



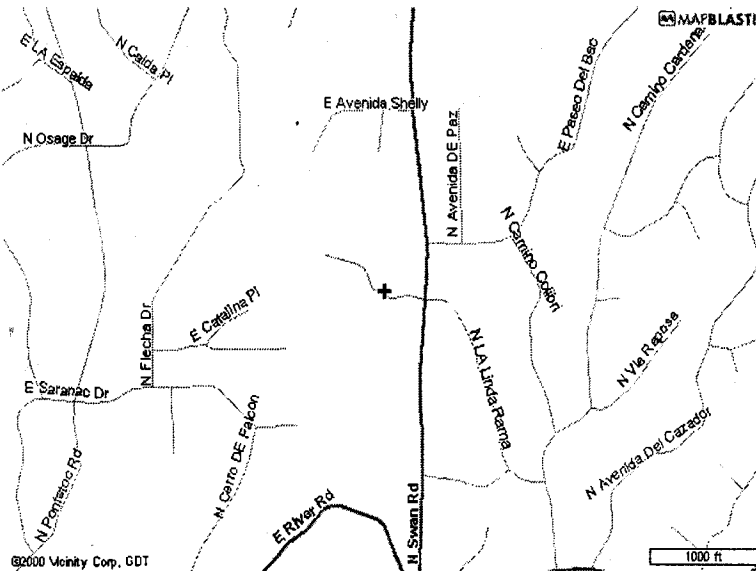
Tucson Garden Railway Society

July 23, 2000

Submissions are requested for the TGRS Newsletter in the categories of RailRoad News and Tech-Notes. Articles should be submitted by **August 15, 2000**, send submissions to:
Email to: nbuchholz@noao.edu
Snail mail to: TGRS, 3401 W. Blacksill Dr., Tucson, AZ 85741

TGRS Aug. 26th Meeting at the Martin's.

Where: Gary and Peggy Martin's House
4625 E. Cerro de Aguilla
Telephone (520) 299- 8627
Event list:
1000 - TGRS meeting
Info:



TGRS Mailing List Started

The TGRS Automated Mailing list is up and running on www.egroups.com. All of you who have an email address should have received an invitation to join by now. If you have not received an invitation, you can join yourself by going to:

<http://www.egroups.com/group/tucsonGRS>

on the Web and pressing the **Subscribe** button and following the directions. If you have any trouble please contact me at:

nbuchholz@noao.edu and I will sign you up.

The Group Page also includes a calendar and a database for people to use. I'm trying to keep things up to date on the calendar, but if you know of an event which is not listed please add it. The Database is designed to let us know about each others' Railroads.

Treasurer's Report Fiscal Year 1999-2000

Summary

With the end of our fiscal year, I wanted to bring everyone up to date on the club's finances. In rounded terms, our revenues were \$8,600 and our expenditures were \$6,200 for a net increase of \$2,400 of cash in the bank for the year. We began the year with a little over \$3,000 in the bank and wound up with a little over \$5,400.

Revenues

The largest revenue item came from our raffles and the contributions made by the shows at which we exhibited trains. Overall this brought us about \$5,400 (about \$1,300 at the October Home Show, \$1,400 at the January Home Show, \$2,300 at the Pima County Fair and \$400 at the GAT show).

Dues, both renewals and new members, brought in another \$2,100 and we received another \$900 from the sale of telephone poles and some decorative stones (Thanks to the Dirksen's for the telephone pole design, a number of members who helped to build them, and especially to Jan and Al Lathrem who carted them to and sold them at several shows).

The remaining \$200 in revenue was from the sale of additional club badges and club shirts.

President's Corner

Hi Nick, - Input for the Newsletter:

Congratulations to our own Nick Buchholz for winning first place in the freight car division at the National Convention in San Diego. His log car, which modesty seems to prevent him from bringing to the meetings, beat some stiff competition.

Way to go Nick!

Yes. you must print this! Jon

Expenditures

On the expense side, our biggest single expenditure was \$1,800 for track which was purchased for use at the TCC outdoor layout for the home show. As you know, this did not happen (we were inside at the TCC for the October and January home shows and did not participate at the spring home show) and we still have most of this track. A few lengths were used on the new modules (Most of the track and switches on the new modules were donated by Bob and Phyllis Dirksen).

We spent about \$1,400 on the modular layout, mainly on material for the new modules (but this figure includes \$340 for the Prairie Dog modules, \$250 for Hillman clamps and \$100 on the 'tower of power') and \$900 on the trailer (\$750 for the racks and \$150 for a two year renewal on the trailer license plate). These first three line items total \$4,100 and represent our major expenditures.

The remaining \$2,100 of expenditures consists of many smaller items. In descending dollar value these included; \$400 for raffle prizes, \$400 for club tools, \$250 for the news letter (including postage), \$250 to host the ABTO (lunch and printing the programs) \$250 for our liability insurance, \$200 on badges for new members (but about half of that was extra badges where member payments show up in revenue, \$150 for meeting fees (including the Xmas dinner and the contribution to the Gadsden Pacific as well as the \$25 meeting fees to those members that accepted it), a little over \$100 for rolling stock and about \$100 of miscellaneous (annual corporate fee, bank check charge, miscellaneous printing, etc.)

All of the above numbers have been rounded to make easier reading but a more detailed financial statement is shown elsewhere in this news letter.

Dues

The above revenue figures include \$810 of dues for fiscal year 2000-2001. This represents payments by 27 families, which is pretty good since the 1999-2000 year didn't end until June 30. Still, 27 families is less than half of our membership. Everyone is on a fiscal year basis for dues (that is, your dues are due on July 1) and if you are not one of the 27 families who have already paid, please send your check (made out to either TGRS or Tucson Garden Railway Society) to me at: Dick Izen, 12356 N. Mount Bigelow Road, Oro Valley, AZ 85737.

Tucson Garden Railway Society

Fiscal 1999-2000 - July 1, 1999 - June 30, 2000

Revenue Item	Amount
Dues	2055.00
Raffles, Contributions & Awards	5386.95
Stone & Pole Sales	931.00
Extra Badges	95.00
Shirts	85.00
Total Revenue	8552.95

Expense Item	Amount
Track for Home Show	1792.70
Modular Layout	1380.99
Trailer	919.86
Raffle Prizes	426.80
Tools	353.60
News Letter	242.20
ABTO meeting	263.72
Insurance	250.00
Badges	187.21
Meeting Fees	154.27
Rolling Stock	135.00
Miscellaneous	61.95
Total Expenses	6168.30
Cash Balance July 1, 1999	3038.5
Cash Balance June 30, 2000	5423.15
Net Increase	2384.65

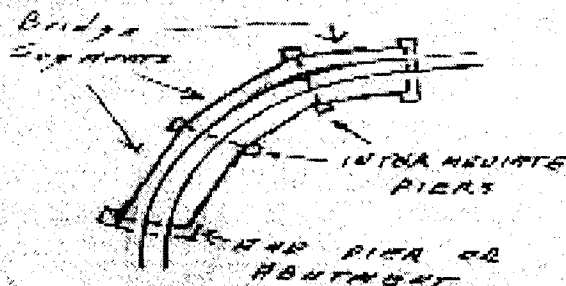
TechNotes by Dick Izen

More on Bridges

Several months ago Nick told us about Bridge Abutments and Piers and about Bridge Supports or Shoes. He has asked me to expand on that article with a discussion of multiple segments and skewed bridges so that you can design and build the bridge that best meets your railroad's needs.

Nick's article ended with a note about all bridges being straight but being built wider to accommodate curved track. This is correct, but a problem arises when the curve is a long one. If there was only a single segment the bridge would have to be so wide that it would no longer practical from an engineering point of view. The real railroads would solve that by building a series of short bridges (or segments) with intermediate piers supporting the ends of each segment. See drawing # 1 below

Drawing 1



Segments are useful from another point of view in that different types of bridges can be used on different segments. A full discussion of which type of bridge is best suited for which particular site would fill a book. Generally speaking, a deck bridge (where the bridge is almost all below the

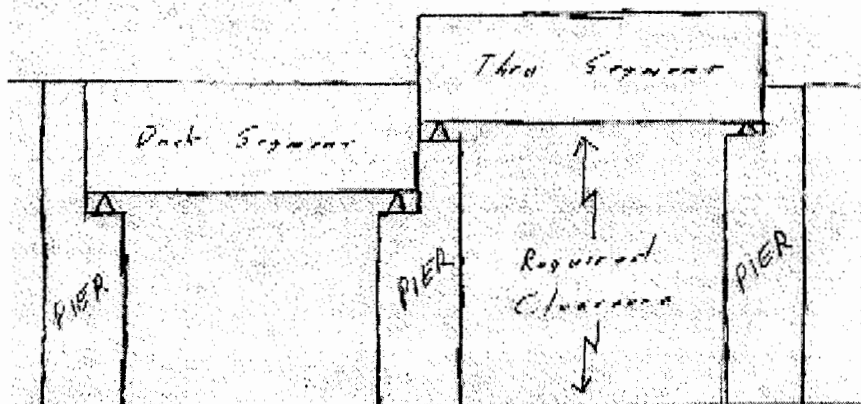
track) is more economical and efficient than a through bridge (where the bridge sides rise above the track structure). This is because the designer has more flexibility in moving the support beams under the track structure which carries the weight to the bridge. Said another way, there is no reason to worry about being wide enough to clear the train if the supporting structure is all below the track.

There may be a need for a particular vertical clearance, say where the upper track crosses a lower track or road or even navigable river. In this case the railroad may prefer the additional complexities of a through bridge for that segment. The alternative would be to raise the entire structure and the approaches. Because railroads need gentle vertical grades this would involve the costs of gradually raising several miles of track on each side of the bridge. In such a situation the additional cost and complexity of a through bridge would be the more economical approach.

Drawing #2 shows a side view of a two segment bridge where only the right segment is over a road and requires a greater vertical clearance. Although bridges are always straight, in that the two sides are parallel, the ends are not always perpendicular. This is because in the real railroad world bridges often cross at an angle and a 'skewed' to fit those angles. More often than not a real railroad bridge viewed from above will look more like a trapezoid than a rectangle. Further, depending on the location, the two ends may not be at the same angle.

You can see this in drawing #1, above, where the segments carrying the curved track meet at an angle.

Drawing 2



In our world of models, purchased bridges are generally through bridges (because seeing the train through the sides tends to enhance the illusion) and are generally squared off rectangles (because they are mass produced and the designer doesn't know the location into which you will set them). There is nothing wrong with this, but if you have a particular situation on your pike consider modifying the bridge to fit the angles of the crossing and consider using additional segments where the maximum clearance isn't required. It will make your railroad look more 'built to order' and more closely approximate the prototype.

Clinic Announcements

Event:: A Bridge Building Clinic by Nick Buchholz

Location: The Engineering Offices of the Tucson, Piedmont and Sonoran Desert Railroad, 3401 W Blacksiil Dr. plan on a trip to several locations along the TP&SD right of way to see several bridge types in use.

Date: Saturday, August 12, 2000

Time: 9:00am-12:00pm

Description: This will be a general Clinic on Bridges. Choosing the right type for the application, building the bridge and making it look real and detailing it.

Meeting Change

The September meeting of TGRS will be at Darel and Anne Magee's house on September 16th at 9:30 AM.

SDGRS Convention Report

I won't go into a lot of detail as we'll surely be talking about this wonderful convention for a long time. Besides a large number of great layouts and excellent clinics, there were lots of things to buy and win.

Speaking of winning if anyone is planning a Las Vegas trip be sure to invite Marty Hart along. Besides winning the drawings at the Ice Cream Social and the LGB Tour, She also took home a prize from the Friday night Sea World Banquet and then according to my sources gave her Fiesta Raffle ticket to Loyal, who of course promptly won. An investigation into raffle fixing will be instituted at the earliest possible moment. Alternatively I plan to let Marty hold my tickets at any future raffles.

The Tucson Garden Railway Society is a non-profit corporation incorporated in the State of Arizona, Pima County. We are interested in all areas of garden and modular Large Scale model railroading. We welcome new members and hope you will consider joining. Members help each other build layouts and learn about Railroading and modelling.

The TGRS dues are \$30.00 per year and are due on June 30th of each year. For new members dues are pro-rated at \$2.50 per month remaining in the year plus a 15\$ initiation and processing fee the first year. Additional name badges cost \$5.00 for each badge after the first.

If you are interested in the TGRS please contact one of the officers at the phone number listed in the Calendar section. If you just *have* to join immediately send a check and your name, address and telephone number and the names for any additional badges to: Phyllis Dirksen, 8648 N. Auriga Way, Tucson, AZ 85742 or Jon Anderson, 4080 E. Bujia Segunda, Tucson, AZ 85718

CALENDAR EVENTS

AUG 12 - CLINIC ON BRIDGE BUILDINGS AT NICK'S HOUSE
AUG 26 - TGRS MEETING AT THE MARTIN'S - 10:00 AM

President:	Jon Anderson -	(520) 529-6554
V-President:	Gary Martin -	(520) 299-7428
Secretary:	Phyllis Dirksen -	(520) 742-9503
Treasurer:	Dick Izen -	(520) 498-4634
Editor:	Nick C. Buchholz -	(520) 744-4932