

The Northwestern Pacific in HO; Recreating the Railroad and its Operations

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Iron Horse Express
PCR Convention, Dublin, CA
April 2013



Clinic Outline

- Review of Historical Modeling Concept
- Introduction to the Prototype NWP.
- Layout Design Issues and Decisions.
- Obtaining Look and Feel of the NWP.
- Analyzing and Modeling NWP Operations.



"Historical Modeling"

- Results in an operating layout that recreates the essence of a selected prototype so that you and your visitors/ fellow modelers can allow themselves to imagine that they are in fact seeing/ operating that prototype at that time in history.
- Absolute accuracy is secondary to overall scheme and impression. However, selected unique features are critical.



A Stagecraft Model: Three Components, All Equally Important

- The Stage: How it Looks
 - Scenery, etc.
 - Track
 - Structures
- The Players: Equipment
 - Locomotives
 - Rolling Stock
 - Etc.
- The Script: Operating Scheme



Unavoidable Compromises

Affect all Three Components

- Everything is smaller and closer together.
- Track arrangements
 - Shorter sidings, less tracks.
- Structures smaller, stand-ins, approximations, etc..
- Trains shorter.
- Traffic more dense.

Select what to model in detail versus by suggestion. Employ selective representation using key signature elements.



Assumption:

Without Formal Operating Sessions the Layout is Not Complete. Period.



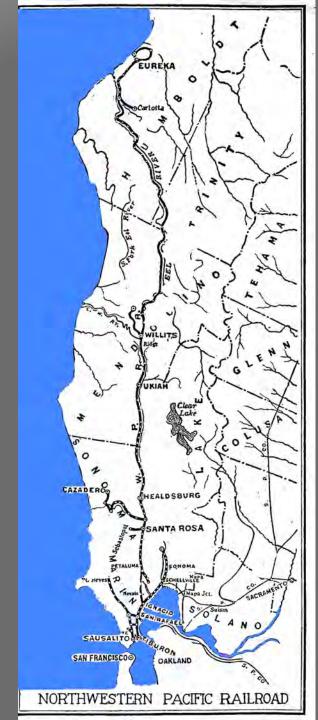
First Steps: Select ... (What, When, Where)

- Prototype Railroad.
- Era.
- Specific Locations.



Northwestern Pacific (NWP)

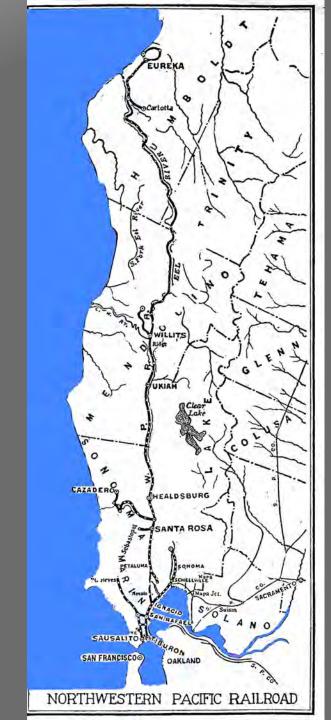
- Tiburon to Eureka, 278 miles.
- Primarily carried lumber, some dairy and fruit products.
- Northern & Southern Subdivisions.
- Interchanges
 - Schellville, Suisun, Napa Jct.
 - Tiburon by Ferry.
 - CA Western, P&SR, various logging roads.





Brief History of NWP

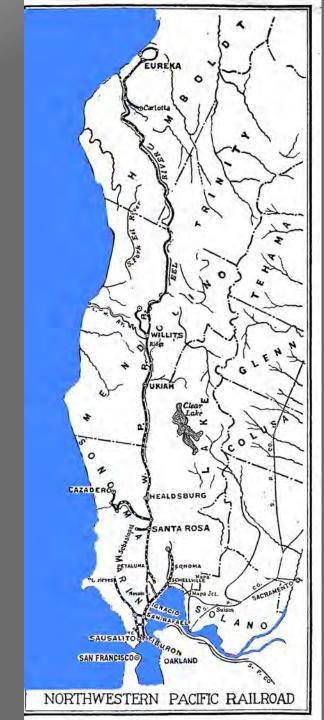
- 1906: NWP incorporated as joint Santa Fe and SP venture, consolidating 43 (?) existing lines.
- 1914: Construction completed.
- 1929: Santa Fe bows out; NWP now SP subsidiary.
- 1932: SP acquires P&SR, which is NWP operated until demise in 1984.
- 1953: Entire line dieselized.
- 1958: Through passenger service ended.





History of NWP II

- 1984: SP sells line above Willits to Eureka Southern, bankrupt in 1986, shut down in 1992.
- 1990s: Public Agencies assume ownership (GGBHD, NCRA).
- 1993-1998: California Northern operates Suisun to Willits.
- NCRA briefly operates "new NWP."
- 2011: A new operator, NWP, begins freight service.
- April 2012: Begin installation new rail/ties for SMART.





The RR's Mission

- Ship Out
 - Lumber
 - River Rock (Gravel)
 - Apples & Apple Products (P&SR)
 - Egg and Dairy Products
 - Wine
 - Livestock
- Ship In
 - Feed (P&SR)
 - LCL
 - Support Materials
 - Empties



My NWP

- 1958-60, early fall (for apples).
- Modeled towns selected for operational function: Petaluma, Santa Rosa, Sebastopol, Healdsburg, Willits. Includes Petaluma & Santa Rosa, interchange with California Western.
- Ends of line (Eureka, Tiburon, Schellville etc.) are "staged."
- Trains & operations patterned after prototype 1958 timetable.





Why 1958?

- I Like Black Widows.
- I Like C-30 Cabooses.
- Last Year of Passenger Service (i.e., the "Redwood").



NWP Traffic

Revenue freight traffic, in millions of net ton-miles (P&SR not incl)

Year	Traffic
1925	150
1944	348
1960	604
1970	421

Source:ICC annual reports

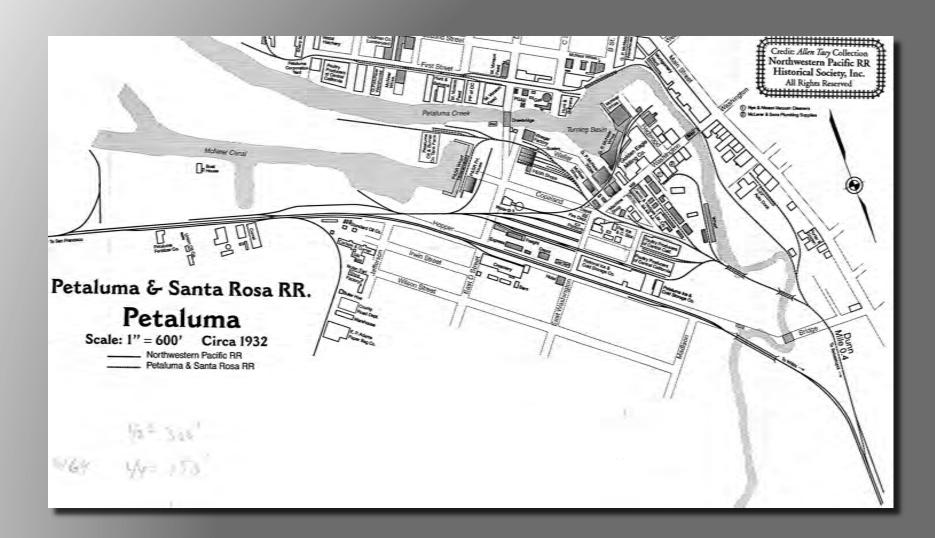


Layout Design

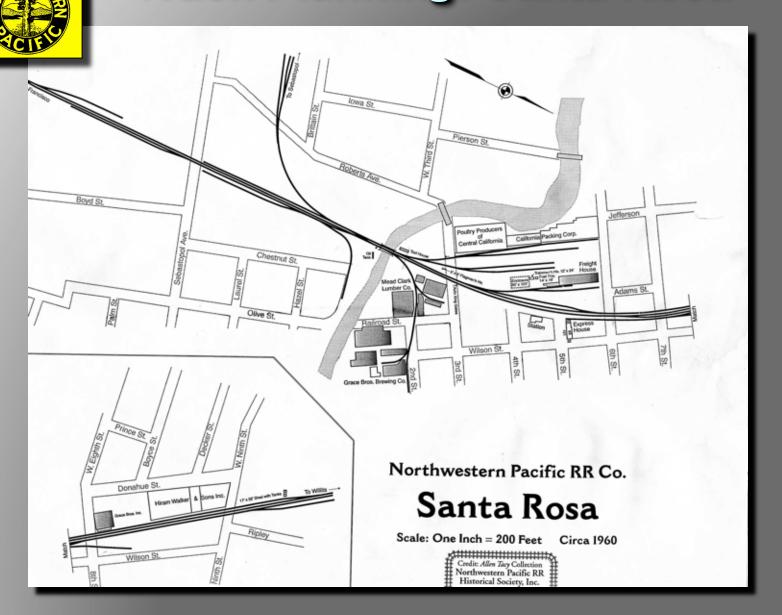
- •Available Space About 12 x 17 feet, give or take, in part of a two car garage.
- •Walk Around Design, Once Through Scene.
- Walk-in, no Duckunders.
- Walk-in from end, not side, to maximize siding/yard length.
- •Isle minimum 36 inches wide.
- •L-Girder, Multi-Deck connected By Helix.
- •Hidden Staging, point to point, with continuous run option.
- Viewblocks to create a series of dioramas.
- •Mainline minimum radius 26 inches. Most turnouts #6.



Track Planning: Petaluma

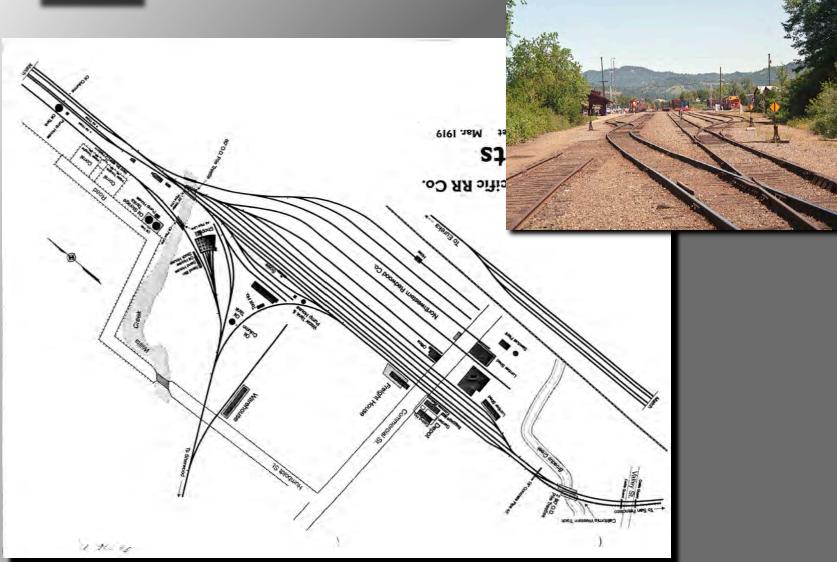


Track Planning: Santa Rosa



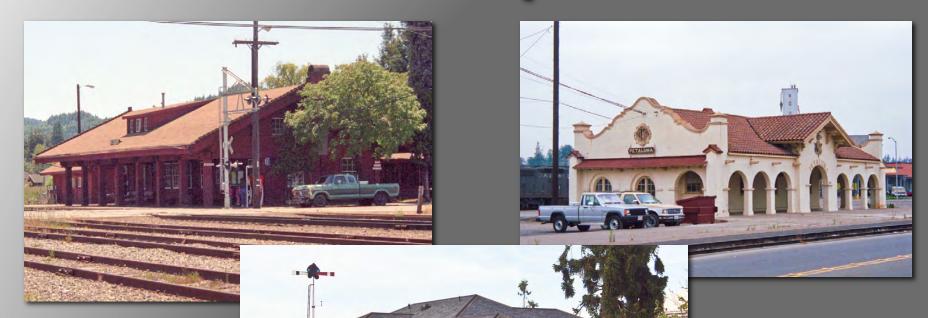


Track Planning: Willits





NWP Depots



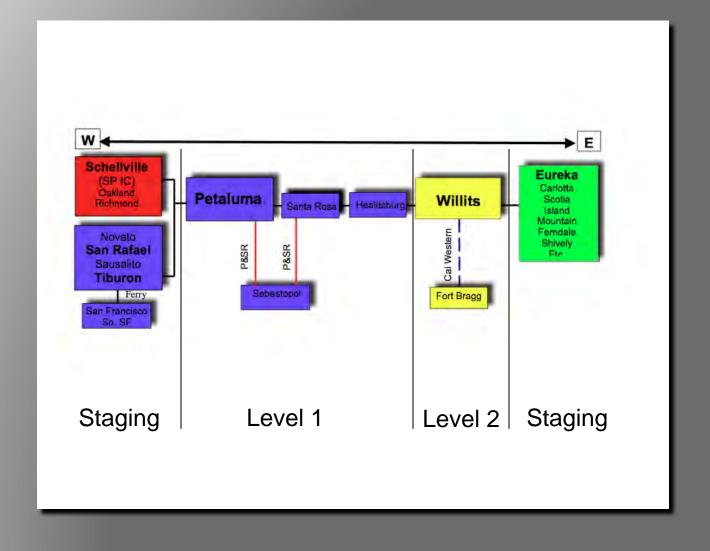
Willits

Santa Rosa

Petaluma

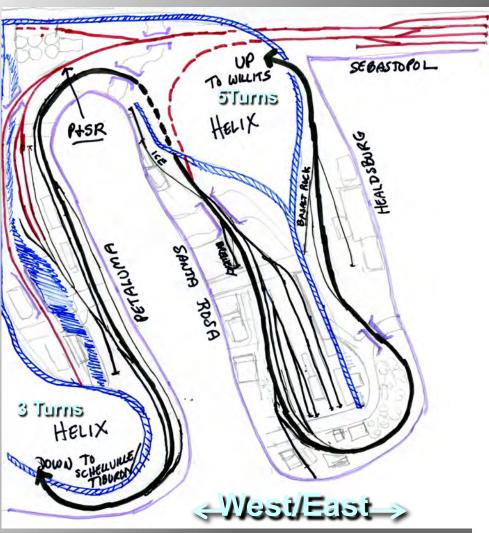


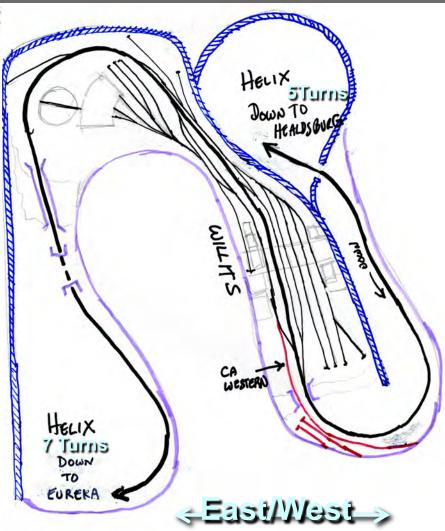
Schematic View I





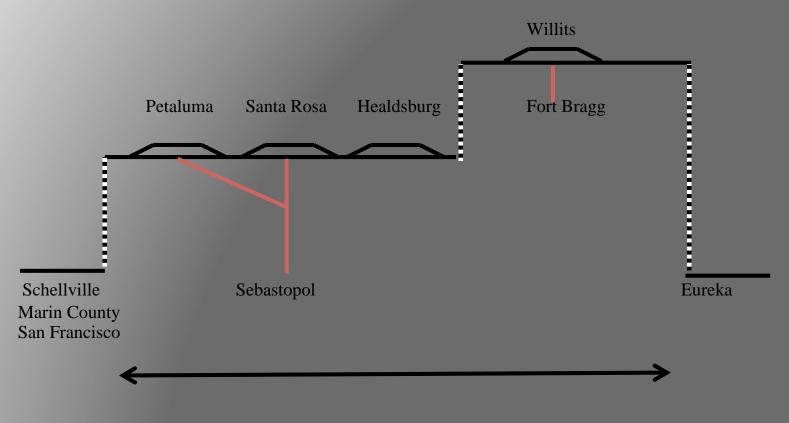
Track Plan (Not to Scale) Lower/Upper Levels







Schematic View II



Westward

Eastward











Helix Issues Pros and Cons

Cons

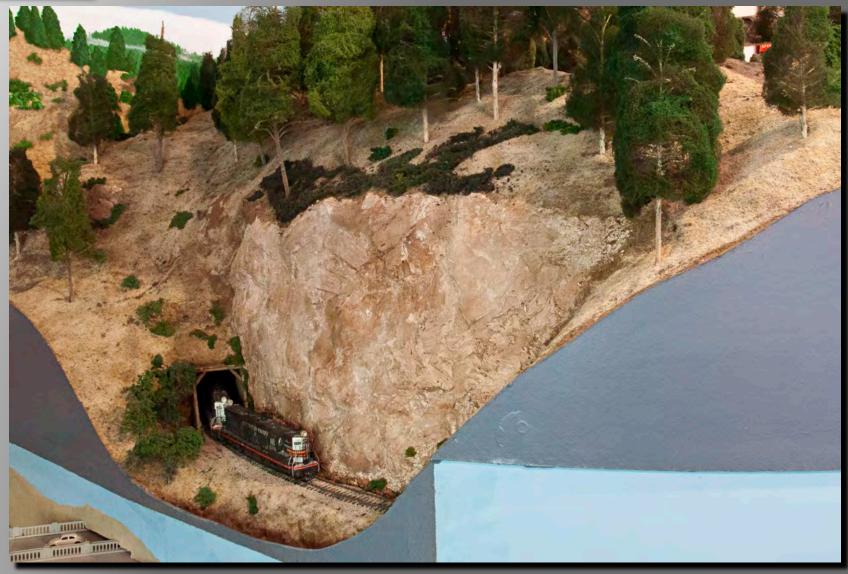
- Lots of Hidden Track (14 ft/loop),
 Trains Out of Sight.
- Take Lots of Space

Pros

- Easy Way to Change Elevation Over Small Distance.
- Uses Elapsed Time to Simulate Longer Distances Between Locations.



Herniated (Offset) Helix



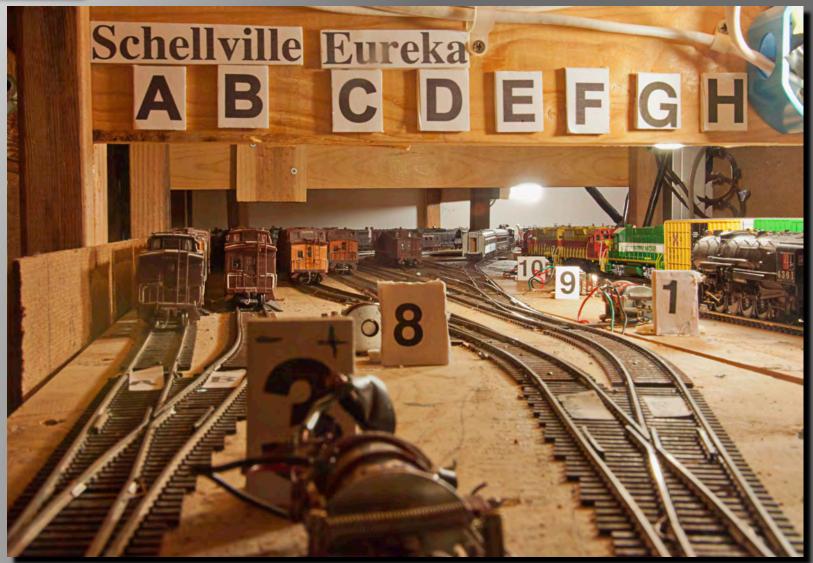


Helix Cutout





Hidden Staging

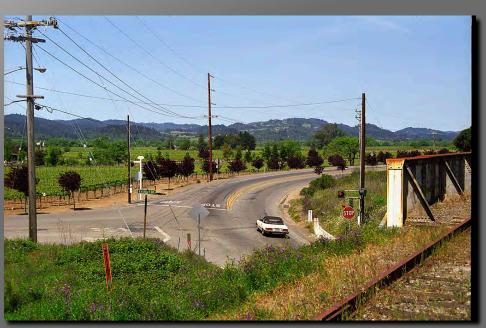




The Stage: Scenic Features



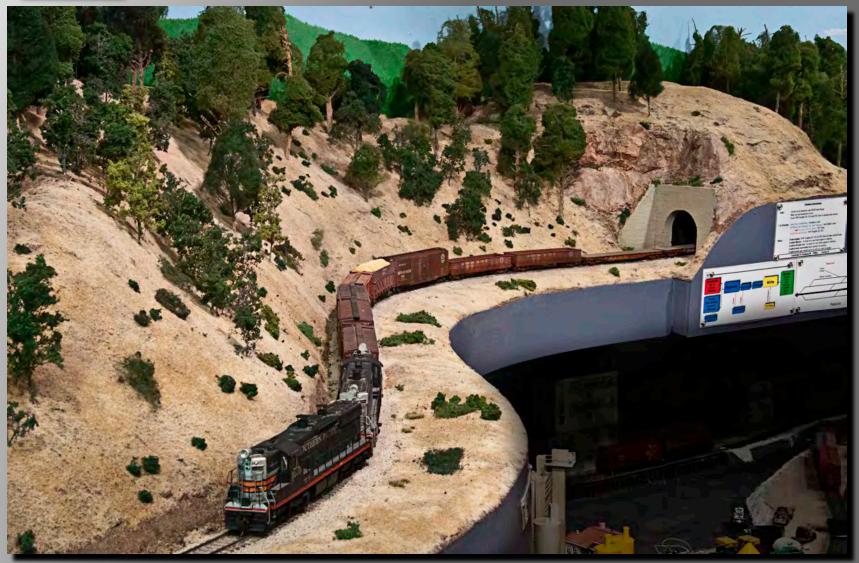
North of Santa Rosa





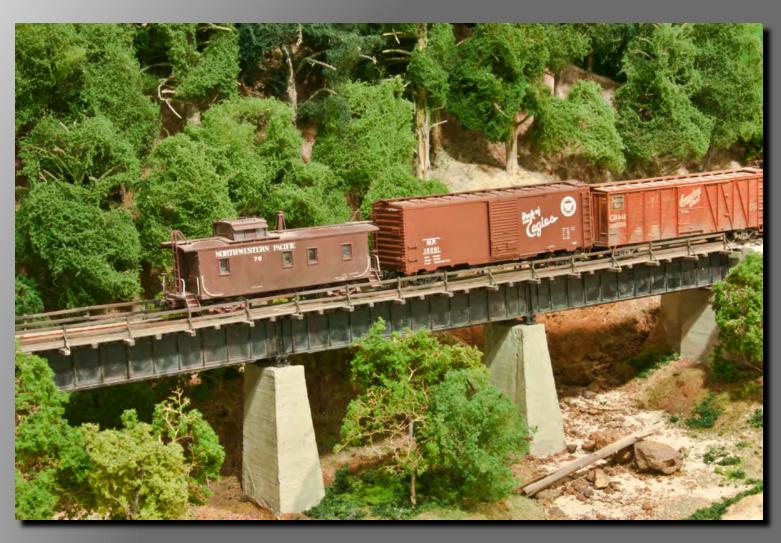


Eel River Canyon





Outlet Creek





Hillside Oak Forest

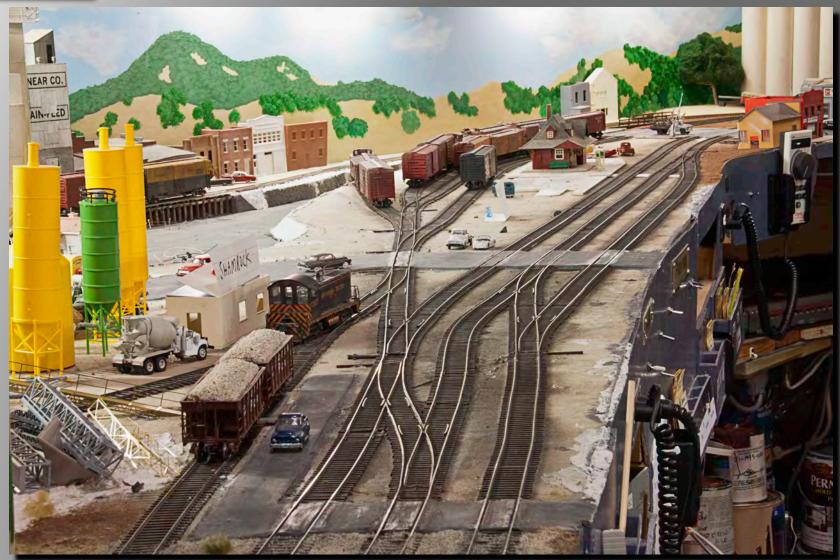




The Stage: Track and Structures



Petaluma







Petaluma's Old Mill

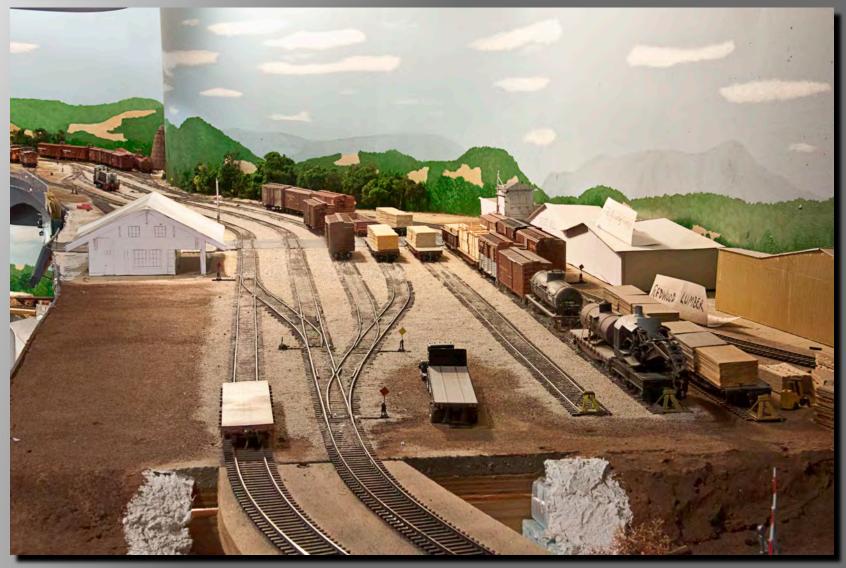


Santa Rosa





Willits





MEN

Commercial Street
Willits, CA



The Players

Locomotives and Rolling Stock



SP Locomotives Leased to NWP in 1958

NW2 2

SW8 8

SW900 3

SD7 25

SD9 3

(Stindt, FA: The Northwestern Pacific

Railroad Vol. 2, 1985)



Primary Motive Power: "Cadillacs"

EMD SD7s





EMD SD9s









Rebuilt SP C-30-1 Caboose



Freight Cars











P&SR 44 Tonners



NWPRRHS



Operations





Ground Rules of Operation

- Train Orders
- Standard Car Cards/Waybills
- Train Length Limited to 12 Cars as Dictated by Siding Length.

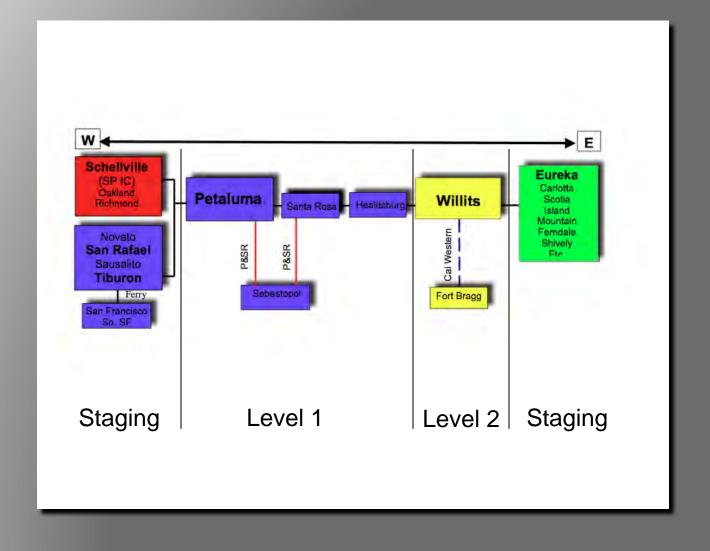


Types of Trains

- 2nd Class Freights (Westward)
- Extra Freights (Primarily Eastward)
- Locals
- Redwood (1st Class)
- P&SR



Schematic View





Prototype NWP Timetable

4		NO	RTH	ERN DIVISION—SO	HTU	FOR	K SUBDIVIS	ION	
		EASTWARD						WEST	TWARD
		FIRST CLASS				1	FIRST CLASS		SECOND CLASS
Disparity of el	ding	4 Referend	Mile For	April 27, 1958	Hallen	Distante from Egypta	3 Stationard	75 Freight	77 Preight
		Leave Mon., Thurs. and Sat.		STATIONS			Arrive Sen., Yora. and Frt.	Arrive Daily	
Yard Limit	RDYF	11.35	139.5	TOR WILLITS	136	161.6	PM 12.15 12.06	PM 4.15	AM 3.50
84	P	(11,43	141.7	OUILLI	141	149.4	12.06	4.04	3.39
4	P	(11.55	148.7	ARNOLD	146	135.4	11,54	3,50	3.25
81	r	f 12.04	182.5	LONGVALE	149	131.6	111.45	3.40	3.15
44	P	112.18	158.3	FARLEY	155	128.0	f 11.31	3.25	3.00
40	P	12.40	186,5	TO DOS RIOS	163	117.0	11.11	3.03	2.38
n		1 1.02	179.4	MASHMEAD	172	108.6	110.47	2.40	2.15
81	P	1 1.14	100.0	SPYROCK	177	104.1	1 10.35	2.29	2.04
54	P	f 1.25	1843	BELL SPRINGS	181	99.6	10.24	2.18	1.53
	P	1 1:37	188.3	RAMSEY	186	91,2	10.12		
76 Yard Limit	BEDF	1.51	194.8	TO ISLAND MOUNTAIN	191	19.6	9.59	1.51	1.26
31	P	1 2.05	200.2	M	197	83.8	9.43	1.33	1.08
50	P	2.28	205,0	TO ALDERPOINT	206	75.1	9.21	1.12	12.47
Nord Limit	BET	• 2.46	216.8	TO-R FORT SEWARD	214	67.6	9.03	12.54	12.29
82	P	1 3.04	225.1	EEL ROCK	222	60.0	8.44	12.35	12.10
n	P	1 3.21	232.2	McCANN	229	51.9	8.27	12.19	13,54
79 Yard Limits	BEYP	3.35	237.4	TO-R SOUTH FORK	234	40.8	8.17	12.09	11.44
62	P	3.43	241.7	LARABEK	239	42.4	8.06	11.59	11.34
n	P	C 3.50	245.6	SHIVELY	243	38.5	7.59	11.50	11.25
	P	1 3.59	250.1	ELDIOR	243	34.0	7.50	-	200
75 Yard Limits		9 4.11	250.1	TO SCOTIA	253	28.5	7.41	11.27	11.02
	P	-	250.0	STONE	256	26.1		-	
25 Yard Limits		1 4.27	262.7	TO ALTON		21.4	7.23	11.09	10.44
78	P	4,29	284.5	ROHHERVILLE	260	19.6	7.21	11.05	10.40
	BKP	4.37	264.1	TOR FORTUNA	261	10.0	7.18	11.02	10.37
26	P	1 4.41	256.7	FERNBRIDGE	263	15.4	7.11	10.57	10.32
10	P	1 4.41	271.0	LOLETA	266		7.08	10.53	10.28
75	P	4.44	277.8	SOUTH BAY	268	12.1	6.58	10.40	10.15
	P	5,00	292.0	SOUTH BAY	275	u	-		10.10
	DTYP	5.00 5.10	250.1	TO-R EUREKA	279	2.1	6,45	10.25	10,00
PALI	nu		25C1	TO-R EUNERA	281	0.0	Leave		-130
	_	Arrive Mea., Thurs, and flat.					Sun., Tues. and Pri.	Leave Daily	Leave Daily
		4				1	3	75	77

RULE 505,	Automatic	Block Signals fr	om east switch	Island Mountai	n through	tunnel 27.
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	EASTWARD		The second second second				WEST	WARD
	FIRST CLASS		Timetable No. 40			FIRST CLASS	1	SECOND CLASS
Capacity of sidings	4 Fledwood	Mile Post Lecation	April 27, 1958	Plation Number	Distances from	3 Redwood	81 Freight	85 Freight
	Leave Mon., Thurs. and Sat.		STATIONS			Arrive Sun., Tues. and Fri.	Arrive Daily	Arrive Daily
Yard Limits BKWDTP	AM 6.15	6.5	TO-R TIBURON	5	131.4	PM 5.20		
21	6.27	11.4	MEADOWSWEET	10	128.5	5.06		
Yard Limits YP		14.3	DETOUR	11	125.2	5.03		
90 Yard Limits BKYP	• 7.35	17.0	TO-R SAN RAFAEL	14	122.5	s 4:45	Via Black Point	Via Black Point
sa Yard Limita YP	1 7.46	24.9	IGNACIO	22	114.6	1 4.00	4.29	7.29
27 P	1 7.50	27.8	TO NOVATO	25	111.7	1 3.56	4.24	7.24
20 P	7.54	31.3	BURDELL	28	108.2	3.52	4.18	7.18
Yard Limits BKIP	8.06	38.5	TO PETÁLUMA	36	101.0	3.39	4.02	7.02
108 P	f 8.19	46.1	COTATI	43	83.4	7 3.26	3.46	6.46
E-83 Yard Limits W-104 BKDYP	s 8.33	53.8	TO-R SANTA ROSA	51	85.7	3.16	3.33	6.33
E P	8,40	58.5	FULTON	55	81.0	3.05	3.22	6.22
Yard Limits 75 BKTP	8.52	68.0	TO-R HEALDSBURG	65	71.5	* 2.52	3.08	6.08
82 P	1 9.06	75.8	TO GEYSERVILLE	73	63.7	1 2.39	2.52	5.52
35 P	9.13	81.3	ASTI	78	50.2	2.32	2.43	5.43
Yard Limits P	f 9.18	85.2	TO CLOVERDALE	82	54.3	1 2.27	2.37	5.37
20 P	f 9.28	89.9	ECHO	87	49.5	f 2.18	2.26	5.26
60 P	f 9.41	95.3	PIETA	92	44.2	1 2.05	2.13	5.13
as P	f 9,50	100.1	HOPLAND	97	39.4	1.56	2.03	5.03
47 P	9,57	103.9	LARGO	101	35.8	1.49	1.55	4.55
Yard Limits BKP	* 10.14	114.0	TO-R UKIAH	111	25.5	1.32	1.34	4.34
Yard Limits	f 10.14	122.1	REDWOOD VALLEY	119	17.4	1.18	1.17	4.17
89 P		124.0	LAUGHLIN	121	15.5			,
Yard Limits P	10.34	131,4	7,A RIDGE	128	8.1	12.51	12.35	3.35
2 P		138.5	7.1	135	1.0			
Yard Limits BKDYP	11.16 11.20	139.5	TO-R WILLITS	136	0.0	12,31	12,01	3.00 PM
Babit	Arrive Mon., Thurs. and Sal.		COLA			Leave Sun., Tues. and Fri.	Leave Daily	Leave Daily

No. 3 turn train at Detour. No. 3 sound whistle signal 14(1) approaching private crossing at west end paint shop, Tiburon.

RULE 5. Time at Ignacio for trains to and from the Santa Rosa line and the Schellville Branch via Novato, applies at the east switch of the santa Rosa.

NORTHWESTERN PACIFIC RAILROAD COMPANY



TIMETABLE

40

EFFECTIVE SUNDAY, APRIL 27, 1958
AT 12:01 A. M.
PACIFIC STANDARD TIME

FOR GOVERNMENT AND INFORMATION OF EMPLOYES ONLY

G. L. MORRISON, Vice President and General Manager.

> S. J. MACKIE, Superintendent.

S. J. Mackie



2nd Class Freights Approach Final Destination

Capacity of sidings	16445	EAST-	Timetable No. 40		oio		WESTWARD	TEA3
SCHELLVILLE BRANCH STATIONS SCHELLVILLE BRANCH STATIONS Arrive Daily Arrive Daily Arrive Daily Arrive Daily STATIONS STATIONS STATIONS STATIONS STATIONS STATIONS Arrive Daily Arrive Daily Arrive Daily STATIONS STATIONS STATIONS STATIONS STATIONS STATIONS Arrive Daily Arrive Daily STATIONS STATIONS STATIONS STATIONS STATIONS STATIONS STATIONS Arrive Daily Arrive Daily STATIONS	STORMS CLAN			Der Der	nce	A (Armerica)	11011	
STATIONS Arrive Daily Arrive Daily	Capacity sidings	Mile Post		Stati Num				
A.4 TO-R SCHELLVILLE 616 15.5	460	1000	STATIONS			Arrive Daily	Arrive Daily	
Yard Limits 68 YP 24.9 IGNACIO Control Contr	B B	DP 44.8	TO-R SONOMA	620	19.9	AM 5.35	PM 8.35	
30.8 RECLAMATION 606 5.9	₹ KW	YP 40.4	TO-R SCHELLVILLE	616	15.5			Tygili
P 28.5 BLACK POINT 604 3.6	90.8	30.8	RECLAMATION	606	5.9		Total Isa er	14
08 IF	0.0	IP 28.5	BLACK POINT	604	3.6			
Leave Daily Leave Daily	Yard Lin	its YP 24.9	IGNACIO	22	0.0	4.29 AM	7.29 PM	
				1		Leave Daily	Leave Daily	



Simplified Timetable no. 40

Southern Division - Santa Rosa Subdivision

Eastward		Wes		
First Class		First Class	Second	Class
4	Stations	3	81	85
6.15 AM	Tiburon	5.20 PM		
	Ignatio		4.29 AM	7.29 PM
8.06 AM	Petaluma	3.39 PM	4.02 AM	7.02 PM
8.33 AM	Santa Rosa	3.16 PM	3.33 AM	6.33 PM
11.20 AM	Willits	12.31 PM	12.01 AM	3.00 PM

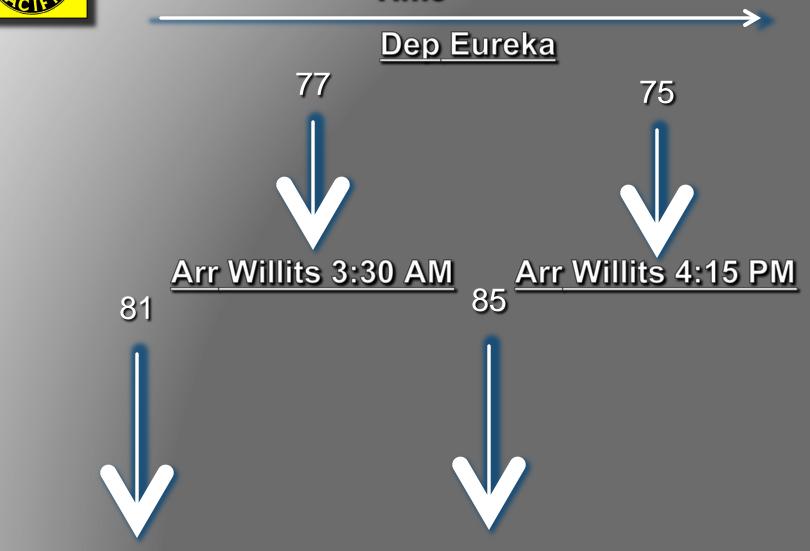
Northern Division - South Fork Subdivision

<u>Eastward</u>		Westward					
First Class		First Class	Second	Class			
4	Stations	3	75	77			
11.35 AM	Willits	12.15 PM	4.15 PM	3.30 AM			
5.10 PM	Eureka	6.45 AM	10.25 AM	10.00 PM			



Staggered 2nd Class Freights

Time



Dep Willits 12:01 AM

Dep Willits 3:00 PM



Operational Issues

- Entire prototype system is "dark." TTTO operation.
- Extras/unscheduled trains not on TT.
- Number of eastward extras equals number of westward trains and assume that all trains run; makes op session setup practical.



Modeled NWP Timetable

		No	rthwestern Pacific	Rail	road (Company								
	EASTWARD						WARD							
	FIRST CLASS	st n	Timetable No. 43	ır	rom	FIRST CLASS		SECONI	CLASS	;				
Capacity of sidings	4 Redwood	Mile Post Location	April 26, 1959		Aprii 26, 1959		April 26, 1959		Distance from Willits	3 Redwood	75 Freight	77 Freight	81 Freight	85 Freight
	Leave Mon.,Thurs. and Sat.		STATIONS			Arrive Sun., Tues. and Fri.	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily				
	AM		TIDLIDON	_		PM								
	11:30	6.5	TIBURON	5	131.4	2:00	1							
		17.0	SAN RAFAEL	14	122.5									
	12:00	24.9	IGNATIO	22	114.6	1:30			Via Black Point	Via Black Point				
	12:30	38.5	PETALUMA	36	101.0	1:00			5:00 AM	4:00 PM				
	12:45	53.8	SANTA ROSA	51	85.7	12:45			4:45	3:45				
		68.0	HEALDSBURG	65	71.5									
		114.0	UKIAH	111	25.5									
	1:45	139.5	WILLITS	136	0.0	12:00	6:00 PM	ı		3:00 PM				
		194.5	ISLAND MOUNTAIN	191										
		255.8	SCOTIA	253										
		266.1	FORTUNA	263			4.00	0:00						
	3:00 PM	284.1	EUREKA	281		10:00 AM	4:00 PM	6:00 AM						
	Arrive Mon.,Thurs. and Sat.					Leave Sun., Tues. and Fri.	Leave Daily	Leave Daily	Leave Daily	Leave Daily				
	4					3	75	77	81	85				



Train Sheet Lists All Trains

Northwestern Pacific Railroad Company

Dispatcher's record of movement of trains
Date_October_3_, 19_58_
Santa Rosa Division

Eastward Trains

Westward Trains

		_	astwara ii	uo							٠	u mums				
Extra	Petaluma	Redwood	San Rafael	Gravel	Extra		schedule					Redwood	Petaluma			Gravel
	Local	4	Local	Train			train		81	77		3	Local	85	<i>7</i> 5	Train
В	Р	F	E	G	Α		Staging Track/Origin		W	D		Н	SR	W	С	HB
5333	1423	5327	5316	5206	5363		engine		5309	5334		990	1423	5334	5444	<i>5206</i>
5324			5328		5317		engine		5325	5281				5281	5321	
							caboose									
							conductor									
							engineer	сару								
						Mile-		of								i
						post	Stations	sdgs								
		AM				6.5	Tiburon	Staging				PM				
		11:30					7.104.011					2:00				
						17.0	San Rafael	Staging								
											Ц					
		12:00				24.9	Ignatio - To Schellville	Staging	Via Black Point		Ц	1:30		Via Black		
							3				Ш			Point		
		12:30				38.5	Petaluma	10	AM		Н	1:00		PM		i
		10.15							5:00		Н	10.15		4:00		
		12:45				53.8	Santa Rosa	11	4.45		Н	12:45		0.45		
									4:45		Н			3:45		—————————————————————————————————————
						68.0	Healdsburg	5								<u> </u>
						4440	, and the second	11.15			Н					\vdash
						114.0	Ukiah	Helix			Н					
		4.45							4.00	" 0 00	Н	10.00		0.00	0.00	\vdash
		1:45				139.5	Willits	12	4:00	# 8:00		12:00		3:00	6:00	i ————————————————————————————————————
								a	AM	AM	Н			PM	PM	
						194.5	Island Mountain	Staging			Н					
											Щ					$oxed{oxed}$
						255.6	Scotia	Staging		-	H			-		
-			-			000.1		Oti-	-	-	Н					
			-			266.1	Fortuna	Staging		1	Н					
		2.00				0044		04		# 0.00	Н	10.00			4.00	<u> </u>
		3:00	-			284.1	Eureka	Staging		# 6:00	Н	10:00			4:00	
		PM								AM		AM			PM	



A Script for Planning Train Movements

Sequence of Trains

4:00 AM	Train 81 Willits to Santa Rosa main, meet Extra 5333E
4:00 AM	Extra 5333E Schellville (Staging A) to Petaluma
	Extra 5333E Petaluma to Santa Rosa siding, meet Train 81
5:00 AM	Gravel Train San Rafael (Staging E) to Petaluma
6:00 AM	Train 77 Eureka (Staging D) to Willits
6:15 AM	Train 81 Santa Rosa to Petaluma after meet with Extra 5333E
	Extra 5333E Santa Rosa to Willits after meet with Train 81
6:30 AM	Train 81 Arrives Petaluma
	Gravel Train Arrives Petaluma
7:30 AM	Train 81 Petaluma to Schellville (Staging A)
8:00 AM	Train 77 Arrives Willits
8:30 AM	Gravel Train Petaluma to Healdsburg
10:00 AM	Train 3 Eureka (Staging D) to Willits
10:00 AM	Petaluma Local Petaluma to Santa Rosa
	Extra 5333E Willits to Eureka after arrival Train 3 (Staging D, Bk End)
11:00 AM	San Rafael Local San Rafael (Staging E) to Petaluma
11:30 AM	Train 4 Tiburon (Staging F) to Petaluma
12:00 PM	Train 3 Willits to Santa Rosa, waits for Train 4
12:00 PM	San Rafael Local Arrives Petaluma
12:30 AM	Train 4 Petaluma to Santa Rosa, waits for Train 3
12:45 PM	Train 3 Santa Rosa to Petaluma
12:45 AM	Train 4 Santa Rosa to Willits
1:00 PM	Train 3 Petaluma to Tiburon (Staging F)
1:30 PM	Extra 5281E Schellville (Staging B) to Petaluma
1:45 PM	Train 4 Willits to Eureka (Staging D)
	Extra 5281E Arrives Petaluma
2:15 PM	Gravel Train Healdsburg to Petaluma
3:00 PM	Train 85 Willits to Santa Rosa, meet Extra 5281E
	Extra 5281E Petaluma to Santa Rosa siding, meet Train 85
3:45 PM	Train 85 Santa Rosa to Petaluma after meet with Extra 5281E
	Extra 5281E Santa Rosa to Willits after meet with Train 85
4:00 PM	Train 75 Eureka (Staging C) to Willits
4:00 PM	Train 85 Arrives Petaluma
	Extra 5281E Arrives Willits
5:00 PM	Train 85 Petaluma to Schellville (Staging B)
5:45 PM	Gravel Train Petaluma to San Rafael (Staging E)
6:00 PM	Extra 5281E Willits for Eureka (Staging C) after meet with Train 75
7:00 PM	San Rafael Local Petaluma to San Rafael (Staging E)

- a) Departure Times for Extras Set In Advance.
- b) Avoid Staging
 Track Conflicts.
- c) Limit Meets to Where Practical.



"Prefab" Train Orders

Sample Prototype Orders

6-69 60M	pude			C.S. 2600
and the same of th	ORDER No.10 E ENGINE 5316	MARCH 23 19	5 1961	
	From the Col	lection of	Ken Secres	(
At	SCHELLVILLE	X	Opr	М.
	ENGINE 5316 RUN EX	TRA SCHELLVIL	LE TO VILLITS	
	EXTRA 5316 EAST DO	NOT OBTAIN C	LEARANCE AT	
	PETALUMA			
		Z Chan		
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4	The second			
9 -4-50		SV ES	1-1-1	
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		- market and		
	1.80 market State (Tour state of the	Р	N	Carlo
Repea	ted and Complete Time1	39 AM M S	HIPLEY	Opr.

At WILLITS	STATION	X	Ор	
FNC A74	7 DIN CHEN L			
LNG 431	7 RUN EXTRA WI	LLITS TO EURE	a	
THIS OR	DER ANNULLED A	T 1240 PM		
7				



Preprinted Orders

C.S. 2600	C.S. 2600
TRAIN ORDER No. 1 0CT 3 19 58	TRAIN ORDER No. 2 0CT 3 19 58
To C & E ENG 5309	To C & E ENG 5363
At_WILLITS X Opr. M.	At SCHELLVILLE X Opr. M.
ENG 5309 RUN NO 81 WILLITS TO SCHELLVILLE (A)	ENG 5363 RUN EXTRA SCHELLVILLE (A) TO WILLITS
MEET EXTRA 5363E AT SANTA ROSA TAKE MAIN	MEET NO 81 AT SANTA ROSA TAKE SIDING
	<u> </u>
Repeated and Complete Time M Opr.	Repeated and Complete TimeM



The "Office"







Santa Rosa	DEE Lain - Diant (i-		
Santa Kosa	PFE Icing Plant (via P&SR)		
	PPPC		
	IIIC		
	CA Packing Co.		
	CAT acking Co.		
	Freight Station		
	Treight Station		
	Grace Brothers		
	Mead Clarke		
Sebastopol	TreeTop Apple (via P&SR)	Reefer (empty)	Reefer (apples etc)
	Cooperative Cannery	Boxcar (boxes)	
	Furusho Bros Packing House	Reefers	
	VacuDry Co.		
Healdsburg	Del Monte Cannery	Reefer, Boxcar	
	Fruit Packing	Reefer (empty)	Reefer (pears etc)
	Roma Vista Winery	Reefer (grapes), Boxcar (bottles etc)	Tank (wine), Reefer
	Lumber Co.	Flats	
	Basalt Rock	Hopper (empty)	Hopper (sand, gravel)
Willits	Union Lumber (via CW)	Flat (empty), Boxcar (empty	Flat, Boxcar
	Freight House		
	Engine Yard	Tank (diesel fuel)	
	Mill	Flat (empty), Boxcar (empty	Flat, Boxcar
	Redwood Lumber		
	Louisiana Pacific	Flat (empty), Boxcar (empty	Flat, Boxcar
Scotia	Pacific Lumber	Flat (empty), Boxcar (empty	Flat, Boxcar
Fernbridge	Humboldt Creamery	Reefer (empty)	Reefer (butter)
????	Cement company		

Industry List Used to Create Waybills



Tale of Two Trains





Train 81

- # 75 Arrives Willits from Eureka w/9 cars @ 6 PM
 - Drops off 5
 - 2 w/logs for Redwood Lumber
 - 2 MTs for Willard Lumber
 - I stock car for cattle pen



Train 81 cont.

- # 81 Departs Willits @ 4 AM w/12 cars
 - 4 from #75
 - Pacific Lumber Scotia to Oakland
 - Lumber Samoa to Schellville
 - Pacific Lumber Carlotta to Schellville
 - MT Box Eureka to Schellville
 - 8 Pickups
 - 2 Stock cars for Swift/So San Francisco
 - 2 Stock cars for Schellville/Oakland cattle pens
 - 2 Loads from Union Lumber (via CW) to Schellville/Oakland
 - 1 MT tank to Chevron/Richmond
 - 1 Load Louisiana Pacific to Schellville



Train 81 cont.

- After meet w/X5309E @ Santa Rosa #81 arrives Petaluma 5 AM
 - Drops 2
 - 2 Stock cars for Swift/So San Francisco
 - 2 Pickups
 - 1 wine tank Roma Wine to Schellville
 - MT Box to Schellville
- Departs Petaluma



Extra 5309E

- Leaves Schellville w/9 cars, arrives Petaluma
 - Drops 3
 - 1 Cement hopper for Shamrock
 - 1 Diesel oil tank for Tiburon yard
 - 1 Reefer PFE/Santa Rosa
 - 2 Pickups
 - 1 Iced reefer to Humboldt Creamery/Ferndale
 - 1 MT gondola to Humboldt Bay Lumber/Eureka
 - Continues with
 - 1 MT to Pacific lumber/Carlotta
 - 2 MT to Georgia Pacific/Samoa
 - 1 MT to Simpson Lumber/Eureka
 - 1 Oil tank to Shell/Eureka
 - 1 MT gondola Eureka
- Departs Petaluma w/8 cars



Extra 5309E cont.

- After meet w/#81 in Santa Rosa, arrives at Willits
 - Drops none
 - 1 Pickup
 - 1 MT gondola to Simpson Plywood/ Eureka
- Departs Willits for Eureka w/9 cars



Closing Remarks/ Questions

- Tony Thompson Type Waybills?
- Switch Lists instead of Car Cards?
- Clearance Forms?
- Train Registers?
- Radio Talk w/Dispatch?