

GREAT NORTHERN RAILWAY

CASCADE DIVISION.

TIME TABLE No. 82.

**TO TAKE EFFECT AT TWELVE-ONE (12:01) O'CLOCK A. M.
PACIFIC TIME.**

SUNDAY, JUNE 22, 1913.

Superseding Time Table No. 81 and all Supplements thereto.

THIS TIME TABLE IS FOR THE USE OF EMPLOYEES ONLY.

J. H. O'NEILL, Superintendent.

F. S. ELLIOTT, Asst. General Superintendent.

W. D. SCOTT, General Superintendent.

W. C. WATROUS, General Supt. of Transportation.

GEO. H. EMERSON, General Manager.

THIRD CLASS.				SECOND CLASS.				FIRST CLASS.					Capacity of Side Tracks		Distance from Leavenworth	Time Table No. 82. In Effect June 22, 1913.		Telegraph Calls
			715				411		401		285	27	43	1		3	Passing Tracks		Other Tracks	STATIONS.
			Mdee. Freight Leave Daily Ex. Sunday				Fast Freight Leave Daily		Fast Freight Leave Daily		Passenger Leave Daily	Fast Mail Leave Daily	Passenger Leave Daily	Passenger Leave Daily	Passenger Leave Daily			
							1.00pm		8.00am			11.40pm	8.40pm	1.35pm	2.30am	60	492	..... LEAVENWORTH..... CH
							1.53		8.45			11.58	8.58	1.53	2.48	75		6.3 DRURY..... DY
							2.37		9.15			12.09am	f 4.10	2.05	2.59	155	22	4.2 CHIWAKUM..... CY
							3.00		9.30			12.16	f 4.18	2.18	3.06	74	10	2.5 WINTON.....
							3.20		9.45			12.22	4.26	2.24	f 3.14	71	4	4.5 NASON CREEK.....
							3.35		10.00			12.33	s 4.38	s 2.30	s 3.21	145	5	3.0 MERRITT..... CK
							4.20		10.50			12.44	4.50	2.45	3.38	78		4.4 GAYNOR..... QR
							5.05		11.20			12.54	f 5.05	3.00	3.52	152	5	3.1 BERNE..... BR
							6.15		12.20pm			s 1.08	s 5.25	s 3.20	s 4.10	170	87	4.3 CASCADE TUNNEL..... CN
							6.35		12.45			s 1.21	s 5.40	s 3.35	s 4.25	85	263	3.6 TYE..... WN
							6.55		1.18			1.31	f 5.51	3.46	4.37	70	8	2.6 ALVIN..... NY
							7.10		1.40			1.40	5.59	3.55	4.46	75	10	2.7 COREA.....
							7.40		2.05			1.50	s 6.10	s 4.06	s 4.57	75	22	3.0 SCENIC..... MA
							7.55		2.20			2.00	f 6.20	4.15	5.07	76	9	3.1 NIPPON..... NI
							8.10		2.35			2.10	f 6.30	4.25	5.17	75	15	3.5 TONGA..... G
			9.00am				8.30 9.00		3.00 3.30		8.45am	s 2.25 2.30	s 6.45 6.50	s 4.40 4.45	s 5.30 5.35	63	230	5.2 SKYKOMISH..... KY
			9.15				9.20		3.45		f 8.56	2.40	7.00	4.55	5.45	72	7	4.1 GROOTTO.....
			9.40				9.51		4.00		s 9.08	2.50	7.11	5.06	5.57	80	60	5.0 HALFORD..... SA
			10.15				10.05		4.20		s 9.22	3.01	s 7.23	5.19	6.10	71	21	5.1 INDEX..... NX
			10.35				10.20		4.40		f 9.31	3.10	7.35	5.29	6.20	78	17	5.1 REITER.....
			11.13				10.30		4.55		s 9.40	3.16	s 7.45	5.32	6.29	85	330	3.7 GOLD BAR..... GB
			11.30								s 9.47	3.21	s 7.53	5.43	6.34		45	2.4 STARTUP..... RU
			11.55				10.45		5.20		s 9.56	3.27	s 8.04	f 5.51	6.41	65	33	3.4 SULTAN..... SU
			12.55pm				11.05		6.10		s 10.15	3.41	s 8.20	s 6.10	s 6.59	105	35	7.5 MONROE..... RO
			1.55				11.29		6.40		s 10.32	3.55	s 8.39	s 6.28	s 7.15	74	116	6.9 SNOHOMISH..... S
			2.35				11.50		7.00		s 10.44	4.05	8.49	6.40	7.25	103	30	5.8 LOWELL..... W
											f 10.47	4.08	8.52	6.43	7.29	43	174	1.6 PACIFIC AVENUE..... D
											s 10.57	s 4.17	s 9.02	s 6.53	s 7.42		8	1.1 EVERETT.....
											s 11.00am	4.20am	9.05pm	6.55pm	7.45am			8 EVERETT JUNCTION..... JN
			3.10pm				12.30am		8.00pm							75	637	Via N. P. Ry. DELTA..... PQ
			715				411		401		285	27	43	1	3			
			6.10 8.0				11.30 9.5		12.0 9.1		2.15 23.3	4.40 23.4	5.25 20.3	5.20 20.6	5.15 21.			

ELECTRIC TRAIN STAFF BLOCK SYSTEM.

Time Over District
Average Speed Per Hour

Read carefully Rules covering Operation Electric Train Staff Block, Pages 13 and 14.

Time Table No. 82.

In Effect June 22, 1913.

STATIONS.	Distance from Delta	SIGNS. See Rule 7, page 15.	FIRST CLASS.				
			28	4	2	44	286
			Express Arrive Daily	Passenger Arrive Daily	Passenger Arrive Daily	Passenger Arrive Daily	Passenger Arrive Daily
LEAVENWORTH.....	109.5	R ^o DN WCTYOP	s 6.00Am	s 8.05Pm	s 1.25Am	s 4.20Am	
6.3 DRURY.....	103.2	DN P	5.42	2.47	1.07	4.02	
4.2 CHIWAUKUM.....	99.0	DN W P	5.31	s 411 2.37	12.57	3.49	
2.5 WINTON.....	96.5	DN P	5.25	f 2.31	12.51	3.41	
4.5 NASON CREEK.....	92.0	DN P	5.18	f 2.24	12.41	3.30	
3.0 MERRITT.....	89.0	DN W Y P	5.12	f 2.17	12.33	3.21	
4.4 DAYNOR.....	84.6	DN P	5.02	2.08	12.19	3.08	
3.1 BERNE.....	81.5	DN W P	4.54	2.00	12.09Am	2.58	
4.3 CASCADE TUNNEL.....	77.2	R DN W T P	s 4.42	s 1.50	s 11.57	2.45	
3.0 TYE.....	73.0	DN WC P	s 4.25	s 1.35	s 11.40	s 2.27	
3.6 ALVIN.....	70.0	DN W P	f 4.00	f 1.18	11.23	2.11	
2.7 COREA.....	67.3	DN P	3.45	1.09	11.13	2.01	
3.0 SCENIC.....	64.3	DN W P	s 3.30	s 12.58	s 11.02	s 1.50	
3.1 NIPPON.....	61.2	DN W P	3.10	f 12.43	10.45	1.34	
3.5 TONDA.....	57.7	DN P	2.55	f 12.32	10.33	1.22	
5.2 SKYKOMISH.....	52.5	R ^o DN WC Y P	s 2.35 s 2.30	s 12.15 s 12.10	s 10.15 s 10.10	s 1.05 s 1.00	s 8.10Pm
4.1 GROTTO.....	48.4	P	2.20	12.01Pm	10.01	12.51	f 7.55
5.0 HALFORD.....	43.4	D W P	2.10	11.50	411 9.51	12.40	s 7.40
5.1 INDEX.....	38.3	DN P	1.56	s 11.36	9.37	12.27	s 43 7.23
5.1 REITER.....	33.2	W P	1.44	11.20	9.25	12.15	f 7.00
3.7 GOLD BAR.....	29.5	R DN Y P	1.37	s 715 11.13	9.13	12.08	s 6.50
2.4 STARTUP.....	27.1	P	1.22	11.08	9.14	12.04Am	s 6.43
3.4 SULTAN.....	23.7	D P	1.26	s 11.02	9.08	11.58	s 6.33
7.5 MONROE.....	16.2	DN W Y P	s 1.18	s 10.49	s 8.54	s 11.44	s 1-401 6.10
6.9 SNOHOMISH.....	9.3	DN P	s 12.56	s 285 10.32	s 43 8.39	s 411 11.29	s 5.55
5.8 LOWELL.....	3.5	R DN P	12.43	10.20	8.27	11.17	s 5.37
1.6 PACIFIC AVENUE.....	1.9	DN Y P	12.40	10.15	8.24	11.14	s 5.34
1.1 EVERETT.....	0.3	K P	s 12.36	s 10.10	s 8.20	s 11.10	s 5.30
8 EVERETT JUNCTION.....	0.0	R DN P	12.30Am	10.05Am	8.15Pm	11.05Pm	5.20Pm
Via N. P. Ry. DELTA.....		R ^o DN WCTYOP					
			Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily
			28	4	2	44	286
Time Over District			5.30	5.00	5.10	5.15	2.50
Average Speed Per Hour			20.5	21.9	21.2	21.0	18.9

ELECTRIC TRAIN STAFF BLOCK SYSTEM

Special Rules.

West bound trains are superior to east bound trains of the same class. No. 27 is superior to all other trains. Oposing first class trains will clear No. 27 five (5) minutes. Other opposing trains will clear No. 27 ten (10) minutes. All west bound trains must be clear at the time No. 27 is due to leave the next station in the rear where time is shown.

Trains 1, 2, 3, 4, 43, 44, 27 and 28 will register by card at Gold Bar, except when running in sections, conductor will register in person. Freight trains will use N. P. tracks between Lowell and Delta and will be governed by N. P. time table and rules between these points. All trains will reduce speed to eight miles per hour through Martin Creek Tunnel and over bridges at either end. All trains will reduce speed to ten miles per hour over crossing just east of Pacific Avenue Freight House. Additional to other required tests of the air brake, no train will leave Cascade Tunnel until the air brakes have been carefully tested. Engineer will set the brakes and leave them set until trainmen examine each car, then release them, and trainmen will again examine each car and see that brakes release before giving the signal to start the train. Conductors must inform engineers how many cars loaded and empty in the train, and how many cars of "air" are working. All retainers must be used from Cascade Tunnel to Merritt, and from Chiwaukum to Leavenworth, and from Cascade Tunnel to Skykomish. Trains are operated between a block post, 125 feet west of the east crossover switch Cascade Tunnel and the safety switch west end depot at Tye, by a train staff block system. No train or engine will be run in either direction between the limits mentioned unless train engineman and the engineman of helper engine each has in his possession a section of a staff which will be handed to them by operators and will be retained by them until entire train has cleared block, then sections of staff must be handed to operator. When no helper engine is used, or when any cars behind helper, conductor or brakeman located on rear of train must be in possession of one-half of the staff. Only one train is permitted to enter or use the block at the same time. All east bound trains will approach the east end of the concrete shed at Tye under absolute control and will not pass the fouling point of the passing track unless signalled to do so by the Tunnel conductor. Bulletin boards are located at Leavenworth, Cascade Tunnel, Skykomish, Gold Bar, Delta. Semaphore located 1200 feet east of switch at Holmquist Spur half-mile east of Monroe. Berlin and Baring and B. B. & R. Spur two miles east of Index will be flag stop for Nos. 285 and 286. No. 43 stops at any station to let off passengers from east of Shelby. No. 44 stops at any station to pick up passengers for points south of Shelby. No. 2 will stop at Adrian to let off passengers from points Everett and west. Yard limit boards placed each way from Gold Bar, Skykomish, Cascade Tunnel and Leavenworth, and east from Pacific Avenue. Yard limits extend between Pacific Avenue and Northern Pacific R. R. connection at N. P. Freight Depot.

INITIAL STATIONS.

Leavenworth for trains Nos. 3, 1, 43, 27, 401 and 411.
Everett Jct. for trains Nos. 28, 4, 2, 44 and 286.
Skykomish for trains Nos. 285 and 715.

TERMINAL STATIONS.

Leavenworth for Nos. 28, 4, 2 and 44.
Skykomish for train No. 286.
Everett Jct. for trains 3, 1, 43, 27 and 285.
Delta, 401, 411 and 715.

DERAIL SWITCHES.

Derail switches must always be set for derail except when in actual use, whether there are any cars on the tracks or not. Cascade Tunnel east passing track lead, 30 feet from main line. Tye, west end industry track. Tye Safety Switch, 70 feet west of station, on main line. Scenic industry track. Grotto, 150 feet east of west head block industry track. Halford passing track 150 feet east of west head block. Index industry track 120 feet from west head block. Monroe Mill Spur, 200 feet from head block. Derail Brewery Spur, Pacific Avenue, 210 feet from head block. Frye-Bruhn Spur, 120 feet from Crossing Agnew Hardware Co. Spur. Power House Spur, 105 feet from head block.

LAP SIDINGS.

Chiwaukum and Merritt.

Business tracks not shown as stations on time table.

NAME	LOCATION	OPENS	LENGTH	CAR CAPACITY
Power House Spur.....	2.0 Miles west of Leavenworth.....	East	.....	6
Skykomish Mill Co.'s Spur.....	0.3 Miles west of Skykomish.....	East	.....	20
Great Republic Mining Co., Berlin.....	1.5 Miles west of Skykomish.....	West	.....	14
Berlin Spur, Miller River Co.....	1.5 Miles west of Skykomish.....	West	.....	4
Grotto Lumber Co.....	0.3 Miles east of Grotto.....	East	1200 feet	25
G. N. Shingle Co.'s Siding.....	3.5 Miles west of Grotto.....	Both ends	.....	24
B. B. & R. Spur.....	2.0 Miles east of Index.....	West	.....	5
Heybrook Spur.....	1.5 Miles east of Index.....	East	.....	2
Smith Lumber Co.....	0.5 Miles east of Index.....	East	.....	12
Soderburg Spur.....	0.7 Miles west of Index.....	West	.....	10
Robinson's Spur.....	0.5 Miles west of Gold Bar.....	East	.....	26
Casey's Spur.....	0.1 Miles east of Sultan.....	East	.....	5
Owen's Spur.....	4.7 Miles east of Monroe.....	East	.....	3
Holmquist Spur.....	0.5 Miles east of Monroe.....	East	.....	4
Monroe Mill Spur.....	0.3 Miles east of Monroe.....	East	.....	18
Monroe Gravel Pit.....	0.0 Miles west of Monroe.....	West	.....	10
Wagner & Wilson Lbr. Co. Spur.....	0.5 Miles west of Monroe.....	West	.....	25
Woodruff.....	2.0 Miles west of Monroe.....	Both ends	.....	24

SECOND DISTRICT—EVERETT JUNCTION TO SEATTLE.

WEST BOUND.

Table with columns for Third Class, Second Class, First Class, Capacity of Side Tracks, Distance from Everett Junction, Time Table No. 82, and Stations. Rows include departure times for various trains (717, 401, 43, 355, 1, 273, 359, 285, 277, 3, 357, 27) and arrival times at stations like Everett Junction, Mukilteo, Mosher, Meadowdale, Edmonds, Richmond Beach, Metum, Ballard, Interbay, G. N. Dock, Seattle, Tacoma, and Portland.

Special Rules.

West bound trains are superior to east bound trains of the same class. No. 27 is superior to all other trains. Oposing first class trains will clear No. 27 five (5) minutes. Other opposing trains will clear No. 27 ten (10) minutes. All west bound trains must be clear at the time No. 27 is due to leave the next station in the rear where time is shown. Double track between Everett Jct. and Metum and between G. N. Dock and Seattle. No. 3 meets No. 718. No. 357 meets No. 718. No. 277 meets No. 718. No. 717 meets Nos. 286, 358 and 278. No. 273 meets No. 278, 358 and passes No. 717. No. 360 and No. 4 pass No. 718. No. 1 meets No. 2 on double track between Everett Junction and Metum. No. 43 meets No. 44 and No. 357 meets 360 on double track between G. N. Dock and Seattle. All trains will reduce speed to 8 miles per hour passing through town limits of Edmonds and Ballard. Control Manual Block System is in operation between Pacific Avenue and Everett Jct., between Metum and G. N. Dock. Trains entering double track at Everett Jct. and Metum and G. N. Dock and Seattle will not exceed speed of ten miles per hour. Ballard, Edmonds and Mukilteo are flag stops for No. 4 to take passengers for Spokane or points east of Spokane. Mile post 10 between Metum and Richmond Beach will be flag stop for 277 and 278. Trains 1 and 2 will stop at stations between Tacoma and Seattle to pick up or let off passengers for or from points east of Seattle complying with N. P. time table schedule. No. 2 will stop at Adrian to let off passengers from points Everett and west. Ballard will be flag stop for No. 2 to take passengers for Spokane or points east of Spokane. No. 43 will stop at any station to let off passengers from east of Shelby. No. 44 will stop at any station to pick up passengers for points south of Shelby. All Great Northern Trains between Seattle and Vancouver, Wash., will be governed by time table and rules of Northern Pacific Railway. All Great Northern trains between Vancouver, Wash., and Portland will be governed by time table and rules of Spokane, Portland & Seattle Railway. Yard limit boards east of Ballard covers limits to Seattle. Bulletin boards are located at Interbay and Seattle. INITIAL STATIONS. Seattle for trains Nos. 360, 4, 270, 358, 286, 278, 2, 44, 28, 356. Interbay for trains Nos. 718, 402. Everett Jct. for trains Nos. 27, 357, 3, 285, 277, 273, 359, 1, 355, 43, 401, 717. TERMINAL STATIONS. Interbay for trains Nos. 401 and 717. Seattle for trains Nos. 27, 357, 3, 285, 277, 359, 273, 1, 355, 43. Everett Jct. for trains Nos. 360, 4, 270, 358, 286, 278, 2, 44, 28, 356, 402, 718.

DERAIL SWITCHES.

Mukilteo Lumber Co., Spur, 144 feet from head block. Richmond Beach, 120 feet west of H. B. Industry track. INTERLOCKER governing C. M. & P. S. Crossing, just east of Drawbridge No. 4, Ballard. Distant signal west bound located three thousand feet from crossing on right hand side of industry track, and is a bracket signal. Home signal is located 600 feet from crossing on right hand side of industry track, and is a bracket signal. The lower arm is fixed, and denotes home signal, with derail fifty-five feet in advance. Distant signal, west bound, is located twenty feet west of fixed signal for draw bridge No. 4. This signal is automatic. Home signal east bound is located 500 feet from crossing under trestle, and has two arms. Lower arm is fixed, and denotes home signal, with derail fifty-five feet in advance of signal. Printed instructions are posted in cabin for operation of this plant. Cabin is locked with G. N. and C. M. & P. S. Ry. switch jocks, so can get in cabin to operate plant. INTERLOCKING governing N. P. Ry. Crossing just west of Interbay yard: Westbound home signal is located 300 feet east of crossing. Eastbound home signal is located 300 feet west of crossing. Both home signals have two arms. Top arm works from zero to 90 degrees up and is semi-automatic. Lower arm is fixed and denotes home signal. Derails are located 55 feet in advance of home signals. Distance signal eastbound is located 3000 feet from eastbound home signal and works zero to 45 degrees up and is automatic. Derails and dwarf signals on G. N. yard track are 150 feet from crossing, east and west. Derails on N. P. track are located 200 feet from crossing, with dwarf signal 5 feet from them. Printed instructions posted in cabin for the operation of this plant. Cabin is locked with a G. N. switch lock and N. P. switch lock, so trainmen from both roads will have keys to get into cabin to operate plant. Derail on N. P. transfer track near Glass Works Spur in operation. Derail is pipe connected with switch stand. Trainmen using this switch should see that all cars and engines are clear of derail before closing switch.

Business Tracks Not Shown as Stations on Time Table.

Table with columns: NAME, LOCATION, OPENS, LENGTH, CAR CAPACITY. Rows include Mukilteo Lumber Co., Mowatt Lumber Co. Spur, Brown Bay Logging Co. Connection, Invincible Railroad Spur, Shipyard Spur, Standard Oil Co. Spur, and G. N. Clay Co. Spur.

Time Table No. 82. In Effect June 22, 1913.	Distance from Seattle.	SIGNS. See Rule 7, page 15.	FIRST CLASS.										SECOND CLASS.			THIRD CLASS.			
			360	4	270	286	358	278	2	44	28	356	402				718		
			Passenger Arrive Daily	Passenger Arrive Daily	Passenger Arrive Daily	Passenger Arrive Daily	Passenger Arrive Daily	Passenger Arrive Daily	Passenger Arrive Daily	Passenger Arrive Daily	Express Arrive Daily	Passenger Arrive Daily	Fast Freight Arrive Daily				Mdes. Freight Arrive Daily		
DOUBLE TRACK.	EVERETT JUNCTION.....	32.7	R DN P	9.25Am	10.05Am	1.20Pm	5.20Pm	5.40Pm	6.50Pm	8.15Pm	11.05Pm	12.30Am	1.10Am	12.25Am				10.30Am	
	3.5 MUKILTEO.....	28.9	D P	9.19	9.58	1.12	5.11	5.33	6.40	8.09	10.59	12.23	12.58	12.15				10.12	
	4.1 MOSHER.....	24.8	P	9.10	9.51	1.02	5.01	5.26	6.31	8.02	10.52	12.16	12.48	12.05Am				9.35	
	3.0 MEADOWDALE.....	21.8	D P	9.08	9.46	12.56	4.55	5.21	6.24	7.57	10.47	12.11	12.40	11.55				9.20	
	3.9 EDMONDS.....	17.9	D W P	8.55	9.40	12.49	4.47	5.14	6.16	7.50	10.40	12.06Am	12.32	11.45				9.00	
	3.0 RICHMOND BEACH.....	14.9	D P	8.44	9.34	12.41	4.38	5.09	6.09	7.45	10.35	11.59	12.24	11.30				8.05	
	6.2 METUM.....	8.7	DN P	8.32	9.25	12.31	4.25	5.00	5.57	7.34	10.25	11.50	12.11	11.15				7.25	
2.9 BALLARD.....	5.8	D	8.23	9.19	12.24	4.19	4.54	5.50	7.29	10.19	11.44	12.05	11.05				7.10		
1.1 INTERBAY.....	4.7	R DN WCTOPK	8.15	9.15	12.20	4.15	4.50	5.45	7.25	10.15	11.40	12.01Am	11.00Pm				7.00Am		
Double Track.	1.3 G. N. DOCK.....	3.4	DN P	8.10	9.10	12.15	4.10	4.45	5.40	7.20	10.10	11.35	11.55						
	3.4 SEATTLE.....	.0	R DN I PK	8.00Am	9.00Am	12.05Pm	4.00Pm	4.35Pm	5.30Pm	7.10Pm	10.00Pm	11.25Pm	11.45Pm						
Via N.P. Ry.	SEATTLE.....	183.1		7.30Am				4.15Pm		6.50Pm		11.10Pm	11.15Pm						
	40.7 TACOMA.....	142.4		6.05 6.00Am				8.00 2.55Pm		5.25Pm		10.00Pm	10.05 10.00						
	142.4 PORTLAND.....	.0		12.15Am				10.00Am				5.00Pm							
				Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily				Leave Daily		
			360	4	270	286	358	278	2	44	28	356	402				718		
Time Over District . Average Speed Per Hour			1.20 24.6	1.05 30.1	1.15 26.2	1.20 24.6	1.05 30.1	1.20 24.6	1.05 30.1	1.05 30.1	1.05 30.1	1.25 23.0	1.25 19.8				3.30 8.1		

Automatic Block Interlocking Signals and Semaphores

Everett Junction interlocking, westbound home signal (high line), is located 200 feet from westbound crossover switch, and has three arms; the top arm is for main line trains through crossover; the second arm fixed; bottom arm for diverging movements.

Westbound Home Signal, Coast line, is located fifty-five feet from east end of eastbound crossover switch and has three arms; top arm is for main line; second arm fixed; bottom arm crossover movements.

Distant signals, westbound high line and Coast line, are located 3500 feet from home signal, and work from zero to 45°.

First automatic signal westbound is 2500 feet west of Everett Junction. From first automatic signal to Metum, they are located about 7500 feet apart.

G. N. Dock to Seattle first automatic signal westbound is located 500 feet from G. N. Dock; second 3000 feet; third signal is distant signal for North Portal Interlocking Plant.

First automatic signal eastbound is located 3000 feet from eastbound home signal, North Portal; second 3000 feet from first one; next signal is Manual Controlled Block for G. N. Dock.

First automatic signal at Metum is located 3000 feet west of end of double track, and works from zero to 45°. Signal at 45° shows clear track to second automatic signal located on double track. From Metum to Everett Junction, signals are about 7500 feet apart, to Home signal for interlocking plant at Everett Junction.

Eastbound home signal, Everett Junction Interlocking is located 200 feet from west end of eastbound crossover switch, and has two arms; top arm is for main line to St. Paul, lower arm for crossover up the Coast line.

Semaphores at Pacific Avenue and Metum for westbound trains, and at G. N. Dock and Everett Junction for eastbound trains, will be used for manual controlled block.

For Further Instructions and Diagrams see page 15.

THIRD DISTRICT—EVERETT JUNCTION TO BELLINGHAM.

SOUTH BOUND.

THIRD CLASS.				SECOND CLASS.				FIRST CLASS.						Capacity of Side Tracks		Distance from Bellingham	Time Table No. 82. In Effect June 22, 1913.	STATIONS.	Telegraph Calls						
717		713		711		401		279		355		273		359						277		357			
Mdse. Freight	Mdse. Freight	Fast Freight	Fast Freight	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger					Passenger	Passenger	Passing Tracks	Side Tracks		
Leave Daily	Leave Daily Ex. Sunday	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily								
			6.30Am				5.35Pm						5.10Pm	6.05Pm	2.40Pm	12.05PM	7.10Am	8.00Am	110	110	0.0	BELLINGHAM	HM		
			7.00				6.00		s 5.20	s 6.15	s 714 2.52	s 360 12.15	s 7.20	s 8.15				40	143	2.0	SOUTH BELLINGHAM	FN			
			7.15				355 6.22		f 5.30	f 6.22	f 8.00	12.23	f 7.30	f 8.30				51	16	6.9	SOCKEYE				
			277-713 7.40				6.45		5.42	6.32	f 3.10	12.33	f 712-713 7.40	f 356 3.50				64	8	12.5	SAMISH				
									f 5.48		s 3.14		f 7.43						8	13.2	0.7	BLANCHARD			
			280 8.40				358 7.09		s 5.53	6.39	s 270 3.25	714 12.40	s 7.50	s 4.08				62	16	16.6	3.4	BOW	BO		
			9.05				7.25		s 6.10	6.46	s 3.35	12.47	s 7.58	s 4.14					6	21.2	4.6	BELLEVILLE	BV		
			9.15 10.30 714				8.10		s 6.20Pm	s 358 6.55	s 3.47	s 12.55	s 280 8.10	s 4.30				63	230	23.8	2.6	BURLINGTON	BU		
			360 11.10				278 8.35			s 7.05	s 4.02	s 1.03	s 8.22	s 4.45				37	63	27.9	4.1	MT. VERNON	NR		
			11.35				8.55				s 4.14	1.12	s 8.33	s 5.02				61	13	33.3	5.4	FIR	FR		
											s 4.18		s 8.38						6	35.0	1.7	MILLTOWN			
			12.20Pm				9.20				s 4.23	1.24	s 714 8.47	s 712 5.20				61	48	40.4	5.4	STANWOOD	B		
			12.55				9.50				s 4.40	1.33	s 9.06	s 5.35				24	13	45.9	5.5	SILVANA	NA		
			1.35 270- 2.05 359				10.20			278 7.42	f 4.50	713 1.40	f 9.17	f 5.47				62	17	50.0	4.1	ENGLISH			
			2.50				10.50				s 5.06	270 1.50	s 9.33	s 6.06				60	86	57.0	7.0	MARYSVILLE	MS		
			3.35Pm	3.30Pm			11.10 PM	2.05Am				7.53	5.12	1.56	s 9.41	714 6.15				59.7	2.7	DELTA WYE			
			3.40					2.10				8.01	5.16	1.59	360 9.45	6.20		41		60.7	1.0	LONG SIDING			
			3.50					2.20			s 8.15	s 5.25 5.32	s 2.03	s 10.02	s 6.37			110	180	63.3	2.6	EVERETT			
			4.00Pm					2.30Am				8.20Pm	5.35Pm	2.10Pm	10.05Am	6.40Am				64.1	0.8	EVERETT JUNCTION	JN		
			Arrive Daily	Arrive Daily Ex. Sunday			Arrive Daily	Arrive Daily			Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily									
			717	713			711	401			279	355	273	359	277	357									
			0.25 10.5	9.00 6.6			5.35 11.6	.25 6.6			1.10 20.4	2.15 23.5	2.55 22.0	2.05 30.8	2.55 22.0	3.40 17.3									
																						Time Over District Average Speed Per Hour			

Special Rules.

South bound trains are superior to north bound trains of the same class.

INITIAL STATIONS.

- Blaine for train No. 277, 296.
- Bellingham for trains Nos. 279, 713 and 720.
- Burlington for train No. 280.
- Delta Wye, for trains Nos. 712, 714, 717, 401.
- Everett Jct., for trains Nos. 270, 358, 360, 356, 278, 718, and 402.
- Fraser River Jct., for trains Nos. 386 and 398.
- New Westminster, for train No. 335.
- Vancouver, for trains Nos. 359, 355, 273, 357, 397, 295, 711 and 719.

TERMINAL STATIONS.

- Blaine for train No. 278, 295.
- Bellingham, for trains Nos. 280, 714 and 719.
- Burlington, for train No. 279.
- Delta Wye, for trains Nos. 711, 713, 718, 402.
- Everett Jct., for trains Nos. 359, 355, 273, 357, 277, 401 and 717.
- Fraser River Jct., for trains Nos. 385 and 397.
- New Westminster, for train No. 336.
- Vancouver, for trains Nos. 270, 358, 360, 356, 393, 296, 712 and 720.

DERAIL SWITCHES.

- Sockeye, east end siding.
- B. B. & E. Transfer Track east end.

INTERLOCKING SYSTEM.—Governing movement of trains N. P. crossing and Bridge 10 just north of Delta Wye.

Trains will not exceed six (6) miles per hour on coast line track over 24th St. near Everett Flour Mill; California St., Hewitt Ave. and Bond St. north and south of passenger depot, City of Everett.

All south bound trains from Vancouver will be governed by a two arm home signal located 700 feet north of draw span. Top arm at 90 degrees up proceed to two arm home signal located 20 feet north of N. P. crossing, top arm at 90 degrees up proceed to Bayside, lower arm 90 degrees up proceed to Delta yard. A caution fixed signal is located 2500 feet north of two arm home signal.

Train movements from Bayside to Vancouver will be governed by top arm on two arm home signal located 60 feet south of wye switch and by two arm home signal located on trestle 500 feet south of draw span. A caution fixed signal is located 2000 feet south of wye switch.

Train movements from Delta to Vancouver will be governed by top arm on two arm home signal located 60 feet south of wye switch, and by two arm home signal located on trestle 500 feet south of draw span.

Trains between Delta and Bayside will be governed by bottom blade on two blade semaphore located 60 feet south of wye switch.

Interlocking system in use bridge 10, 11 and 12 between Delta and Marysville and at Skagit R. R. Crossing one mile south of Fir.

Interlocker at Drawbridge No. 36 one mile north of Mt. Vernon. Derails are located 500 ft. from end of draw span. Distant signals are located 2,000 ft. from home signals. Home semaphore, standard indications. Distant signal, fixed caution indications.

All trains will reduce speed to 8 miles per hour passing through town limits of Marysville, Mount Vernon, Burlington and over Bond Street and Hewitt Ave., Everett.

Side clearance Tunnel 20, one-quarter mile south of Sockeye, not good. Clearance four feet, standard six feet.

Register for Delta Wye is located on ground floor interlocking plant. Bulletin boards are located at Burlington and Bellingham. Norman, one mile north of Silvana is flag stop for Nos. 277 and 278. Steam whistle signals for tracks with switches controlled from Interlocking Towers.

- Main Line—One Long.
- Delta Yard from North—One Long, One Short.
- Delta Yard from South—Two Long, One Short.
- Delta Yard North—Two Long.
- Delta Yard South—Three Long, One Short.

Semaphore located 1200 feet south of south switch South Bellingham.

Yard limit extends from yard limit board north of roundhouse Bellingham to yard limit board south of South Bellingham.

Yard limit boards placed each direction Burlington.

All trains will reduce speed to 8 miles per hour over all draw bridges.

Everett yard limits includes Delta yard and from North end of Draw Bridge 11 to yard limit board south of Everett Junction.

NORTH BOUND.

THIRD DISTRICT—EVERETT JUNCTION TO BELLINGHAM.

Time Table No. 82. In Effect June 22, 1913.	Distance from Everett Junction	SIGNS. See Rule 7, page 15.	FIRST CLASS.						SECOND CLASS.		THIRD CLASS.		
			356	360	270	358	278	280	712	402	714	718	
			Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Fast Freight	Fast Freight	Mdse. Freight	Mdse. Freight	
STATIONS.			Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily		
BELLINGHAM.....	04.1	R° DN CWTKP	s 4.25Am	s 12.30Pm	s 4.00Pm	s 7.45Pm	s 9.40Pm	s 9.30Am		8.30Am		3.30Pm	
2.9 SOUTH BELLINGHAM.....	61.2	D OW P	s 4.12	s 12.15 ³⁵⁹	s 3.49	s 7.33	s 9.29	s 9.15		8.15		2.52 ²⁷³	
4.0 SOCKEYE.....	57.2	P f	f 4.03	f 12.08Pm	3.40	7.25	f 9.20	f 9.04		8.00		2.10	
5.6 SAMISH.....	51.6	W P	s 3.50 ³⁵⁷	11.51	3.31	7.15	f 9.10	8.51		277-713 7.40		1.30	
0.7 BLANCHARD.....	50.9	P		s 11.48			f 9.08	f 8.49					
3.4 BOW.....	47.5	D P	s 3.38	s 11.41	273 3.25	7.09	s 9.02	s 7.13 8.40		7.25		359 12.40	
4.6 BELLEVILLE.....	42.9	D P	s 3.23	s 11.31	3.13	7.00	s 8.53	s 8.27		7.10		12.10PM	
2.6 BURLINGTON.....	40.3	R DN COWXP	s 3.20	s 11.25 ⁷¹⁴	s 3.10	s 6.55 ³⁵⁵	s 8.47	277 8.20Am		7.00		11.50 ³⁶⁰ 10.30 ⁷¹³	
4.1 MT. VERNON.....	38.2	DN P	s 3.05	s 11.10 ⁷¹³	s 2.55	s 6.45	s 8.35			6.00		10.00	
5.4 FIR.....	30.8	D P	s 2.45	s 10.53	s 2.42	6.37	s 8.20			5.40		9.20	
1.7 MILLTOWN.....	29.1			s 10.46	f 2.36		s 8.14						
5.4 STANWOOD.....	23.7	DN P	s 2.25	s 10.37	s 2.27	6.26	s 8.05			357 5.20		277 8.47	
5.5 SILVANA.....	18.2	D W P	s 2.11	s 10.23	s 2.15	6.13	s 7.51			5.00		8.00	
4.1 ENGLISH.....	14.1	P f	f 1.59	f 10.18	713 2.05	6.11	f 7.42 ³⁵⁵			4.45		7.30	
7.0 MARYSVILLE.....	7.1	DN P	s 1.43	s 9.59	359 1.50	6.01	s 7.25			4.05		6.45	
2.7 DELTA WYE.....	4.4	R IY P	1.30	9.49	1.40	5.55	7.10			3.50Am	12.50Am	357 6.15Am	10.55Am
1.0 LONG SIDING.....	3.4		1.27	277 9.45	1.37	5.52	7.07				12.40		10.45
2.6 EVERETT.....	0.8	P	s 1.20	s 9.35	s 1.20	s 5.47	s 7.00				12.30		10.35
0.8 EVERETT JUNCTION.....	0.0	R DN P	1.10Am	9.25Am	1.20Pm	5.40Pm	6.50Pm				12.25Am		10.30Am
			Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily			Leave Daily	Leave Daily	Leave Daily	Leave Daily
			356	360	270	358	278	280		712	402	714	718
Time Over District			3.15	3.05	2.40	2.05	2.50	1.10		4.40	.25	9.15	0.25
Average Speed Per Hour			19.7	20.3	23.3	30.5	22.2	20.4		13.0	10.6	6.7	10.6

Business tracks not shown as stations on time table.

NAME	LOCATION	OPENS	LENGTH	CAR CAPACITY
Chuckanut Quarry Spur	1.0 Miles north of Sockeye	North		38
Chuckanut Cannery Spur	0.7 Miles north of Sockeye	North		3
Blanchard Spur	0.5 Miles south of Samish	North		30
Sound Shingle Co.'s Spur	2.9 Miles north of Belleville	South		6
Everett Pulp and Paper Co., Spur	1.7 Miles north of Mt. Vernon	South		5
Skagit Crossing Tr. Track	0.9 Miles south of Fir	South		6
Hawley Spur	1.3 Miles south of Fir	North		6
Morrison Mill Spur	2.1 Miles south of Fir	South		8
Ketchum Spur	2.5 Miles north of Stanwood	South		4
Hal's Spur	1.4 Miles south of Stanwood	South		2
Florence	1.5 Miles south of Stanwood	North		4
Rabel's Spur	1.8 Miles north of Silvana	North		2
Norman Spur	1.1 Miles north of Silvana	South		2
Summit Mill Co.	0.1 Miles north of English	South		2
Kennedy Spur	4.2 Miles north of Marysville	South		6

Business tracks not shown as stations on time table.

NAME	LOCATION	OPENS	LENGTH	CAR CAPACITY
Kruse Bros. Spur	2.5 Miles north of Marysville	North		2
Cox's Spur	1.4 Miles north of Marysville	North		4
Union Slough	1.5 Miles south of Marysville	South		6
Old Main Line	1.5 Miles south of Marysville	South		30
Transfer Track	0.8 Miles north of Long Siding	North		14
Blackman Spur	0.4 Miles south of Long Siding	North		7
Weidauer & Landsdown Spur	0.0 Miles south of Long Siding	South		20
Neff's Spur	1.0 Miles south of Long Siding	North		50
Wheelihan Spur	1.1 Miles north of Everett	North		7
Log Dump Spur	1.0 Miles north of Everett	North		21
Clark Nickerson Mill	1.0 Miles north of Everett	North		31
Everett Milling Co.	0.7 Miles north of Everett	North		26
Nickerson Machinery Co.	0.0 Miles north of Everett	South		4
Nail House Spur	0.8 Miles north of Everett Jct.	South		24
Weyerhaeuser Timber Co.	0.2 Miles north of Everett Jct.	North		38

	THIRD CLASS.		SECOND CLASS.		FIRST CLASS.						Capacity of Side Tracks		Distance from Vancouver	Time Table No. 82. In Effect June 22, 1913.	STATIONS.	Telegraph Calls
	719	711	385	397	277	295	355	273	359	357	Passing Tracks	Other Tracks				
	Mdse. Freight Leave Daily Ex. Sunday	Fast Freight Leave Daily	Mixed Leave Daily Ex. Sunday	Mixed Leave Daily Ex. Sunday	Passenger Leave Daily	Passenger Leave Daily	Passenger Leave Daily	Passenger Leave Daily	Passenger Leave Daily	Passenger Leave Daily						
	5.00Am	10.40Am		2.00Pm		5.00Pm	4.00Pm	12.15Pm	10.00Am	12.15Am	33	319	0.0	.....VANCOUVER.....	VN
	5.05	10.50		2.05		5.08	4.04	12.20	10.04	12.20			0.7	.....WYE.....	
	5.20	³⁹⁸ 11.12		f 2.10		f 5.09	⁷¹² 4.09	f 12.27	10.09	f 12.26			3.5	.....STILL CREEK.....	
	5.30	11.20		f 2.15		f 5.12	4.12	f 12.30	10.12	f 12.30		9	5.3	.....ARDLEY.....	
	5.45	11.30		f ⁷²⁰ 2.22		s 5.16	4.17	f 12.34	10.16	f 12.36	39		7.9	.....BURNABY.....	
													12.9	.....SAPPERTON WYE.....	
	6.10	11.50		s 2.33		f 5.24	4.24	f 12.42	10.24	12.49	27	55	13.1	.....SAPPERTON.....	
	6.15	11.57	1.00Pm	s 2.40		s 5.29	s 4.28	s 12.47	s 10.28	s 12.55		17	13.8	.....NEW WESTMINSTER.....	MN
	6.20	12.02Pm	⁷²⁰ 1.10Pm	³⁶⁰ 2.45Pm		5.34	4.33	12.52	³⁹⁸ 10.33	1.00			14.2	.....FRASER RIVER JCT.....	
	³⁵⁸ 6.40	12.15				s ²⁷⁰ 5.42	4.42	f ⁷²⁰ 1.01	10.42	f 1.10	64	4	19.4	.....TOWNSEND.....	
	7.10	⁷²⁰ 12.30				s 5.51	f 4.51	s 1.14	f 10.50	s 1.20	58	58	24.8	.....COLEBROOK.....	G
	7.25	12.40				s 5.58	4.57	s 1.21	10.57	f 1.28		10	28.4	.....CRESCENT.....	
	²⁹⁶ 7.53	⁷¹² 1.10				s 6.08	s ²⁷⁰ 5.07	s ³⁶⁰⁻⁷¹² 1.37	s ⁷²⁰ 11.07	s 1.40	70	22	33.2	.....WHITE ROCK.....	WR
													36.2	INTERNATIONAL BOUND		
	^{8.15} ⁷²⁰ ^{10.25} ⁷¹²	^{1.25} ³⁶⁰ ^{3.05} ²⁷³			6.15Am	6.15Pm	s 5.20	s ⁷¹¹ 1.50	s ⁷¹² 11.20	s 2.00	62	124	36.7	.....BLAINE.....	BN
	³⁵⁹ 11.33	8.45			s 6.30		5.33	s 2.06	⁷¹⁹ 11.33	s 2.20	40	5	44.2	.....CUSTER.....	CU
					f 6.35			f 2.10		f 2.26		6	46.9	.....ENTERPRISE.....	
	³⁶⁰ 12.57Pm	²⁷⁰ 4.20			s 6.44		s 5.43	s 2.17	11.43	s 2.35	41	23	49.8	.....FERNDALE.....	FD
					f 6.49			f 2.22		2.40		34	52.0	.....BRENNAN.....	
	1.45Pm	5.00Pm			s 7.05Am		s 6.00Pm	s 2.35Pm	s 11.58Am	s 2.55Am	110	110	58.8	.....BELLINGHAM.....	HM
	Arrive Daily Ex. Sunday	Arrive Daily	Arrive Daily Ex. Sunday	Arrive Daily Ex. Sunday	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily						
	719	711	385	397	277	295	355	273	359	357						
	8.45 6.7	6.20 9.3	.10 .4	1.45 19.	.50 26.6	1.15 29.4	2.00 29.4	2.20 25.2	1.53 29.9	2.40 22.1						
	Time Over District Average Speed Per Hour															

Special Rules.

South bound trains are superior to north bound trains of the same class.

The normal position of switches at Colebrook Junction, Guichon Line Junction and Fraser River Junction will be for main line. Ocean Park, between White Rock and Crescent, will be regular stop for trains, 295 and 296, and flag stop for trains 270 and 273.

Ferndale will be flag stop for 353 for passengers from Everett and south of Everett.

Custer will be flag stop for 355 for passengers for south of Seattle.

Semaphores for protection of draw on Fraser River bridge between Fraser River Junction and New Westminster are located on south and north ends of bridge.

All trains will come to full stop within 50 feet of home signal on either side of Fraser River Bridge and will not proceed until clear signal is displayed and will not exceed a speed of six miles per hour over this Bridge. All trains will reduce speed to 8 miles per hour over all other draw bridges.

All trains will reduce speed to 8 miles per hour through city limits Blaine.

No trains in either direction will cross International Boundary at Blaine and White Rock without permission of Customs Officers.

Yard limit boards at Bellingham, Blaine and Vancouver.

Yard limit board at Sapperton Sand Pit North of Wye, covers limits to Fraser River Bridge.

All trains to and from Sixth district will protect between New Westminster and Fraser River Junction.

Bulletin boards are located at Bellingham and Vancouver.

Trains 359, 270, 355 and 358 will register by card at Colebrook.

DERAIL SWITCHES. Ferndale, 200 feet from east head block passing track.

New Westminster Interlocking System.—Signal tower is located 3,094 feet north of north end of Fraser River bridge, opposite crossing of the C. P. Ry. This apparatus controls the crossing of the C. P. Ry., also switches leading to and from the Fraser River Bridge tracks and New Westminster. Distant Semaphores are located 1,200 feet south and north and Home Signals are 500 feet south and north of tower, respectively.

Interlocking plants are in use on bridges 69 and 70 between Crescent and Colebrook. Home signals and derrails are located 600 feet north and south of both bridges. The caution fixed signals are located 3000 feet from home signals. All signals have standard Indications.

Interlock system used on bridge 64, 1,000 feet south of Ferndale. Derrails located 55 feet in advance of home signals. Standard Indications.

Interlocking plant at Ardley, B. C., governing movement of G. N. Ry., trains and B. C., Electric Railway Company trains: Northbound home signal is located 558 feet from crossing and has two arms. Derrail is 58 feet ahead of signal. Northbound distant signal is located 2000 feet from home signal and is automatic. Southbound home signal is located 558 feet from crossing and has two arms. Derrail is 58 feet ahead of signal. Southbound distant signal is located 2000 feet from home signal and is automatic. Both home signals on B. C., Electric line are located 558 feet from crossing and have two arms, with derrails 58 feet ahead of signals. Distant signal is located 2500 feet from home signals and the normal position is 45 degrees up. Distance signals work from 45 to 90 degrees from tower with line control and can only be cleared to the 90 degree position after home signal is cleared to 90 degrees. All signals are standard upper quadrant.

THIRD DISTRICT—VANCOUVER TO BELLINGHAM.

Time Table No. 82. In Effect June 22, 1913.	Telegraph Calls	Distance from Bellingham	SIGNS. See Rule 7, page 15.	FIRST CLASS.						SECOND CLASS.			THIRD CLASS.
				356	296	360	270	358	278	398	386	712	720
				Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Mixed	Mixed	Fast Freight	Mdse. Freight
STATIONS.				Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily Ex. Sunday	Arrive Daily Ex. Sunday	Arrive Daily	Arrive Daily Ex. Sunday
VANCOUVER.....	VN	58.8	R ^o DN WC OPK	7.30 ^{am}	9.00 ^{am}	3.30 ^{pm}	6.30 ^{pm}	10.00 ^{pm}		11.25 ^{am}		4.40 ^{pm}	8.10 ^{pm}
0.7 WYE.....		58.1	Y	7.34	8.57	3.25	6.28	9.53		11.20		4.35	8.00
2.8 STILL CREEK.....		55.3	P	7.18	8.51	3.19	6.17	9.47		711 11.12		355 4.09	2.45
1.9 ARDLEY.....		53.5	P	7.18	8.48	3.15	6.13	9.48		11.07		8.50	2.35
2.5 BURNABY.....		50.9	P	7.07	8.44	3.10	6.08	9.37		11.00		3.40	397 2.22
5.0 SAPPERTON WYE....		45.9	W Y PK										
0.2 SAPPERTON.....		45.7		6.58	8.35	3.57	5.59	9.28		10.47		3.20	1.55
0.7 NEW WESTMINSTER...	MN	45.0	R DN PKI	6.55	8.33	3.58	5.58	9.25		10.42	11.10 ^{am}	3.05	1.25
0.4 FRASER RIVER JCT...		44.6		6.49	8.28	397 2.47	5.49	9.18		10.35 ^{am}	11.05 ^{am}	3.00	355 1.15
5.2 TOWNSEND.....		39.4	P	719 6.40	8.20	3.35	295 5.42	9.10				2.45	273 1.01
5.4 COLEBROOK.....	Q	34.0	R DN W Y P	6.25	8.11	2.20	712 5.31	9.00				360 2.20	711 12.30
3.6 CRESCENT.....		30.4		6.13	8.03	2.05	5.20	8.50				1.55	12.10 ^{pm}
4.8 WHITE ROCK.....	WR	25.6	DN P	6.00	719 7.53	1.50 273 1.37	355 5.07	8.40				1.32 711 12.15 273	11.50 359 11.00
3.0 INTERNATIONAL BOUND.		22.6											
0.5 BLAINE.....	BN	22.1	R DN TW PO	5.25	7.45 ^{am}	711 1.30	4.50	8.25	10.30 ^{pm}			12.05 ^{pm} 719 10.25 359	10.53 719 9.50
7.5 CUSTER.....	CU	14.6	D P	5.07		1.13	4.35	8.13	10.15			10.05	9.30
2.7 ENTERPRISE.....		11.9		4.59		1.05			10.07				
2.9 FERNDALE.....	FD	9.0	D P	4.54		719 12.57	711 4.20	8.05	10.02			9.40	8.40
2.2 BRENNAN.....		6.8		4.45		12.50			9.56				
6.8 BELLINGHAM.....	HM	0.0	R ^o DN CW TPK	4.30 ^{am}		12.35 ^{pm}	4.05 ^{pm}	7.50 ^{pm}	9.45 ^{pm}			9.00 ^{am}	7.45 ^{am}
				Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily Ex. Sunday	Leave Daily Ex. Sunday	Leave Daily	Leave Daily Ex. Sunday
				356	296	360	270	358	278	398	386	712	720
Time Over District				3.00	1.15	2.55	2.25	2.10	.45	.50	.05	7.40	7.25
Average Speed Per Hour				19.6	29.4	20.2	24.3	27.2	30.	17.3	6.	7.7	8.01

Business tracks not shown as stations on time table.

NAME	LOCATION	OPENS	Length	Car Capa- city
Maddoughs-Shaw Spur	0.7 Miles north of Ardley	South	...	5
Wolfs Spur	0.5 Miles north of Burnaby	North	...	4
Mill No. 2 Spur	0.7 Miles south of Burnaby	South	...	22
Pifers Mill Spur	3.0 Miles north of Sapperton	South	...	8
Haight Spur	2.3 Miles north of Sapperton	South	450	8
Bradley and Taylor	1.5 Miles north of Sapperton	South	...	2
Sand Pit Spur	0.7 Miles north of Sapperton	South	...	18
Distillery Spur	0.0 Miles north of Sapperton	South	...	31
Mosher Lumber & Logging Spur	1.0 Miles south of Townsend	South	630	13
Delta Shingle Co. Spur	0.8 Miles south of Townsend	North	...	11
Blaine Spur	1.9 Miles south of Blaine	South	...	..
Blaine Shingle Co.'s Spur	2.0 Miles south of Blaine	South	...	9
Shelton Spur (off Blaine Spur)		South	...	2
City Dock Spur (off Blaine Spur)		South	...	81
Erie Mill Spur (off City Dock Spur)		South	...	6
Monarch Mill Spur (off City Dock Spur)		South	...	14
Barge Spur (off City Dock Spur)	0.0 Blaine	South	...	5
Melrose Spur	2.5 Miles north of Custer	South	...	4
McDonald Spur	1.2 Miles north of Custer	South	...	2
Enterprise Spur	0.7 Miles north of Enterprise	South	...	3
Sand Pit Spur	0.8 Miles south of Enterprise	South	...	13
Henry Spur	1.0 Miles south of Brennan	South	...	2
Marietta Spur	3.3 Miles north of Bellingham	South	...	2

THIRD CLASS.		FIRST CLASS.					Capacity of Side Tracks		Time Table No. 82. In Effect June 22, 1913.	STATIONS.	Telegraph Calls	Distance from Anacortes	SIGNS. See Rule 7, page 15.	FIRST CLASS.					THIRD CLASS.	
724	726	284	294	292	290	280	Passing Tracks	Other Tracks						Distance from Rockport	289	279	293	291	283	725	723
Mdse. Freight	Mdse. Freight	Passenger	Passenger	Passenger	Passenger	Passenger							Passenger	Passenger	Passenger	Passenger	Passenger	Mdse. Freight	Mdse. Freight	
Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily							Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	
6.15Am					4.10Pm	6.00Am	30		ROCKPORT	RK	53.7	R D Y W	s 2.10Pm	s 9.10Pm					5.00Pm	
6.35					f 4.30	f 6.17	16	5.8	5.8 FABER		47.9		f 1.50	f 8.54					2.00 4.30	
7.05					s 4.44	s 6.26	83	9.1	3.3 CONCRETE	BA	44.6	D	s 1.87	s 8.48					3.45	
8.00					f 4.50	f 6.32	30	76	1.1 GRASSMERE		43.5	W	f 1.25	f 8.33					3.00	
8.35					s 5.08	s 6.47	41	15.5	5.3 BIRDSVIEW		38.2		s 1.10	s 8.20					2.80	
8.50					s 5.18	s 7.02	35	9	5.1 HAMILTON	H	33.1	D W	s 12.55	s 8.07					2.00	
9.25					s 5.32	s 7.18		25	3.3 LYMAN	MY	29.8		s 12.40	s 7.55					1.80	
9.50					f 5.48	f 7.27	21	29.2	5.3 COKEDALE JUNCTION		24.5		f 12.22	f 7.40					12.45	
10.20	8.30Am				s 6.08	s 7.42	42	63	3.2 SEDRO-WOOLLEY	WL	21.3	R D K	s 12.10Pm	s 7.31				2.80 7.30Am	12.80	
					f 6.15	f 7.48			2.3 STERLING		19.0		f 11.53	f 7.19						
10.45Am	8.50 11.15 291	7.15Pm	11.50Am	8.35Am	s 6.30Pm	s 8.00Am	63	225	2.5 BURLINGTON	BU	16.5	R DN CO WYX	11.50Am	7.10Pm	s 8.00Am	s 11.15Am	s 7.26Am	s 6.25Pm	7.10 6.15	12.01Pm
	11.30	s 7.24	s 11.58	s 8.48				16	2.8 AVON		13.7				s 7.49	s 11.05	s 6.14		6.00	
	11.40	f 7.38	f 12.05Pm	f 8.51				7	2.6 FREDONIA		11.1				f 7.41	f 10.53	f 6.07		5.45	
	11.55	s 7.40	s 12.19	s 9.00				17	1.5 WHITNEY		9.6				s 7.35	s 10.53	s 6.00		5.35	
									2.2 DRAW BRIDGE		7.4									
	12.30Pm	f 7.58	f 12.31	f 9.15				3	3.3 FIDALGO		4.1				f 7.21	f 10.37	f 5.46		5.15	
	12.30Pm	s 8.10Pm	s 12.45Pm	s 9.25Am				235	4.1 ANACORTES	AC		R D T W			7.10Am	10.25Am	5.35Pm		5.00Am	
Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily	Arrive Daily							Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	Leave Daily	
724	726	284	294	292	290	280							289	279	293	291	283	725	723	
4.30 8.3	4.00 5.3	.55 12.2	.55 12.2	.50 12.5	2.20 12.0	2.00 12.0			Time Over District Average Speed Per Hour				2.20 12.0	2.00 12.0	.50 12.5	.50 12.5	.50 12.5	2.30 8.5	5.00 7.4	

Business tracks not shown as stations on time table.

NAME	LOCATION	OPENS	LENGTH	CAR CAPACITY
Sauk Spur	2.0 Miles west of Rockport	West		2
Tower Mill Co	0.3 Miles west of Faber	East		19
Van Horne's Spur	0.5 Miles west of Faber	East		16
Harpst Lumber Co. Spur	0.8 Miles east of Faber	West		3
Washington Port Cement Co	0.7 Miles east of Concrete	East		30
Superior Portland Cement Co. Spur	0.7 Miles west of Concrete	West		28
Burpee Shingle Spur	0.4 Miles west of Grassmere	West		3
Anna Shingle Spur	2.0 Miles west of Grassmere	West		2
L. L. Spur	0.2 Miles west of Hamilton	West		3
Hop Ranch Spur	0.8 Miles east of Lyman	West		3
Skagit Mill Co. Spur	Lyman	West		22
Hitchcock-Kelly	0.1 Miles west of Lyman	West		3
Minkler's Mill	3.0 Miles east of Cokedale Jct.	Both Ends		7
Corey Shingle Spur	5.0 Miles east of Sedro Woolley	West		2
Green Mill Spur	3.3 Miles east of Woolley	Both Ends		22
Sound Iron Spur	Woolley	West		7
Holbrook's Spur	0.4 Miles west of Woolley	West		8
Burlington Mill Spur	0.6 Miles west of Burlington	West		6
Hawkin's Spur	0.7 Miles east of Fredonia	East		6
Callahan-Abbott Spur	Fredonia	West		6
Gravel Pit Spur	5.9 Miles east of Anacortes	West		9
Log Rollway	1.5 Miles east of Anacortes	Both Ends		21
Fidalgo Island Shingle Co. Spur	4.6 Miles east of Anacortes	East		2
Fidalgo Mill Spur	2.3 Miles east of Anacortes	East		3

Special Rules.

East bound trains are superior to west bound trains of the same class.

No. 724 has right over No. 723, Rockport to Burlington. Yard limit boards are located at Burlington and Anacortes. All trains will reduce speed to 8 miles per hour over all draw bridges. Bulletin boards are located at Anacortes, Burlington and Rockport.

INITIAL STATIONS. Anacortes for trains Nos. 291, 293, 283 and 725. Rockport for trains Nos. 280, 290 and 724. Burlington for trains Nos. 292, 284, 294, 289, 279 and 723. Sedro-Woolley for No. 726.

TERMINAL STATIONS. Anacortes for trains Nos. 292, 284, 294 and 726. Rockport for trains Nos. 289, 279 and 723. Burlington for trains Nos. 280, 290, 293, 291, 283 and 724. Sedro-Woolley for 725.

SECOND CLASS.				Capacity of Side Tracks	Distance from Sumas	STATIONS.	Telegraph Calls	Distance from Guichon	SIGNS. See Rule 7, page 15	SECOND CLASS.		
387	387	397	397							398	398	388
Mixed	Mixed	Mixed	Mixed	Passing Tracks	Other Tracks	STATIONS.	Telegraph Calls	Distance from Guichon	SIGNS. See Rule 7, page 15	Mixed	Mixed	Mixed
Leave Mon., Wed., Thur., Sat.	Leave Tue. and Fri.	Leave Tue., Thur., Sat.	Leave Mon., Wed., Fri.							Arrive Tue., Thur., Sat.	Arrive Mon., Wed., Fri.	Arrive Daily Ex. Sunday
7.00am	5.30am					SUMAS, WASH.....	SU	46.5	R D C W			s 6.45pm
						0.0 INTERNATIONAL BOUNDARY.....		46.5				
s 7.03	s 5.33			26	3	0.1 HUNTINGDON.....		46.4	W			s 6.40
s 7.15	s 5.45 7.15			37	31	3.5 ABBOTSFORD.....	FS	42.9	R D W			s 6.20
s 7.30	s 7.30				7	4.5 PINEGROVE.....		38.4				s 5.45
s 7.55	s 7.55			62	31	4.6 ALDERGROVE.....		33.8				s 5.20
s 8.10	s 8.10			26		4.2 OTTER.....		29.6				s 4.45
s 8.35	s 8.35			61	18	4.7 LINCOLN.....		24.9	W			s 4.20
s 9.00am	s 9.00am	4.30pm	4.05pm	64	38	7.8 CLOVERDALE.....	CL	17.1	R D Y	s 8.30am	9.00am	8.45pm
		f 4.45	f 4.20		4	4.0 ALLUVIA.....		13.1		s 8.15	8.45	
		f 4.50	f 4.25		4	1.5 SOUTHPORT.....		11.6		f 8.10	8.40	
		4.55	4.30			1.0 COLEBROOK JCT.....		10.6	Y	8.00	8.30	
		s 5.10	s 4.55	38	58	0.0 COLEBROOK.....	G	10.6	R DN W	s 7.55	8.25	
		5.15	5.00			0.8 QUICHON LINE JCT.....		9.8	Y	7.45	8.15	
		f 5.40	f 5.25		9	6.0 INVERHOLM.....		3.8		f 7.25	7.55	
		f 5.50	f 5.35		2	2.4 CHALLUETHAN.....		1.4	W 1/4 Mile East	f 7.10	7.40	
		s 6.00pm	s 5.45pm		10	1.4 GUICHON.....		0.0	W	7.00am	7.30am	
Arrive Mon., Wed., Thur., Sat.	Arrive Tue. and Fri.	Arrive Tue., Thur., Sat.	Arrive Mon., Wed., Fri.							Leave Tue., Thur., Sat.	Leave Mon., Wed., Fri.	Leave Daily Ex. Sunday
387	387	397	397							398	398	388
2.00 14.7	2.00 14.7	1.30 11.4	1.40 10.3			Time Over District Average Speed Per Hour				1.30 11.4	1.30 11.4	3.00 9.4

Special Rules.
 West bound trains are superior to east bound trains of the same class.
 The normal position of switches at Colebrook Junction, Guichon Line Junction are for main line.
 All trains Fifth District will protect against all Third District trains between Colebrook Jct. and Guichon Line Jct.
INITIAL STATIONS.
 Guichon for train No. 398 Sumas for train No. 387. Cloverdale for trains Nos. 388 and 397.
TERMINAL STATIONS.
 Guichon for train No. 397.
 Cloverdale for trains Nos. 387 and 398.
 Sumas for train No. 388.
DERAIL SWITCHES.
 Deraill switches must always be set for derail except when in actual use whether there are cars on the tracks or not.
 Abbotsford east end of passing track.
INTERLOCKING governing B. C. E. Ry. crossing, Cloverdale, B. C. Distant signal on north side is located 2,500 feet from crossing and has one arm showing caution. Home signal is located 75 feet from crossing and has two arms. Lower arm one indication, upper arm governs train movements. Home signal on south side is located 15 feet from crossing and distant signal 1,500 feet from crossing. Derails are placed five feet inside each home signal. Normal position of signals will be clear for our line.

Business tracks not shown as stations on time table.

NAME	LOCATION	OPENS	CAR CAPACITY
Guichon Slip Spur.....	0.1 Miles east of Guichon.....	East	3
Gowdy Road Spur.....	2.9 Miles east of Guichon.....	West	1
Patterson's Spur.....	5.7 Miles east of Guichon.....	West	9
Smith Road Spur.....	5.8 Miles east of Guichon.....	West	2
Matthew Road Spur.....	6.8 Miles east of Guichon.....	West	3
Colebrook Road Spur.....	8.2 Miles west of Cloverdale.....	West	5
Gravel Pit Spur.....	3.3 Miles west of Cloverdale.....	West	9
Surry Spur.....	1.1 Miles west of Cloverdale.....	West	3
Fernridge Lbr. Co. Spur.....	1.4 Miles east of Lincoln.....	West	15
Lincoln Lbr. Co. Spur.....	1.0 Miles east of Lincoln.....	West	30
Clark's Spur.....	1.0 Miles west of Otter.....	East	2
Otter Shingle Co. Spur.....	at Otter.....	East	15
Aldergrove Lbr. Co. Spur.....	at Aldergrove.....	East	20
Fish Trap Pit.....	1.5 Miles west of Pinegrove.....	Both	40
Pinegrove Lbr. Co. Spur.....	0.8 Miles east of Lincoln.....	West	10

SECOND CLASS.				Car Capacity of Other Sidings	Car Capacity of Passing Tracks	Distance from Fraser River Jct.	STATIONS.	Telegraph Calls	Distance from Hazelmere	SIGNS. See Rule 7, page 15.	SECOND CLASS.			
387	397	397	385								398	398	386	384
Mixed	Mixed	Mixed	Mixed	Car Capacity of Other Sidings	Car Capacity of Passing Tracks	Distance from Fraser River Jct.	STATIONS.	Telegraph Calls	Distance from Hazelmere	SIGNS. See Rule 7, page 15.	Mixed	Mixed	Mixed	Mixed
Leave Tue., Thur., Sat.	Leave Tue., Thur., Sat.	Leave Mon., Wed., Fri.	Leave Daily Ex. Sunday								Arrive Tue., Thur., Sat.	Arrive Mon., Wed., Fri.	Arrive Daily Ex. Sunday	Arrive Tue., Thur., Sat.
	2.47pm	2.47pm	1.10pm			0.0	FRASER RIVER JCT.....		20.3		s 10.35am	s 10.35am	s 11.05am	
	2.53	2.53	s 1.15			1.0	LIVERPOOL.....		19.3		10.30	10.30	s 10.55	
						3.3	BON ACCORD.....		17.0	W 2 Miles South				
	f 3.20	f 3.20	s 2.00		18	9.0	PORT KELLS.....		11.3		f 10.05	f 10.05	s 10.30	
s 8.40am	s 8.35	f 3.35pm	s 2.45pm	64	38	15.2	CLOVERDALE.....	CL	5.1	R D Y	s 9.45	9.45am	9.55am	s 4.20pm
s 8.55am	s 4.00pm				8	20.3	HAZELMERE.....		0.0		9.05am			4.05pm
Arrive Tue., Thur., Sat.	Arrive Tue., Thur., Sat.	Arrive Mon., Wed., Fri.	Arrive Daily Ex. Sunday								Leave Tue., Thur., Sat.	Leave Mon., Wed., Fri.	Leave Daily Ex. Sunday	Leave Tue., Thur., Sat.
387	397	397	385								398	398	386	384
.15 20.0	1.13 16.3	.48 18.5	1.35 11.4			Time Over District Average Speed Per Hour					1.30 13.3	.50 19.0	1.10 13.0	.15 20.0

Special Rules.
 South bound trains are superior to north bound trains of the same class.
INITIAL STATIONS.
 Fraser River Jct. for trains Nos. 385 and 397. Cloverdale for trains Nos. 386, 387 and 398.
 Hazelmere for trains Nos. 384 and 398.
TERMINAL STATIONS.
 Cloverdale for trains Nos. 385, 387 and 397. Hazelmere for trains Nos. 387 and 397. Fraser River Jct. for trains Nos. 386 and 398.
 Trains will register at Cloverdale.
 All Sixth District trains will protect against all Third District trains between Fraser River Junction and New Westminster.
 All trains will reduce speed to 3 miles per hour over all draw bridges.

Business tracks not shown as stations on time table.

NAME	LOCATION	OPENS	CAR CAPACITY
Davis Spur.....	0.5 Miles south of Liverpool.....	North	4
Brownsville Spur.....	1.0 Miles north of Liverpool.....	South	15
Flummerfelt Spur.....	2.0 Miles north of Port Kells.....	South	4
David Bell & Co. Spur.....	1.5 Miles north of Cloverdale.....	South	25
McNair Spur.....	2.0 Miles north of Cloverdale.....	South	2
Washington Shingle Co.....	2.2 Miles north of Blaine.....	South	8
Great Western Shingle Spur.....	0.5 Miles south of Port Kells.....	North	7
Blaine Shingle Co. Spur.....	1.3 Miles north of Hazelmere.....	North	4

SECOND CLASS.							Capacity of Side Tracks.		Distance from Kilgard.	Time Table No. 82. In Effect June 22, 1913.			Distance from Abbotsford.	SECOND CLASS.							
							Passing Tracks	Other Tracks		STATIONS.	Telegraph Calls	SIGNS. See Rule 7, page 15.									
							395									394					
							Mixed							Mixed							
							Leave Tues., Fri.							Arrive Tues., Fri.							
							6.25Am			10	0 KILGARD.....	5.0		s 6.20Am						
							s 6.55Am		30	31	5.0 ABBOTTSFORD.....	FS .0	RDW	5.50Am						
							Arrive Tues., Fri.							Leave Tues., Fri.							
							395							394							
							.30					Time Over District			.30						
							10.					Average Speed Per Hour			10.						

East bound trains have right over west bound trains of same class.

Seventh District trains will protect themselves against Fifth District trains between Abbotsford and Junction, one half mile east of Abbotsford.

INITIAL STATIONS.
Abbotsford... 394.
Kilgard..... 395.

TERMINAL STATIONS.
Kilgard..... 394.
Abbotsford... 395.

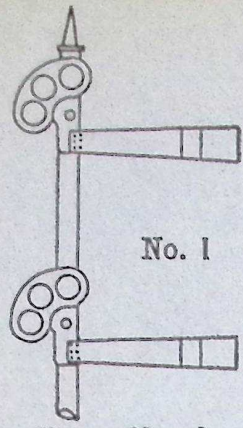
WEST BOUND.			CHERRY VALLEY BRANCH.					EAST BOUND.				
SECOND CLASS.			Capacity of Side Tracks.		Distance from Monroe.	Time Table No. 82. In Effect June 22, 1913.		Distance from Tolt.	Telegraph Calls	SIGNS.	SECOND CLASS.	
391	393		Passing Tracks	Other Tracks		STATIONS.	390				392	
Mixed	Mixed										Mixed	Mixed
Leave Daily	Leave Daily Ex. Sunday										Arrive Daily	Arrive Daily Ex. Sunday
6.20Am	11.00Am				0.0	.....MONROE.....	17.6	Ro	D N Y W P	s	10.05Am	s 4.00Pm
s 6.50	s 11.45	35			9.1	.....DUVALL.....	8.5		D P	s	9.30	s 3.10
s 7.15Pm	s 12.30Pm	31	26		17.6	.....TOLT.....	0.0		D T W P		9.00Am	2.40Pm
Arrive Daily	Arrive Daily Ex. Sunday										Leave Daily	Leave Daily Ex. Sunday
391	393										390	392
.55	1.30					Time over District					105	1.20
19.4	11.7					Average Speed per Hour					163	13.2

East bound trains have right of track over west bound trains of the same class.

INITIAL STATIONS.
Tolt 390-392.
Monroe 391-392.

TERMINAL STATIONS.
Monroe 390-392.
Tolt 391-393.

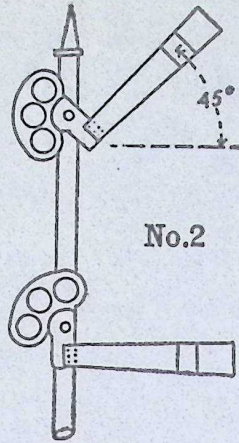
Business tracks not shown as stations on time table.				
NAME	LOCATION	OPENS	LENGTH	CAR CAPACITY
Stephens Bird Ind. Spur	3.5 Miles west of Monroe	West	510 ft.	10
Stephens Bird Logging Co.'s Spur	3.8 Miles west of Monroe	East	388 ft.	7
Cerenis Spur	4.6 Miles west of Monroe	West	268 ft.	6
C. B. Spur	5.2 Miles west of Monroe	East	418 ft.	8
O'Neill Gowen Shingle Co. Spur	6.0 Miles west of Monroe	East	350 ft.	4
Bacus Spur	6.4 Miles west of Monroe	West	320 ft.	5
C. V. Log. Co.'s Spur	7.3 Miles west of Monroe	West	474 ft.	9
Novelty Spur	11.6 Miles west of Monroe	West	658 ft.	15



No. 1

Home Signal.

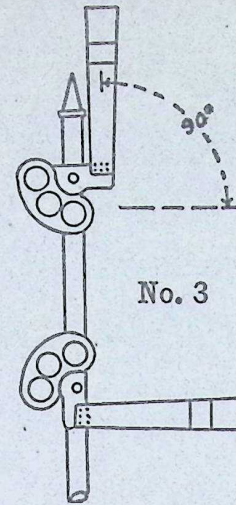
Color. Upper Arm RED light at night.
Lower Arm RED light at night.
Indication. STOP. Proceed only when Signal clears.
Name. STOP Signal.



No. 2

Home Signal.

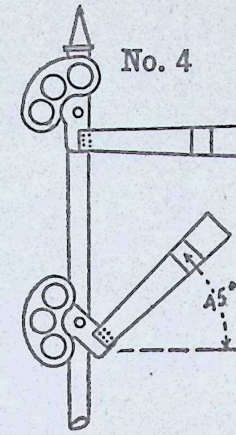
Color. Upper Arm, YELLOW light at night.
Lower Arm, RED light at night.
Indication. Proceed on main line with caution, be prepared to stop at the Block Station.
Name. CAUTION Signal.



No. 3

Home Signal.

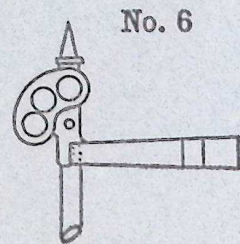
Color. Upper Arm GREEN light at night.
Lower Arm, RED light at night.
Indication. Main line route clear staff in crane PROCEED.
Name. CLEAR Signal.



No. 4

Home Signal.

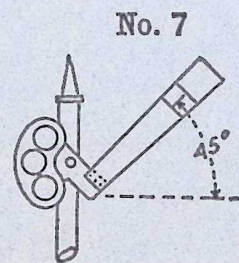
Color. Upper Arm, RED light at night.
Lower Arm, YELLOW light at night.
Indication. Take Passing track.
Name. CAUTION Signal.



No. 6

Distant Signal.

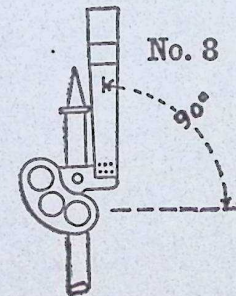
Color. RED light at night.
Indication. STOP then proceed with caution to Home Signal.
Name. STOP Signal.



No. 7

Distant Signal.

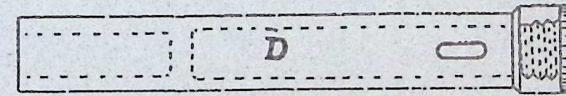
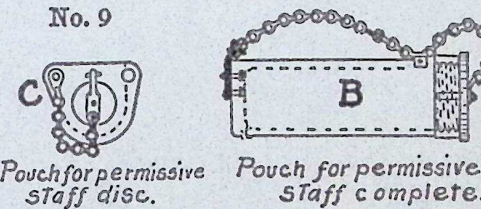
Color. YELLOW light at Night.
Indication. Proceed with CAUTION prepared to stop at Home Signal.
Name. CAUTION Signal.



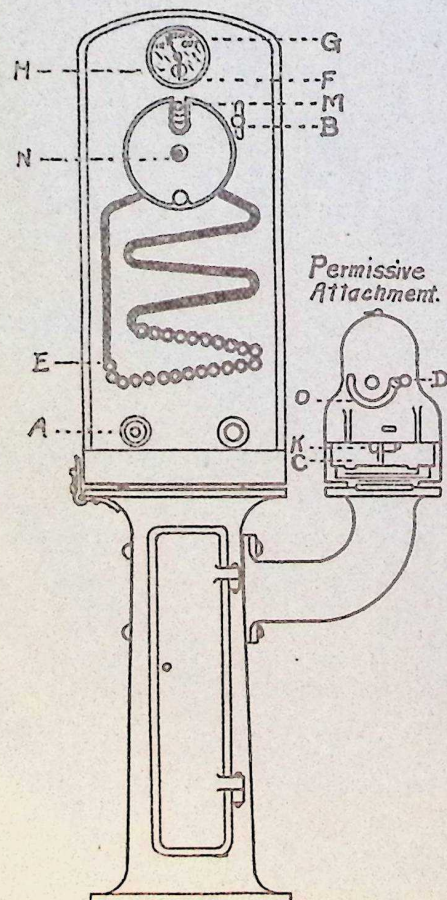
No. 8

Distant Signal.

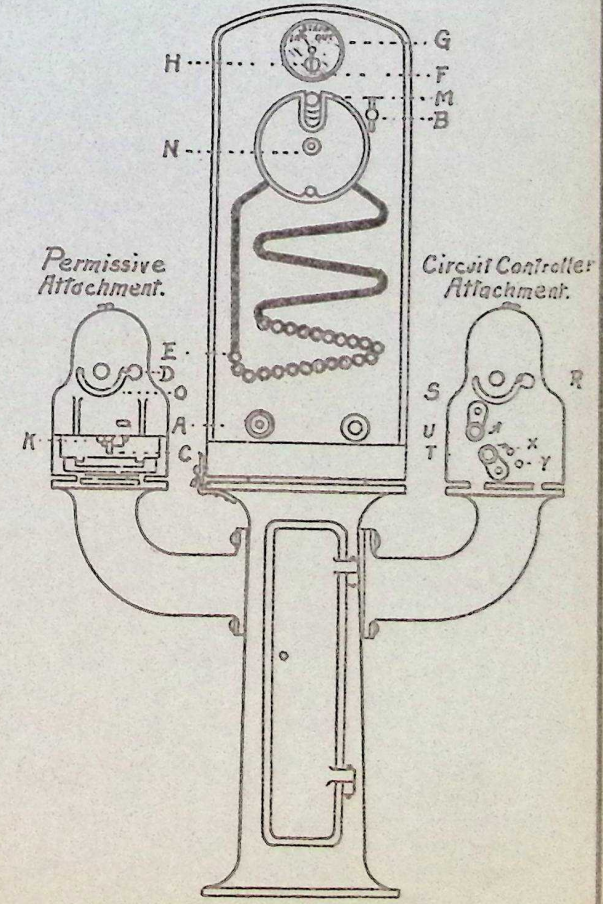
Color. GREEN light at night.
Indication. PROCEED. Staff in Crane.
Name. CLEAR Signal.



POUCH FOR ABSOLUTE STAFF.



STAFF INSTRUMENT.



STAFF INSTRUMENT.

Bell Code of Signals

- 1 — To attract attention.
- 2 -- All Right. Yes.
- 3 --- Block wanted, Unlock my Instrument, Ans. by Unlocking or by 5 or 3-1.
- 4 ---- Train has entered Block.
- 5 ----- Block is not clear.
- 6 ----- Has a train entered this Block? Answer by 2 or 2-1.
- 1-2 --- Clear. Train has cleared Block.
- 2-1 --- No.
- 2-2-2 ----- Previous Signal given in error. Answer by 2.
- 2-4 --- Has train Cleared Block? Answer by 5 or 3-1.
- 3-1 --- Have unlocked. Block is clear. It must not be used unless Block is known to be clear.
- 3-3 --- Train in Block.
- 5-5-5 ----- Obstruction in Block. Stop all trains approaching this Station. Answer by repeating.
- 8 ----- Testing. Answer by repeating.

GENERAL INSTRUCTIONS

FOR

OPERATING TRAIN STAFF INSTRUMENTS.

TO REMOVE STAFF FROM MACHINE.

Instructions to Operator removing staff.

- 1st. Press bell key "A" once. Answer will be two taps.
- 2nd. Press bell key "A" three times. Then watch current indicating needle "T" until it deflects to the right.
- 3rd. Turn preliminary spindle "B" to the right as far as it will go and then release it, permitting it automatically to return to its former position. A white disc will appear in place of the red one at "H". This indicates that staff is ready to be removed.
- 4th. Move end staff "E" up to vertical slot into engagement with guard "N". This guard having been turned so that the staff will slip into the slot in the edge of the guard "N."
- 5th. Revolve guard "N" using staff as a handle and withdraw the staff through the opening at "M". This operation moves staff, indicating needle "G" from "Staff in" to "Staff out."
- 6th. Immediately upon withdrawal of staff, press bell key "A" once. This is absolutely necessary.

Instructions to Operator aiding in removal of a staff.

- 1st. Upon receipt of one ring acknowledge same by two pushes on bell key "A."
- 2nd. Upon receipt of three rings, press bell key and hold it so until staff indicating needle "F" moves from left to right Twice then release key "A" as operation is complete.

TO REPLACE STAFF IN THE MACHINE.

Instructions to Operator replacing staff.

- 1st. Turn outer guard "N" to place and insert staff in the opening "M."
- 2nd. Using staff as handle revolve guard "N" to the right and allow staff to roll down spiral into place.

- 3rd. Press bell key "A" according to signal 1-2 of the bell code.

Instructions to Operator at opposite end of Block.

The signal 1-2 of the bell code must in every case be answered in order to place the machines in proper condition for the withdrawal of the next staff.

TO REMOVE THE PERMISSIVE STAFF FROM MACHINE.

- 1st. Insert solid staff in the opening "D" of the permissive attachment and move to the extreme left of the slot "O."
- 2nd. Turn the latch "K" and allow door "C" to drop and the permissive staff to roll out.

TO REPLACE THE PERMISSIVE STAFF IN THE MACHINE.

- 1st. Be sure all discs are on the permissive staff in their proper numerical order.
- 2nd. Place staff in attachment, close door "C" and latch with "K."
- 3rd. Move solid staff to the right thru slot "O" and remove at opening "D."

INSTRUCTIONS FOR OPERATING SEMAPHORE SIGNALS THROUGH CIRCUIT CONTROLLER ATTACHMENT.

- 1st. To operate Upper Arm of Semaphore 0° to 45° (See Fig. No. 2), turn handle "T" to the right clockwise to stop "X."
- 2nd. To operate Upper Arm of Semaphore 45° to 90° (See Fig. No. 3), withdraw absolute staff and insert into opening "R" and move to extreme left of slot "S" then turn handle "T" to right to stop "Y" remove absolute staff from opening "R" and place staff in Pouch "D", Fig. 9. Then place Pouch in staff crane which action automatically "Clears" Home and Distant Signals to 90° Position. (See Fig. Nos. 3 and 8).
- 3rd. To operate Lower Arm of Semaphore 0° to 45° (See Fig. No. 4), turn handle "U" to the right as far as it will go.

ELECTRIC TRAIN STAFF BLOCK SIGNAL RULES AND INSTRUCTIONS.

Electric Train Staff Block Signal System in operation between Leavenworth and Skykomish.

The use of the divided staff through Cascade Tunnel and all rules and instructions pertaining thereto will continue in effect.

All rules relating to the protection of trains are in force and are only modified by the General Instructions herein.

1. All trains and engines in both directions will be governed exclusively in their movements by the train staff.
2. Home and Distant semaphores are located at each block station. Home signals are located at the passing track switches. Distant Signals are located about 4000 feet from home signals. The signal indications are illustrated by figures Nos. 1, 2, 3, 4, 6, 7, 8 and the meaning of the positions of the signal arms and lights is explained under the diagrams. In all cases the block signals are located upon the right of and adjoining the track upon which trains are governed by them. The semaphore arms that govern are displayed to the right of the signal mast as seen from an approaching train.
3. The possession of the staff by the Engineer gives his train the absolute right of track to the next block.
ENGINEERS MUST KNOW THAT THE STAFF IS IN THE POUCH BEFORE PROCEEDING.
4. The staff will be handled by the Engineer of the leading engine of the train; and the staff must be in the actual possession of the Engineer before he moves his train into a block, and such engine must not be uncoupled from the train except at a block station. The Conductor will receive a "proceed" signal from Block Operator to indicate that staff has been delivered to Engineer. (See Rule 29).
- 4-A. In the case of an engine pushing a train, it must be considered as part of that train through to the next block station, and may be uncoupled only at a block station. Such engine, if then uncoupled, must be treated as a separate train.
5. When a staff has been secured by the Engineer, he will announce the fact by sounding one short, one long and one short blast of the whistle, thus (o—o).
6. An absolute staff permits but one train at a time to use a block. See D figure No. 9.
- 6-A. A permission staff disc, permits two or more trains in the same direction at one time to use a block on ascending grade only. Each train must be in possession of a permissive staff disc before proceeding. See C, Fig. No. 9.
- 6-B. Permissive staff complete permits but one train at a time to use a block. See B, Fig. No. 9 and Rule No. 22-F.
7. The delivery of the staff to the Enginemen will be either by staff crane, hand of Block Operator, or the Conductor or head Brakeman of his own train and the Engineer must not accept delivery of a staff from any other person. Block Operators will not deliver staff to any other than one of these employees.
8. Staff will be delivered by Engineer on arrival at Block Station by dropping same at a designated spot, or, in case of taking siding, and it cannot be personally delivered by Engineer, it will immediately be sent to Block Operator by head Brakeman or Conductor.
UNDER NO CIRCUMSTANCES WILL A STAFF BE TRANSFERRED FROM ONE TRAIN TO ANOTHER. IT IS THE DUTY OF THE BLOCK OPERATOR TO SEE THAT ALL OF THE TRAIN CLEARS THE BLOCK BEFORE INSERTING STAFF INTO INSTRUMENT.
9. In case a train parts, or it is necessary to "double," the staff must be retained by the Engineer until all the train is clear of the block. A train is clear of a block when it has passed the home signal. A train proceeding on main track enters a block at the block office. It may occupy the main track inside of home signals in either direction to do station work or to allow another train to enter the sidetrack, but must not proceed until in possession of a staff, as per Rule No. 3.
- 9-A. A train making switching movements may use the main track to, but not beyond the distant signal, when protected as per Rule 99. Superior class trains must not be delayed.
10. Enginemen and Trainmen will carefully note the position of all signals and be governed accordingly in the movement and protection of their trains. See Figs. Nos. 1, 2, 3, 4, 6, 7, 8.
11. Conductors and Engineers, before leaving initial points, must secure clearance card, Form 219.
12. Block Operators, unless otherwise instructed by Train Dispatcher, will staff the train of superior time table rights and side track the inferior train when a meeting point develops at their station.
13. When it is desired to reverse the right of track, trains will be moved by Train Dispatcher's orders on Form 19, issued to Block Operators giving instructions to staff the train that is to receive preferred attention, and side track the superior train.
14. Work trains, after receiving orders authorizing the existence of the train, will occupy the block after receiving the absolute staff until same is surrendered at a block station at either end of the block. They will be given a time by the Train Dispatcher when delivery shall be made, and unless otherwise instructed, they shall clear the block and deliver the staff to the Block Operator so that regular and extra trains will not be delayed. Train Dispatcher may authorize the delivery of a permissive disc in the prescribed direction to enable work train to work under protection of flag until following train approaches.
15. In case of failure of staff apparatus, all concerned must be notified and trains will be moved by train orders until it has been repaired. In such event, the train order takes the place of the staff, though only one block on each train order and this order must be given jointly to the Conductor and Engineer of the train and the Block Operator at both ends of the block.
- 15-A. In the event of staff apparatus and other means of communication becoming out of order due to the breakage of line wires or other causes, trains will move in accordance with general rules and time table rights, obtaining at each block office, block card, Form No. 2615 signed by Block Operator.
- 15-B. When a staff apparatus has been repaired it will not be put into use until authorized by Train Dispatcher.
- 15-C. Before issuing train orders, superseding staff system, the Train Dispatcher must know that block is clear and the Block Operator and Train Dispatcher must know that the full number of staffs are in the two instruments of this block.
16. In case a staff should be lost, the staff instruments in this block are inoperative and trains must be moved only by the authority of Train Dispatcher, who will then issue train orders. The staff can only be replaced by Signal Repairman who has charge of the staffs not in use. No extra staffs will be allowed in the possession of any other employe.
17. Should a train pass a block station without markers, the Block Operator must notify the Train Dispatcher and the next block station in each direction and must not report that train clear of the block until he has ascertained that the train is complete.
18. A record of all trains must be kept at each block station on Form No. 290.
19. In case of unexpected delay to a train to which a staff has been delivered, same can be recalled by Block Operator and return of staff to the instrument will cancel the authority given to such train to proceed. The train then has no right to main track until given another staff.
20. Block Operators must not deliver a staff received from one train to another train. It must be placed in the instrument and another withdrawn in accordance with the rules.
21. BLOCK OPERATORS WILL HANDLE THE STAFF MACHINES IN ACCORDANCE WITH THE RULES AND GENERAL INSTRUCTIONS FOR OPERATING STAFF INSTRUMENTS.
- 21-A. When two or more trains bound in opposite directions are at a block station, Block Operator must exercise great care in delivery of staffs and must know that the staff is delivered to the train for which it was withdrawn.
22. Absolute staffs (See D, Fig. No. 9) must be used for all trains on descending grades, or eastbound from Cascade Tunnel to Leavenworth, and westbound from Tye to Skykomish.
- 22-A. Permissive staff discs (See C, Fig. No. 9) may be used on ascending grades, or westbound from Leavenworth to Cascade Tunnel, and eastbound from Skykomish to Tye, for all trains except as per rule 22-B.
- 22-B. Permissive staff discs must not be given to Enginemen with light engines or light tonnage trains to follow a passenger train.
- 22-C. Trains moving under authority of a permissive staff disc must protect against following trains as per Rule No. 99.
- 22-D. When two or more trains use permissive staff discs the last train will be given the permissive staff (See B, Fig. No. 9) with all the remaining discs and this confers the same rights as a single permissive staff disc.
- 22-E. The Block Operator receiving the permissive staff must at once assemble on it in numerical order all the permissive discs received from preceding trains and place the complete permissive staff in the permissive attachment.
- 22-F. The first train in the opposite direction (descending the grade) must be given the complete permissive staff, which confers the same rights as an absolute staff.
23. When no train movement is imminent, home signals must be kept in stop position.
24. Block Operators must not make nor permit any unauthorized alterations or additions to the apparatus. If alterations or additions are made, the work will be done under the direction of the Signal Supervisor.
25. If any electrical or mechanical appliance fails to work properly, the Signal Repairman and Train Dispatcher must be notified and only duly authorized persons permitted to make repairs.
26. Block Operators must have the proper appliances for hand signaling (a yellow flag by day and a yellow light by night) ready for immediate use. Hand signals must not be used when the proper indications can be displayed by the fixed signals. When hand signals are necessary, they must be given from such a point and in such a way that there can be no misunderstanding on the part of Enginemen or Trainmen as to the signals or as to the train for which they are given.
27. Block Operators are responsible for the care of the block station, lamps and supplies and of the signal apparatus unless provided for otherwise.
28. Lights in block stations must be so placed that they cannot be seen from approaching trains.
29. Block Operators will remain in view until the rear of a train has passed and will give a "proceed" signal to the Conductor on rear of train to indicate that a staff has been delivered to Engineer.
30. The Engineer of a train which has parted must sound the whistle signal for "train parted" on approaching a block station.
31. An Engineer receiving a "train parted" signal must answer by two short blasts of the whistle.
32. When a parted train has been recoupled the Block Operator must be notified.
33. If the track is obstructed between block stations notice must be given to the nearest Block Operator.
34. If a train is held by a block signal to exceed two minutes, the Conductor must ascertain the cause.
- 34-A. The Conductor must report to the Superintendent any unusual detention at block stations.
35. Special attention of all concerned is directed to meaning of caution signal as shown by Fig. No. 2.
36. Staff instruments must be kept locked. Keys will be furnished to the signal repairman but to no other person.

AUTOMATIC BLOCK SYSTEM.

Automatic Block Signals are in operation between King Street Station, Seattle and G. N. Dock, also between Metum and Everett Junction.

The Controlled Manual Block Signal System is in operation between G. N. Dock and Metum, and between Everett Jet. and Pacific Ave.

- In all cases the Automatic Block and Interlocking Signals are located upon the Right of and adjoining the track upon which trains are governed by them. The Semaphore Arms that govern are displayed to the Right of the Signal mast as seen from an approaching train.
- The movement of trains will be regulated by Block Signal Indications as follows:
 - An Arm in the horizontal position (see Fig. No. 6) indicates that the Block is not clear and is a signal to "STOP."
 - An Arm in the inclined position 45 degrees above the horizontal, (see Fig. No. 7), indicates proceed with Caution prepared to stop at the next Signal.
 - An Arm in the vertical position 90 degrees above the horizontal (see Fig. No. 8), indicates that Block is "CLEAR" and is a Signal to "PROCEED."
 - At night the Position of the Signals will in addition be shown by the Standard Colored Lights.

RED indicates "STOP."
 YELLOW indicates "CAUTION," proceed with caution prepared to Stop at next Signal.
 GREEN indicates "PROCEED."
- Track Circuits are used to Control Automatic and Semi-Automatic Block Signals and include all turn-outs up to the fouling points.

- Block Signals do not dispense with the use or observance of other Signals, whenever or wherever they may be required. Nor do they relieve Enginemen and Trainmen from taking all precautions required by train rules for the protection of their trains.
- The Block Signals apply only to trains running in the established direction.
- When a train is stopped by a Block Signal it may proceed with caution after coming to a FULL STOP, expecting to find Block obstructed.
- A train stopped by a Block Signal must stand facing the Signal so that its indication may be observed from the engine.
- Switches in main tracks and switches of Cross-overs to main track, Set Signals to "STOP," when moved from their normal positions.
- Main line Semaphore Interlocking Signals located within the Automatic Block Signal limits are made Semi-Automatic and part of the Block Signal System.
- Cars and Engines on Sidings must stand clear of bonded Rails and insulated joints.
- In making train movements through cross-over switches, BETWEEN MAIN TRACKS, one of the switches must be kept open until the train movement is completed.
- When a Signal is found at Stop, from any cause, other than a train in the Block, Enginemen will report same, using form 2600 and Operator will transmit in accordance with instructions thereon.
- All Automatic Block Signals are designated by numbers. Signals governing East bound trains have even numbers, signals governing West bound trains have odd numbers.
- Home Interlocking Signals are equipped with two arms and two lights (see Figs. Nos. 1, 2, 3, 4 and 5). These Signals are not permissive and may be passed only when signal indicates "PROCEED," or upon prescribed hand signal from Signalman. Rule governing reads as follows:

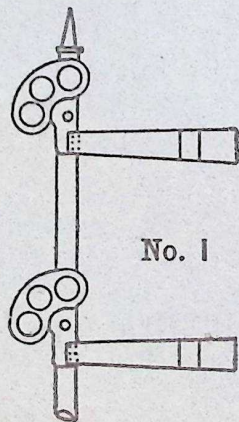
- When from any cause signals cannot be operated, Signalman must examine switches and know that the way is clear. The train must be required to come to a full stop before the prescribed hand signal is given. Signalman giving hand signal must do so from the center of the track upon which the train movement is to be made, using a yellow flag by day and a yellow light by night. When more than one train is in sight, hand signals must be given from a point not to exceed one hundred feet in advance of the locomotive.
- Dwarf signals (see Figs Nos. 1, 9 and 10), are provided to govern train movements against the current of traffic and slow movements either to or from main tracks to storage and industry tracks.
- Single Arm and Single light Semaphore will be continued for Train order Signals.
- A signal imperfectly displayed, the absence of a signal at a place where one is usually shown, or a white signal at a place where a colored signal should be shown must be regarded as a STOP Signal, and the fact reported to the Superintendent.
- Firemen as well as Enginemen must watch signals closely, as frequently the first view can be had from the Fireman's side.

Interlocking Signals.

Within the limits of the Automatic Block Signal System Interlocking Plants are located as follows:

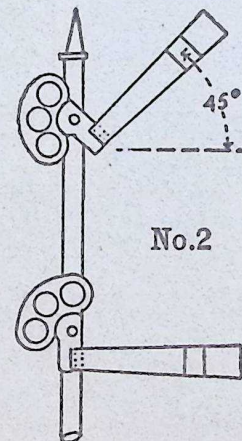
SOUTH PORTAL OF SEATTLE TUNNEL.
 NORTH PORTAL OF SEATTLE TUNNEL.
 EVERETT JUNCTION.

On the single track between G. N. Docks and Metum an Interlocking Plant is in use at the Salmon Bay Draw Bridge, Ballard. At the Crossing of the C. M. & P. S. located in 15th Ave. Ballard, and at N. P. Crossing west end Interbay Yard.



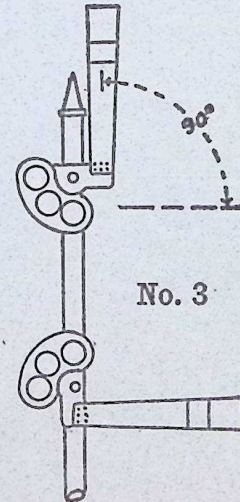
Interlocking Home Signal.

Color. Upper Arm, RED light at night.
 Lower Arm, RED light at night.
Indication. STOP. Proceed only when signal clears or upon prescribed hand signal from Signalman.
Name. STOP Signal.



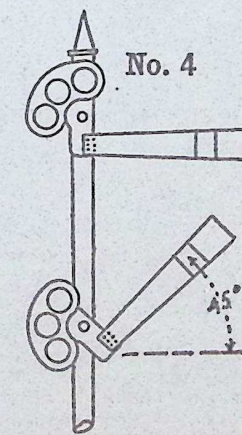
Interlocking Home Signal.

Color. Upper Arm, YELLOW light at night.
 Lower Arm, RED light at night.
Indication. Main line route clear, proceed with CAUTION, prepared to stop at next signal.
Name. CAUTION Signal.



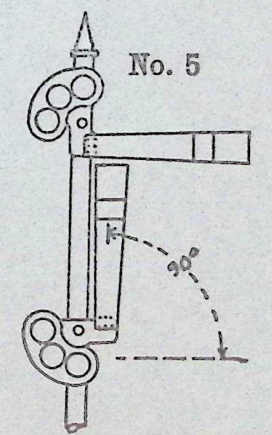
Interlocking Home Signal.

Color. Upper Arm, GREEN light at night.
 Lower Arm, RED light at night.
Indication. Main line route clear, PROCEED.
Name. CLEAR Signal.



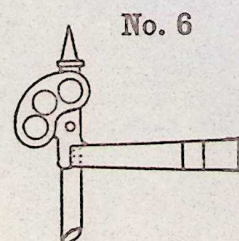
Interlocking Home Signal.

Color. Upper Arm, RED light at night.
 Lower Arm, YELLOW light at night.
Indication. Diverging route clear, proceed with CAUTION.
Name. CAUTION Signal.



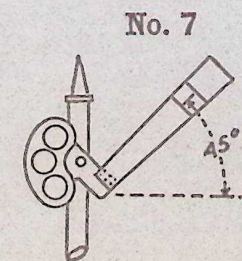
Interlocking Home Signal.

Color. Upper Arm, RED light at night.
 Lower Arm, GREEN light at night.
Indication. Diverging route clear, proceed at reduced speed.
Name. CLEAR Signal.



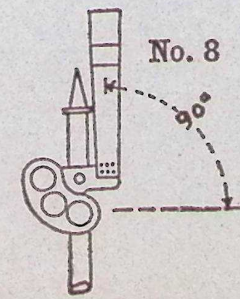
Automatic Block Signal.

Color. RED light at night.
Indication. STOP.
Name. STOP Signal.



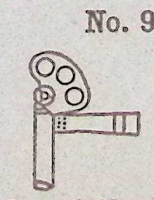
Automatic Block Signal.

Color. YELLOW light at night.
Indication. PROCEED with CAUTION, prepared to stop at next signal.
Name. CAUTION Signal.



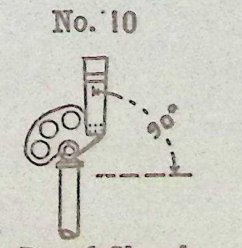
Automatic Block Signal.

Color. GREEN light at night.
Indication. PROCEED.
Name. CLEAR Signal.



Dwarf Signal.

Color. RED light at night.
Indication. STOP.
Name. STOP Signal.



Dwarf Signal.

Color. GREEN light at night.
Indication. PROCEED.
Name. CLEAR Signal.

GREAT NORTHERN RAILWAY and Connections.



DOUBLE TRACK
PROPOSED LINE
2-25-15
POOLE BROS. CHICAGO.