



**Run 8 Simulator
Union Pacific Railroad
Roseville Subdivision**

**Timetable
No. 1**

Effective June 1, 2026

**Produced by
David M. Bernstein**

**Run 8 Train Simulator Use Only
Do Not Use For Real World Operation**

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Introduction

This timetable is authored as a companion to Run 8 Train Simulator. It is a simplified version of an employee timetable tailored for Run 8 operation. The territory covered in this publication is identical to territory covered in Run 8 Train Simulator. **The information contained is based on Run 8 Depot track maps and does not necessarily reflect real life operation. This timetable applies only to rail simulation and is not to be used for real life operation.**

The author worked as a train dispatcher, chief dispatcher and rules consultant for the Southern Pacific Transportation Company, the Atchison, Topeka & Santa Fe Railway Company and the BNSF Railway Company from 1979 to 2015.

Published by David M. Bernstein

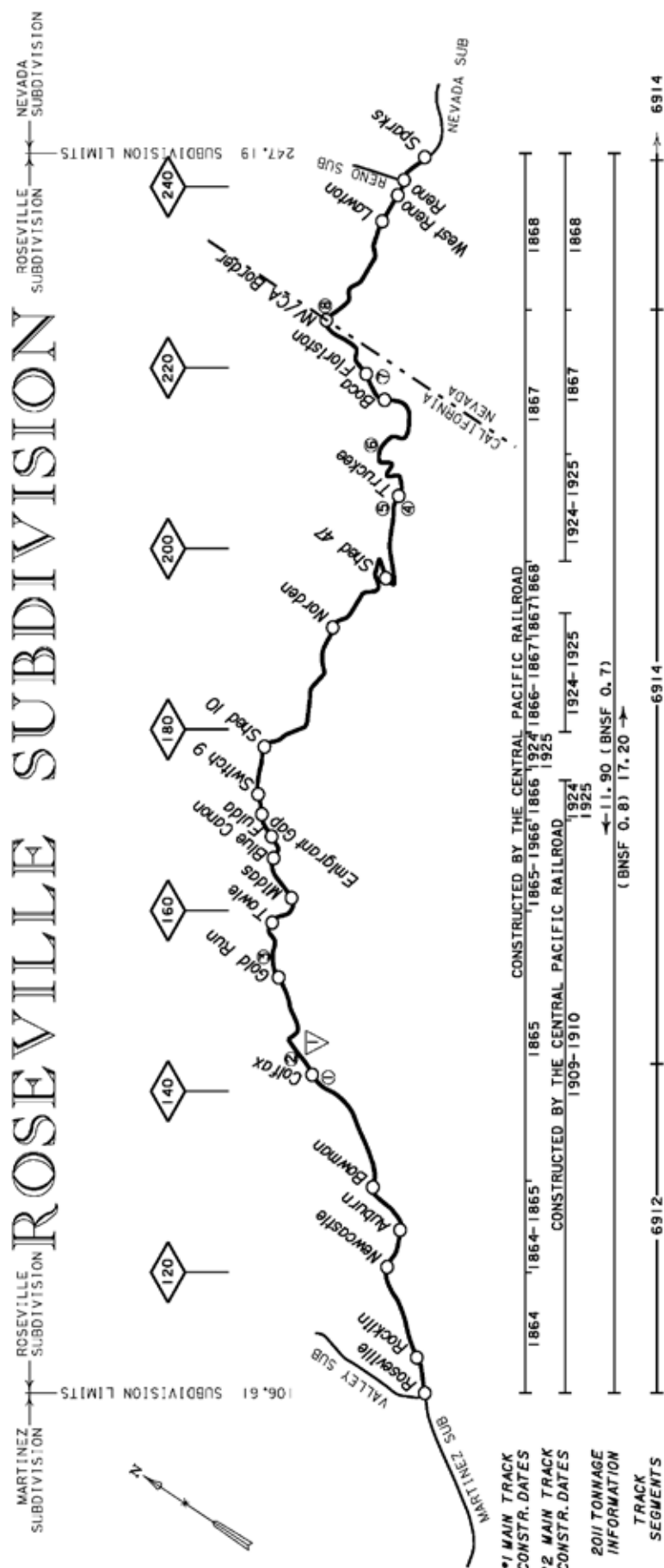
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Front cover: Eastbound UP freight train led by ES44AC 7963 near Truckee, California, on June 20, 2022. (Chris Mohs photo).

Abbreviations and Acronyms

ABS	Automatic Block Signal System
A&C	Arizona & California Railroad
AMTK	Amtrak
BO	Bad Order
C	Center
C & E	Conductor and Engineer
COFC	Container on Flat Car
CP	Control Point
CTC	Centralized Traffic Control
DISPR	Dispatcher (also DS)
DIV	Division
DT	Double Track
E	East
EBCS	East Bound Controlled Signal
EE	East End
ENG	Engine
ESS	East Siding Switch
EWD	Eastward
FRT	Freight
HER	Head End Restriction
JCT	Junction
MAX	Maximum
MMT	Multiple Main Track
MP	Mile Post
MPH	Miles Per Hour
MT	Main Track
MW	Maintenance of Way
N	North
NBCS	North Bound Controlled Signal
NE	North End
NO	Number
NSS	North Siding Switch
NWD	Northward
OK	Correct
OOS	Out of Service
OPR	Operator
ORIG	Originating
PSGR	Passenger
RL	Restricted Limits
S	South
SBCS	South Bound Controlled Signal
SCRRA	Southern California Regional Rail Auth. (Metrolink)
SDG	Siding
SE	South End
SJVR	San Joaquin Valley Railroad
SSS	South Siding Switch
SUBDIV	Subdivision
SW	Switch
SWD	Southward
TOB	Tons Per Operative Brake (Also TPOB)
TOFC	Trailer on Flat Car
TRK	Track
TRN	Train
TWD	Trackside Warning Detector
UP	Union Pacific Railroad
W	West
WBCS	West Bound Controlled Signal
WE	West End
WSS	West Siding Switch
WWD	Westward
XO	Crossover
YD	Yard
YM	Yardmaster

The map illustrates the extensive rail network across the United States, categorized into several major regions. The Northern Region (blue) includes lines connecting major hubs like Chicago, St. Paul, and Minneapolis. The Southern Region (orange) shows a dense network of lines across the South, including the Gulf Coast and Houston areas. The Pacific Northwest (dark blue) and Northern California (red) show lines connecting major cities like Portland, Eugene, and San Francisco. The Great Lakes (green) and Great Plains (light green) regions show lines connecting major hubs like Chicago, St. Paul, and Minneapolis. The Heartland (yellow) and Mid-America (purple) regions show lines connecting major hubs like Chicago, St. Paul, and Minneapolis. The Texoma (dark blue) and South Texas (orange) regions show lines connecting major hubs like Dallas, Fort Worth, and Houston. The Gulf Coast (red) and Houston (dark blue) regions show lines connecting major hubs like Houston, New Orleans, and Miami.

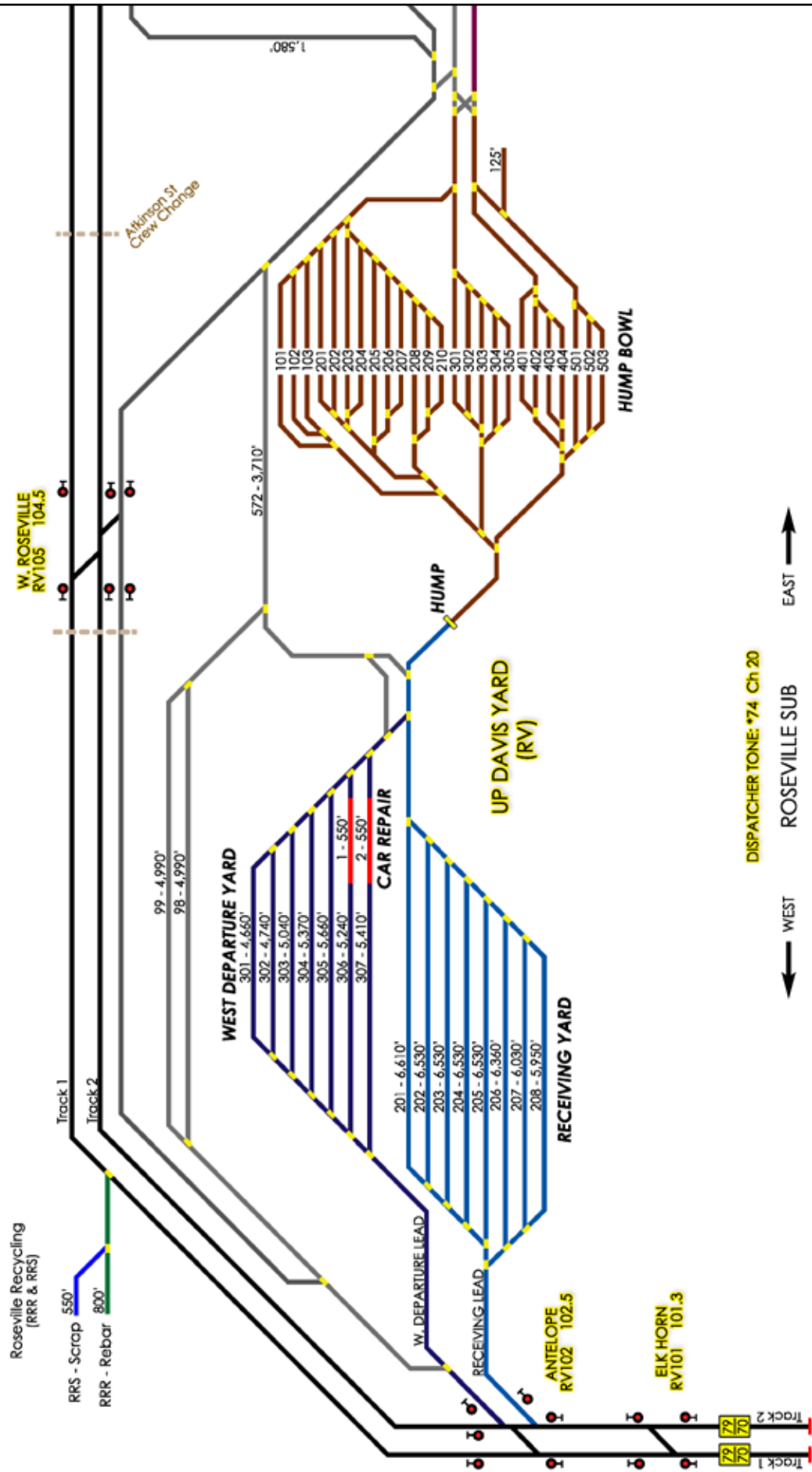


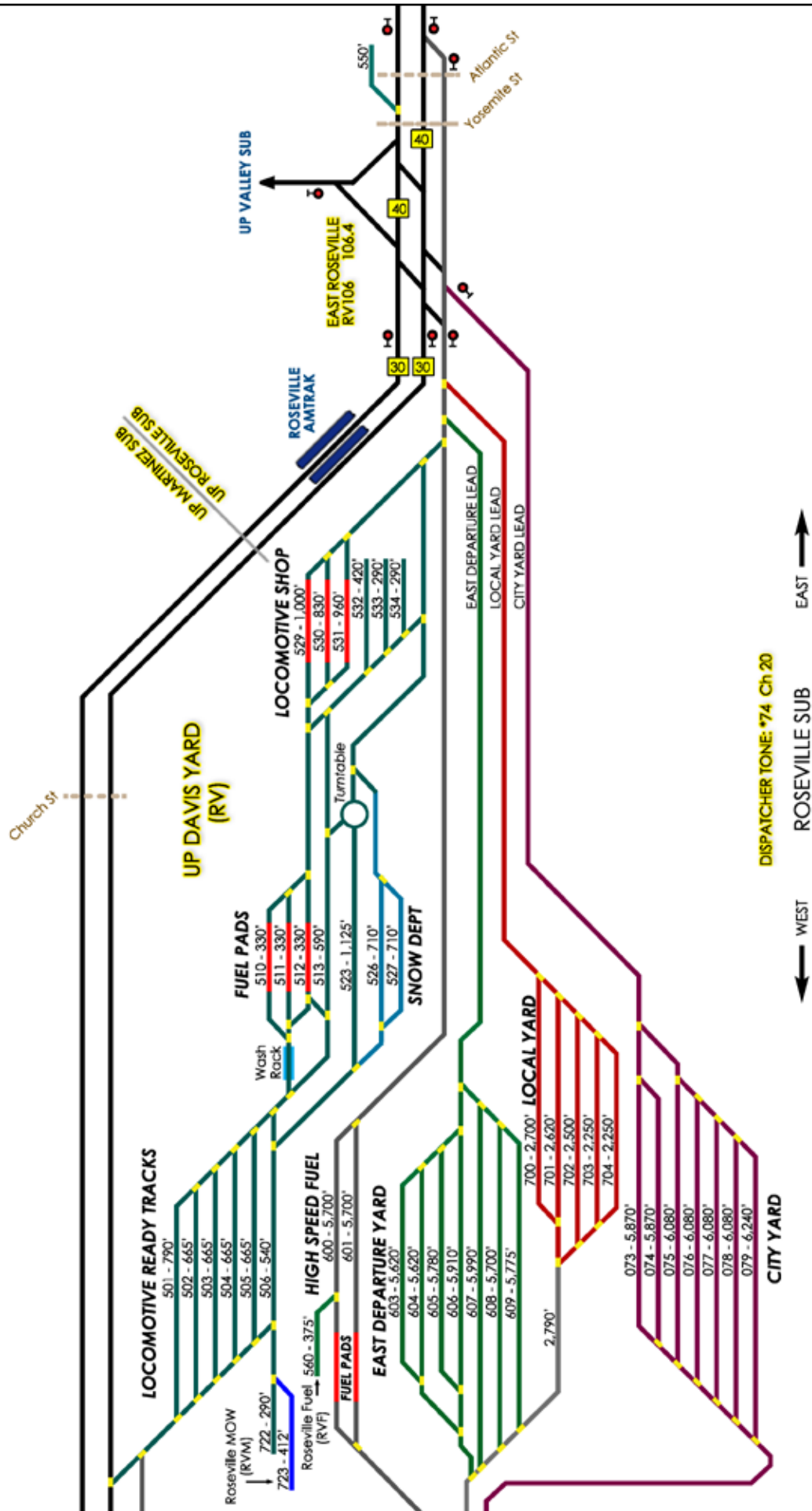
GENERAL NOTES:

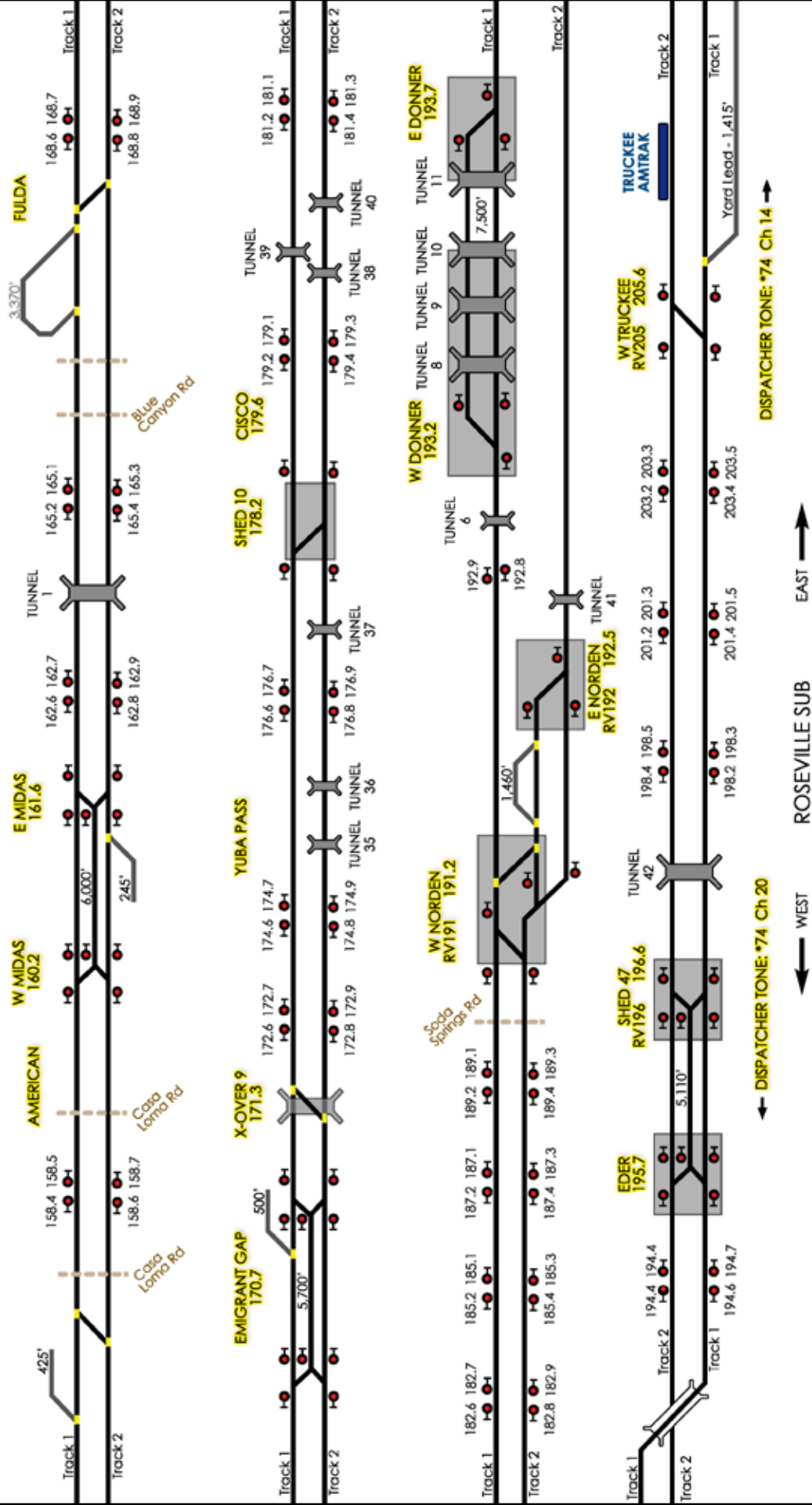
1. NEVADA COUNTY NARROW GAUGE RR CONSTR. 22.64 MILES TO NEVADA CITY IN 1876 ABANDONED 1943
2. SHORT MILE BETWEEN MP144.00 AND MP145 - 46599.2'
3. SHORT MILE BETWEEN MP153.00 AND MP154 - 5227.2'
4. FORMER LAKE TAHOE RAILWAY & TRANSPORTATION CO 16 MILES NARROW GAUGE CONSTR. IN 1899 LATER OCT 16 1925 AND REBUILT TO STANDARD GAUGE MAY 1, 1928, ABANDONED 1943
5. SIERRA NEVADA WOOD AND LUMBER CO CONSTRUCTED A STANDARD GAUGE RR TO HOBART MILLS 6.5 MILES NORTH OF TRUCKEE TO CONNECT TO N.G. LUMBER SPURS. INCREASED FROM 8 MILES IN 1899 TO 26 MILES IN 1923. BECAME HOBART SOUTHERN RR IN 1932. ABANDONED 1938
6. BOCA AND LOYALTON RR CONSTRUCTED 1900-1901 ABANDONED 1916
7. PACIFIC LUMBER AND WOOD CO. CONSTRUCTED N.G. 1878 BY 1883 IT WAS 7 MILES LONG, AND REACHED 10 MILES BY 1892. LINE ABANDONED 1901
8. CONSTRUCTED BY VERDI LUMBER CO. 1901 12 MILES STANDARD GAUGE BRANCHES WERE ADDED IN 1904-1905. BY 1924 OPERATED 12 MILES. TRACK REMOVED 1927.

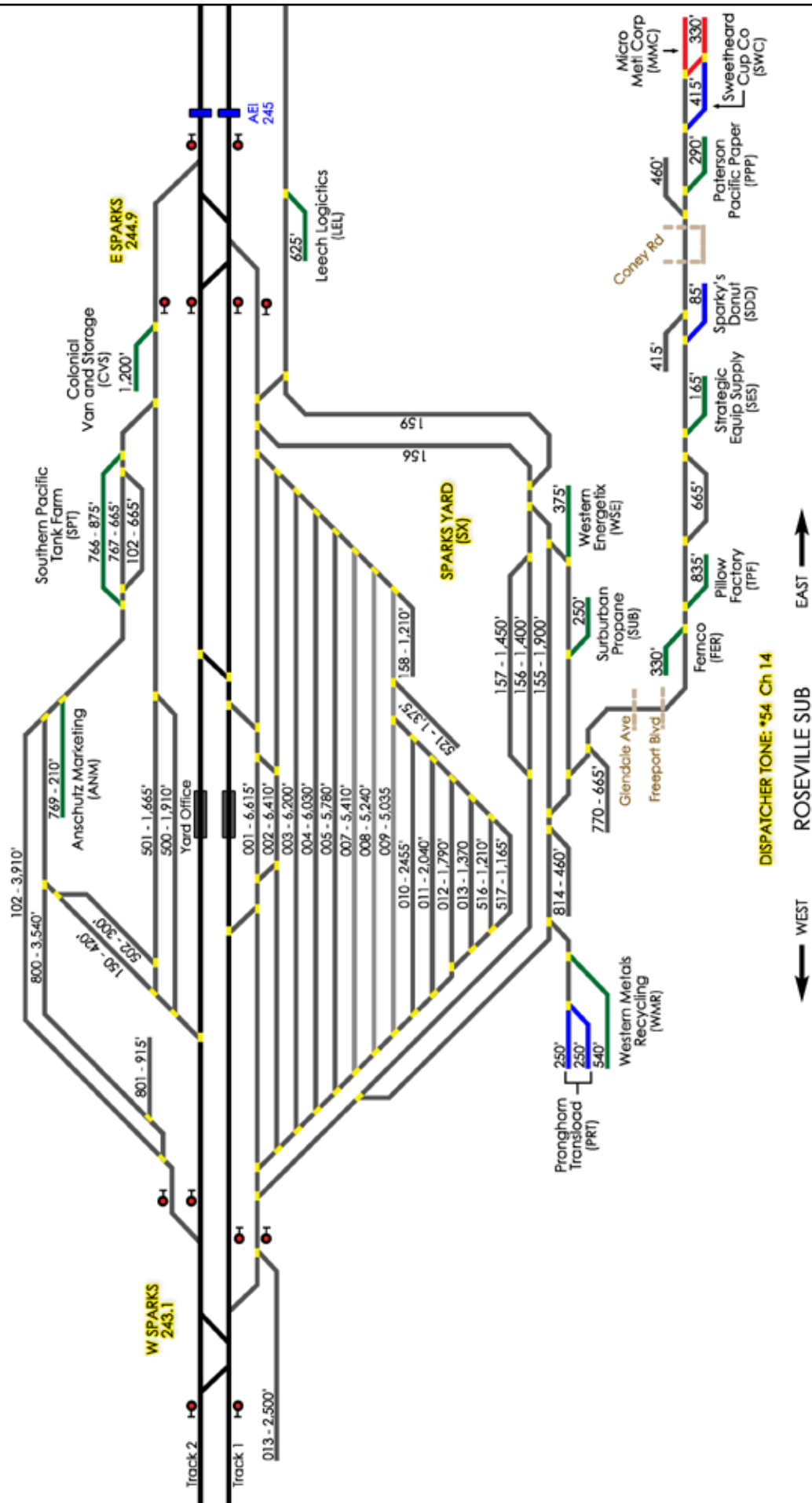
STATIONS ON ROSEVILLE SUBDIVISION

MP	STATION NAME	CIRC-7	PAGE	MP	STATION NAME	CIRC-7	PAGE
124.31	AUBURN	RV305	#1-15, #2-14	226.06	NV/CA BORDER	RV201	56, 57
167.51	BLUE CANON	RV264	#1-30, #2-31	240.70	RENO	PR433	#1-62, #2-63
129.23	BOWMAN	RV301	#1-14, #2-15	110.30	ROCKLIN	RV319	#1-8, #2-9
140.20	COLFAX	RV288	#2-21, #2-22	106.40	ROSEVILLE-E	RV323	1
170.73	EMIGRANT GAP	RV259	#1-32, #2-33	178.21	SHED 10	RV252	#1-34, #2-35
219.73	FLORENCE	RV209	52, 53	196.61	SHED 47	RV232	42
167.00	FULDA	RV262	#1-30	241.55	SUTRO	RV186	62, 63
153.11	GOLD RUN	RV277	#1-24, #2-25	171.25	SWITCH 9	RV323	32, 33
235.59	LAWTON	RV193	60, 61	208.63	TRUCKEE-E	RV323	#2-48
161.36	MIDAS	RV269	#1-28, #2-29	206.34	TRUCKEE	RV223	#1-48, #2-49
120.48	NEWCASTLE	RV310	#1-12, #2-13	205.50	TRUCKEE-W	RV223	#1-48, #2-49
192.58	NORDEN-E	RV238	#1-40, #2-41	106.56	WASHINGTON	RV323	1
91.20	NORDEN-W	RV233	#1-40, #2-41	06.78	YOSEMITE	RV522	1









▼ Eastward		MAIN TRACK 1		Westward ▲	
Mile Post	Operation	Control Point	Stations	Facilities	Sidings (feet)
101.3	CTC 2MT	RV101	ELK HORN	X	---
102.5		RV102	ANTELOPE	X	---
104.5		RV105	WEST ROSEVILLE	X	---
106.2		---	ROSEVILLE	PT	---
106.4		RV016	EAST ROSEVILLE	JXY	---
110.6		RV111	ROCKLIN	PX	---
113.8		---	LOOMIS	---	---
120.4		RV120	NEWCASTLE	X	---
123.5		---	AUBURN	---	---
129.3		RV129	BOWMAN	X	#1 2900
140.3		RV140	WEST COLFAX	X	#1 4595
141.8		---	COLFAX	P	
148.3		---	MAGRA	---	---
153.0		---	GOLD RUN	---	---
156.8		---	TOWLE	---	---
160.2		---	WEST MIDAS	Z	C 6000
161.6		---	EAST MIDAS		
168.5		---	FULDA	T	---
170.7		---	EMIGRANT GAP	Z	C 5700
171.3		RV171	SWITCH 9	X	---
178.2		RV178	SHED 10	X	---
191.2		RV191	WEST NORDEN	X	---
193.2		---	WEST DONNER	Z	#1 7500
193.7		---	EAST DONNER		
195.7		---	EDER	Z	C 5110
196.6		RV196	SHED 47		
205.6		RV205	WEST TRUCKEE	X	---
205.9		---	TRUCKEE	P	---
208.6		RV208	EAST TRUCKEE	X	---
214.4		---	BOCA	---	---
215.8		---	WEST HINTON	Z	C 7915
217.3		---	EAST HINTON		
219.7		---	FLORISTON	---	---
235.5		---	LAWTON	---	---
229.4		---	VERDI	---	---
239.1		RV239	WEST RENO	X	---
240.8		---	RENO	P	---
241.6		RV242	SUTRO	X	---
243.1		---	WEST SPARKS	X	---
244.0		---	SPARKS (Yard Office)	---	---
244.9		---	EAST SPARKS	TX	---
247.9		RV249	VISTA	---	---
SINGLE TRACK					
252.5	CTC	RV252	WEST HAFED	Z	5910
253.7		RV254	EAST HAFED		

▼ Eastward		MAIN TRACK 2		Westward ▲	
Mile Post	Operation	Control Point	Stations	Facilities	Sidings (feet)
101.3	CTC 2MT	RV101	ELK HORN	X	---
102.5		RV102	ANTELOPE	X	---
104.5		RV105	WEST ROSEVILLE	X	---
106.2		---	ROSEVILLE	PT	---
106.4		RV016	EAST ROSEVILLE	JXY	---
110.6		RV111	ROCKLIN	PX	---
120.4		RV120	NEWCASTLE	X	---
124.3		RV124	AUBURN NEVADA ST.	P	---
129.3		RV129	BOWMAN	X	#2 4550
140.3		RV140	WEST COLFAX	X	---
141.8		---	COLFAX	P	---
148.3		---	MAGRA	---	---
153.0		---	GOLD RUN	---	#2 6450
156.8		---	TOWLE	---	---
160.2		---	WEST MIDAS	Z	C 6000
161.6		---	EAST MIDAS		
168.5		RV168	FULDA	---	---
170.7		---	EMIGRANT GAP	Z	C 5700
171.3		RV171	SWITCH 9	X	---
178.2		RV178	SHED 10	X	---
191.2		RV191	WEST NORDEN	Z	#2 6200
192.5		RV192	EAST NORDEN		
195.7		---	EDER	Z	C 5110
196.6		RV196	SHED 47		
205.6		RV205	WEST TRUCKEE	X	---
205.9		---	TRUCKEE	P	---
208.6		RV208	EAST TRUCKEE	X	---
214.4		---	BOCA	---	---
215.8		---	WEST HINTON	Z	C 7915
217.3		---	EAST HINTON		
219.7		---	FLORISTON	---	---
235.5		---	LAWTON	---	---
229.4		---	VERDI	---	---
239.1		RV239	WEST RENO	X	---
240.8		---	RENO	P	---
241.6		RV242	SUTRO	X	---
243.1		---	WEST SPARKS	X	---
244.0		---	SPARKS (Yard Office)	---	---
244.9		---	EAST SPARKS	TX	---
247.9		RV249	VISTA	---	---
SINGLE TRACK					
252.5	CTC	RV252	WEST HAFED	Z	5910
253.7		RV254	EAST HAFED		
Donner Summit Track 1 = MP 193.3 • Track 2 = MP 191.7					

UP ROSEVILLE SUBDIVISION

Radio Communication

Elk Horn to West Truckee Tone 74 Channel 020
 West Truckee to West Reno Tone 74 Channel 014
 West Reno to East Hafed Tone 54 Channel 014

Method of Operation:

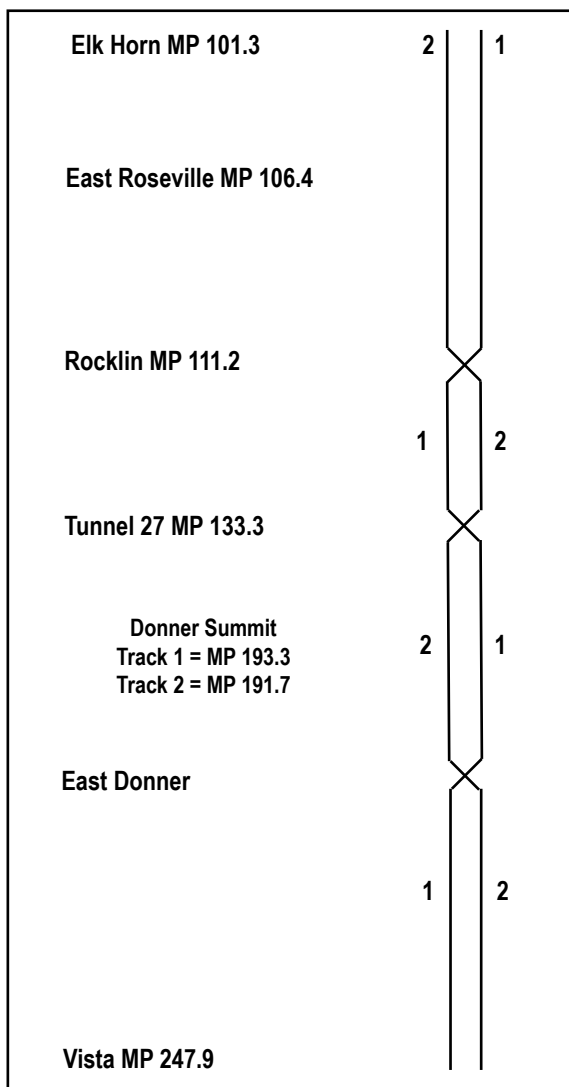
Elk Horn MP 101.3 to Vista MP 247.9 CTC 2MT
 Vista MP 247.9 to East Hafed MP 253.7 CTC
 CTC is in effect on Midas, Emigrant Gap, Donner, Eder and Hinton sidings.

Multiple Main Tracks:

- The track to the right as viewed in a westward direction is No. 1 Track.
- The track to the left as viewed in a westward direction is No. 2 Track.

EXCEPT between MP 111.2 and MP 133.3 and between East Donner and Vista:

- The track to the right as viewed in a westward direction is No. 2 Track.
- The track to the left as viewed in a westward direction is No. 1 Track.



Maximum Speeds - Main Tracks:

Track 1 • Eastward			
Limit	Limit	Psg.	Fr.
Elk Horn	MP 104.3	79	70
MP 104.3	E. Roseville MP 106.6	40	40
E. Roseville MP 106.6	E. Roseville MP 106.7	30	30
E. Roseville MP 106.7	Rocklin MP 110.9	40	40
Rocklin MP 110.9	MP 115.2	50	40
MP 115.2	MP 121.7	30	30
MP 121.7	MP 200.7	30	25
MP 200.7	MP 205.6	35	30
MP 205.6	MP 238.6	40	35
MP 238.8	East Sparks MP 244.9	40	40
East Sparks MP 244.9	Vista MP 247.2	60	50

Track 2 • Eastward			
Limit	Limit	Psg.	Fr.
Elk Horn	MP 104.3	79	70
MP 104.3	E. Roseville MP 106.6	40	40
E. Roseville MP 106.6	E. Roseville MP 106.9	30	30
E. Roseville MP 106.9	Rocklin MP 110.9	40	40
MP 110.9	MP 142.3	50	40
MP 142.3	MP 200.7	30	25
MP 200.7	MP 205.6	35	30
MP 205.6	MP 238.8	40	35
MP 238.8	East Sparks MP 244.9	40	40
East Sparks MP 244.9	Vista MP 247.2	60	50

Track 1 • Westward			
Limit	Limit	Psg.	Fr.
Vista MP 247.2	East Sparks MP 244.9	60	50
East Sparks MP 244.9	MP 238.8	40	40
MP 238.8	MP 205.6	40	35
MP 205.6	MP 200.7	35	30
MP 200.7	MP 121.7	30	25
MP 121.7	MP 115.2	30	30
MP 115.2	MP 110.9	50	40
MP 110.9	MP 104.3	40	40
MP 104.3	Elk Horn	79	70

UP ROSEVILLE SUBDIVISION

Maximum Speeds - Main Tracks (continued):

Track 2 • Westward			
Limit	Limit	Psg.	Frt.
Vista MP 247.2	East Sparks MP 244.9	60	50
East Sparks MP 244.9	MP 238.8	40	40
MP 238.8	MP 205.6	40	35
MP 205.6	MP 202.7	35	30
MP 202.7	MP 142.3	30	25
MP 142.3	MP 110.9	50	40
MP 110.9	MP 104.3	40	40
MP 104.3	Elk Horn	79	70

Single Track

Limit	Limit	Psg.	Frt.
Vista MP 247.2	East Hafed MP 2453.7	70	60

Maximum Speeds - Other Tracks:

Tracks	Psg.	Frt.
Crossovers (power switches)		
• Elk Horn, Antelope, West Roseville	40	40
• East Roseville	15	15
• Rocklin	40	40
• Newcastle	20	20
• Bowman, West Colfax, Switch 9, Shed 10	25	25
• West Norden	25	25
• West Truckee	15	15
• East Truckee, West Reno, Sutro, West Sparks	25	25
• East Sparks	25	25
Controlled Sidings		
• Midas, Emigrant Gap, Donner, Eder, Hinton	25	25
East Roseville Valley Subdivision Wye	15	15
CP RV124 Auburn Amtrak Lead	15	15
Fulda Loop	15	15
Vista Turnout End Two Tracks	50	50
All tracks other than tracks listed above	15	15

Descending Grades:

Freight trains operating on descending grades listed below must not exceed 500 Tons Per Dynamic Brake and must utilize the tables to determine maximum speed:

- Eastward between Norden (MP 192.0) and Truckee (MP 205.9)
- Westward between Norden (MP 191.0) and MP 143.6
- Westward between MP 136.4 and MP 115.1 on MT 1

Tons Per Operative Brake	Maximum Speed
Below 80	No restrictions
80 through 100	30 MPH
100+ through 130	25 MPH
130+	20 MPH

Descending Grades (continued):

- Westward between MP 137.0 and MP 110.0 on MT 2

Tons Per Operative Brake	Maximum Speed
100 or less	No restrictions
100+ through 130	25 MPH
130+	20 MPH

Train Defect Detectors:

MP	Track(s)	Between	Notes
110.9	Track 2	Rocklin and Newcastle	
111.9	Track 1	Rocklin and Newcastle	
121.6	Track 2	Newcastle and Auburn	
126.6	Track 1	Auburn and Bowman	
127.4	Track 2	Auburn and Bowman	
131.1	Track 1	Bowman and West Colfax	
148.9	Tracks 1 & 2	Magra and Gold Run	
154.4	Tracks 1 & 2	Gold Run and West Midas	

Joint Operation:

Amtrak trains operate between Elk Horn and East Hafed.
BNSF Railway trains operate between Elk Horn and East Hafed.

Passenger Station Locations:

Roseville MP 106.2, Tracks 1 & 2
 Rocklin MP 110.6, Tracks 1 & 2
 Auburn MP 124.3, Track 2
 Colfax MP 141.9, Track 2
 Truckee MP 205.9, Track 2
 Reno MP 240.8, Track 1

Hand Operated Crossover Locations:

Colfax MP 141.8 Fulda MP 168.9
 Magra MP 148.2 Crossover 9 MP 171.3
 Gold Run MP 152.7 Floriston MP 219.7
 MP 156.7 Verdi MP 229.4
 MP 157.6 Lawton MP 235.5

Newcastle:

Eastward trains unable to maintain speed of 20 MPH or greater at Newcastle must report speed to the train dispatcher.

Fulda:

Balloon track diverges from Main Track 1. Engines and equipment will enter Balloon track at west switch and proceed in clockwise direction. Six axle locomotives are prohibited.

West Norden:

Eastward and westward passenger trains must make running air brake test before passing West Norden MP 191.2.

Tunnel 41:

Westward trains will sound crossing whistle signal (7) immediately after emerging from west portal Tunnel 41.

UP ROSEVILLE SUBDIVISION

Tunnels:

Tunnel No.	Tracks	Portals (MP)		Length (feet)	Note
		West	East		
15	2	114.52	114.52	1905	
16	2	114.72	114.87	778	
17	2	117.29	117.60	1648	
18	1 & 2	120.70	120.89	1000	
20	2	123.28	123.52	1248	
21	2	124.77	125.00	1211	
22	2	131.30	131.49	985	
23	2	132.82	132.98	844	
24	2	133.04	133.10	301	
25	2	133.22	133.37	772	
26	2	133.39	133.42	150	
27	2	133.82	133.94	687	
28	2	135.01	135.56	3209	
29	2	136.08	136.27	1009	
30	2	138.81	138.96	780	
31	2	139.30	139.38	444	
32	2	139.58	139.73	799	
33	1	144.70	144.95	1214	
34	1	145.01	145.09	422	
1	1 & 2	164.53	164.73	515	
35	2	175.72	175.99	738	Shed 3
36	2	176.16	176.22	326	
37	2	176.95	177.00	411	Shed 7
3	1	179.84	179.91	269	Shed 1
38	2	179.63	179.97	922	
4	1	180.13	180.18	264	
39	2	180.13	180.20	280	
40	3	185.3	185.4	316	
41	2	192.58	194.57	10365	
42	1 & 2	198.01	198.18	893	
6	1	193.7	194.0	1653	
8	1	194.3	194.4	361	
9	1	194.9	195.0	205	
10	1	195.1	195.2	531	
11	1	195.4	195.5	582	

Other Location Information:

Track 1 Name	Mile Post	Capacity (feet)	Switch Opens
Tiaga Forest Products	111.5	830	West
Loomis • Frank's Fitted Pipes	112.9	625	West
Loomis former siding (112.9-114.1)	112.9	6300	Both

Other Location Information: (continued)

Track 1 Name	Mile Post	Capacity (feet)	Switch Opens
Loomis • Loomis Fruit Growers	113.4	1905	West
Loomis • Team Track	113.6	1455	Both
Lausmann Lumber & Molding	114.2	420	West
Newcastle • House Track	119.3	790	West
Auburn • Team Track	124.2	1450	Both
Auburn • Auburn Spur	124.8	375	West
Colfax • Strickland Propane	141.9	625	East
Colfax • House Track	141.9	665	Both
Gold Run • House Track	152.6	335	West
Towle • House Track	156.9	425	West
Emigrant Gap • House Track	170.5	500	West
Yuba Pass	176.8	---	---
Crystal Lake	178.6	---	---
Cisco	180.2	---	---
Troy	185.1	---	---
Soda Springs	189.4	---	---
Andover	198.5	---	---
Boca • Set Out Track	214.2	540	West
Lawton • House Track	235.7	1165	West
Lawton • Cantex Inc.	235.8	210	West

Track 2 Name	Mile Post	Capacity (feet)	Switch Opens
Newcastle • Ophir Oil	119.4	420	East
Auburn • Amtrak Lead	124.3	1580	West
Auburn • Auburn Plastics	124.5	240	East
Auburn • Auburn Hardwoods	124.6	290	East
Bowman • Auburn RV Resort	129.3	300	East
Colfax • Colfax Fruit Growers	141.8	1450	East
Gold Run • Gold Run Trucking	152.8	375	East
East Midas • House Track	161.2	245	East
Yuba Pass	176.8	---	---
Crystal Lake	178.6	---	---
Cisco	180.2	---	---
Troy	185.1	---	---
Soda Springs	189.4	---	---
Andover	198.5	---	---
Truckee • Tahoe Truckee Lumber	206.1	1370	West
Boca • Set Out Track	214.3	290	East

UP ROSEVILLE SUBDIVISION

Notes:

1. For the purpose of simulation the method of operation on the Roseville Subdivision in Run 8 Simulator is Centralized Traffic Control (CTC). In real life there is ABS between Colfax and Emigrant Gap, with Track Permits issued for movement against the current of traffic. This method was also used between West Truckee and Lawton until CTC was installed in July 2025.

2. The controlled sidings in Run 8 Simulator at Midas, Emigrant Gap, Donner, Eder and Hinton do not exist in real life. There are no controlled sidings on the Roseville Subdivision in real life (there are sidings at Gold Run and Colfax which are not controlled sidings).

3. In real life there is single track between Switch 9 (MP 171.2) and Shed 10 (MP 178.2) and between West Norden (MP 192.6) and Shed 47 (MP 196.6). The second main track was retired during 1993-1994.

4. Run 8 Simulator does not use proper Union Pacific permanent speed signs (refer to pages 19 and 21). There are no speed signs placed in advance of changes requiring a reduction in speed as there is in real life.

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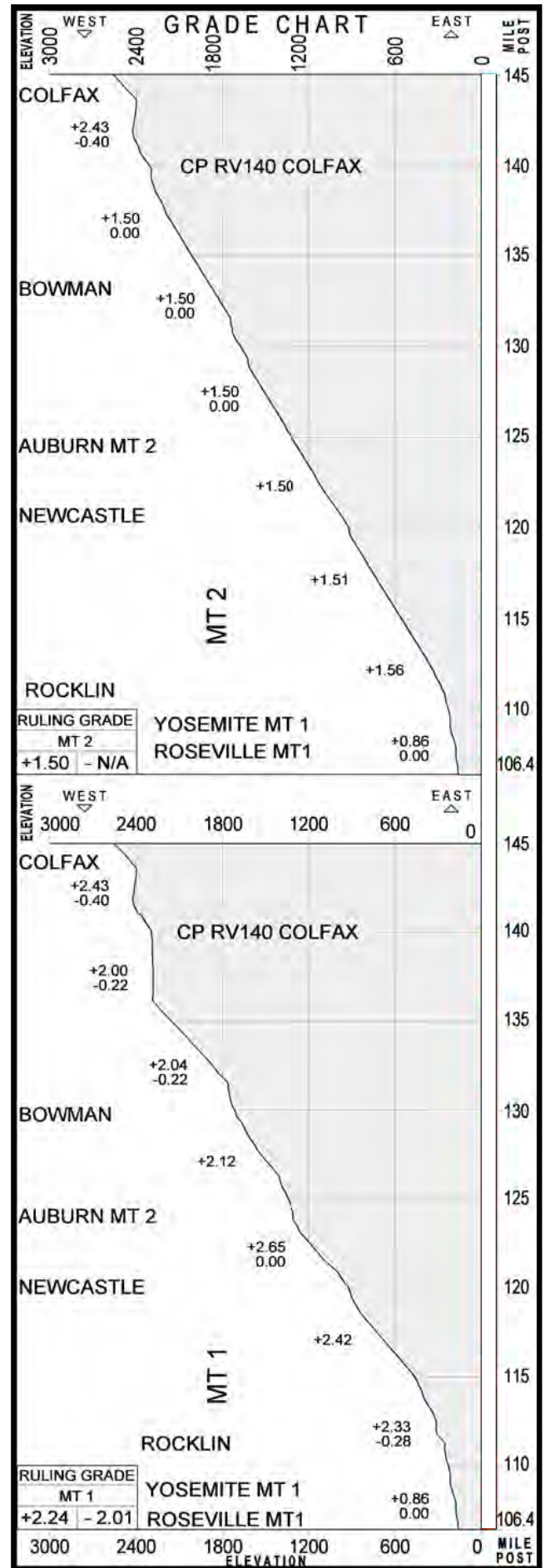
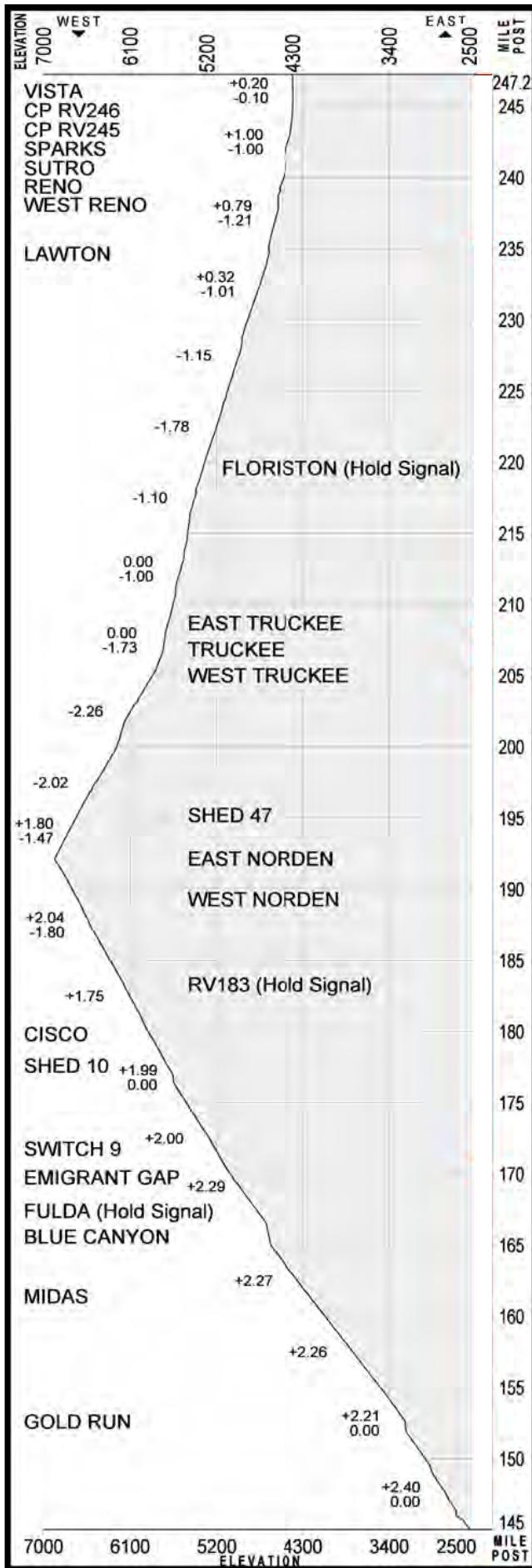
5. Run 8 Simulator does not use proper Union Pacific roadway signs for grade crossings (refer to pages 19 and 20). The "W" signs are used for tunnels, bridges and other locations, "X" signs are used in advance of grade crossings. There are also locations where Run 8 Simulator has overlapping crossing signs which is never done in real life as a safety issue.

6. Run 8 Simulator does not have signs designating control points and station locations.

7. Run 8 Simulator does not have Train Defect Detectors between east of MP 154.4. There are detectors in real life.

8. In Run 8 Simulator There are block signals between Hinton and West Reno missing number plates. These are not absolute (controlled) signals and will be regarded as automatic block signals ("intermediate signals").

9. The data for Tunnels on page 13 was obtained from Union Pacific Track Charts and from Southern Pacific Tunnel Data document.



A. Starting, Level Grade

When starting the train on a level grade:

1. Release the automatic brake.
2. After the brakes have released on the entire train, move the throttle to RUN 1 and release the independent brake. If the locomotive moves too rapidly in RUN 1, control surge with the independent brake. If the train does not move, slowly advance the throttle.
3. Use the lowest possible throttle position to minimize in-train forces.
Note: If the train does not move in RUN 4, return the throttle to IDLE, apply the independent brake, and determine the cause.
4. After the train starts to move, check to see if the amperage or tractive effort levels are decreasing. If these levels are decreasing, you may advance the throttle to the next higher position.

B. Starting, Ascending Grade

When starting the train on an ascending grade:

1. Advance the throttle to RUN 1.
2. Reduce the independent brake.
3. Release the automatic brake.
4. As the brakes release toward the rear of the train, advance the throttle to RUN 2 or higher to start the train moving.
5. Slowly reduce the independent brake until it is fully released. If the train will not start, consider doubling or getting helpers. Applying power on a standing locomotive longer than necessary will damage DC traction motors.
6. After the train starts to move, check to see if the amperage or tractive effort levels are decreasing. If these levels are decreasing, you may advance the throttle to the next higher position.
7. Observe the load meter and limit the throttle position if necessary to avoid high draft forces.

C. Starting, Descending Grade

When starting the train on a descending grade:

1. Ensure that the independent brake is fully applied.
2. Activate the dynamic brake to full.
3. Release the automatic brake and wait for all brakes to release and slack to adjust.
4. Reduce the independent brake until the train begins to move gradually.
5. Once the entire train is moving, gradually reduce the independent brake to avoid abrupt changes in slack.
6. Slowly release the independent brake when the dynamic brake becomes effective.



SPECIAL INSTRUCTIONS

1. Maximum Speeds

All speeds are subject to modification by speed restrictions indicated in timetable individual subdivision special instructions.

Passenger trains will be governed by freight train speed, including temporary speed restrictions governing freight trains, if passenger train speed is not specified under timetable individual subdivision special instructions.

All trains consisting entirely of passenger equipment as well as locomotives without cars (light engines) will be considered passenger trains and may operate at passenger speeds where provided. This includes Amtrak, commuter trains, business cars and passenger equipment modified to serve as track inspection, track geometry or similar test cars.

Unless defined differently in the timetable individual subdivision special instruction, tons per operative brake (TPOB) is defined as the gross trailing tonnage of the train divided by the total number of control valves.

Train, Track or Equipment	MPH
Key Trains	50
Loaded Military trains	50
Loaded Military trains exceeding 60 cars (does not apply to military trains consisting entirely of intermodal cars)	45
Empty Military trains	60
Moving against the current of traffic - passenger trains	59
Moving against the current of traffic - all other trains	49
Through dual control switches not connected to a siding	30
Through other turnouts not connected to a siding	15
Controlled sidings	30
Other sidings and connected turnouts	20
Tracks other than main tracks and sidings	10
Balloon tracks and wye tracks (except used as main track or siding)	5
Locomotive servicing facilities and car repair facilities	5
Engines with cars (except as listed below)	70
• GE AC Locomotives	75
• Engines UP 844, 949, 951, B963, 3985, 4014, 6936	82
• Amtrak and other passenger locomotives	82
• SW-1500 locomotives	50
Multiple-unit engine controlled from other than lead unit	30
Engines running light (without cars)	70
More than eight locomotives	45
Intermodal equipment in Run 8 Simulator is defined as:	
• Autorack	
• Intermodal well car	
• Piggyback trailer flat car	
• Smooth side well car	

2. Timetable Characters

A Automatic Interlocking
 J Junction
 M Manual interlocking
 P Passenger station
 R Restricted Limits
 S Railroad crossing protected by permanent Stop sign
 T Turning facility
 U Railroad crossing not protected by signals or gates
 X Crossover(s)
 Z Controlled siding

3. Methods of Operation Column

ABS Automatic Block Signal System
 CTC Centralized Traffic Control
 DT Double Track
 #MT Multiple Main Tracks (# is the number of main tracks)
 6.28 Other Than Main Track

4. Sidings

Siding length in the timetable is distance in feet between fouling points. Sidings may be preceded by letters N (north), S (south), E (east), W (west) or C (center).

Sidings may be followed by numbers (1) MT 1, (2) MT 2, (3) MT 3

5. Multiple Main Tracks

Unless otherwise indicated in the individual subdivision special instructions:

On east-west subdivisions, track numbers increase from north to south, and the northern most track is No. 1.

On north-south subdivisions, track numbers increase from west to east, and the western most track is No. 1..

6. Duplicate Mile Posts

Duplicate mile posts on a subdivision are identified by an alpha suffix (e.g. MP 345X, MP 420Z). Timetable individual subdivision special instructions will list where duplicate mile posts are in effect.

7. Whistle Quiet Zone

Within designated whistle quiet zones, whistle signal (7) must not be sounded approaching public crossings at grade except when:

- Necessary to provide warning in an emergency.
- Notified automatic warning devices are malfunctioning.
- Notified automatic warning devices are out of service.

or

- The whistle quiet zone is not in effect during specified hours.

An employee may sound the train horn to provide warning to crews on other trains in an emergency situation, vehicle operators, pedestrians, trespassers or animals if, in the employee's sole judgment, such action is appropriate to prevent imminent injury, death, or property damage.

SPECIAL INSTRUCTIONS

8. Sounding Whistle

The whistle may be used at anytime as a warning regardless of any whistle prohibitions.

When other employees are working in the immediate area, sound the required whistle signal before moving.

The required whistle signals are illustrated by “o” for short sounds and “—” for longer sounds

Sound		Indication
(1)	Succession of short sounds	Use when persons or livestock are on the track at other than road crossings at grade. In addition, use to warn railroad employees when an emergency exists, such as a derailment. When crews on other trains hear this signal, they must stop until it is safe to proceed.
(2)	—	When stopped: air brakes are applied, pressure equalized.
(3)	— —	Release brakes. Proceed.
(4)	o o	Acknowledgment of any signal not otherwise provided for.
(5)	o o o	When stopped: back up. Acknowledgment of hand signal to back up.
(6)	o o o o	Request for signal to be given or repeated if not understood.
(7)	— — o —	When approaching public crossings at grade with the engine in front, sound signal as follows: A. At speeds in excess of 45 MPH, start signal at or about the crossing sign but not more than 1/4 mile before the crossing. B. At speeds of 45 MPH or less, start signal at least 15 seconds, but not more than 20 seconds, before entering the crossing. C. If no crossing sign start signal at least 15 seconds, but not more than 20 seconds before entering crossing but not more than 1/4 mile before the crossing. D. If movement starts less than 1/4 mile from a crossing, signal may be sounded less than 15 seconds before the crossing when it is clearly seen traffic is not approaching the crossing, traffic is not stopped at the crossing or when crossing gates are fully lowered. Prolong or repeat signal until the engine completely occupies the crossing(s).
(8)	— o	Regardless of any whistle prohibitions: Approaching men or equipment or other individuals on or near the track. After sounding initial warning for men or equipment or other individuals, sound whistle signal (4) intermittently until the head end of train has passed the men or equipment or other individuals. Whistle warning is not required: • When there is an adjacent track and men or equipment or other individuals are beyond the farthest rail of the adjacent track. • For members of the same crew associated with movement of their engine unless necessary to warn or alert a crew member Do not sound whistle in designated mechanical servicing and repair facilities, unless for an emergency or when approaching roadway workers.

SPECIAL INSTRUCTIONS

9. Restricted Limits (Rule 6.14)

Within restricted limits, trains or engines are authorized to use the main track not protecting against other trains or engines. All movements must be made at restricted speed.

10. Movement at Restricted Speed (Rule 6.27)

When required to move at restricted speed, movement must be made at a speed that allows stopping within half the range of vision short of:

- Train.
- Engine.
- Railroad car.
- Men or equipment fouling the track.
- Stop signal.
- or
- Derail or switch lined improperly.

When a train or engine is required to move at restricted speed, the crew must keep a lookout for broken rail and not exceed 20 MPH. Comply with these requirements until the leading wheels reach a point where movement at restricted speed is no longer required.

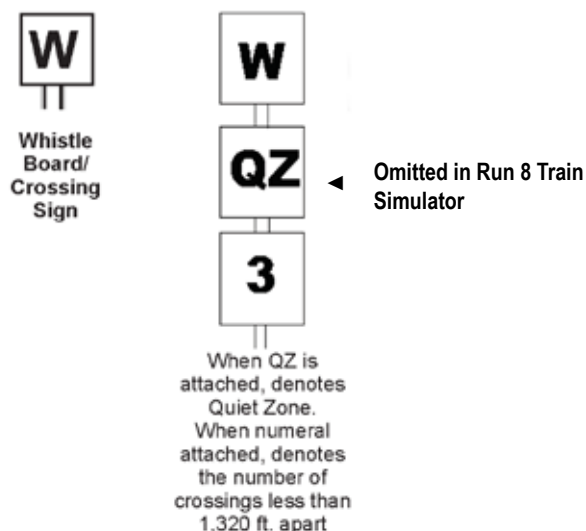
11. Movement on Other Than Main Track (Rule 6.28)

Except when moving on a main track or on a track where a block system is in effect, trains or engines must move at a speed that allows them to stop within half the range of vision short of:

- Train.
- Engine.
- Railroad car.
- Men or equipment fouling the track.
- Stop signal.
- or
- Derail or switch lined improperly

12. Crossing Warning Signs

Note: Run 8 Simulator uses BNSF Railway crossing warning signs instead of the proper Union Pacific signs. BNSF signs are shown.



13. Permanent Speed Signs

Note: Run 8 Simulator does not use proper Union Pacific Speed signs on the Roseville Subdivision.



Run 8 Simulator uses the above sign for permanent speed restrictions placed at the point where speed applies on the Roseville Subdivision. There are no advance signs placed with permanent speed signs requiring speed reduction in Run 8 Simulator.

P indicates maximum speed for passenger trains
F indicates maximum speed for freight trains.

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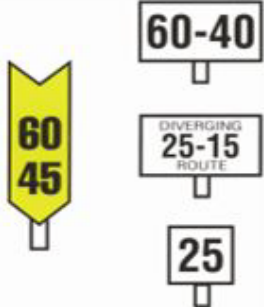
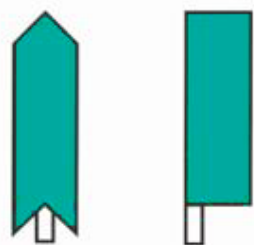
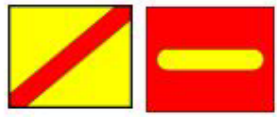
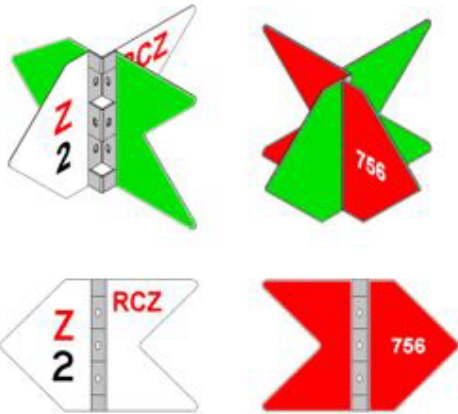
SPECIAL INSTRUCTIONS

Union Pacific Roadway Signs

For Crossings* For Tunnels, etc. At locations where crossing signs are displayed, sound whistle as required by Rule 5.8.2 (7) regardless of the type of crossing train is approaching. * If a number sign is attached to the crossing sign, it shows the number of crossings for which the whistle signal is required.	Crossings where quiet zones are in effect. If a number sign is attached to this crossing sign, it shows the number of successive crossings for which the sign applies.	Derail Sign Also used to designate runaway track locations. Crossing Warning Device Malfunction Sign Stop at the sign. Rule 6.32.2 Application.
Yellow-Red Flag protecting men or equipment. Yellow Flag	Red Flag Green Flag	Stop Signs
Yard Limit Sign	Restricted Limit Signs	High Threat Urban Area (HTUA) Signs Begin HTUA End HTUA

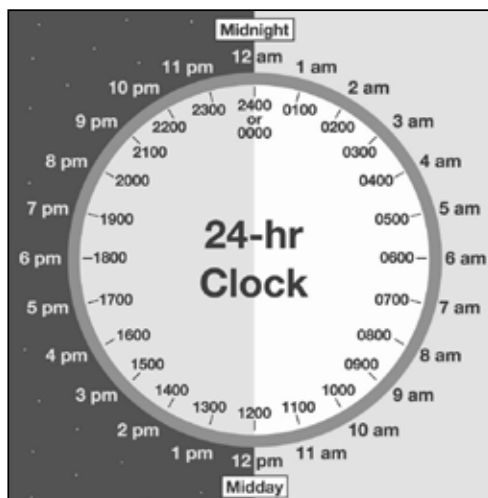
SPECIAL INSTRUCTIONS

Union Pacific Roadway Signs

 Permanent Speed Restriction Signs	 Permanent Resume Speed Signs	
 Remote Control Zone Signs		End Of Track Sign  Switch Flags  Simulate a switch or derail improperly lined
 Remote Control Switch Target		Fog Board  Placed approximately 1,000 feet in advance of absolute signals on select subdivisions.

SPECIAL INSTRUCTIONS

14. Continental Time



Continental Time	12 Hour Clock
0000	Midnight
0001	12.01 a.m.
0100	1.00 a.m.
0200	2.00 a.m.
0300	3.00 a.m.
0400	4.00 a.m.
0500	5.00 a.m.
0600	6.00 a.m.
0700	7.00 a.m.
0800	8.00 a.m.
0900	9.00 a.m.
1000	10.00 a.m.
1100	11.00 a.m.

Continental Time	12 Hour Clock
1200	Noon
1201	12.01 p.m.
1300	1.00 p.m.
1400	2.00 p.m.
1500	3.00 p.m.
1600	4.00 p.m.
1700	5.00 p.m.
1800	6.00 p.m.
1900	7.00 p.m.
2000	8.00 p.m.
2100	9.00 p.m.
2200	10.00 p.m.
2300	11.00 p.m.

All railroad operations within California are conducted in the Pacific Continental Time Zone. Arizona observes Mountain Standard Time year round.

Time Change		
Time	Date	Clock
Daylight Savings	0200 Sun. March 8, 2026	+1 hour
Standard	0200 Sun. November 1, 2026	- 1 hour
Daylight Savings	0200 Sun. March 14, 2027	+1 hour
Standard	0200 Sun. November 7, 2027	-1 hour

SPECIAL INSTRUCTIONS

15. Amtrak Schedules

Amtrak Schedules								
529	729	5		Train No.		6	744	538
Capitol Corridor	Capitol Corridor	California Zephyr		Name		California Zephyr	Capitol Corridor	Capitol Corridor
M - F	Sa Su H	Daily		Operates		Daily	Sa Su H	M - F
		9.13 am 9.24 am	Ar Dp	Reno, NV	Dp Ar	3.37 pm 3.27 pm		
		10.33 am	Dp	Truckee CA	Dp	2.01 pm		
		12.50 pm	Dp	Colfax, CA	Dp	11.39 am		
6.36 am	7.51 am	---	Dp	Auburn, CA	Ar	---	9.03 pm	7.10 pm
7.00 am	8.14 am	---	Dp	Rocklin, CA	Dp	---	8.32 pm	6.38 pm
7.09 am	8.23 am	2.14 pm	Dp	Roseville, CA	Dp	10.51 am	8.23 pm	6.28 pm
M = Monday F = Friday Sa = Saturday Su = Sunday H = Holidays								

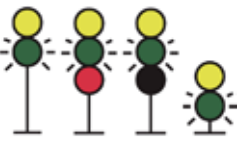
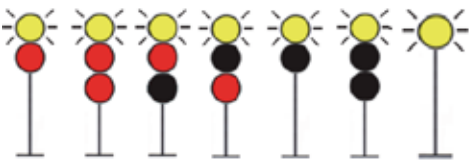
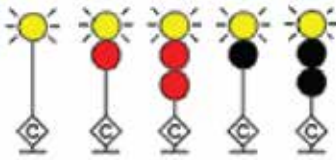
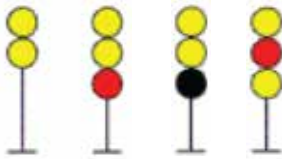
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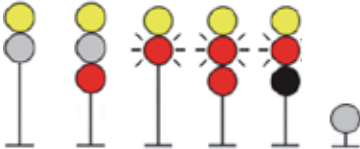
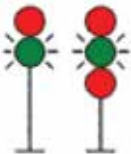
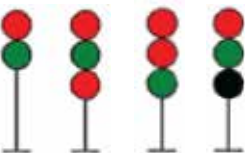
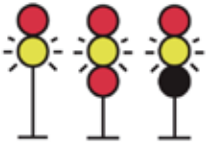
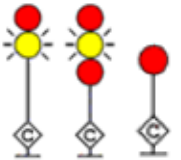
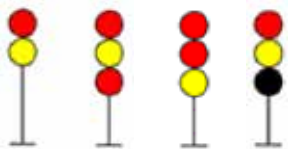
RUN 8 SIMULATOR LOCOMOTIVE DATA

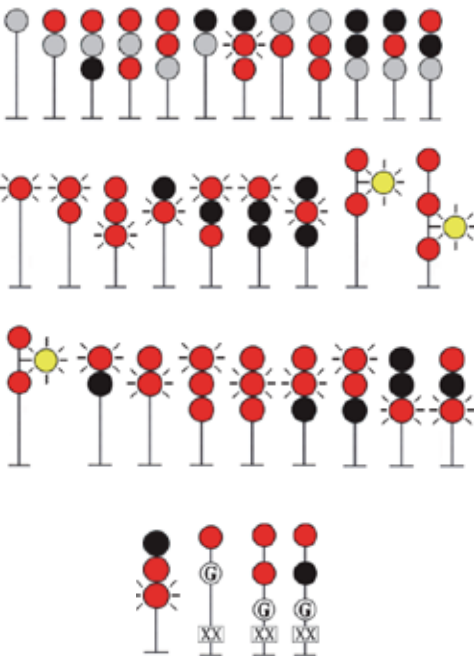
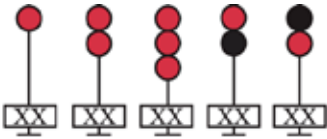
Model	Length (feet)	Full Weight (tons)	Axles	Horse Power	Power Axles	DB Axles	Fuel Capacity (gallons)
Amtrak (AMTK)							
MP15	48	126	4	1500	4	0	1600
P42	69	134	4	4250	4	4	2200
Arizona & California (ACR)							
SD45-2	69	195	6	3600	6	6	4000
Atchison, Topeka & Santa Fe (ATSF)							
C44-9W	74	208	6	4400	8	8	4800
SD40-2	69	195	6	3000	6	6	4000
SD45-2	69	195	6	3600	6	6	4000
BNSF Railway (BNSF)							
C44-9W	74	208	6	4400	8	8	4800
ES44DC	73	205	6	4400	8	8	5000
GP40-2	60	138	4	3000	4	6	3800
MP15	48	126	4	1500	4	0	1600
SD40-2	69	195	6	3000	6	6	4000
SD45-2	69	195	6	3600	6	6	4000
SD70ACe	74	210	6	4500	9	9	4900
Burlington Northern (BN)							
MP15	48	126	4	1500	4	0	1600
SD40-2	69	195	6	3000	6	6	4000
Canadian National (CN)							
SD40-2	69	195	6	3000	6	6	4000
Cargill (CARG)							
SD40-2	69	195	6	3000	6	6	4000
Chessie System (BO)							
SD40-2	69	195	6	3000	6	6	4000
Conrail (CR)							
GP40-2	60	138	4	3000	4	6	3800
SD40-2	69	195	6	3000	6	6	4000
SD45-2	69	195	6	3600	6	6	4000
CSX Transportation (CSXT)							
C44-9W	74	208	6	4400	8	8	4800
ES44DC	73	205	6	4400	8	8	5000
GP40-2	60	138	4	3000	4	6	3800
MP15	48	126	4	1500	4	0	1600
SD40-2	69	195	6	3000	6	6	4000
SD45-2	69	195	6	3600	6	6	4000
SD70ACe	74	210	6	4500	9	9	4900
Denver & Rio Grande Western (DRGW)							
GP40-2	60	138	4	3000	4	6	3800
SD40T-2	69	195	6	3000	0	6	4000

RUN 8 SIMULATOR LOCOMOTIVE DATA

Model	Length (feet)	Full Weight (tons)	Axles	Horse Power	Power Axles	DB Axles	Fuel Capacity (gallons)
Florida East Coast (FEC)							
SD40-2	69	195	6	3000	6	6	4000
GCFX (GCFX)							
SD40-2	69	195	6	3000	6	6	4000
GMTX (GMTX)							
MP15	48	126	4	1500	4	0	1600
Kansas City Southern (KCS)							
SD70ACe	74	210	6	4500	9	9	4900
Modesto & Empire Traction (MET)							
MP15	48	126	4	1500	0	0	1600
Norfolk Southern (NS)							
ES44DC	73	205	6	4400	8	8	5000
MP15	48	126	4	1500	4	0	1600
SD45-2	69	195	6	3600	6	6	4000
SD70ACe	74	210	6	4500	9	9	4900
San Joaquin Valley (SJVR)							
GP40-2	60	138	4	3000	4	6	3800
Seaboard Coast Line (SCL)							
SD45-2	69	195	6	3600	6	6	4000
Seaboard System (SBD)							
SD40-2	69	195	6	3000	6	6	4000
SD45-2	69	195	6	3600	6	6	4000
Soo Line (SOO)							
SD40-2	69	195	6	3000	6	6	4000
Southern Pacific (SP)							
C44-9W	74	208	6	4400	8	8	4800
ES44DC	73	205	6	4400	8	8	5000
GP40-2	60	138	4	3000	4	6	3800
MP15	48	126	4	1500	4	0	1600
SD40-2	69	195	6	3000	6	6	4000
SD40T-2	69	195	6	3000	6	6	4000
Trona (TRON)							
SD45-2	69	195	6	3600	6	6	4000
Union Pacific (UP)							
C44-9W	74	208	6	4400	8	8	4800
ES44DC	73	205	6	4400	8	8	5000
GP40-2	60	138	4	3000	4	6	3800
MP15	48	126	4	1500	4	0	1600
SD40-2	69	195	6	3000	6	6	4000
SD40T-2	69	195	6	3000	6	6	4000
SD70ACe	74	210	6	4500	9	9	4900
Western Pacific (WP)							
GP40-2	60	138	4	3000	4	6	3800

Union Pacific Block and Interlocking Signals			
Rule	Name	Aspects	Indication
9.2.1	Clear		Proceed.
9.2.2	Approach Clear Sixty		Proceed. Trains exceeding 60 MPH proceed prepared to pass the next signal not exceeding 60 MPH. When signal governs approach to a control point with a 60 MPH turnout speed be prepared to advance on diverging route.
9.2.3	Approach Clear Fifty		Proceed. Trains exceeding 50 MPH proceed prepared to pass the next signal not exceeding 60 MPH. When signal governs approach to a control point with a 50 MPH turnout speed be prepared to advance on diverging route.
9.2.4	Advance Approach		Proceed prepared to stop at second signal. Trains exceeding 40 MPH proceed prepared to pass the next signal not exceeding 40 MPH. When signal governs approach to a control point with a 40 MPH turnout speed be prepared to advance on diverging route. When the next signal is seen to display an aspect more favorable than Diverging Approach or Approach, the requirement to proceed prepared to stop short of the second signal is no longer required.
9.2.4P	Advance Approach Passenger	 With diamond shaped "C" plate and with or without number plates.	Proceed prepared to stop at second signal. Freight trains exceeding 40 MPH proceed prepared to pass the next signal not exceeding 40 MPH. Passenger trains may proceed, but must be prepared to pass the next signal not exceeding 60 MPH. When the next signal is seen to display an aspect more favorable than Diverging Approach or Approach, the requirement to proceed prepared to stop short of the second signal is no longer required.
9.2.5	Approach Diverging		Proceed prepared to advance on diverging route at next signal at prescribed speed through turnout.
9.2.6	Approach		Proceed prepared to stop before any part of train or engine passes the next signal. Freight trains exceeding 30 MPH must immediately reduce to 30 MPH. Passenger trains exceeding 40 MPH must immediately reduce to 40 MPH. When the next signal is seen to display a proceed indication, the requirement to proceed prepared to stop no longer applies.

Union Pacific Block and Interlocking Signals			
Rule	Name	Aspects	Indication
9.2.7	Approach Restricting		Proceed to pass the next signal at restricted speed, but not exceeding 15 MPH. When the next signal is seen to display a proceed indication, the requirement to pass next signal at restricted speed no longer applies.
9.2.8	Diverging Clear Limited	 Without number plates.	Proceed on diverging route. Speed through turnout must not exceed 40 MPH.
9.2.9	Diverging Clear		Proceed on diverging route not exceeding prescribed speed through turnout.
9.2.10	Diverging Advance Approach	 Without number plates.	Proceed on diverging route not exceeding prescribed speed through turnout and be prepared to stop at second signal. Trains exceeding 40 MPH proceed prepared to pass the next signal not exceeding 40 MPH. When the next signal is seen to display an aspect more favorable than Diverging Approach or Approach, the requirement to proceed prepared to stop short of the second signal is no longer required. When signal governs approach to a control point with a 40 MPH turnout speed be prepared to advance on normal or diverging route.
9.2.10P	Diverging Advance Approach Passenger	 With diamond shaped "C" plate and without number plates.	Proceed on diverging route at prescribed speed through turnout prepared to stop at second signal. Freight trains proceed prepared to pass the next signal not exceeding 40 MPH. Passenger trains exceeding 60 MPH must immediately reduce to 60 MPH. When the next signal is seen to display an aspect more favorable than Diverging Approach or Approach, the requirement to proceed prepared to stop short of the second signal is no longer required.
9.2.11	Diverging Approach	 Without number plates.	Proceed on diverging route at prescribed speed through turnout prepared to stop before any part of train or engine passes the next signal. Freight trains exceeding 30 MPH must immediately reduce to 30 MPH. Passenger trains exceeding 40 MPH must immediately reduce to 40 MPH. When the next signal is seen to display a proceed indication, the requirement to proceed prepared to stop no longer applies.

Union Pacific Block and Interlocking Signals			
Rule	Name	Aspects	Indication
9.2.12	Diverging Approach Diverging	 Without number plate.	Proceed on diverging route not exceeding prescribed speed through turnout prepared to advance on diverging route at the next signal at prescribed speed through turnout.
9.2.13	Restricting		Proceed at restricted speed, not exceeding prescribed speed through turnout when applicable.
9.2.14	Restricted Proceed		Proceed at restricted speed.
9.2.15	Stop	 Without number plates.	Stop before any part of train or engine passes the signal.
9.12.16	Diverging Approach Clear Fifty	 Without number plate.	Proceed on diverging route at prescribed speed through turnout. Freight trains exceeding 50 MPH must immediately reduce to 50 MPH. Passenger trains may proceed, but must be prepared to pass the next signal not exceeding 50 MPH. When signal governs approach to a control point with a 50 MPH turnout speed be prepared to advance on diverging route

Union Pacific Block and Interlocking Signals

This table does not include position color light signals, Automatic Cab Signals or UP Chicago Lake Street Interlocking signals. Unless otherwise specified or signal mast is shown with a number plate, signal aspects shown apply to signals with or without number plates.



6.27: Movement at Restricted Speed

When required to move at restricted speed, movement must be made at a speed that allows stopping within half the range of vision short of:

- Train
- Engine
- Railroad car
- Men or equipment fouling the track
- Stop signal
- or
- Derail or switch improperly lined

When a train or engine is required to move at restricted speed, the crew must keep a lookout for broken rail and not exceed 20 MPH. Comply with these requirements until the leading wheels reach a point where movement at restricted speed is no longer required. Train and / or engine speed must allow for movement to stop of the obstructions listed consistent with good train handling.

Union Pacific Distant Signals			
Rule	Name	Aspects	Indication
9.1.1	Distant Signal Clear		Proceed. If delayed between this signal and block or interlocking signal, proceed prepared to stop before any part of train or engine passes the next signal.
9.1.2	Distant Signal Approach		Proceed prepared to stop before any part of train or engine passes the next signal or switch point indicator. The maximum speed is 20 MPH within interlocking limits or within the limits of the control point for which Distant Signal Approach is displayed at the distant signal.
9.1.3	Distant Signal Approach Diverging		Proceed prepared to advance on diverging route at next signal at prescribed speed through turnout.

RUN 8 TRAIN SIMULATOR FORMS

SoCal Form A/B/Crossing Warning

12.14.20

FORM A									
		To:						Date:	
Number	Subdiv	Limits		Speed MPH		Track(s)	Flags At		
		MP	to MP	Psg	Frt		MP	MP	
							N/A	N/A	
Comments:									
OK					DISPR				

FORM A									
		To:						Date:	
Number	Subdiv	Limits		Speed MPH		Track(s)	Flags At		
		MP	to MP	Psg	Frt		MP	MP	
							N/A	N/A	
Comments:									
OK					DISPR				

FORM B									
		To:						Date:	
Subdivision	Limits	Time/Date	Tracks(s)	Flags At	Foreman/Gang	Stop			
						MP	REQUIRED		
	MP	N/A		N/A					
	MP	N/A		N/A					
Comments:									
OK					DISPR				

CROSSING WARNING NOTIFICATION

Subdiv:		Date:	
1.	☐	Automatic crossing warning device activation failure or disabled at _____. Stop and protect movement even if devices are seen to be working. Proceed per Rule 6.32.2, Procedure 1.	
2.	☐	Automatic crossing warning device false or partial activation at _____. Stop and protect movement, unless devices are seen to be working or otherwise instructed. Proceed per Rule 6.32.2, Procedure 2.	
3.	☐	Passive crossing warning device damaged or missing at _____. Stop and protect movement. Proceed per Rule 6.32.2, Procedure 3.	

MOVEMENT PROCEDURES

GCOR Rule 6.32.2

Procedure 1	Procedure 2	Procedure 3
<i>Crew is notified of an automatic crossing warning system activation failure or devices are disabled:</i>	<i>Crew is notified of an automatic crossing warning system false or partial activation:</i>	<i>Crew is notified of passive warning device (cross-bucks, stop signs, etc.) damaged or missing:</i>
Stop before fouling the crossing After a crew member is on the ground at the crossing to warn traffic, proceed over the crossing as directed by that crew member.	• Stop before fouling the crossing • After a crew member is on the ground at the crossing to warn traffic, proceed over the crossing as directed by that crew member; or if devices are seen to be working or when instructed by the train dispatcher or proper authority, proceed over the crossing not exceeding 15 MPH without stopping until the head end of the train completely occupies the crossing. • The train may then proceed.	• Stop before fouling the crossing • After a crew member is on the ground at the crossing to warn traffic, proceed over the crossing as directed by that crew member.

INSTRUCTIONS / EXAMPLES

FORM A - EXAMPLE

Example: D26 is informed of a NEW Form A restriction from a Track Inspector.

- ☐ Restriction Number: **1001**
- ☐ Subdivision: **Bakersfield**
- ☐ Limits (MP to MP): **891.9 to 892.1**
- ☐ Speed required for Passenger & Freight: **50/30**
- ☐ Track(s): **MAIN 1**

FORM A		To: <i>BNSF 5469 West</i>		Date: <i>12/06/20</i>				
Number	Subdiv	Limits		Speed MPH		Track(s)	Flags At	
		MP	to MP	Psg	Frt		MP	MP
<i>1001</i>	<i>Bakersfield</i>	<i>891.9</i>	<i>892.1</i>	<i>50</i>	<i>30</i>	<i>MAIN 1</i>	N/A	N/A
Comments:								
OK <i>1305</i> DISPR <i>HBD</i>								

Form A - Verbiage Example

DS: "DS 26 calling BNSF 5469 West, over."

Train: "BNSF 5469 West answering, over."

DS: "I have a Form A restriction for you to copy. Can I get your Name, Title, Location when you're ready to copy, over."

Train: "Conductor Briskey, Milepost 885.0, ready to copy, over."

DS: "This is verbally issued Form A Restriction 1001, addressed to the BNSF 5469 West on the Bakersfield Subdivision, between the MP 891.9 & MP 892.1, speed for Passenger 50mph, speed for Freight 30mph, on Main Track 1, over."

Train: "Form A Restriction 1001, addressed to the BNSF 5469 West on the Bakersfield Subdivision, between the MP 891.9 & MP 892.1, speed for Passenger 50MPH, speed for Freight 30MPH, on Main Track 1, over."

DS: "Show verbally issued Form A Restriction 1001 OK at 1305, 1-3-0-5, HBD, over."

Train: "Verbally issued Form A Restriction 1001 OK at 1305, 1-3-0-5, HBD, over."

DS: "That is correct. DS out."

FORM B - EXAMPLE

Example: D26 is informed of a NEW Form B restriction from a MOW Foreman.

- ☐ Restriction Number: **6002**
- ☐ Subdivision: **Bakersfield**
- ☐ Limits (MP to MP): **891.1 to 892.3**
- ☐ Track(s): **MAIN 1 & MAIN 2**
- ☐ Employee in Charge: **BRISKEY**

FORM B		To: BNSF 5469 West		Date: 12/06/20		
No. 6002	Limits	Time/Date	Tracks(s)	Flags At	Foreman/Gang	Stop
Subdivision	MP 891.1	N/A	MAIN 1	N/A	BRISKEY	REQUIRED
Bakersfield	MP 892.3	N/A	MAIN 2	N/A		
Comments:				OK	1458	DISPR HBD

Form B - Verbiage Example

DS: "DS 26 calling BNSF 5469 West, over."

Train: "BNSF 5469 West answering, over."

DS: "I have a Form B restriction for you to copy. Can I get your Name, Title, Location when you're ready to copy, over."

Train: "Conductor Smith, Milepost 885.0, ready to copy, over."

DS: "This is verbally issued Form B Restriction 6002, addressed to the BNSF 5469 West on the Bakersfield Subdivision, between the MP 891.1 & MP 892.3, Tracks, Main 1, and Main 2, Employee in Charge Briskey, over."

Train: "Form B Restriction 6002, addressed to the BNSF 5469 West on the Bakersfield Subdivision, between the MP 891.1 & MP 892.3, Tracks, Main 1, and Main 2, Employee in Charge Briskey, over."

DS: "Show verbally issued Form B Restriction 6002 OK at 1305, 1-4-5-8, HBD, over."

Train: "Verbally issued Form B Restriction 6002 OK at 1305, 1-4-5-8, HBD, over."

DS: "That is correct. DS out."

CROSSING WARNING NOTIFICATION - EXAMPLE

Example: D26 is informed of a NEW Crossing Malfunction at Reina Rd. Milepost 896.8 on Bakersfield Subdivision.

CROSSING WARNING NOTIFICATION	
Subdiv: Bakersfield	Date: 12/06/20
1. ☒	Automatic crossing warning device activation failure or disabled at <u>Reina Rd, Milepost 896.8</u> . Stop and protect movement even if devices are seen to be working. Proceed per Rule 6.32.2, Procedure 1.
2. ☐	Automatic crossing warning device false or partial activation at _____. Stop and protect movement, unless devices are seen to be working or otherwise instructed. Proceed per Rule 6.32.2, Procedure 2.
3. ☐	Passive crossing warning device damaged or missing at _____. Stop and protect movement. Proceed per Rule 6.32.2, Procedure 3.

Crossing Warning Notification - Verbiage Example

DS: "DS 26 calling BNSF 5469 West, over."

Train: "BNSF 5469 West answering, over."

DS: "I have a crossing restriction for you to copy. Can I get your Name, Title, Location when you're ready to copy, over."

Train: "Conductor Briskey, MP 885.0, ready to copy, over."

DS: "Crossing Warning Notification, addressed to the BNSF 5469 West, X in Box 1, O-N-E, Automatic crossing warning device activation failure or disabled at **Reina Rd, Milepost 896.8**. Stop and protect movement even if devices are seen to be working. Proceed per rule 6.32.2, Procedure 1, over."

Train: "Crossing Warning Notification, addressed to the BNSF 5469 West, X in Box 1, O-N-E, Automatic crossing warning device activation failure or disabled at **Reina Rd, Milepost 896.8**. Stop and protect movement even if devices are seen to be working. Proceed per rule 6.32.2, Procedure 1, over."

DS: "That is correct, over."

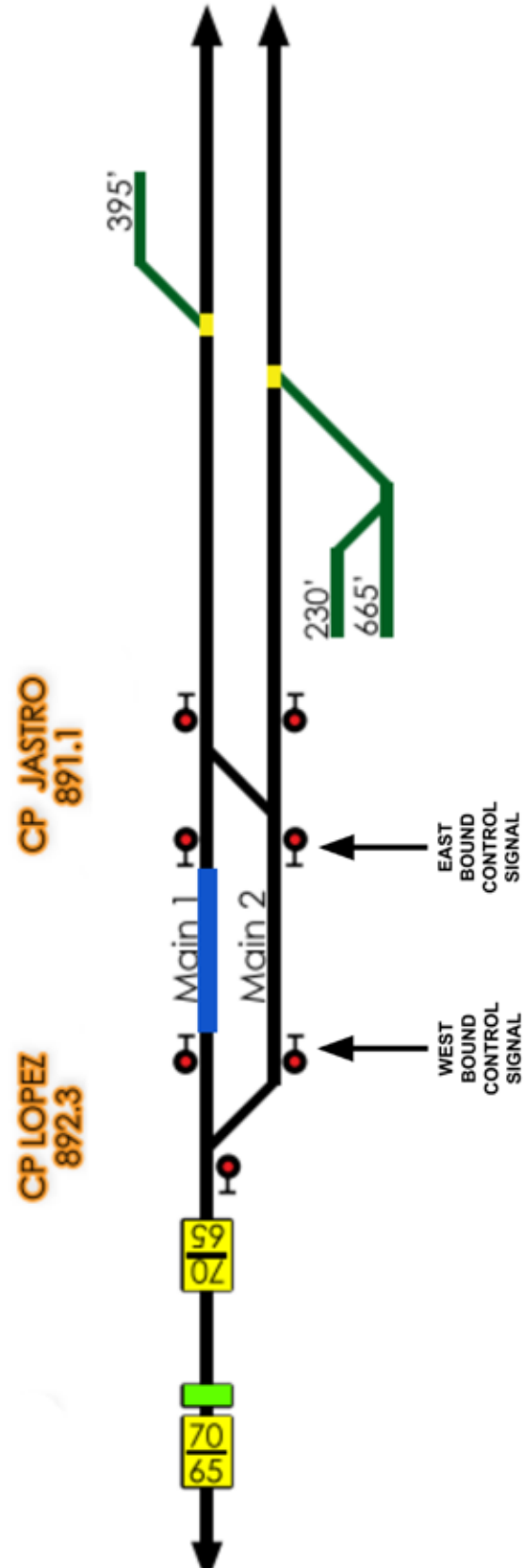
Train: "Correct on the repeat, thank you, out."

WBSCS West Bound Control Signal EBSCS East Bound Control Signal NBSCS North Bound Control Signal SBSCS South Bound Control Signal		WSS West Siding Switch ESS East Siding Switch NSS North Siding Switch SSS South Siding Switch		WE West End EE East End NE North End SE South End		XO Crossover WYO West Crossover EYO East Crossover	
Name (Last): _____		SoCal MOW Authority to Occupy Track (Track & Time) In CTC Territory Rule 10.3, In ABS Territory Rule 9.45 or In Rule 17.0 Foul Time		Date: _____		Vehicle Number: _____	
Repeat as follows: For (name), authority (number), granted (behind _____), on (track), between (point), switch (yes/no), and point, switch (yes/no), (joint), until (time).							
Authority	Conditions of Authority	Track(s)	Between (Beginning Location)	Switch Included	And (Ending Location)	Switch Included	Joint Status
Behind:							Joint
Behind:							Joint
Behind:							Joint
							Time Limits Authorized
							OK Time/ DS Initials
							Time Authority Released

Authority behind Trains • Record train MP location provided by crew member. • After verifying MP location, state the following "Please inform me before making any stop or backup movements." • Record time briefing was completed.	Train ID (Engine initials, engine number and direction)	Milepost location	Time Contacted

INSTRUCTIONS / EXAMPLES

Example: Track Inspector Briskey wants to inspect track between CP Lopez and CP Jastro on Main 1 behind the BNSF 5469 (West) on the Bakersfield Subdivision.



****This is how Track & Time form will look AFTER it's filled out. First Authority. Extension. Released.**

Name (Last): Briskey		SoCal MOW Authority to Occupy Track (Track & Time) In CTC Territory Rule 10.3, in ABS Territory Rule 9.15 or in Rule 17.0 Foul Time		Date: 12/06/20	Vehicle Number: 21269		Form 12.14.20			
Repeat as follows: For (name), authority (number), granted (behind _____), on (track), between (point), switch (yes/no), and point, switch (yes/no), (joint), until (time).										
Authority	Conditions of Authority	Track(s)	Between (Beginning Location)	Switch Included	And (Ending Location)	Switch Included	Joint Status	Time Limits Authorized	OK Time/ DS Initials	Time Authority Released
8321	Behind: BNSF 5469 West	MT SDG Main 1 Main 2	WSS WE ESS EE NCS NE SBCS SE EXO EXO	Yes No	WSS WE ESS EE NCS NE SBCS SE EXO EXO	Yes No	Joint	Until: 1410 Extended To: 1450	1310 H8D 1403 H8D	1429
Authority behind Trains		Train ID (Engine initials, engine number and direction)		Milepost location		Time Contacted				
• Record train MP location provided by crew member.		BNSF 5469 West		892.0		1312				
• After verifying MP location, state the following "Please inform me before making any stop or backup movements."										
• Record time briefing was completed.										

Requesting Authority to Occupy Main - Verbiage Example

Track Inspector: "Track Inspector Briskey calling DS 26, over."
DS: "Go ahead Track Inspector Briskey, over."
Track Inspector: "Yes, I would like to request authority on Main 1 between CP Lopez and CP Jastro to inspect the track, over."
DS: "Understand. Are you ready to copy, over?"
Track Inspector: "Yes, Track Inspector Briskey with Vehicle Number 21269 is ready to copy, over."
DS: "Authority 8321, Behind the BNSF 5469 West, on Main 1, Between WBCS Lopez Switch No, and EBSC Jastro, Switch No, Until 1410, over."
Track Inspector: "Understand, Track Inspector Briskey, with Vehicle Number 21269, Authority 8321, Behind the BNSF 5469 West, on Main 1, Between WBCS Lopez Switch No, and EBSC Jastro, Switch No, Until 1410, over."
DS: "1310, Dispatcher HBD, over."
Track Inspector: "1310, Dispatcher HBD, over."
DS: "That is correct DS out."

****Since the Dispatcher said "Behind BNSF 5469 West", the Track Inspector must wait for that train to clear where he/she sets-on the track.**

****Track Inspector must also contact BNSF 5469 West and ask for their headend Milepost Location, and confirm they will inform the Track Inspector before stopping or making any reverse movements.**

****Joint is only used for MOW employees sharing authority with other MOW employees.**

Contacting Train with Joint Authority - Verbiage Example (If Joint Authority)

Track Inspector: "Track Inspector Briskey calling BNSF 5469 West, over."
Train: "Go ahead Track Inspector Briskey, over."
Track Inspector: "BNSF 5469, I'll be setting on behind you. What is your headend milepost location, over."
Train: "Our headend is at MP 892.0, over."
Track Inspector: Copy, MP 892.0 Please inform me before making any stop or backup movements, over."
Train: "Understand, we will let you know before making any stop or backup movements, over"
Track Inspector: "Thank you, out"

****At this time, the Track Inspector can record the headend Milepost Location of the train and time contact was established.**

When the Track Inspector (1) needs an extension of time or, (2) is done inspecting the specified limits AND has taken his/her truck off the rails, he/she will contact the Dispatcher to release authority. ****Either of these must be done before authority time ends****

Time Extension - Verbiage Example

Track Inspector: "Track Inspector Briskey calling DS 26, over."
DS: "Go ahead Track Inspector Briskey, over."
Track Inspector: "Yes, I would like to request an extension of time on Authority 8321, over."
DS: "Track Inspector Briskey, with Vehicle Number 21269, Authority 8321, granted Behind the BNSF 5469 West, on Main 1, Between WBCS Lopez Switch No, and EBSC Jastro, Switch No, Extended To: 1450, over."
Track Inspector: "Understand, Track Inspector Briskey, with Vehicle Number 21269, Authority 8321, granted Behind the BNSF 5469 West, on Main 1, Between WBCS Lopez Switch No, and EBSC Jastro, Switch No, Extended To: 1450, over."
DS: "1403, Dispatcher HBD, over."
Track Inspector: "1403, Dispatcher HBD, over."
DS: "That is correct. DS out."

Releasing Authority - Verbiage Example

Track Inspector: "Track Inspector Briskey calling DS 26, over."
DS: "Go ahead Track Inspector Briskey, over."
Track Inspector: "Yes, I am ready to release Authority 8321, over."
DS: "Authority 8321 displayed, over."
Track Inspector: "Track Inspector Briskey, with Vehicle Number 21269, Authority 8321, granted Behind the BNSF 5469 West, on Main 1, Between WBCS Lopez Switch No, and EBSC Jastro, Switch No, Extended To: 1450, Released at 1429, over." (For added realism, you may also add "All work groups, employees and myself are clear of the track.")
DS: "Understand, Track Inspector Briskey, on 12/04/20, with Vehicle Number 21269, Authority 8321, granted Behind the BNSF 5469 West, on Main 1, Between WBCS Lopez Switch No, and EBSC Jastro, Switch No, Extended To: 1450, Released at 1429, over." ("Everyone is clear of the track.")
Track Inspector: "That is correct. Thank you Dispatcher. Track Inspector Briskey out."
DS: "Thank you. DS out."

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Created By: Kyler Briskey

RUN 8 KEYBOARD COMMANDS

AIR BRAKES		
Bleed Air Brakes	L CTR F7	Bleeds air brakes all cars
BP Recharge Cheat	F7	Reset all angle cocks and re-charge all brake components
Brake Type	L ALT B	Toggle AB type frt. / psgr.
Emergency	L CTR Backspace	
Emergency Brake EOT	L CTR F11	EOT dump air at rear of train
Independent Apply	Page Up	
Independent Bail	Period	
Independent Full	R CTR Page Up	
Independent Off	R CTR Page Down	
Independent Release	Page Down	
Train Brake Apply	Home	
Train Brake Apply Suppression	R CTR	
Train Brake Release	End	
Train Brake Release Full	R CTR End	
AVATAR		
Avatar Tags	L ALT F8	Show/hide player names
Backward	S	Back normal speed
	L SHIFT S	Back increased speed
	L CTR S	Back high speed
Bow	2	Avatar bows
Down	Q	Down normal speed
	L SHIFT Q	Down increased speed
	L CTR Q	Down high speed
Forward	W	Forward normal speed
	L SHIFT W	Forward increased speed
	L CTR W	Forward high speed
Left	A	Left normal speed
	L SHIFT A	Left increased speed
	L CTR A	Left high speed
Right	D	Right normal speed
	L SHIFT D	Right increased speed
	L CTR D	Right high speed
Up	E	Up normal speed
	L SHIFT E	Up increased speed
	L CTR E	Up high speed
Wave	1	Avatar waves
To activate high speed avatar (free fly) press L SHIFT F12		

DISPATCH		
Dispatch Screen	F3	Toggles DS screens
Exit	Escape	Close DS screen
Next DS Screen	R Arrow	
Previous DS Screen	Left Arrow	
Screen Brighter	Equals	
Screen Dimmer	Minus	
DISTRIBUTED POWER		
Dynamic Brake Setup	L Shift Divide	
Fence Decrease	L Shift L Bracket	DB fence closer to front of the train
Fence Decrease	L Shift R Bracket	DB fence closer to the rear of the train
Throttle Decrease	L Shift Semi Colon	
Throttle Increase	L Shift Apostrophe	
GENERAL		
AI Trains Menu	L Shift F2	
Attach Point	F11	Hold down F11 then left click locomotive
Car Tags	L CTR F8	Toggles off/unit number/destination tag
Consist Editor	L CTR	
Exit	Escape	Close any menu
Flashlight	F	Flashlight on/off
Fullscreen	L Shift F4	
Hailing	Tab	Text chat in multiplayer
Hide Messages	L CTR Tab	
Horn Menu	L CTR F3	Customize horn and bell
Humping Options	L CTR F6	Hump controller menu
Industry Editor	L CTR I	
Industry List	L CTR L	
Industry Tags	R CTR F8	Toggles industry tags
Load / Save Menu	F1	
MOW Window	F6	
MP Tags	L Shift F8	Toggle mile post tags
Network Menu	F2	
Options Menu	F1	
Parking Brake	L Shift F5	Apply hand brakes to all rail units in train
Parking Brake Release	F5	Release hand brakes to all rail units in train
Pause	Pause	
Reset Terrain	F10	Resets all surrounding terrain tiles
Screen Shot	F8	

RUN 8 KEYBOARD COMMANDS

GENERAL		
Show Window Border	F4	Toggles window border
Switch List	R CTR L	
Track Bulletin Window	L CTR F2	
Transport To Switch	Space	
User Notes	L ALT F1	
HUD		
Coupler Brakes	L Shift B	
Engine	L Shift C	
Sim	L Shift X	
Toggle	L Shift Z	
Track	L Shift N	
Train	L Shift Z	
LOCOMOTIVE CONTROLS		
Alerter Reset	R ALT	Reset cab alerter
Bell	Decimal	Locomotive bell on/off
Cabin Light Switch	L	Toggle light in cab
CB Engine Run	L ALT 1	Toggle eng run circuit breaker
CB Gen Field	L ALT 2	Toggle gen field circuit breaker
CB Control	L ALT 3	Toggle control circuit breaker
CB Dynamic Brake	L ALT 4	Toggle DB circuit breaker
Change Control RV	R ALT F11	Change controlling unit
Distance Counter Down	R Shift Multiply	
Distance Counter Up	Multiply	
Dynamic Setup	Divide	
Gauge Light Switch	R ALT L	
Headlight Front Down	L Shift H	
Headlight Front Up	H	
Headlight Rear Down	L Shift J	
Headlight Rear Up	J	
Horn	Space	
Radio Channel Down	L CTR T	Can also be set using mouse
Radio Channel Up	L CTR V	Can also be set using mouse
Reverser Decrease	Delete	
Reverser Increase	Insert	
Sander	Num Pad 0	Toggles sanders on/off
Slow Speed Control	L CTR C	Used in hump operation
Step Light Switch	R Shift L	Toggles step lights
Throttle Decrease	Subtract	
Throttle Increase	Add	
Traction Motor 1	R Shift 1	Toggles TM 1 on/off
Traction Motor 2	R Shift 2	Toggles TM 2 on/off
Traction Motor 3	R Shift 3	Toggles TM 3 on/off
Traction Motor 4	R Shift 4	Toggles TM 4 on/off

LOCOMOTIVE CONTROLS		
Traction Motor 5	R Shift 5	Toggles TM 5 on/off
Traction Motor 6	R Shift 6	Toggles TM 6 on/off
Wiper Control	V	
MFD		
MFD1 Page Decrease	L ALT Z	
MFD1 Page Increase	L ALT A	
MFD2 Page Decrease	L ALT X	
MFD2 Page Increase	L ALT S	
MFD3 Page Decrease	L ALT C	
MFD3 Page Increase	L ALT D	
MFD4 Page Decrease	L ALT V	
MFD4 Page Increase	L ALT F	
MFD Brighter	Equals	
MFD Dimmer	Minus	
MFD Page Decrease	X	Current MFD
MFD Page Increase	C	Current MFD
MFD Select	Z	Toggles current MFD
VIEWS		
Cab View Backward	Down Arrow	
Cab View Decrease	L Shift F11	
Cab View Forward	Up Arrow	
Cab View Increment	R Shift F11	Moves to next attach point
Cab View Left	Left Arrow	
Cab View Right	Right Arrow	
Camera Free Fly	L Shift F12	Enter "free fly" mode
Camera Ground	F12	Exit "free fly" mode
Camera Tracking	4	
Default Cab Position	P	Seat default position
Engineer Head Out Forward	R CTR Up	
Engineer Head Out Reverse	R CTR Down	
EOT	L CTR F12	
Load View 1	L CTR 1	
Load View 2	L CTR 2	
Load View 3	L CTR 3	
Load View 4	L CTR 4	
Load View 5	L CTR 5	
Quick Zoom	R ALT Up	
Reset Zoom	R ALT Down	
Save Cab Cam Position	R CTR P	
Save View 1	L Shift 1	
Save View 2	L Shift 2	
Save View 3	L Shift 3	
Save View 4	L Shift 4	
Save View 5	L Shift 5	