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“Gateway Central”
project layout goals



Gateway Division - Mid Continent Region - NMRA

RPO

Spring 1994: Volume 2, Number 1

The *RPO* is the official publication of the Gateway Division of the Mid-Continent Region (MCoR) of the National Model Railroad Association (NMRA).

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Richard Schumacher

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Brad Joseph

Randy Meyer

John Winter

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The editorial content of this publication reflects the opinion of the Editor only, unless otherwise credited, and does not necessarily reflect the policy of the Gateway Division.

Advertising of interest to our membership is accepted for publication in the *RPO*. Contact the Editor or Treasurer for current rates and artwork size information.

Please send submissions, suggestions, letters, and address corrections to:

The Editor, *RPO*
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St. Louis MO 63151-0500

Articles may be submitted in any format (handwritten, typed, or plain unformatted text on disk - either 3.5" or 5.25"), photo submissions are currently limited to 35mm color slides or 35mm negatives.

The *RPO* is composed in *Microsoft Word for Windows* and imaged on a 1200 dpi QMS PostScript laser printer.

From the Dog House

by Randy Meyer

There is a lot going on in the Gateway Division. For those of you who have not heard, the Gateway Division is making a bid for the 1999 National Convention. Along those lines Mr. Jim Williams of the National was in St. Louis April 26 through May 1 doing a site inspection. He was shown eighteen layouts, seven hotels, and a day of the prototype. He made a lot of nice comments about what he saw.

We will be presenting our proposal for the 1999 National Convention August fourteenth at this year's National Convention in Portland. In order for us to make a good presentation, we need the help of all St. Louis area model railroaders. The help we need involves four things.

First is a list of St. Louis model railroaders and their railroads. The second is slides of your railroad. The slides will be used in a video that will be shown as part of the proposal in Portland.

The third item is copies of model railroad articles or photographs you may have had published. These will be included in the presentation to show the National officers the number and diversity of quality modelers in St. Louis.

The above items do not constitute a commitment on your part to do more. We just need these items to show we have people and model railroads in the area.

The final thing we need to do is make a video of the Gateway Division members as a group. Again this is to show the Board that there is a good

sized core group of people to put on the convention. We plan to do this video at the May 16th meeting at the Museum of Transport. Please mark your calendar and plan to be there.

You may call me at 314-579-0933 or mail me the requested information at:

Randy Meyer
156 Ladue Oaks Drive
Creve Coeur, MO 63141

Thanks for your help - we can't do this without you. I will let you know more about what is going on in future *RPOs*.

Spouse Appreciation Picnic - July 18

The cover photo this month is one of many scenes on the wonderful railroad of Dee Joseph. This photo was taken during the 1993 Gateway Division layout tour. Dee Joseph has been kind enough to invite our members to his home again for another special event.

All Gateway Division members and spouses/significant others are invited to a summer's evening of swimming and fun at the home of Dee Joseph on July 18, 1994 from 7:00 pm to ???.

Hamburgers, hotdogs, bratwurst and utensils, plates, cups and napkins will be provided by the division. Please bring your own non-alcoholic beverages and some chips, snacks or desserts (and whatever else you can think of) to share. Don't forget your swim suits to enjoy the pool! Sorry, but since there are no lifeguard provisions, this is an *adult only* event.

Please RSVP as soon as possible to assist in planning. In the center of this issue is the reply form. When we receive your form we will mail you a

map and invitation! Make your plans now to join us for a chance to let spouses in on some of our fun.

Due to the picnic, there will be no July Gateway Division meeting.

Division Call Board

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Phil Sheahan
(314) 832-0843

Gateway Central Committee Chairman
John Winter
(618) 526-4482

Achievement Program Chairman
Brad Joseph
(618) 233-8140

Meeting for 1/17/94

There was no Gateway Division Business meeting on January 17, 1994 due to inclement weather.

Division Meeting Minutes for 2/21/94

Meeting called to order by President Randy Meyer at 7:19 pm in Collinsville.

Two clinics presented: "Operating Your Layout" by Richard Schumacher starting at 7:21 pm, followed by an overview of the "Gateway Central" Division project layout by John Winter at 7:51 pm. Break followed at 8:19 pm.

Business meeting called to order by President Randy Meyer at 8:32 pm. Introductions of visitors and new members.

January meeting was not an official meeting due to weather.

Motion to dispense the reading of the minutes, seconded, and approved.

Treasurer's report by Ken Thompson: \$3,435.40 balance before tonight's transactions. National renewals - if you have problems contact Ken. Membership card deliveries are running slow.

Club reports: Dan Osborne (Columbia MRR) this Saturday Dupo High School. St. Charles meet March 5, Lutheran High School at St. Peters (Swap Meeting) 9-2. \$3.00 admission. McDonnell Douglas meet and Gateway Division open loads contest March 19.

Director's reports: Herb McCurdy: "nothing." Steve Goaring: "quiet and peaceful." Randy Meyer: "nothing major."

Clinics: next month Gary Hoover will demonstrate repowering Atheran locos with can motors. Phil Sheahan distributed the fencing template from his October clinic.

Fall meet: Randy Meyer: the committee met and changed the name to "The St. Louis Metro Area Train Show" (15-16 Oct.). Will have about 120 tables, 11 home layouts already committed, layout tours both days (only some repeated). Nationally famous modelers have been contacted to present clinics.

At December meeting it was voted to try for the 1999 National Convention. A letter was sent to the National to put in a bid. The only competition is St. Paul. St. Louis tourism bureau is assisting. About 18 layouts are signed up to show the National representative.

Old Business: Working on "Spouse Appreciation Night" for ~~June~~ July meeting night at Brad Joseph's father's (Dee Joseph's) residence (china viewing & pool with grilled food). Need to make certificate of appreciation. Motion to hold "spouse appreciation event" on the ~~June~~ July meeting night at Brad's father's house, seconded, discussion on completing "Gateway Central" division layout, chair (John Winter) said that would not be a problem, discussion that new or interested members need to be told "the next meeting is ~~May~~ June xx or ~~July~~ August xx", and omit the ~~June~~ July date, discussion was to have on alternate night because of these concerns and a possible conflict for Brad, friendly motion to amend to the July meeting date from the June meeting date, seconded, question called, original approved, called, approved. This is an adult only affair.

Meeting room at Museum of Transport: Chris Thies talked to new director there, and they would like to see us assist with a model railroading display (educational, promoting the hobby) for

their 50th Anniversary, and would also like it manned, if possible. This would provide us with the meeting place gratis. Suggestion from floor to get video tapes from NMRA. Suggested was a representation between scales. Motion to put on a display at the Museum's 50th anniversary and accept Museum's offer of their room for meetings, seconded, called, approved. Jim Anderson and Hank Krachley volunteered to chair Museum committee.

New Business: Dan Osborne suggested a letter from Randy Meyer thanking Camelot Bowl for the use of their facility and ask for a renewal. A certificate of appreciation was recommended.

Motion to create a vendor list based on the collective materials sourcing resources of our membership. Hobby shops which are NMRA members should be noted. Called. Approved. Richard Lake volunteered to collect and forward the information for above.

Division needs to recognize Venita Lake for beautiful display at the GATS.

Motion to change the division's logo to Venita's design using the logo that has been placed on recent RPOs surrounded with the NMRA wheel and coupler. Called. Approved.

Suggestion for name tags at meetings. Discussed, no motion.

South Side Journal had article on a local Lionel hobbyist.

Need to get started on the Regional Convention for 1996. Every other year (even numbered years) the region can have a "mini convention" (one day area meet) or have a full-blown region convention. The meet would have to

be before the 1st of July. The 1996 regional could be used as a "warm up" for the National. Discussion is requested. The decision of one day or full-blown needs to be made fairly soon. Another question is whether a fall meet would still be held that year.

Division AP chairman, Brad Joseph, would like to get projects under way.

Motion to adjourn. Seconded. Approved.

Division Meeting Minutes for 3/21/94

Minutes of the March meeting were recorded by acting secretary Ken Thompson.

Meeting called to order by President Randy Meyer at 7:59 pm at the Museum of Transport in St. Louis County. Introduction of first-time visitors - Jeff Whitcomb introduced himself.

February minutes were not available for reading or approval.

Treasurer's report: \$3,350.01 in checking account. Members were urged to pay their 1994 dues.

Club News: Big River Valley group invited anyone interested to join with them. Columbia Club is set up at their club house in Columbia and will be operating every Monday night after April 1, 1994.

"1522" will be pulling a train to the NRHS convention in Atlanta starting June 18, 1994.

Layout committee: Will be ready to start work as a clinic at the April meeting.

Significant Other Night Out: Still on track, will be a pool party. More details and RSVP to appear in the next *RPO*.

Fall Meet: Committee meeting scheduled for Tuesday, March 20, 1994. Tentative "okay" for clinics by Tony Koester and Allan McClelland. John Hardy has planned for 160 swap tables, space for layouts. Eleven layouts open so far for tours.

Old Business: 1996 Regional Convention, tabled at February business meeting. After discussion, Phil Sheahan moved and John Hardy seconded that a three day Regional Convention be held. Motion passed by voice vote. President Randy Meyer reported that Richard Schumacher is working on the plaques and certificates.

New Business: The committee working on the 1998 National NMRA Convention in Kansas City has asked us to help out by running the silent auction. An explanation of the silent auction process was given. John Hardy moved that the Gateway Division volunteer to conduct the silent auction at the 1998 National Convention. Dan Osborne seconded the motion. Motion carried by a voice vote.

Phil Sheahan announced that Pat Harriman had undergone quadruple bypass surgery. Those present were asked to sign a sheet to be enclosed in a get-well card.

John Winter announced that Brad Joseph had sent letters to several members who may qualify for merit awards. Two people have responded and visits by the merit committee have been scheduled.

President Meyer displayed a picture of the vest worn by Turkey Creek division members. It costs \$30, plus \$5 for an

embroidered name. Patches could also be made for about \$4, depending upon the quantity ordered.

Meeting adjourned at 8:38 pm.

AP Program Alert

Our AP Program momentum has slowed - let's pick it up again! There is still time for some of us to complete the requirements and paperwork and submit everything needed in order to receive AP Awards at our October meet. As of now there are four members who should receive one or another certificate, let's add to that list.

In particular, it appears to me that several members should qualify for a scenery certificate based on info in the membership directory. I would like to put on a concerted effort to assist any member in any area possible so he or she may qualify and receive a certificate in the fall.

Please call me with any questions, or to arrange the inspections or merit judging, or for help in preparation of the paperwork.

Brad Joseph
Gateway Division AP Chairman
314-421-6142
618-233-8140
618-632-4830

Dispatcher's Desk

by Bob Amsler

In order to operate well, a number of important factors must be considered. These factors, which I have borrowed from Allen McClelland, set the stage for your railroad, flavor the pike and exert influence over decisions concerning the

railroad. Consider these factors when planning a model railroad empire or trying to set up a prototypical operating scheme. If these things are considered, the railroad will bring many years of satisfaction.

The first factor is the locale of the railroad. The location of the railroad is important. The modeler must pick an area of the country that he or she likes. This encourages the railroader to do more research into the area and learn even more about it. For instance, I like the Missouri Pacific Railroad (which will probably become evident over time). However, I do not necessarily like the relatively flat land found in the St. Louis area. I tend to like the older rounded mountains found in the Appalachian Mountains. I do not like the steep and jagged mountains in the Rocky Mountains for railroading. Therefore, I have decided that when I have the room, I will expand my current city switching layout to be integrated into a larger system including large portions of the Ozarks. This will allow me to model the Missouri Pacific (or my own company loosely taken from the MOP) and yet get the feeling of the railroad moving through the substantial mountainous regions of the area. This will force me to make certain decisions which I welcome. In order to operate in the White River region (yes, this is the White Water area in which Bill and Hillary invested), the MOP used helpers. This will force me to put the rail lines in a valley with the White River and towns. This means that there will be a lot of scenic interest in a little area. And, the scenery and grades will slow the trains which will require more time to go from point "a" to point "b".

The next factor to be considered is the era of the railroad. The time period will

influence the choice of motive power and rolling stock. It will impact on the industries the railroad will serve and their size. And it will also influence the autos, if any, you can use as well as the clothes your little people can wear.

The third factor to be considered is the traffic patterns you like on your route. A number of possibilities confront the modeler. For instance, a person could model a shortline, a narrow gauge, a heavy traffic mainline, a regional railroad, a local switching branch or a bridgeline. Each of these possibilities has its own traffic pattern, cars, tempo and flavor.

The final factor to be considered is the management style. This will influence every aspect of the railroad from the choice of motive power and the types of passenger cars to the paint scheme. Some railroads were willing to try anything in motive power to move the freight. This resulted in gas turbines and DD-40Xs on the Union Pacific. Other railroads were more conservative and bought tried and true engine designs. Liberal railroads purchased fluted stainless steel passenger cars while the more conservative railroads were using cars with smooth sides.

In order to have a successful pike, one should consider these factors and employ them on the empire. Pick out the features you like best in your favorite prototype and either model those, for those modeling the prototype, or take those features and apply them to your own dream empire. If these factors are used on your railroad it should bring you years of enjoyment and you should not tire of seeing or working on the layout. Until the next time, I hope all the signals you see are green over red.

Gateway Central Mission Statement

by John Winter

The mission of the Gateway Central is twofold, first and foremost it will offer the division members an opportunity to get directly involved with the construction of a model railroad and give some members the opportunity to showcase their skills and at the same time offer some others a platform to learn new or different facets of the hobby, and second, to promote the hobby of model railroading.

Construction of the "Gateway Central" will be divided into separate construction committees, *i.e.* benchwork, track, and so on. Each committee will consist of a chairman and 5 to 6 committee members. The committee's responsibility will include not only construction of their phase of the project but also procurement of the materials necessary to complete their assignment. If the committee is unable to get the required materials through donations either personal or professional (hobby shop, lumber yard, etc.), then the committee chairman will contact the procurement chairman who will be authorized to make purchases, upon approval of the Division Superintendent, at the appropriate wholesale or retail store. Special consideration should be given to wholesale or retail stores who have demonstrated support for the project railroad, the Gateway Division, the Mid-Continent Region, or the NMRA as a whole.

The Division meeting will be used as a platform for construction clinics during the year. Each committee will schedule their clinic with the division meeting

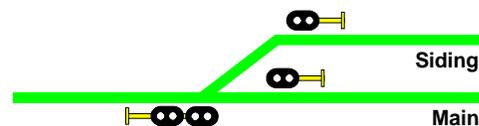
clinic chairman. Scheduling will be such that the project will progress not only in a timely manner, but also in a natural sequence of construction. An exception would be the clinic on structures which would not effect any of the other committee's construction schedules. All committees are advised to meet as many times as necessary prior to their scheduled clinic night to complete their phase of construction so as not to take less than 30 minutes or more that 60 minutes for their portion of the project railroad. The committee may ask for participation from the audience the night of their clinic, to assist, for the purpose of instruction for that individual(s) or the benefit of the membership in attendance at the clinic.

The Gateway Central must be completed by the Gateway Division meet held in October. Raffle tickets will be sold the day of the meet in an effort to pay for the project and provide income for the Division's general fund.

Adventures in Wiring

by Richard Schumacher

This time we wire a common signal situation, a passing siding. Last issue we created a logic table of when we desire red indications based on the position of the turnout. We use a two headed interlocking signal at the point end of the turnout, and single headed block signals on the main and siding.



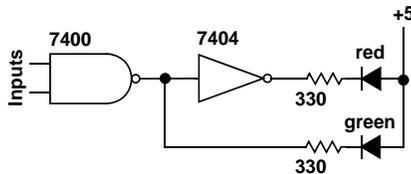
In our table, "N" is the normal (main) route for the turnout and "R" is the reversed (siding). The table's top row

are the individual signal heads. "Top" and "bottom" are the corresponding heads on the interlocking signal.

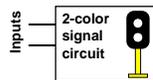
	Siding	Main	Top	Bottom
R		Red	Red	
N	Red			Red
move	Red	Red	Red	Red

The table cells where we didn't mark "red" will have the indication decided by block occupancy. We also want all the heads to show red when the turnout is in motion.

We are going to use the same 2-input NAND gate circuit design from the previous articles. However, since this situation requires we wire four signal heads, we can use a 7404 hex inverter chip to reduce the number of parts required. The 7404 chip has six separate copies of the inverter circuit built inside. The following is a version of our signal circuit using one NAND gate and one inverter.



Our passing siding installation will require one of these circuits for each of the four signal heads. One of the inputs for each circuit will be controlled by the position of the turnout. We will use the following "block diagram" to indicate the above circuit.

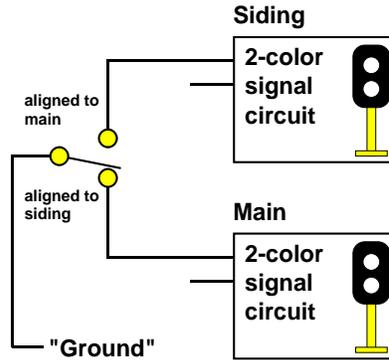


Remember that the IC chips in this circuit operate on an exact 5 volts DC. The two outputs of a 5 volt DC power supply are called "+5" and "ground" by

techie-types. On this circuit, when either or both of the inputs are connected to "ground" the signal is red. When both inputs are *not* connected to "ground", the signal is green. So anything that connects either input to "ground" turns it red.

One set of contacts on the turnout motor will be used to electronically indicate the position of the turnout.

Our first try:



The first approach you may consider would be to connect the center pole of the contacts to "ground" and one input on each of the two block signals to the two positions of the contacts (see diagram on bottom of previous page).

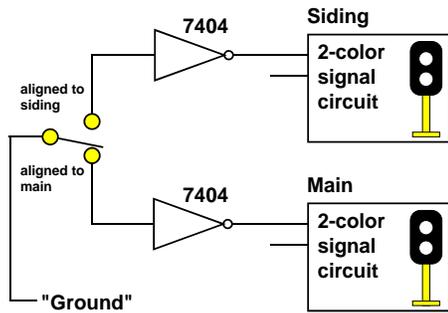
When the turnout is aligned to the main, the siding signal would be red. Likewise, when the turnout is to the siding, the main signal would be red. Unfortunately, when it is "in between", both are *not* connected to "ground", so both would show (the wrong) green!

If you have an instant-action turnout motor, this isn't much of a problem (it happens too quickly to notice). But a slow-motion turnout motor would show the wrong indication while it is moving, and all the nit-pickers will be quick to point this out (these are also the guys

that tell you the rust color on your trucks is wrong for that vintage car).

The problem here is that the contacts aren't connected to "ground" when the turnout is moving. We want electrical result to be the exact opposite, and that's what inverter circuits do.

If we add an inverter, we can still make it show the correct indications for each turnout position. But now we can make both block signals red when the turnout is in between.

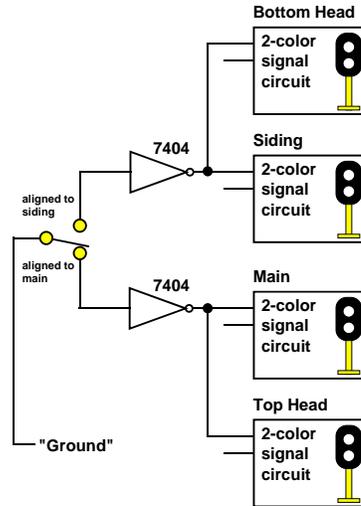


Note that the contact connections which control the red indication when the turnout is in each position is the opposite here. That's because the inverter changed the logic.

With the turnout to the main (as drawn in our new diagram), "ground" (also known by techies as a logic "low") is connected as the input to the bottom inverter. The inverter changes this logic "low" to a logic "high" - which tells the mainline block signal it can be green (we assume that the other input to the signal isn't connected yet).

The top inverter isn't connected to anything. These chips are designed to be a logic "high" when that happens. So the input of the top inverter is "high" which makes the output "low" which tells the siding block signal to be red.

In between, both contacts are not connected, both invertors see a "high" as input, and the "low" out of each makes both signals red.

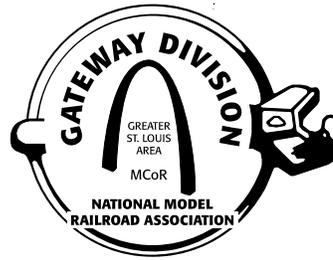
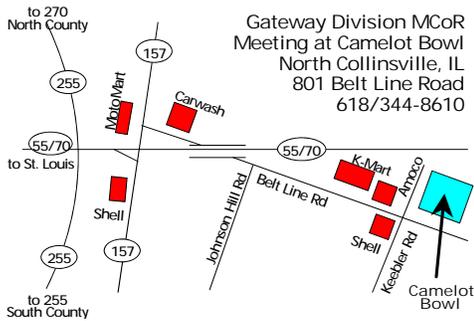


The two heads of the interlocking signal are connected just like the block signals. If we count all the NAND gates and invertors, we see we need four NAND gates and six invertors - and it just happens that four NAND gates are in one 7400 package and six invertors are in one 7404 package! But how to wire them easily? Next issue we will create a printed circuit board, and explain what "loose ends" need to be tied up to make this work reliably.

Where's The Meeting?

Meetings in odd numbered months (January, March, May, July, Sept., and November) are held at the National Museum of Transportation on Barrett Station Road in West County.

Meetings in even numbered months (the other ones) are held at Camelot Bowl in North Collinsville (see map).



Meetings are the third Monday of each month with the clinic portion starting at 7:00 pm. The business meeting follows the clinic after a short break.

Call for Articles

The *RPO* needs you! Please send your articles, photographs or artwork to be included in future issues of the *RPO*. You gain AP Author points for material that appears in the *RPO*.

Send your submission to the editor at Box 510500, St. Louis MO 63151-0500 or give it to me at one of the meetings.

New Logo

This is the new Gateway Division logo design adopted at the February business meeting.

Calendar of Events

Do you know of an event of interest to other *Gateway Division* members? Send the information to the editor so it can be listed here in future *RPOs*.

Mon, May 16, 1994

Gateway Division Meeting
7:00 pm Museum of Transport

Mon, June 20, 1994

Gateway Division Meeting
7:00 pm Camelot Bowl (Collinsville)

Mon, July 18, 1994

Gateway Division Special Meeting
7:00 pm Dee Joseph Home
RSVP required to attend, see reply in center section of this issue

October 15 & 16, 1994

Gateway Division Annual Meet
Belleville Area College