00033f. Most super capacitor values start at one farad, so they can have have thousands of times or more electrical capacity than ordinary capacitors. You would need 450 330 μ f ordinary capacitors to replace the four super capacitors in the tender of my 0-6-0.

The keep alive is connected to the decoder circuit positive and negative which are not the red and black wires that go to the rails. The decoder positive is usually the blue wire common to the lights. The negative will have to be found on the circuit board if the manufacturer doesn't have a wire for it, or it may be a solder pad on the board. There are no general standards for these connection points so you will have to research them. Many new decoders have wires, sockets or solder pads noted in the instructions. For the Digitrax SDXH166D sound decoder, the purple wire from the sound plug is the decoder positive, and the green wire from the sound plug is the decoder negative. I found that out by sleuthing on the internet and confirming with a volt meter. Digitrax does not tell you that. These wires are at about constant 13.5-14.0 VDC potential when connected to my HO Zephyr command station. The black sound capacitor on the SDXH166D decoder can be removed since it won't be needed when connecting a keep alive.

The drawing shows a schematic of the keep alive I designed. It is a standard approach for one as simple as they get. The four capacitors are connected

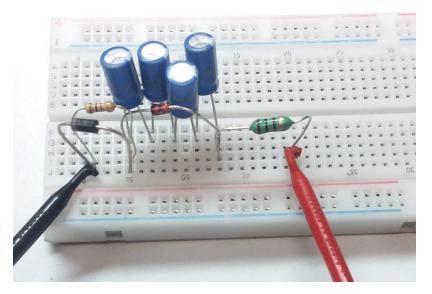


positive lead to negative lead in what is called a series connection. This makes the voltage rating of the array additive, so the total rating is 4×3 or 12 volts, but the total capacitance is now $1 \div 4$ or 0.25 farads. Most circuits use five or six capacitors for a higher voltage rating and some add biasing resistors for added capacitor protection, but I determined that 11 volts was good enough for this locomotive. Probing the test circuit with a voltmeter convinced me that biasing resistors were not needed to protect the capacitors from over voltage.

Working from the decoder positive at the top of the diagram and down, the capacitors are charged at power on by positive current flowing to the diode and 100Ω resistor from the decoder. Since the diode blocks the flowing current, the current is forced to branch through the resistor next to it. Next the current comes to the junction of the zener diode and the four 1f capacitors. Again, the zener diode also diode blocks the current and the current is forced to branch to the capacitors. The capacitors take time to charge because the 100Ω resistor limits the current. Mine take 15 seconds or so to charge. As they charge, the voltage at the junction with the zener diode begins to conduct current and the voltage remains steady at 11 volts with the capacitors now fully charged. The purpose of the zener diode is to prevent the voltage from exceeding the 12 volt rating of the capacitor array. The circuit will remain in this steady state of charge until the power is interrupted.

When the power is interrupted, say by dirty rail or an isolated frog, current stored in the capacitors now flows back to the positive decoder wire. When it meets the resistor and diode in parallel, the current prefers to branch through the diode in the direction of its arrow symbol because the diode in the

reverse direction has lower resistance than the resistor. As the current flows back into the positive decoder wire, it keeps the motor and sound running until power is restored. If the power stays off, eventually the charge in the capacitors will drop too much. If the voltage in the capacitors drops below about 9 volts, the sound will shut down and the locomotive will visibly slow down. Why are there four capacitors instead of one? Supercaps cannot be charged over their rated voltage of three volts. They also need to have low internal resistance on the order of 200-300m Ω . In order to achieve the minimum 11 volts needed, four three-volt capacitors must be stacked in series for a combined 12 volts but only 0.25f capacity.



Breadboard Keep Alive



Installed Keep Alive