



*The newsletter of the Central Indiana Division of the
Midwest Region, National Model Railroad Association.*



Volume 56 – Issue 2 Spring 2026

The Avon Library Train Display Continues to Grow

See the Story on Page 18



The CID's free library displays introduce the patrons to model railroading, many of whom might be less likely to attend a traditional train show.

Elections for All Officers and 3 Trainmasters!

Read the about the candidates on page 10. You will receive your ballot via email.
DON'T FORGET TO VOTE!

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NMRA Achievement Program

The CID congratulates the following members of the division for being awarded AP Honors.

Nothing to report this Quarter



Need Some Help?



Back Shop

The CID has members with the experience to help solve your modeling problems and are willing to help ALL modelers, whether you are a member of the NMRA or not. We believe that we can help and be of service to you. With your problems solved, you can better enjoy the hobby of model railroading.

Contact: cidnmra@comcast.net

Notices of club open houses, or other non-CID shows & events will be included in the **Extra Board** first come, first served, space permitting.

Send your information to the editor at:

cid.rustyspike@gmail.com

CID Board Members

Officers

- Superintendent -

Daniel Banks - Anderson, IN
Phone: (765) 810-3130
wabashbanks@att.net
Clinic Manager
Contest Manager
Social Media Manager
Co-webmaster

- Asst. Superintendent -

Eric Smith - Fishers, IN
eric@askncscom
Phone: (317) 288-1720
Operations Chair

- Paymaster -

Phillip Burnside, MMR® - Avon, IN
5660 Spring hollow Ct.
Avon, IN 46123
Phone: (317) 442-6046
cid.paymaster@gmail.com

- Chief Clerk -

Precilla Roderick - Greenwood, IN
Phone: (317) 833-3556
emt53@sbcglobal.net
Historian

-Past Superintendent -

Dan Hinel, MMR® - Westfield, IN
Phone: (317) 763-1356
danhinel@sbcglobal.net
CID AP Chair
Advertising Committee Chair

Steve Johnson - Noblesville, IN
stevejohns@yahoo.com
Layout Tours Manager

Mark Perron - Indianapolis, IN
Phone: (616) 633-1922
markperron@hotmail.com

Pedro Spicer
spicerp777@gmail.com
Ft. Harrison Library Co- Manager
Advertising Committee Assistant

Connie Coy, MMR® - Avon, IN
csjcoy@gmail.com
Mooreville Library Asst. Mgr.
Modeler's Meet Asst. Mgr.

Trevor Jones - Bloomington, IN
Phone: (317) 625-7626
trejvn@sbcglobal.net
Portable Layout Manager

David Nance - Lebanon, IN
Phone: 765-894-7041
David@nanceplumbing.com
Lebanon Show Manager

Eric Peterson - Carmel, IN
Phone: (317) 947-4829
ericgpet@gamil.com
Ambassador Program Manager
Track Talk Asst. Mgr.
Backshop Manager

Trainmasters

Bill Kennedy - Indianapolis, IN
Phone: (317) 431-4842
kennedywh@gmail.com
Ambassador Program Asst. Mgr.
Track Talk Asst. Mgr.
Ft. Harrison Library Co- Manager
Advertising Committee Assistant

Robert Perry, MMR® - Avon, IN
Phone: (954) 675-2179
rjpod@me.com
Mooreville Library Manager
Avon Library Manager
Modelers Meets Co-manager

Len Pasket
Phone: (317) 332-4499
Len.Pasket@gmail.com

Mark Faust - Westfield, IN
Phone: (814) 880-1101
mark.faust@mac.com
Track Talk Manager
Online Calendar Manager
Co-webmaster

Roger Scoggins - Westfield, IN
Phone: (317) 617-0297
rscoggins55@comcast.net
Layout Tours Asst. Mgr.

Dave Mashino - Kokomo, IN
Phone: (765) 860-1560
dave@mashinos.com
Rusty Spike Editor
Danville Train Show Manager

Managers

Rich Seymour - Muncie, IN
Phone: (765) 759-6856
rseymour@bsu.edu
Co-webmaster

Jim Shellhaas - Zionsville, IN
Phone: (317) 750-4834
jshellha@butler.edu
Carmel Library Display Manager

Michael Roderick - Greenwood, IN
Phone (317) 833-3556
mdrghost@hotmail.com
Membership Manager
Great Train Show Manager

John Coy, MMR® - Avon, IN
Phone: (317) 294-4675
Indycop999@hotmail.com
Avon Library Asst. Manager
Mooreville Library Asst. Mgr.
Layout Tours Asst. Mgr.
Modelers Meets Co-Manager
AP Asst. Manager

Editor/Publisher

Dave Mashino
3423 Woodhaven Trl. - Kokomo, IN 46902
Ph: (765) 860-1560 - cid.rustyspike@gmail.com

Webmasters

Rich Seymour
8504 W. Thorn Tree Rd - Muncie, IN 47304-8701
Ph: 765-759-6856 - rseymour@bsu.edu

Dan Banks
1506 West 4th Street - Anderson, IN
Ph: (765) 810-3130 - wabashbanks@att.net

Mark Faust
Westfield, IN
Phone: (814) 880-1101
mark.faust@mac.com

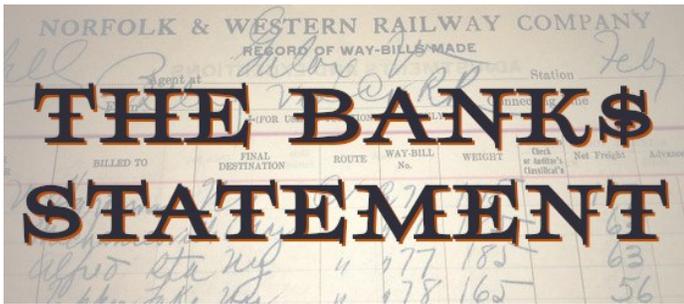
CID web site www.cidnmra.org

Rusty Spike Closing Dates

Volume 56 Issue #3 - June 1, 2026
Volume 56 Issue #4 - September 1, 2026
Volume 57 Issue #1 - December 1, 2027
Volume 57 Issue #2 - March 1, 2027

The **RUSTY SPIKE** is the official publication of the Central Indiana Division, Midwest Region, National Model Railroad Association, and is published quarterly. It is located on the CID website at www.cidnmra.org/ Articles for publication are welcome for the benefit of the readers and the hobby but cannot be paid for. Submit articles for publication to:

Email: cid.rustyspike@gmail.com



In what simultaneously feels like an eternity ago, and at the same time, like yesterday, I wrote my first Bank\$ Report. Today, I write my last. I have thought quite a bit about what I could write in this column. What would be appropriate to leave the CID membership with as my final thoughts as we look forward to a new Superintendent soon.

I would love to say it is always an easy gig, but sometimes it isn't. There have been some challenges that required careful thought and approach. People are passionate and when that is the case, it means friction and hurt feelings if you don't take the time to do the research and hard work of figuring out the best plan. Sometimes that means making hard decisions. That is where the CID board comes in. The board is composed of elected, voting members, and non-elected managers who do not have a vote but are always encouraged to provide input.

Managers are often around for the longer duration. In the past four years I have had some managers resign and I have appointed new managers. We've added several, as new things to manage have come along. Board members have come and gone. Many have moved into manager roles even as they hit term limits for their positions. Some served and then dropped from the board all together. Each of these CID members has put heart and thought into their responsibilities and decisions. Each has been valuable at different times by providing input and insight over the last four years.

Over my two terms some have become invaluable for their approach and insight that they have generously supplied. They provided comments that made me pause and think of things I might have missed. A leader is only as good as his counsel. A wise leader knows what they need support with and seeks out the people who can provide that with excellence.

The list of people providing that wisdom and became a sounding board is a long one. I won't name them by name, but know that if you provided me with help, listening, advice, or just encouragement, you made a difference in the CID. You made a difference to me and your contribution is GREATLY appreciated. The CID board is a great group, and the CID does so well because of them.

The NMRA National Team recently put out a list of things they think divisions should be doing. I am happy to say that the CID is doing very well on that list, but we have work to do, and the board has already begun to take action on that list.

We recently had a proposal for a very large train show. While hosting train shows is on that list, so are a lot of other things. The board thought that the train show didn't contribute more to accomplishing those goals and so decided not to do the show. More in person events will be coming. National wants at least 8 in person events for the year. We get well towards that goal but aren't consistently there. We will be looking at adding shorter duration events, such as a 2-3 hour range, to accommodate tighter time schedules. We will be introducing more of a mix of options

Increasing membership is certainly one of the items. Since November we have added several new members. We offered gift certificates to those signing up at the Danville show. We picked up members in February at the show at the state fairgrounds. We added a couple at the library display shows. We've also been working to promote the NMRA at the college level. Likely the CID will not benefit long term from members as the very nature of college participants is to not stay local after graduating. We have taken the stance that it is an investment in the NMRA membership as a whole. We had announced working with the Purdue club but this month we also began working with the re-formed Rose Hullman club. We have had some great interaction with both groups.

All of this information points to the need to elect a new Superintendent next month. The Superintendent has one vote like any other board member, has the power to set the agenda and call the board to special session when needed, and to conduct business by

executive board between regular board meetings. I don't care for that approach and never used it. I always wanted full board input.

What the Superintendent does have the ability to do a lot of is lead. It's not enough to simply do a lot. In fact, the leadership often directly gets in the way of getting things done yourself. I look forward to rotating out of the position so that I have more time to work on other manager roles I hold which have been more neglected than performed recently.

When you consider your next board, consider carefully who you are voting for because it really does matter. A division this large can provide a lot of challenges and a lot of opportunities. Where there are multiple candidates for the role, Superintendent and Chief Clerk this time, take the time to ask questions about the people running. You want a well meshed board if possible.

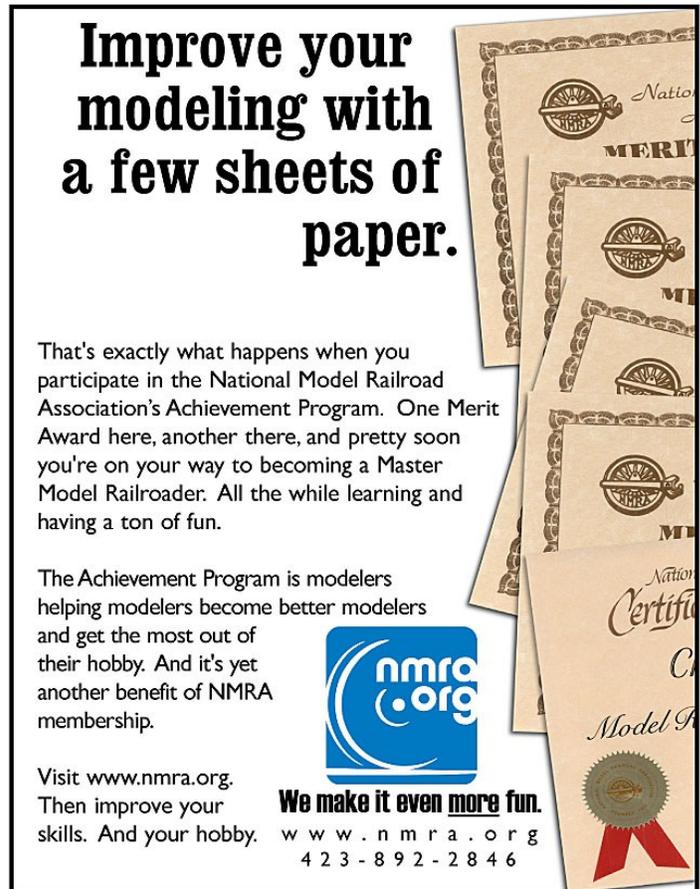
Even more importantly, engage your board and executive team. We will be sending out surveys in the near future. We have done them in the past. They provide a lot of guidance in deciding what the CID does. If you leave it to a small handful or responders, those responders set the priorities and direction of the entire division.

Shortly into my first term I setup a google form. I have posted the link a few times over the years. The form is anonymous. I have no way of finding out who leaves a comment unless they leave a name or email address. In the past four years, one person has used it. They left me a note saying they weren't coming to the Franklin show because it was too far south and too hot. They wanted to see a show more north or west, and better temperature conditions. If that was you, thank you. It seems like a minor comment but just know, I agreed every single time about the heat at the Franklin show. We did things to help improve each time, but I still didn't like the summer heat. It also helped me be mindful of where we do events, trying to keep them spread around. If you want to leave me an outgoing message, a message for the incoming Superintendent, or really, anything for the board, use this link: [Feedback Form](#). I have a thick skin and know I am not great at everything, I don't always get it right, and sometimes I am downright terrible at things.

As I prepare to move aside for the next guy, I become Past Superintendent. I retain a vote on the board and my singular focus is helping the new Superintendent get set up. I will be answering a lot of questions and providing insight and suggestions. Within the year, if I have done everything correctly, I phase myself out of being needed. The new Superintendent will have access to the feedback form. I would encourage you to use it for them as well. You can drop encouraging feedback, new things you think we should do, things we should do better, different, or not at all.

I want to again thank everyone who has served a role in the CID leadership over the past 4 years. It has been an honor to work with and lead you. I deeply appreciate everything you have done for the CID and I look forward to working with returning and new faces. The CID is a great division with a lot of fun and fellowship happening!

Daniel Banks
Central Indiana Division Superintendent



Improve your modeling with a few sheets of paper.

That's exactly what happens when you participate in the National Model Railroad Association's Achievement Program. One Merit Award here, another there, and pretty soon you're on your way to becoming a Master Model Railroader. All the while learning and having a ton of fun.

The Achievement Program is modelers helping modelers become better modelers and get the most out of their hobby. And it's yet another benefit of NMRA membership.

Visit www.nmra.org. Then improve your skills. And your hobby.

We make it even more fun.
www.nmra.org
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Upcoming Events



– Division Schedule –

Fort Ben Library Train Display Saturday April 4, 10 am to 4 pm, Admission is free.
9330 E 56th St, Indianapolis, IN 46216

Modelers Meet / Carmel Clay Library - Saturday, April 11, 2026 from 10 AM - 3 PM

CID Layout Tour - Saturday, April 18, 2026. Four layouts will be open noon to 4pm. Additionally, the Purdue Railroad Club will be open 10am to 5pm. This is a self driving tour, watch your email for more details.

– Extra Board –

Naptown & White River Summer Openhouse and Yard Sale Show - Saturday, June 20th, 2026,
10am-3pm. Free Admission. 1115 McDougal Street, Indianapolis, IN

Vendor Information or inquiries: Naptownmrr@gmail.com or 317-643-0779

On the Saturday of Father's Day Weekend we host an annual Openhouse and Outdoor Yard-Sale type train show at the Clubhouse. This informal event is free to attend and free for Vendors to set up (Please RSVP in advance).

We will be grilling out, and trains will be running.

This space is reserved for non-CID events. If your organization would like to place a notice here for an upcoming event, send your info to:

cid.rustyspike@gmail.com.

The item will be placed here free of charge space permitting.

Are you wondering about upcoming train shows and events in Indiana, Ohio and Michigan? Go to the CID home page under [Train Shows / Master Listing](#) to find a listing of many events that might be of interest. It has new, regular and cancelled events to help you make plans. This list also includes NMRA events. Updated lists will be posted as received or you can go to www.TrainShowList.com

Whistle Stop Dayton MID-CENTRAL REGION CONVENTION

June 4 - 7, 2026
DAYTON, OHIO



**Layout Tours and Op Sessions
Model Contest, Celebration, Displays,
Clinics, Self-Guided Tours, Consignment Sales & Banquet**

**Clinics
Held in
Three
Rooms**

Clinics Morning, Afternoon and Evening
Topics include: Prototype and Models that Followed,
Growing Up with the V & O plus Dayton & Troy Electric Railroad

Model Contests/Celebration:
Models Judged by AP

Company Store: Will be offering Convention Cars

Self-Guided Local Attractions:

Rail Tours, Non-rail Activities, including area Museums and Historical sites

Layout Tours & OP Sessions: Self Guided Friday, Saturday & Sunday

Evening Displays: T-Trak

Consignment Sales: Sell your excess items



Banquet Speake: Otto M. Vondrak

Clinic Topic

**The Impact of Allen McClelland's
Virginia & Ohio**

Banquet Topic:

90 Years of the RMC History



For More Information and Reservations

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Code



Host Hotel - Marriott University of Dayton

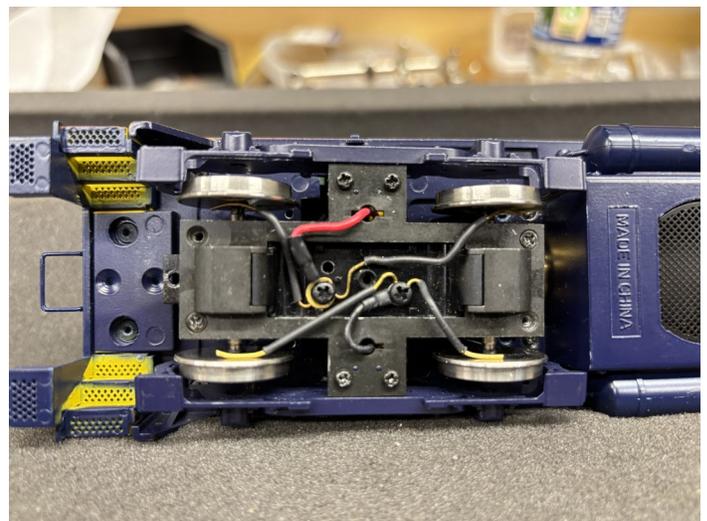
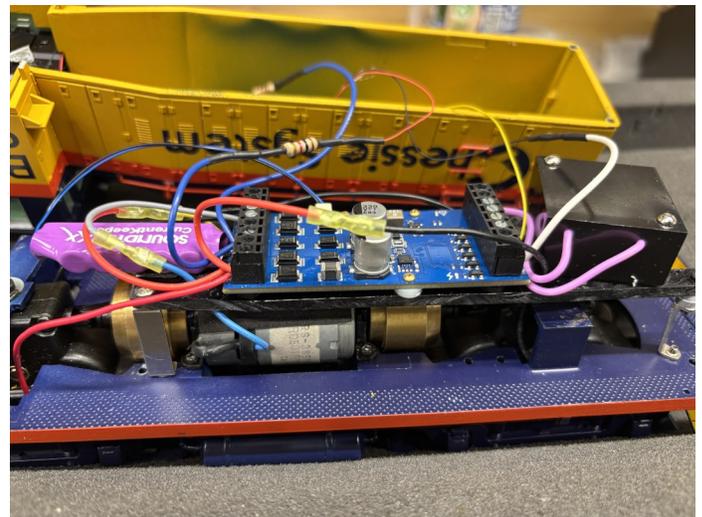
Around the Division

Pictures and stories from our members

Highlighting photos submitted by our members

Please submit your photos with a story or caption to cid.rustyspike@gmail.com

From Eric Peterson: This Atlas SW900 painted for my former employer, Chessie System Railroads, is back together and ready for adding Kadee couplers and completing the TSU-4400 CV setup. I will also remove the pilot steps as they were gone later and add new pilot plates. This is a conversion of a three rail locomotive using NWSL replacement wheel sets. I used wire attached to the plastic truck cover plates as wheel wipers. The speaker is pointed down over the front truck. This is an example of the O Scale advantages when adding DCC to locomotives and other equipment.



Around the Division - Continued



Roger Scroggins shared a nice photo of his Veterans Special taken by Tom Crouch during an op session on Jan 10th. Train is moving north through Linton in early dawn light of Southern Indiana.

Eric Peterson sent us this 1'=12" photo as an update on Avon Yard. CSX yesterday announced it completed the cut-over on a hump lead extension project at its Avon Yard in Indianapolis. The project resulted in more efficient freight movement through the yard and added rail-car handling capacity, CSX officials said in a press release.
Photo – CSX/Vimeo



The guys are busy loading a delivery truck at W.W. Keel & Sons coal trestle on Dave Mashino's Wildcat Valley Railway.

YOUR CANDIDATES ARE:

It is time once again for us to consider who will help to lead the Central Indiana Division. The entire executive team is up for election: Superintendent, Assistant Superintendent, Paymaster, and Chief Clerk. We also need to elect three trainmasters.

For Superintendent: 2 candidates

Michael David Roderick

I am running for Superintendent and if elected as the next Superintendent of the Central Indiana Division, it will be my pleasure and privilege to serve with everyone on the Central Indiana Division Board.

I am fifty-seven (57) year old and have enjoyed trains most of my life. My father & grandfather's collected N-scale and HO-scale trains when I was a child and I have some of their trains today. I currently model in HO scale trains. I enjoy working on my layout at home and enjoy operation sessions and once my layout gets done, I will have some operation session at my home.

I decided to devote my time to Central Indiana Division almost 8 years ago. I am a past Director at Large for the Midwest Region and still serve on the board.

I go to the Indy South Train Show and set up a booth for CID. I have done this for the past 7.5 years. Precilla and I go to several train events and set up a booth for the CID, and I encourage people to join the NMRA. I am also the Great Train Show manager for the CID.

I am currently working toward my NMRA-MMR and have completed 3 of the 7 requirements and I almost have the 4th completed for the MMR.

I would appreciate your vote for me to be the next Superintendent of the Central Indiana Division.

Eric Smith

I've been active within the CID as the assistant superintendent and before that as trainmaster, social media manager, and operations chair. I regularly organize operations events within central Indiana and for neighboring areas. Through my OperatingSessions.com site, I've also worked with regional and national conventions to set up operating sessions

during those events. I've also been the editor of The Dispatcher's Office (publication of the Operations SIG) since October 2017 and served on the board of the OpSIG for six years until I had to step down due to term limitations. I continue to manage the OpSIG's website.

Within the CID, I've suggested in the past that we need to focus on other activities besides just hosting train shows and day-long modeler's meets. With the changes mandated by the NMRA to provide a larger variety of activities during the year, this is the perfect time to add variety to what we do. Social events, spring and fall layout tours, meetings that don't consume an entire Saturday, etc. would all be welcome additions to our calendar. A train show or two is fine, but we shouldn't be spending all our time and volunteer hours on them.

For Assistant Superintendent:

Steve Johnson

My name is Steve Johnson and I am asking for your vote for Assistant Superintendent of the CID. I joined the NMRA in 1997, but my involvement with the CID had been limited and sporadic up until about 5 years ago. I have served on the board as a Trainmaster for the past four years. I think we are all very fortunate to have such an active and inclusive division, filled with so many great members. I would like to continue the great things that the CID does, while looking for opportunities to provide additional benefits to our members. Finding ways to reach out to younger model railroaders, and encouraging kids to pursue the hobby is an area that I would like to see some more focus on. I have an operations oriented HO scale layout modeling the Illinois Central Gulf south of Chicago in the 1970's. Professionally most of my career has been in technology project and program management, and I am currently a Technical Account Manager for a data and technology company.

For Paymaster:

Brian Chapman

I joined the NMRA in 2022. Since then, I have worked at the admission table at many of the CID train shows the past three years as well as working in the CID booth at various shows.

The Midwest Region had not had an audit of financial information in several years. I had the opportunity to participate with the audit committee that was convened to complete an audit for fiscal year 2025. This same audit committee was later asked to audit the CID financial information for fiscal year 2025. While not yet complete the process has been started.

Professionally I spent 29 years in the commercial banking sector, 25 of those years were in executive level management. Most of my responsibilities were in the areas of finance, accounting and operations. After banking I spent several years doing accounting work for a number of not-for-profit entities.

My wife Kim and I have been married for 46 years and have two daughters and four grandchildren.

I look forward to becoming more involved in the CID whether that be as Paymaster or in other ways to expand the model railroading hobby.

For Chief Clerk: 2 candidates

Precilla Ann Roderick

I am running for the Chief Clerk of the CID

I have enjoyed being the Chief Clerk for the Central Indiana Division of NMRA for the last 5 years and I would like to continue being the Chief Clerk.

I am sixty-seven (67) years old and have enjoyed trains since I have been with my husband for over 10 years now. I enjoyed all the train shows we go to, and I support my husband in all the train events that we do together. We have a layout that we are working on at home so we can have operation session at our house and enjoy running trains ourselves.

I retired last March as the HR Recruitment Coordinator for Indianapolis EMS and do take minutes for different meetings. I have been with Indianapolis EMS for 19 years and I am an EMT also.

Since I have retired I help with the America Red Cross at different events as an EMT volunteer. I am a member American Legion Ladies Auxiliary Post

1919 in Greenwood. I am a member of various organizations.

If I am elected as Chief Clerk, I will do whatever I can to help in this position.

Phillip Burnside

Phillip got a Doctorate in Mechanical Engineering in 1997. Phillip has also served in the US Navy both active and reserves for 30 years retiring in 2020 as Captain in the Engineering Duty Officer Community. Phillip has also retired from Roll Royce North America performing failure investigations of gas turbine failures across many air frames and experimental. Phillip is currently working for Naval Surface Warfare Center Crane doing research on small arms. Over his 38 years as a engineer Phillip has been awarded 14 patents.

Phillip is a life-long modeler and railfan starting out as kid member of the Baltimore Society of Model Engineers with his father. Over the years he developed a focus in the special interest of steel mill industry. In 2010 Phillip started building models using 3D printing. Since this time he has created hundreds of models that he used to get his AP certificates in Structures, Locomotives, and Cars. In February 2024 Phillip became MMR 754. Phillip is the Pay Master for Central Indiana Division and on has been on the board for the Steel Mill Modelers special interest group

For Trainmaster: 4 candidates

Jack Smith

To all ! I am running for a place on the CID Board. I model in HO the Monon Railroad. I have had an article in Model Railroader July 2016. I started getting in railroads as a young boy when my dad would take me to the New York Central yards in Brightwood. From the on railroads were my passion I was an engineer for the B&O railroad then on the Chessie. Also took my first trip on an F unit. I got laid off and went on the Indianapolis Police Dept. My railroad is the complete basement of my house. I use the Lentz system. The CID train shows are some of the best in the country and the national in 2016 was one of the best and I've been to about 15 nationals. I am running for a position on the CID board.

For Trainmaster (cont'd)

Marvin Goodwin

My name is Marvin Goodwin and I live in Fishers, IN. I graduated from Purdue University in 1989 in Mechanical Engineering Technology. Currently I'm a Design Engineer for Rolls Royce and have been working in engineering for over 33 years. Also, I'm a member of the CID/ NMRA which I have been a member for over 2 years. I was introduced to trains when I was 12 years of age with a N scale Life Like layout and a Lionel train set. I started modeling in 1989 with a N scale train layout and moved to HO scale in year 2000. Locomotives I used are B & O, Pennsylvania, Union Pacific Norfolk Southern and Amtrak. I have a layout that is called Golden Age-Modern Layout that is 9' x 28'. My layout is DCC using MRC controls.

Patrick Timpe

Hello CID, Patrick Timpe here and a bit about myself. Always have been a train enthusiast, starting with Dad's Lionel layout in our basement on the "train table", circa 1958. Grew up: southside of Indy. Fast forward (FF) to Ball State, graduating from the College of Architecture in 1975. While there, I became adept at constructing architectural models. Decided one weekend to visit the train store in Muncie and obtained my first HO kit, a Northeastern Scale Lumber Great Northern caboose. FF thru 34 years of collecting kits; work designing building

projects around Indiana; lots of volunteering; raising 5 kids, finally achieved time and space to construct my first layout in 2007. HO layout 2026 mostly complete: Fictional, 8.5' x 11.5' Blue Stripe subdivision of the Union Pacific (modern era) passing thru a small railroad town in southern Utah. All DCC via Digitrax. My GN caboose, still on my layout today. NMRA Member to Present day: since September 2016. Past membership: NMRA & Central IN Division, ca. 1975 1985. Looking forward to helping CID serving as a Trainmaster. Retired 2018, but went back in 2023 part-time, "architecting". My wife Barbara and I live in Greenwood.

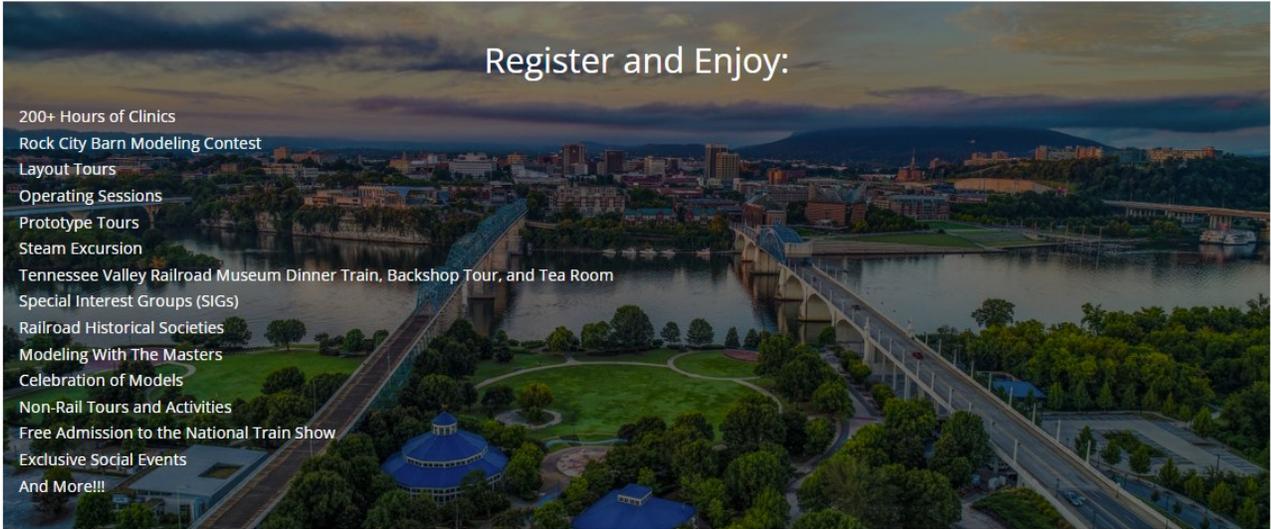
Chris Clouser

My name is Chris Clouser, and I am running for Trainmaster. My involvement in model railroading stretches back over 50 years to my Tyco Spirit of '76 train set for Christmas 1975, which I still have. I took about a 10 year break from the hobby due to my job, but within a month of my retirement 3 years ago my wife told me I should set up my trains in the basement since I finally have time and space. Little did she know I was going to take up the whole basement, she was thinking TWO sheets of plywood! I joined the NMRA shortly thereafter and have been busy playing catch-up to the things I missed. My layout is freelanced, but I have a condensed version of the Frankfort NKP yard as the centerpiece. I appreciate your consideration for Trainmaster.

2026 NMRA NATIONAL CONVENTION – CHATTANOOGA, TN

JULY 27 TO AUGUST 2, 2026

Register and Enjoy:



- 200+ Hours of Clinics
- Rock City Barn Modeling Contest
- Layout Tours
- Operating Sessions
- Prototype Tours
- Steam Excursion
- Tennessee Valley Railroad Museum Dinner Train, Backshop Tour, and Tea Room
- Special Interest Groups (SIGs)
- Railroad Historical Societies
- Modeling With The Masters
- Celebration of Models
- Non-Rail Tours and Activities
- Free Admission to the National Train Show
- Exclusive Social Events
- And More!!!

The January Modeler's Meet



A Beautiful January Day in Plainfield, Indiana!

By John Coy, MMR 730

Our Winter's Modeler's Meet returned to St. Stephen's Lutheran Church in Plainfield, Indiana. Twenty-seven people attended and the best part was that two of these people were visitors wanting to join and the other was a recent new member! It is always good to see "new" faces.

This event began with introductions. This is always my favorite part as it gives everyone an opportunity to learn if anyone there may share common interests or may live in close proximity to one another.

At my very first Modeler's Meet, October 2018, the introductions were done last and I was disappointed as another member was from my current town. I didn't have a chance to speak with him. I decided right then and there if I ever was in charge, the introductions would be first! I think that I became a co-manager in 2021?

After introductions, the group saw and heard a brief presentation from Tom Cain and afterwards, a demonstration of Blunami by Bill Kennedy.

Dave Mashino gave us the main presentation. It involved how to print 3-D characters using Blender. This was an absolutely fascinating presentation. The technology is simply amazing! I always think to myself that the John Allen's and John Armstrong's of the long-time-ago model railroad world could have never dream that anything like Blender would ever exist.



Alan Dunbar brought his unusual HO scale three rail layout..



Bill Kennedy talks about the virtues of Blunami as Trevor Jones warms himself. Someone should probably have told him that fire was fake, though.

As with the rest of the world, the technology in model railroading keeps marching forward. I remember when walk-around cab-control was on the forefront.

After lunch, our afternoon session had so many items, I was very concerned if we would be able to get through everything. I wouldn't want to see someone bring something to share and then not have the opportunity. Fortunately, that did not happen.

In closing, too many of our CID Members fail to take advantage of our Modeler's Meets; which are without a doubt the best way to meet and share camaraderie with their fellow model-



John Munson brought this scratch built 1/24th scale 2 foot gauge model.



Pedro Spicer shows his additions to his N scale trolley layout.

ers which is one of the two main reasons the NMRA was created in 1935.

If you aren't attend these Modeler's Meets, you are cheating yourself out of the value of your membership.

Our Spring Modeler's Meet will be held on Saturday, April 11, 2026 from 10 A.M. To 3 P.M. TENTATIVELY in Carmel, Indiana, at the Library.

MARK YOUR CALENDARS! If you have never attended, PLEASE COME! I cannot stress enough that this event is a huge member benefit, and if you don't attend, you will miss out on good information and people.



Union Pacific – Indiana Division

By Roger Scroggins



I attended a recent operating session at Roger's layout in Westfield. He makes great use of the space and the deck height is excellent for engineers. The scenery is very well done and the operation is (almost) flawless. Roger treats his operators to an interesting session in which he always manages to throw a few wrenches into the works. Today, the president came through on a passenger train! This view has Westfield yard front right and Indy against the back wall. The grain elevators on the island (left) are at Linton. (editor)

The concept of my Union Pacific, Indiana Division is a modern HO scale bridge line between Kansas City and Detroit/Cleveland. It avoids St. Louis and Chicago with it's own Mississippi River bridge south of St. Louis in Pevely, MO. The line wyes at Vincennes with one line to Nashville and the other heads northeast through Indianapolis. The layout models the line from Vincennes to Marion, IN.

Design started as soon as we moved to Westfield in August 2018. Construction began in February of 2019. The first mainline run was 440 man/hours later. I retired in 2021 and with my wife still working, I was able to work "full time" on the layout for about a year. At that point basic scenery was done, track was ballasted and trains were running.

I joined the NMRA and attended one of Dan Hinel's operating sessions and started thinking about operations. Went to a session on Brad Rotert's B&O layout to see his system and began some serious thought about whether I could do operations on my layout.

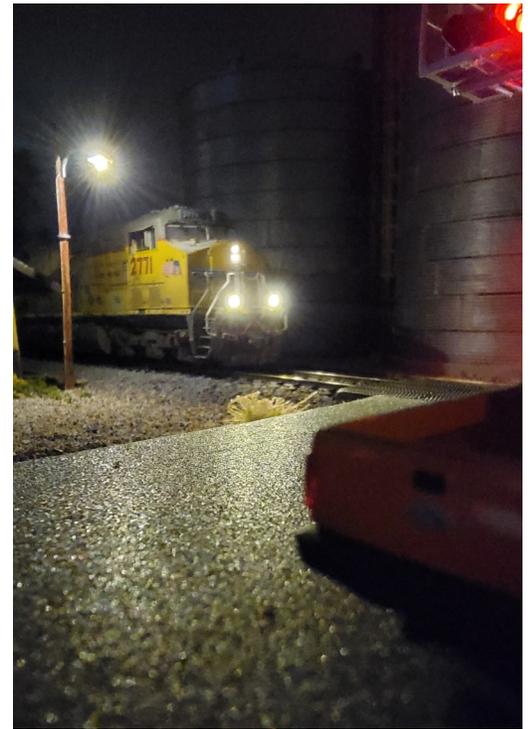
By pure luck, because I had designed 3 hidden staging tracks on my layout, I thought I could develop a plan that would work. When I designed the layout I never intended to have op sessions. In November of 2023 I posted my first op session on Operating Ses-



Nice scenery and details abound on this layout.



Taken during an op session looking toward Peoria.



Some of Rogers's op sessions begin in the early morning. Looks like it might be raining on this day!



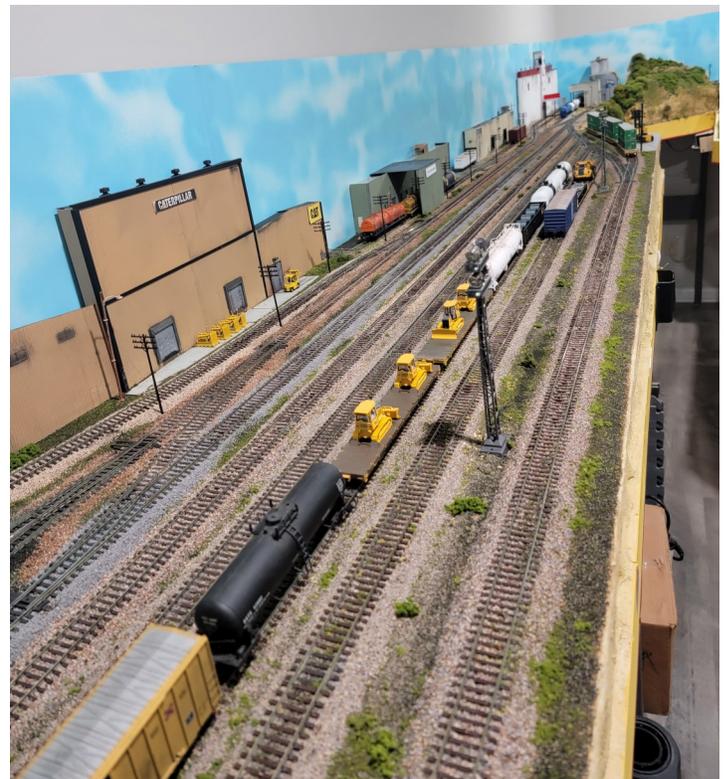
East Peoria Yard is a recent addition to add more operations.

sions.com and waited to see if anybody would sign up. Full house! I was amazed.

I use paper train orders for the operators with a detail sheet for the Westfield yardmaster that has the schedule and special instructions to help build the locals. There's usually 20-22 trains on the board for a 3 1/2 hour session. No two sessions are exactly alike as I will drop or add trains for variety. We usually get about 17 trains run per session.

In 2024 I added the E. Peoria branch as a joint line with BNSF, with E. Peoria filling an empty wall in the train room. It's added even more "joy" for my operators. It's a stub-end yard with local industries needing rail service.

Generally, I try to have one session a month with 6 operators. I recently have invited guest dispatchers to try their hand at managing the madness. It's always fun to watch everybody make it work.



Trackage on the far wall leads to Indianapolis. Through the wall would be Avon. Next addition?

A Journey Into Model Railroad Operations

By: Steve Johnson

Early Years in the Hobby

When I moved to Indianapolis in 1996, I was living in an apartment and had no room for any model railroading activities. That led me to search for a club to join. I had been a member of two clubs before—first the Lake Shore Model Railroad Association in Chicago during my teenage and college years, and later the River City club in Pekin while I lived in Peoria. Both clubs offered great camaraderie and gave me the chance to learn from people who had far more experience and knowledge than I did.

Finding the Union Station Railroad Association

In Indy, I was fortunate to find the Union Station Railroad Association. Many of you may remember the mall that once occupied Union Station downtown. On the ground floor, tucked into a corner, the USRA had a room with a nicely sized layout, including a beautiful model of the Union Station head house itself. (That model now resides on Andy Keeny's Nashville Road layout near Detroit.)

Once again, I found a group of people I connected with—people who shared the hobby, offered fellowship, and continued to teach me more and more. Nearly 30 years later, I still see many of them regularly at operating sessions or shows, and we still socialize from time to time.

Discovering DCC and the NMRA

It was at this club that I first encountered DCC. I had no idea what it was, only that the club had decided to adopt it. I had a Digitrax decoder installed in one of my engines—an Illinois Central Atlas U33C—and began learning how to use DCC. That same engine, with that same decoder, still runs on my layout today. The benefits of DCC became obvious immediately.

The club also introduced me to the NMRA. I first heard members talking about the organization and the advantages of joining. In 2000, I attended my first NMRA convention with several USRA members in Ames, Iowa, where I sat through countless clinics, soaking up the knowledge and generosity of the presenters.

My First Operating Session

One day at the club, a member announced, “We’re going to do an op session.” I had no idea what he meant. Although I had subscribed to Model Railroad-

er since the mid 80s and had certainly read about operations, I had never experienced it or understood what it really involved.

A member had set up a program called Ship It, which generated train sheets and switch lists. Up to that point, my typical operating style was running trains in circles and occasionally switching cars at random—fun, but without much purpose. I was handed a sheet of instructions and told to follow it. My initial reaction was confusion and a lack of enthusiasm, but I decided to give it a try.

The Light Bulb Moment

It wasn't long before something clicked. As a kid, I loved puzzles and strategy games. I spent hours—sometimes days—playing Risk and Axis & Allies with friends. I subscribed to Games Magazine for years. Operations felt like a puzzle or a strategy game, and the more I operated, the more I enjoyed it.

Then a good friend in the hobby, Bob Lehnen, asked if I wanted to attend an “operations weekend” in Chicago. I was skeptical—drive to Chicago, stay two nights in a hotel, and spend hours running trains at multiple layouts? He assured me it would be fun. I agreed to go, and that experience ultimately changed my entire approach to the hobby.

A New World of Prototype Operations

I was exposed to things I knew almost nothing about: Time Table and Train Order operations, Centralized Traffic Control, communicating with a remote dispatcher, signal aspects, car cards and waybills, railroad roles and responsibilities, and varying levels of prototype fidelity.

As I met more layout owners and heard their stories, I began to understand how their layouts were often a reproduction of some part of history—or sometimes alternate histories—and how their choices in equipment, scenery, industries, and operating practices all had purpose. I saw layouts I had only read about in magazines, featuring awe inspiring modeling that I still aspire to. Some were massive empires occupying upwards of 3,000 square feet and hosting nearly 30 operators at once in a complex but well orchestrated simulation born from the owner's imagination. I loved it.

Operations Weekends and OpSIG

Since then, I've attended many of these “op 'til you drop” weekends, even as far away as the Bay Area. They're held all over the country. I joined the Operations Special Interest Group (OpSIG), where I met many like minded hobbyists and found more oppor-

tunities to participate. I helped coordinate the first few CIRROPS weekends in Central Indiana starting in 2008. Today, there's even a website—OperatingSessions.com—where people can post sessions and anyone can sign up to operate.

Building My Own Operations Oriented Layout

I'm now building my second operations oriented layout and have hosted eight or nine sessions so far. I love seeing the ideas I've carried since my teenage years finally come to life. Most operations focused layout owners will agree that during a session, you rarely run trains yourself—you're too busy answering questions, assigning jobs, and fixing problems. And I love that. It feels like being a composer watching a symphony come to life.

But the most fulfilling part of all of this is the people I share it with. My closest friends in the hobby are those who enjoy operations as much as I do. I'm fortunate to have a group of friends who have helped me build my layout from the moment it was just lumber on the floor to the point where we can now run trains and enjoy the results. I couldn't do it alone, and I wouldn't want to. The friendships and camaraderie that come from operations are an important part of my life.



The Author (center), Joe Mattick (left), and Brad Rotert captured during an operating session at last year's national convention in Detroit.

How To Get Involved

If you would like to learn more about operations, go operate somewhere! The web site mentioned above has regular opportunities in central Indiana that anyone can attend. You will find folks enthusiastic about the hobby and willing to teach newcomers. I definitely recommend joining the OpSig. Not only

do they have a great magazine that focuses on operations related topics, there are additional resources and opportunities to join op sessions and attend operations weekends.

What's Next?

In the next Rusty Spike I will provide some thoughts and suggestions on how to approach building a layout for operations, and how to introduce operations to an existing layout.

Acknowledgments

I'd like to thank the friends who helped build my layout—Brad Rotert, Joe Mattick, Jason Hilt, Brian Chapman, Dan Hinel, and Kurt Kruty. I'm sure I'm forgetting others who contributed along the way.

And a special thanks goes to Bob Lehnen, without whom I likely never would have gotten into operations at all—and might have drifted out of the hobby entirely. He kept me motivated when I needed it, and his friendship has meant a great deal.



THE 2026 AVON INDIANA TRAIN DISPLAY

By: John Coy and Robert Perry

What a great way to promote the National Model Railroad Association (NMRA) and promote the hobby of model railroading at the Avon Washington Township Public Library!

The Central Indiana Division began this train layout display in February of 2020, immediately before Covid struck, at the Avon, Indiana Town Hall. The year 2021 was a "skipped" due to Covid. Then be-



The Cintrak group are great supporters of the Central Indiana Division's Library displays and train shows.

ginning in 2022 and continuing this display has been held in the basement of the Avon Washington Township Public Library. 2026 was our sixth year.

Each year, the Central Indiana Division, gets the opportunity to meet and greet more and more people! The most wonderful part of this is the fact we meet “non-traditional” people at these library events. In other words, some folks just coming to the library have no clue about the train display and then come and check it out. To some people's surprise, yes! model railroading is alive and well these days! You just don't see model trains anymore as the local hobby stores have all but vanished.



There are some interesting stories from Avon this year. First, the entire Executive Committee of the Midwest Region Executive Board, less immediate past President, Bob McGeever, was present—and in fact serving as volunteers. In Bob McGeever's defense, he was putting on one of the largest model train shows in southern Wisconsin on that very same day. This is the first time the bulk of the Midwest Region Executive Board attended this Avon event! We, Jan Burnside, Phillip Burnside, Robert Perry and myself (John Coy) were elected or appointed in May or a little after 2025.



Kids are a major focus at all our displays and shows.

An interesting situation occurred by a series of circumstances that we aren't quite sure of how it happened. When Robert Perry and I were putting this display together, we invited several modelers with small portable layouts as the space is very limited at the Avon Washington Township Public Library.

From time to time, people who say they are coming have a situation and can't come at the last minute. Robert and I both received information very late that either two or three layouts wouldn't be there.

Therefore, Robert was going to bring one layout and brought two displays instead. I was bringing one, and brought two. So, we were okay having sufficient layouts for the display.

Then it happened!

Robert calls me about one hour before the display. He is in the parking lot of the Avon Washington Township Public Library. He tells me: “CINTRAK is here.” My response was “Huh?” Robert said did you know CINTRAK was coming? Me: “No. No clue.”

I arrive and have a discussion with CINTRAK. I'm thrilled that they are there because they have a fabulous, but LARGE N scale portable layout. I'm sweating bullets because we didn't plan for them and I wondered where we could put them. I was stressed. Robert said: “We will figure it out.”

The library staff “OPENED” meeting room B, which is adjoining to meeting room A—where the display was already setup. We were able to move some tables around and thank goodness CINTRAK had a place to be!

We didn't have one single table left and believe me

when I say that room was full of portable train layouts from end to end!

We had all of the major scales less S—and I have two S portable layouts in process, but not ready yet. Our library show is small but every year we have been fortunate to have a wide variety of scales and displays that were merit award winners—great detail modeling and we had also had a huge cartoonish Thomas the Tank engine G gauge layout as well.

Jan and Phillip Burnside were assisting youngsters “operate” manually, a switching micro-nook layout. After anyone completed the puzzle, that person received a junior engineer's certificate! Great idea Division 8 Louisville—Fred Soward! We here in the CID only steal from the best!

Everyone had a wonderful time and is looking forward to next year. HOWEVER, next year will include a new building addition to the Avon Washington Township Public Library that looks to be a LARGER area to be used for meetings and train dis-

plays! One of the real positives is this new area is on ground level so no more stairs or elevators to get to the future train displays. At least, I hope that is how it works out.

We have already been invited back in February of 2027! If you are interested in bringing a portable layout, please check with Robert Perry or me--John Coy so we can be sure that we can allocate room accordingly. The library has had space constraints in the past. Hopefully with their renovations we will have additional room in 2027. The railroad "gods" were good to us in sending CINTRAK this year!

Thank you to: ALL CINTRAK People, Pedro Spicer, Ellen Shelton, Trevor Jones, Jan and Phillip Burnside, Chris Toncheff, Gregg Burks, Joseph Coy, Michael Roderick, Mark Faust and my Co-Manager Bob Perry. Most of all, thank you to staff member Bill Reed of the Avon Washington Township Public Library.



March 14th Track Talk

By Dave Mashino



By my unofficial headcount 26 were present for lunch.

The MCL cafeteria on Arlington Street on Indy's East side was the meeting place for the first in-person Track Talk this year. This was a great meeting place with a room reserved for us and good food. The meeting was well attended. We began with a meal and friendly discussion among the members

that attended. After the meal, John Coy suggested we go around the room with introductions since there were a few new faces. We then received directions from Jack Simpson who opened his layout for a tour afterward.



Jack was a gracious host for this first track talk of 2026.

We made the short drive to the parking lot across the street from Jack’s house. Jack’s Hoosier Line model railroad is a very nice layout which uses the biggest part of his basement, traversing the entire perimeter. Jack’s layout has been featured in Model Railroader and is well worth a visit!

Jack uses the Lens DCC system to operate the layout set in central and southern Indiana during the 50’s and 60’s. He had a couple of trains running during the tour which operated flawlessly. The layout scen-

ery is 100% complete and there is an operating signal system.

Cudos to Mark Foust, our Track Talk manager, who did a great job of arranging this outing. These types of activities are one of the greatest benefits of the NMRA and our Central Indiana Division. They provide an opportunity to meet and converse with other model railroaders from all over central Indiana.



Jack’s Hoosier Line is a masterful creation with a lot of operating possibilities.

Building Signal Heads for Signal Bridges

by John Poray

Introduction

For many modelers, railroad signals add a fun and interesting aspect to a model railroad. On most prototype railroads, a combination of mast-based signals, dwarfs and signals on signal bridges are used. For my transition era, HO scale, Adirondack Division - New York Central Railroad (NYC), I had acquired a supply of mast-based signals (Atlas). I also needed a lot of signal heads that would be installed on signal bridges, both full and cantilever type. I wanted to find a cost-efficient way to add the signal bridge-based signal heads I would need. This article describes how I make signal heads and attach them to a signal bridge. I'm currently just over halfway through installing all the planned signals on the railroad.

Parts and Tools

Commercial sources for signal heads are limited, and I've found they cost more than I want to pay. I needed to come up with a cost-effective way to create my own signal heads. I have attended operating sessions at fellow CID member, Dan Hinel, MMR's, Rail Express model railroad. Dan's mainline is completely signaled with many cantilever and full signal bridges. Recently, he began using 3-D printing to create his own signal heads and bridges. I have had several conversations with Dan about how he has built his signal system, signal heads and bridges. This has been helpful to me as I planned and created my own signal system.

Dan created 3-D printed "color light" signal heads, at a reasonable cost, I needed for my signal bridges. The three lights in a color light signal are oriented vertically from top to bottom: green, yellow and red. A complete signal head is produced in two pieces. The signal head, which holds the LEDs and includes upper and lower brackets to slide a brass or plastic mast piece through, and the cover piece, which is the face of the signal head and has two tabs that fit into slots in the signal head. See photo #1.

The LEDs I use are 3V, 20ma with .06W of output power. They are model 0805, manufactured in China and are available from several sources on-line. They come with two attached wires. Each LED requires a resistor to keep from overpowering and blowing them. I use a Digitrax product, the TSMK, that has screw terminals the signal wires connect to. Each TSMK includes built-in 100-ohm resistors for each LED.

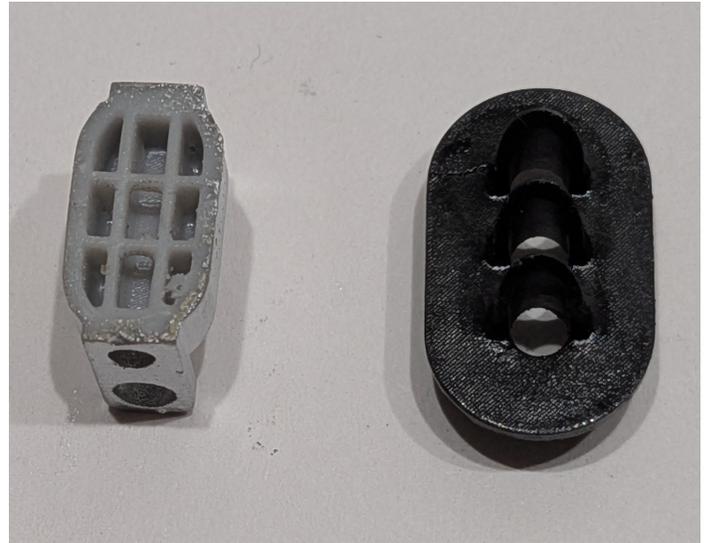


Photo 1: Signal head at left. Signal head cover on right.

The TSMK connects to a Digitrax SE8C (discontinued, replaced by the Digitrax SE74), which powers the signal LEDs. It in turn is connected to Java Model Railroad Interface (JMRI) via a network data cable (Digitrax calls their network cable system, LocoNet), which provides the signal logic to operate the signal system prototypically. This article focuses on building signal heads and installing them on signal bridges. Connecting the signals to signal driver hardware and a software system to provide signal logic is a topic for another article.

Building the Signal Heads

I find it easiest to insert the LEDs from top to bottom, so green, then yellow, then red. Push the green LED through the hole at the bottom of the signal head until it is visible under the top center slot of the back piece. Fix in place with a drop of CA underneath the LED, and another drop under the wires, closer to the hole at the bottom. Allow the glue to dry completely. Then insert the yellow LED, positioning the LED under the middle slot. Glue in place under the LED and under the wires near the hole at the bottom. You will be gluing it to the Green LED wires. Repeat the process for the red LED. See photo #2.

Test the LEDs and color code the wires (see "Wiring Considerations" below.)

Be sure the LEDs all face out so they show through the proper slots in the signal head. The assembly will be handled a lot. It's important that the LEDs are

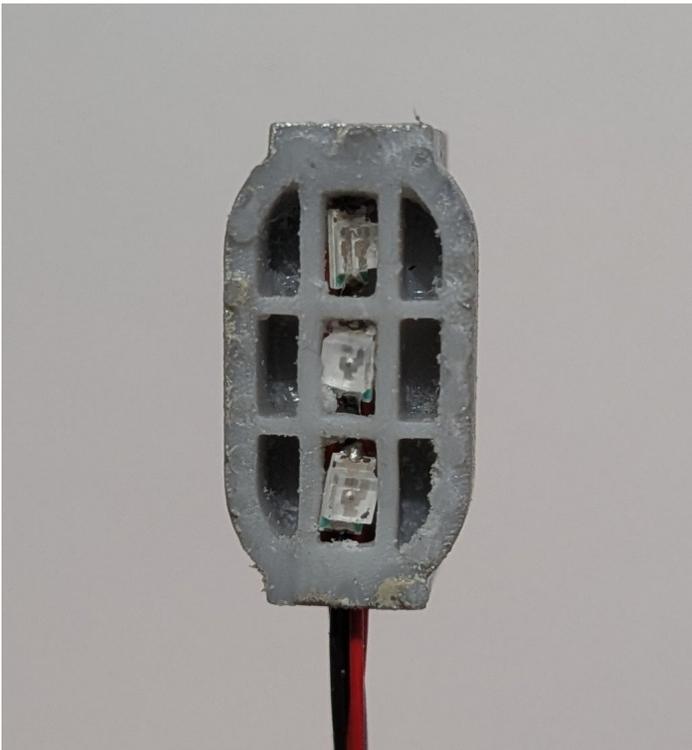


Photo 2: All three LEDs have been inserted into the signal head. From top to bottom - green, yellow, red.

Insert all six wires into the hole you cut and run them through the bottom of the tube. Once the wires are through the tube, slide the signal head bracket holes onto the brass tube. Position the signal head so the LEDs are in line with the hole you cut in the tube. Use CA to glue the signal head to the brass tube.

If you need to create a two-headed signal mast, cut the brass tube $1\frac{3}{4}$ " long and cut a second hole in the tube, 1" from the bottom.

Connecting the Signal Head Mast to the Signal Bridge

To create a platform for the Signal Head mast to sit on, cut a 1" long piece of $5/32$ " x $1/32$ " strip styrene. Then drill a $9/64$ " diameter hole in the center of the platform, $1/8$ " from one end. Run the wires of the signal head through the hole of the platform, sliding the signal mast tube into the hole until the bottom of the tube is flush with the platform. Use CA to glue the tube to the platform. See photo #4.

firmly set and don't move, so let the CA cure overnight.

Connecting the Signal Head to the Brass Mast

For a single, signal head bridge mast, use a rotary tool with a cut off wheel and cut a $15/16$ " long piece of $3/32$ " diameter brass tube. Use a round file to smooth the ends. Using the rotary tool, cut a hole about halfway through the tube, $1/8$ " from the bottom of the tube. Smooth the edges of the hole with a file. See photo #3.



Photo 3: A $15/16$ " long, $1/8$ " diameter brass tube is used for the signal mast.

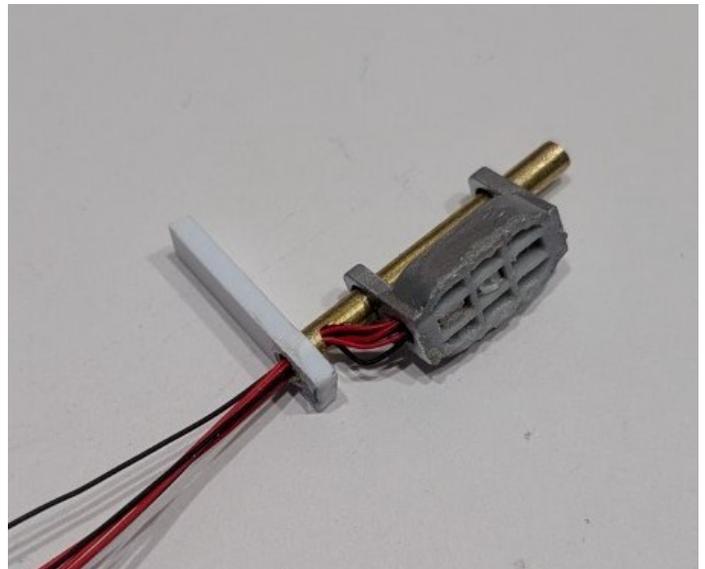


Photo 4: After the LED wires are inserted into the signal mast, the signal head is slid down the mast and glued in place with CA.

Locate the position where the signal mast is to be on the signal bridge. It should be over the right-hand side of the track it faces. This aligns it for the locomotive engineer to easily see. Glue the platform with CA to the bottom of the signal bridge structure. The back end of the platform should be flush with the back side of the bridge, and the front of the base should extend in front of the bridge by $3/8$ " to $1/2$ ". Allow the glue to dry before the next step.

Run the Wires Through the Bridge

The next step takes some patience. Run the wires up through the horizontal span of the bridge (or cantilever) and then down the vertical leg of the bridge. See photo #5. I like to run the wires through “conduit”, so the wires are not as visible. For this, I use 1/8” diameter styrene tube for the vertical leg.

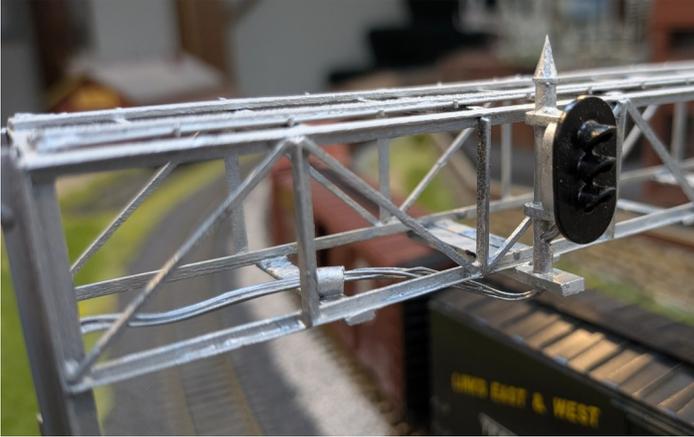


Photo 5: The signal mast platform is glued in place on the signal bridge. In this photo, the signal head cover is in place.

One signal bridge may have more than one conduit to accommodate all the signal head wires. Cut one of the conduit pieces long enough so it extends through the benchwork when it’s time to plant the bridge. I also cut short pieces of 1/8” tube, about 1/8” long, and glue these inside the bridge span. Run the wires through these short pieces. These serve to keep the wires close together and organized. Depending on how long the wire needs to run through the bridge span, you will need one, two or even three of these short pieces. See photo #6.



Photo 6: The LED wires are threaded through the guide tubes inside the signal bridge.

“Planting” the Signal Bridge

Railroads have standard distances from the track to locate the legs of their signal bridges. The most important thing for modelers when planting a signal bridge is that our rolling stock clears the structure, especially if it’s located on a curve. So, test the location with your longest piece of rolling stock and longest locomotive. I like to be able to remove the signal bridge easily but still have it seated firmly. To do this, I drill a 9/64” hole into the benchwork to slide one of the vertical conduit pieces into. It should fit snugly. Don’t glue it. This will allow you to remove the signal bridge if necessary. The conduit should extend about 1/2” below the benchwork.

Depending on the design of your signal bridge, its vertical leg(s) structure may have “box” construction, typical of cantilever bridges, or a “flat”, two-leg structure, typical of full signal bridges. For cantilever bridges, run the vertical conduit inside the box leg. For full signal bridges, you can install the conduit either along the exterior or interior of the bridge leg. Glue the conduit to the leg structure.

Wiring Considerations

As mentioned before, each LED in the three-LED signal head has two wires: a positive and a negative. The wire leads on the LEDs I have are red and black. With six wires coming out of the bottom of the conduit, it’s impossible to tell which wires go to each LED. I found it helpful to color-code the wires using a dab of green, yellow or red acrylic paint near the end of each of the red and black wires, indicating the color of that LED. My wife does Paint-by-Numbers paintings and has left over small paint pots she gives me to use for this purpose. This is helpful when testing the LEDs before planting the signal bridge.

When building a double head signal, I add a dab of white paint on the wires of the lower signal head wires to differentiate them from the upper head wires. When there is more than one signal mast on a bridge, I further color code to keep everything straight. I record my color codes on a signal system spreadsheet so I can refer to them when needed. This has been invaluable during installation and for troubleshooting.

Painting

Prototype railroads typically painted their signal bridges black or silver. The signal heads and covers were a combination of those colors. My signal bridges are painted silver, the signal heads are silver, and the covers are black. I paint the bridges with a rattle can before any signals are attached. I paint the signal

head, covers and conduit pieces before assembly. If they look too shiny, spray a light coat of Dullcoat on them. The wires, brass signal mast and signal mast platform are painted silver after they have been installed on the bridge. See photo #7.



Photo 7: The conduit runs the length of the signal bridge leg. More than one conduit may be needed to accommodate multiple signal heads. However, only one conduit should extend 1/2" below the bench work.

Wrap-up

Although based on the New York Central prototype, my layout includes a high degree of freelance, including the signals. Modelers familiar with the NYC division I model will recognize that area was generally dark territory. For those portions of the Adirondack Division and adjacent divisions that had signals, searchlight signals were used. My choice of color light signal heads was based on availability and affordability, as well as compatibility with the signal driver hardware I use. They also afforded flexibility to the wiring convention needed: common cathode or common anode.

Signal Head Parts List

- Two-piece 3-D printed signal heads and finials: hobbyist or other 3-D printing source
- LEDs: 3V, 20ma with .06W of output power. Model 0805

- 32 AWG wire (red, yellow, green, black) to extend LED wires as needed; Train Control Systems (tcsdcc.com)
- Signal mast: 3/32" brass tube – K&S Precision metals (available in most hobby shops)
- Conduit: 1/8" diameter styrene tube, Evergreen #224 (smaller or larger diameter tube may be used to accommodate fewer or a greater number of wires)
- Signal mast platforms: 5/32"x1/32" styrene strip; Evergreen #157
- Signal Bridges, including cantilever: commercial kits or scratch built
- Signal Bridge foundation: .08 x .5 (or larger) Evergreen strip styrene #373
- Silver and flat black rattle can paint: Tamiya TS-76 Mica Silver; TS-6 Matt Black (or similar)
- Silver paint for brushing: Atom Metal Acrylic 20164 Silver (or similar)



Passenger Train Cab Cars

By Dr. Robert Perry

I learned something new today. Several years ago I placed a preorder for an HO Scale Bachmann Trains® Siemens® Charger SCV-42 Charger VIA Rail® passenger train consisting of a Charger, four passenger cars and a trailing cab car. Unfortunately, Bachmann had problems getting the cab car released on time as both the locomotive and cab cars have DCC which created some difficulties. So, whereas I received the locomotive and four passenger cars a couple years ago, I just received the cab car this week. I must say that these are extraordinary models. They have excellent detail and the locomotive is silky-smooth running. Programming of the TCS WOVSound® decoder is voice-assisted. Lighting and sound effects are impressive. (Couplers are finicky, however, so I created some drawbars instead.)

When I brought the locomotive up to my railroad room in my loft, I noticed something I did not expect at all! The cab car was significantly longer than the locomotive. This made no sense to me. Most of the passenger trains that I have seen that are used for commuter use use a similar locomotive on each end facing in opposite directions such that one pulls to go one direction and the other pulls when the direction is reversed. The only other arrangement (other



The Cab car shown placed in front of the Charger locomotive illustrates the length difference.

than Budd-style cars) I had seen was when a cab car was utilized at one end that looked like a passenger car but with a locomotive control cab in the flat end of the car. Symmetry of appearance was not a consideration. Functionality was the key. The rest of the car was used for passengers (or A/C and other equipment). Newer, high-speed trains use streamlining for both functional and aesthetic purposes. The Siemens train uses a streamlined locomotive on one end and a streamlined cab car that looks just like a locomotive but is much longer. This seemed very strange to me. So, the mechanical engineer that resides in this eye doctor decided to investigate.

When comparing a Siemens Charger locomotive to a cab car (control car), the differences go well beyond just the fact that one has traction motors and the other does not. There are distinct functional differences.

1. Fundamental Purpose

Siemens Chargers (Locomotive) contain a large diesel engine (Cummins® QSK95), a main alternator, traction inverters, traction motors in the trucks dynamic braking equipment, cooling systems, fuel tank, etc. Its job: generate electricity and provide tractive effort. Everything inside is arranged around

propulsion.

Cab Car (Control Car) has no engine, no traction motors and no fuel system. It does contain an engineer's control stand, Trainline control electronics, PTC equipment, communication systems and, depending on the model, passenger seating. Its job: allow push-pull operation from the opposite end of the train. It is essentially a coach with a control cab.

2. Why Is the Cab Car Longer?

This is the part that surprises many people. Most modern North American cab cars (Amtrak®, VIA Rail and various commuter agencies) are built on standard passenger coach car bodies — typically around 85 feet long. A Siemens Charger locomotive is about 68-71 feet long. So the cab car is much longer because a locomotive is length-optimized.

Locomotives are designed to minimize overall length, concentrate heavy machinery compactly and to keep weight per axle within acceptable limits. Freight and passenger locomotives rarely approach 85 feet.

Passenger cars, however, are standardized at ~85 ft.. North American passenger cars are built to maximize seating, fit platform lengths and to use standard-

ized trucks and car body designs.

When agencies order cab cars, they often take an existing coach design and replace one vestibule with a crash-worthy control cab. So structurally, a cab car is really an 85-foot passenger car with a nose and control compartment added.

3. Structural Differences

Modern cab cars are built with reinforced crash energy management (CEM) structure, anti-climbers, collision posts and energy-absorbing crush zones.

Since the cab car may lead the train in push mode, it must also meet locomotive-level crashworthiness standards at the “front” to protect an engineer sitting with very little metal in front of them. That adds structure — but not propulsion equipment.

4. Weight Comparison

Even though the cab car is longer the weights are not even close.

Charger locomotive: ~260,000–270,000 lbs.

Cab car: ~130,000–150,000 lbs.

So the locomotive is nearly twice as heavy, despite being shorter. That weight is concentrated in the Prime mover, generator, traction motors, fuel and cooling systems.

5. Operational Difference

When moving with the locomotive in the lead the engineer sits in the locomotive cab while the Charger is providing power and the cab car functioning as a normal coach.

When moving in the opposite direction with the cab car in the lead the engineer sits in the Cab Car where control signals are transmitted via MU/Trainline cables to the unmanned locomotive.

Why 85 feet?

1. The 85-Foot Length Is Essentially the Maximum Practical Length for U.S. Conditions

The typical North American passenger car is 85 feet long (25.9 m) and 10 ft 6 in wide (3.2 m)

This is near the upper limit that can safely negotiate curve radii that are common on legacy Class 1 railroads, switch geometry, clearance envelopes and platform spacing. Longer cars would also cause excessive overhang on curves.

Two kinds of overhang matter: Center overhang (middle of the car swings inward) and End overhang (ends swing outward). These increase dramatically

with car length. At around 85 feet, you reach the practical limit before clearance conflicts become widespread. Coupler offsets also become an issue with longer cars lengths.

2. North American Railroads Were Built with Larger Clearances

This is a major reason longer cars were possible. North American loading gauge is much larger than Europe’s. (Loading gauge refers to the maximum size that a car can be to safely clear all trackside structures.)

Typical widths: North America passenger cars: 10’6” vs. European passenger cars: ~9’3”–9’8”

This wider clearance envelope allows for longer and wider cars, larger vestibules and greater truck spacing. The larger loading gauge originated because many U.S. railroads were built later, with fewer medieval-era constraints like small tunnels, aqueducts, city walls, and tight rights-of-way.

3. Truck (Bogie) Spacing and Ride Quality

Longer cars allow trucks to be spaced farther apart. The typical spacing for North America is, for an 85-ft car, truck centers at ~59–60 ft. A European 26-meter car has similar length but often narrower while shorter European commuter cars have truck centers closer together.

Increased truck spacing provides improved ride quality because it reduces pitch motion. Passengers experience less “see-saw” movement. This was especially important for long-distance U.S. travel for the comfort-oriented American passengers.

4. Efficiency: Fewer Cars Needed Per Train

Longer cars mean more passengers per car. An 85-ft North American coach holds 70–90 passengers whereas shorter European regional coaches only carry 50–70 passengers.

Fewer cars mean lower maintenance cost, fewer brakes to maintain, lower train resistance, and lower capital cost per passenger. This was important on long-distance routes.

5. Why Europe Often Uses Shorter Cars

European railways historically prioritized tight curves, dense urban routing, frequent stops due to close proximity of towns/villages and ability to deal with very old infrastructure.

Many European routes date back to the 1800s and pass through dense urban areas, tunnels with tight clearance and significant mountain terrain. Shorter

cars also reduce overhang and fit better within constrained geometry.

6. Coupler and Slack Considerations

North America uses Tightlock couplers for passenger cars and knuckle couplers for freight. These allow close spacing and good stability with long cars.

European buffer-and-chain systems historically required different spacing and force management. Modern European multiple units avoid this issue by using semi-permanent couplers.

7. Regulatory and Crashworthiness Philosophy Played a Major Role

This is one of the biggest differences.

United States (FRA philosophy): Heavy, strong cars protect occupants by resisting deformation

Europe (EN standards philosophy): Energy-absorbing structures protect occupants by controlled deformation

Because U.S. cars historically relied more on structural strength, longer heavier cars became standard. Modern U.S. equipment now incorporates European-style crash energy management while keeping the 85-ft length.

8. Platform Compatibility Became Self-Reinforcing

Once platforms were built for 85-ft cars, everything standardized around that length.

Changing it would require rebuilding the platforms, yards, maintenance facilities and storage tracks. As such, the 85-ft length became the long-term standard.

9. Interestingly, 85 Feet Is Not Arbitrary — It's Close to an Engineering Sweet Spot

This length of car provides maximum passenger capacity on a chassis, acceptable curve negotiation and overhang, ride quality on imperfect trackage, structural efficiency and, once again, compatibility of existing infrastructure. Longer cars do exist (some experimental), but they introduce operational compromises.

10. Modern Siemens Equipment Follow This Standard

Cars used with the AMTRAK, VIA Rail and commuter agencies — including Siemens Venture coaches and cab cars paired with the Siemens Venture Mobility Charger — remain about 85 feet long because the entire system is built around that dimension.

So, for a simple question as to why my cab car is so much longer than the locomotive, it prompted me to take a trip down the rabbit hole to learn a lot more than I bargained for. There's always something new to learn in this hobby!



Burlington County Model Railroad Club Visit

By: Mark Faust

My ancestral home New Jersey. Since leaving New Jersey for college in Illinois in 1988, I have moved around quite a bit, (living/working in eleven states), but New Jersey consistently has remained my destination come Christmas. During my 2025 visit to the Garden State, I was looking for train things to do.

It's usually easy to find open houses for model railroad clubs in December, but finding one on the weekend before or after Christmas can be a challenge. Most of the clubs I checked on had open houses earlier in the month. However, I lucked out and found that the Burlington County Model Railroad Club was hosting one on the Saturday after Christmas.





The BCMRC (BCMRC.org) is located in the basement of a local theater company playhouse. It had plenty of parking because of the theater, and also plenty of ice because of the busy weather. After skating to the side door, we descended the stairs and traveled down a long hallway past what the club calls "The Flea Market." It's a supply of older HO cars and buildings for sale cheap, plus the ever-present pile of free magazines. We were greeted by a club member who was standing inside what looks like an old ticket booth. He invited us to enter the club's space through a door next to his booth.

The club layout is actually called the Rancocas Valley Lines, and it models no specific place or period. They do try to make sure that each train is consistent for time - no steam engines pulling double-stacks. While there we saw mainly railroads familiar to NJ & PA running on the layout: PRR, Reading, Penn Central, Conrail, NS, Amtrak and New Jersey Transit.

The layout is about 20 feet wide and roughly 30 feet long. The web site states that the original idea for the layout was to represent portions of a railroad that goes from tidewater to mountain scenery, then through an industrial area of a large city, then countryside, while serving those industries that would typically be served by rail

There is a large looping trestle and mountain that greets visitors as they enter the layout space - which is actually a bit jarring for New Jersey. It's not typical of the surrounding area to be sure. However, it is truly impressive and it serves the club's vision for what the RVL is supposed to be.

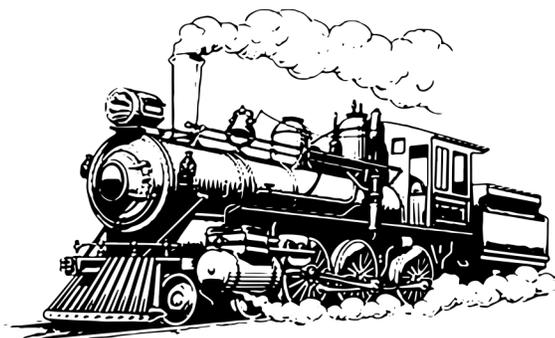
The aisle space in the club is surprisingly narrow and there are multiple dead ends. It's not an easy place to navigate. Fortunately, we departed right as a large group came to visit, so we did not have a crowd issue while we were there.

The club has some creative solutions to the problem

presented by their narrow aisles and dead ends. First, the upper fascia has several large signals mounted to it that are visible from the central operating positions. Each fascia signal mimics a signal on the layout. Therefore, you don't have to follow your train down one dead end to see one signal, and then race



around the aisles trying to get to the next position to see the next signal. You just simply look up from the central position. They also use small video panels on the lower and upper facias to display video feeds of trains that are inside tunnels, in hidden staging yards, or in other inaccessible spaces. There are TVs mounted that show parts of the layout not visible from the central location. They do have radios for communication, but these are only necessary when talking to the dispatcher, who sits in a closed off office.



Back Pressure

From the Editor

By the time you are reading this, spring may have sprung, but the weather was not kind to us for the CID's Lebanon show in late January this year. We

had to cancel and return the vendor monies due to the snow storm. The Boone County fairgrounds returned our deposit so the CID escaped relatively unscathed. Cudos to our show manager, Dave Nance, for his handling of all the chaos.

While on the subject of train shows, I need to mention that the CID's summer show, the Johnson County Train Show, will not take place again this year. A presentation for the show was given at a special board meeting held on February 16th. The show did not receive approval by the board, probably due to the projected cost and the new guidelines from the NMRA.

The good news is that the show will still take place, preliminarily renamed "Fall Fest". Mike Roderick will still manage this show, but it will be outside the purview of the CID. This is intended to be a large show and will be held at the state fairgrounds in September. Good luck to Mike and his group!

We'll soon be voting for a new set of officers and trainmasters. You should receive a ballot in the next few weeks via email. I hope you took time to read the candidates bios ([page 10](#)) and will participate in the election. As demonstrated above, the officers and board that you elect are sometimes called upon to make difficult decisions on behalf of the CID.

April will be a busy month for our division. There is the Fort Ben Library display on the east side of Indy coming up on the 4th starting at 10 am. Then, on the 11th is the spring modeler's meet which will be held at the Carmel Clay Public Library from 10 am to 3 pm.

Steve Johnson, our new layout tour manager has set up a Lafayette outing for us on April 18th. The tour will include four local layouts plus the Purdue Train Club's layout. Details will be forthcoming.

Don't forget about the [National Convention](#) in Chattanooga this summer. I received an email saying that the accommodations are going fast at the host hotel. The National Train Show will be held at the adjoining convention center.

As you can see, this issue of the Rusty Spike is busting at the seams one once again! I personally want to thank each and every person who has contributed since I have become editor. I hope you will continue to help me keep up the work of making **OUR** newsletter a success. Send your articles, photos, tips, and stories to:

cid.rustyspike@gmail.com





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PIKE ADS



CID members can advertise their model railroads in the Rusty Spike at no cost. We will make room for all the ads possible and will include a link to a web site or the NMRA Pike Registry if requested. If you would like us to include your railroad, send a high res business card size file with information on links (if any) to:

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Superintendent
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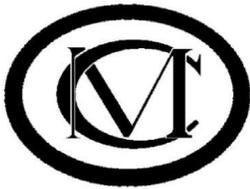
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Area Model Railroad Clubs

Posted here as a service to our members.

The Central Indiana Yardmasters' club is located in Kokomo, Indiana, but has members from all over central Indiana. Our layout is approximately 45x25' and has both DC and DCC lines. We have a large yard and various online industries. We have openings for additional members. Check out our Facebook page.... [Central Indiana Yardmasters](#).



The Midwestern Model Railroad Club of Kokomo IN is a round-robin club. Members take turns hosting a monthly meeting from 2-4pm on the third Sunday of each month which includes a business meeting, refreshments, a tour of the members' pike or other activity, and general model railroad discussion. Contact Dan Macaluso at (765) 438-9385 or email: dan.macaluso@aol.com for further information.



MEETS TUESDAYS
MOORESVILLE, INDIANA

The Morgan County Model Railroad Association meets every Tuesday at 6 PM at Mayfield Insurance located at 50 South Madison St, Mooresville. We have two layouts. One permanent and the other is a large modular layout we take to trains shows. Dues are \$50 a year and we welcome all modelers regardless of any experience. Every one starts sometime. We spend time just talking trains as well as running trains. Contact Dan Goins at (765) 516-2242

Naptown & White River Model Railroad Club

1115 McDougall Street, Indianapolis, IN 46203

Visitors always Welcome Monday nights 7 - 9 PM

Memberships available



For information contact:
(317) 643-0779
naptownmrr@gmail.com



Web address: www.naptownrr.org

Contact the editor at cid.rustyspike@gmail.com with your club information to have it placed here.