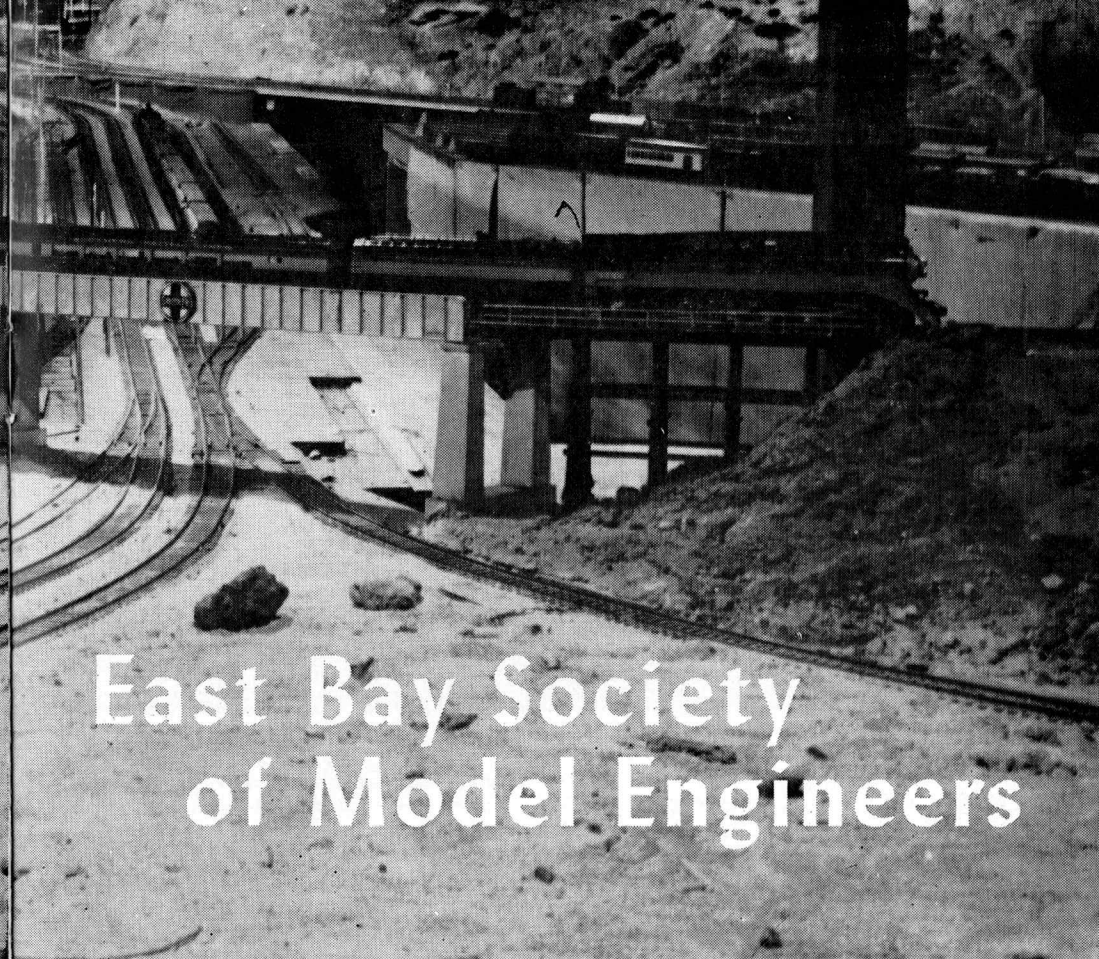


Railroading In O Gauge At Its Best



East Bay Society of Model Engineers

The Oakland, Antioch and Eastern

“Electrified”

By W. G. HOFFMAN, JR.

PART 2

PHOTO 1—Looking toward the Mulbury yard, briefly seen to the left of the intercommunication board in background above third car of the “Daylight” Southern Pacific train crossing bridge.

Trisided of three separate roads, name- THE East Bay Club's O Gauge layout fills a room 130 by 75 feet and is com- ply: The Santa Fe Western, a huge steam and diesel division; the rising Rio Grande & South Park, an On₃ (narrow gauge) division with close to 200 feet of track laid and a goodly number of engines, cars and interested male members; and the OA&E electrified division. These three major divisions are only part of six in operation by the club, the others being constructed in smaller gauges in another smaller room.

Basically, the OA&E is a sectionalized railroad that intertwines with the Santa Fe Western lines. It is divided into 6 subdivisions which are independently operated in order to allow as much or as little of the whole division to be operated as described.

The seat of division activities is a well designed control board which controls the

operations of all trains, switches, and polarity within the major OA&E division. Running a division (any one of the three) is a one man job as a rule. The map (OA&E Division's track layout shown on page 36) shows the control boards which are located around the room adjacent to the trackage, with the exception of the North Tower board which is raised and away from the layout at the North end.

Now, I shall take you on a tour of the road as a “guest operator,” and I will explain what you can do from each control board. The Club had an open house recently for all model railroaders in California and several hundred responded with their presence. We opened the layout up for “guest operation” for a weekend and what I am going to describe here could easily have been your experience if you had been there.

Starting at Mulbury, which is the northern terminal for all “through”

EDITOR'S PREFACE—Last month the East Bay Club's layout in general was pictured briefly. This month, Bill Hoffman, one of the club's older and more prominent members describes the OA&E division of the layout which is the trolley division.

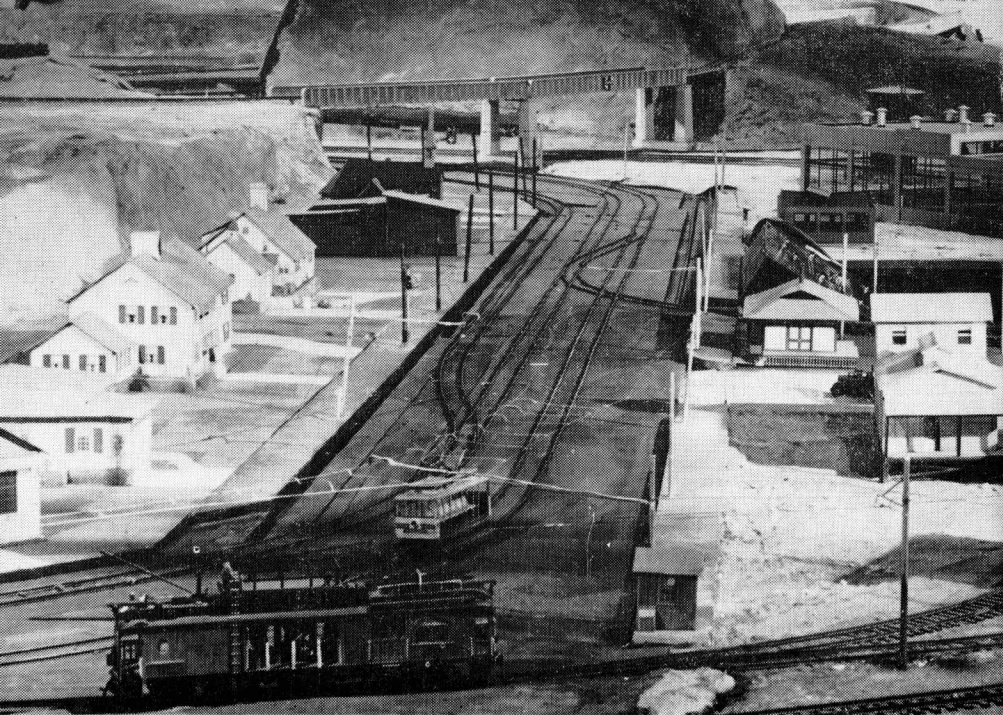
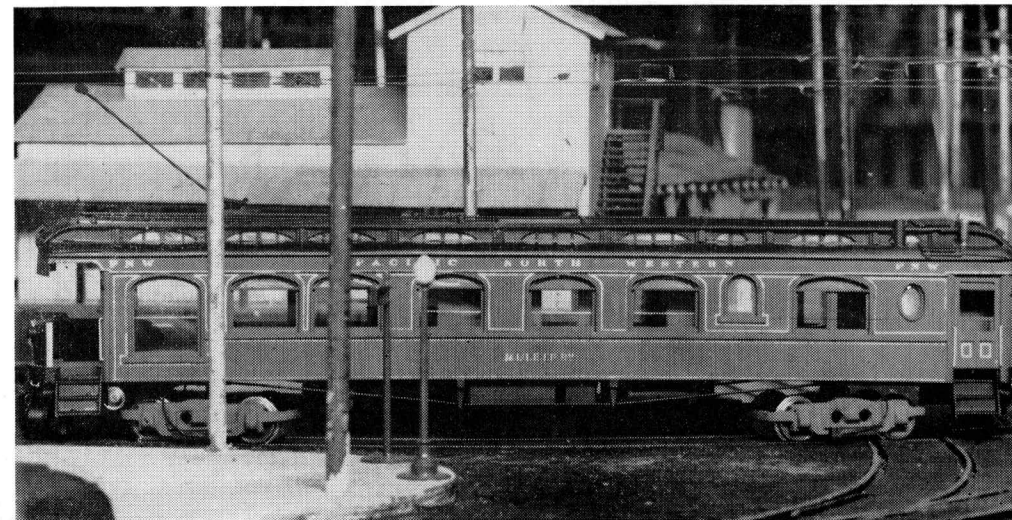


PHOTO 2—Looking down Main St. in the city of Sacramento. The view shows 20th St. shops and 22nd St. passenger yards. Another view of the Sacramento scene taken in front of the control board (above center), is shown in Photo 5, bottom of pages 44 and 45.

Moving around the room (refer back to layout map), we next come to the Sacramento Division of the OA&E. Photo No. 1 shows portions of this area. Since this

PHOTO 3—The "Mulbury," sister car to the "Oakland," which was pictured on THE WHISTLE • STOP cover, Sept. 1951, is shown below running in the city streets of Antioch.



picture was taken the city of "Antioch" was built as shown on the layout map. Photo No. 3 shows the business car "Mulbury" running on the city streets of Antioch.

A look at the map again shows this division to consist of trackage from Chippis to Shell Point on the mainline, the Antioch yard, city of Antioch, and the Pittsburg branch. When things get to humming, the operator here is as busy as the proverbial "one-armed paper hanger."

The Pittsburg branch is operated automatically with a shuttle train of one or two cars, running from Mallard to Pittsburg, usually using a flywheel drive. Occasional runs are made into Antioch, and about once per night (operating, that is!) a franchise freight runs from Pittsburg to Chico and return.

The Antioch operator exchanges trains with the North Tower and Concord Divisions.

The proposal now going the rounds is to add the Richmond Development in conjunction with a re-building of the Santa Fe Western yards in order to provide the city of Richmond with trolley and steam interchange, switching along with the Richmond City Lines, an OA&E local operation. This would cause the creation of the Pittsburg division as a separate operation from the automatic branch as is now done.

The Concord Division starts at Shell Point and controls all trackage to Havens

(Continued on page 46)

ed allow the operator to operate several hundred feet of track, some 20 odd switches, and three or four trains at a time without seeing them. It is the only such arrangement I have heard that is in existence in the country. The fact that the entire division is trolley (in effect, 3-rail), makes this arrangement and operation possible. It could not possibly be accomplished with a 2-rail set-up of operations.

Oakland — Not San Francisco

LAST month, PART I of the East Bay Society of Model Engineers appeared in THE JUNCTION. This month W. G. Hoffman, Jr., presents Part 2 with more pictures and an interesting sketch of the divisions and activities which occur on the electrified part of the club's layout.

Through an unfortunate error on the parts of the editors, location of the East Bay Club's layout was reported to be in San Francisco. The correct location is in Oakland at 4075 Halleck St. A deluge of letters came from West Coast fans shortly after the February issue was released, pointing out the error. The response obtained from so many interested fans has been most gratifying, in spite of the mistake made.

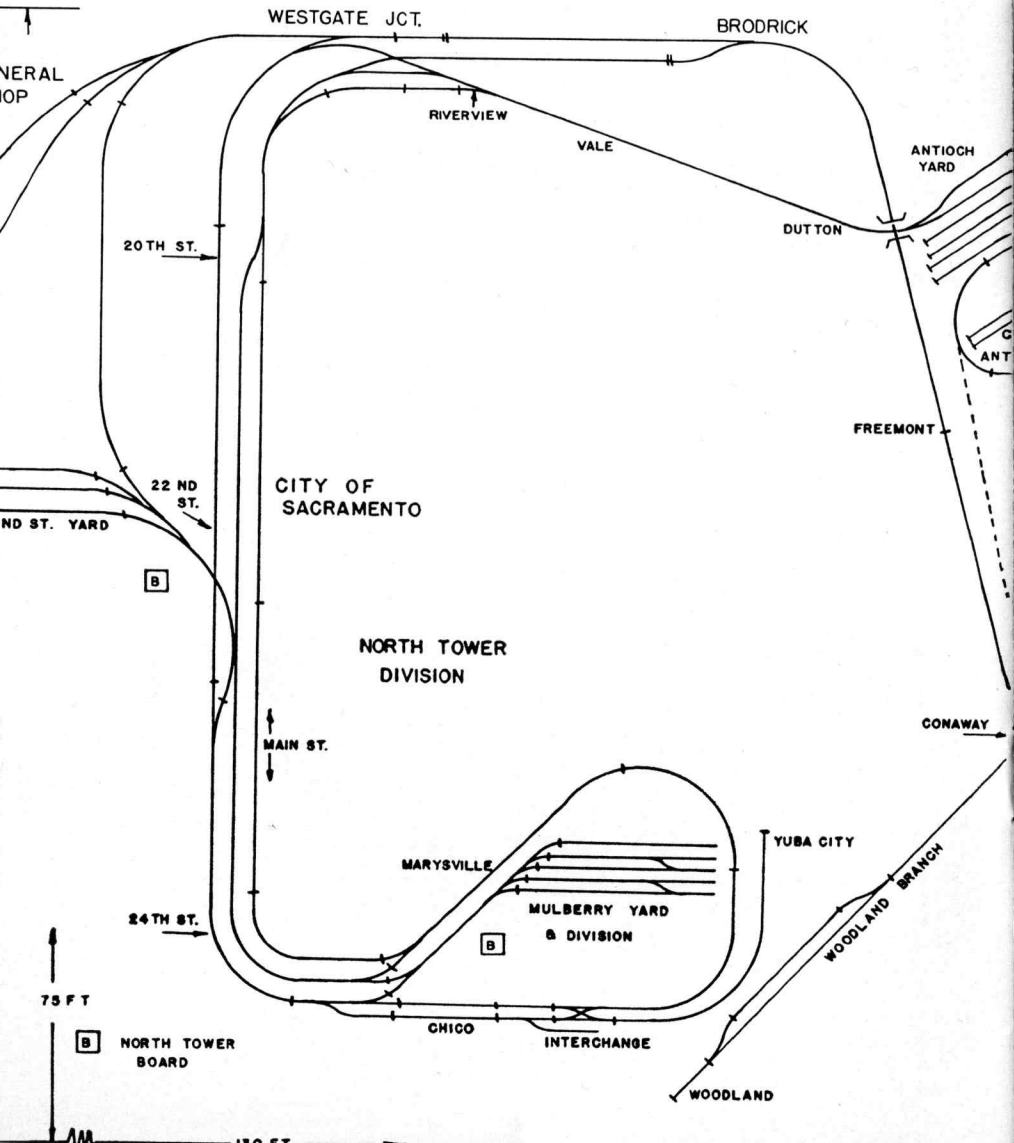
Jack Collier, a past President of the Club, and now owner of several nationally famous hobby shops in Oakland and San Francisco, relates more about the club's organization and business activities on page 39.

freights and most passengers, the operator is also the dispatcher and controls all the trackage in the yard. As operator at this point you are also in joint control with the 22nd St. passenger yard operator and the center track on Main St. in Sacramento. It is interesting to note the various "overrides" built into the OA&E which permits sub-divisions to be combined as necessary. In this area the Mulbury North Tower and 22nd St. yard operators are all located. By use of selector switches, the Mulbury or North Tower operators can take over the 22nd St. yard; Mulbury can take over North Tower; and North Tower can take over the mainline of the Oakland Division. In effect this means one man can double for three on the entire North half of the division if necessary.

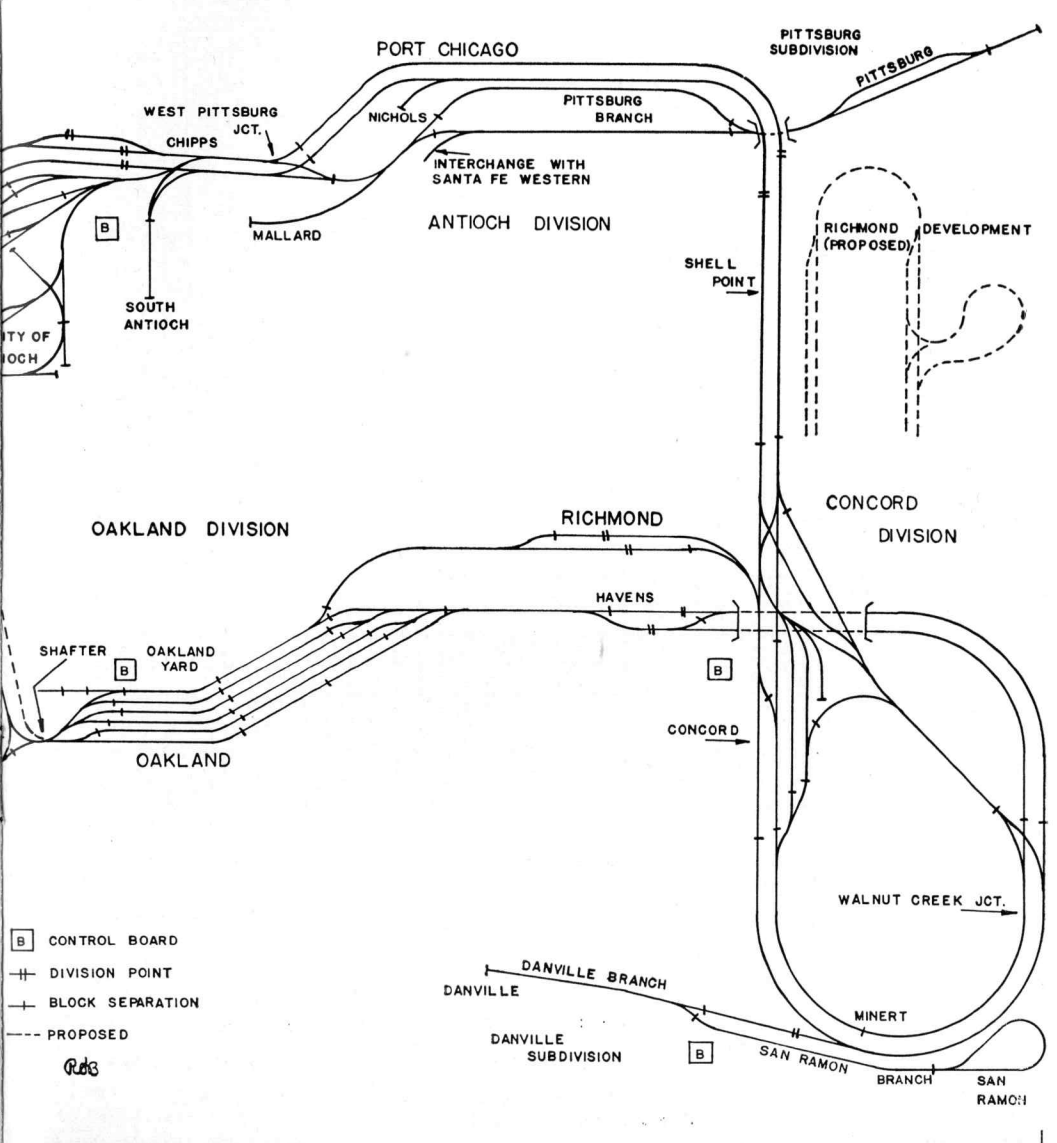
An interesting note about North Tower is this: The control board is completely CTC (Centralized Train Control) and light indications show the position of all switches, the polarity of all sub-divisions that abut, and the location by blocks of all trains and separate cars. The control is so set up as to be, in effect, a "link trainer" because shades that are provid-

*Editor's Note: Bill Hoffmann, the author spells this town as "Mulbury." Map Of Operations, pp. 36-37 gives spelling as "Mulberry." Both are same. If other misspellings occur, it is because we have copied directly from the East Bay Club's material without asking Bill Hoffmann or the Club which spelling is preferred.

MAP OF OPERATIONS EAST BAY TROLLEY DIVISION



The OA&E electrified division maintains six separate sub-divisions, each independently operated.



- [B] CONTROL BOARD
- +— DIVISION POINT
- +— BLOCK SEPARATION
- - - PROPOSED

NOTORIZED EQUIPMENT ROSTER, AUGUST, 1950

Initials	Number	Description	Rated Tonnage	Owner
OA&E	401	Freight and Passenger loco	1000	Briggs
OA&E	451	Baggage Motor	500	Briggs
OA&E	42	Passenger combinations	500	Briggs
OA&E	40	Yard switcher	300-500	Briggs
LC&SE	1007	Steeple cab locomotive	700	Lowe
LC&SE		Steeple cab locomotive	600	Lowe
LC&SE	201	N. S. Combine	200	Lowe
LC&SE	104	Baggage Motor	300	Lowe
LC&SE	1110	Flat Cab	200	Lowe
Key	501	Bub. passenger	-0-	Hannah
NU	62	Passenger combination	-0-	Hannah
R&E		Baggage Motor	300	Jesse
SN	1001	Passenger combination	400	Hoffmann
SN	1006	Passenger flywheel drive	200	Hoffmann
SN	1005	Passenger combination	400	Hoffmann
SN	1012	Passenger combination	400	Hoffmann
SN	1014	Passenger combination	400	Hoffmann
SN	1020	Passenger	400	Hoffmann
SN	601	Baggage Motor	500	Hoffmann
SN	602	Baggage Motor—Flywheel drive	300	Hoffmann
SN	607	Baggage Motor	500	Hoffmann
Key	1000	Steeple cab	700	Hoffmann
Key	1001	Steeple cab	700	Hoffmann
Key	100	Articulated passenger	-0-	Hoffmann
Key	178	Articulated passenger	-0-	Hoffmann
Key	1011	Wrecker	800	Hoffmann
Key	955	City car	-0-	Lowe
Key	956	City car	-0-	Hoffmann
Key	957	City car	-0-	Buckingham
Key	570	Suburban passenger	-0-	Buckingham
IER	300	Suburban passenger	-0-	Hoffmann
IER	320	Suburban passenger	-0-	Hoffmann
IER	340	Suburban passenger	-0-	Hoffmann
IER	375	Suburban passenger	-0-	Hoffmann
SN	660	Baldwin-Westinghouse Frt. motor	900	Buckingham
EBE		Baggage Motor—4 wheel	300	Dangle
Key	495	Combination Passenger (SN)	400	Hoffmann
OA&E	201	NS Combination passenger	300	Hoffmann
OA&E	21	Industrial switcher—4 wheel	300	Hoffmann
PNW	0302	Line car	-0-	Hoffmann
Open bench	01	City car	-0-	Hannah
LC&SE	10	City car—4 wheel	-0-	Lowe
LC&SE	12	City car—8 wheel	-0-	Lowe
LC&SE	14	City car—8 wheel	-0-	Lowe
LC&SE		Birney—4 wheel	-0-	Lowe
NE	50	Flat cab Motor—8 wheel	100	Mohr

NOTE: 100 tons rated tonnage equals 1 trailing car—passenger or freight.

EMPLOYEES TIMETABLE AND ROUTINGS — AUGUST, 1950

CONSIST SYMBOLS: All trains to run according to Consist Symbols (see "Train Routings" Chart, page 38.

- A Passenger single unit train
- B Passenger single unit train—No Hand Reverse
- C Two car passenger
- D Two car passenger—double ended (M.U. Trailer)
- E Two car passenger—No Hand Reverse
- F 3 car passenger
- G 4 car passenger
- H 5 car passenger
- I 6 car passenger—MAXIMUM
- J Local Freight
- K Local Freight—No Hand Reverse (This Class equipment should be restricted)
- L City car
- M Single passenger (flywheel drive)
- N Through Freight—Maximum 8 cars and locomotive.
- O Through Freight—No Hand Reverse
- P Passenger Cars Restricted due to clearances.
- Q Mixed Trains

SPECIAL RESTRICTIONS, CLASS P EQUIPMENT,
Havens to Walnut Creek Jct: Linecar 0302
WILL NOT CLEAR I.R.R. 300 series

The following equipment will not clear coupled on Antioch City Lines:
Business Car "Antioch", SN Observation "Sacramento", Track Cleaner 0301. SN 1006, 1009, 1015, 1018 will not negotiate Market St. turn out. I.E.R. 300, 320, 340, 375 will be run within city limits of Antioch as single units. All industrial switching within Antioch city limits to Antioch as single units. All industrial switching within Antioch city limits to be handled by Key 100 or 1001.

Business Car "Concord" will not run observation end forward.
Caboose SN 1600 restricted to Antioch-Oakland line only.
Caboose OA&E 2 restricted to Chipps-Pittsburg Branch only.

All equipment to run on 12-18 v DC. All to be equipped with DC motor or reversing rectifier or relay. All to be equipped with hand reverse unless noted. All to be equipped with pantograph with snap attachment. Pole operated cars restricted to No. 43 line only.

Not more than 1 M. U. trailer may be pushed on main line at any time.
Car 1006 restricted to Pittsburg Branch
Business Cars: "Antioch" assigned to Oakland Division
"Concord" assigned to Antioch Division
"LaCrosse" assigned to Concord Division
"Oakland" assigned to North Tower-Mulberry Division

All freight cars to weigh a minimum of 16 oz.
All passenger cars to weigh a minimum of 20 oz.
All equipment to run coupled around 24" radius unless otherwise noted.

Helper service provided at: 1) From Westgate Jct. southbound to Dutton, 2) Chipps northbound to Dutton, 3) Nichols southbound to Shell Point, 4) Oakland southbound to Richmond Station. Helper engines assigned as necessary. All Class H, I, and N as necessary to be doubled at above noted locations.

Switch engines restricted as follows:

OA&E 40 to Oakland Yard
OA&E 21 to Antioch City and Yard

Published, but not edited, by Oakland, Antioch & Eastern Reporter.

OA&E ROSTER AND CAR RECORD

CAR NO. ROAD OWNER

1. Coupler swing	*	14. Body type			
2. Teeter	*	15. Length	ft.	in.	
3. Type wheels		16. Width	ft.	in.	
4. 2 Rail 3 Rail		17. Height	ft.	in.	
5. Minimum radius	*	18. Body construction			
6. Type couplers		19. Manufacturer			
7. Car weight	lb oz	20. Built when			
8. Wheels—Single-double insulated		21. Prototype			
9. Restrictions		22. Lights			
10. Interchange to steam		23. Builder			
11. Coupler height	*	24. Owner's Road Initials			
12. Coupler clearance	*	25. Glass			*
13. Scale	*	26.			*

IF AN ELECTRIC LOCO OR MOTOR CAR, PLEASE FILL IN THE FOLLOWING:

27. Type of motor	AC DC	38. Tractive Effort			oz
28. Number of motors		39. Dashboard hooks	*		
29. Manufacturer & serial of motor			(on locos, cabooses, passenger eopt.)		
30. Gear ratio		40.			
31. Hand reverse		41.			
32. Type & location of reverse		HELD FROM SERVICE FOR FOLLOWING ITEMS:			
33. Rated voltage of motors					
34. Flywheel					
35. Rectifier					
36. Resistances					
37. Pole Reverse		RELEASED FOR SERVICE:			
		Signature of Owner			
		Signature of Lessor			

All items marked * to be filled in by Sup't of Equipment, OA&E:

CAR RECORD

Road Name Builders Sequence No.

Type Length

Markings Car Number

Color: Date Lettering

Date Purchased Kit Complete..... Built Up..... Rebuilt.....

Purchased from

Date Completed Wiring Diagram prepared

C—Cleaned G—Geared O—Oiled A—Armature Cleaned

DATA	COST	MAINTENANCE					REPAIR RECORD	
Kit cost or completed cost	\$	G	O	C	A	Date	Date	Repair work
Type trucks								
Wheel diameter								
Couplers								
Decals								
Motor Make								
r.p.m. amps.								
Gear type								
ratio								
Rectifier or relay								
Manual Reverse switch								
2 Rail-3 Rail switch								
Headlite								
Interior lights								
Interior								
Pantagraph or Pole								
Disposition								

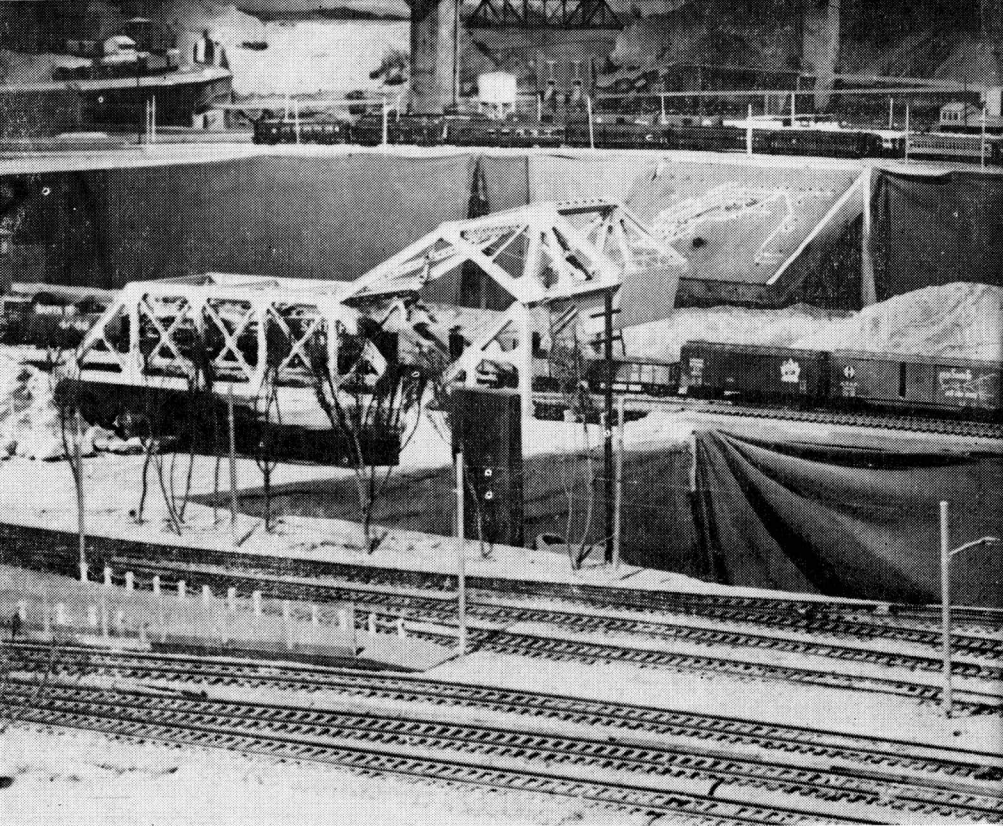
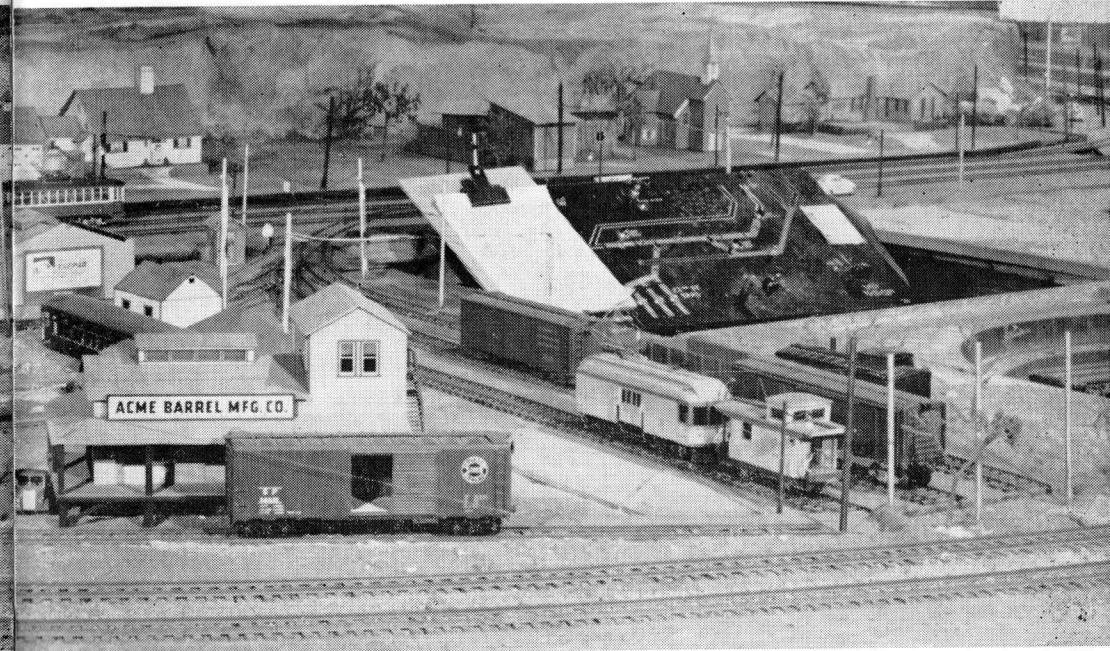
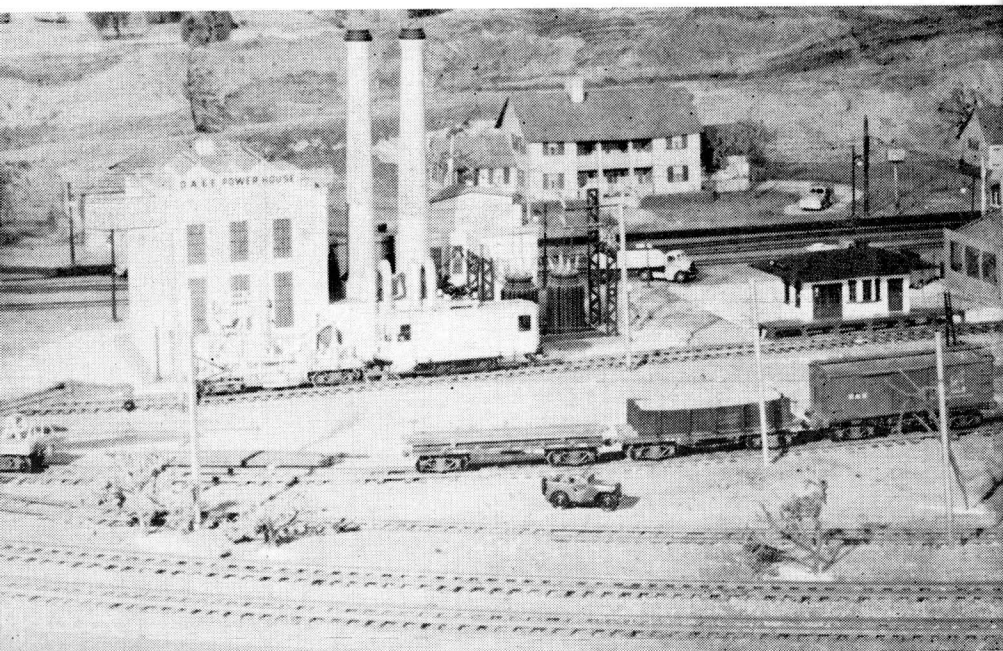


PHOTO 4—Above—Looking out across the Santa Fe Western Division to Oakland in background. close-up view of Oakland is shown on THE JUNCTION Cover, page 31. In foreground is shown beginning of the Antioch yard.



PHOTO 5—Below—Broadside view of the city of Sacramento showing classification yards, industrial sidings, and control board. A view looking down the main street is shown in Photo 2 on page 44.



THE JUNCTION

OAKLAND, ANTIOCH & EASTERN

(Continued from page 35)

and Richmond on a new trestle not shown in any of the photographs appearing with this article. The trackage between Concord and Minert, including the leads to the Concord yard, are all under a mountain. In past years a rear end collision on this trackage was some job to clean up!

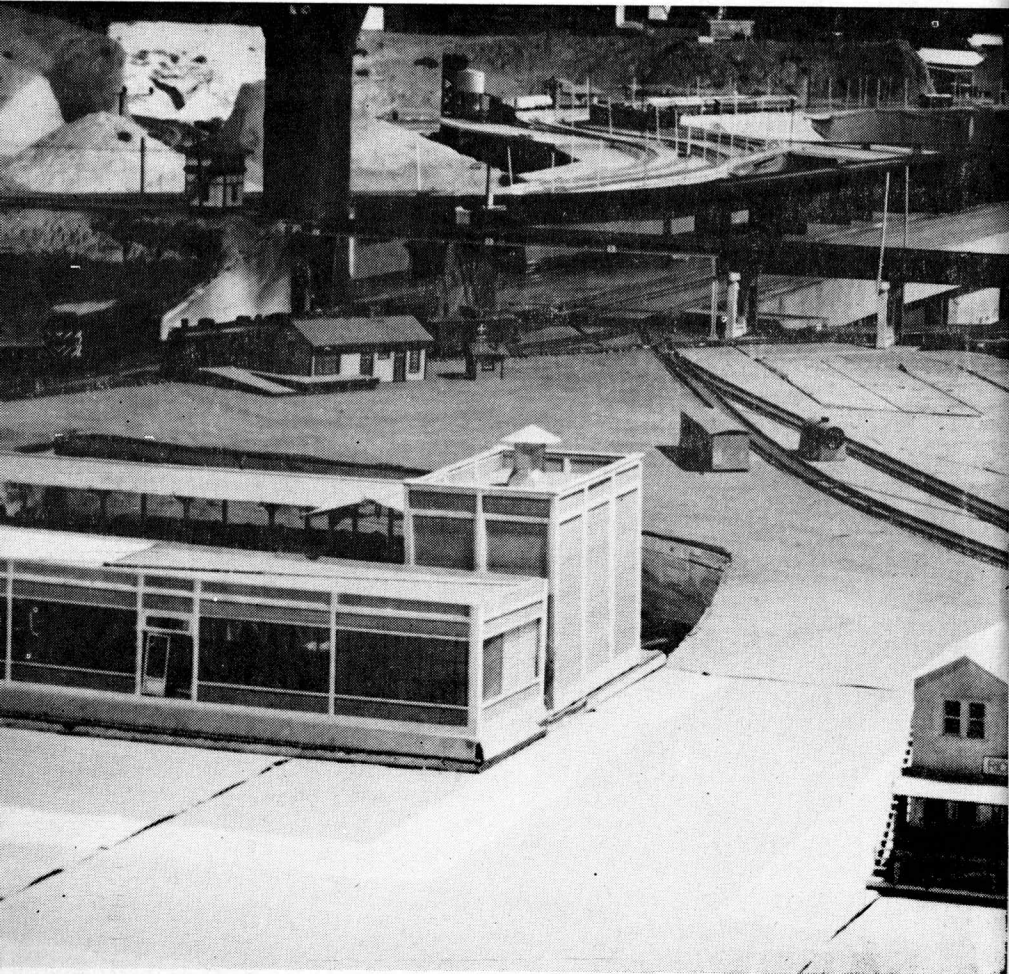
The Danville subdivision wound up as being only a builders dream. It seems the Courts decided in favor of The Rio Grande & South Park crowd which is now developing the territory. The Concord Division (pictured in center spread position in THE JUNCTION last month) allows the operator to receive trains from three directions as shown on the map. The line from Oakland via Richmond, Concord, Walnut Creek

Junction, Havens and return to Oakland, has recently been changed to "pole operation." Plans are being pushed to include Concord to South Antioch next.

Last is the big Oakland Division which runs all the way from Westgate Junction to Havens and Richmond along with the Woodland branch. The Oakland yard serves as the other main freight and passenger terminal. Trains are reversed or "wyed" around at Concord.

For all intents and purposes the road is run point-to-point ending at Mulbury with Oakland at the opposite end. An extension from Mulbury to Woodland is made for some trains. Although both Oakland and Woodland trains use the wye at Conaway, it is not thought of as being a "through" connection.

PHOTO 6—Scene of the Proposed Richmond Development. A better idea as to the extent of this



THE JUNCTION

Well, you now have had a thumbnail sketch of the OA&E. Here, roughly, is how it is operated:

All trains are run point-to-point on designated routes as indicated on the "employees timetable" (reprinted on page 35). Every train goes somewhere and returns. None travel round and round nor are they sen on the "best available route." If a train is scheduled for Concord, it goes to Concord, etc. All cars have dashboard hooks and the car or cars must carry the "boards" front and rear which designate run number and color—color being that of the originating terminal. Way freights and second sections are run as "extras." The EMPLOYEES TIME-TABLE is used as a basis for operations.

The roster of equipment (listed on page

40) is that of August, 1950. The equipment is rotated but the same amount as that listed on the roster is maintained for operating nights and during the days of the Club's Annual Show.

In addition to those records, the Superintendent of Equipment is supposed to keep a car record; some of the club members keep their own individual maintenance records. We have a lot of fun operating the OA&E.

This article perhaps will illustrate the opposite extreme to which O Gauge Trolley can go—from the bare minimum set forth in the article "Why Interurban?" in the January, 1952 issue of THE WHISTLE • STOP. Of course, I'll leave it up to you.

The End.

development site is shown on the OA&E Map Of Operations, top right, page 37.

