



ASSISTANT SUPERINTENDENT

C. E. McDONALD..... Sacramento

TRAINMASTERS

H. E. STAPP Stockton
J. J. McNALLY..... Keddie
A. W. TAYLOR..... Keddie

TERMINAL TRAINMASTERS

E. A. THOMPSON..... Oakland
J. G. NOLTE Stockton

ROAD FOREMEN OF ENGINES

HUGH ALLEN Stockton
R. McILVEEN Stockton
T. D. HUNTER..... Oroville
N. F. ROBERTS..... Oroville

ASSISTANT TRAINMASTERS

P. F. PRENTISS..... Stockton
L. A. HENRY Sacramento

ASSISTANT TERMINAL TRAINMASTER

C. DOWNS Oakland

CHIEF TRAIN DISPATCHERS

G. S. ALLEN..... Sacramento
L. C. JASKALA..... Keddie

ASSISTANT CHIEF TRAIN DISPATCHER

W. A. WHEELER Sacramento

NIGHT CHIEF TRAIN DISPATCHERS

W. S. GRAHAM..... Sacramento
R. W. HUFFMON..... Sacramento
S. A. INGLIS..... Keddie
P. J. READINGER Keddie



**THE
WESTERN PACIFIC
RAILROAD CO.**



**WESTERN DIVISION
TIMETABLE**

35

EFFECTIVE SUNDAY, JULY 6, 1947

AT 12:01 A. M.

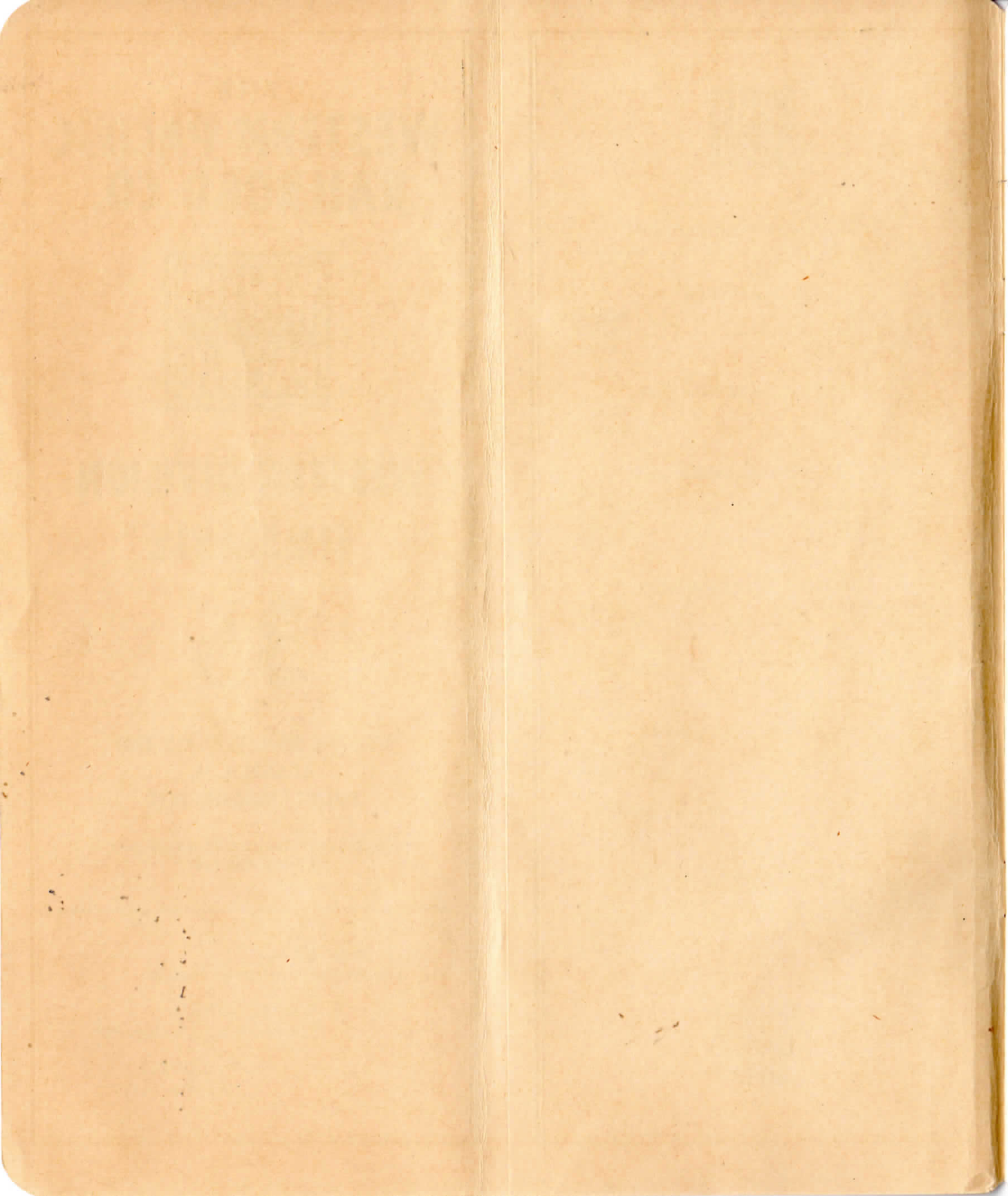
PACIFIC STANDARD TIME

**FOR THE GOVERNMENT AND INFORMATION
OF EMPLOYEES ONLY**

H. A. MITCHELL,
Vice-President and General Manager.

E. T. GALLAGHER,
Superintendent of Transportation.

G. W. CURTIS,
Superintendent.



SPEED TABLE

TIME PER MILE	MILES PER HOUR
36"	100
37"	97.3
38"	94.7
39"	92.3
40"	90
41"	87.8
42"	85.7
43"	83.7
44"	81.8
45"	80
46"	78.3
47"	76.6
48"	75
49"	73.5
50"	72
51"	70.6
52"	69.2
53"	67.9
54"	66.7
55"	65.5
56"	64.3
57"	63.2
58"	62.1
59"	61
1'00"	60
1'01"	59
1'02"	58.1
1'03"	57.1
1'04"	56.2
1'05"	55.4
1'06"	54.5
1'07"	53.7
1'08"	52.9
1'09"	52.2
1'10"	51.4
1'11"	50.7
1'12"	50
1'13"	49.3
1'14"	48.6
1'15"	48
1'16"	47.4
1'17"	46.8
1'18"	46.2
1'19"	45.6
1'20"	45
1'25"	42.4
1'30"	40
1'35"	37.9
1'40"	36
1'45"	34.3
1'50"	32.7
1'55"	31.3
2'00"	30
2'15"	26.7
2'30"	24
2'45"	21.8
3'00"	20
3'30"	17.1
4'00"	15
5'00"	12
6'00"	10
7'00"	8.6
7'30"	8
8'00"	7.5
10'00"	6

FIRST SUBDIVISION

EASTWARD

Fuel, Water, Fone, Table, Scale, Wye, Bulletin, Register Station, Standard Clock, Interlocking Plant.	Car Capacity of Sidings	Telegraph Office Calls	SECOND CLASS				FIRST CLASS				Distance from San Francisco	Timetable No. 35 July 6, 1947		Distance from Oakland Yard
			54 Fast Freight		62 Fast Freight		40 Exposition Flyer		2 Feather River Express			STATIONS		
			Leave Daily	Leave Daily	Leave Daily	Leave Daily	Oakland Ferry							
WFO		Go						PM 6.00	AM 10.00	0.0	SAN FRANCISCO			
BRPK								6.20 PM	10.20 AM	3.5	OAKLAND PIER			
BRPK		Ow						PM 6.30	AM 10.35	3.5	TO OAKLAND PIER (SP)			
FWTO PBRK	Yard	Md						Via SP	Via SP	4.7	TO OAKLAND YARD (WP)		0.0	
I										5.8	SP Crossing		1.1	
I								PM 6.38	AM 10.43	5.9	CHESTNUT JCT. (SP Conn.)		1.2	
R		Ak						s 6.45	s 10.50	6.6	TO OAKLAND		1.9	
										7.2	SP Crossing		2.5	
I								6.49	10.53	7.7	CLINTON (SP X'Ing.)		3.0	
								9.22	5.51	9.6	FRUITVALE		4.9	
								6.58	f 10.59	10.3	SP Crossing		5.6	
I										10.6	MELROSE (SP X'Ing.)		5.9	
	69							7.03	11.04	11.3	KOHLER		6.6	
PI								7.08	11.09	13.7	ELMHURST (SP X'Ing.)		9.0	
P		Dr						7.11	f 11.15	14.8	TO SAN LEANDRO		10.1	
P	84	Hy						7.19	s 11.22	19.8	TO HAYWARD		15.1	
P	39							7.25	11.33	24.9	ALVARADO JUNCTION		20.2	
WP	83	Cn						7.33	s 11.42	29.7	TO NILES		25.0	
I										30.3	SP Crossing		25.6	
PY										30.5	NILES JUNCTION		25.8	
P	77							7.43	f AM 11.52	35.6	SUNOL		30.9	
P	76	Tn						7.52	f PM 12.01	40.8	TO PLEASANTON		36.1	
I										42.7	SP Crossing		38.0	
I										43.0	SP Crossing		38.3	
WP	76	Vn						8.02	s 12.15	47.2	TO LIVERMORE		42.5	
PY	95	N						8.17	f 12.35	56.2	TO ALTAMONT		51.5	
P	103							8.28	f 12.46	63.3	MIDWAY		58.6	
WYP	115	Cb						8.40	f 12.58	72.3	TO CARBONA		67.6	
P	117	Ky						8.42	f 1.00	73.4	LYOTH		68.7	
I										74.0	SP Crossing		69.3	
P	89							8.46	f 1.05	76.7	FITZ		72.0	
P	95							8.56	f 1.14	83.8	QUIGLEY		79.1	
I										84.45	SP Crossing		79.75	
P	108	Ro						8.59	f 1.17	85.7	TO LATHROP		81.0	
P	52							9.05	1.23	90.3	ORTEGA		85.6	
FWTO PBRK	Yard	Sn						1.00 AM	9.35 AM	92.0	TO STOCKTON YARD		87.3	
I										93.2	AT&SF Crossing		88.5	
PRK		Fe						s 9.15 PM	s 1.35 PM	93.8	TO STOCKTON		89.1	
								Arrive Daily	Arrive Daily					
								(4.00) 21.8	(4.05) 21.4					
								(2.45) 32.8	(3.00) 30.1					
											Time over Subdivision.....			
											Average Speed per Hour.....			

Special Instructions appearing on page 3 apply to both pages 2 and 3.

FIRST SUBDIVISION

Distance from San Francisco	Timetable No. 35		WESTWARD				
	July 6, 1947		FIRST CLASS		SECOND CLASS		
			39	1	61	77	53
	STATIONS		Exposition Flyer	Feather River Express	Fast Freight	Fast Freight	Fast Freight
			Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily
0.0	SAN FRANCISCO		AM 8.50	PM 5.50			
3.5	OAKLAND PIER		8.30 AM	5.30 PM			
3.5	TO	OAKLAND PIER (SP)	AM 8.05	PM 5.15			
4.7	TO	OAKLAND YARD (WP)			AM 8.15	PM 4.00	PM 10.50
5.8	SP Crossing		Via S P	Via S P			
5.9	CHESTNUT JCT. (SP Conn.)		AM 7.55	PM 5.03			
6.6	TO	OAKLAND	s 7.50	s 5.00	8.05	3.50	10.40
7.2	SP Crossing						
7.7	CLINTON (SP X'ing.)		7.39	4.51			
9.6	FRUITVALE		7.31	f 4.44	7.51	3.37	10.26
10.3	SP Crossing						
10.6	MELROSE (SP X'ing.)						
11.3	KOHLER		7.26	4.38	7.44	3.29	10.19
13.7	ELMHURST (SP X'ing.)		7.22	4.33	7.38	3.21	10.13
14.8	TO	SAN LEANDRO	7.19	f 4.30	7.32	3.17	10.07
19.8	TO	HAYWARD	7.10	s 4.15	7.20	3.05	9.55
24.9	ALVARADO JUNCTION		7.00	4.02			
29.7	TO	NILES	<u>6.53</u>	s 3.52	<u>6.53</u>	2.45	9.35
30.3	SP Crossing						
30.5	NILES JUNCTION						
35.6	SUNOL		6.42	f 3.41	6.22	2.22	9.12
40.8	TO	PLEASANTON	6.33	f 3.33	6.10	2.10	9.00
42.7	SP Crossing						
43.0	SP Crossing						
47.2	TO	LIVERMORE	6.21	s 3.21	5.55	1.55	8.45
56.2	TO	ALTAMONT	6.04	f 3.07	5.30	1.25	8.17
63.3	MIDWAY		5.47	f 2.54	4.55	12.46	7.35
72.3	TO	CARBONA	5.30	f 2.38	4.19	12.09 PM	7.00
73.4	LYOTH		5.27	f 2.35	4.07	11.57 AM	6.37
74.0	SP Crossing						
76.7	FITZ		5.22	f 2.30	4.01	11.51	6.31
83.8	QUIGLEY		5.14	f 2.22	3.48	11.38	6.18
84.45	SP Crossing						
85.7	TO	LATHROP	5.11	f 2.19	3.44	11.34	6.14
90.3	ORTEGA						
92.0	TO	STOCKTON YARD	5.04	f 2.12	3.30 AM	11.20 AM	6.00 PM
93.2	AT&SF Crossing						
93.8	TO	STOCKTON	4.55 AM	2.05 PM			
			Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily
	Time over Subdivision.....		(3.10)	(3.10)	(4.45)	(4.40)	(4.50)
	Average Speed per Hour.....		28.5	28.5	18.4	18.7	18.1

Special Instructions on page 3 will also apply to page 2.

Between Chestnut Jct. and Oakland Pier, trains will be governed by SP timetable and rules and regulations of the Transportation Department. Also see SP Air Brake Rule No. 39 on page 21.

Sections of first-class trains originating or terminating at Chestnut Jct. and moving from or to Oakland Pier must display same signals between Oakland Pier and Chestnut Jct. and may do so without train order authority. (See SP timetable.)

When crews of sections of first-class trains terminating at Chestnut Jct. tie up at Oakland Yard, registration will be made at that point and operators at Oakland Yard immediately will telephone such registration to telegraph operators at SP Oakland Pier.

Eastward WP trains originating at Oakland Pier must obtain WP clearance card at Oakland Pier and will not require clearance card at Chestnut Jct.

Chestnut Jct. is initial station for eastward first-class trains.

Oakland is register station for first-class trains only.

Eastward first-class trains must not leave Oakland without a clearance card. Other trains will not require a clearance card unless train orders are received.

RULE 83. Eastward first-class trains need not check departure of other eastward first-class trains at Chestnut Jct. When departure of sections of eastward first-class trains has been checked at Oakland Pier following sections will not require additional check at Chestnut Jct. but must have check before leaving Oakland.

When trains meet at Clinton, the north track may be used between Clinton and Chestnut Jct. by train taking siding. See page 18 under Clinton for instructions covering electric lock at east switch to north track.

A westward first-class train finding an eastward first-class train at passenger station, Oakland, will not pass Franklin St. until eastward train leaves station. An eastward first-class train finding a westward first-class train at passenger station will not pass Clay St. until westward train leaves station.

Automatic Block Signals. See page 19.

Westward first-class trains will register by ticket at Stockton Yard.

Eastward first-class trains will not register at Stockton Yard, except when crew changes on sections of eastward first-class trains are made there. Conductor going off duty will register in and make notation in extreme left hand column of train register reading "Crew Change Sn Yd." Outgoing conductor will register departure with same notation.

Operator at Stockton will transmit registration of eastward first-class trains to operator at Stockton Yard, who will enter on register with notation in extreme left hand column reading "Stockton Psgr Station" and immediately verify with dispatcher, for information of trains originating at Stockton Yard.

Forty car siding on south side of main track between MP 92.09 and MP 92.54 will be known as "Diner Siding Stockton Yard". Trains may meet or be restricted at this siding by train order. Unless otherwise specified as above, timetable and train order times of first class trains at Stockton Yard will apply at lead switches MP 91 and Charter Way.

Nos. 39 and 40 register by ticket at Stockton.

For additional flag stops see page 14.

SECOND SUBDIVISION

EASTWARD

Fuel, Water, Fone, Table, Scale, Wye, Bulletin, Register Station, Standard Clock, Interlocking Plant.	Car Capacity of Sidings	Telegraph Office Calls	SECOND CLASS			FIRST CLASS		Distance from San Francisco	Timetable No. 35 July 6, 1947		Distance from Stockton Yard
			78	62	54	40	2		STATIONS		
			Fast Freight	Fast Freight	Fast Freight	Exposition Flyer	Feather River Express				
			Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily		STATIONS		
FWTO PBRK	Yard	Sn	PM 8.00	AM 11.30	AM 3.30			92.0	TO	STOCKTON YARD	0.0
I								93.2		1.2 AT&SF Crossing	1.2
PRKI		Fe	8.10	11.40	3.40	PM 9.20	PM 1.40	93.8	TO	STOCKTON (SP X'ing.)	1.8
P	Yard		8.13	11.43	3.43	9.23	1.43	94.3		0.6 FLORA STREET	2.3
I								95.1		0.8 SP Crossing	3.1
P	87		8.19	AM 11.49	3.49	9.29	1.48	98.1		3.0 HAMMER LANE	6.1
P	76	Di	8.31	PM 12.01	4.01	9.36	f 1.55	104.6	TO	6.5 KINGDON	12.6
PY	34							105.5		0.9 TERMINOUS JUNCTION	13.5
WP	76	Nh	8.48	12.24	4.24	9.47	s 2.06	113.9	TO	8.4 THORNTON	21.9
P	77		8.58	12.34	4.34	9.54	f 2.14	119.0		5.1 GLANNVALE	27.0
P	76		9.08	12.44	4.44	10.00	f 2.20	124.4		5.4 FRANKLIN	32.4
P	103		9.28	1.05	5.04	10.09	f 2.30	132.4		8.0 POLLOCK	40.4
FWPK R	Yard	Jy	10.15	1.45	5.45	10.15	f 2.40	136.5	TO	4.1 SOUTH SACRAMENTO	44.5
I								137.5		1.0 CCT and SN Crossing	45.5
RI								138.0		0.5 SP Crossing	46.0
OYKP		Sr Ra De	10.40	1.55	5.55	s 10.30	s 2.55	138.6	TO	0.6 SACRAMENTO	46.6
I								139.2		0.6 SN Crossing	47.2
I								140.8		1.6 SN Crossing	48.8
P	76		10.58	2.14	6.14	10.40	f 3.08	143.8		3.0 DEL PASO	51.8
P	75		11.09	2.31	6.31	10.47	f 3.15	150.6		6.8 COUNSMAN	58.6
I								152.5		1.9 SN Crossing	60.5
WP	75	Gv	11.18	2.40	6.42	10.53	f 3.22	155.6	TO	3.1 PLEASANT GROVE	63.6
P	83		11.28	2.52	6.53	11.00	f 3.29	161.5		5.9 TROWBRIDGE	69.5
P	76		PM 11.47	3.14	7.12	11.13	f 3.42	172.5		11.0 EAST ARBOGA	80.5
WPRI	110	Ma	AM 12.10	3.38	7.40	s 11.25	s 3.55	178.8	Joint Track {	6.3 TO MARYSVILLE	86.8
I								180.2		1.4 SP Crossing	88.2
P	76		12.25	3.52	7.55	11.33	f 4.03	186.0		5.8 TAMBO	94.0
P	76		12.39	4.11	8.09	11.41	f 4.11	193.0		7.0 CRAIG	101.0
P	97		12.52	4.29	8.22	11.49	f 4.19	199.3		6.3 PALERMO	107.3
FWTO YBRKPI	Yard	Yd	1.00 AM	4.40 PM	8.30 AM	11.54	f 4.24	202.9	TO	3.6 OROVILLE YARD	110.9
BRKPI	50	Vi				s 11.59 PM	s 4.30 PM	205.1	TO	2.2 OROVILLE	113.1
			Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily				
			(5.00) 22.2	(5.10) 21.5	(5.00) 22.2	(2.39) 42.0	(2.50) 39.3			Time over Subdivision.....	
										Average Speed per Hour.....	

Second-class and extra trains, Second Subdivision, respect time of first-class trains on the First Subdivision between Stockton and Stockton Yard.

Stockton is register station for first-class trains only.

Operator at Stockton will transmit registration of eastward first-class trains to operator at Stockton Yard, who will enter on register with notation in extreme left hand column reading "Stockton Psgr Station" and immediately verify with dispatcher, for information of trains originating at Stockton Yard.

Second-class and extra trains originating or terminating at Stockton Yard will not require clearance card at Stockton unless train orders are received.

At Flora Street, Track 7, located on north side of main track, west switch at Park Street, east switch immediately west of Harding Way, will be used as siding.

Stockton, South Sacramento, "R" Street Tower, MP 138 Sacramento, and Marysville are register stations for first-class trains only. Nos. 39 and 40 register by ticket at Stockton. First-class trains register by ticket at South Sacramento, "R" Street Tower Sacramento, Marysville and Oroville Yard.

For movement between Oroville Yard and Oroville see pages 24 and 25 for special instructions.

Special Instructions on pages 4 and 5 will apply to both pages where applicable.

SECOND SUBDIVISION

Distance from San Francisco	Timetable No. 35 July 6, 1947	Distance from Oroville	WESTWARD								
			FIRST CLASS			SECOND CLASS					
			39 Exposition Flyer	1 Feather River Express		77 Fast Freight	53 Fast Freight	61 Fast Freight			
STATIONS			Arrive Daily	Arrive Daily		Arrive Daily	Arrive Daily	Arrive Daily			
92.0	TO STOCKTON YARD 1.2	113.1			525	AM 9.30	PM 5.50	AM 1.45			
93.2	AT&SF Crossing 0.6	111.9			456						
93.8	TO STOCKTON (SP X'ing.) 0.5	111.3	AM 4.50	PM 2.00	449	9.20	5.40	1.35			
94.3	FLORA STREET 0.8	110.8	4.47	1.55		9.17	5.37	1.32			
95.1	SP Crossing 3.0	110.0			436						
98.1	HAMMER LANE 6.5	107.0	4.42	f 1.48		9.09	5.29	1.24			
104.6	TO KINGDON 0.9	100.5	4.35	f 1.41		8.58	5.18	1.13			
105.5	TERMINOUS JUNCTION 8.4	99.6									
113.9	TO THORNTON 5.1	91.2	4.24	s 1.29	417?	8.43	5.03	12.58			
119.0	GLANNVALE 5.4	86.1	4.16	f 1.20		8.33	4.53	12.48			
124.4	FRANKLIN 8.0	80.7	4.10	f 1.14		8.23	4.43	12.38			
132.4	POLLOCK 4.1	72.7	4.00	f 1.05		8.00	4.20	12.15			
136.5	TO SOUTH SACRAMENTO 1.0	68.6	3.54	1.00		7.50	4.10	12.05 AM			
137.5	CCT and SN Crossing 0.5	67.6									
138.0	SP Crossing 0.6	67.1			341						
138.6	TO SACRAMENTO 0.6	66.5	s 3.45	s 12.45	336	7.05	3.30	11.30 PM			
139.2	SN Crossing 1.6	65.9			333						
140.8	SN Crossing 3.0	64.3			330						
143.8	DEL PASO 6.8	61.3	3.32	f 12.29	276	6.44	3.08	10.58			
150.6	COUNSMAN 1.9	54.5	3.24	f 12.22		6.31	2.50	10.47			
152.5	SN Crossing 3.1	52.6			212						
155.6	TO PLEASANT GROVE 5.9	49.5	3.17	f 12.15	5-13	6.18	2.40	10.33			
161.5	TROWBRIDGE 11.0	43.6	3.10	f 12.07 PM		6.08	2.29	10.23			
172.5	EAST ARBOGA 6.3	32.6	2.58	f 11.54 AM		5.49	2.10	10.04			
178.8	Joint Track TO MARYSVILLE 1.4	26.3	s 2.50	s 11.45	210	5.35	1.55	9.50			
180.2	SP Crossing 5.8	24.9			129						
186.0	TAMBO 7.0	19.1	2.40	f 11.35		5.10	1.30	9.25			
193.0	CRAIG 6.3	12.1	2.32	f 11.27		4.55	1.15	9.10			
199.3	PALERMO 3.6	5.8	2.25	f 11.20	449	4.40	1.00	8.55			
202.9	TO OROVILLE YARD 2.2	2.2	2.20	f 11.15	1144	4.30 AM	12.50 PM	8.45 PM			
205.1	TO OROVILLE	0.0	2.15 AM	11.10 AM	1140						
			Leave Daily	Leave Daily		Leave Daily	Leave Daily	Leave Daily			
	Time over Subdivision.....		(2.35)	(2.50)		(5.00)	(5.00)	(5.00)			
	Average Speed per Hour.....		43.1	39.3		22.2	22.2	22.2			

SOUTH SACRAMENTO

RULES 221 and 221 (A). Color-light type, electrically-operated train order signal located at South Sacramento.

Passenger trains or freight trains not stopping will not call for or answer train order signal but must obtain clearance card if signal is in STOP position or shows green aspect when first seen.

Freight trains stopping will not call for train order signal but must obtain clearance card before leaving if signal is in STOP position or shows green aspect when first seen.

Train order delivery machine attached to signal mast. Two upper hoops are for delivery to enginemen, lower hoop for conductors. When flagman receives copies of orders and train has only one engine middle hoop is for enginemen, top hoop for conductor and lower hoop for flagman.

At South Sacramento and Sacramento, engine whistle should be used only when necessary and then kept as soft as possible consistent with the particular requirement.

RULE 83 (D). Only first-class trains need obtain clearance card at Sacramento.

Joint Track, Marysville. See page 15 for special instructions.

Automatic Block Signals. See page 19.

No. 39 will stop at any station to discharge revenue passengers from Salt Lake City or east.

Nos. 1 and 2 will stop on flag at any station where time is not shown to receive or discharge passengers, baggage, mail and express.

Special Instructions on pages 4 and 5 will apply to both pages where applicable.

THIRD SUBDIVISION

EASTWARD

Fuel, Water, Fone, Table, Scale, Wye, Bulletin, Register Station, Standard Clock, Interlocking Plant.	Car Capacity of Sidings	Telegraph Office Calls	SECOND CLASS					FIRST CLASS		Distance from San Francisco	Timetable No. 35 July 6, 1947		Distance from Oroville Yard
			62	54	94	96	78	2	40				
			Fast Freight	Fast Freight	Local Freight	Local Freight	Fast Freight	Feather River Express	Exposition Flyer				
			Leave Daily	Leave Daily	Leave Tues., Thurs., Sat.	Leave Mon., Wed., Fri.	Leave Daily	Leave Daily					
			PM 6.30	AM 10.30		AM 7.30	AM 2.30			202.9	TO	0.0	
FWTO YBRKPI	Yard	Yd											
BRKPI	50	Vi								205.1	TO	2.2	
P	87							f 4.48	AM 12.10	209.3		6.4	
P	91							f 4.54	12.23	212.9		10.0	
P	86							f 5.02	12.31	217.6		14.7	
WP	93		Schedules shown for first class trains do not confer any superiority whether or not C.T.C. is operative but must be respected by trains operating on such schedules or sections thereof. (Also see C.T.C.S. Rule 780)					f 5.16	12.44	224.1		21.2	
P	96							f 5.32	12.58	231.2		28.3	
P	79							f 5.41	1.06	235.2		32.3	
FWP	84							s 5.54	1.14	239.3		36.4	
P	82							f 6.05	1.22	243.5		40.6	
WP	76							f 6.15	1.30	247.6		44.7	
P	58							f 6.28	1.41	253.1		50.2	
P	86							f 6.33	1.46	255.3		52.4	
WP	97	Bn						s 6.45	1.56	260.1	TO	57.2	
P	76							f 6.56	2.06	264.6		61.7	
WP	78		f 7.11	2.17	270.2		67.3						
P	88		f 7.20	2.25	273.7		70.8						
P	87		f 7.28	2.32	277.3		74.4						
FWPRK YT	Yard	Kd Ds	PM 11.30	PM 3.30	AM 8.30	12.30 PM	AM 7.30	s 7.45	s 2.45	281.5	TO	78.6	
P	87							f 7.53	2.53	284.5		81.6	
P	79	Rt	Schedules shown for second class trains do not confer any superiority whether or not C.T.C. is operative and trains must not be operated on these schedules. Times shown are for information only.					s 8.10	2.59	287.9	TO	85.0	
P	86							f 8.20	3.09	292.7		89.8	
WP	95							s 8.31	3.16	296.4		93.5	
P	88	So						s 8.41	3.26	301.7	TO	98.8	
P	88							f 8.48	3.33	305.4		102.5	
WP	101	Ba						s 9.00	3.42	310.4	TO	107.5	
P	93							f 9.10	3.48	313.8		110.9	
P	85							f 9.22	3.57	318.7		115.8	
P												320.04	
FWTO PYBRK	Yard	Ki						1.30 AM	5.30 PM	11.30 AM	9.30 AM	s 9.30 PM	s 4.05 AM	321.4	TO	117.14
			Arrive Daily	Arrive Daily	Arrive Tues., Thurs., Sat.	Arrive Mon., Wed., Fri.	Arrive Daily	Arrive Daily			118.5		
			(7.00) 16.9	(7.00) 16.9	(3.00) 13.3	(5.00) 15.7	(7.00) 16.9	(4.50) 24.1	(3.55) 29.7				

STATIONS		Distance from Oroville Yard
TO	OROVILLE YARD		0.0
	2.2	
TO	OROVILLE	2.2
	4.2	
	QUARTZ	6.4
	3.6	
	BIDWELL	10.0
	4.7	
	BLOOMER	14.7
	6.5	
	BERRY CREEK	21.2
	7.1	
	DAVID	28.3
	4.0	
	POE	32.3
	4.1	
	PULGA	36.4
	4.2	
	CRESTA	40.6
	4.1	
	MERLIN	44.7
	5.5	
	TOBIN	50.2
	2.2	
	CAMP RODGERS	52.4
	4.8	
TO	BELDEN	57.2
	4.5	
	RICH BAR	61.7
	5.6	
	VIRGILIA	67.3
	3.5	
	TWAIN	70.8
	3.6	
	PAXTON	74.4
	4.2	
TO	KEDDIE	78.6
	3.0	
	SIERRA	81.6
	3.4	
TO	QUINCY JUNCTION	85.0
	4.8	
	MASSACK	89.8
	3.7	
	SPRING GARDEN	93.5
	5.3	
TO	SLOAT	98.8
	3.7	
	TWO RIVERS	102.5
	5.0	
TO	BLAIRSDEN	107.5
	3.4	
	CLIO	110.9
	4.9	
	MABIE	115.8
	1.34	
	DELLEKER	117.14
	1.36	
TO	PORTOLA	118.5

Extra trains originating or terminating at Oroville Yard will not require clearance card at Oroville unless train orders are received. Oroville is register station for first-class trains only. Keddie is register station for extra trains originating and terminating at Keddie only. Nos. 93, 94, 95 and 96 carry passengers. When first-class trains meet at Portola, pocket track in front of depot will be the siding. No. 39 will stop at any station to discharge revenue passengers from Salt Lake City or east. Nos. 1 and 2 will stop on flag at any station where time is not shown to receive or discharge passengers, baggage, mail and express.

Slide Detector Fences. See section (H), C.T.C. instructions, page 26. Centralized Traffic Control. See page 26 for special instructions. Oroville. For movement between Oroville and Oroville Yard see pages 24 and 25 for special instructions. Portola. For movement between Delleker and Portola passenger station see page 27 for special instructions. Special Instructions on pages 6 and 7 will apply to both pages where applicable.

.....Time over Subdivision.....
.....Average Speed per Hour.....

THIRD SUBDIVISION

WESTWARD

Timetable No. 35

July 6, 1947

Distance from San Francisco	STATIONS	Distance from Portola	FIRST CLASS		SECOND CLASS					
			1	39	53	93	95	61	77	
			Feather River Express	Exposition Flyer	Fast Freight	Local Freight	Local Freight	Fast Freight	Fast Freight	
	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Mon., Wed., Fri.	Arrive Tues., Thurs., Sat.	Arrive Daily	Arrive Daily			
202.9	TO OROVILLE YARD 2.2	118.5			AM 11.00		PM 12.50	PM 7.00	AM 2.25	
205.1	TO OROVILLE 4.2	116.3	s AM 11.00	AM 2.00	1120					
209.3	QUARTZ 3.6	112.1	f 10.51	1.50						
212.9	BIDWELL 4.7	108.5	f 10.45	1.44	1058					
217.6	BLOOMER 6.5	103.8	f 10.36	1.34	1051					
224.1	BERRY CREEK 7.1	97.3	f 10.23	1.17	1040					
231.2	DAVID 4.0	90.2	f 10.07	12.58						
235.2	POE 4.1	86.2	f 9.58	12.49						
239.3	PULGA 4.2	82.1	s 9.49	12.41	1016					
243.5	CRESTA 4.1	77.9	f 9.40	12.33	1028					
247.6	MERLIN 5.5	73.8	f 9.31	12.25	1022					
253.1	TOBIN 2.2	68.3	f 9.20	12.14	952					
255.3	CAMP RODGERS 4.8	66.1	f 9.16	12.10	948					
260.1	TO BELDEN 4.5	61.3	s 9.06	12.01 AM	940					
264.6	RICH BAR 5.6	56.8	f 8.55	11.50 PM	932					
270.2	VIRGILIA 3.5	51.2	f 8.43	11.39	921					
273.7	TWAIN 3.6	47.7	f 8.35	11.33	918					
277.3	PAXTON 4.2	44.1	f 8.28	11.27	909					
281.5	TO KEDDIE 3.0	39.9	s 8.20	s 11.20	900	7.00 AM	AM 11.30	8.00 AM	3.00 PM	10.30 PM
284.5	SIERRA 3.4	36.9	f 8.09	11.13						
287.9	TO QUINCY JUNCTION 4.8	33.5	s 8.02	11.08	840					
292.7	MASSACK 3.7	28.7	f 7.53	11.01						
296.4	SPRING GARDEN 5.3	25.0	s 7.47	10.55	812					
301.7	TO SLOAT 3.7	19.7	f 7.37	10.47						
305.4	TWO RIVERS 5.0	16.0	f 7.30	10.42						
310.4	TO BLAIRSDEN 3.4	11.0	s 7.22	10.35	777					
313.8	CLIO 4.9	7.6	f 7.12	10.27						
318.7	MABIE 1.34	2.7	f 7.05	10.20						
320.04	DELLEKER 1.36	1.36								
321.4	A.B.S. TO PORTOLA	0.0	7.00 AM	10.15 PM	741	5.00 AM	7.30 AM	1.00 PM	8.25 PM	
			Leave Daily	Leave Daily		Leave Daily	Leave Mon., Wed., Fri.	Leave Tues., Thurs., Sat.	Leave Daily	Leave Daily
	Time over Subdivision.....		(4.00)	(3.45)		(6.00)	(4.00)	(4.50)	(6.00)	(6.00)
	Average Speed per Hour.....		29.1	31.0		19.8	10.0	16.3	19.8	19.8

Schedules shown for first class trains do not confer any superiority whether or not C.T.C. is operative but must be respected by trains operating on such schedules or sections thereof.

(Also see C.T.C.S. Rule 780)

Schedules shown for second class trains do not confer any superiority whether or not C.T.C. is operative and trains must not be operated on these schedules. Times shown are for information only.

The following will govern use of retainers on westward freight trains, Portola to Bloomer:

When the gross weight of train does not exceed 33 tons per car, turn up retainer valves on first fifteen cars back of engine. When gross weight of train exceeds 33 tons and is less than 45 tons per car, turn up retainer valves on first twenty cars back of engine. When gross weight of train exceeds 45 tons per car, turn up retainer valves on first twenty-five cars back of engine.

Retainer valves are to be used in low pressure position which is horizontal. Should wheels show tendency to heat, retainers will be alternated. If, in judgment of engineer, number of retainers unsatisfactory, engineer may instruct the brakeman to add or subtract as required to keep slack bunched and control train at safe speed while brake pipe pressure is being fully recharged.

Use of dynamic brake on freight trains being handled by Diesel freight engines does not modify requirements pertaining to use of retainers, except when Diesel freight engines, 904 to 912 inclusive are handling westward freight trains of 5000 tons or less with dynamic brake operative, retainers need not be used unless requested by engineer.

Special Instructions on pages 6 and 7 will apply to both pages where applicable.

FOURTH SUBDIVISION

EASTWARD

Fuel, Water, Fone, Table, Scale, Wye, Bulletin, Register Station, Standard Clock.	Car Capacity of Sidings	Telegraph Office Calls	SECOND CLASS			FIRST CLASS			Distance from San Francisco (Via NCE Conn.)	Timetable No. 35		Distance from Keddie
										July 6, 1947		
				154 Western Pacific Fast Freight Leave Daily	556 Southern Pacific Local Freight Leave Daily Ex. Sunday	178 Western Pacific Fast Freight Leave Daily	STATIONS					
FWPT YBRK	Yard	Ds Kd		PM 7.30		AM 4.10		280.8	TO	KEDDIE	0.0	
P	89			7.55		4.35		287.0		6.2 MOCCASIN	6.2	
P	16	Cm		8.01		4.41		289.4	TO	2.4 CRESCENT MILLS	8.6	
WP	89	Gi		8.15		4.55		295.5	TO	6.1 GREENVILLE	14.7	
P	89			8.25		5.05		298.3		2.8 COHALA	17.5	
WPY	89			9.05		5.40		306.2		7.9 ALMANOR	25.4	
P	89			9.25		6.05		313.2		7.0 LASSEN VIEW	32.4	
P				9.35		6.15		316.0		2.8 CLEAR CREEK JCT. (ARR Conn.)	35.2	
FWPY BRK	Yard	Wd		10.10	AM 6.15	6.50		320.2	Joint Track	4.2 TO WESTWOOD	39.4	
PR		Mn		10.25	6.30 AM	7.05		324.3		4.1 TO MASON (SP Conn.)	43.5	
P	89			10.27		7.07		324.9		0.6 ROBBERS CREEK	44.1	
PY	89			10.57		7.37		333.3		8.4 NORVELL	52.5	
P	89			11.25		8.05		343.7		10.4 LODGEPOLE	62.9	
WPY	89	Hf		PM 11.59		8.40		357.2	TO	13.5 HALLS FLAT	76.4	
P	89			AM 12.20		9.00		365.0		7.8 JELICO	84.2	
P	89			12.38		9.18		371.0		6.0 WILLOW SPRINGS	90.2	
W at MP 96.0 P	89			1.00		9.40		375.6		4.6 LITTLE VALLEY	94.8	
P	89			1.25		10.05		381.7		6.1 DIXIE	100.9	
P	89			1.50		10.30		390.3		8.6 PIT RIVER	109.5	
FWPO YBRK	Yard	B		2.00 AM		10.40 AM		392.6	TO	2.3 BIEBER	111.8	
				Arrive Daily	Arrive Daily Ex. Sunday	Arrive Daily						
				(6.30) 16.9	(0.15) 16.4	(6.30) 16.9				.....Time over Subdivision.....	
										.....Average Speed per Hour.....	

Western Pacific trains may carry passengers.

On passenger trains, before descending grades Almanor to Greenville and Halls Flat to Little Valley, understanding must be had between conductor and engineer as to number of retainers necessary to control train.

On eastward freight trains before leaving Halls Flat and on westward freight trains before leaving Almanor, enginemen must be notified as to number of loads, empties and tons in train and whether all air brakes are cut in and operative.

All retainers will be turned up on westward freight trains between Almanor and Greenville.

On westward freight trains between Dixie and Little Valley, between Norvell and Almanor and between Moccasin and Keddie and on eastward freight trains between Dixie and Pit River, an understanding must be had between conductor and engineer as to number of retainers necessary to control train and they must be used accordingly.

On eastward freight trains between Halls Flat and Little Valley, if gross weight of train does not exceed 33 tons per car, turn up retainer valves on the first 20 cars back of engine. If gross weight of train exceeds 33 tons per car and is less than 45 tons per car, turn up retainer valves on first 25 cars back of engine. If gross weight of train exceeds 45 tons per car, turn up retainer valves on first 30 cars back of engine.

When retainer valves are turned up, handle will be placed in low pressure position, which is horizontal, and should wheels show tendency to heat, retainers must be alternated. If, in the judgment of the engineer, number of retainers are unsatisfactory, engineer may instruct the brakeman to add or subtract, as required, to keep slack bunched and to control train at safe speed while brake pipe pressure is being fully recharged.

Use of dynamic brake on freight trains being handled by Diesel freight engines does not in any way modify requirements pertaining to use of retainers, except between Halls Flat and Little Valley when Diesel freight engines with dynamic brake operative are handling eastward freight trains of 3400 tons or less, retainers need not be used unless requested by engineer.

Special Instructions on pages 8 and 9 will apply to both pages where applicable.

FOURTH SUBDIVISION

Distance from San Francisco (Via NCE Conn.)	Timetable No. 35 July 6, 1947		Distance from Bieber	WESTWARD						
	STATIONS			FIRST CLASS		SECOND CLASS				
				153 Western Pacific Fast Freight	555 Southern Pacific Local Freight	177 Western Pacific Fast Freight				
			Arrive Daily	Arrive Daily Ex. Sunday	Arrive Daily					
280.8	TO	KEDDIE 6.2	111.8	AM 7.00		PM 7.30				
287.0		MOCCASIN 2.4	105.6	6.36		7.05				
289.4	TO	CRESCENT MILLS 6.1	103.2	6.29		6.58				
295.5	TO	GREENVILLE 2.8	97.1	6.18		6.45				
298.3		COHALA 7.9	94.3	6.00		6.25				
306.2		ALMANOR 7.0	86.4	5.40		6.05				
313.2		LASSEN VIEW 2.8	79.4	5.10		5.37				
316.0		CLEAR CREEK JCT. (ARR Conn.) 4.2	76.6	5.00		5.30				
320.2	Joint Track	TO WESTWOOD 4.1	72.4	4.50	AM 5.50	5.20				
324.3		TO MASON (SP Conn.) 0.6	68.3	4.30	5.35 AM	5.00				
324.9		ROBBERS CREEK 8.4	67.7	4.28		4.58				
333.3		NORVELL 10.4	59.3	4.05		4.35				
343.7		LODGEPOLE 13.5	48.9	3.40		4.10				
357.2	TO	HALLS FLAT 7.8	35.4	3.10		3.40				
365.0		JELICO 6.0	27.6	2.25		2.55				
371.0		WILLOW SPRINGS 4.6	21.6	1.58		2.28				
375.6		LITTLE VALLEY 6.1	17.0	1.45		2.15				
381.7		DIXIE 8.6	10.9	1.25		1.55				
390.3		PIT RIVER 2.3	2.3	12.45		1.15				
392.6	TO	BIEBER	0.0	12.30 AM		1.00 PM				
				Leave Daily	Leave Daily Ex. Sunday	Leave Daily				
		Time over Subdivision.....		(6.30)	(0.15)	(6.30)				
		Average Speed per Hour.....		16.9	16.4	16.9				

In Bieber Yard trains will be governed by Great Northern timetable and transportation rules. Rule 93, Great Northern Transportation Rules, reads as follows: "Within yard limits the main track may be used, clearing first-class trains when due to leave the last station where time is shown, but not less than five minutes. In case of failure to clear the main track, protection must be given as prescribed by Rule 99. Within yard limits the main track may be used without protecting against second and inferior class, extra trains and engines. Second and inferior class, extra trains and engines must move within yard limits at restricted speed. When running against the current of traffic or on a portion of two or more tracks used as a single track, all trains and engines must move within yard limits at restricted speed."

Southern Pacific and Fruit Growers Supply Co. trains will be governed by Western Pacific timetable and rules and regulations of the Transportation Department.

Keddie. Normal position of switch leading from east leg of wye to Fourth Subdivision, lined for east leg of wye. Single switch indicator located at this switch.

Automatic Block Signals. See page 19.

Clear Creek Junction. Normal position junction switch lined for Western Pacific main track.

Westwood. Nos. 153, 154, 177 and 178 register by ticket.

Track 4 will be used as siding, but must not be blocked between 6:01 AM and 7:30 AM.

Mason. Dispatchers may, when necessary, issue train orders to westward trains at Mason restricting them at Robbers Creek. Westward trains finding train order signal at Mason in STOP position will not pass fouling point west switch Robbers Creek until ascertain reason for signal being in stop position. See Rule 221.

Train order signal governs all trains except westward Southern Pacific trains. Westward Southern Pacific trains must obtain clearance card.

Register station for Nos. 555 and 556 only. Nos. 555 and 556 may register by ticket when there is an operator on duty.

Westward second-class and extra trains need not check register for Southern Pacific train No. 555.

Nos. 153 and 177 need not check register for Southern Pacific train No. 556.

Western Pacific trains will approach junction switch under control, being sure switch is right and that Southern Pacific trains are clear of junction switch before using. Normal position junction switch is lined for Western Pacific main track.

Special Instructions on pages 8 and 9 will apply to both pages where applicable.

First Subdivision "A"—SAN JOSE BRANCH

EASTWARD				Distance from Niles Junction	Timetable No. 35 July 6, 1947	Distance from Alameda St. Freight Station	WESTWARD		
Fuel, Water, Fens, Table, Scale, Wye, Bulletin, Register Station, Standard Clock, Interlocking Plant.	Car Capacity of Sidings	Telegraph Office Calls	SECOND CLASS				FIRST CLASS	FIRST CLASS	SECOND CLASS
			254 Freight					253 Freight	
			Leave Daily		STATIONS		Arrive Daily		
			AM 12.30		TO NILES		PM 10.45		
WPR	83	Cn		0.0	0.8 NILES JUNCTION	23.0	10.25		
YP			12.40	3.3	3.3 IRVINGTON	19.7	10.10		
P	29		1.00	6.8	3.5 WARM SPRINGS	16.2	9.55		
	Spur 1W 6		1.15	8.0	1.2 CURTNER	15.0	9.50		
	Spur 1E 4		1.22	10.9	2.9 MILPITAS	12.1	9.40		
P	31		1.35	14.1	3.2 BERRYESSA	8.9	9.25		
	Spur 1E 10		1.45	16.9	2.8 SAN JOSE (East Santa Clara St.)	6.1	9.10		
PWTF			2.00	17.5	0.6 TO SAN JOSE YARD	5.5	9.00 PM		
RBOK	Yard	Sx	2.10 AM	19.5	2.0 SP TRANSFER	3.5			
				19.6	0.1 VALBRICK (SP X'ing.)	3.4			
I				20.2	0.6 SP Crossing	2.8			
I				22.3	2.1 SP Crossing	0.7			
	Yard			23.0	0.7 SAN JOSE (Alameda St. Fr't. St'n.)	0.0			
			Arrive Daily				Leave Daily		
			(1.30)		Time over Subdivision.....		(1.25)		
			11.6		Average Speed per Hour.....		12.4		

Switch Indicators. Two-way indicators located at east and west main track wye switches, Niles Jct., give warning of approach of trains either direction. See Rule 512.

San Jose Branch trains have no timetable superiority between Niles Jct. and Niles. Their movement between these points will be governed by block signals and Rule 93. Time shown at Niles is for information only.

FIRST SUBDIVISION "B"—CARBONA BRANCH

EASTWARD			Distance from Carbona	↓	Timetable No. 35 July 6, 1947		Distance from Moy	WESTWARD	
Fuel, Water, Fone, Table, Scale, Wye, Bulletin, Register Station, Standard Clock.	Car Capacity of Sidings	Telegraph Office Calls			STATIONS				
WYP	115	Cb	0.0	TO	CARBONA	4.2			
	66		1.7		1.7 KERLINGER	2.5			
OP	Spur 1W 52		3.4		1.7 RIVER ROCK	0.8			
	No Siding		4.2		0.8 MOY	0.0			

Derails on main track 138 feet east of east Bean Spur Switch, Carbona, MP 3.3 and 240 feet west and 885 feet east of Stock Yards Moy. Cars on main track east of River Rock not protected.

RULE 201. Train order authority will not be required on Carbona Branch and all movements will be in accordance with provisions of Transportation Rule 93.

SECOND SUBDIVISION "A"—TERMINOUS BRANCH

EASTWARD			Distance from Terminous Jct.	↓	Timetable No. 35 July 6, 1947		Distance from Terminous	WESTWARD	
Fuel, Water, Fone, Table, Scale, Wye, Bulletin, Register Station, Standard Clock.	Car Capacity of Sidings	Telegraph Office Calls			STATIONS				
YP	34		0.0		TERMINOUS JCT.	7.8			
	10		3.5		3.5 GARDEN	4.3			
	6		6.6		3.1 GRASS	1.2			
WY	Yard	Us	7.8		1.2 TERMINOUS	0.0			

SPURS AND COMMERCIAL TRACKS

MAIN LINE

STATIONS	Distance from San Francisco	How Connected	Car Capacity
HUDSON.....	15.9	1 E	20
ESTUDILLO.....	16.5	1 E	13
DECOTO.....	26.6	Siding	18
PABRICO.....	27.8	1 E	16
EBERLY.....	28.9	Siding	20
RADUM.....	43.4	1 W	11
TREVARNO.....	49.0	1 W	24
REDMOND CUT (P).....	59.3	Siding	33
VALPICO..... (P)	68.3	Siding	30
RHODES.....	75.6	Siding	26
H. S. G. DEPOT.....	85.7	Siding	130
HARTE.....	100.5	1 W	18
ALSCO.....	106.8	Siding	20
VILLINGER.....	107.8	1 W	13
LAS VINAS.....	109.5	Siding	50
BRADFORD.....	119.0	1 W	.....
ALBERT.....	127.2	1 W	9
RUNYON.....	128.7	Siding	20
BOMBAY.....	146.4	Siding	13
CLEVELAND.....	176.2	1 W	16
GRAYBROS.....	187.7	1 W	7
VISTA ROBLES.....	198.8	1 E	33
ADELAIDE.....	202.7	1 E	.....
LAND..... (P)	212.2	Siding	28
BRUSH..... (P)	227.4	1 W	3
BLINZIG..... (P) (W)	228.6	1 W	11
JARBO..... (P)	236.1	1 E	17
GRIZZLY..... (P)	246.1	1 E	11
ROCK CREEK..... (P)	249.1	Siding	18
DALITE..... (P)	256.8	1 W	12
GRAY'S FLAT..... (P)	272.6	1 W	74
STODDARD..... (P)	279.3	1 W	15
CROMBERG..... (P)	303.2	Siding	31
FEATHER RIVER INN..... (P)	309.3	1 E	2

NORTHERN CALIFORNIA EXTENSION

INDIAN CREEK..... (P)	283.9	1 W	14
CHENEY LUMBER CO.....	294.7	1 E	16
BOX..... (P)	296.3	1 W	34
POISON LAKE..... (P)	351.1	Wye	.....
ARCHIE..... (P)	363.2	1 W	25
BUTTE VALLEY LBR. CO.....	376.4	1 W	10

YARD LIMITS

West MP		East MP
WP Mole	Oakland	13.78
28.50	Niles	31.38
	" San Jose Branch.....	BR-0.61
BR-14.4	San Jose	BR-23.0
70.14	Carbona	73.05
89.34	Stockton	96.49
MJ-6.0	Terminus.....	End of branch
133.4	Sacramento	140.69
177.62	Marysville	180.24
201.44	Oroville	206.0
280.51	Keddie	282.47
	" 4th Subdivision.....	K-0.48
319.94	Portola	323.09
K-34.89	Clear Creek Junction.....	K-35.61
K-38.25	Westwood	SP-409.45
	(2¼ miles west of Mason)	
K-75.17	Halls Flat	K-78.70
K-111.2	Bieber	GN-86.5
	(3.1 miles east of passenger station)	

GENERAL

RULE 2 (A). Modified to the extent that watches subject to inspection need be presented to an authorized inspector only once per month. Such inspection must be made between the 1st and 15th of each month except at points covered by traveling inspectors.

RULE 6 (A). Symbol TO to left of station name indicates Train Order Office.

RULE 10 (J). On Western Division slow boards, when used, will be placed one-half (½) mile from structure or track over which speed of train must be reduced.

RULE 11. Second paragraph reading "Outside of block system or signal dispatching limits, a train finding a fusee burning on or near its track must stop and not proceed until it has burned out" applies at all points on Western Division except in C.T.C. Territory between Oroville and Delleker.

RULE 11 (A). Outside block system limits and on Third Subdivision fusees may be placed between rails of track when necessary to avoid danger of fire. If train overruns a lighted fusee, it must be removed from under train at once. On Third Subdivision, freight trains finding burning fusee between rails must stop and have fusee removed at once before proceeding under first paragraph Rule 11.

RULE 16 (f). When train order is received indicating that main track is out of service and that trains are to be detoured through a siding or other track, or over a shoofly, necessitating a reduction in normal train speed, signal 16 (f) must be sounded on passenger trains one mile before reaching point where train must reduce speed, which must be acknowledged by whistle signal 14 (g).

RULES S-17 and 99. Figures indicating "Car Capacity of Sidings" are number of cars, based on an average allowance of 48 feet per car, that tracks will hold between clearance points, not including engines and cabooses. Due to increased number of 50 foot and longer cars being handled, trains may find sidings inadequate between clearance points. Care must be taken to see that flag protection is furnished when taking siding to meet trains and headlights must not be extinguished until it is known that train is clear of the main track. The conductor or brakeman at rear end must see that proper signal, day or night, is given to head end when train is clear of main track.

After train comes to rest in the siding, the head end must receive a stop signal from the rear end indicating that train is clear of the main track. Until such signal has been received by head end, headlight will be displayed and flag protection provided.

RULE 17 (D). In light engine movements between Oakland Roundhouse and Chestnut Junction in either direction in connection with moves to or from Southern Pacific Oakland Pier white light (lantern) may be displayed on rear of tender instead of red light.

RULE S-72. WESTWARD TRAINS ARE SUPERIOR TO EASTWARD TRAINS OF THE SAME CLASS.

RULE 104 (C). Switches at various locations near road crossings are equipped with Safety Switch Locks. To use any switch so equipped unlock both standard switch stand and safety switch lock and step on treadle to release safety device. When use of switch is complete, both switch stand and safety switch lock must be locked.

RULE 104 (G). Double or triple loads must not be kicked or dropped. Open top cars on which load is likely to shift must not be kicked or dropped against other cars.

RULE 221. Telegraphers must not signal trains in connection with delivery of train orders. If there is no restriction at that station, telegrapher may hand up the orders without stopping train, but should not signal the train to come down the main track either by raising and lowering the train order signal or by hand signals.

RULE 509. An automatic block signal with a triangular number plate bearing the letter "P" in addition to signal number, is also actuated by some special protective device.

Block Signals so equipped include in their circuits protective devices known as "Slide Detector Fences".

When these signals indicate STOP such additional inspection as necessary to insure safety of proceeding must be made of slide detector fences and tracks in their vicinity. When circumstances require train must be preceded by flagman.

RULE 834. Following signals will be used to notify crews of passing trains of defective conditions:

Hot Journals By Day—Nose held with one hand with other hand pointing toward track.

By Night—Stop Signal.

Brakes Sticking By Day—Hands shoved in sliding motion out from body.

By Night—Stop Signal.

Broken Wheels	} Stop Signal.
Defective Truck	
Dragging Brake Connection	
Lading shifted over Side or End of Car	
Swinging Car Door or Other Dangerous Condition	

RULE 835. Cabooses must not be kicked or dropped against other cars, nor other cars kicked or dropped against them.

When a caboose is kicked or dropped, a member of the crew must ride it. Hand brake must be tested before movement is started.

When coupling to a caboose, or coupling a caboose to other cars, movement must be stopped about ten feet from coupling and then moved slowly to a coupling.

If practicable, occupants of caboose must be warned in advance of impending couplings.

Persons occupying cabooses must brace themselves and remain seated while coupling is being made.

Switching at terminals with a caboose between engine and cars or with cars and caboose ahead of engine is prohibited.

RULE 838. The use of helper engines behind cabooses is prohibited except in emergency when it may be impossible to handle otherwise.

RULE 927—TRAIN INSPECTION. When conditions are favorable and in judgment of conductor it is safe to do so, run may be made for train inspection on freight and mixed trains on First and Second Subdivisions, from one water stop to next water stop, except a maximum distance of 70 miles must not be exceeded between inspections. When conditions are favorable and in judgment of conductor it is safe to do so, run may be made on freight and mixed trains on Third and Fourth Subdivisions without stopping for train inspection for a maximum distance of 45 miles, except a standing or rolling inspection must be made on westward freight and mixed trains at Blairsden, Two Rivers or Sloat and at Halls Flat, Westwood, Almanor and Greenville and on eastward freight and mixed trains at Keddie or at some point between Keddie and Spring Garden and at Westwood and Halls Flat.

Trains containing carload shipments of TNT, bombs, loaded projectiles and other such articles of a highly sensitive nature must be stopped for inspection at intervals of not to exceed 50 miles unless all such cars are loaded less than 65 percent of marked capacity.

RULE 1157. Southern Pacific Air Brake Rule No. 39 applies between Chestnut Jct. and Oakland Pier. See page 21.

AIR BRAKE RULES

RULE 24-B. On passenger trains at points where terminal tests are made, when the continuity of the brake pipe is not disturbed, or motive power not changed, the incoming engineman, after making station stop as prescribed by the rules, must apply the train brakes with a 15 pound brake pipe reduction immediately after stopping and without waiting for a signal.

The brake pipe leakage must be noted, then the reduction increased to a total of 20 pounds. The incoming engineman will notify the outgoing engineman the amount of brake pipe leakage.

Release of the train brakes will be made upon receiving the proper release signal.

RULE 43-B. On trains originating at Keddie, rear end test will be made under this rule.

RULE 44. Running brake test will be made on eastward passenger trains leaving Oakland Pier or Oakland Yard and on westward passenger trains not less than two or more than three miles before reaching SP Crossing MP 13.7.

Running brake test other than above will not be required for crossings between MP 5.8 and MP 13.7 inclusive.

FIRST SUBDIVISION

Street crossing Third and Broadway, Oakland, must not be blocked.

Switches leading off both sides of north track between Clinton and Filbert Streets, Oakland, must be left lined and locked for the north track.

Joint WP and SP drill track between Melrose and Elmhurst must not be used for meeting or passing trains. Crossover between drill track and west end of Elmhurst siding must not be used by road crews. Normal position at west end of crossover lined for drill track and at east end lined for crossover.

Seminary Avenue crossing at Kohler siding is protected by flashing light signals, but trains and yard engines using this siding must cut crossing when blocked more than 5 minutes.

Any engine or cars moving over spur serving California Packing Corporation near 85th Ave., Oakland, must be under control and highway traffic protected by member of crew.

At Hayward, freight trains doing switching will leave train outside of limits of bonded rails operating crossing bells at "A," "B" and "C" streets and will use engine whistle and bell only when necessary to comply with the Rules.

At Hayward, trainmen must see that hinged apron over house track between WP packing shed and building on opposite side is in raised position before entering switch.

At Hayward, dispatcher's telephone installed in baggage room. Westward trains except regular No. 39 and regular No. 1 take full tank of water at Niles.

At Niles Jct., two-way switch indicators located at east and west main track wye switches give warning of approach of trains either direction.

Headlights and markers must be burning through Tunnel 1.

At Hayward, Pleasanton and Livermore, east siding switch is west of passenger station.

At Carbona, normal position of all switches leading from siding is lined for the siding. Normal position of the east house track switch and of the two inside crossover switches east of depot is for east leg of wye and storage track. When not in use these switches must be left lined for the normal route. Track on north side of main track may be used as an auxiliary siding.

At H.S.G. Depot a tail track, capacity 54 cars, is connected with switching track at west end. Normal position of all switches in switching track or tail track is lined for switching track. Do not exceed 10 miles per hour on interchange trackage with H.S.G. Depot.

At Ortega, siding is a storage track. It must not be used by road crews as entrance or departure track to or from Stockton Yard.

Eastward freight trains except cabooses hops and light engines will enter Stockton Yard at lead switch MP 91, first calling yardmaster on telephone located near switch for track instructions.

Eastward cabooses hops and light engines will enter Stockton Yard thru connection at Ortega, proceeding via No. 3 lead and No. 15 track to yard office and roundhouse track.

No. 40 will stop on flag at Hayward, Pleasanton and Livermore to receive revenue passengers for Salt Lake City or east.

No. 39 will stop at any station to discharge revenue passengers from Salt Lake City or east.

Nos. 1 and 2 will stop on flag at any station where time is not shown to receive or discharge passengers, baggage, mail and express.

Faint, mostly illegible text on the right page, possibly bleed-through from the reverse side of the document.

SECOND SUBDIVISION

Westward freight trains will enter Stockton Yard at lead switch immediately west of Charter Way.

Engines and cars must be brought to a stop at Country Club Highway crossing on North Channel Line, Stockton, and must be preceded by flagman over crossing.

Bridge over Smith Canal, North Channel Line, Stockton, will not clear man on top of high car.

At Terminous Jct., road crossing No. 4-105.7 must not be blocked more than five minutes. When a train stops at Terminous Jct. and there are three brakemen in crew, one brakeman must protect this crossing during time train is not cut.

The first street crossing west of South Sacramento must not be blocked by freight trains taking water, oil, or doing work at South Sacramento. Eastward freight trains will, when necessary to avoid blocking this crossing, leave train west of crossing while taking water or oil, or switching.

At Sacramento, westward passenger engines and trains must not leave depot until engineer knows that wigwag on "K" Street is in motion and eastward passenger engines and trains must not leave depot until engineer knows that wigwag on "J" Street is in motion. If wigwag fails to operate a member of crew must precede engine or train over crossing.

At Sacramento, when road engines are detached from eastward passenger trains to permit yard engine to perform switching, road engine must move beyond alley between "G" and "H" Streets. This will actuate crossing signals at "H" Street on return movement westward after yard engine is into clear with switch closed.

At Marysville, spur track known as Cliff House Spur will not hold more than 10 cars.

Joint Track Marysville. Sacramento Northern trains operate over Western Pacific main track between junction switches 356 feet east and 355 feet west of Bridge 178.18, Yuba River. Sacramento Northern freight trains operate over WP siding between west switch and switch leading to Sacramento Northern track opposite Western Pacific passenger station, Marysville. These tracks are designated as Joint Tracks.

Derail switch on siding 193 feet east of switch, pipe connected and operated with main track switch.

Junction switches must be locked for Western Pacific main track when not in use.

Movement of Trains over Joint Track will be governed by Rule 663 and made in accordance with indication of signals, regardless of right or class. All trains of both railroads must approach and pass through limits of Joint Track with caution, not exceeding 15 miles per hour. In using Joint Track freight trains should avoid delays to other trains of either railroad.

Crossing of Sacramento Northern Passenger Track over Western Pacific House Track, 752 Feet East of Br. 178.18. Engines, cars or trains moving on Sacramento Northern passenger track must be brought to a stop at STOP signs 100 feet each side of crossing and preceded over crossing by member of crew. Engines, cars or trains operating on Western Pacific house track must approach with caution and be sure it is safe to proceed before moving over crossing.

Automatic Interlocking signals (color light type) govern Joint Track operation as follows:

Eastward. Distant signal MP 177.2, 4528 feet west of home signal. Home signal 777 feet west of Bridge 178.18. Semi-automatic Home Signal SA-1784 located 45 feet west of SN junction switch east of Bridge 178.18.

Westward. Home signal 722 feet east of Bridge 178.18.

Double Switch Indicators.

SN junction switches east and west of Bridge 178.18.

West siding switch.

West switch interchange track.

Automatic Block Signals (color light type) located as follows:

Eastward. Signal 1772, which is interlocking distant signal, is also three-position automatic block home signal for eastward trains. All trains must approach this signal prepared to stop if indication displayed per Rule 501, Fig. 5. Signal is approach lighted; length of approach circuit 4022 feet. Sign reading "ABS 4000 feet" located 4000 feet west of signal.

Home signal MP 178.8. Home signal MP 179.4, 255 feet west of east siding switch. This signal also indicates position of west interlocking home signal Binney Jct.

Dwarf signal between main track and siding 223 feet west of east siding switch governs movements eastward from siding to main track and also indicates position of west interlocking home signal

Binney Junction when switch lined for movement and after control time has elapsed. Double switch indicator located at east siding switch.

Westward. Home signals MP 179.5 and MP 178.9.

Double Switch Indicators.

East switch interchange track.

Crossover near passenger station (governs both switches).

Crossover MP 179 (governs both switches).

Switch of SP interchange track.

East siding switch.

East high line switch MP 179.7.

THIRD SUBDIVISION

At Land, engines heavier than C-43 class must not use tracks 2, 3 and 4 except at west end of yard on tangent track. C-43 class engines and smaller type engines may use all tracks in entire yard at moderate speed and may use east lead as far as Swayne Railroad Crossing. No. 1 track, which is a crossover from siding to east end of yard, and No. 2 track used as a run around track, must be left clear. All classes of engines may use siding entire length.

Water may be obtained at Blinzig, MP 228.6.

When calling in flagman from east on Fourth Subdivision at Keddie, enginemen will sound six long blasts of whistle.

Mallet and Mikado engines may use house track at Blairsdén. Trains setting out or picking up on this track must have air cut through and operative.

Movement over Mill track between Blairsdén and Graeagle must be made with air cut through and operative.

A sign reading "TRAINMEN PROHIBITED FROM RIDING CARS BEYOND THIS POINT" erected over tracks at a point approximately 60 feet in advance of log rollway at plant of California Fruit Exchange, Graeagle. Sign to be illuminated at night. Trainmen must obey this sign in interest of SAFETY.

On Graeagle Spur do not exceed 4 miles per hour east of derail. Crews spotting moulding mill at Graeagle must hold onto nine cars including cars to be spotted.

Headlights and markers must be burning through Tunnels 4, 5, 23, 33 and 35.

THIRD SUBDIVISION
When calling in flagman from east on Fourth Subdivision at Keddie, enginemen will sound six long blasts of whistle.
Mallet and Mikado engines may use house track at Blairsdén. Trains setting out or picking up on this track must have air cut through and operative.
Movement over Mill track between Blairsdén and Graeagle must be made with air cut through and operative.
A sign reading "TRAINMEN PROHIBITED FROM RIDING CARS BEYOND THIS POINT" erected over tracks at a point approximately 60 feet in advance of log rollway at plant of California Fruit Exchange, Graeagle. Sign to be illuminated at night. Trainmen must obey this sign in interest of SAFETY.
On Graeagle Spur do not exceed 4 miles per hour east of derail. Crews spotting moulding mill at Graeagle must hold onto nine cars including cars to be spotted.
Headlights and markers must be burning through Tunnels 4, 5, 23, 33 and 35.

FOURTH SUBDIVISION

When calling in flagman from east on Fourth Subdivision at Keddie, enginemen will sound six long blasts of whistle.

When cars are set out at Cohala, Jellico, Willow Springs or Little Valley, in addition to provisions of Rule 840, lower car must be chained to rail and Dispatcher notified.

Headlights and markers must be burning through Tunnels 1, 2, 3, 6 and 8.

Engines or cars must not be moved over highway crossing on Box spur just east of Greenville without being brought to a stop and highway traffic protected in both directions by a member of crew.

At Clear Creek Junction, the 33-car siding is the interchange track with Almanor Railroad Company and trackage between Western Pacific main track switch and yard limit board 2000 feet beyond end of the 33-car siding toward Chester is joint track for interchange purposes. Operation over this trackage is under transportation rules governing operations within yard limits. Switch point derail on Almanor RR main track 400 feet from junction switch.

Water at Little Valley not suitable for human consumption. Water peddlers and gang water cars must not be filled at this point.

Westwood. Following instructions govern movements over crossings at Veneer Plant and Third Street (east and west of passenger station):

Trains meeting at Westwood must not block these crossings. Trains or engines using main track over crossings will run prepared to stop before hitting anything on or about to use the crossings. Between the hours of

7:20 a.m. and 7:30 a.m. 12:20 p.m. and 12:30 p.m.
11:30 a.m. and 11:40 a.m. 4:30 p.m. and 4:40 p.m.

trains stopping at Westwood must not block crossings any part of the periods specified, waiting back of crossings if necessary. Any movements over crossings between these times must be preceded by flagman. Gate tender at Third Street crossing on duty continuously.

Any crossing must be cut immediately upon request of plant gate watchman for impending movement of ambulance or fire apparatus and kept clear until released by him.

Movements of trains or engines on any tracks other than main track over any crossings in yard must be preceded by flagman.

Derail on west end F. G. S. Co. electric siding must be kept in derail position when cars are on siding. East switch of F. G. S. Co. electric siding must be left lined for siding. Derails adjacent to main track on both legs of F. G. S. Co. wye. Switch leading from west end of house track to gravel bin spur must be left lined for gravel bin spur to serve as derail.

[Faint, mostly illegible text, likely bleed-through from the reverse side of the page.]

[Faint, mostly illegible text, likely bleed-through from the reverse side of the page.]

INTERLOCKING PLANTS AND SIGNALS AND RAILROAD CROSSINGS NOT INTERLOCKED

MP 5.8—SP Crossing and MP 5.9—Chestnut Junction, Magolia Tower. Interlocked.

Eastward: Two arm home signal 700 feet west of crossing; upper arm governs movement on main track; lower arm governs movement on main track to north track. Dwarf signal 490 feet west of crossing governs movement from siding eastward to main track or north track. No distant signals.

Westward: Home signals (on bracket mast) 750 feet east of crossing. Arm to right governs movement from north track over junction switch to SP or WP Yards. Arm to left governs movement from main track over junction switch to SP. Suspended home signal governs movement main track to WP Yards. No distant signals.

MP 7.2 SP Crossing—Main track and north track. Not interlocked. Trains must approach under control and not proceed over this crossing unless it is known to be clear.

MP 7.7 Clinton, SP Crossing. Interlocked. Home signals two-position color light 565 feet east and 440 feet west of crossing. Distant signal semaphore type 2000 feet east of east home signal. Maximum speed head end of trains between home signals, passenger trains 15 miles per hour, freight trains 10 miles per hour.

Electrically-locked, hand-operated switch west of crossing between home signals is east switch of north track. Double switch indicator showing track occupancy on Western Pacific is at switch. Electric lock with lock indicator is in box at switch.

Dwarf signal governs entrance to main track. For movement to main track FIRST check switch indicators; if they show track unoccupied door to electric lock may be opened. When lock indicator in box shows "Clear" move handle to left to unlock switch, then line switch and dwarf signal will clear.

For movement main track to siding, engines or cars must stop between home signals. Door to electric lock may then be opened and when lock indicator shows "Clear" move handle to left to unlock switch.

After movements in or out of north track are completed, switch must be left lined and locked for main track, lock lever returned to right and door of electric lock closed and padlocked.

Three-minute time release operated by push button in electric lock. If switch indicator shows track occupied and reason is not apparent or there is a train stopped on Western Pacific track back of either home signal and crossing is not in use, door of electric lock may be opened and time release operated in accordance with instructions posted in lock.

MP 10.3 SP Crossing. Not interlocked. Trains must approach under control and not proceed over this crossing unless it is known to be clear.

MP 10.6 and MP 10.7 Melrose Tower, SP Crossings. Interlocked. Home signals 450 feet west of crossing MP 10.6. Distant signal 2000 feet west of home signal. Home signal 685 feet east of crossing MP 10.7. Distant signal 2500 feet east of home signal.

MP 13.7 Elmhurst, SP Crossing. Automatic interlocked. Home signals for main track, two-position color light 523 feet east and 536 feet west of crossing.

Distant signals 3950 feet east and 3550 feet west of home signals are also three-position, color light, automatic block home signals. Trains must approach these signals prepared to stop if indication displayed per Rule 501, Fig. 5. Signals are approach lighted; length of approach circuits 2375 feet east and 2980 feet west of signals.

East switch to Elmhurst siding is within home signal limits and movement over this switch to the main track is governed by a two-position color light dwarf home signal located at the clearance point. The switch is equipped with an electric lock located adjacent to the switch-operating stand. Track occupancy on the Western Pacific is denoted by double switch indicator located near the switch.

For movement from siding to main track stop train within 250 feet of dwarf signal. OBSERVE THE SWITCH INDICATORS BEFORE OPENING DOOR ON LOCK. The door should remain closed if one or both switch indicators show track occupied unless it is known that the occupancy is not caused by a train approaching to use the crossing. With the track unoccupied or occupied by other than an approaching train, open the door on the electric lock and proceed according to the instructions posted therein.

For movement from main track to siding, stop train between home signals and at least 50 feet east of switch points. Open door on electric lock and proceed according to instructions posted therein.

Electric lock is not equipped with an emergency release. If lock does not release west siding switch should be used.

If main track home signal indicates STOP upon the approach of a train, or if dwarf home signal indicates STOP with switch in the reverse position, send flagman to the crossing to follow instructions posted in the WP time release housing. If the time release is operated and the signal continues to indicate STOP, be governed by Rule 663.

When a train is delayed after observing a signal displaying a proceed indication, it must proceed at restricted speed expecting the signal to assume a more restrictive indication before it is accepted.

Cars left on Elmhurst siding must be placed at least 300 feet west of dwarf home signal to avoid occupying approach lighting circuit.

Attention is directed to maximum speed of 15 MPH for passenger trains and 10 MPH for freight trains in this territory.

MP 30.3 Niles Tower, SP Crossing. Interlocked. Home signal three-position color light 450 feet east of crossing. Distant signal three-position color light 4850 feet east of east home signal. Home signal 450 feet west of crossing. Distant signal 4950 feet west of west home signal (lower arm of Signal 29.4).

MP 42.7 and MP 43.0 Radum Tower, SP Crossings. Interlocked. Home signals 480 feet east of crossing MP 43.0 and 480 feet west of crossing MP 42.7. Distant signals 2000 feet east and west of home signals.

Note: Towerman on duty daily except Sundays and holidays. During hours towerman is off duty, normal operation of signals on the Western Pacific will be semi-automatic. Switch indicator located at west main track switch gives warning of approach of trains in either direction. See Rule 512.

MP 74.0 Lyoth Tower, SP Crossing. Interlocked. Home signal 800 feet west of crossing. Distant signal 2658 feet west of home signal. Home signal 600 feet east of crossing. Distant signal 2766 feet east of home signal. Two-arm home signal 210 feet west of crossing. Upper arm governs main track; lower arm governs movement from main track through crossover to siding. Dwarf signal, located between main track and interchange track 230 feet west of main track switch, governs movement from siding to main track. Following are whistle signals: Westward trains desiring to enter siding—one long one short. Eastward trains desiring to leave siding—one short one long.

In order to avoid delay to trains on opposing route while doing work at Lyoth train must be left outside of interlocking plant circuit governed by home signals.

MP 84.45 SP Crossing. Interlocked. Home signals 650 feet east and west of crossing. Distant signals 4590 feet east and 4538 feet west of home signals. Signals handled through remote control by telegraphers at Southern Pacific station, Lathrop.

East and west siding switches, Quigley and Lathrop, east entrance switch to H.S.G. Depot, main track and inside switches to crossover west end H.S.G. Depot are within control circuits of SP crossing and actuate interlocking signals on WP tracks on opposite side of crossing.

Authority must be secured from signal operator before moving eastward from Quigley siding, westward from Lathrop siding or westward through crossover west end of H.S.G. Depot on to main track. Telephones located near east siding switch, Quigley, and in booth adjacent to crossover near fence of H.S.G. Depot for this purpose.

Telephone also located at crossing. When signals are in stop position be governed by Rule 663.

When switching is to be done at either Quigley, Lathrop or H.S.G. Depot using main track, signal operator must be notified by telephone length of time to be used so signal lineup may be changed if necessary.

Maximum speed head end of trains between home signals, passenger trains 30 miles per hour, freight trains 25 miles per hour.

MP 90.3 Ortega Tower, SP Crossing. Interlocked with Hunter Street track. Home signals 450 feet east and 230 feet west of crossing. No distant signals.

Note: Towerman on duty 6:00 p.m. to 3:00 a.m. daily. Trains or engines moving westward must not foul WP main track and WP main track junction switch must not be opened until it has been ascertained from dispatcher through operator Stockton Yard that it is safe to do so. Telephone located near main track junction switch for this purpose. Trains or engines on main track must approach Ortega with CAUTION.

MP 93.2 AT&SF Tower, AT&SF Crossing. Interlocked. Home signal 450 feet east of crossing. No distant signal. Two-arm home signal 450 feet west of crossing, upper arm governs movement on Western Pacific main track, lower arm governs movement to and over AT&SF main tracks to interchange track. Reflectorized amber approach warning sign located on "RR Crossing One-half Mile" sign 2190 feet west of west home signal. Tower equipped with electric siren. Two short blasts repeated several times is warning to yard and trainmen to clear plant.

MP 93.8 Weber Avenue Tower, SP Crossing. Interlocked. Main Track: Home signals 423 feet east and 315 feet west of crossing. No distant signals. Siding: Home signals 428 feet east and 73 feet west of crossing.

MP 95.1 El Pinal Tower, SP Crossing. Interlocked. Home signals 650 feet east and west of crossing. One distant signal 3000 feet east of east home signal.

MP 137.5 "X" Street, CCT and SN Crossing. Automatic interlocked. Home signals 450 feet east and west of crossing. Distant signal 1480 feet west of west home signal. Distant signal, permanently at caution, 1270 feet east of east home signal. If signals are in STOP position send flagman to crossing to operate time release inside box at crossing. Instructions for operation of time release inside of box. If signals remain in STOP position, be governed by Rule 663. Switch indicator at head block west switch to interchange track gives warning of approach of trains on WP, CCT and SN. Hayes derail 171 feet east of west switch to interchange track is pipe connected to main track and switch must not be closed until rear of train has passed derail.

MP 138.0 "R" Street Tower, SP Crossing. Interlocked. Two-arm semaphore type home signal 796 feet east of crossing. Upper arm governs main track; lower arm governs leg of wye. Two-unit color-light home signal 700 feet west of crossing. Upper unit governs main track; lower unit governs leg of wye. No distant signals.

Dwarf signal on east leg of wye 165 feet from main track switch governs movement from "R" Street line to main track.

Two-arm dwarf signal on west leg of wye 800 feet from main track switch. Upper arm governs movement from "R" Street line over crossing to WP main track; lower arm governs movement over crossing to California Builders' Supply spur.

Spur serving Valley Wholesale Grocery Co. connected with west leg of wye with switch facing west. Normal position of switch is lined for spur. Indication on eastward home signal on main track is same for movements from main track to either "R" Street line or to spur. Crews desiring to enter spur must advise towerman. Switch cannot be changed while engine or cars are between home signals of plant. Two-position color-light signal on spur governs movements out of spur track.

Following are whistle signals: Main track to wye, either leg, one long, one short. Wye to main track, either leg, one short, one long.

MP 139.2 "C" Street, SN Crossing. Automatic interlocked. Home signals 480 feet east and 450 feet west of crossing. Distant signals, permanently at caution, 3190 feet east and 1584 feet west of home signals. If signals are in STOP position send flagman to crossing to operate time release in box at crossing. Instructions for operation of time release inside of box. If signals remain in STOP position be governed by Rule 663. Switch indicator at head block main track switch to Haggin transfer track gives warning of approach of trains on WP and SN. Hand operated derail on Haggin transfer track 226 feet east of west main track switch.

MP 140.8 Globe, SN Crossing. Interlocked. Manual control two-position color-light signals, approach lighted. Home signals 605 feet east and west of crossing. Distant signals 4200 feet east and 3032 feet west of home signals. Maximum speed head end of train between home signals, passenger trains 30 miles per hour, freight trains 25 miles per hour.

MP 152.5 Sankey, SN Crossing. Automatic interlocked. Home signals 600 feet east and west of crossing. Distant signals 3000 feet east and west of home signals. All signals color-light type approach lighted. If signals are in STOP position, send flagman to crossing to operate time release in box at crossing. Instructions for operation of time release inside of box. If signals remain in STOP position, be governed by Rule 663.

Joint Track Marysville. (See special instructions page 15, Second Subdivision.)

MP 180.2 Binney Jct. Tower, SP Crossing. Interlocked. Home signal 680 feet west of crossing SP main track. Automatic Block Home Signal 1794, located 3722 feet west of home signal, and Dwarf Signal 1796 on siding are also distant signals for Binney Jct.

Semi-automatic Home Signal SA-1803, 644 feet east of crossing. Distant Signal 1811, 4598 feet east of home signal, is also three-position automatic block home signal for westward trains. All trains must approach this signal prepared to stop if indication displayed per Rule 501, Fig. 5. Signal is approach lighted; length of approach circuit 4039 feet. Sign reading "A.B.S. 4000 feet", located 4000 feet east of signal.

All signals are of color-light type.

San Jose Branch.

MP 19.6 SP Crossing. Not interlocked.

MP 20.2 Willow Glenn, SP Crossing. Interlocked. Semi-automatic home signals 225 feet east and west of crossing. No distant signals.

MP 22.3 West San Jose, SP Crossing. Interlocked. Home signals 250 feet east and west of crossing. No distant signals.

All trains must come to STOP at home signals, Willow Glenn and West San Jose crossings and a member of crew go to crossing and carefully follow instructions pasted inside of derail lock box at each crossing before proceeding over either crossing.

AUTOMATIC BLOCK SIGNALS

Niles. Eastward: Three-position color-light signal MP 28.4; two-arm signal MP 29.4, upper arm is automatic block home signal, lower arm interlocking distant signal; home signals MP 30.4 and MP 31.2.

Westward: Distant signal MP 31.7; color-light home signal MP 31.3; home signal MP 30.3.

Marysville. See special instructions page 15 under Joint Track Marysville.

Oroville Yard. See special instructions governing movements between Oroville Yard and West End C.T.C., pages 24 and 25 for location and limits.

Keddie. Fourth Subdivision:

Eastward: Two-position color-light signal at west portal Tunnel 1.

Westward: Three-position color-light signal 45 feet east of Tunnel 2.

Two-position color-light signal 60 feet east of east wye switch.

TUNNEL SIGNALS

Automatic Block signals govern movement through Tunnels 1 and 2 on First Subdivision.

Tunnels 1 and 2. Home signal 1500 feet west of west portal Tunnel 1. No distant signal. Home signal 200 feet east of east portal Tunnel 2. Distant signal 4500 feet east of home signal.

DRAWBRIDGE SIGNALS

San Joaquin River Drawbridge MP 80.28. Interlocked. Home signals 650 feet east and 600 feet west of bridge indicate position of draw. Distant signals 4500 feet east and west of home signals.

SPECIAL INSTRUCTIONS—ALL SUBDIVISIONS

SPEED RESTRICTIONS

Speed restrictions in miles per hour will apply as follows:

Page No.	BETWEEN	Passenger		Freight		
		Maxi-mum	Restric-tion	Maxi-mum	Restric-tion	
2-3	First Subdivision	60	..	40	..	
	Over, along or upon all streets and highways within Oakland City Limits	..	15	..	10	
	Washington and Franklin Sts., Oakland	..	8	..	8	
	MP 7.2 over SP Crossing	..	10	..	10	
	MP 7.7 SP Crossing Clinton (see Page 18)	..	15	..	10	
	MP 9.5 just east 29th Avenue and MP 9.8 just east Fruitvale Avenue	..	10	..	10	
	MP 10.3 over SP Crossing	..	10	..	10	
	MP 13.7 over SP Crossing	..	15	..	10	
	Bridge just west of San Leandro Depot and Williams Street, 5 blocks east of depot	..	20	..	15	
	Over "A" and "B" Streets, Hayward	..	45	..	30	
	MP 23.93 and MP 24.31	..	35	..	25	
	MP 29.4 on curve	..	40	..	30	
	Niles and MP 37	..	50	..	30	
	Through Tunnels Nos. 1 and 2	..	40	..	20	
	MP 38.6 on curve SP underpass	..	45	..	30	
	MP 40.0 on curve	..	55	..	..
	City Limits Pleasanton	..	15	..	15	
	City Limits Livermore	..	25	..	20	
	MP 52 and MP 53 on curves	..	45	..	30	
	MP 53 and MP 54 on curves	..	35	..	25	
	MP 54 and MP 67 on curves	..	50	..	35	
	MP 58.0 on curve at sink	..	20	..	20	
	San Joaquin River Drawbridge MP 80.28	..	20	..	15	
	MP 84.45 SP Crossing (see Page 18)	..	30	..	25	
	MP 90 and MP 92.5 on curves	..	45	..	30	
	MP 92.5 and Stockton Depot Main Track	..	20	..	20	
	Other Tracks	..	8	..	8	
	Over interlocking crossings	..	40	..	25	
	4-5	Second Subdivision	60	..	40	..
		Stockton and MP 122
		Stockton Depot and Park Street Main Track	..	20	..	20
		Other Tracks	..	8	..	8
		MP 116.07 Mokelumne River Bridge	..	20	..	20
		Bradford Spur	10
		MP 122 and MP 133.5	50	..	35	..
MP 133.5 and MP 155		60	..	40	..	
12th Ave. and "C" Street, Sacramento		..	15	..	15	
MP 140.8 SN Crossing (see Page 19)		..	30	..	25	
MP 152.5 SN Crossing (see Page 19)		..	30	..	25	
MP 155 and MP 171		50	..	35	..	
MP 171 and MP 185		60	..	40	..	
On curve at Cleveland		..	50	..	35	
Joint track Marysville (see Page 15)		..	15	..	15	
MP 185 and MP 197		50	..	35	..	
MP 197 and Oroville		60	..	40	..	
MP 201.8 on curve		..	40	..	25	
Over interlocking crossings		..	40	..	25	
6-7		Third Subdivision	50	..	35	..
	Oroville and Bidwell	40	..	30	..	
	Bidwell and Bloomer	..	..	..	..
	Bloomer and MP 272.57 (Grays Flat)	35	..	25	..	
	Bridge 252.60	..	25	..	20	
	MP 272.57 and Quincy Jct.	40	..	30	..	
	Over Switch East end Tunnel 32	..	20	..	20	
	Quincy Jct. and Portola	50	..	30	..	
	Through Tunnel 35	..	..	..	20

SPEED RESTRICTIONS—Continued

Speed restrictions in miles per hour will apply as follows:

Page No.	BETWEEN	Passenger		Freight	
		Maxi-mum	Restric-tion	Maxi-mum	Restric-tion
8-9	Fourth Subdivision	..	..	..	..
	Keddie and Crescent Mills	35	..	25	..
	Crescent Mills and Greenville	40	..	40	..
	Greenville and Clear Creek Jct.	35	..	25	..
	Clear Creek Jct. and Mason	35	..	30	..
	Clear Creek Jct. and Westwood, on curves	..	25	..	25
	Mason, trains using turnout	..	20	..	20
	Mason and Halls Flat	40	..	40	..
	Halls Flat and Pit River	35	..	25	..
	Halls Flat and Pit River, on curves	..	25	..	..
	On curve west mile board Willow Springs	..	25	..	15
	Pit River and Bieber	40	..	30	..
10	San Jose Branch	30	..	25	..
	Within city limits, San Jose	..	12	..	12
11	Over all street and highway crossings within city limits, San Jose	..	5	..	5
	Carbona Branch	12	..	12	..
	Terminus Branch	..	..	..	..
	Terminus Jct. and Garden	20	..	20	..
	Garden and Terminus	15	..	15	..

MAXIMUM SPEEDS:

On curved track Third Subdivision enginemen will reduce speed below the maximums provided where necessary to insure safety.

Engines backing—20 miles per hour on straight track. On curves and where track conditions are unfavorable speed must be reduced further to a rate consistent with safety.

Engines running light on main track or branches—speeds prescribed for freight trains.

M-80 engines, All Subdivisions—35 miles per hour.

GS-64-77 Class Engines (Nos. 481-486) must not exceed speeds indicated below over following bridges:

Bridge 18.80.....45 MPH	Bridge 39.40.....45 MPH
" 20.87.....45 "	" 49.88.....45 "
" 22.11.....45 "	" 53.40.....45 "
" 35.09.....35 "	" 116.28.....45 "
" 37.12.....45 "	" 204.82.....30 "
" 37.36.....45 "	

M-137-151 engines:

Handling passenger trains.....speeds prescribed for freight trains

Over Bridge 317.43.....25 miles per hour in trains or light

Second Subdivision.....30 " " " " " "

Fourth Subdivision

Btw. Keddie and Greenville...25	" " " " " "
" Greenville and Almanor...25	" " " " " "
" Almanor and Westwood...25	" " " " " "
" Westwood and Halls Flat...30	" " " " " "
" Halls Flat and Bieber...25	" " " " " "
" Halls Flat and Bieber, on curves descending grade	20 " " " " " "

While engine passing through crossovers or turnouts.....5 " " " " " "

Passenger trains with cabooses on rear or when handled by C-43 or MK-60-71 engine—50 miles per hour.

Trains handling Southern Pacific scale test car will not exceed 40 MPH.

Trains handling steam derricks, steam shovels, cranes, rotary plows or pile drivers, 25 miles per hour First and Second Subdivisions, 20 miles per hour Third and Fourth Subdivisions.

Trains handling triple loads of poles, 20 miles per hour Third and Fourth Subdivisions and between Carbona and Oakland.

Trains handling logs, 25 miles per hour. When two trains meet, either of which are handling logs, the standing train will remain standing until other train has cleared or come to a stop unless necessary to saw by. Maximum speed of train passing, 15 miles per hour.

All trains, through crossovers, turnouts and on sidings—10 miles per hour.

Trains or engines must not exceed 8 miles per hour over street crossing at 5th and "R" Sts., Sacramento.

MISCELLANEOUS

Dead engines handled in trains must be placed approximately 10 cars behind train engine.

When steam derrick is handled with Mallet or D-225 engine, there must be at least two cars between engine and derrick.

DOUBLEHEADING. When D-225, M-80, M-137-151, GS-64-77, MK-60-71 or MTP-44 engines are in a train with another engine of any class, either in service or dead, they must be spaced at least 10 cars apart, except MTP-44 engines may be doubleheaded with TP-29 engines; on Third Subdivision and between Stockton Yard and Altamont MTP-44 engines may be doubleheaded with C-43 engines; on First and Second Subdivisions MK-60-71 engines may be doubleheaded with TP-29 engines, and on Fourth Subdivision M-80 and MK-60-71 engines may be doubleheaded with C-43 or TP-29 engines; also two M-80 engines, a D-225 and M-80 engine or an M-137-151 and M-80 engine may be doubleheaded between Bieber and Halls Flat.

When a TP-29 engine is doubleheaded on a passenger train over a passenger district with another engine of greater pump capacity it should be placed next to train. When used as a helper over part of the passenger district it should be placed in the lead, except when train consists of more than 16 cars, in which case the TP-29 engine should be next to train unless emergency or other causes make it impossible to do so.

MK-60-71 engine being doubleheaded with TP-29 engine will not exceed 35 miles per hour over Bridges 24.31, 29.24, 35.09, 37.12, 38.69, 49.88, 53.40, 56.96, 64.43, 79.41, 80.37, 116.28, 116.37 and 166.25.

MTP-44 engine being doubleheaded with TP-29 engine, C-43 engine being doubleheaded with C-43 or TP-29 engine, or running light coupled, will not exceed 35 miles per hour over Bridge 64.43.

MTP-44 engine being doubleheaded with C-43 engine, or running light coupled, will not exceed 35 miles per hour over Bridges 56.96, 64.43, 79.41 and 80.37.

MK-60-71 engine and M-80 engine being doubleheaded with C-43 or TP-29 engine on Fourth Subdivision will not exceed 25 miles per hour over Bridges 9.04, 9.29, 9.45 and 9.79.

TRIPLEHEADING of locomotives of any class, running light or handling train, is prohibited.

DIESEL ENGINES. Diesel freight engines dead in train must have qualified messenger. In both cabs automatic brake valves must be cut out and brake valve handles locked in running position; independent brake valve handles locked in running position (locking pins are provided for this); dead engine features cut in; all isolation switches placed in "start" position; all switches at engineer's control stand locked in "off" position and main battery switches pulled; reversers locked in neutral position in all units. Messenger should watch brake cylinder pressure in cab nearest to locomotive handling train. Distributing valve pops must be set to 25 pounds pressure. Maximum speed 60 miles per hour.

Diesel switch engines dead in train must have qualified messenger. Automatic brake valve must be cut out and handle placed in running position; distributing valve pop set to 15 pounds pressure; dead engine feature cut in; main battery switch pulled and reversers locked in neutral position. Maximum speed 45 miles per hour.

During freezing weather engine water cooling system must be drained on any type Diesel engine being towed.

TONNAGE RATING

Engine Class	1st Sub-division	2nd Sub-division	3rd Sub-division	4th Subdivision		
				Keddie to Greenville	Greenville to Almanor	Almanor to Bieber
Eastward						
TP-29	1073	2200	812	585	401	585
MTP-44	1650	5000	1250	900	617	900
C-43	1650	5000	1250	900	617	900
MK-60	2500	6000	1800	1250	858	1250
MK-60-71 . . .	2700	6000	1800	1250	858	1250
GS-64-77 . . .	2800	6000	1900	1250	858	1250
M-80	3000	6000	2200	1690	1170	1690
M-137-151 . . .	5000	6000	4000	2800	1900	2800
D-225	5800	6000	4000	3400	2000	3400
Westward						
TP-29	910	2200	*	491	1040	
MTP-44	1400	5000	*	756	1600	
C-43	1400	5000	*	756	1600	
MK-60	2350	6000	*	1051	2200	
MK-60-71 . . .	2500	6000	*	1051	2350	
GS-64-77 . . .	2500	6000	*	1051	2450	
M-80	2600	6000	*	1427	3500	
M-137-151 . . .	4000	6000	*	2200	5500	
D-225	5000	6000	*	2800	6000	

*Descending grade, no tonnage limit.

Add five tons friction for each car over 30 cars.

Tonnage rating based on maximum grade each subdivision; between points where grades are less than maximum, greater tonnage can be handled.

SOUTHERN PACIFIC AIR BRAKE RULE NO. 39

Running Test:

As soon as speed permits, after engine and/or engine crew has been changed, helper engine added or detached, or an angle cock closed, except for detaching cars from rear, train brakes must be applied with sufficient force to determine whether they operate properly. Steam or power must not be shut off unless conditions require. This test will also be made not more than 3 miles before reaching railroad crossings at grade, draw-bridges or descending grades of 1.8 percent or over, and at such other points as may be designated by the superintendent.

During a test, a trainman must station himself at retaining valve of last car so equipped, and if air escapes from it while brakes are being released, must signal the engineer to increase speed. Communicating signal should be used when possible, in which case 5 sounds of the whistle must be given. If air does not escape, train must be stopped and the cause ascertained and corrected.

TRACKS ON WHICH ENGINE MOVEMENTS RESTRICTED

<u>Location and Description of Track</u>	<u>Class of Engine</u>	<u>Prohibited</u>
Oakland, Kaiser Ready-Mix Spur	C-43 or heavier	Beyond frog
Balloon track	MTP-44 or heavier	"
San Leandro, Radich & Brown Spur	All Classes	Beyond frog
Bechtel Spur	MTP-44 or heavier	"
Caterpillar Tractor	"	"
Calif. Pack. Corpn.	"	"
Hyrup Spur	"	"
Hayward, Farm Produce Spur	"	"
Poultry Prod. Spur	"	"
Niles, Transfer Track	MTP-44 or heavier	Beyond frog
P.C.A. Gravel Plant	"	On trestle
" " "	All Classes	Beyond trestle
San Jose Branch	MTP-44 or heavier	On Entire Branch**
Radum	All Classes	Beyond frog on all tracks except 1 and 2
Livermore, Brick Yard Track	MTP-44 or heavier	Beyond frog
Stock Track	"	"
Carbona, Track No. 2 (Tomato Spur)	"	"
Bean Spur	"	"
Carbona Branch (Main Track)	"	{Beyond West Switch Kerlinger
Spur	"	"
MP 0.5	"	Beyond frog
Kerlinger Pit	C-43 or heavier	Beyond clearance point west end tracks 1 and 2
River Rock	Diesel 581 class	East of switch
Main Trk.	C-43 or heavier	Beyond Moy Stock Yards
Stockton, North Channel Spur	MTP-44 or heavier	Beyond frog
Harte Spur	All Classes	Beyond Br. 100.56
Terminus Branch	MTP-44 or heavier	On entire Branch
Villinger Spur	"	Beyond frog
Glannvale, Stock Yard Spur	"	"
Bradford Winery	"	"
So. Sacramento, Track 68	"	Beyond clearance point
Sacramento, Old House Track (T&XSt)	"	Beyond frog
"R" Street Line	MK-60 or heavier	Beyond 17th Street
Pleasant Grove, House Track	MTP-44 or heavier	Beyond depot
Trowbridge, Rice Growers Elevator Spur	"	Beyond frog
Team Track	"	"
East Arboga, Outfit Spur	"	"
Cleveland Spur	MTP-44 or heavier	"
Marysville, Both old SN Passgr. Conn.	All Classes	"
Old Ft. House and Sand Plant	MTP-44 or heavier	Beyond SN Crossing
Cliff House Spur	All Classes	Beyond frog
High Line	MTP-44 or heavier	"
Graybros Spur	"	"
Craig Spur	"	"
Vista Robles Spur	"	"
Adelaide Spur (Oroville Yard)	"	"

**MTP-44 engines may be used on San Jose Branch when authorized by Chief Dispatcher.

Tracks on which engine movements restricted (continued)

Location and Description of Track	Class of Engine	Prohibited
Oroville, Dant and Russell Spur	MTP-44 or heavier	Beyond clearance point
SN Transfer	"	"
Hokes Spur	"	"
Mt. Ida Spur	"	"
Ehman Spur	"	"
Sunkist Spur	"	"
Coach Spur—House Track	"	Beyond 85 lb. rail (740 ft. from Main Track)
Land—See special instructions, page 16, under "Third Subdivision"		
Bloomer, River Spur	All Classes	Beyond frog
Berry Creek, House Spur	(MTP-44 or heavier All Classes)	Beyond clearance point Beyond water column
Blinzig Spur	MTP-44 or heavier	Beyond clearance point
Jarbo Spur	"	Beyond 500 ft. from frog
Grizzly Spur	"	Beyond frog
Rock Creek, Outfit Spur	"	Beyond clearance point
Highway Spur	"	"
Tobin, River Spur No. 1	"	"
Loading Track	"	"
River Spur No. 2	All Classes	"
Belden, House Track Spur	MTP-44 or heavier All Classes	Beyond frog Beyond MP 260
Rich Bar, Outfit Spur	MTP-44 or heavier	Beyond clearance point
Virgilia, River Spur	"	"
Twain, Outfit Spur	"	Beyond frog
Paxton, House Track	"	Beyond clearance point
Stoddard Spur	"	Beyond frog
Keddie, Kelly Spur	"	"
Depot Back Track Spur	"	"
Spring Garden, Stock Track	"	West of Stock Chute
Back Track	"	Beyond frog
Sloat, Log Spur	"	Beyond frog
All Mill Tracks	"	"
Cromberg Siding	"	Beyond clearance point
Blairsdan, Richfield Oil Spur	"	Beyond frog
Graeagle, All Tracks	"	Beyond sign 1166 feet east of house track switch Blairsdan
Log Unloading Track	All Classes	Beyond west end log unloading dock Beyond sign at beginning of 20 degree curve between west end box factory and moulding mill
Clio Spur	MTP-44 or heavier	Beyond frog
Crescent Mills, Standard Oil Spur	M-137-151 Class	Beyond frog
Box, Setzer Lbr. Co.	"	"
MP K-21.03, Tunnel Spur	"	"
MP K-21.63, Tunnel Spur	"	"
Clear Creek Jct., Almanor RR	"	"

Tracks on which engine movements restricted (continued)

Location and Description of Track	Class of Engine	Prohibited
Westwood, Fredonia Track and Standard Oil Spur***	D-225, MK-60-71, M-80 and M-137-151 (also SP engines of similar weight and type)	Beyond frog***
Oil Spur off F.G.S. House Track	M-137-151	Beyond frog
Electric Siding	"	West of crossover
Both Legs		
F.G.S. Wye	M-80 or heavier	Beyond frog
All Mill Spurs leading off of Track No. 4	"	"
Roundhouse lead	"	"
Archie, Wye and Interchange Track	M-80 or heavier	Beyond clearance point
Poison Lake, Spur off west leg of wye	All Classes	Beyond frog
Either Leg of Wye	M-137-151 and D-225	Beyond clearance point
Halls Flat, Logging Industry Track	M-137-151 or heavier	Beyond clearance point
West switch F. G. S. Wye at Camp Bunyon	M-80 or heavier	Beyond frog
Butte Valley Lbr. Co. Spur	MTP-44, MK-60, MK-60-71 and M-137-151	Beyond frog

***Necessary have hold of at least 4 cars to switch Standard Oil Spur.

Track restrictions applying to MTP-44 or heavier engines, do not apply to 551-558 (S-57) and 581-585 (S-60) Class Diesel switch engines, except 581-585 (S-60) Class must be separated from any loaded cars by at least one empty car while handling cars over Smith Canal Drawbridge, North Channel Line, Stockton.

**INSTRUCTIONS GOVERNING OPERATIONS BETWEEN
OROVILLE YARD AND WEST END C. T. C.**

(A) Movement of trains and engines between west end of C.T.C. (MP 205.5) and east entrance switch to Oroville Yard (MP 203.8) is governed by interlocking signals under control of operator at Oroville passenger station. Interlocking signals on main track are located at east switch Oroville siding (westward signal, joint C. T. C. and interlocking), west switch Oroville siding and east entrance switch to Oroville train yard. Interlocking rules apply.

(B) Switches are hand-operated except east siding switch, Oroville.

(C) Trains must not exceed 25 miles per hour through interlocking limits.

(D) Westward first class trains will be authorized by clearance card or train order at Oroville. Train orders may be issued for extra trains to or from Oroville in connection with movement on Second Subdivision beyond Oroville Yard. Eastward first class trains will be authorized at Oroville and eastward extra trains at Oroville Yard or Oroville by clearance card addressed as instructed by dispatcher, but must not leave until given permission by C. T. C. dispatcher after member of crew has advised him they are ready to leave.

(E) When crew changes are made at Oroville on eastward trains, after permission to leave is obtained from C. T. C. dispatcher movement may be made with caution to eastward C. T. C. absolute leaving signal at east end of siding.

(F) Westward absolute C. T. C. and interlocking signal at west end of C. T. C. is jointly controlled by C. T. C. dispatcher and signal operator, Oroville. C. T. C. rules apply as far as sign "End CTC" and interlocking rules beyond. Authority is required first from C. T. C. dispatcher and, second, from signal operator to pass this signal in stop position or to work with east siding switch in hand throw position.

(G) Eastward absolute C. T. C. signals on main track and siding at east end of siding, Oroville, are under exclusive control of C. T. C. dispatcher and the east switch of siding is dual-control, power-operated under his control.

(H) **RULE 105.** Oroville is not a controlled siding. Tracks at Oroville, Oroville Yard and between, other than main track, are not included in signal circuits beyond clearance points from main track switches.

(I) Eastward three-position color-light automatic block home signals, approach lighted, are located at MP 201.6 and MP 202.6 (west end of Oroville Yard). Approach circuit begins at MP 200.8, 4000 feet west of Signal 2016.

(J) All signals are of color-light type and are single unit except westward C. T. C. and interlocking signal at east end Oroville siding and as listed herein.

Two-unit signals are located as follows:

Eastward: Leaving signal south side of No. 1 track at east entrance switch to Oroville train yard (MP 203.8).

West switch to siding, Oroville.

Westward: East entrance switch to Oroville train yard (MP 203.8).

Indications on two-unit signals are as follows:

Red over red —Stop.

Red over yellow—Proceed on diverging route with caution.

Yellow over red—Proceed prepared to stop at next home signal.

Green over red —Proceed except on diverging route.

(K) The two-unit signals listed above and, in addition, the westward single-unit dwarf leaving-siding signal at west end of siding, Oroville, have on the signal mast a unit, which when illuminated displays a letter "S" on a black background. When the "S" is illuminated it is an indication that signal operator desires the switch or switches to be lined. If the train is on the main track, switches are to be lined for the diverging route. If the train is on the siding

at Oroville or on yard track in Oroville Yard switches are to be lined for movement to the main track. After switches are lined, the lamp in the "S" unit will be extinguished and the signal will show indication for movement over the route lined. When it is desired to make a movement at these locations requiring switches to be changed, signal operator first must be contacted, then when "S" is illuminated switches may be changed. They must not be changed unless the "S" is illuminated except when working over switch by permission of signal operator in accordance with Section (P) of these instructions.

(L) Main track and crossover switches must be left lined for straight track after being used. It is not necessary to contact signal operator in connection with lining switches back.

(M) When trains or engines are stopped by an interlocking signal and "S" is not illuminated at signals so equipped, signal operator must be contacted for instructions.

(N) At east entrance switch to Oroville Yard train yard, the normal route for eastward trains leaving from any of the yard tracks is through crossover to main track. When switches are lined for movement eastward from yard tracks to main track, signal will indicate "Proceed prepared to stop at next home signal". When switches are lined for movement from train yard tracks eastward on drill track, signal will indicate "Proceed on diverging route with caution". See last paragraph Rule 104(C).

(O) At east entrance switch to Oroville Yard train yard, westward main track Signal SA-2039 is semi-automatic. Interlocking limits extend to the eastward interlocking signal on cantilever and to eastward leaving signal from yard. The automatic portion of the block beyond the interlocking limits extends to "Block System Limit" sign at MP 202.7.

When this signal displays green over red or yellow over red aspect, trains are thereby given superiority over all trains to the "Block System Limit" sign at MP 202.7, and will hold main track at Oroville Yard, but when the yellow over red aspect is displayed all trains or engines must move with caution west of the interlocking limits.

(P) When switching is to be done over any switch within interlocking limits, FIRST obtain permission from the signal operator, after which movements may be made without regard to signal indications within the limits of the block or blocks. All movements must be made with caution when working under such permission. Signal operator must be notified when work is completed.

If signal operator specifies clock time during which block or blocks may be used, new authorization must be obtained if the work is not finished within the time specified. (Also see instructions in Section (S).

When signal operator gives such permission at east entrance switch to Oroville Yard train yard he can provide signal protection against eastward moves only within interlocking limits; therefore Rule 509 applies to all movements on main track west of the eastward interlocking signal on cantilever under this permission.

(Q) **RULE 670.** It will not be necessary to secure permission from signal operator for each individual reverse movement provided permission has first been obtained for moves planned. When a reverse movement is made, trains or engines must move with caution until next signal in direction of movement is reached.

(R) Main track switches at following locations are included in the circuits and entrance to main track is governed by indications of single-unit dwarf interlocking signals:

Dant & Russell Lumber Co. spur, MP 204.2.

East switch to drill track, east end Oroville Yard, MP 204.3.

SN transfer, MP 204.35.

Mt. Ida spur, MP 204.45.

Ehman spur, MP 204.5.

House track, Oroville.

(S) When engines have entered tracks listed in Section (R), closed switch and left main track unoccupied, permission must be obtained from signal operator before again lining switch for movement to main track. This applies regardless of whether permission has been obtained from signal operator in accordance with Section (P).

(T) **RULE 671.** When necessary, running switches may be made over the switches listed in Section (R).

(U) Howler, controlled by signal operator, is installed near Sacramento Northern transfer switch. When this howler is operated, main track must be cleared without delay.

(V) Double switch indicators located at following main track switches:

- Crossover switch, MP 202.65 (First switch east of Signal 2026, west end Oroville Yard).
- Crossover switch to west train yard.
- Adelaide spur.
- West switch gravel pit track.
- East switch gravel pit track.

(W) A double switch indicator is located also at west switch to west drill track. When entering main track at this point three minutes must elapse after switch is lined before main track is fouled and a member of crew must remain at switch during the interval.

(X) Telephones for purpose of communicating with signal operator or C. T. C. dispatcher are in telephone booths adjacent to following locations:

- East switch gravel pit track.
- *East entrance switch to train yard, MP 203.8.
- East drill track switch.
- SN transfer switch.
- West siding switch, Oroville.
- *East end station platform, Oroville.
- *House track switch.
- *East siding switch, Oroville (Telephone in instrument house).

*Connected with either C. T. C. dispatcher or signal operator. Locations not so marked are connected only with signal operator.

CENTRALIZED TRAFFIC CONTROL—SPECIAL INSTRUCTIONS

(A) Centralized Traffic Control extends from MP 320.035 (Delleker) to MP 205.5 (eastward absolute signals 252 feet west of east siding switch, Oroville, on main track and 183 feet west of east siding switch, Oroville, on siding).

(B) Train movements between Portola passenger station and Delleker will be by signal indication and in accordance with special instructions; between Delleker and west end of C. T. C. by signal indication under C. T. C. rules; between west end of C. T. C. and Oroville Yard by signal indication under interlocking rules and in accordance with special instructions.

(C) Signals within C. T. C. limits, at Portola and between Oroville and Oroville Yard are color-light type signals.

(D) **RULES 95 and 97.** Oroville is the terminal for first class trains and Oroville Yard the terminal for extra trains, Third Subdivision. First class trains or sections thereof will be authorized at Portola or Oroville by clearance card, addressed as instructed by dispatcher. If sections are authorized clearance card will designate whether or not signals are to be displayed. Extra trains, including work extras, will be authorized at their initial station by clearance card, addressed as instructed by dispatcher, and will not require running orders for movement to Oroville Yard or Portola. All trains will register; also display signals in the usual manner.

(E) **RULE 83.** Registers need not be checked in connection with movement of Third Subdivision trains, including movements between Oroville and Oroville Yard.

(F) **RULE 85.** Within C. T. C. limits a section may pass and run ahead of another section of the same schedule without exchanging train orders, signals or numbers.

(G) **RULE 105.** Owing to the fact that certain switches leading into controlled sidings are not electrically locked, particular attention is directed to fact that this rule applies on controlled sidings as well as on other tracks. See Rule 772(d).

(H) Slide detector fences are located between MP 236.2 and MP 237.33. Eastward Signals P-2362, P-2368, and westward Signals P-2371 and P-2379 are actuated by these devices.

Slide detector fence located west portal Tunnel 13. Eastward absolute signal at east end of Cresta and westward intermediate signal P-2457 are actuated by this device.

(I) At MP 280.34, switch leading to west leg of wye is electrically locked with ground throw stand. Electrically locked derail located on west leg of Wye 800 feet east of west switch (128 feet east of Bridge 280.51). When track is occupied on wye between this derail and west switch, block is held on main track Third Subdivision, and must not be occupied except in connection with through movements into or out of main track circuits.

Telephone for communicating with dispatcher is located on south side of main track at east end of Tunnel 32. Both electric locks may be released by dispatcher after door is opened on electric lock at west leg of wye switch MP 280.48.

(J) **Keddie Yard.** All switches leading in or out of siding (No. 1 track), except inside switch to Upper Crossover, must be left lined for the siding. Derailing switch at west end of siding is dual-control, power-operated and when in power position works simultaneously with west siding switch. When west siding switch is in hand-operated position, derailing switch must also be hand operated.

Eastward dwarf absolute signal just west of inside crossover switch, Upper Crossover, will govern movement of eastward trains or engines from siding to main track, and from siding to tail track.

Both switches of west crossover between No. 1 track and N.C.E. lead are included in circuits of eastward absolute entering signal west end Keddie siding. These switches must be left lined for No. 1 track and N.C.E. lead respectively when not in use.

Engines cannot take oil or water from east end of siding (No. 1 track) without fouling detector circuit which protects main track. Engines on siding requiring oil and water must not go beyond eastward dwarf absolute signal unless it shows indication per Rule 752, Fig. 6, or Rule 755, Fig. 6, with both switches of Upper Crossover lined for main track. If movement on main track prevents display of proceed signal to main track, engines may take oil and water by heading toward tail track. Trains or engines may be headed to tail

track by making arrangements with C. T. C. dispatcher to release electric lock on switch to tail track (first inside switch east of Upper Crossover) and lining switch by hand. After reversing tail track switch and inside switch to Upper Crossover, signal will display indication per Rule 754, Fig. 2, for movement to tail track.

(K) Sidings shown on pages 6 and 7 are controlled sidings except Oroville Yard, Oroville and Portola.

East and west siding switches at these points are dual-control, power-operated. East siding switch at Oroville is dual-control, power-operated.

Telephones for communicating with dispatcher are located just inside doors of instrument houses adjacent to switches. At west end of Belden there is an additional telephone for communicating with dispatcher in telephone booth opposite eastward absolute signal just west of Tunnel 22.

Cars must not be left on controlled sidings except in case of emergency and then only after notifying C. T. C. dispatcher.

(L) All hand-operated switches in main track within C. T. C. limits are electrically locked. Instructions covering their operation and telephones for communicating with dispatcher are in small telephone booths adjacent to electric locks except at Delleker and Tobin, where they are in instrument houses.

(M) Each hand-operated, electrically-locked main track switch is protected by derail except Middle and Lower Crossover switches, Keddie. These derails are pipe connected to the main track switch stand and before lining switch care must be used to insure that all wheels have passed beyond derail.

East house track switch, Quincy Junction, operates derails on both east end house track and east end interchange track simultaneously.

(N) At Keddie, switch from tail track to roundhouse lead (first inside switch east of Upper Crossover) is electrically locked. Instructions and telephone are in instrument house across main track from lock. This switch is not protected by derail.

Hayes derail installed on tail track 75 feet east of inside switch to upper crossover and pipe connected to that switch.

When lining rip track lead switch for tail track first have electric lock 126-A released and line switch for tail track, then line inside switch to upper crossover and pipe connected derail for tail track. Movement must not be made west of rip track lead switch or on tail track east of eastward dwarf absolute signal at inside switch to upper crossover until this is done.

After this lineup is made, rip track lead switch must not be lined back until engine or cars are clear of section of tail track between dwarf signal and derail. Main track absolute signals at west Sierra and east Keddie are thrown to STOP if rip lead switch is changed while this section of track is occupied.

(O) Where train order signals are in service they must be respected in accordance with Rules 221 and 221(A) except that 9th, 10th, 12th and 13th paragraphs of Rule 221 do not apply within C. T. C. limits when C. T. C. system is operative.

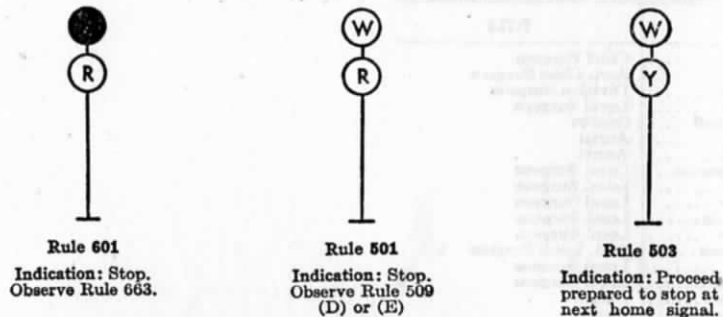
(P) Rules 14 (k), 72, S-72 (except as provided by Rule S-88), 73 and 92 (except as provided by C. T. C. S. Rule 780 and special instructions on pages 6 and 7) do not apply within C. T. C. limits.

(Q) Rules 14(n), 16(l), S-17, 19(A), S-71, 86, S-87, S-88, S-89, S-90, S-90(A), S-90(B), S-90(C), 91, 93, 93(A), 94 and 97 do not apply within C. T. C. limits when C. T. C. system is operative.

OPERATION OF TRAINS BETWEEN END OF CENTRALIZED TRAFFIC CONTROL AND PORTOLA PASSENGER STATION

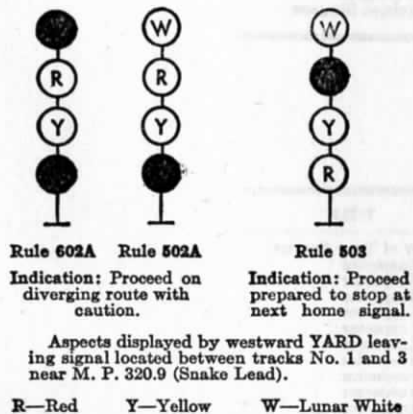
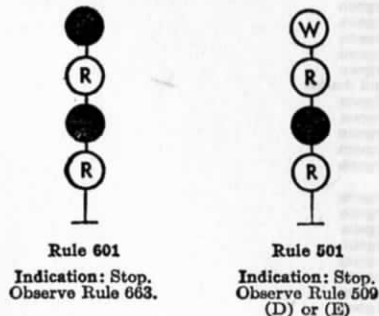
(A) Train and engine movements between East End of Centralized Traffic Control, MP 320.035 (Delleker) and MP 321.386 (Portola passenger station), will be made by block signal indication, and under block signal rules, except as otherwise provided by following rules and special instructions:

(B) Signal Indications are as follows:



Aspects displayed by westward MAIN TRACK leaving signal located near M. P. 320.9 (Snake Lead).

R—Red Y—Yellow W—Lunar White



(C) **RULES S-71, 72, S-72, 73 and 83.** Superiority of trains is abolished. Schedules shown in timetable are for the purpose of permitting compliance with Rule 780 (C. T. C. S.) and certain special instructions included herein.

(D) All movements in this territory must be made with caution, as prescribed by Rule 93, and will be governed by indication of block signals and switch indicators as follows:

1. Westward signals located at the Snake Lead are equipped with white markers in lieu of number plates. Aspects and indications peculiar to these signals are shown above. Trains desiring to enter main track at this point are authorized to operate the crossover switches, provided the east indicator shows clear and the westward (yard) leaving signal displays aspect per Rule 502(A). After the switches have been properly set, the move may be made under the aspect then displayed.

2. The eastward C. T. C. signal at Delleker governs train movements in the block extending eastward from the sign "END CTC" to Signal 3208. For the purpose of identification, a plate bearing the letters "SA" will be displayed on Eastward C. T. C. signal at Delleker, in addition to the letter "A". C. T. C. rules will govern west of the sign "END CTC".
3. Westward signal located at clearance point of Lower No. 1 track is equipped with white marker light in lieu of number plate. Aspects and indications are as shown in left column, Section (B).
When trains or engines desire to enter main track at this point, member of crew will, if east and west indicators are clear, open box on indicator post and operate push button therein. After a time delay the white lights in the box and on the signal will be displayed provided C. T. C. signal at Delleker has not been cleared for an eastward train. After these white lights are displayed switch may be operated and move then made in accordance with signal aspect displayed.
4. All other signals in this area (except those listed in 1, 2 and 3 above) are automatic block signals bearing a number plate for identification.

(E) Rule 512(A) is modified to the extent that rear end protection is not required within these limits. This does not modify Rule 99-A. Trains carrying passengers must be fully protected.

(F) At Portola, yard engines, light engines, switch cuts and others moving within yard must clear main track when required to avoid delay to through trains entering or leaving C. T. C. limits. Howlers, controlled by dispatcher, are provided at following locations:

- West roundhouse lead switch.
- West train yard lead switch (snake lead).
- West switch to No. 10 track.

When these howlers are operated, main track must cleared with-out delay.

(G) In addition, dispatcher will furnish information to telegrapher, Portola, as to times eastward regular passenger trains or sections thereof are expected to reach Portola. Employees in charge of switch engines, light engines and similar moves must ascertain from telegrapher whether these trains are due before occupying main track and not delay them.

(H) Westward trains will be authorized by clearance at Portola but must not leave until given permission by C. T. C. Dispatcher after member of crew advises him they are ready to leave. Telephones for purpose of communicating with C. T. C. Dispatcher only are located as follows:

- Booth on south side of No. 10 track opposite west wye switch.
- West train yard lead switch (snake lead).
- West roundhouse lead switch.
- East roundhouse lead switch (Booth just west of middle car inspectors' shanty).

(I) Push button is located on signal mast, Signal 3208, for the purpose of clearing signal for eastward movements after a westward movement out of train yard. When eastward Signal 3208 indicates "Stop", after being passed on westward move, operate push button and if no train in block, signal will change in sixty seconds to indicate "proceed, prepared to stop at next home signal".

(J) Telephones for communication within Portola Terminal are located as follows:

- West train yard lead switch (snake lead).
- West car inspectors' shanty (snake lead).
- Middle car inspectors' shanty (at east roundhouse lead switch).
- East lead switch shanty.

(K) Yard engines, light engines, switch cuts and other similar movements stopped by block signal or switch indicator indication which does not clear within three minutes, and for which reason is not known, will communicate with yardmaster who will arrange to have track cleared or appropriate arrangements made for the desired movement. If unable to contact yardmaster, will be governed by and proceed under Automatic Block Signal Rules.

(L) **Delleker.** Entrance to spur is through electrically-locked, hand-operated switch. Obtain permission from C. T. C. dispatcher (by telephone in instrument house near switch) for movement in and out.

(M) Derails on Delleker spur, West lead lower yard Portola and West end of west siding Portola Yard are pipe connected to main track switches. Switches must not be lined for main track until engines or cars have passed over derail.

RAILROAD SURGEONS

LOCATION	NAME	TITLE
San Francisco, Calif.	Dr. A. R. Kilgore	Chief Surgeon
San Francisco, Calif.	Dr. C. E. Smith	Asst. Chief Surgeon
San Francisco, Calif.	Dr. G. F. Cushman	Division Surgeon
San Francisco, Calif.	Dr. Ruth Fleming	Local Surgeon
San Francisco, Calif.	Dr. A. J. Brinckerhoff	Oculist
San Francisco, Calif.	Dr. Frank Hand	Aurist
San Francisco, Calif.	Dr. F. D. Fellows	Aurist
Oakland, Calif.	Dr. Robert R. Thomson	Local Surgeon
Oakland, Calif.	Dr. Ray H. Fisher	Local Surgeon
Oakland, Calif.	Dr. Fred D. Fisher	Local Surgeon
Oakland, Calif.	Dr. Stanley S. Davis	Local Surgeon
Oakland, Calif.	Dr. L. L. Coleman	Local Surgeon
Oakland, Calif.	Dr. John Paul Evans	Asst. Local Surgeon
Berkeley, Calif.	Dr. M. C. Cheney	Local Surgeon
Berkeley, Calif.	Dr. W. B. McKnight	Local Surgeon
Berkeley, Calif.	Dr. C. M. Weseman	Aurist
Berkeley, Calif.	Dr. Raymond Johanson	Oculist
Alameda, Calif.	Dr. D. D. Stafford	Local Surgeon
Alameda, Calif.	Dr. John Ohannesson	Asst. Local Surgeon
San Rafael, Calif.	Dr. W. M. Edwards	Local Surgeon
Hayward, Calif.	Dr. H. C. Crockett	Local Surgeon
Niles, Calif.	Dr. E. C. Grau	Local Surgeon
San Jose, Calif.	Dr. H. G. Zanger	Local Surgeon
San Jose, Calif.	Dr. James M. Geiger	Local Surgeon
Livermore, Calif.	Dr. Paul E. Dolan	Local Surgeon
Tracy, Calif.	Dr. Marion G. Weitz	Local Surgeon
Modesto, Calif.	Dr. G. H. Penwell	Local Surgeon
Stockton, Calif.	Dr. E. G. Hermosillo	Local Surgeon
Stockton, Calif.	Dr. Henry F. Quinn	Local Surgeon
Stockton, Calif.	Dr. Dewey Powell	Oculist and Aurist
Lodi, Calif.	Dr. S. W. Leiske	Local Surgeon
Lodi, Calif.	Dr. W. G. Fessler	Local Surgeon
Sacramento, Calif.	Dr. J. V. Chambers	Local Surgeon
Sacramento, Calif.	Dr. D. O. Kilroy	Local Surgeon
Sacramento, Calif.	Dr. D. J. Engelberg	Local Surgeon
Sacramento, Calif.	Dr. C. C. Gray	Oculist
Marysville, Calif.	Dr. Philip B. Hoffman	Local Surgeon
Oroville, Calif.	Dr. Chas. Benninger	Local Surgeon
Oroville, Calif.	Dr. C. L. Craviotto	Local Surgeon
Oroville, Calif.	Dr. John E. Patrick	Local Surgeon
Quincy, Calif.	Dr. Rex N. Carr	Local Surgeon
Quincy, Calif.	Dr. D. I. Bleiberg	Local Surgeon
Greenville, Calif.	Dr. Wilber C. Batson	Local Surgeon
Westwood, Calif.	Dr. Wallace B. Hardie	Local Surgeon
Westwood, Calif.	Dr. H. G. Levin	Local Surgeon
Portola, Calif.	Dr. J. D. Coulter	Division Surgeon
Portola, Calif.	Dr. Joseph F. Narkevitz	Asst. Division Surgeon

WATCH INSPECTORS

LOCATION	NAME	TITLE
San Francisco, Calif.	S. A. Pope	Manager of Time Service
San Francisco, Calif.	E. J. Land	Watch Inspector
Oakland, Calif.	E. S. Griffin	Watch Inspector
Oakland, Calif.	E. W. Becker	Watch Inspector
Oakland, Calif.	Leroy D. Wertz	Watch Inspector
Livermore, Calif.	C. Harlie Power	Watch Inspector
San Jose, Calif.	Kochers	Watch Inspector
Stockton, Calif.	Conrad Mantele	Watch Inspector
Sacramento, Calif.	H. T. Harger	Watch Inspector
Oroville, Calif.	M. C. Tieck	Watch Inspector
Quincy, Calif.	W. H. Powell	Watch Inspector
Portola, Calif.	Wm. B. and Allan H. Lindsey	Watch Inspector

