

# GREAT NORTHERN RAILWAY



CASPER DIVISION



**TIME TABLE No. 91.**

TO TAKE EFFECT AT 12:00 P. M. (12:00 A. M.)

**SUNDAY, JULY 16, 1916.**

Supplies and all Supplies

**THIS TIME TABLE IS FOR THE USE OF EMPLOYEES ONLY.**

W. R. SMITH, Superintendent.

GEO. S. STEWART, Asst. General Superintendent.

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

J. H. O'NEILL, General Superintendent.

GEO. H. EMERSON, General Manager.

THIRD CLASS			SECOND CLASS			Capacity of Side Tracks	Distance from Leavenworth	Time Table No. 91 In Effect May 14, 1916						Telegraph Code	FIRST CLASS					
731	715		411	401	727			3	285	1	43	27	297		3	285	1	43	27	297
N. P. 935 Freight	Mdae. Freight		Fast Freight	Fast Freight	N. P. 675 Freight	Passing Tracks	Passenger	Passenger	Passenger	Passenger	Fast Mail	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	N. P. 441 Passenger		
Daily Ex. Sunday	Daily Ex. Sunday		Daily	Daily	Daily Ex. Sunday	Other Tracks	Daily	Daily Ex. Sunday	Daily	Daily	Daily	Daily	Daily Ex. Sunday	Daily	Daily	Daily	Daily	Daily		
			Lr. 2:20pm	Lr. 8:00am		60	492		CB	Lr. 3:30am		Lr. 2:06pm	Lr. 3:50pm	Lr. 11:55pm						
			3:02	8:40		75		6.3	DY	3:48		2:23	4:08	12:12pm						
			3:30	9:05		105	23	10.5	CY	4:00		2:36	4:20	12:22						
			4:00	9:25		74	10	13.0	WI	4:12		2:43	4:28	12:29						
			4:37	9:45		71	4	17.5	NC	4:22		2:56	4:37	12:38						
			5:25	10:00		145	5	20.5	CK	4:28		3:01	4:45	12:44						
			6:00	10:35		78		24.9	GR	4:45		3:16	5:02	1:00						
			6:30	11:10		102	5	28.0	BR	4:57		3:28	5:17	1:13						
			7:10	11:50		176	87	32.3	CN	5:15		3:45	5:35	1:31						
			7:30	12:10pm		85	263	35.9	WN	5:30		4:00	5:50	1:44						
			7:50	12:40		70	8	39.8	NY	5:42		4:10	6:03	1:56						
			8:05	1:18 <sup>102</sup>		75	10	42.3	CO	5:51		4:18	6:12	2:05						
			8:30	2:00		78	22	45.2	MA	6:02		4:28	6:23	2:18						
			8:45	2:15		76	9	48.3	NI	6:11		4:37	6:34	2:23						
			9:00	2:30		75	15	51.8	G	6:20		4:46	6:45	2:31						
		Lr. 7:30am	9:20	2:50		63	230	57.0	KY	6:30	Lr. 8:50am	6:05	7:05	2:45						
		7:45	10:15	3:35		73	7	61.1		6:49		6:13	7:13	2:59						
		8:00	10:35	3:45		80	60	66.1	SA	6:59	4:02	5:22	7:23	3:08						
		8:35	10:50	4:05		71	21	71.2	NX	7:09	4:28	5:31	7:35	3:19						
		9:00	11:05	4:20		78	17	76.3		7:18	4:40	5:40	7:45	3:28						
		8:15 <sup>283</sup> 10:00	11:25 <sup>28</sup> 12:40 <sup>44</sup>	4:35 5:05		85	330	80.0	GB	7:25	7:15	5:45	7:55	3:34						
		10:15				45		82.4	RU	7:29	4:53	5:50	8:01	3:38						
		11:00	1:00	5:25		70	23	85.8	SU	7:36	5:03	5:55	8:10	3:45						
		12:10pm	1:30	5:10		105	25	92.3	RO	7:52	5:12	5:58	8:28	3:58						
	Lr. 6:00pm	1:10	2:00	6:45	Lr. 11:55pm	74	116	100.2	HO	8:06	5:38	6:25	8:32	4:11	Lr. 4:45pm					
	Ar. 5:20pm	1:30pm	2:20am	7:00pm	Ar. 12:10am	70	62	105.0	W	8:17	5:48	6:35	9:02	4:20	Ar. 4:55pm					
						43	174	107.6	D	8:20	6:03	6:38	9:05	4:23						
						8		106.7		8:32	6:07	6:48	9:13	4:32						
								109.5	JN	Ar. 8:35am	Ar. 11:00am	Ar. 6:50pm	Ar. 9:15pm	Ar. 4:35pm						
						75	527	109.3	PG											
Daily Ex. Sunday	Daily Ex. Sunday		Daily	Daily	Daily Ex. Sunday					Daily	Daily Ex. Sunday	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	
731	715		411	401	727					3	285	1	43	27	297					
20 17.4	6:30 8.1		12:40 8.6	12:0 9.1	21 17.0					4:50 22.7	2:10 24.3	4:48 23.0	8:20 25.7	4:40 22.1	10 24.8					

ELECTRIC TRAIN STAFF BLOCK SYSTEM.

STAFF SYSTEM

Time Over District  
Average Speed, Per Hour

Read carefully Rules covering Operation Electric Train Staff Block, Pages 14 and 15.  
Electric train staff block system between Everett Junction and Pacific Ave., and between Skykomish and Leavenworth.  
All trains between Snohomish and Lowell to be handled by Block Card (Form 80).  
West bound trains will be prepared to stop at Snohomish, and East bound trains will be prepared to stop at Lowell, and must not go by, or foul, cross-over until they have block card in their possession.

At Snohomish all Northern Pacific trains will enter and leave Great Northern main line through the cross-over.  
At Lowell all east bound trains from Northern Pacific connection and first class west bound trains for Northern Pacific connection will run through cross over. All west bound second and inferior class trains for Northern Pacific connection will enter passing track at east switch.  
Local freights between Skykomish and Delta will carry passengers when provided with proper transportation.

EAST BOUND	
300	(N. P. 412)
Passenger	
Daily	
715	Ar. 1:10pm
Ar. 1:00pm	
300	

**EAST BOUND. FIRST DISTRICT—LEAVENWORTH TO EVERETT JUNCTION.**

FIRST CLASS						Time Table No. 91. In Effect May 14, 1916.	STATIONS.	Distance from Delta	SIGNS See Rule 5, Page 18	SECOND CLASS		THIRD CLASS
300 (N. P. 412)	44	28	2	286	4					402	730 (N. P. 670)	732 (N. P. 930)
Passenger Daily	Passenger Daily	Express Daily	Passenger Daily	Passenger Daily Ex. Sunday	Passenger Daily					Fast Freight Daily	Freight Daily Ex. Monday	Freight Daily Ex. Monday
4:50am	4:30am	4:14am	4:00am	3:20pm	3:02pm	LEAVENWORTH	109.5 R	DN WCTYOP	7:00pm			
4:32	4:12	3:51	3:37	2:59	2:41	DRURY	103.2	DN	6:30			
4:20	4:00	3:51	3:37	2:49	2:31	CHIWAUKUM	99.0	DN W	6:15			
4:12	3:51	3:40	3:26	2:43	2:25	WINTON	96.5	DN	6:00			
4:00	3:40	3:31	3:17	2:35	2:17	NASON CREEK	92.0	DN	5:40			
3:53	3:31	3:20	3:06	2:29	2:11	MERRITT	89.0	DN W Y P	5:25			
3:43	3:18	3:07	2:53	2:20	2:02	GAYNOR	84.8	DN	5:02			
3:34	3:08	2:57	2:43	2:11	1:53	BERNE	81.5	DN W	4:50			
3:23	2:55	2:44	2:30	2:00	1:42	CASCADE TUNNEL	77.2	DN W T P	4:35 4:45			
3:05	2:35	2:24	2:10	1:43	1:25	TYE	73.6	DN WC	2:50			
2:44	2:17	2:06	1:52	1:28	1:10	EMBRO	70.0	DN W	2:10			
2:30	2:05	1:54	1:40	1:18	1:00	COREA	67.3	DN	1:40			
2:15	1:53	1:42	1:28	1:07	0:49	SCENIC	64.3	DN W	1:07			
1:59	1:36	1:25	1:11	0:51	0:33	ALPINE	61.2	DN W	12:20pm			
1:47	1:23	1:12	0:98	12:38	12:20	TONGA	57.7	DN	11:45			
1:35	1:05	0:54	0:40	12:10	11:52	SKYKOMISH	52.5 R	DN WC Y P	11:00 10:30			
1:16	12:51	12:40	12:26	12:05pm	11:47	GROTTO	48.4		9:55			
1:05	12:40	12:29	12:15	11:54	11:36	MALFORD	43.4	D W	9:14			
12:53	12:27	12:16	12:02	11:42	11:24	INDEX	38.3	DN	8:36			
12:40	12:15	12:04	11:50	11:25	11:07	REITER	33.2	W	7:50			
12:32	12:08	11:57	11:43	11:18	11:00	GOLD BAR	29.1 R	DN Y P	7:25 6:30			
12:28	12:04am	11:53	11:39	11:14	10:56	STARTUP	27.1					
12:22	11:58	11:47	11:33	11:08	10:50	SULTAN	23.7	D	6:00			
12:07am	11:43	11:32	11:18	10:53	10:35	MONROE	18.2	DN W Y P	5:35			
1:10pm	11:52	11:41	11:27	10:55	10:37	SNOHOMISH	9.2 R	DN	5:10	1:35am	7:10am	
1:00pm	11:40	11:29	11:15	10:37	10:19	LOWELL	3.8 R	DN	4:55	1:15am	6:50am	
11:38	11:10	11:00	10:46	10:23	10:05	PACIFIC AVENUE	1.9	DN				
11:35	11:07	10:56	10:42	10:20	10:02	EVERETT	0.8	K				
11:30am	11:00am	10:50am	10:36am	10:15am	9:57am	EVERETT JCT.	0.0 R	DN				
						DELTA		R	DN WCTYOP	4:30am		

**Special Rules. 3**

West bound trains are superior to east bound trains of the same class. No. 27 is superior to all other trains. Opposing 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.

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.

Bulletin boards are located at Leavenworth, Cascade Tunnel, Skykomish, Gold Bar, Delta.

Passenger trains reduce speed to 25 miles per hour and freight trains to 15 miles per hour through City limits of Monroe. All trains will reduce speed to ten miles per hour over crossing just east of Pacific Avenue Freight House.

Trains must not exceed speed of 8 miles per hour over drawbridges and Interlocking Plants.

No. 43 stops at any station to let off passengers for points east of Shelby.

No. 44 stops at any station to pick up passengers for points east of Shelby.

Berlin and Baring and Haybrook Spur two miles east of Index will be flag stop for Nos. 285 and 286.

No. 2 will stop at any station between Skykomish and Leavenworth to pick up passengers for Twin Cities and east.

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 engineer 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 engine and the engineer 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 founding point of the passing track unless signalled to do so by the Tunnel conductor.

Scenery located 1300 feet east of switch at Holmquist Spur half-mile east of Monroe.

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

**TERMINAL STATIONS.**  
Leavenworth for Nos. 2, 4, 28, 44 and 402.  
Skykomish for train No. 286.  
Everett Jct. for trains 1, 3, 27, 43 and 285.

**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.

Index Industry track 120 feet from west head block.

Reiter, west end Industry track.

Monroe Mill Spur, 200 feet from head block.

Brewery Spur, Pacific Avenue, 210 feet from head block.

Frye-Brum Spur, 120 feet from Crossing Agnew Hardware Co. Spur.

Everett 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		5
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
Grotto Lumber Co.	0.3 Miles east of Grotto	East	1200 feet	25
G. N. Shingle Co.'s Siding	3.5 Miles east of Grotto	Both ends		24
Baring	1.4 Miles east of Halford	Both ends	1275 feet	22
Haybrook Spur	2.0 Miles east of Index	East		5
Dyest 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
Gold Bar Lbr. Co. Spur	0.5 Miles west of Gold Bar	East		26
Sultan Logging Company Connection	2.0 Miles west of Sultan	East		37
Holmquist Spur	0.5 Miles east of Monroe	East		18
Monroe Mill Spur	0.3 Miles east of Monroe	East		15
Wagner & Wilson Lbr. Co. Spur	0.0 Miles west of Monroe	West		110
Woodruff	Opens off Monroe Gravel Pit Track	West		25
Sumner Iron Works Spur	2.0 Miles west of Monroe	Both ends		24
Everett Power House Spur	0.9 Miles east of Pacific Ave.	West		15
	0.1 Miles west of Everett	West		2

**LOCATION OF TUNNELS.**

Tunnel No. 13	13,873	feet long height 19.5,	between Tye and Cascade Tunnel.
" " 13.1	1,202	" " "	" "
" " 14	274.8	" " "	1.12 miles east of Embro.
" " 15	1,512	" " "	18.1, 1.18 miles west of Embro.
" " 16	2,568.3	" " "	18.7, .66 miles east of Corea.
" " 17		" " "	22, Everett, Wash.

Interlocking Plant: at bridge 455 just east of Snohomish. No distant signals. Home signal are located 550 feet each way from draw span; derails are located 55 feet in advance of home signals.

## SECOND DISTRICT—EVERETT JUNCTION TO SEATTLE.

WEST BOUND.

THIRD CLASS		SECOND CLASS		Capacity of Side Tracks	Placards from Everett Junction	Time Table No. 91 In Effect May 14, 1916		FIRST CLASS									
717	401	STATIONS				27	357	3	277	285	359	273	1	355	43		
Mds. Freight Daily Ex. Sunday	Fast Freight Daily			Telegraph Cuts	Fast Mail Daily	Passenger Daily	Passenger Daily	Passenger Daily Ex. Sunday	Passenger Daily Ex. Sunday	Passenger Daily	Passenger Daily Ex. Sunday	Passenger Daily	Passenger Daily	Passenger Daily			
Lr 1.15pm	Lr 2.30pm	EVERETT JUNCTION		JN	Lr 4.35am	Lr 6.45am	Lr 8.35am	Lr 9.35am	Lr 11.00am	Lr 2.25pm	Lr 6.25pm	Lr 8.50pm	Lr 8.20pm	Lr 9.15pm			
1.35	2.45	110	3.8	MI	4.42	6.54	8.42	9.43	11.08	2.31	6.34	6.57	8.27	9.21			
1.60	2.55		7.9	AD	4.49	7.02	8.49	9.50	11.16	2.37	6.42	7.04	8.33	9.28			
2.05	3.06	6	10.9	DR	4.55	7.08	8.55	9.56	11.22	2.42	6.48	7.10	8.38	9.33			
2.48	3.25	104	14.8	R	5.02	7.18	9.02	10.06	11.29	2.48	6.58	7.17	8.45	9.40			
3.35	3.35	87	17.8	BD	5.08	7.26	9.08	10.12	11.36	2.53	7.06	7.23	8.51	9.45			
4.15	4.15	194	26.9	RB	5.24	7.45	9.24	10.31	11.53	3.08	7.25	7.39	9.08	10.00			
Ar 4.30pm	Ar 4.30pm	205	33.0	Z	5.29	7.50	9.29	10.39	11.58	3.12	7.30	7.44	9.12	10.04			
		285	29.3	UD	5.45am	8.05am	Ar 9.45am	Ar 10.55am	Ar 12.15pm	Ar 3.30pm	Ar 7.45pm	Ar 8.00pm	Ar 9.30pm	Ar 10.20pm			
		843	22.7		6.00am	11.15am				3.45pm		8.35pm	10.45pm				
		183	72.9		Ar 7.05am	Ar 12.35pm			Ar 8.00		Ar 10.00pm	Ar 12.01am	12.10				
			214.8			Ar 5.55pm			Ar 10.00pm			Ar 6.00am					
Daily Ex. Sunday	Daily				Daily	Daily	Daily	Daily Ex. Sunday	Daily Ex. Sunday	Daily	Daily Ex. Sunday	Daily	Daily	Daily			
717	401				27	357	3	277	285	359	273	1	355	43			
3.15 8.0	2.00 14.0				1.10 28.2	1.20 24.8	1.30 28.2	1.25 21.8	1.15 28.1	1.05 30.2	1.20 21.0	1.10 28.2	1.10 28.2	1.05 30.1			
					Time Over District Average Speed Per Hour												

## Special Rules.

West bound trains are superior to east bound trains of the same class.

- No. 27 is superior to all other trains. Opposing 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 Seattle. No. 357 meets No. 359. No. 3 meets Nos. 359, 4 and 718. No. 277 meets Nos. 4 and 718. No. 359 passes No. 717. No. 717 meets No. 285. No. 285 meets Nos. 270 and 718. No. 273 meets Nos. 278 and 2. No. 1 meets No. 2. No. 355 meets No. 2. No. 43 meets No. 28. No. 4 passes No. 718 on double track between Everett Junction and Seattle. Bulletin boards are located at Interbay and Seattle. All trains will reduce speed to 8 miles per hour passing through town limits of Edmonds. Ballard, Edmonds and Mukilteo are flag stops for No. 4 to take passengers for Spokane or points east of Spokane. Mile post 10 south of 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. 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 for points east of Shelby. No. 44 will stop at any station to pick up passengers for points east 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 cover limits to 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, 369, 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.  
INTERLOCKING Plant Baseline drawbridge 500 feet west of Ballard.  
Distant signals are located 4000 feet east and west of draw span and work from zero to 45°.  
Home signals are located 600 feet east and west of draw span and have two arms. Top arm works from zero to 90°. Lower arm fixed denoting home signal.  
Derails are located 55 feet inside home signals.
- INTERLOCKING governing Northern Pacific crossing just west of Interbay.  
West bound Home Signal is suspended from Wheeler Street Bridge 230 feet east of crossing.  
East bound Home Signal is located 300 feet west of crossing.  
Home Signals are three positions upper quadrant type.  
East bound derail is located 55 feet in advance of Home Signal.  
West bound derail is located 200 feet East of crossing.  
East bound Distant Signal is located 3000 feet from east bound Home Signal and works zero to 45 degrees.  
West bound Distant Signal is located 1500 feet east of Home Signal and works zero to 45 degrees.  
Back up Dwarf Signal on Great Northern yard tracks are located 125 feet from crossing East and West.  
Derails on Northern Pacific tracks 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 by a Great Northern switch lock and Northern Pacific switch lock.

## Business Tracks Not Shown as Stations on Time Table.

NAME	LOCATION	OPENS	LENGTH	CAR CAPACITY
G. N. Oil Tank Spur	1.7 miles west of Everett Jct.	East		30
Mukilteo Lumber Co.	2.1 miles east of Mukilteo	East		10
Wasser-Mowatt Lumber Co. Spur	1 mile east of Meadowdale	East		3
Brown Bay Logging Co. Connection	0.8 miles west of Meadowdale	East		
Invincible Railroad Spur	0.4 miles west of Edmonds	West		8
Shipyards Spur	1.5 miles west of Edmonds	West	1200	24
Standard Oil Co. Spur	1.0 east of Richmond Beach	West	2185	46
G. N. Clay Co. Spur	4.2 miles west of Richmond Beach	West		10
Metum Spur	1.6 miles east of Ballard	West		43

## LOCATION OF TUNNELS.

Tunnel No. 17, 5,141 5 feet long, height 22 feet, Seattle, Wash.

**EAST BOUND.**

**SECOND DISTRICT—EVERETT JUNCTION TO SEATTLE.**

FIRST CLASS										Time Table No. 91 In Effect May 14, 1911	Distance from Seattle	SIGNS See Rule 5, Page 13	SECOND CLASS			THIRD CLASS	
356	44	28	2	278	358	286	270	4	360				402			718	
Passenger Daily	Passenger Daily	Express Daily	Passenger Daily	Passenger Daily Ex. Sunday	Passenger Daily	Passenger Daily Ex. Sunday	Passenger Daily Ex. Sunday	Passenger Daily	Passenger Daily				Fast Freight			Md. Fr. Freight Daily Ex. Sunday	
Ar 1:05am	Ar 11:30am	Ar 11:00am	Ar 8:30am	Ar 6:47am	Ar 5:35am	Ar 5:20am	Ar 12:25am	Ar 10:15am	Ar 9:16am								
*12:55	11:24	10:54	8:23	* 6:40	5:28	* 5:11	*12:18	10:08	* 9:08					Ar 11:25am			
*12:45	11:17	10:47	8:16	f 6:31	5:22	f 5:01	12:11	10:02	f 8:59					11:10			
*12:37	11:12	10:42	8:11	f 6:24	5:17	f 4:55	f12:05am	9:57	f 8:51					10:30			
*12:29	11:06	10:36	8:05	* 6:16	5:11	* 4:47	*11:58	9:50	* 8:43					10:10			
*12:20	11:01	10:31	8:00	* 6:09	5:04	* 4:38	*11:50	9:44	* 8:33					9:50			
*12:03am	10:48	10:18	7:47	* 5:50	4:52	f 4:19	11:34	9:32	* 8:17					9:10			
*11:59	10:44	10:14	7:44	* 5:45	4:49	f 4:15	11:30	9:29	* 8:14					8:40			
														Ar 8:30am			
11:45am	Lr 10:30am	10:00am	7:30am	Lr 5:30am	4:35am	Lr 4:00am	Lr 11:15am	Lr 9:15am	8:00am								
*11:15am		9:30am	* 7:10am		* 4:15am				* 7:30am								
10:00		Lr 8:20am	Lr 5:40am		* 3:00am				* 6:05								
* 9:55					* 2:55am				* 6:00								
Lr 5:00am					Lr 10:00am				Lr 12:30am								
Daily	Daily	Daily	Daily	Daily Ex. Sunday	Daily	Daily Ex. Sunday	Daily Ex. Sunday	Daily	Daily					Daily	Daily Ex. Sunday		
<b>356</b>	<b>44</b>	<b>28</b>	<b>2</b>	<b>278</b>	<b>358</b>	<b>286</b>	<b>270</b>	<b>4</b>	<b>360</b>					<b>402</b>	<b>718</b>		
1:20 24.8	1:00 22.7	1:00 22.7	1:00 22.7	1:17 25.4	1:00 22.7	1:20 24.8	1:10 25.2	1:00 22.7	1:15 25.7					1:40 16.8	2:35 9.7		
										Time Over District Average Speed Per Hour							

DOUBLE TRACK.

Via N.P.R.Y.

**Automatic Block System.**

Automatic Block Signals are in operation between King Street Station, Seattle, and Everett Jct.  
Trains must not exceed a speed of 8 miles per hour over drawbridges and interlocking plants.  
Three position train order signals Everett Jct. When at 45° indicates 19 order.  
Trains will not exceed speed of ten (10) miles per hour through Seattle Tunnel.

**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.

**Automatic Block Interlocking Signals and Semaphores**

**West Bound.**

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, 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 Seattle, they are located about 7500 feet apart.

**East Bound.**

First automatic signal eastbound is located 3000 feet from eastbound home signal, North Portal; second 3000 feet from first one.  
From Ballard and 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.

For Further Instructions and Diagrams see page 16 and 17.

## THIRD DISTRICT—EVERETT JUNCTION TO BELLINGHAM.

SOUTH BOUND.

THIRD CLASS			SECOND CLASS			Capacity of Side Tracks		Distance from Bellingham	Time Table No. 91 In Effect May 14, 1916		Telegraph Calls	FIRST CLASS					
717	713		711	729	401	Residing Trains	Other Trains		STATIONS			357	277	359	299	273	355
Mds. Freight	Mds. Freight		Fast Freight	N. P. Co. Freight	Fast Freight					Passenger	Passenger	Passenger	N. P. Co. Passenger	Passenger	Passenger		
Daily Ex. Sunday	Daily Ex. Sunday		Daily	Daily Ex. Sunday	Daily					Daily	Daily Ex. Sunday	Daily	Daily	Daily Ex. Sunday	Daily		
	Lv. 7:00am		Lv. 5:30pm			119	110	0.0	BELLINGHAM	HM	Lv. 3:20am	Lv. 6:50am	Lv. 12:20pm	Lv. 3:45pm	Lv. 6:10pm		
	7:35		6:00			40	143	2.9	SOUTH BELLINGHAM	FN	3:33	7:03	12:31	4:00	6:23		
	7:12 8:05		3:55 6:30			51	16	9.9	SOCKEYE		3:50	7:11	12:39	4:10	6:30		
	8:25		6:50			64	8	12.5	SAMISH		4:05	7:22	12:52	4:24	6:38		
							5	13.2	BLANCHARD			7:25		4:28			
	9:15		3:58 7:09			62	10	16.6	BOW	BO	4:15	7:32	12:58	4:34	6:43		
	9:35		7:30				6	21.2	BELLEVILLE	BV	4:25	7:40	1:04	4:41	6:48		
	7:14-8:45 8:01-1:30am		3:28 6:47			63	239	23.4	BURLINGTON	BU	4:40	7:52	1:10	4:50	6:55		
	12:05pm		9:05			37	53	27.9	MT. VERNON	NR	4:55	8:03	1:20	5:00	7:07		
	12:40		9:25			81	13	33.3	FIR	FR	5:10	8:14	1:30	5:10	7:17		
							6	35.0	MILLTOWN			8:18		5:13			
	3:50-2:70 1:40		9:50			81	48	40.4	STANWOOD	B	5:30	8:30	1:40	5:25	7:28		
	2:20		10:15			70	13	45.9	SILVANA	NA	5:50	8:44	1:49	5:35	7:37		
	2:45		10:50			62	17	30.0	ENGLISH		6:00	8:55	1:56	5:43	7:45		
	3:00		11:10	Lv. 11:30am				34.6	KRUSE	K	6:05	9:02	2:00	5:48	7:50		
	3:40		11:25	11:42		60	86	57.0	MARYSVILLE	MS	6:15	9:10	2:05	5:58	7:55		
	Lv. 12:50pm	Ar. 4:00pm	Ar. 11:40pm	Ar. 11:55pm	Lv. 2:05am			59.7	DELTA WYE	WY	6:23	9:18	2:11	6:05	8:01		
	12:55				2:10	11		60.7	LONG SIDING		6:27	9:22	2:14	6:09	8:04		
	1:05				2:20	110	150	63.3	EVERETT		6:42	9:30	2:23	6:23	8:15		
	Ar. 1:15pm				Ar. 2:30am			64.1	EVERETT JUNCTION	JN	6:45am	9:35am	2:25pm	6:25pm	8:20pm		
	Daily Ex. Sunday	Daily Ex. Sunday	Daily	Daily Ex. Sunday	Daily						Daily	Daily Ex. Sunday	Daily	Daily Ex. Sunday	Daily		
	717	713	711	729	401						357	277	359	299	273	355	
	0:25 10:8	9:00 7:1	6:10 9:6	25 15:0	25 10:8						2:25 15:5	2:45 23:1	2:05 30:8	14 27:0	2:40 23:3	2:10 30:0	
											Time Over District Average Speed Per Hour						

## Special Rules.

At Kruse all Northern Pacific trains will enter and leave Great Northern track through cross-over.

First class south bound trains will register by card at Delta Wye. Except when running in sections conductors will register in person. On all other trains conductors will register at Delta Wye.

Register for Delta Wye is located on ground floor interlocking plant.

Bull-tin boards are located at Burlington and Bellingham.

All trains will reduce speed to 5 miles per hour over all draw bridges and interlocking plants.

All trains will reduce speed to 5 miles per hour passing through town limits of Marysville, Mount Vernon and Burlington.

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.

Norman one mile north of Silvana is flag stop for Nos. 277 and 278.

Normal position of gates at crossing of third and fourth districts at Burlington will be against fourth district trains. Not necessary to stop for crossing when gates are set against opposing district.

South switch Everett passing track is located 300 feet north of station platform.

Track lying to the north of crossover between roundhouse and depot Bellingham will be known as passing track.

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

South bound trains are superior to north bound trains of the same class. Read carefully rules covering operation Electric train staff block, pages 14 and 15.

Electric train staff block system between Delta Wye and Marysville. Automatic Block Signals in operation between Everett Junction and Delta Wye and between Marysville and South Bellingham.

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

Steam whistle signals for tracks with switches controlled from Delta Wye Interlocking Tower.

Main Lines—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.

North bound from Northern Pacific connection, One Long, One Short.

One Long.

South bound for Northern Pacific connection, Two Long, One Short.

One Long.

INTERLOCKING SYSTEM.—Governing movement of trains N. P. crossing and

Bridge 10 just north of Delta Wye.

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 90 feet south of wye switch and by two arm home signal located on trestle 500 feet south of draw span.

Train movements from Delta to Vancouver will be governed by top arm on two arm home signal located 60 feet east 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 semaphores located 60 feet east of wye switch.

Trains north bound from Northern Pacific connection to Great Northern main line governed by lower arm on Home Signal on Northern Pacific track. Top arm on advanced Home Signal 500 feet south of draw span.

South bound trains for Northern Pacific connection to be governed by lower arm on Home Signal 700 feet North of draw span.

Staff crane for trains from Northern Pacific connection North bound is located on Northern Pacific track on trestle.

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

Interlocker at Drawbridge No. 38 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.

Interlocking Plant at crossing of Pacific Northwest Traction Company just north of Burlington. Home signals are located 208 feet north and south of crossing. Derails are located 55 feet inside of home signals. No distant signals in connection with this Interlocking Plant.

**NORTH BOUND.**

**THIRD DISTRICT—EVERETT JUNCTION TO BELLINGHAM.**

FIRST CLASS						Time Table No. 91 In Effect May 14, 1916	STATIONS	Distance from Everett Junction	SIGNS See Rule 5, Page 18.	SECOND CLASS			THIRD CLASS						
278	298	358	270	360	356					728	712	402	714	718					
Passenger Daily Ex. Sunday	P. & M. Passenger Daily	Passenger Daily	Passenger Daily Ex. Sunday	Passenger Daily	Passenger Daily					N. P. 675 Freight Daily Ex. Sunday	Fast Freight Daily	Fast Freight Daily	Mdse. Freight Daily Ex. Sunday	Mdse. Freight Daily Ex. Sunday					
8:45h		Ar 7:50h	Ar 3:16h	Ar 2:15h	Ar 4:10h	BELLINGHAM	64.1	R* DN CWTKP											
9:30		* 7:36	* 3:00	* 2:01h	* 4:00	SOUTH BELLINGHAM	61.2	D O P											
9:22		7:27	2:52	11:51	3:50	SOCKEYE	57.2												
9:10		7:15	2:40	11:38	3:30	SAMISH	51.6	W P											
9:08				11:34		BLANCHARD	50.9												
9:02		7:09	2:33	11:28	3:20	BOW	47.5	D P											
8:53		7:00	2:25	11:19	3:10	BELLEVILLE	42.9												
8:47		6:55	2:20	11:13	3:00	BURLINGTON	40.3	R DNCOWYX P											
8:36		6:42	2:07	11:00	2:45	MT. VERNON	36.2	DN P											
8:20		6:33	1:55	10:41	2:30	FIR	30.8	D P											
8:16			1:50	10:35		MILLTOWN	29.1												
8:05		6:23	1:40	10:26	2:15	STANWOOD	23.7	DN P											
7:55		6:14	1:25	10:12	2:00	SILVANA	18.2	D W P											
7:45		6:07	1:15	10:01	1:49	ENGLISH	14.1												
7:32	Ar 5:26h	6:01	1:07	9:53	1:40	KRUSE	10.5	R DN P	Ar 1:10h										
7:25	5:19	5:56	1:00	9:48	1:34	MARYSVILLE	7.1	DN P	12:58										
7:10	Ar 5:12h	5:50	12:50	9:38	1:23	DELTA WYE	4.4	R DN Y P	12:45h	Ar 4:00h	Ar 1:10h	Ar 7:00h	Ar 11:50h						
7:07		5:47	12:40	9:35	1:20	LONG SIDING	3.4												
7:00		5:42	12:35	9:30	1:15	EVERETT	0.8												
5:47h	Ar 5:35h	Ar 12:25h	Ar 9:16h	Ar 1:05h		EVERETT JUNCTION	0.0	R DN P											
2:25	14	2:15	2:30	2:59	3:00				728	712	402	714	718						
21.8	27.0	28.8	22.5	21.5	21.0				15.0	14.1	9.0	9.14	8.25						
						Time Over District Average Speed Per Hour													

**INITIAL STATIONS.**  
Blaine for train No. 711.  
Delta Wye, for trains Nos. 298, 728, 712, 714, 717, 401.  
Everett Jct., for trains Nos. 270, 358, 300, 350, 278, 718 and 402.  
Fraser River Jct., for trains Nos. 396 and 398.  
New Westminster, for trains 102, 104.  
Sapperton, for train No. 355.  
Vancouver, for trains Nos. 359, 355, 357, 397, 101, 103, 719.  
Bellingham, for train No. 277, 273, 713, 720.  
Kruze, for trains 299, 729.

**TERMINAL STATIONS.**  
Blaine for train No. 712.  
Delta Wye, for train No. 299, 729, 711, 713, 718, 402.  
Everett Jct., for trains Nos. 359, 355, 273, 357, 477, 401 and 717.  
Fraser River Jct., for trains Nos. 385 and 397.  
Sapperton, for train No. 380.  
New Westminster, for trains 101, 103.  
Vancouver, for trains Nos. 356, 358, 400, 398, 102, 101, 720.  
Bellingham, for trains Nos. 278, 270, 711, 719.  
Kruze, for trains Nos. 298, 728.

**DERAIL SWITCHES.**  
Skagit Crossing, English Log Spur, Hayes Derail;  
Mt. Vernon Pacific N. W. Traction Co. Transfer.  
Sockeye, east end siding.  
Bellingham, B. & N. Transfer Tract, east end.

Business tracks not shown as stations on time table.

NAME	LOCATION	OPENS	LENGTH	CAR CAPACITY
Coast Clay Spur	Leads off of Chuckanut Spur	South		10
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
Bellville Pt.	2.9 Miles north of Belleville	South		6
Everett Pulp and Paper Co. Spur	1.7 Miles north of Mt. Vernon	North		80
Skagit Crossing Tr. Track	1.3 Miles south of Fir	South		5
Hayes Spur	1.3 Miles south of Fir	North		6
Norman Mill Spur	2.1 Miles south of Fir	South		8
Stanwood Spur	2.5 Miles north of Stanwood	South		4
North Coast Condensed Milk Company	Stanwood opens off Industry track	North		37
Flower Spur	1.4 Miles south of Stanwood	South		2
Flower	1.5 Miles south of Stanwood	North		2
Ebel's Spur	1.8 Miles north of Silvana	North		4
Norman Spur	1.1 Miles north of Silvana	South		2
Kennedy Spur	4.3 Miles north of Marysville	South		6

Business tracks not shown as stations on time table.

NAME	LOCATION	OPENS	LENGTH	CAR CAPACITY
Kruze 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
Weldauer & Landsdown Spur	0.0 Miles south of Long Siding	South		20
Neff's Spur	1.0 Miles south of Long Siding	North		7
Wheeler Spur	1.0 Miles south of Long Siding	North		50
Log Dump Spur	1.1 Miles north of Everett	North		7
Clark Nickerson Mill	1.0 Miles north of Everett	North		21
Everett Milling Co.	1.1 Miles north of Everett	North		31
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		88

**LOCATION OF TUNNELS.**

Tunnel No. 18, 1,112.9 feet long, height 21.8, .46 miles north Samish.  
" " 19, 141.5 " " " 21.3, .62 " south Sockeye.

Tunnel No. 20, 326.5 feet long, height 20.9, .43 miles south Sockeye.  
" " 21, 697.6 " " " 21. .32 " " South Bellingham.

THIRD CLASS		SECOND CLASS					Capacity of Side-Tracks	Distance from Vancouver	Time Table No. 91 In Effect May 24, 1925	Stations	Telegraph Code	FIRST CLASS			
719	711	385	397	103	357	101						359	355		
<small>Mixed Freight</small> Daily Ex. Sunday	<small>Fast Freight</small> Daily	<small>Mixed</small> Daily Ex. Sunday	<small>Mixed</small> Daily Ex. Sunday	<small>C. N. P. Ry. 302 Express</small> Times, Thurs- and Sat	<small>Passenger</small> Daily	<small>Passenger</small> Sun, Wed and Fri	<small>Passenger</small> Daily	<small>Passenger</small> Daily							
385 Lv 7:30am			Lv 2:00pm	Lv 9:00am	33	319	0.9	VANCOUVER	VN	Lv 12:30am	Lv 9:00am	Lv 10:00am	Lv 4:00pm		
7:35			2:05	9:05			0.7	WYE		12:35	9:04	10:04	4:04		
7:50			f 2:13	9:15			3.3	STILL CREEK	Double Track	12:42	9:11	10:11	4:10		
8:00			f 2:17	9:22			5.3	ARDLEY		12:46	9:16	10:16	4:14		
8:10			f 2:24	9:30			35	BURNABY		12:51	9:22	10:22	4:19		
							12.9	SAPPERTON WYE							
			Lv 12:55pm	2:42	9:50	27	55	11.1	SAPPERTON	1:00	9:31	10:30	4:27		
			* 1:00	* 2:45	Ar 9:55am	17	11.5	NEW WESTMINSTER	MN	* 1:08	Ar 9:35am	* 10:35	* 4:32		
			Ar 1:10pm	2:50pm			11.2	FRASER RIVER JCT		1:13		10:40	4:37		
					61	4	19.4	TOWNSEND		f 1:22		10:48	4:45		
					58	58	21.8	COLEBROOK	G	* 1:32		10:56	f 4:53		
							10	CRESCENT		f 1:40		11:03	5:00		
					70	22	33.2	WHITE ROCK	WR	* 2:05		11:28	* 5:25		
							36.2	INTERNATIONAL BOUNDARY							
10:30					62	124	36.7	BLAINE	BN	* 2:25	Ar 10:25am	* 11:40	* 5:37		
10:30	Lv 3:20pm				70	35	44.2	CUSTER	CU	* 2:42		11:52	6:49		
11:45							6	ENTERPRISE		f 2:47		11:56			
12:55pm	3:50				70	23	49.8	FERNDALE	FD	* 2:55		12:03pm	* 6:57		
1:50	4:15						31	BRENNAN		3:00		12:08			
2:30pm	Ar 5:00pm				119	110	58.5	BELLINGHAM	BB	Ar 3:15pm	Ar 12:20pm	Ar 6:10pm			
Daily Ex. Sunday	Daily	Daily Ex. Sunday	Daily Ex. Sunday	Times, Thurs- and Sat						Daily	Daily	Daily	Daily		
719	711	385	397	103						357	101	359	355		
7:00 8:1	1:10 13.2	1:15 1.4	2:50 16.6	3:55 15.2						2:45 22	3:05 22.9	2:20 26.0	2:10 27.0		

## Special Rules.

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

Double track between Still Creek and a point one and one-half miles north of Sapperton. Normal position of switch at Still Creek is for southbound trains and at point one and one half miles north of Sapperton for northbound trains.

Train 355 will register by card at Colebrook.

Bulletin boards are located at Bellingham and Vancouver.

Ocean Park one mile South Crescent will be flag stop for Nos. 356 and 357.

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 drawbridges and over all interlocking plants.

Trains must not exceed speed of ten miles per hour between Mile Post 125 and Mile Post 127, which are located between White

Rock and Crescent.

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

Retaining wall New Westminster between Front Street crossing and Old Interlocking Tower does not give full side clearance. Train

or engine men must not hang on side of engine or cars passing same.

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

The normal position of switches at Colebrook Junction, Guichon Line Junction and Fraser River Junction will be for main line.

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

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.

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 555 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.

NORTH BOUND. 9

FIRST CLASS

Time Table No. 91

In Effect May 14, 1916

SECOND CLASS

THIRD CLASS

FIRST CLASS				STATIONS	Telegraph Code	Distance from Bellingham	SIGNS <small>See Rule 3, Page 18.</small>	SECOND CLASS			THIRD CLASS			
358	102	360	356					398	386	712	104	720		
Passenger	C. N. P. Ry. Passenger	Passenger	Passenger					Mixed	Mixed	Fast Freight	C. N. P. Ry. Freight	Mixed Freight		
Daily	Mon., Wed., Sat.	Daily	Daily					Daily Ex. Sunday	Daily Ex. Sunday	Daily	Mon., Wed., Fri.	Daily Ex. Sunday		
Ar 10.16Am	Ar 5.30Am	Ar 3.30Am	Ar 7.30Am	VANCOUVER	VN	58.8	R DN WC OPK	Ar 11.25Am		Ar 6.00Am	Ar 4.10Am			
10.05	5.25	3.20	7.16	0.7 WYE		58.1	Y	11.20		5.50	4.04			
9.59	5.16	f 3.12	f 7.07	2.8 STILL CREEK		55.3	P	11.12		5.40	3.50			
9.55	5.11	f 3.07	f 7.02	1.9 ARDLEY		53.5	P	11.07		5.33	3.45			
9.60	5.05	f 2.59	f 6.55	2.6 BURNABY		50.9	P	11.00		5.25	3.35			
				5.0 SAPPERTON WYE		45.9	W Y PK							
9.41	4.53	f 2.42	f 6.44	0.2 SAPPERTON		45.7		10.47	Ar 11.15Am	5.09	3.15			
* 9.38	Ar 4.50Am	* 2.40	* 6.42	0.7 NEW WESTMINSTER	MN	45.0	R DN I PK	10.45	11.10	5.05Am	2.55			
9.30		2.30	6.35	0.4 FRASER RIVER JCT		44.6		Ar 10.40Am	Ar 11.05Am		2.50			
f 9.21		f 2.20	f 6.25	5.2 TOWNSEND		39.4	P				2.35			
* 9.13		* 2.10	* 6.12	5.4 COLEBROOK	G	31.0	R DN W Y P				2.10			
* 9.05		f 2.02	f 6.00	3.5 CRESCENT		30.4					1.45			
* 8.40		* 1.35	* 5.35	4.8 WHITE ROCK	WR	25.6	DN P				1.15			
				3.0 INTERNATIONAL BOUNDARY		22.0								
* 8.30		* 1.15	* 5.15	0.5 BLAINE	BN	22.1	R DN W T P		10.25Am		12.40Am			
* 8.15		* 12.55	* 4.54	7.5 CUSTER	CU	14.6	D P		10.05		11.20			
f 8.09		f 12.47	f 4.46	2.7 ENTERPRISE		11.9					10.55			
* 8.05		* 12.42	* 4.40	3.8 FERDALE	FD	9.0	D P				10.20			
f 8.00		f 12.35	f 4.29	2 BRENNAN		6.5								
Ar 7.50Am		Ar 12.20Am	Ar 4.15Am	6.8 BELLINGHAM	HM	0.0	R DN WC T PK			Ar 9.00Am	9.30Am			
Daily	Mon., Wed., Sat.	Daily	Daily					Daily Ex. Sunday	Daily Ex. Sunday	Daily	Daily Ex. Sunday			
358	102	360	356					398	386	712	104			
2.25 24.4	40 38.5	3.30 18.2	3.10 27.3					45 18.4	10 6.5	1.25 18.8	55 15.2			

Business tracks not shown as stations on time table.

NAME	LOCATION	OPENS	Length	Car Capacity
Maddough-Shaw Spur	0.7 Miles north of Ardley	South	5	5
Ardley Power Spur	0.3 Miles south of Ardley	South	9	9
Wells Spur	0.5 Miles north of Burnaby	North	4	4
Mill No. 2 Spur	0.7 Miles south of Burnaby	South	22	22
Loselle	3.0 Miles north of Sapperton	South	8	8
Haigh Spur	2.3 Miles north of Sapperton	South	450	8
Brady and Taylor	1.5 Miles north of Sapperton	South	2	2
Sand Pit Spur	0.7 Miles north of Sapperton	South	18	18
Ditliery Spur	0.0 Miles north of Sapperton	South	31	31
Delta Shingle Co. Spur	0.8 Miles south of Townsend	North	11	11
Mosher Lumber & Logging Spur	2.2 Miles south of Townsend	South	630	13
Campbell Lumber Co. Spur	1.0 Miles south of Whiterock	South	2450	36
Blaine Spur	1.9 Miles south of Blaine	South	9	9
Blaine Shingle Co.'s Spur	2.0 Miles south of Blaine	South	81	81
City Dock Spur (off Passing Tracks)	0.0 Blaine	South	6	6
North Bluff Mill Spur (off City Dock Spur)	0.0 Blaine	South	6	6
Barge Spur (off City Dock Spur)	0.0 Blaine	South	6	6
Drayton Bay Shingle Spur	400 ft. south of Blaine	North	4	4
McDonald Spur	1.2 Miles north of Custer	South	2	2
Enterprise Spur	0.7 Miles north of Enterprise	South	3	3
Sand Pit Spur	0.8 Miles south of Enterprise	South	13	13
Milk Spur	0.3 Miles south of Ferndale	South	10	10
Berry Spur	1.0 Miles south of Brennan	South	2	2
Marietta Spur	2.3 Miles north of Bellingham	South	2	2

THIRD CLASS		FIRST CLASS						Capacity of Side Tracks	Distance from Rockport	Time Table No. 91		Telegraph Code	Distance from Anacortes	SIGNS	FIRST CLASS					THIRD CLASS	
723	725	283	293	291	289	295	279			Effective May 14, 1915	STATIONS				290	280	292	294	284	726	724
Mile Freight Daily Ex. Sunday	Mile Freight Daily Ex. Sunday	Passenger Daily	Passenger Daily	Passenger Daily Ex. Sunday	Passenger Daily Ex. Sunday	Passenger Sunday only	Passenger Daily Ex. Sunday			See Rule 5, Page 18	Passenger Daily Ex. Sunday	Passenger Daily	Passenger Daily Ex. Sunday	Passenger Daily	Passenger Daily	Mile Freight Daily Ex. Sunday	Mile Freight Daily Ex. Sunday				
Lv 6:30am					Lv 7:24 4:45pm	Lv 9:40am	Lv 6:15am	39		ROCKPORT	RR	51.7	R D Y W	Lv 1:30pm	Lv 8:50am			Lv 4:40pm			
6:50					f 5:00	f 9:53	f 6:28	16	5.8	FABER		47.9		f 1:12	f 8:35			4:10			
7:40					* 5:10	*10:03	* 6:38	83	9.1	CONCRETE	BA	41.6	D	* 1:00	* 8:27			3:30			
8:15					f 5:14	f10:06	f 6:41	39	76	GRASSMERE		43.5	W	f12:50	f 8:19			2:40			
8:45					* 5:26	*10:17	* 6:53	41	15.3	BIRDSVIEW		38.2		*12:38	* 8:07			2:15			
9:15					* 5:38	*10:28	* 7:04	35	9	HAMILTON	H	33.1	D W	*12:25	* 7:55			1:40			
9:35					* 5:48	*10:37	* 7:12	25	23.9	LYMAN	MY	29.5		*12:15pm	* 7:46			1:10			
9:55					f 6:00	f10:47	f 7:21	21	29.2	COKEDALE JUNCTION		24.5		f11:58	f 7:34			12:40			
10:15	Lv 8:30am				* 6:11	*10:57	* 7:30	42	63	SEDRO-WOOLLEY	WL	21.3	R D	*11:50	* 7:26		Lv 7:30am	12:25			
					f 6:17	f11:02	f 7:35		34.7	STERLING		19.0		f11:38	f 7:17						
Lv 10:40am	8:55 10:55 201	Lv 7:10pm	Lv 11:30am	Lv 8:35am	Lv 6:30pm	Lv 11:10am	Lv 7:45am	63	225	BURLINGTON	BU	16.5	R DN CO WYX	Lv 11:30am	Lv 7:10am	Lv 7:45am	Lv 10:55am	Lv 6:25pm	Lv 7:10 6:15	Lv 12:01pm	
	11:10	* 7:18	*11:38	* 8:43				16	40.0	AVON		13.7			* 7:36	*10:46	* 6:14	6:00			
	11:20	f 7:25	f11:45	f 8:51				7	42.6	FREDONIA		11.1		f 7:30	f10:40	f 6:07		5:45			
	11:35	* 7:32	*11:52	* 9:00				17	41.1	WHITNEY		9.6		* 7:25	*10:35	* 6:00		5:35			
									45.3	DRAW BRIDGE		7.4									
	11:59	f 7:48	f12:08pm	f 9:15				3	49.6	FIDALGO		4.1			f 7:11	f10:21	f 5:46		5:15		
	Lv 12:15pm	Lv 8:00pm	Lv 12:20pm	Lv 9:25am				235	53.7	ANACORTES	AC		R D T W		Lv 7:00am	Lv 10:10am	Lv 5:35pm	Lv 5:00am			
Daily Ex. Sunday	Daily Ex. Sunday	Daily	Daily	Daily Ex. Sunday	Daily Ex. Sunday	Sunday Only	Daily Ex. Sunday							Daily Ex. Sunday	Daily	Daily Ex. Sunday	Daily	Daily Ex. Sunday	Daily Ex. Sunday		
723	725	283	293	291	289	295	279							290	280	292	294	284	726	724	
4:10 5.8	3:45 3.7	50 19.5	50 19.5	50 19.5	1:45 21.3	1:30 24.8	1:20 24.8							2:00 18.6	1:10 22.3	.45 22.0	.45 22.0	.50 19.5	2:30 8.8	1:35 5.0	
										Time Over District Average Speed Per Hour											

## Special Rules.

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

No. 723 has right over No. 724, Rockport to Burlington.

Bulletin boards are located at Anacortes, Burlington and Rockport.

First class trains will stop on flag at Fidalgo Mill Spur, Summit Park, Fox Spur, Duncan Spur, Child's Spur, Minkler Superior Ave., East Side, Van Horn and Sauk.

Trains must not exceed speed of 8 miles per hour over draw bridges and Interlocking Plants.

Normal position of gates at crossing of third and fourth districts at Burlington will be against fourth district trains. Not necessary to stop for crossing when gates are set against opposing district.

Normal position of gates at crossing Puget Sound and Baker River Railway two miles east of Burlington will be clear for Great Northern trains. Not necessary to stop when gates are clear and set against P. S. &amp; B. R. Ry.

Yard limit boards are located at Anacortes, Burlington and Sedro-Woolley.

Interlocking Plant one half mile west of Sedro-Woolley at crossing of Pacific Northwest Traction Company. Distant signals are located 2000 feet east and west of crossing and have one arm showing caution. Home signals are located 208 feet east and west of crossing. Derails are located 56 feet inside of Home Signals.

Interlocking Plant just west of Burlington at crossing of Pacific Northwest Traction Company eastbound distant signal is located 2000 feet west of crossing, has one arm showing caution. Home signals are located 55 feet each way from crossing. Derails are located 5 feet inside of home signals. There is no distant signal for westbound trains.

## INITIAL STATIONS.

Anacortes for trains Nos. 292, 294, 284 and 725.

Rockport for trains Nos. 279, 289, 295 and 723.

Burlington for trains Nos. 291, 293, 283, 290, 280 and 724.

Sedro-Woolley for No. 725.

## TERMINAL STATIONS.

Anacortes for trains Nos. 291, 293, 283 and 725.

Rockport for trains Nos. 280, 290 and 724.

Burlington for trains Nos. 279, 289, 295, 292, 284 and 723.

Sedro-Woolley for 725.

## Business tracks not shown as stations on time table.

NAME	LOCATION	OPENS	LENGTH	CAR CAPACITY
Bank Spur	2.0 Miles west of Rockport	West		7
Tower Mill Co.	0.3 Miles west of Faber	East		19
Van Horne's Spur	0.5 Miles west of Faber	East		16
Harpert Lumber Co. Spur	0.8 Miles east of Faber	East		3
Washington Port Cement Co.	0.7 Miles east of Concrete	West		30
Superior Portland Cement Co. Spur	0.7 Miles west of Concrete	West		28
Burpee Shingle Spur	0.4 Miles west of Grassmere	West		2
Anna Shingle Spur	2.0 Miles west of Grassmere	West		25
Kirby Spur	0.4 Miles east of Birdsview	West		15
Stearns' Spur	1.2 Miles west of Birdsview	West		15
Slagit River Log Spur	1.0 Miles east of Hamilton	East		60
L. L. Spur	0.3 Miles west of Hamilton	West		10
Hop Ranch Spur	0.5 Miles east of Lyman	West		3
Skagit Mill Co. Spur	Lyman	West		22
Duncan Spur	1.2 Miles east of Cokedale	West		1
Minkler's Mill	3.0 Miles east of Cokedale Jct.	Both Ends		7
Corey Shingle Spur	0.9 Miles east of Sedro Woolley	West		6
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
Sedro Veneer Spur	1.0 Miles east of Sterling	East		4
Burlington Mill Spur	0.6 Miles west of Burlington	West		6
Fox Spur	0.7 Miles east of Fredonia	West		6
Callahan-Abbott Spur	Fredonia	West		11
Gravel Pit Spur	4.9 Miles east of Anacortes	West		2
Fidalgo Island Shingle Co. Spur	4.8 Miles east of Anacortes	East		21
Log Railway	2.7 Miles east of Anacortes	Both Ends		4
Fidalgo Mill Spur	2.1 Miles east of Anacortes	East		4

WEST BOUND.

FIFTH DISTRICT—SUMAS TO GUICHON.

EAST BOUND.

SECOND CLASS				Capacity of Side Tracks	Distance from Sumas	Time Table No. 91 Effective May 14, 1916	Telegraph Calls	Distance from Guichon	SIGNS See Rule 3, Page 18	SECOND CLASS		
387	387	397	397							398	398	388
Mixed	Mixed	Mixed	Mixed	Other Tracks	Sumas	STATIONS	Telegraph Calls	Distance from Guichon	See Rule 3, Page 18	Mixed	Mixed	Mixed
Tue., Thur. and Sat.	Tue., Thur. and Sat.	Mon., Wed. and Fri.	Mon., Wed. and Fri.	Passing Tracks	Sumas	STATIONS	Telegraph Calls	Distance from Guichon	See Rule 3, Page 18	Tue., Thur. and Sat.	Mon., Wed. and Fri.	Daily Ex. Sunday
5:30a	5:30a				0.0	SUMAS, WASH	SU	46.5	R D W C			Arx 5:45Pa
					0.0	INTERNATIONAL BOUND'RY		46.5				
					0.1	HUNTINGDON		46.4	W			* 5:43
* 7:02	* 5:32			26	3	0.1						
* 7:15	* 7:15			47	31	3.5	ABBOTSFORD	FS	42.9	R D W		* 6:30
* 7:30	* 7:30			7	8	1.5	PINEGROVE		38.4			* 5:05
* 7:55	* 7:55			62	31	12.7	ALDERGROVE		33.8	D		* 4:50
* 8:10	* 8:10			26		4.2	OTTER		29.6			* 4:25
* 8:35	* 8:35			61	15	21.0	LINCOLN		24.9	W		* 4:10
Arx 9:00a	Arx 9:00a	Arx 4:30Pa	Arx 4:05Pa	64	35	29.4	CLOVERDALE	CL	17.1	R D Y	Arx 8:30a	Arx 9:00a
		f 4:45	f 4:20	4	33	4.0	ALLUVIA		13.1		* 8:15	* 8:45
		f 4:50	f 4:25	1	34	3.0	SOUTHPORT		11.6		f 8:10	f 8:40
		4:55	4:30		35	9.0	COLEBROOK JCT.		10.6	Y	8:00	8:30
		* 5:10	* 4:55	38	25	35.9	COLEBROOK	G	10.6	R DN W	* 7:55	* 8:25
		5:15	5:00		36	7.0	GUICHON LINE JCT.		9.8		7:45	8:15
		f 6:40	f 5:25	9	42	6.0	INVERHOLM		3.3		f 7:15	f 7:45
		f 5:50	f 5:35	2	45	2.8	CHALLUCHAN		1.4		f 7:05	f 7:35
		Arx 6:00Pa	Arx 5:45Pa	10	46	0.0	GUICHON		0.0		Arx 7:00a	Arx 7:30a
Mon., Wed., Thur. and Sat.	Tue. and Fri.	Tue., Thur. and Sat.	Mon., Wed. and Fri.							Tue., Thur. and Sat.	Mon., Wed. and Fri.	Daily Ex. Sunday
387	387	397	397							398	398	388
1:30 11:4	2:30 11:4	1:10 11:4	1:10 11:4							1:30 11:4	1:30 11:4	2:00 14:7
Time Over District Average Speed Per Hour												

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.

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.

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.  
Derail switches must always be set for derail except when in actual use whether there are cars on the tracks or not.  
Abbottsford east end of passing track.

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	1.5 Miles east of Chabuchan	West	7
Patterson's Spur	1.9 Miles east of Inverholm	West	5
Smith Road Spur	2.0 Miles east of Inverholm	Both	5
Matthew Road Spur	3.0 Miles east of Inverholm	Both	5
Ember Road Spur	2.0 Miles west of Colebrook	Both	5
Oliver Road Spur	1.7 Miles west of Colebrook	West	6
Gravel Pit Spur	0.7 Miles east of Alluvia	West	9
Surrey Spur	1.1 Miles west of Cloverdale	West	3
Ferridge Lbr. Co. Spur	1.4 Miles west 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	West	2
Otter Shingle Co. Spur	at Otter	East	15
Aldergrove Lbr. Co. Spur	at Aldergrove	East	20
Singer Mill No. 2	1.0 Miles east of Aldergrove	West	4
Fish Trap Pl.	1.5 Miles west of Pinegrove	West	40
Pinegrove Lbr. Co. Spur	0.8 Miles east of Pinegrove	West	10
Abbottsford Timber Spur	0.8 Miles west of Abbotsford	East	4

SOUTH BOUND.

SIXTH DISTRICT—FRASER RIVER JCT. TO CLOVERDALE.

NORTH BOUND.

SECOND CLASS				Capacity of Side Tracks	Distance from Fraser River Jct.	Time Table No. 91 Effective May 14, 1916	Telegraph Calls	Distance from End of Track	SIGNS See Rule 3, page 18	SECOND CLASS			
387	397	397	385							398	398	386	384
Mixed	Mixed	Mixed	Mixed	Other Tracks	Fraser River Jct.	STATIONS	Telegraph Calls	Distance from End of Track	See Rule 3, page 18	Mixed	Mixed	Mixed	Mixed
Tue., Thur. and Sat.	Tue., Thur. and Sat.	Mon., Wed. and Fri.	Mon., Wed. and Fri.	Passing Tracks	Fraser River Jct.	STATIONS	Telegraph Calls	Distance from End of Track	See Rule 3, page 18	Tue., Thur. and Sat.	Mon., Wed. and Fri.	Daily Ex. Sunday	Tue., Thur. and Sat.
2:50Pa	2:50Pa	Arx 1:10Pa			0.0	FRASER RIVER JCT.		22.0		Arx 10:40a	Arx 10:40a	Arx 1:05a	
	2:55	2:55	* 1:15		1.0	LIVERPOOL		22.0		10:30	10:30	* 10:55	
					3.3	PORT MANN		19.7	D W 2 Miles South				
	f 3:20	f 3:20	* 2:00	18	9.0	PORT KELLS		14.0	D	f 10:05	f 10:05	* 10:15	
Arx 8:40a	* 3:35	Arx 3:35Pa	Arx 2:45Pa	64	38	15.2	CLOVERDALE	CL	7.8	R D Y	* 9:45	Arx 9:45a	Arx 9:55a
Arx 8:50a	Arx 4:00Pa			8	20	3.0	HAZELMERE		2.7		Arx 9:05a		Arx 4:05Pa
					21.0	END OF TRACK							
Tue., Thur. and Sat.	Tue., Thur. and Sat.	Mon., Wed. and Fri.	Daily Ex. Sunday							Tue., Thur. and Sat.	Mon., Wed. and Fri.	Daily Ex. Sunday	Tue., Thur. and Sat.
387	397	397	385							398	398	386	384
1:30 11:4	2:30 11:4	1:10 11:4	1:10 11:4							1:30 11:4	1:30 11:4	2:00 13:0	2:00 13:0
Time Over District Average Speed Per Hour													

Special Rules.

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

All Sixth District trains will protect against all Third District trains between Fraser River Junction and New Westminster.

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

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, 384 and 397. Hazelmere for trains Nos. 387 and 397. Fraser River Jct. for trains Nos. 386 and 398.

Business tracks not shown as stations on time table.

NAME	LOCATION	OPENS	CAR CAPACITY
Brownsville Spur	1.0 Miles north of Liverpool	South	15
Davis Spur	0.5 Miles south of Liverpool	North	4
Flummerfelt Spur	2.0 Miles north of Port Kells	South	4
Great Western Shingle Co.	0.5 Miles south of Port Kells	North	7
McNair Spur	2.0 Miles north of Cloverdale	South	2
David Bell Co. Spur	1.5 Miles north of Cloverdale	South	25
Campbell River Lbr. Co.	1.2 Miles north of Hazelmere	North	3
Blaine Shingle Co. Spur	Leads off Campbell River Lbr. Spur	North	100
Washington Mill Co. Spur	2.0 Miles south of Hazelmere	North	4

SECOND CLASS				SEVENTH DISTRICT—ABBOTSFORD TO KILGARD.										SECOND CLASS			
				Capacity of Side Tracks		Distance from Abbotsford	Time Table No. 91.		Telegraph Calls	Distance from Abbotsford	SIGNS.	See Rule 5 Page 18	394				
				Mixed			In Effect May 14, 1916.								Mixed		
				Tue and Fri			STATIONS.						Tue and Fri				
				Lv 6:25am	10	0 0	KILGARD			5 0			Arx 6:20am				
				Arx 6:55am	30	3 0	ABBOTSFORD		F8	0 0	R D W		Lv 5:50am				
				Tue and Fri									Tue and Fri				
				395									394				
				<sup>30</sup> 10			Time Over District						<sup>30</sup> 10				
							Average Speed Per Hour										

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.

SECOND CLASS.				CHERRY VALLEY BRANCH.										SECOND CLASS.			
				Capacity of Side Tracks		Distance from Monroe	Time Table No. 91.		Telegraph Calls	Distance from Tolt	SIGNS.	See Rule 5 Page 18	390				
				Mixed			In Effect May 14, 1916.								Mixed		
				Daily Ex Sunday			STATIONS.						Daily Ex Sunday				
				Lv 6:20am		0 0	MUNROE		RO	17 6	DN W Y P		Lv 10:10am				
				† 6:30	47	27	3 6 HIGHROCK			14 0			† 9:55				
				* 6:45	35		5 5 DUVALL			8 5	D P		* 9:40				
				* 7:00			5 7 STILLWATER CROSSING			2 8			* 9:22				
				Arx 7:10am	31	26	2 5 TOLT			0 0	D W T P		Lv 9:15am				
				Daily Ex Sunday									Daily Ex Sunday				
				391									390				
				<sup>50</sup> 21 1			Time Over District						<sup>55</sup> 19 2				
							Average Speed Per Hour										

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

INITIAL STATIONS.  
Tolt 390.  
Monroe 391.

TERMINAL STATIONS.  
Monroe 390.  
Tolt 391.

Business tracks not shown as stations on time table.

NAME	LOCATION	OPENS	LENGTH	CAR CAPACITY
Cerenis Spur . . . . .	4.6 Miles west of Monroe . . . . .	West	265 ft.	6
O'Neill Gowen Shingle Co. Spur . . . . .	6.0 Miles west of Monroe . . . . .	East	350 ft.	4
Bacus Spur . . . . .	8.4 Miles west of Monroe . . . . .	West	320 ft.	5
Novelty Spur . . . . .	11.6 Miles west of Monroe . . . . .	West	658 ft.	15

**CAPACITY OF ENGINES IN ADDITION TO WEIGHT OF ENGINES, TENDERS AND CABOSES.**

STATIONS	Rolling Grade	Class M2-1980-1990				Class L1-1900-1921				Class L2-1800-1844 " " "O1" 3020-3069 " " "P" 1750-1764				Class F8-1110-1199 Superheated				Class F5-1095-1099 " " "F5-1100-1109				Class G2-700-719 " " "G2-720-729				Class F1-500-585 " " "D5-460-476							
		1	2	3	4	1	5	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Gold Bar to Skykomiah	1.0	1700				1600				1550				1350				1200				1900				775							
Skykomiah to Cascade Tunnel	2.2	900				850				700				625				600				480				360							
Cascade Tunnel to Leavenworth	Down	2500				2500				2500				2500				2500				1250				900							
Leavenworth to Cascade Tunnel	2.2	900				850				700				625				600				480				360							
Seattle to Delta	0.5									3500				2850				2500				2000				1500							
Delta to Seattle	0.4									4000				3000				2750				2300				1800							
Cascade Tunnel to Skykomiah	Down	2500				2500				2500				2500				2500				1250				900							
Bellingham to Delta	0.5													2600				2300				1650				1300							
Delta to Bellingham	0.4													2800				2500				1800				1460							
Delta to Gold Bar	0.4					3800				3500				2800				2500				1800											
Skykomiah to Delta	0.3					4000				3800				3200				3000				2200											
Bellingham to Vancouver	1.1													1500				1300				1000				775							
Vancouver to Bellingham	1.1													1500				1300				1000				775							

WEATHER RATING {1—When temperature is 25 degrees above zero or over.  
2—Very frosty or wet. 5 to 25 above zero.

WEATHER RATING {3—Five degrees above to 10 below zero.  
4—Ten below zero and colder.

Chief Train Dispatcher may increase or decrease above rating as it may be found necessary.

**Weights of Empty Freight Cars.**

Box Cars, 28 to 30 foot	11 Tons
Box Cars, 33 foot	12 Tons
Box Cars, 34 foot	13 Tons
Box Cars, 38 foot	15 Tons
Box Cars, 40 foot	17 Tons
Refrigerator Cars	20 Tons
Express Refrigerator Cars	33 Tons
Furniture Cars, 30 to 40 foot	17 Tons
Furniture Cars, 40 to 50 foot	19 Tons
Caboose, 8 wheel	17 Tons
Caboose, 4 wheel	10 Tons
Flat Cars, 28 to 30 foot	9 Tons
Flat Cars, 33 and 34 foot	11 Tons
Flat Cars, 40 foot	12 Tons
Coal Cars	12 Tons
Gondola Cars	13 Tons
Ore Cars, Wood	12 Tons
Ore Cars, Steel	15 Tons
Oil Tanks	15 Tons
Ballast Cars	12 Tons
Steam Wreckers	75 Tons

The following will govern when handling empty cars: With 10 or less empty cars in a train no allowance will be made for wheel friction; with 10 to 20 empty cars in a train, add to actual weight 5 tons for each empty car for wheel friction; with more than 20 empty cars in a train add 6 tons per car for wheel friction.

**Weights of Passenger Equipment.**

	Wooden	Steel Under-frame	Steel
Postal Cars,			
Nos. 1 to 21			67 Tons
Nos. 90 and 91			48 Tons
Nos. 50 to 69	54 Tons		
Nos. 107 to 114	43 Tons		
Baggage and Mail,			
Series 300 and 400	26 Tons		
Series 500 and 600	45 Tons		
Series 700	60 Tons		
Series 800		60 Tons	
Baggage and Express,			
Nos. 1000 to 1027	25 Tons		
Nos. 1050 to 1059	50 Tons		
Nos. 1100 to 1119		60 Tons	
Nos. 1585 to 1702	55 Tons		
Express Refrigerators,			
Nos. 1906 to 2057	Have weight stenciled on cars		
Passenger and Baggage,			
Nos. 2100 to 2201	25 Tons		
Coaches,			
Nos. 3000 to 3241	27 Tons		
Nos. 3250 to 3606	45 Tons		
Nos. 3700 to 3724		52 Tons	

**Weights of Passenger Equipment—Cont.**

	Wooden	Steel Under-frame	Steel
Coaches—Cont.			
Nos. 4000 to 4012	36 Tons		
Nos. 4013 to 4060	41 Tons		
Nos. 4100 to 4150	51 Tons		
Nos. 4200 to 4317	50 Tons		
Nos. 4500 to 4529			70 Tons
Tourist			
Nos. 6520 to 6567	43 Tons		
Nos. 6568 to 6611	52 Tons		
Diners,			
Nos. 7010 to 7015	50 Tons		
Nos. 7050 to 7011	58 Tons		
Nos. 7100 to 7131	61 Tons		
Parlor Cars,			
Nos. 7500 to 7571	45 Tons		
Nos. 7572 to 7604	60 Tons		
Sleepers,			
Nos. 8000 to 8156	60 Tons		
Compartment-Observation,			
Nos. 9001 to 9035	63 Tons		
Business Cars,			
Average Weight	40 Tons		

**Weights of Dead Engines and Tanks.**

Engines numbered below 200 series	80 Tons
Engines numbered 200 series	90 Tons
Engines numbered in 300 series	86 Tons
Engines numbered in 400 series	110 Tons
Engines numbered in 500 series	115 Tons
Engines numbered in 600 series	120 Tons
Engines numbered in 700 series	140 Tons
Engines numbered in 800 series	155 Tons
Engines numbered in 900 series (except 992 to 997)	115 Tons
Engines numbered 992 to 997	95 Tons
Engines numbered 1000 to 1007	131 Tons
Engines numbered 1050 to 1069	144 Tons
Engines numbered 1079 to 1095	158 Tons
Engines numbered in 1100 and 1200 series	160 Tons
Engines numbered in 1300 series	160 Tons
Engines numbered 1400 to 1405	173 Tons
Engines numbered 1406 to 1425	188 Tons
Engines numbered in 1600 and 1800 series	179 Tons
Engines numbered in 1700 series	180 Tons
Engines numbered in 1800 series	219 Tons
Engines numbered in 1900 series	252 Tons
Engines numbered in 3000 series	217 Tons
Engines numbered 1750 to 1761	246 Tons
Engine Tank (Empty)	30 Tons

**Speed Limits for Trains.**

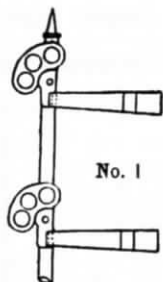
	Passenger	Freight
Leavenworth and Skykomiah	35 miles per hour.	15 miles per hour.
Through Cascade Tunnel	20 miles per hour.	15 miles per hour.
Passes No. 15 and Bridges Each End	8 miles per hour.	8 miles per hour.
Skykomiah and Gold Bar	40 miles per hour.	20 miles per hour.
Gold Bar and Pacific Avenue	50 miles per hour.	25 miles per hour.
Cherry Valley Line	25 miles per hour.	15 miles per hour.
Everett Jct. and Seattle	50 miles per hour.	25 miles per hour.
Delta Wye and Samish	25 miles per hour.	25 miles per hour.
Seattle and Bellingham	40 miles per hour.	20 miles per hour.
Seattle and Salt Creek	45 miles per hour.	25 miles per hour.
Salt Creek and Vancouver	20 miles per hour.	15 miles per hour.
Slough Branch	25 miles per hour.	15 miles per hour.
Fraser River Jct. and Cloverdale	25 miles per hour.	15 miles per hour.
Quilchena to Cloverdale	25 miles per hour.	15 miles per hour.
Cloverdale and Sumas	30 miles per hour.	20 miles per hour.
Cloverdale and Hazelton	20 miles per hour.	15 miles per hour.
Kilgard Branch	20 miles per hour.	15 miles per hour.

L-1, L-2 and M-2 engines will not exceed speed of 25 miles per hour.  
F-1, 8 and 9 engines will not exceed speed of 30 miles per hour.  
O-1 and P-1 engines will not exceed speed of 30 miles per hour between Skykomiah and Gold Bar.

**Speed Table.**

50 miles per hour is equivalent to one mile in 1 minute and 12 seconds.  
45 miles per hour is equivalent to one mile in 1 minute and 20 seconds.  
40 miles per hour is equivalent to one mile in 1 minute and 30 seconds.  
35 miles per hour is equivalent to one mile in 1 minute and 43 seconds.  
30 miles per hour is equivalent to one mile in 2 minutes and 0 seconds.  
25 miles per hour is equivalent to one mile in 2 minutes and 24 seconds.  
20 miles per hour is equivalent to one mile in 3 minutes and 0 seconds.  
15 miles per hour is equivalent to one mile in 4 minutes and 0 seconds.

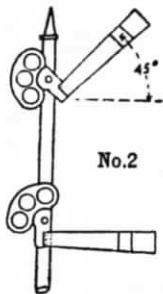
## ELECTRIC TRAIN STAFF BLOCK SIGNAL DIAGRAMS.



No. 1

**Home Signal.**

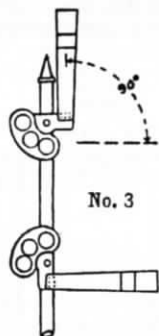
**Color.** Upper Arm RED light at night.  
Lower Arm RED light at night.  
**Indication.** STOP. Proceed only when Signal clears.  
**Name.** STOP Signal.



No. 2

**Home Signal.**

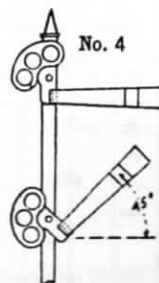
**Color.** Upper Arm, YELLOW light at night.  
Lower Arm, RED light at night.  
**Indication.** Proceed on main line with caution, be prepared to stop at the Block Station.  
**Name.** CAUTION Signal.



No. 3

**Home Signal.**

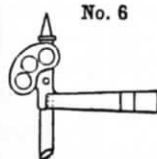
**Color.** Upper Arm GREEN light at night.  
Lower Arm, RED light at night.  
**Indication.** Main line route clear staff in crane  
PROCEED.  
**Name.** CLEAR Signal.



No. 4

**Home Signal.**

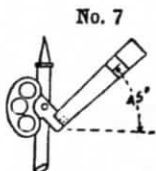
**Color.** Upper Arm, RED light at night.  
Lower Arm, YELLOW light at night.  
**Indication.** Take Passing track.  
**Name.** CAUTION Signal.



No. 6

**Distant Signal.**

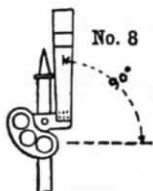
**Color.** RED light at night.  
**Indication.** STOP then proceed with caution to Home Signal.  
**Name.** STOP Signal.



No. 7

**Distant Signal.**

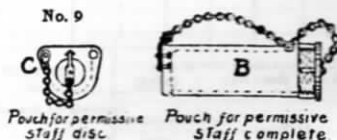
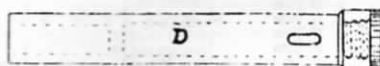
**Color.** YELLOW light at Night.  
**Indication.** Proceed with CAUTION prepared to stop at Home Signal.  
**Name.** CAUTION Signal.



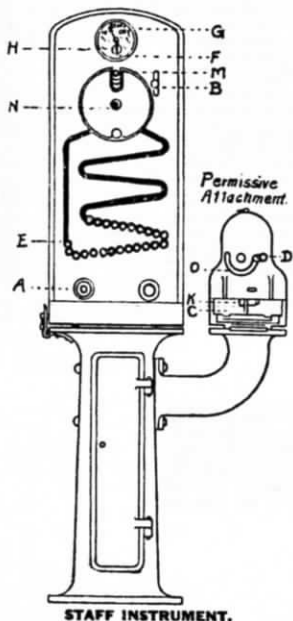
No. 8

**Distant Signal.**

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

Pouch for permissive  
Staff discPouch for permissive  
Staff complete

POUCH FOR ABSOLUTE STAFF.



STAFF INSTRUMENT.

## 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 "F" 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.

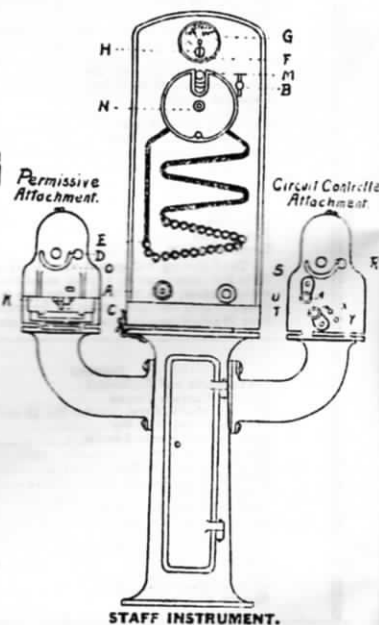
- 1st. Be sure all discs are on the permissive staff in their proper numerical order.
- 2nd. Place staff in attachment, close door "C" and latch with "K."
- 3rd. Move solid staff to the right thru slot "O" and remove at opening "D."

## 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.

## 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.   |



STAFF INSTRUMENT.

## ELECTRIC TRAIN STAFF BLOCK SIGNAL RULES AND INSTRUCTIONS.

15

Electric Train Staff Block Signal System in operation between Leavenworth and Skykomish, Everett Jct., and Pacific Ave., and between Delta Wye and Marysville.

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.

All trains and engines in both directions will be governed exclusively in their movements by the train staff.

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.

The possession of the staff by the Engineer gives his train the right of track to the next block station. ENGINEERS MUST KNOW THAT THE STAFF IS IN THE POUCH BEFORE PROCEEDING.

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).

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.

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).

An absolute staff permits but one train at a time to use a block. See D figure No. 9.

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.

Permissive staff complete permits but one train at a time to use a block descending grade only. See B, Fig. No. 9 and Rule No. 22-F.

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 Enginemen must not accept delivery of a staff from any other person. Block Operators will not deliver staff to any other than one of these employes.

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.

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.

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.

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.

Conductors and Engineers, before leaving initial points, must secure clearance card, Form 219.

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.

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.

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.

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.

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.

When a staff apparatus has been repaired it will not be put into use until authorized by Train Dispatcher.

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.

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.

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.

A record of all trains must be kept at each block station on Form No. 290.

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.

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.

**BLOCK OPERATORS WILL HANDLE THE STAFF MACHINES IN ACCORDANCE WITH THE RULES AND GENERAL INSTRUCTIONS FOR OPERATING STAFF INSTRUMENTS.**

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.

Enginemen and Trainmen may accept an absolute staff (See Rule 3) as authority for a train movement only when placed in a pouch bearing a metal plate upon which is printed the names of the two stations between which the train is to be moved.

Enginemen and Trainmen may accept a permissive staff disc (See Rule 6-A) as authority for a train movement only when such disc has printed upon it the names of the two stations between which the train is to be moved.

Enginemen and Trainmen may accept a permissive staff (See Rule 6-B) as authority for a train movement only when such permissive staff has printed upon it the names of the two stations between which the train is to be moved. Block Operator will deliver permissive staff with printed end up in pouch "B" open. Engineer after observing that proper staff has been received will close pouch.

Block operator will remain in view until rear end of the train has passed and will then give a "Proceed Signal" to the Trainman thereon, to indicate that the staff has been delivered to the Engineman.

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.

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.

Permissive staff discs must not be given to Enginemen with light engines or light tonnage trains to follow a passenger train.

Trains moving under authority of a permissive staff disc must protect against following trains as per Rule No. 99.

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.

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.

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.

When no train movement is imminent, home signals must be kept in stop position.

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.

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.

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.

Block Operators are responsible for the care of the block station, lamps and supplies and of the signal apparatus unless provided for otherwise.

Lights in block stations must be so placed that they cannot be seen from approaching trains.

Block Operators must not use, nor will Enginemen or Trainmen accept pouches, which are defective. Care must be exercised to keep the pouch plugs in good order with clamps, bearing station names, securely in place. Signal Repairman must also frequently inspect all pouches and keep same in good order at all times.

The Engineer of a train which has parted must sound the whistle signal for "train parted" on approaching a block station.

An Engineer receiving a "train parted" signal must answer by two short blasts of the whistle.

When a parted train has been recoupled the Block Operator must be notified.

If the track is obstructed between block stations notice must be given to the nearest Block Operator.

If a train is held by a block signal to exceed two minutes, the Conductor must ascertain the cause.

The Conductor must report to the Superintendent any unusual detention at block stations.

Special attention of all concerned is directed to meaning of caution signal as shown by Fig. No. 2.

Staff instruments must be kept locked. Keys will be furnished to the signal repairman but to no other person.

# AUTOMATIC BLOCK SIGNALS.

501. In all cases except as noted by special rules, 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. The movement of trains will be regulated by the block Signal indications as follows:

- A. An arm in the horizontal position (See figure No. 1) indicates that the block is not clear and is a Signal to "STOP".
- B. An arm in an inclined position (45 degrees above the horizontal) (See figure No. 2) indicates "PROCEED" with caution prepared to stop at the next signal.
- C. An arm in the vertical position (90 degrees above the horizontal) (See figure No. 3) indicates that the block is "CLEAR" and is a Signal to "PROCEED".
- D. 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".

502. Block Signals control the use of the blocks, but unless otherwise provided, do not supersede the superiority of trains; nor dispense with the use or the observance of other Signals whenever and wherever they may be required.

503. Block Signals for a track apply only to trains running with the current of traffic on that track.

- A. Automatic Signals are designated by the number plate located on the mast below the arm. Intermediate automatic block signals located between passing tracks are equipped with one arm and one light. Home automatic block signals located at each passing track are in addition equipped with a Disc enclosing a red light six feet below the Semaphore arm. The Disc and red light are provided as a distinguishing marker for the home signals only. Trains passing Home Signals, automatically set to the "Stop Position" all Signals governing train movements in the opposite direction from the next passing track. See figures 4, 5 and 6.

B. Trains holding main track at meeting points must stand clear of passing track lead. Trains proceeding from side tracks, spurs, or other tracks to a main track, must remain clear of the bonded rails and insulated joints on such tracks, until the main line switch has been opened.

504. When a train is stopped by a block signal it may proceed when the signal is cleared. If not immediately cleared it may proceed—(See A, B and C):

- A. On single track, if the block signal is a Home Automatic Signal, at a speed not to exceed 6 miles per hour after obtaining authority from the Train Dispatcher, or preceded by a flagman to the next signal displaying a "Caution" or "Clear" indication expecting to find track impassable.
- B. On single track, if the block signal is an intermediate automatic signal, at once, at a speed not to exceed 6 miles per hour, except when proceeding under Rule 504-A, expecting to find track impassable.  
Or—
- C. On double track, at once, under control, expecting to find track impassable.
- D. A train stopped by a Block Signal must stand facing the signal so that its indication may be observed from the Engine. The forward wheels must not pass the signal.

505. Omitted.

506. When a train is stopped by a block signal from any cause, Engineman will report to Superintendent, preferably on Form 2600 and operator will transmit in accordance with instructions thereon.

507. Lights must be used upon all block signals from sunset to sunrise, and whenever the signal indications cannot be clearly seen without them. At such times if lights are not burning, or if a white light is shown where a colored light should be, trains must ascertain and be governed by the day signal indication before passing signal.

508. In making train movements through cross-over or other switches to or from a main track, one of the switches must be kept open until train movement is completed to insure signal protection.

The opening of any switch will set and hold signal of that block at stop until the switch is closed. The opening of any switch at either end of a double track cross-over will hold signals on both main tracks at stop.

If either end of a siding cross-over on single track is opened, it will set and hold the signals that control the block on main track to which it leads in both directions at stop. Neither switch nor cross-over must therefore be opened, until the movement of the train is to be made, and must be closed immediately after the movement has been made and the switches locked.

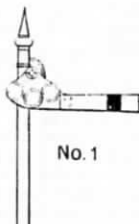
509. Switch Indicators (miniature semaphores) where used stand normally in "STOP" position. Trainmen or others using switches equipped with switch indicators must first push button on bottom of switch indicator case and if no train is approaching switch indicator will clear when switch may be used. The switch should be thrown at once after switch indicator clears.

510. When necessary to clean ash pan or cinders from the smoke arch inside of block signal limits care must be taken to avoid dumping live coals or hot cinders on the wooden trunking used to protect the signal track wiring.

511. Lights will not be provided on any main line switch located within 300 feet of an automatic signal governing the block in which the switch is located. Lights will not be provided on trailing point switches on double track.

512. Cars on side track or other tracks connecting with main tracks must be kept clear of bonded rails and insulated joints as otherwise signals will be held in "STOP" position. All tracks connecting with main track are bonded to clearance point only.

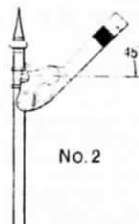
513. Interlocking Signals located in districts equipped with Automatic Signals, become, unless otherwise stated under "Special Rules", a part of the automatic block signal system. All such Home Interlocking Signals are equipped with not less than two arms and two lights. See general instructions governing operation and maintenance of interlocking plants and figures Nos. 7, 8, 9, 10, 11 and 12.



No. 1

### INTERMEDIATE AUTOMATIC BLOCK SIGNAL.

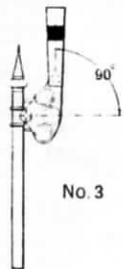
Color. RED light at night.  
Indication. STOP.  
Name. STOP Signal.



No. 2

### INTERMEDIATE AUTOMATIC BLOCK SIGNAL.

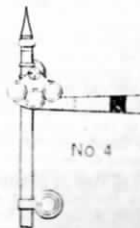
Color. YELLOW light at night.  
Indication. PROCEED with CAUTION,  
prepared to stop at next signal.  
Name. CAUTION Signal.



No. 3

### INTERMEDIATE AUTOMATIC BLOCK SIGNAL.

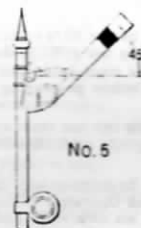
Color. GREEN light at night.  
Indication. PROCEED.  
Name. CLEAR Signal.



No. 4

### HOME AUTOMATIC BLOCK SIGNAL.

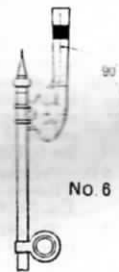
Color. Arm. RED light at night.  
Disc. RED light at night.  
Indication. STOP.  
Name. STOP Signal.



No. 5

### HOME AUTOMATIC BLOCK SIGNAL.

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



No. 6

### HOME AUTOMATIC BLOCK SIGNAL.

Color. Arm. GREEN light at night.  
Disc. RED light at night.  
Indication. PROCEED.  
Name. CLEAR Signal.



# INTERLOCKING SIGNALS.

## ENGINEMEN AND TRAINMEN.

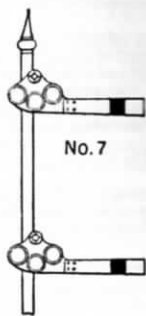
- 661. Trains or engine may be run to but not beyond a signal indicating "Stop," except as provided in Rule 663.
- 662. If a Clear or Caution signal, after being accepted, is changed to a "Stop" signal before it is reached, the stop must be made at once. Such occurrence must be reported to the Superintendent.
- 663. Enginemen and Trainmen must not proceed on hand signals as against interlocking signals until they are fully informed of the situation and know that they are protected, and then only when the prescribed hand signal is given as per Rules 620 and 620-A.
- 664. The Engineman of a train which has parted must sound the whistle signal for "train parted" on approaching an interlocking plant.
- 665. An Engineman receiving a "train parted" signal from a Signalman must answer by the whistle signal or "train parted."

- 666. When a parted train has been re-coupled the Signalman must be notified.
- 667. Sand must not be used over movable parts, or ashes dumped within the limits of an interlocking plant.
- 668. Conductors must report to Superintendent any unusual detention at interlocking plants.
- 669. Trains or engines stopped by the Signalman in making a movement through an interlocking plant, must not move in either direction until they have received the proper signal from him.
- 670. If a signal fails to work properly its operation must be discontinued and until repaired the signal secured so as to display the normal indication. Under such circumstances Signalmen must be governed as per Rule 623 and in addition will require all trains to make a full stop before giving hand signal to proceed. Signalmen giving proceed hand signals must use a yellow flag by day and a yellow light by night.

620A. Signalmen giving hand signals must do so from the center of the track upon which the train movement is to be made. When more than one train is in sight hand signal must be given from a point not to exceed one hundred feet in advance of the locomotive.

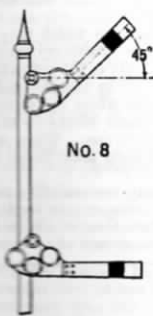
623. If there is a derailment, or if a switch is run through, or if any damage occurs to the track or interlocking plant, or if any part of the interlocking apparatus fails to operate properly, the signals must be restored to the normal position, and no train or switch movement permitted until the track and interlocking parts liable to consequent injury or failure have been thoroughly examined and are known to be in safe condition.

Note. A flag signal given by Signalman at an interlocking home signal in automatic signal districts is only authority to pass such signal and does not modify its indication as an automatic signal. See Rules 504 and 513.



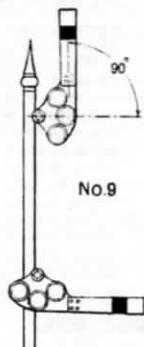
No. 7

**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.



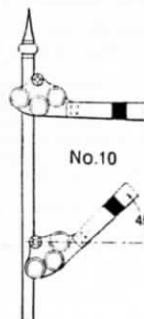
No. 8

**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.



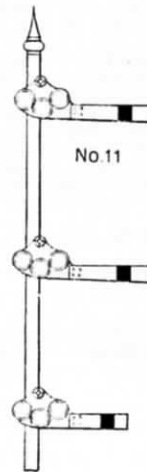
No. 9

**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.



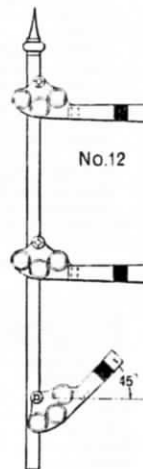
No. 10

**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.



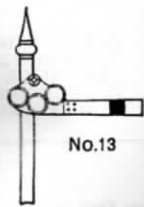
No. 11

**INTERLOCKING HOME SIGNAL.**  
 Color. Upper Arm, RED light at night.  
 Middle 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.



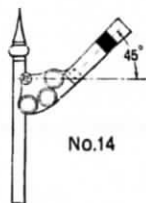
No. 12

**INTERLOCKING HOME SIGNAL.**  
 Color. Upper Arm, RED light at night.  
 Middle Arm, RED light at night.  
 Lower Arm, YELLOW light at night.  
 Indication. Slow speed route clear, proceed with caution.  
 Name. CAUTION Signal.



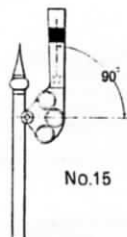
No. 13

**INTERLOCKING DISTANT SIGNAL.**  
 Color. RED light at night.  
 Indication. STOP, then proceed with CAUTION, prepared to stop at Home Signal.  
 Name. STOP Signal.



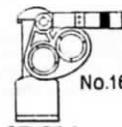
No. 14

**INTERLOCKING DISTANT SIGNAL.**  
 Color. YELLOW light at night.  
 Indication. PROCEED with CAUTION, prepared to stop at Home Signal.  
 Name. CAUTION Signal.



No. 15

**INTERLOCKING DISTANT SIGNAL.**  
 Color. GREEN light at night.  
 Indication. PROCEED.  
 Name. CLEAR Signal.



No. 16

**DWARF SIGNAL.**  
 Color. RED light at night.  
 Indication. STOP.  
 Name. STOP Signal.



No. 17

**DWARF SIGNAL.**  
 Color. YELLOW light at night.  
 Indication. PROCEED with CAUTION.  
 Name. CAUTION Signal.

## SPECIAL RULES.

- Freight trains running between Leavenworth and Skykomish will not carry passengers.
- Horizontal position of the semaphore blades by day and yellow light shown by night indicates that switches with which the distant signals are connected are open and approaching trains should immediately be brought under control.
- Diagonal position of the blades and green lights displayed at night indicate that switches with which the distant signals are connected are properly set and train should proceed as per rule.
- Car capacity of passing tracks based on 42 feet to the car inside of clearance points and does not allow for engines or cabooses. Car capacity other tracks do not include engine house tracks, turn table tracks, shop tracks, safety tracks or wye tracks.

## REFERENCE MARKS.

- In addition to signs provided for in Rule 7, Book of Rules, the following signs in column headed "Signs" indicate:
  - D Day telegraph or telephone office.
  - N Night telegraph or telephone office.
  - DN Day and night telegraph or telephone office.
  - P Dispatcher's telephone accessible at all times.
  - I Interlocked.
  - K Connection with foreign road.
  - Standard clock.

## PERSONAL INJURIES.

- Whenever passengers or employes are injured, everything must be done to care for them properly. If they are able to be moved, take them for treatment to the nearest place at which the Company has a surgeon. If they cannot be moved, call the nearest Company surgeon. If the case is urgent and the Company surgeon cannot be immediately procured, the conductor, agent or officer in charge is authorized to call the nearest surgeon available to administer first aid and care for the patient until the Company surgeon can take charge of the case.
 

No surgical operation must be performed until the arrival of the Company surgeon, unless it may be required for the immediate safety of the patient.
- In cases of serious accidents to trains, conductors, after making everything safe, must give their undivided attention to the care and comfort of their passengers, especially to those who are injured. Bedding and linen may be taken from sleepers for this purpose, the conductor keeping careful account of all material so taken, and its return or safe keeping attended to; and, when necessary, injured persons may be put in the sleepers.
 

When a number of persons are injured, the service of competent surgeons in the vicinity should at once be secured, and every possible effort made to care for the injured, the Division Surgeon being notified by wire to come immediately to the place of the accident.
- When tramps, boys and other persons, climbing on or jumping from moving trains, or persons walking or lying on the track, are injured or killed, they should be sent to their homes or placed in charge of the local county, city or village authorities, and no expense incurred on the part of the Company in the matter.
- When people are killed away from a station the body should be picked up and taken to the nearest station and the authorities notified. Never take a body out of the county where the accident happened if it can be avoided, but if there is no station in that county take it to the nearest station in the next county, notifying the county authorities in all cases.
- A report of all accidents must be made, and immediately sent by wire to Superintendent, giving all information.

In reporting accidents to trains carrying passengers, conductors should give the correct names of the injured and uninjured, the addresses and destinations of all persons on the train, and of the injured, and the extent of their injuries. This report must be sent from first telegraph office to the General Claim Agent and to the Assistant Claim Agent in whose jurisdiction the accident occurs.

As soon as possible thereafter Form 245 should be made out by each employe and forwarded to the Superintendent of the Division; a separate report being made for each person injured.

- Every effort must be made to procure the names and addresses of all persons, outsiders as well as employes, who witnessed the accident, especially when persons are injured within the corporate limits of any city, town or village, or when crossing the tracks at a public highway.
- In every case of personal injury in any Department, a full and complete report must be made at once by every employe immediately present, no matter whether he considers his statement of importance or not, answering every question as fully as possible.
- When persons are injured by an accident which may have been caused by defective appliances, tools or machinery, the car or appliance, tool or machinery must be immediately examined by the person in charge to ascertain its condition, and report made of the inspection, giving the numbers and initials of cars examined, with names, occupation and address of the persons making the inspection. This inspection must be made before the car or engine leaves the place where the accident occurred, and afterwards at the first district terminal by the inspector, foreman, or Master Mechanic at such point, the Superintendent to notify such person of the necessity of making such examination. When an accident is caused by the breaking of machinery, tools, appliances or rails, the broken parts must be so marked as to be readily identified, and immediately turned over to the Superintendent.
- This Company will not recognize any responsibility for board, medicine, nursing or surgical attention furnished by other than Company Surgeons, except for the emergency service required under Rules 1 and 2, unless authorized by the Superintendent, General Claim Agent, or a general officer of the Company, and when so authorized the General Claim Agent should at once be notified.

## COMPANY SURGEONS.

Dr. J. A. Quinn, Chief Surgeon, Pittsburgh Building, St. Paul.	
Boeckman and Boeckman, Ophthalmic Surgeons, 642 Lowry Building, St. Paul.	
Leavenworth.....	DR. G. W. HOXSEY.
Skykomish.....	DR. C. E. GREASON.
Monroe.....	DR. H. K. STOCKWELL.
Everett.....	DR. C. A. MEAD and W. T. FLYNN.
Interbay.....	DR. F. A. BOOTH.
Seattle.....	DR. H. M. READ.
Seattle.....	DR. R. W. PERRY, Oculist.

Vancouver, Wash.....	DR. J. T. GUERIN.
Tacoma.....	DR. JAMES A. LA GASA.
Burlington.....	DR. H. E. CLEVELAND.
Bellingham.....	DR. W. A. KIRKPATRICK.
Blaine.....	DR. A. A. SUTHERLAND.
New Westminster.....	DR. GEO. E. DREW.
Vancouver.....	DR. A. S. MONRO.
Anacortes.....	DR. H. E. FROST.

## TIME INSPECTORS.

Leavenworth.....	F. E. CARLQUIST.
Seattle.....	J. F. HUNTER.
Burlington.....	J. H. CROSSBY.
Everett.....	ROBT. ANDERSON.
Bellingham.....	WILBER GIBBS.

Vancouver, B. C.....	PAUL & McDONALD.
Tacoma, Wash.....	RICHARD VEATH.
Centralia, Wash.....	BEN SALICK.
Portland, Ore.....	C. CHRISTENSON.
Monroe, Wash.....	A. M. NELSON.

## Delta—

E. O. WADHAMS, Dispatcher.  
T. H. REED, Dispatcher.  
G. E. WELLIN, Dispatcher.  
C. O. JOHNSON, Dispatcher.

C. E. LAMKIN, Dispatcher.  
N. WELLIN, Extra Dispatcher.  
J. C. DEVERY, Chief Dispatcher.  
D. MOORE, Night Chief Dispatcher.

W. VICTOR, Train Master.  
J. BRADY, Train Master and Traveling Engineer.  
S. CORRIGAN, Train Master.  
JOS. WEBER, Superintendent of Terminals.

# CANADIAN FLAGGING RULES.

## GENERAL ORDER No. 161 OF THE BOARD OF RAILWAY COMMISSIONERS FOR CANADA.

The following rules must be observed and complied with by all employes in the performance of FLAGGING in Canada:

1. When the track is found to be impassable, due to any obstruction or defect, or before undertaking any work which will render it impassable, trackmen, bridgemen, or other employes of the company shall protect the same as follows:

2. On all mountain subdivisions—

By day, place a red flag supported on two staffs with flag drawn out between them, at right angles to the track and five feet above rail level; and in addition, by night, a red light on the same side of the track as the engineer of an approaching train at a point 600 feet, in both directions, from the defective or working point, with two torpedoes placed on the rail, opposite each other, so as to cause but one explosion, 150 feet in advance of the red signal. Such red signal shall be changed to green and the torpedoes removed as soon as the work will permit; and the said green signal shall be displayed until other protection signals are withdrawn; and send out a flagman in each direction with stop signals at least,—

1500 feet in daytime, if there is no down grade towards the obstruction within one mile, and there is a clear view of 6000 feet from an approaching train.

3600 feet at other times and places, if there is no down grade towards the obstruction within one mile.  
5400 feet if there is a down grade towards the obstruction within one mile.

The flagman must, after going the required distance from the obstruction to insure full protection, take up a position where there will be an unobstructed view of him from an approaching train, or, if possible, 1500 feet, first placing two torpedoes on the rail (not more than 200 or less than 100 feet apart), on the same side as the engineer of an approaching train, 300 feet beyond such position. The flagman must display a red flag by day and a red light by night, and remain in such position until recalled or relieved.

3. On all main lines and on the portions of branch lines over which main line track is handled.

Send out a flagman in each direction with stop signals at least,—

1500 feet in daytime, if there is no down grade towards the obstruction within one mile, and there is a clear view of 6000 feet from an approaching train.

3600 feet at other times and places, if there is no down grade towards the obstruction within one mile.  
5400 feet if there is a down grade towards the obstruction within one mile.

The flagman must, after going the required distance from obstruction to insure full protection, take up a position where there will be an unobstructed view of him from approaching train, or, if possible, 1500 feet, first placing two torpedoes on the rail (not more than 200 or less than 100 feet apart), on the same side as the engineer of an approaching train, 300 feet beyond such position. The flagman must display a red flag by day and a red light by night, and remain in such position until recalled or relieved.

4. On all other branch lines—

(a) A Flagman must be sent out in each direction, who shall place a red flag supported on two staffs, with flag drawn out between them, at right angles to the track and five feet above rail level; and in addition a red light by night, on the same side of track as the engineer of an approaching train, at a point 600 feet from the defective or working point, with two torpedoes placed on the rail opposite each other, so as to cause but one explosion, 150 feet in advance of the red signal. Such red signal shall be changed to green and the torpedoes removed as soon as the work will permit, and the said green signal shall be displayed until other protection signals are withdrawn; and provide further protection as follows:

(b) By day, place a flag supported on two staffs, with flag drawn out between them, at right angles to the track and five feet above rail level; and in addition a red light by night, on the same side of the track as the engineer of an approaching train, so that it will be clearly in his view at least,—

3600 feet from the defective or working point, if there is no down grade towards the obstruction.

5400 feet if there is a down grade within one mile of the obstruction, or as much further as may be necessary to insure full protection.

(c) Place two torpedoes (not more than 200 or less than 100 feet apart) on the rail on the same side as the engineer of an approaching train, 300 feet in advance of the red signal.

5. Trains stopped by flagman, as per Rule 2, shall be governed by his instructions and proceed to the working point signal and there be governed by signal or instructions of the foreman in charge, unless in the meantime stop signal has been removed and proceed signal displayed.

6. Trains stopped by flagman, as per Rule 3, shall be governed by his instructions and proceed to the working point, and there be governed by signal or instructions of the foreman in charge.

7. Trains stopped by flagman, as per Rule 4, shall replace the torpedoes exploded and proceed to the working point signal, and from there shall be governed by the signal or instructions of the foreman in charge, unless in the meantime stop signal has been taken down and proceed signal displayed.

8. In the event of train order protection being provided, yellow flags by day and in addition yellow lights by night may be used as markers without torpedoes on the rail, placed 3600 feet from the defective or working point, and in addition, red signals in both directions, 600 feet from the defective or working point.

9. When weather or other conditions obscure day signals, night signals must be used in addition.

# GREAT NORTHERN RAILWAY and Connections.

