

NORTHERN PACIFIC RAILWAY COMPANY

TACOMA DIVISION

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Special Instructions No. 1

In Effect at 12:01 A. M.
Pacific Standard Time

Thursday, June 1, 1967

These Instructions constitute a part of the Time Table currently in effect.

Employees whose duties are in any way affected by the Time Table must have a copy of The Current Special Instructions and Current Time Table with them on duty.

J. O. DAVIES,
Superintendent.

W. E. BUCKLEY,
Terminal Superintendent,
Seattle.

N. M. LORENTZSEN,
General Manager.

E. S. ULYATT,
General Superintendent of
Transportation.

ALL SUBDIVISIONS

1. Speed Restrictions:

Maximum Speeds Permitted

Passenger trains 75 MPH
All freight and mixed trains 65 MPH

The above speeds are subject to the restriction of maximum speeds in miles per hour as shown by zones under each subdivision.

All trains and engines, except as otherwise specified:
Through crossovers, turnouts and gantlets, except where fixed signals provide otherwise 15 MPH
Handling pile drivers 26-33 inclusive 40 MPH
Handling other pile drivers, wrecking cranes, locomotive cranes and similar equipment 30 MPH
Handling all scale test cars { Main Line 35 MPH
at speed shown { Branch Line 25 MPH
Handling air dump cars 89000 to 89059 series 35 MPH
Picking up train orders from operators 30 MPH
Handling dead diesel-electric engines other than NP and Tenant lines 35 MPH
Handling loaded ore cars (except CP ore cars) 40 MPH
CP ore cars (series 370000-377000)
Loaded 30 MPH
Empty 25 MPH
Handling company gravel or ballast 50 MPH

Diesel-electric engines	Handling trains	Running light
No. 99	50 MPH	50 MPH
No. 100	40 MPH	40 MPH
100 series, except No. 100	60 MPH	60 MPH
200 and 300 series, except Nos. 244, 245, 260, 263 and 267	65 MPH	65 MPH
Nos. 244, 245, 260, 263 and 267	75 MPH	65 MPH
400, 600 and 700 series	45 MPH	45 MPH
500, 501, 552-555 incl. and 557-569, incl.	65 MPH	65 MPH
No. 525	60 MPH	60 MPH
Nos. 550, 551 and 556	75 MPH	65 MPH
Nos. 800-803	60 MPH	60 MPH
850-860 series	65 MPH	65 MPH
900, 6000 and 7000 series	65 MPH	65 MPH
5400 series	55 MPH	55 MPH
6500, 6600 and 6700 series	75 MPH	65 MPH
2500, 2800 and 3600 series	70 MPH	65 MPH
2500, 2800 and 3600 series through all turnouts except where signalling permits a higher speed	12 MPH	12 MPH

Rail diesel cars in service or being towed:
Cars B-30 to B-32 incl. and B-40 to B-42 incl. 75 MPH

Diesel-Electric Engines Handled Dead in Train: Diesel-electric engines or units may be handled dead in trains. The speed of such trains must not exceed the authorized operating speed specified for such engines or units.

When handling diesel-electric single units, road-switcher engines and switch engines dead in a freight train, they shall be separated from the engine handling the train and each other by at least one freight car. This does not apply to diesel-electric road engines of two or more units coupled in multiple.

All diesel-electric engines or units handled dead in freight train must be placed on head end of train within ten cars of road engine handling train, this to insure that brakes will release properly.

When handling diesel-electric units dead in train, bridge, speed and other restrictions must be observed, same as when in operating condition.

When road passenger diesel units are coupled in multiple with road freight or road switcher units, the road passenger units must be trailing to avoid danger of sliding wheels on the freight or road switcher units due to excessive brake cylinder pressure. The speed restrictions for freight and road switcher units must be observed to avoid damage to traction motors.

Twenty-First Eastward	South Bend to Frances.....	0.55	1310	2450	3150	2200	2450	3150	3450	4980
	Frances to Pluvius.....	1.80	430	770	1020	700	850	1020	1120	1900
Twenty-Second Westward	Rye to Vancouver Jct.....	0.00	745	1500	1775	1250	1350	2000	2400	4650
Twenty-Second Eastward	Vancouver Jct. to Rye.....	1.40	750	975	1275	900	950	1275	1400	2400

This rating is made to govern ruling grades only and will in no manner interfere with handling additional tonnage where grades will permit.

Instructions for Handling Pile Drivers, Cranes, Derricks, Shovels or Similar Equipment of the Swinging or Pivoting Type, are as follows:

- (a) When such equipment is moved on its own wheels, it shall be prepared and carded in accordance with current A.A.R. Loading Rules unless some condition exists which prevents those requirements being complied with.
 - (b) Such equipment that is geared for self-propulsion shall have the driving gears disconnected or removed.
 - (c) Such equipment that is Company-owned that requires speed to be restricted shall be covered by a message to the train crew stating the maximum speed permitted.
 - (d) The above named equipment with the exception of pile drivers 26 through 33 inclusive when properly prepared and carded may be moved at normal freight train speeds unless there is some condition that prevents it, and in that event the maximum permitted speed shall be noted on the waybill. When not prepared and carded shall be handled at speeds not to exceed 30 MPH.
10. Precautions must be taken on double track to prevent accidents from swinging doors or other loose construction attached to cars or engines.
 11. Roller bearing failures on cars or engines equipped with roller bearing boxes may be due to lack of oil or grease. If the box is not blazing, the oil plug in the cover should be removed and heavy oil added and plug replaced. Oil must never be added to a box that is blazing. Grease lubricated bearing boxes have grease plugs locked with a metal strap which must be cut off with chisel before plug can be removed. In cases of a hot box, oil should be added and the plug replaced, train should proceed a reasonable speed and care exercised until it is apparent the box is running cool.
 12. Spring Switch Instructions:
Instructions for operation of spring switches are posted at or near the spring switch and must be complied with.
Unless otherwise specified, the normal position of spring switches is for main track.
When the target of a spring switch shows "Red" to an approaching train or engine, a trailing point movement actuating the spring switch points must not be made.
Normal indication of siding signal is STOP. If siding signal does not clear on approach of train, movement must be governed by instructions posted at the switch.
 13. Bulletin Stations—
Yakima, Passenger Station, Yard Office, Round House.
Ellensburg.
Auburn, Yard Office, Round House.
Seattle, South Portal Tower, Stacy Street Yard Office.
Tacoma, Union Station, Yard Office, Round House.
Centralia, Passenger Station, Yard Office, Round House.
Longview, Freight Station; Vancouver, Passenger Station, SP&S Round House.
Portland, Telegraph Office, Hoyt Street Yard Office.
Woodinville. Everett, Yard Office, Round House.
Snohomish.
Arlington.
Enumclaw, Telegraph Office, Milwaukee Depot.
Bellingham.
Sumas.
Hoquiam, Passenger Station, Round House.
Aberdeen.
Elma, Raymond, Olympia, Bremerton and Bangor.
Great Northern bulletin boards will be maintained on board at Auburn, Arlington, Everett and Snohomish.
 14. Standard Time Clocks—
Yakima, Yard Office.
Ellensburg, Cle Elum.
Auburn Yard Office, Round House.
Seattle, South Portal Tower, Stacy Street Yard Office.
Tacoma, Union Station, Yard Office, Round House.
Centralia, Passenger Station, Yard Office, Round House.
Longview, Freight Station.
Vancouver, Passenger Station.
Portland, Telegraph Office.
Everett, Bellingham, Hoquiam, Telegraph Office.
Elma, Telegraph Office.
Bremerton, Telegraph Office.

TONNAGE RATING INSTRUCTIONS
This rating is made to govern rilling grades only and will in no manner interfere with handling additional tonnage where the grades will permit.

TONNAGE RATINGS—FREIGHT ENGINES

TACOMA DIVISION		ENGINES (TONNAGE SHOWN IS PER UNIT RATING)										
		Ruling Grade %	99 100-106 400-427 700-724 750 800-803	107-177	5400- 5410	550-551 556 6500- Series 6600- 6601	244-245 6000-6005 6051 6052 6700 Series	500-501 525 552-555 557-569 850-863 900 Series 6007-6020 6050	200 Series 300 Series 7000 Series Except 244 & 245	2500 2800 3600 Series		
SUBDIVISION	DISTRICT											
		Seventeenth Eastward	Lakeview to Nisqually.....	0.65	1100	2500	3200	2500	2800	3000	3500	4380
		Seventeenth Westward	Nisqually to Fort Lewis.....	1.55	700	800	1050	750	840	1000	1250	2150
			Fort Lewis to Murray.....	1.00	1100	1350	1800	1350	1400	1850	2000	3300
Tenth Eastward..	Murray to Lakeview.....	0.70	1100	2500	3300	2300	2500	3200	3600	4360		
	Orting to Lake Kapowsin.....	1.95	410	480	850	540	700	850	1050	1690		
Eighteenth Westward	Centralia to Gate.....	0.45	1310	2500	3800	3000	3500	3800	4500	5800		
	Gate to Rochester.....	0.75	1950	2250	2900	1980	2180	2900	3160	4650		
Eighteenth Eastward	Rochester to Grand Mound....	0.30	2730	3300	3870	2920	3210	4250	4630	6950		
	Grand Mound to Centralia.....	0.30	2730	3300	3870	2920	3210	4250	4630	6950		

Trains handling logs loaded on flats must not meet or be passed by trains, except work trains, between stations on opposite track of double track; must be standing when passenger trains on opposite track meet or pass such train, and if practicable, must be standing when freight trains are met, or passed on opposite track, but if not practicable will pull by standing freight trains at reduced speed. When meeting or passing work trains between stations, one train must, when practicable, be standing. Logs, wood bolts, or veneer blocks loaded on flat cars will not be handled in trains after dark except as provided by specific Subdivision Instructions in the following pages.

Single Track. Such trains must be standing when meeting or being passed by passenger trains.

EXCEPTIONS:

Logs loaded in gondolas, skeletonized gondolas and permanent side stake log cars (SBF cars) when loaded in compliance with the following instructions may be handled in double track territory and through tunnels without log orders:

1. Bands or stakes are not required when outside logs are loaded with more than one-third their diameter below top of stake or top side of gondola. Inside logs must have good lay with four inches of log below end of gondola.
2. Two 2"x.050", or two 1 1/4"x.065" high tension bands, or two cable binders per pile of logs must be used when outside logs are loaded with 3/4 or more of their diameter above top side of gondola. Inside logs must be well pyramided with each log to have good lay and no portion of any log resting on top side of gondola. No top logs are permitted on small to medium pulp and paper logs. Bands should be placed about 6' from ends of logs, being around and over all logs with 3/4 or more of log above gondola sides. When short logs are loaded above gondola sides such logs must be secured as above by at least two bands.
3. When loaded in gondolas, two 8-ft. stakes on each side of and two 2"x.050" or two 1 1/4"x.065" bands per pile of logs may be used with logs loaded one ft. below top of stakes, with 5 strands #9 wire or 3/4" band across top of load between stakes. Diameter of stakes should be as specified in General Rule 10, Section 1 of the AAR loading rules.
4. When loaded in gondolas, four 8-ft. stakes on each side of car may be used with 5 strands of #9 wire or 3/4" band across top of load between stakes. No bands around logs are required. Diameter of stakes should be as specified in General Rule 10, Section 1 of the AAR loading rules.
5. Eight foot logs loaded crosswise in gondola cars must have side protection of wire mesh or boards per Fig. 11 of the AAR Loading Rules unless that portion loaded above gondola side is made up in bundles of not more than 1 1/4 cords, secured with two 3/4"x.028" steel bands and loaded with the lower edge of bundles not less than six inches below top of car side. When loaded in this manner, 8 ft. pulpwood of uniform size must be placed vertically to provide a solid wall at each end of car and these vertical pieces secured with one 3/4"x.028" high tension band encircling all of the vertical pieces in a figure 8 fashion so as to prevent lateral movement.

17. Mountain Grade Operation.

At meeting points established by train orders, the train order must specify which train will take siding.

Unless otherwise directed the ascending train will take the siding.

Descending freight or mixed trains holding main track at the meeting point must not pass the upper switch of siding until the ascending train is clear of the main track.

To the Extent practical empty cars must not be handled in head 15 cars of trains descending mountain grades.

Trains handled by engine on descending grades, having dynamic brake operative on all units and tonnage of train exceeds the tonnage rating of engine for ascending the grade, turn up one retaining valve handle for each fifty tons in excess of rated tonnage, starting from the head end of train.

Descending trains handled by engine having no dynamic brake or when engine does not have dynamic brake in effective opera-

TONNAGE RATING INSTRUCTIONS
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TONNAGE RATINGS—FREIGHT ENGINES

TACOMA DIVISION		ENGINES (TONNAGE SHOWN IS PER UNIT RATING)								
SUBDIVISION	DISTRICT	Ruling Grade %	99 100-106 400-427 700-724 750 800-803	107-177	5400- 5410	550-551 556 6500- Series 6600- 6601	244-245 6000-6005 6051 6052 6700 Series	500-501 525 552-555 557-569 850-863 900 Series 6007-6020 6050	200 Series 300 Series 7000 Series Except 244 & 245	2500 2800 3600 Series
Seventh Westward	Palmer Jct. to Tacoma.....	1.00	1100	1360	1590	1180	1300	1750	1920	3300
	Wilkeson and Carbonado to South Prairie.....	0.00								
Seventh Eastward	Tacoma to Orting.....	0.55	1220	1460	2650	1580	2125	2670	3120	4670
	Orting to South Prairie.....	1.00	745	890	1600	985	1310	1600	1900	3300
	South Prairie to Buckley.....	1.70	450	700	1150	700	790	1150	1160	2020
	Buckley to Palmer Jct.....	1.20	745	890	1600	985	1300	1600	1900	3300
	South Prairie to Wilkeson.....	2.20	350	420	800	460	600	880	900	1430
	Wilkeson to Carbonado.....	2.20	350	420	800	460	600	880	900	1430

If stop is made on descending grade, sufficient time must be allowed to recharge the train brake system which shall not be less than ten minutes after brake valve handle is placed in running position.

If stop is made on descending grade and engine brake only is not sufficient to hold the train, hand brakes must be applied to hold the train and to allow sufficient time to fully charge the train brake system.

Retaining valves shall be used when requested by enginemen. If dynamic brake becomes inoperative, train must be stopped and retaining valves used as outlined for handling train with engine having no dynamic brake.

When maintaining method of braking is used without using retaining valves, no stop will be necessary to cool wheels and inspect train.

When maintaining method of braking is used, release of the train brakes must be made in the usual manner, dynamic brake and retaining valves (where required) being used to control train speed during time brake system is being recharged.

Partial release of train brakes by moving brake valve handles from "maintaining" position to "running" position momentarily and back to "maintaining" position, must not be attempted.

Before releasing the train brakes, enginemen must know that the speed and grade are such that train may be controlled with the dynamic brake only. This to insure that sufficient time will be allowed to recharge the train brake system before another application of the train brakes will be necessary.

Freight or mixed trains handled by diesel-electric engine having dynamic brake in effective operation on all units and tonnage rating of train does not exceed the specified tonnage for the engine ascending the grade without helper, use no retaining valves.

Conductor must know that required brake pipe pressure is being maintained before passing summit.

In the event of failure of the dynamic brake on any unit of diesel-electric engine or when proper control of speed can not be maintained, engineer must take action promptly to stop the train by use of the train brakes and instruct head brakeman to notify conductor that retaining valve handles must be turned up on cars in train to the requirement specified for trains handled by engines having no dynamic brake. Conductor shall instruct the brakeman accordingly and notify the engineer when specified number of retaining valve handles have been turned up, and train may proceed.

For special instructions applicable to any specific mountain grade, see "Mountain Grade Operation" for the Subdivision on which it is located.

18. Specially Constructed Box Cars.

A substantial number of especially constructed box cars are in service on various railways for the movement of airplane wings. These cars are both higher and wider than the ordinary box car and, account restricted clearance in tunnels, cannot be moved over the westward track between Titlow and McCarver Street on Third Subdivision.

Yardmasters, before forwarding these cars, either loaded or empty, shall inform the Chief Dispatcher by wire, giving numbers and locations of cars in train, with copy to engineer and conductor of train handling, who will see that proper cautionary measures are taken.

At all inspection points these cars must be given careful mechanical inspection, including check of side bearing clearances. These cars should be handled in trains not less than five cars ahead of caboose; must be watched closely en route by train and enginemen; speed restrictions on curves carefully observed; special care exercised when moving same on tracks where side clearances are restricted; and must not be switched with at terminals.

19. Trailer on Flat Cars.

When TOFC cars are being switched, they must not be dropped or kicked and must be handled to a joint.

20. Tank Cars 850-64.

Account draft gear assembly, cars must be shoved to a joint and other cars must not be dropped or kicked against them.

TONNAGE RATING INSTRUCTIONS
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TACOMA DIVISION		ENGINES (TONNAGE SHOWN IS PER UNIT RATING)									
SUBDIVISION	DISTRICT	99 100-106 400-427 700-724 750 800-803	107-177	5400- 5410	550-551 556 6500- Series 6600- 6601	244-245 6000-6005 6051 6052 6700 Series	500-501, 525 552-555 557-569 850-863 900 Series 6007-6020 6050	200 Series 300 Series 7000 Series Except 6000 244 & 245	2500 2800 3600 Series		
Thirteenth Eastward	Edgecomb to Getchell.....	1.40	760	1210	815	900	1225	1350	2275		
	Getchell to Snohomish.....	0.85	1290	2040	1390	1530	2050	2240	3420		
Thirteenth Westward	Snohomish to Hartford.....	0.95	1290	2040	1390	1530	2050	2240	3420		
	Hartford to Getchell.....	1.35	920	1480	990	1100	1480	1610	2790		
Fourteenth Eastward	Getchell to Edgecomb.....	0.40	2820	4380	3020	3310	4380	4780	6950		
	Darrington & Arlington.....	0.00									
Fourteenth Westward	Arlington and Darrington.....	0.75	1140	2460	1440	1975	2540	2900	4360		
	Bellingham to Larson.....	2.20	350	800	460	600	880	900	1430		
Fifteenth Eastward	Larson to Wickersham.....	1.00	745	1500	985	1300	1600	1900	3300		
	Wickersham to Mirror Lake....	1.95	380	830	510	660	940	1020	1625		
Fifteenth Westward	Mirror Lake to M. P. 15.....	0.70	1140	2460	1440	1975	2540	2900	4600		
	M. P. 15 to Larson.....	1.50	510	1100	680	1100	1325	1350	2275		
	Larson to Bellingham.....	1.25	590	1260	745	1025	1380	1490	2630		

Between Kanaskat and Palmer Jct. trains handling logs will not cross on overhead bridge No. 81 while a C.M.St.P.&P. train is passing under this bridge.

3. At Auburn—First Subdivision trains handling logs on flat cars and entering yard on track paralleling westward Second Subdivision main track should stop and remain standing for trains passing on main track.

At Auburn Passenger Station, train order signal does not govern First Subdivision trains leaving or entering Second Subdivision.

Between Auburn and East Auburn:

Train and engine movements will be governed by Rules 261 through 264 between the west switch at East Auburn and the junction at Auburn. All train and engine movements between East Auburn and Auburn yard will also be governed by Rules 261 through 264. Freight trains, yard engines and light engines moving within these limits must avoid delay to first-class trains and passenger trains operating as extras.

Westward train and engine movements will be governed by westward block signal at the west switch of East Auburn.

Eastward train and engine movements will be governed by eastward block signal located 309 feet east of First Subdivision junction switch.

Eastward train and engine movements from Auburn Yard on outbound track to First Subdivision main track, will be governed by eastward signal near junction switch. Trains using this track, enter the track circuit approximately 750 feet before reaching this signal and, when occupying track circuit will set signals against movements in either direction on main track between Auburn and East Auburn. These signals may be cleared by opening knife switch located inside of metal case at signal governing eastward movements from outbound track. This knife switch must be returned to closed position after being used.

Eastward train and engine movements from Auburn Yard on inbound track to First Subdivision main track will be governed by eastward signal near junction switch. A switch indicator, located near junction switch, indicates occupancy of main track between Auburn and East Auburn. Before lining main track switch, a member of crew must observe switch indicator. If switch indicator shows "proceed," main track switch may be opened and train or engine movement will then be governed by indication displayed by signal.

At Auburn, westward trains or engines on Second Subdivision main track, awaiting arrival or departure of trains to or from First Subdivision, must remain east of governing signal located on westward main track about 500 feet east of First Subdivision junction switch.

Trains or engines from First Subdivision will not pass governing signal located 309 feet east of First Subdivision junction switch in STOP position except under protection of flag against first-class trains.

Eastward Second Subdivision trains or engines, using main track crossover to First Subdivision, will not pass governing signal located immediately west of main track crossover in STOP position except under protection of flag against first-class trains. If signal indicates proceed, flag protection will not be required.

At Auburn, Second Subdivision instructions govern.

4. At East Auburn, all eastward trains making station stops should stop with the lead wheels of the train west of the "Crossing Signal Restart" sign and should proceed at a slow enough speed when departing to allow the gates to be activated and to be down in the horizontal position before the train occupies the crossing.

Telltails are located on main track at each end of transfer platform to call attention to restricted clearance of umbrella shed.

5. At Palmer Jct.—Trains from 7th Subdivision must not pass governing signal to enter 1st Subdivision if signal indicates Stop, except under protection of flag against first class trains. If signal indicates proceed, movement may be made without flag protection.

6. Between Kanaskat and Lester all toilets in trains must be kept locked and employees are cautioned against throwing off refuse

Fifth Eastward	Bromart to Maltby.....	1.55	480	560	1140	610	804	1210	1220	2150
	Woodinville to Lake.....	0.00	.....	.....	.....	.....	.....	.....	.....	.....
	Lake to Keith.....	0.75	1010	1200	2400	1330	1730	2240	2580	3910
	Keith to Seattle.....	0.65	1140	1360	2570	1440	1975	2540	2900	4360
	Seattle to Interbay.....	0.00	.....	.....	.....	.....	.....	.....	.....	.....
	Interbay to Keith.....	1.20	630	750	1500	770	1100	1350	1600	2360
	Keith to Woodinville.....	0.00	.....	.....	.....	.....	.....	.....	.....	.....
	Woodinville to Maltby.....	1.75	430	510	1000	570	725	910	1100	1900
	Maltby to Bromart.....	1.00	745	890	1770	985	1550	1640	1900	3300
	Bromart to Arlington.....	0.45	2340	2830	3650	2600	2750	3650	3970	5800
Fifth Westward	Arlington to McMurray.....	1.00	745	890	1770	985	1550	1640	1900	3300
	McMurray to Sedro-Woolley...	0.60	1310	1560	3110	1730	2250	2910	3340	4980
	Sedro-Woolley to Thornwood...	1.00	745	890	1770	985	1550	1640	1900	3300
	Thornwood to Sumas.....	0.65	1140	1360	2710	1440	1975	2540	2900	4360
Eleventh Eastward	Woodinville to Kirkland.....	1.00	745	890	1770	985	1310	1640	1900	3300
	Kirkland to Black River.....	0.00	.....	.....	.....	.....	.....	.....	.....	.....

west switch of siding, must be left lined and locked for spur track when not in use to act as a derail for all yard tracks.

Automatic crossing signals have been installed at Yakima Avenue. The following are the instructions for trainmen concerning the operation of the trainmen's pushbutton stations at the crossing:

TRAINMEN'S OPERATING INSTRUCTIONS, CROSSING SIGNALS, YAKIMA AVENUE, YAKIMA, WASH.

The crossing signal protection at Yakima Avenue is provided with Trainmen's push-button control stations adjacent to the crossing and with supervisory control from the Tower Watchman, and is operated as follows:

- (1) The Yakima Avenue crossing signals are in automatic operation for trains approaching on either the Main Line or the Highline. Approaching trains start the signals automatically and after the last car passes the crossing the signals stop automatically. If an approaching train stops before reaching Yakima Avenue the Tower Watchman should stop the signals and restart them when the train once again approaches the crossing.
- (2) The switching tracks are all provided with short track circuits across Yakima Avenue and the signals will start with occupancy of any of these track circuits, but no approach ringing circuits are provided.
- (3) Trainmen's push-button control stations activate crossing signals for movements over the crossings on the Main Line, the Highline and Nos. 2, 3, 4 and 5 tracks.

These push-buttons are "Start-Stop" and are to be used by trainmen to start the signals before proceeding over the crossing.

To avoid unnecessary activation of crossing signals at Yakima Avenue crossing, when it appears that freight trains or switch movements will be delayed crossing Yakima Avenue, they will remain clear of the insulated joints which are painted yellow and located approximately 50 feet on either side of the crossing, until the movement can be completed.

11. Sidings:

Cle Elum: No. 6 track between crossover opposite passenger station and first crossover east is eastward siding. Track between crossover west of county road crossing to extreme west switch, on north side, is westward siding.

Thorp: North siding is eastward, south siding is westward.

Ellensburg: No. 1 track in east yard (east of Fifth Street) will be used as westward siding, and No. 1 track in west yard (west of Fifth Street) will be used as eastward siding. The normal position of switches of connecting track between west No. 1 and east No. 1 tracks is for the connecting track and must be left in normal position after being used.

Thral: North siding is eastward, south siding is westward.

Pomona: North siding is eastward, south siding is westward.

Selah: South siding is eastward, north siding is westward.

12. Switches Equipped with Electric Switch Locks:

At Palmer Jet., both east and west wye switches leading to 7th Subdivision equipped with emergency release.

At Auburn, the junction switch leading to 2nd Subdivision and the switches at both ends of the first crossover east of the passenger station.

13. Spring Switches:

Spring switch equipped with facing point lock, between East Auburn and Auburn, where outbound wye track from Auburn Yard connects with main track.

Spring switches equipped with facing point locks and for switch key signal operation:

At Covington, east end of siding.

At Ravensdale, east end of siding.

At Kanaskat, east end of siding.

At Eagle Gorge, east end of siding.

At Maywood, east end of siding.

At Nelson, west end of siding.

MAXIMUM CLEARANCES—Continued

Note—Limit of load measurements based on 52 ft. cars with 42 ft. truck centers. Heights and widths in table allow 6 inch clearance.

Height of center of gravity above top of rail not to exceed 84 inches.

SUBDIVISION	HEIGHT ABOVE TOP OF RAIL													Governing Structure										
	21'- 0"	20'- 6"	20'- 0"	19'- 6"	19'- 0"	18'- 6"	18'- 0"	17'- 6"	17'- 0"	16'- 6"	16'- 0"	15'- 6"	15'- 0"		14'- 6"	14'- 0"	13'- 6"	13'- 0"	12'- 6"	12'- 0"	1'- 6"	1'- 0"	0'-6"	
	MAXIMUM LOAD WIDTH WHEN CENTERED ON CAR																							
23rd Sub. Moxee Branch	0'- 0"	7'- 9"	8'- 9"	9'- 9"	10'- 9"	11'- 9"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	Br. 1.1 Yakima River
24th Sub. Naches Branch (Yakima-Naches).....	0'- 0"	0'- 0"	0'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	Br. 4 Naches River
24th Sub. Brace-Tieton...	0'- 0"	0'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	12'- 0"	Flume Crossing near M.P. 7

Loads up to 12'-0" wide between 21'-0" and 0'-6" above top of rail may be handled on the following subdivisions:

6th Sub.—Roelyn Branch
7th Sub.—Wilkeson & Carbonado Branch
16th Sub.—Tumwater Spur
17th Sub.—American Lake Line

Loads in excess of measurements given above may be handled only upon message authority obtained from the Division Superintendent, copy of which must accompany the movement.

19. Mountain Grade Operation.

Mountain grade between Easton and Lester.

See All Subdivisions Mountain Grade Operation.

- (a) Eastward freight or mixed trains handled by engine having no dynamic brake or when engine does not have dynamic brake in effective operation on all units, stop will be made at Lester or before leaving Stampede to make brake pipe test and turn up retaining valve handles on all loads and one-half empty cars, alternating the empties.

Retaining valve handles will be turned down, wheels cooled, and train inspection made when stop is made at Easton.

Trains not requiring the use of retaining valves need not stop at Lester or Stampede to make brake pipe test if consist of train has not been changed or angle cock closed after leaving terminal where train test is made. Conductor must know that required brake pipe pressure as indicated on caboose gauge is being maintained before passing summit.

- (b) On westward freight or mixed train handled by engine having no dynamic brake or when engine does not have dynamic brake in effective operation on all units, stop will be made at Easton, or before leaving Martin, to make brake pipe test and turn up retaining valves on all loads and one-half empties, alternating the empties.

Retaining valves will be turned down, wheels cooled, and train inspection made when stop is made at Lester.

Trains not requiring the use of retaining valves need not stop at Easton or Martin to make brake pipe test if consist of train has not been changed or angle cock closed after leaving terminal where train test is made. Conductor must know that required brake pipe pressure as indicated on caboose gauge is being maintained before passing summit.

- (c) Trainmen must not close angle cocks to detach engine until signal is given. An examination of the train brakes must be made to determine if brakes are applied on each car. The air pressure must not be coupled into the train from the helper or road engine, nor signal given engineer on road engine for a release of brakes until the examination has been completed.

- (d) Engineer on leading diesel-electric engine will adjust the feed valve to 110 pounds brake pipe pressure for passenger trains and 90 pounds brake pipe pressure for freight trains at Easton on westward trains; at Lester on eastward trains. Conductor must observe caboose gauge before train enters Tunnel No. 3 and if sufficient pressure is not indicated, must take immediate action to stop the train.

- (e) Descending trains will carry 110 pounds brake pipe pressure for passenger trains and 90 pounds brake pipe pressure for freight trains to Lester and to Easton. Following any stops during the descent the engineer must fully recharge the brakes before starting. On freight trains the conductor must not give the "Proceed" signal until at least 80 pounds is shown by the caboose gauge.

- (f) If for any reason the train breaks in two or more parts while in Tunnel No. 3, train and enginemen should arrange to get engines out of tunnel as promptly as possible. If necessary, take engines and cars out in either or both directions. When portion of train is left in tunnel, same should be made secure by blocking and not moved out until gas has cleared and it can be done safely. Blocking will be found on walls of tunnel on right hand side going east, about 100 feet apart and six feet above the rail.

- (g) When stop is made at Easton, eastward, or Lester, westward, brake pipe pressure will be reduced to 80 pounds and continued at that pressure through to terminal. Conductor must know by caboose gauge that this has been done before proceeding.

- (h) Speed of trains through Stampede Tunnel No. 3 must be so controlled that they can be stopped on emerging. Trains handling express or expedited freight having a consist of cars equipped for passenger train operation, or with a small percentage of freight refrigerators intermingled, will be governed by speed specified for passenger trains descending mountain grades.

MAXIMUM CLEARANCES—Continued

Note—Limit of load measurements based on 52 ft. cars with 42 ft. truck centers. Heights and widths in table allow 6 inch clearance.

Height of center of gravity above top of rail not to exceed 84 inches.

SUBDIVISION	HEIGHT ABOVE TOP OF RAIL													GOVERNING STRUCTURE
	21'-0"	20'-0"	19'-0"	18'-0"	17'-0"	16'-0"	15'-0"	14'-0"	13'-0"	12'-0"	11'-0"	10'-0"	9'-0"	
3rd Sub. Betw. Longview-Longview Jct.....	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	Br. 0.59 Cowlitz River
4th Sub. South Tacoma-Tenno Jct.....	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	Br. 9 & 22.1
5th Sub. Sunas Branch (via Everett).....	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	G.N. Br. 11 @ Delta Jct. & Br. 110 Nookack R.
6th Sub. Argo-Bell St. (via Seattle Tunnel)...	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	Seattle Tunnel & Main Street Over King
7th Sub. Buckley Line...	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	Br. 17 and 28
10th Sub. Orting Branch...	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	Br. 8 Puyallup River
11th Sub. Bat Line (Black River-Woodville).....	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	Br. 2 and 23
12th Sub. Snoqualmie Branch.....	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	Br. 5.46 Snoqualmie River*
13th Sub. Hartford Line (Bromart-Edgcomb)...	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	Br. 38 Snohomish River
14th Sub. Darrington Branch.....	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	Br. 7, 10, 11 and 18

*On Weyerhaeuser Lbr. Co. Spur.

traffic within these limits on the time of delayed first class trains without train order authority, but must be prepared to protect immediately. In foggy or obscure weather all trains must stop and know before proceeding that there are no trains approaching on main track before entering from yard track.

All engines using West Seattle connection at Colorado Avenue, Seattle, will use every precaution when crossing the north and south strips of Spokane Street pavement, movement in both directions to be made at reduced speed.

At the point on East Marginal Way, Seattle, where West Seattle Line crosses the northbound traffic lane, vision of approaching motorists is obscured by a building. All trains and engines moving toward West Seattle, will come to a full stop short of northbound lane. A member of the crew will walk ahead and protect movement over crossing.

At First Avenue, where the West Seattle line crosses, the view by southbound motorists is obscured by a building. Trains and engines moving eastward must not exceed two (2) MPH approaching this point, the whistle must be sounded and the bell ringing.

At Tacoma:

All Trains

Reservation to East D Street, via Head of Bay Line.....30 MPH

Between East D Street and 21st Street20 MPH

On curves and over Drawbridge 89, between UP crossing on Drawbridge Line and 15th St.15 MPH

Between 15th St. and Union Station on incline10 MPH

2. Bridge and Engine Restrictions:

Wrecking cranes 45-48 inclusive:

West Seattle LineNot Permitted

Bridge 19.9, East D Street Log DumpNot Permitted

Bridge 8.78 on Tideflats Branch, Bridge 17.2, all bridges on Highline in Tacoma and Bridges 14.07 and 0.40 on St. Paul and Tacoma Lumber Co. Spurs20 MPH

2500, 2800 and 3600 Series Locomotives over Bridge 20, West Seattle Line10 MPH

Cars under 35 ft. long weighing between 177,000 lbs. and 220,000 lbs. when coupled in groups of two or more:

Over Bridge 17.2, Bridge 19.9 on East D Street Log Dump, all bridges on Highline in Tacoma, Bridges 36.8 and 73.9 on West Seattle Line20 MPH

Over Bridge 8.78 on Tideflats Branch10 MPH

All trains, over rail locks on Bridge 36.8 on West Seattle Line20 MPH

Trains handling logs, wood bolts, or veneer blocks, loaded on flat cars, will not exceed a speed of ten (10) MPH over the following bridges and when passing over them trainmen will be so stationed as to notice falling logs, wood bolts, or veneer blocks that might damage bridge and pass signal to engineer for quick stop. Engineer must be on lookout for such signal.

Bridge 29.1, Puyallup River, between Meeker and Sumner.

Bridge 24, White River, between Dieringer and Auburn.

Bridge 17.2, Green River, between Thomas and Kent.

3. At Kent, account track curvature, trains switching at Lynch Spur will use one unit only.

4. At Spokane Street Tower and Argo, between 6:01 PM and 7:01 AM, through train movements will use the Colorado Avenue Line for westward movements and the Eastward track of the Pacific Coast Railroad double track for eastward movements, and will be governed by the Pacific Coast Railroad Time Table and Special Instructions when using the Pacific Coast Eastward track.

At Spokane Street trains will cross over between Pacific Coast Railroad Eastward track and Colorado Avenue Line at cross-over located 400 feet west of Spokane Street Tower. All trains on Pacific Coast Railroad tracks will signify desired route through Spokane Street Interlocking Plant in accordance with

7. **At Argo:**
Crossover located 800 feet west of Argo Tower between the Northern Pacific Colorado Avenue Line and the Pacific Coast Railroad, and crossover located 1050 feet west of Argo Tower between the Pacific Coast main tracks are interlocked and controlled from Argo Tower. Standard interlocking signal indications will govern movements over all routes.

The following whistle signals will be used for interlocking routes:

Colorado Avenue Line.....	1 long, 1 short, 1 long
Westward from Colorado Avenue Line through crossover to Pacific Coast double track.....	1 long, 1 short
Westward from Colorado Avenue Line to Argo Yard Lead.....	2 long
Eastward from Pacific Coast to Colorado Avenue Line.....	1 long, 1 short, 1 long
Shore Line	2 short, 1 long
Eastward to westward main track through crossover.....	4 short
Eastward main track to coal spur.....	4 short

Switch at west end of crossover just west of Argo and switch on westward main track leading to Oregon St. Transfer are electrically locked. To operate these, first communicate by phone with Interlocking operator, who will release the locks so they may be operated in accordance with instructions posted in the door of each lock.

8. **At Black River Interlocking:** Trains entering the interlocking to back in on west leg of wye, or working interchange tracks, or making reverse movement between Black River station and interchange track, should notify U. P. Black River operator by phone, so that arrangements can be made to protect movement.
9. **Westward trains handling flat cars loaded with logs, wood bolts, or veneer blocks,** must obtain train order authority and use eastward track between Black River and Argo.
10. **At Black River:** Trains from the 11th Subdivision must not pass governing signal to enter the 2nd Subdivision if signal indicates Stop, except under flag protection. If signal indicates proceed, movement may be made without flag protection.
In setting out cars on the west leg of wye cars must not be left between 2nd Subdivision west wye switch and road crossing approximately 765 feet from that switch in the direction of Renton.
11. **At Auburn:**
All westward trains waiting for trains operating to and from the First Subdivision, and all trains doing station work at Auburn, must stop clear of the H&R crossover at the west end of Auburn Yard in order to avoid blocking switch crews using this crossover.
Highway signals at Main Street crossing are not connected with house track and operate only with train movements on main tracks.
Trains moving to or from First Subdivision will be governed by instructions in Item 3 of First Subdivision special instructions.
At Auburn passenger station, train order signal does not govern First Subdivision trains leaving or entering Second Subdivision. Switchtenders are on duty at Auburn Yard 6:00 AM to 2:00 PM and 4:00 PM to 12:00 Midnight. Hours of assignments subject to change.
12. **At Meeker:** Trains from 7th Subdivision must not pass governing signal to enter 2nd Subdivision if signal indicates Stop, except under protection of flag against first class trains. If signal indicates proceed, movement may be made without flag protection.
13. **At Puyallup:** Westbound trains setting out will stop short of 7th Street crossing.
14. **Between Reservation and Tacoma:**
Trains leaving GN yard or westward extra trains originating at Head of Bay yard must obtain authority from operator at Reservation before leaving yard.

6. **Drawbridge 53,** Willapa River, west of Raymond, bridge will be left open when tenders not on duty. Trains will not pass over drawbridge until proceed signal is received from drawbridge tender, using yellow flag by day and a yellow light by night.
7. **Mountain Grade:**
MP 29 to 2000 feet west of MP 34, between Pluvius and Frances. This grade reaches a maximum of 1.8 percent for short distances, and on westward freight or mixed trains a sufficient number of retaining valves, as determined by the conductor and engineer handling the train, will be used to insure proper control of speed.
See All Subdivisions Mountain Grade operation.
8. **Register Stations:** Pe Ell and Millburn for CW trains.
Dryad Jct. for CMStP&P westward trains.
9. **Clearance Exceptions—**At South Bend, Dryad Jct., Chehalis Jct. and Millburn, trains originating will not require clearance.

TWENTY-SECOND SUBDIVISION (YACOLT BRANCH)

1. **Speed Restrictions:**
Zone—Between Maximum Speeds Permitted
Rye and Vancouver Jct.....15 MPH
Trains handling wrecking crane, pile driver, or locomotive crane15 MPH
Advance-warning signs are located 1500 feet in advance of the Reduce speed signs.
2. **Clearance Exceptions—**At Vancouver Jct. and Rye clearance not required.
3. **Derails—**At Vancouver Jct., on main track 900 feet from junction switch.

TWENTY-THIRD SUBDIVISION (MOXEE BRANCH)

1. **Speed Restrictions:**
Zone—Between Maximum Speeds Permitted
Yakima and Moxee City.....20 MPH
Trains handling wrecking crane, pile driver, or locomotive crane10 MPH
2. **Bridge and Engine Restrictions:**
Wrecking cranes 45-48 incl. and 2500, 2800 and 3600 series locomotivesNot Permitted
Diesel Units 99-177 incl., 400-427 incl., 602, 603, 700-750 incl. allowed only as single unit and when separated from loads by an empty car.
Diesel Units No. 200-384 incl., 500, 501, 525, 550-569 incl., 800-863 incl., 900-917 incl. and 5400 and higher series may be operated without special restrictions.
Wrecking cranes 41-44 and pile driver 25:
Over Bridge 1 separate from tender and precede and follow with car weighing under 90,000 lbs.
Pile Drivers 26-28 incl. over truss spans of Bridge 1 must have boom resting on idler car and be preceded by a car weighing under 90,000 lbs.
Cars weighing between 177,000 lbs. and 263,000 lbs. over Bridge 1 must be preceded and followed by a car weighing under 177,000 lbs. and speed restricted to10 MPH
3. **At Yakima:** At "G" and "H" Street crossings, city ordinance provides trains and engines must protect movement by flagman and engine whistle or bell must not be sounded except to prevent an accident not otherwise avoidable.
4. **At Terrace Heights:** Trainmen must flag highway crossing just east of Blue Ribbon cannery before train or engine movement is made over crossing.
5. **At Moxee City:**
Cars on spot on Main Track at American Excelsior Company 100 feet west of MP 8.
6. **Register Station—**Yakima passenger station.
7. **Clearance Exceptions—**At Moxee City, clearance not required.
8. **Unless otherwise instructed,** protection against following trains, as required by Consolidated Code Rule 99, is not necessary on the 23rd Subdivision.

THIRD SUBDIVISION

(MAIN LINE)

1. **Speed Restrictions:**

Zone—Between	Maximum Speeds Permitted	
	All Freight and Mixed trains	Passenger
Eastward Track:		
U.P. Jct. and McCarver Street.....	30 MPH	30 MPH
MP 51 and MP 59 (just east of Chehalis Jct.)		60 MPH
except, Chehalis Jct. Interlocking.....	35 MPH	50 MPH
Westward Track:		
MP 59 and MP 51 (east of Bucoda).....		60 MPH
except, Chehalis Jct. Interlocking.....	35 MPH	50 MPH
McCarver Street and U.P. Jct.....	30 MPH	30 MPH
Both Tracks:		
Tacoma and Vancouver		
Against the current of traffic.....	49 MPH	59 MPH
Except due to difference in curve elevation, westward trains, running against current of traffic on eastward track Napavine to Chehalis Jct., and eastward trains, running against the current of traffic on westward track, Evaline to Vader, on curves	49 MPH	50 MPH
At Titlow, over 6th Avenue crossing.....		All Trains 25 MPH
Day Island crossing		25 MPH
At Steilacoom, within corporate limits.....		50 MPH
At Bucoda, within corporate limits.....		65 MPH
At Centralia, within corporate limits.....		40 MPH
At Chehalis, within corporate limits.....		40 MPH
At Napavine, within corporate limits.....		50 MPH
At Winlock, within corporate limits.....		50 MPH
At Castle Rock, within corporate limits.....		40 MPH
At Kelso, within corporate limits.....		40 MPH
except 25 MPH over Allen Street crossing		
Handling Chips loaded in open top cars without net covering between Tacoma and Vancouver	35 MPH	
At Kalama, within corporate limits.....		40 MPH
At Ridgefield, eastward trains from passenger station and over Mill Street		50 MPH
Westward trains from point opposite switch of eastward siding to and over Mill Street.....	35 MPH	
At Vancouver, over		
39th Street crossing just west of SP&S Roundhouse		40 MPH
Street crossing just west of passenger station.....		10 MPH
Eastward trains approach passenger station at reduced speed.		
At Portland, through interlocking at south end NPT Co. property and on depot yard tracks.....		6 MPH
2. **Bridge and Engine Restrictions:**

Bridge 0.59-Cowlitz River-Longview Line—
Over Bascule span.....20 MPH

Wrecking cranes 45-48 inclusive over Bridges on Longview Line

10 MPH

Trains handling logs, wood bolts, or veneer blocks, loaded on flat cars, must not exceed ten (10) MPH over the following bridges, and when passing over them trainmen will be so stationed as to notice falling logs, wood bolts, or veneer blocks that might damage bridge and pass signal to engineer for quick stop. Engineer must be on lookout for such signal.

Bridge 47, Skookumchuck River, between Bucoda and Wabash.

Bridge 59, Newaukum River, between Chehalis Jct. and Napavine.

Bridge 81, Cowlitz River, between Vader Jct. and Castle Rock.

Bridge 84, Toutle River, between Vader Jct. and Castle Rock.

Bridge 100, Coweman River, between Kelso and Longview Jct.

Bridge 105, Kalama River, between Longview Jct. and Kalama.

Bridge 119, between Woodland and Ridgefield.

NINETEENTH SUBDIVISION

(ELMA BRANCH AND U. S. GOVERNMENT RAILWAY)

1. **Speed Restrictions:**

Zone—Between	Maximum Speeds Permitted
Elma, Bangor and Bremerton, Trains handling wrecking crane, pile driver, or locomotive crane	15 MPH
Other Trains:	
Bangor, Bremerton and Marmac.....	25 MPH
Marmac and Stimson.....	20 MPH
Stimson and Elma.....	25 MPH
2. **Bridge and Engine Restrictions:**

Wrecking cranes 45-48 incl.:

Over Bridge 9, McCleary Spur

Not Permitted

Elsewhere over bridges

15 MPH

2500, 2800 and 3600 series locomotives over Bridge 9.....

10 MPH

Cars under 35 ft. long and weighing between 177,000 lbs. and 220,000 lbs. when coupled in groups of two or more:

Over Bridges 1 and 17

20 MPH

Over Bridge 9

10 MPH

Cars over 35 ft. long and weighing between 220,000 lbs. and 263,000 lbs. when coupled in groups of two or more:

Over Bridge 9

20 MPH
3. **Mountain Grade—Between Stimson and Marmac.**

See All Subdivisions Mountain Grade operation.

Immediately following departure from Whites, engineman of eastward freight trains will increase brake pipe pressure to 90 lbs.

At McCleary Junction or before leaving Stimson—Air Brake tests as prescribed by air brake rules must be made before beginning descent of mountain grade. Air test card to be delivered to operator at Shelton.

Eastward trains will carry 90 lbs. brake pipe pressure McCleary to Shelton. Following any stops during descent, enginemen must fully recharge the brakes before starting, and conductor must not give proceed signal until at least 80 lbs. is shown on caboose gauge.
4. **At Bangor—Gates across both legs of wye will be locked.**

Guards stationed at the gates will unlock and permit engines to use wye when requested to do so.

Main and yard tracks are on a three-tenths of one per cent descending grade; cars set out at this point must have sufficient hand brakes set on west end to prevent them from moving.
5. **At N.A.D. Jct.—When necessary, siding may be blocked with cars without notice.**

Trains intending to use this siding for meeting other trains will first ascertain if there is sufficient room.
6. **At N.A.D. Jct., Bremerton Jct. and Shelton—Normal position of junction switch is for Elma-Bangor Line.**
7. **At Bay Shore—No. 1 track is the siding.**
8. **At Shelton—NP engines may operate over Simpson Logging Company tracks to switch NP yard tracks west of First Street, to turn on wye, or to effect interchange with Simpson Logging Co.**

Simpson Logging Company engines may operate over NP main track from junction with Simpson Logging Company's track near Mill Street to a point 500 feet west of the switch to the spur serving Simpson Logging Company's warehouse and may operate over NP yard tracks north of First Street. All movements will be governed by Operating Rule 98.

Olympia Plywood Company Spur—Overhead clearance is restricted on that portion paralleling loading sheds.
9. **At McCleary Junction—NP trains using wye or main track between McCleary Jct. and McCleary, will protect against Simpson Timber Company's switch movements.**
10. **Register Stations—Elma, Shelton.**

Bremerton, Bangor.
11. **Clearance Exceptions:** At Bangor, clearance not required if train order signal indicates proceed.

Grade crossings other than those listed above may not be blocked in excess of 10 consecutive minutes.

No switching operations are permitted on or across Puyallup Avenue and East 11th Street between 6:30 AM and 8:30 AM, and between 3:30 PM and 6:00 PM except on Saturdays, Sundays and legal holidays.

7. At Sperry Mill:

Trains and yard engines will sound engine whistle signal approaching Sperry Mill just west of McCarver Street.

8. Nelson Bennett Tunnel—Between McCarver St. and Titlow:
Marker lamps must be lighted on all trains passing through tunnel. Work trains and track cars must not occupy tunnel without first securing permission from the train dispatcher. Rock loaded on flat cars must not be handled unless secured on cars with side boards.

9. At Cascade Spur, normal position of switch leading from set out track to Cascade Paper tracks is for Paper tracks and must be left in this position to serve as derail.

10. At Nisqually, Trains from Seventeenth Subdivision must not pass governing signal to enter the Third Subdivision if signal indicates stop, except under protection of flag against first class trains.

If signal indicates proceed, movement may be made without flag protection.

11. At Saint Clair—Trains from the Sixteenth Subdivision must not pass governing signal to enter the Third Subdivision if signal indicates stop, except under protection of flag. If signal indicates proceed, movement may be made without flag protection.

12. At Tenion Junction—Trains from the Fourth Subdivision must not pass governing signal to enter the Third Subdivision if signal indicates stop, except under protection of flag. If signal indicates proceed, movement may be made without flag protection.

Bill box equipped with switch lock located opposite Junction switch will be used for waybills for cars set out for Fourth Subdivision; when instructed to register by Form 608 at Tenine Jct., it will be left in this box.

13. At Centralia—That portion of first track north of the westward main track, west of the crossover at viaduct, will be used as a westward siding. That portion of first track south of eastward main track from west end of yard to crossover at viaduct will be used as eastward siding.

Crossings at Pearl and Tower Streets must not be blocked to exceed five (5) minutes.

14. At Chehalis—Cars may not be left on the Far West Homes track between Northern Pacific and Milwaukee tracks.

Eastward trains will leave train west of West Street crossing, and westward trains will leave trains east of Main Street crossing, when switching, picking up or setting out.

15. At Chehalis Junction—When the Interlocking Signal will not clear for trains from the Twenty-First Subdivision before proceeding on hand signals, they must be sure there is no conflicting movement evident on the CMStP&P tracks. The junction and crossover switches must be operated by hand.

Trains crossing over from westward track to enter CMStP&P will be governed by westward interlocking signal.

16. At Rocky Point—First track north of main tracks will be used as westward siding. First track south of main tracks will be used as eastward siding.

Crossing signal gates are in place at Cowlitz Gardens Road highway crossing, Rocky Point.

To prevent excessive operation of these gates, the following features have been provided:

(1) Westbound approach on the westward track has a timer which will cause the gates to clear after the approach has been occupied a predetermined time with a restart to re-activate the gates at Signal 95.8. Westbound trains leaving a portion of their trains on the westbound approach while switching at

SEVENTEENTH SUBDIVISION (AMERICAN LAKE LINE)

1. Speed Restrictions: Zone—Between	Maximum Speeds Permitted	
	Freight	Passenger
Nisqually and Lakeview.....	30 MPH	35 MPH

At Dupont, within corporate limits.....	20 MPH
Trains handling wrecking crane, pile driver, or locomotive crane	20 MPH

At Fort Lewis: Over Dupont highway public crossing just east of passenger station	5 MPH
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On DuPont Spur, and all tracks within Dupont plant.....	15 MPH
Advance-warning signs are located 1500 feet in advance of the Reduce speed signs.	

2. Bridge and Engine Restrictions: Wrecking cranes 45 to 48 incl. over Bridge 1.....	15 MPH
Wrecking cranes 45 to 48 incl. not permitted on Dupont spur at Fort Lewis.	

3. At Nisqually—Switch leading to Third Subdivision and west switch of crossover are electrically locked. Train order signal does not govern Seventeenth Subdivision trains.

See also Item 10 of Third Subdivision.

4. At Fort Lewis—Time of trains applies at passenger station. Depot siding (Capacity 27 cars) designated as siding. House track switch must be left lined for house track to act as derail for east end of "depot" siding.

5. At Fort Lewis and North Fort Lewis:
Train and engine movements over Cantonment tracks shall be made at reduced speed.

Train or engine movements over the following crossings must be protected by flagman on ground:

On Cantonment tracks when backing or pushing cars ahead of engine over street crossings.

Other movements over street crossings will be made at reduced speed.

Many government warehouses, semi-portable loading ramps and other structures have less than standard side clearance, and employees working along these tracks will be governed accordingly.

STAFF SYSTEM—DUPONT SPUR: No train or engine will move on the Dupont Powder Company's spur until they have obtained staff from staff box at the junction switch. Possession of staff makes a train superior to all other trains on this spur, staff to be returned to staff box after completion of trip.

Deraill on Dupont Powder Company's spur 950 feet from main track switch.

Entrance to DuPont Powder Company Plant protected by gate across the spur near Cap Magazine. No cars will be disturbed inside of gate until foreman consulted and permission obtained.

Engines using north and south lines move at reduced speed expecting to find cars spotted at different locations on these tracks.

Toilets must be kept locked and no refuse thrown from trains on Cantonment tracks or inside Fort Lewis Yard Limits.

At Camp Murray—Toilets of cars must be kept locked and no refuse thrown from trains.

6. Between Lakeview and Fort Lewis:

Due to rusty rail conditions which contribute to poor shunting of the track circuit, indicator lights have been installed at the following crossings:

Bridgeport Way	Signals 06 and 07
Thorne Lane	Signals 31 and 32
Berkeley Street	Signals 33 and 39
41st Division Drive	Signals 56 and 57
Lake Street	Signals 91 and 92

Saint Clair, switch leading to 16th Subdivision and the east switch of crossover. Electric locks have emergency release.

Tenino Jct., switch leading to 4th Subdivision and the west switch of crossover.

Chehalis Jct., switch leading to 21st Subdivision, switch leading to CMStP&P, and all switches on the two crossovers. Electric locks have emergency releases.

Longview Jct., switch leading to west leg of wye and the east switch of crossover.

22. **Logs:** Logs, wood bolts or veneer blocks loaded on flat cars with permanent steel stakes may be handled in trains after dark between Chehalis Junction and Centralia as provided under instructions for all subdivisions.

At Ostrander Tunnel and Nelson Bennett Tunnel—Trains handling logs on all types of flat cars through either tunnel must be sure loads are in good condition before entering. A trainman must make inspection from rear of train while passing through tunnels to ascertain if the tracks are left clear. Conductor of train will be responsible for inspection of train prior to entering tunnel and for knowing that tunnel is clear after passing through.

23. **Yard Limits:** Tracks between yard limit signs west of Reservation and east of McCarver St. and South Tacoma operated as one yard.

Tracks between Yard Limit signs east of Centralia and west of Wabash operated as one yard.

Tracks between Yard Limit signs east of Chehalis Jct. and west of Chehalis operated as one yard.

Track between Longview, East Yard and Longview Junction operated as one yard. At East Yard, normal position of switches will be for siding.

Tracks between yard limit signs east of Kelso and west of Rocky Point operated as one yard.

24. **Register Stations:**

Head of Bay Yard office for extra trains that originate or terminate, at Head of Bay Yard.

U. P. Junction.

Centralia.

Longview Freight Station for trains originating and terminating.

Vancouver Telegraph Office.

Portland Telegraph Office.

25. **Register Exceptions:**

At U. P. Junction trains will register by Form 608.

At Centralia, all through trains register by Form 608 and will be furnished check of register by train order or Form 602 issued by operator. Trains to Eighteenth (18) Subdivision will register by Form 608 at Yard Office.

At Vancouver: All trains register by Form 608 and will be furnished check of register by train order, or register check Form 602, issued by operator.

26. **Clearance Exceptions:** At Tacoma Union Station, when conductors and engineers run through Tacoma on both Second and Third Subdivisions, first class trains will not require clearance.

Eastward extra trains originating at GN Yard or Head of Bay Yard will not require clearance and may run ahead of delayed first class trains to U. P. Jct. without train order authority avoiding delay to first class trains. Clearance must be secured at U. P. Jct. for movement beyond.

At St. Clair, Tenino Junction, Longview and Vancouver Junction; clearance not required.

Chehalis Junction; NP trains originating will not require clearance.

At Carlisle—Engines or cars not permitted on Standard Oil Spur beyond 200 feet from head block of switch.

At Aloha: NP engines not permitted on Mill Spur.

3. **At Saint Clair:** Switch leading to 3rd Subdivision and the east switch of crossover are electrically locked, and equipped with emergency release. (See also Item 11 of 3rd Subdivision.)

Movements between clearance point between Third and Sixteenth Subdivisions and yard limit sign on Sixteenth Subdivision, one mile west of Saint Clair must be made as prescribed by Rule 93.

4. **At Olympia:**

First track north of main track, (capacity 40 cars) is designated as siding.

Movements through Tunnel District are governed by color light type automatic signals as follows:

Westward three indication signal No. 87 located 1750 feet east of MP 9.

Westward two indication signal No. 93 located 275 feet east of tunnel.

Eastward two indication signal No. 94 located 275 feet west of tunnel.

Eastward two indication signal located between main track and siding, 275 feet west of tunnel, normal indication stop, governs eastward movements from siding to main track. Switch of siding must be lined for main track before signal will indicate proceed. Before opening switch of siding, eastward trains or engines from siding must have proceed indication from signal No. 94.

Trains or engines from Jefferson St. Line, in addition to having proceed indication from signal No. 93 before opening main track switch, must comply with the provisions of Rule 513.

Westward trains finding signal 93 and eastward trains finding signal 94 or eastward signal located between main track and siding, 275 feet west of tunnel, in stop position may proceed through tunnel only under protection of flag.

Connection leading from NP Jefferson Street Spur to UP scale track, at Eighth Street, just east of tunnel, has no clearance with the UP siding for a distance of 150 feet from a point 195 feet from switch connection on Jefferson Street spur. Trains or yard engines moving to or from NP Jefferson Street spur and UP scale track must protect themselves and make certain that no UP trains are moving on either their main track or siding while movement is being made either to or from scale track.

Hardel Plywood Company building on spur track in vicinity of West Side Log Dump, will not clear man on top of car.

a. No car or cars are to be kicked or dropped over any street grade crossing, or along any tracks extending along any streets or immediately adjacent to any streets.

b. All switch movements over crossings, unless protected by automatic signal devices, must be protected by flagmen.

c. No engine, railroad car or cars may be left unattended on any main track having a grade of 1% or more.

d. No street or street crossing may be blocked to vehicular traffic for more than 5 minutes at any time.

e. Not more than 3 consecutive street intersections may be blocked by any moving train at any given time.

f. Not more than 2 consecutive street intersections may be blocked by any standing train at any time.

g. No switch move may exceed a speed of 5 MPH at any intersection within the City of Olympia.

h. When switching movements across grade crossing have been completed and the crossing cleared, reverse movement across such crossing may not be made until all accumulated vehicular traffic at the crossing shall have cleared the intersection.

i. Switch movements of engine and 5 cars only may be moved across the following crossings between the hours of 7:30 AM

When firing is in progress, army guards will be stationed at the following locations:

950 feet east of MP 15
MP 17
3000 feet east of MP 17
4300 feet east of MP 19

and, on the approach of train or track car, they will immediately arrange for firing to cease and allow train and/or track car to pass through normally.

Guards will not stop trains unless an emergency exists.

9. **At Yelm:** Train or engine movements on siding or house track over highway crossings station must be protected by trainman on ground.
10. **At Rainier:** South siding is eastward siding, north siding is westward siding.
11. **At Tenino Jct.:** Switch leading to Third Subdivision and west switch of crossover are electrically locked. See also Item 12 of Third Subdivision.

Movements between clearance point between Third and Fourth Subdivisions and yard limit sign on Fourth Subdivision one mile west of Tenino Jct. must be made as prescribed by Rule 93.

12. **Logs:** Flat cars loaded with logs, wood bolts or veneer blocks may be handled in trains after dark between South Tacoma and Tacoma, as provided under instructions for All Subdivisions.

Westward trains handling flat cars loaded with logs, wood bolts or veneer blocks must stop and make inspection of these log loads before passing 25th Street crossing at Tacoma, and, if safe for movement, may operate via Drawbridge Line, otherwise will run via Half Moon Yard pulling train in reverse order to Head of Bay Yard.

13. **Mountain Grade:** Between 15th Street, Tacoma, and 2½ miles east.

See All Subdivisions Mountain Grade Operation.

At South Tacoma:

Terminal test of air brakes must be made on all freight or mixed trains before commencing the descent of mountain grade, record of test to be furnished on prescribed form, filled out by the conductor and engineer.

Air test card to be delivered to the operator at UP Junction.

Descending trains will carry 90 pounds brake pipe pressure South Tacoma to Tacoma. Following any stops during the descent the engineer must fully recharge the brakes before starting and the conductor must not give proceed signal until at least 80 pounds is shown by the caboose gauge.

Immediately following departure from Lakeview engineer of westward freight trains will increase train line pressure to 90 pounds.

These instructions do not apply to yard crews leaving Tacoma to perform switching on mountain grade and who do not go to South Tacoma, but are applicable to yard crews on westward movements from South Tacoma.

14. **Yard Limits:** Tracks between yard limit signs west of Reservation and east of McCarver St. and South Tacoma operated as one yard.
15. **Register Stations:** U.P. Jct. for extra trains that originate or terminate.
Head of Bay Yard office for extra trains that originate or terminate at Head of Bay Yard, or change crews at UP crossing on Drawbridge Line.
16. **Register Exceptions:** At U.P. Jct. trains will register by Form 608, and will be furnished check of register by train order, or Form 602 issued by operator.
17. **Clearance Exceptions:** Eastward trains must secure clearance at U.P. Jct.
At Tenino Jct., clearance not required.
At Lakeview, clearance not required if train order signal indicates proceed.

FOURTEENTH SUBDIVISION (DARRINGTON BRANCH)

1. **Speed Restrictions:**
Zone—Between Maximum Speeds Permitted
Arlington Jct. and Oso, all trains.....30 MPH
Oso and Darrington all trains.....15 MPH
2. **Bridge and Engine Restrictions:**
Wrecking cranes 45 to 48 incl. not permitted.
2500, 2800 and 3600 series locomotives, pile drivers
25-28 incl., wrecking cranes 41-44 incl.
Over Bridge 1010 MPH
Trains handling logs over steel Bridges 2, 7, 10, 11,
18 and 22.15 MPH
Heavy Car Restrictions:
Over Bridge 10, cars under 35 ft. long and weighing between
177,000 lbs. and 220,000 lbs. and cars over 35 ft. long weighing
between 220,000 lbs. and 263,000 lbs. must be separated from
each other by a car weighing under 177,000 lbs.
At Darrington, engines may use main track to engine stop sign
located 1028 feet west of east switch to Sauk Logging Co.'s
set out track. Set out track may be used to engine stop sign
located 1000 feet west of east switch. Loading track may be
used for a distance of 360 feet from east switch.
At Darrington, engines not permitted beyond Spar Tree on B &
W track.
3. **At Arlington—**Grade crossings may not be blocked for over 5
minutes except by trains or cars in motion.
4. **Register Stations—**Arlington.
5. **Clearance Exceptions—**At Arlington Jct., clearance not required.
Trains secure clearance at Arlington. At Darrington, clearance
not required.
6. **Derails—**At Darrington, on main track 300 feet west of passen-
ger station.
7. Unless otherwise instructed, protection against following trains,
as required by Consolidated Code Rule 99, is not necessary on
the 14th Subdivision.

FIFTEENTH SUBDIVISION (BELLINGHAM BRANCH)

1. **Speed Restrictions:**
Zone—Between Maximum Speeds Permitted
Wickersham and Bellingham20 MPH
except over public crossing between MP 15 and
Larson15 MPH
Trains handling wrecking crane, pile driver, or locomotive crane:
Wickersham and MP 5 (west of Park)15 MPH
MP 5 and MP 810 MPH
MP 8 and Bellingham15 MPH
Advance warning signs are located 1500 feet in advance of the
Reduce speed signs.
At Bellingham, between Kentucky Street and Passen-
ger station15 MPH
2. **Bridge and Engine Restrictions:**
Wrecking cranes 45-48 incl. not permitted over Bridge
10. Over other bridges15 MPH
2500, 2800 and 3600 series locomotives, pile drivers
25-28 incl., wrecking cranes 41-44 incl., cars under 35
ft. long and weighing between 177,000 lbs. and 220,000
lbs. when coupled in groups of two or more, and cars
over 35 ft. long weighing between 220,000 lbs. and
263,000 lbs. when coupled in groups of two or more:
Over Bridge 1010 MPH
Bridge 22 and track at east end of this bridge is unsafe for
operation. This is first bridge west of Great Northern crossing.

ELEVENTH SUBDIVISION

(BELT LINE)

- South Portal, and Form 26A for movement against the current of traffic from South Portal to North Portal, and/or for passing the governing signal at stop.
- (e) Tunnel card does not dispense with the observance of or compliance with the indications of signals at the south end of the tunnel, governing entrance to South Portal Interlocking, or the signals governing entrance to North Portal Interlocking.
- (f) At South Portal, trains and engines may enter the tunnel on either track for short switching movements if required. If the governing signal at the immediate entrance to the tunnel displays a Stop-indication, a Tunnel Card must first be secured, as prescribed by Rule (c) and (d).
- (g) Maximum permissible speeds:
 Against current of traffic.....10 MPH
 With current of traffic.....20 MPH
- (h) Operating directions are—North, from the south end of King Street Station through to North Portal, and South from North Portal through to south end of King Street Station.
- (i) Interlocking signal located at north entrance to the tunnel (controlled from South Portal) governing southward movements on southward track, displays indications in accordance with GN Block and Interlocking Signals Rules 240A, 240E, 240L and 240M.
- Green over red (240E) route through South Portal interlocking to southward main track (tunnel track 4) properly lined.
- Red over yellow (240L) or red over green (240M) diverging route through South Portal interlocking properly lined.
- These indications repeat the indication of the signal located at the south exit of the tunnel, governing southward movements to southward main track (tunnel track 4) and other tracks of King Street Passenger Station.
- Emergencies may arise which may cause a change in the indications of this signal after a southward train or engine has entered the tunnel and enginemen and trainmen must be on the alert to observe such change, which will be indicated by the display of a yellow light at the special approach signal, located in the tunnel about 1200 feet from the south exit.
- (j) An additional special GN signal, located at north entrance to the tunnel and controlled from South Portal when indication is Yellow over Red, indicates the route through the South Portal interlocking is properly lined to the southward main track (tunnel track 4) but that this track southward from the interlocking limits is occupied and every precaution consistent with safety must be taken on emerging from the tunnel to avoid accident. This signal is to govern the movement of southward engines through the interlocking to their northward train made up on Tunnel track 4 at King St. Station.
- Signal displaying GN Rules 240-B (Fig. 4) and 240-N (Fig. 7) located at the south interlocking limits between Tracks 3 and 4 governs southward train and engine movements on Track 4.
- (k) Signal located between northward and southward main tracks, at south end of King Street Station, governs northward movements on southward main track (tunnel track 4) and is controlled from South Portal interlocking GN Rules 240A and 240N apply. When a train or engine is stopped by the Stop-indication of this signal, signalman must be informed of desire to make a northward movement on southward main track (tunnel track 4) by four operations of the push button located on top of the signal.

5. At North Portal—No train order signal maintained.

Interlocking and whistle signal indications:

Westward movements from King Street Tunnel are governed by signal located 960 feet West of the west end of the tunnel. Upper light governs route to GN main track; middle light governs route to NP main track; lower light governs diverging routes.

Westward movements against the current of traffic from the tunnel are governed by a signal located 960 feet west of the west end of the tunnel.

1. **Speed Restrictions:**
 Zone—Between
 Black River and Woodinville:
 Trains handling wrecking crane, pile driver, or locomotive crane20 MPH
 Other trains30 MPH
 At Renton, within corporate limits.....20 MPH
 Except between 7th Avenue South and 2nd Avenue North10 MPH
 At Kirkland—within corporate limits.....30 MPH
 Advance-warning signs are located 1500 feet in advance of the Reduce-speed signs.
2. **Bridge and Engine Restrictions:**
 Wrecking cranes 45 to 48 incl. over bridges.....15 MPH
3. **Extra Trains**—Between Black River and Woodinville will run via Eleventh Subdivision unless otherwise instructed by train order.
4. **At Black River**—In setting out cars on the west leg of wye, cars must not be left between Second Subdivision west wye switch and road crossing approximately 765 feet from that switch in the direction of Renton.
 Logs destined Everett will be set out on west leg of wye track from 11th Subdivision switch.
5. **At Renton:** Do not exceed 5 MPH over Boeing private road crossing located 2862 feet west of MP 3 while switching on siding, GN track and Boeing Lead. "Actuating circuits for crossing signals extend 100 feet on each side of crossings on these tracks." Circuits are equipped to allow the gates to clear for vehicular traffic if circuits are occupied over 1 minute. When this occurs and movement is to be made over road crossing Rule 103 must be complied with or use manual control push buttons.
6. **At Bellevue**—Do not leave cars between main track and gate at Safeway spur account descending track.
7. **At Woodinville**—Normal position of junction switch is for Eleventh Subdivision.
8. **Switches Equipped with Electric Locks and Emergency Releases:**
 At Black River, east wye switch leading to 2nd Subdivision and the west switch of crossover from the westward to the eastward main track. (See also Items 8 and 10 of 2nd Subdivision.)
9. **Yard Limits**—Track between yard limit sign west of Renton and the connections with double track at Black River operated as one yard.
10. **Register Stations:**
 Woodinville.
11. **Register Exceptions:**
 At Woodinville Trains 675 and 676 register by Form 608 when operator is on duty.
12. **Clearance Exceptions:**
 At Black River clearance not required.

If indicator does not display a yellow light when switch-key-controller is operated, train or engine movement to GN main track may be made in accordance with train rights and operating rules.

To operate switch indicator, insert switch key in controller and turn clockwise toward "R", hold a few seconds and remove key. If yellow light is displayed and intended movement is not made, insert switch key in controller and turn counter-clockwise toward "N" to restore signal system to normal condition to avoid delay to train on GN main track.

Switch-key-controller must never be operated toward "N" after having been operated toward "R" if intended movement to main track is to be made.

15. At Arlington—Expect to find cars fouling west end of house track lead.
16. Between Clear Lake and Sedro-Woolley—Trains handling logs stop and make inspection of loads before crossing Bridge 85 over Skagit River.
17. At Sedro-Woolley—Jameson Street crossing at east end of yard tracks must not be blocked to exceed ten (10) minutes.
18. At Nooksack—State highway crossing one-half mile east must not be blocked by standing trains.
19. At Sumas—Electric eye, installed by U. S. Immigration Service on house track, Sumas. Train and engine crews must clear border on house track southward at least two car lengths so as not to foul this mechanism. The above applies only to cars left on this track over night.
20. Logs—Trains handling logs, wood bolts or veneer blocks loaded on flat cars through King Street tunnel must be sure loads are in good condition before entering tunnel. A trainman must make inspection from rear of train while passing through tunnel to ascertain that track is clear.
21. Yard Limits: Tracks between Yard Limit signs east of Argo and west of Keith operated as one yard.
Tracks between Yard Limit sign east of Bromart and Junction switch at GN-Snohomish operated as one yard.
Tracks between Yard Limit signs east of Arlington and west of Arlington Junction operated as one yard.
22. Register Stations:
Seattle (South Portal Tower), Woodinville, GN-Snohomish.
Everett for NP trains.
Wickersham for Trains 675 and 676.
Arlington for Fourteenth Subdivision trains.
Sumas.
23. Register Exceptions:
Trains will register at GN-Snohomish by Form 608 when operator is on duty.
Trains 675 and 676 register at Woodinville by Form 608 when operator is on duty.
Register books at Bromart and Edgecomb for use as instructed.
At Everett first class trains may register by Form 608 when operator is on duty.
24. Clearance Exceptions:
Westward trains via waterfront will secure clearance at North Portal.
At Bromart and Edgecomb, clearance not required.
At Sealine Jct., Milwaukee Jct., and GN Jct. clearance not required. Great Northern trains originating at Sealine Jct. will secure Northern Pacific clearance at GN Everett, and Great Northern trains originating at GN Jct. will secure Northern Pacific clearance at Delta Jct.
At Arlington Jct. clearance not required. Trains originating secure clearance at Arlington.
At Wickersham, clearance not required.
At Woodinville, all trains secure clearance.
25. Derail: At Clear Lake derails at both ends of siding.

SIXTH SUBDIVISION

(ROSLYN BRANCH)

1. Speed Restrictions:
Zone—Between
Cle Elum and Ronald..... 20 MPH
Cle Elum through city limits..... 10 MPH
2. Bridge and Engine Restrictions:
Wrecking cranes 45 to 48 inclusive, over bridges.....15 MPH
3. Public Crossing—On track leading to Mine 9, trains will stop before passing and trainmen protect movement of cars or engines over crossing.
4. Mountain Grade: Between Cle Elum and 4.2 miles west.
See All Subdivisions Mountain Grade Operation.
Before beginning descent, air brake tests must be made as prescribed by Air Brake Rules and air test card delivered to operator at Cle Elum.
Descending trains must carry 90 pounds brake pipe pressure. Following any stops during descent, engineer must recharge brakes before starting, and conductor must not give proceed signal until at least 80 pounds is shown on caboose gauge.
5. Register Station—Cle Elum.
6. Derail—On main track 2520 feet west of MP 1, between Cle Elum and Roslyn. At this location Rule 104(C) is modified to require derail to be set in derailing position while caboose or cars stand on main track and while switching to and from main track of coal washing plant. At all other times, derail shall be left in non-derailing position.
7. Unless otherwise instructed, protection against following trains, as required by Consolidated Code Rule 99, is not necessary on the Sixth Subdivision.

SEVENTH SUBDIVISION

(BUCKLEY LINE AND BRANCHES)

1. Speed Restrictions:
Zone—Between
Palmer Jct. and Meeker:
Trains handling wrecking crane, pile driver
or locomotive crane..... 20 MPH
Other trains 25 MPH
Cascade Jct. and Wilkeson:
Trains handling wrecking crane, pile driver
or locomotive crane..... 10 MPH
Other trains 20 MPH
Advance-warning signs are located 1500 feet in advance of the Reduce speed signs.
Through corporate limits of:
Enumclaw, Buckley and South Prairie..... 25 MPH
Wilkeson and Orting..... 20 MPH
2. Bridge and Engine Restrictions:
Wrecking cranes 45-48, inclusive—
Between Cascade Jct. and Wilkeson Barred
Elsewhere over bridges 15 MPH
2500, 2800, and 3600 series locomotives over Bridges 0 and 4, Wilkeson Branch 20 MPH
Heavy car restrictions:
Cars under 35 feet long and weighing between 177,000 lbs. and 220,000 lbs. when coupled in groups of two or more:
Over Bridge 16, Buckley Line and Bridge 0 and 4, Wilkeson Branch 20 MPH
Cars over 35 feet long and weighing between 220,000 lbs. and 263,000 lbs. when coupled in groups of two or more:
Over Bridges 0 and 4, Wilkeson Branch 20 MPH
Track between Wilkeson and Carbonado out of service.

3. At Bayne Jct., normal position of junction switch is for CMStP&P main track.
4. At Enumclaw: While using main track of Weyerhaeuser Co. between junction switch with CMStP&P and yard limit sign 2000 feet east, all movements will be made in accordance with Rule 93.
All movements of engines and cars over highway crossing on track between NP and Weyerhaeuser Company's tracks must be protected by flagman.
5. At Wilkeson—Normal position of junction switch is for Carbo-nado Line.
6. Switches Equipped with Electric Locks and Emergency Releases:
At Palmer Junction both east and west switches of wye track leading to First Subdivision. (See Item 5 of First Subdivision).
At Meeker, the east switch of the crossover leading from the 7th Subdivision connection to the westward main track and the west switch of the crossover between tracks. (See Item 12 of 2nd Subdivision.)
7. Mountain Grade:
From 1000 feet west of MP 14, west of Buckley, to Cascade Junction, the descending grade reaches the maximum of 1.7%.
The descending grade from end of track at Wilkeson to Cascade Junction reaches a maximum of 2.2%.
See All Subdivisions Item on Mountain Grade operation.
8. Register Station—Enumclaw.
9. Clearance Exceptions: At Meeker, Orting and Palmer Jct., clearance not required.
10. Derails: At Wilkeson on main track 1051 feet west of east switch of siding.

TENTH SUBDIVISION
(ORTING BRANCH)

2. **Bridge and Engine Restrictions:**
Diesels 2500, 2800, 3600 and multiple unit diesels 5400 series to 7000 series incl. and wrecking cranes 45 to 48 incl. not permitted.
Bridge 8, Puyallup River, all trains10 MPH
Heavy car restrictions, Bridge 8:
Cars under 35 ft. long and weighing between 177,000 lbs. and 220,000 lbs. and cars over 35 ft. long and weighing between 220,000 lbs. and 263,000 lbs. must be separated and preceded and followed by a car weighing under 177,000 lbs.
3. **Mountain Grade:**
From 2000 feet east of MP 8 to 1000 feet east of MP 6, between Orting and Lake Kapowsin, the grade reaches a maximum of 1.9% descending for a short distance.
See All Subdivisions Mountain Grade operation.
4. **Clearance Exceptions:** At Orting and Lake Kapowsin, clearance not required.
5. **Derails:** At Orting, on main track just east of passenger station.
At Lake Kapowsin, on main track 100 feet west of first west switch.
At Lake Kapowsin on St. Regis spur 3000 ft. east of Landing No. 1.
6. Unless otherwise instructed, protection against following trains, as required by Consolidated Code Rule 99, is not necessary on the Tenth Subdivision.

Westward movements from the old main track are governed by signal located 1400 feet east of the tower. Lower light governs route to NP main track; upper light governs route to GN main track.

TWELFTH SUBDIVISION (SNOQUALMIE BRANCH)

1. **Speed Restrictions:**

Zone—Between	Maximum Speeds Permitted
Woodinville and Fall City.....	25 MPH
Fall City and North Bend.....	15 MPH
Near Issaquah, over public crossing 1062 feet west of MP 18.....	10 MPH
At Issaquah, within corporate limits.....	15 MPH
At North Bend, within corporate limits.....	15 MPH
Trains handling wrecking crane, pile driver, or locomotive crane.....	15 MPH
Advance-warning signs are located 1500 feet in advance of the Reduce speed signs.	
2. **Bridge and Engine Restrictions:**

Wrecking cranes 45-48 inclusive not permitted.

2500, 2800 and 3600 series locomotives not permitted over bridges between Issaquah and Snoqualmie.

Pile drivers 26-33 incl., boom must be supported on idler car over bridges.

Wrecking cranes 41-44 incl., and pile driver 25 not permitted between Issaquah and North Bend.

All trains:

Over Bridges 20, 27.2, 28, 31 and 31.1	15 MPH
Over Bridge 31.2	10 MPH

Cars under 35 ft. long and weighing between 177,000 lbs. and 220,000 lbs. and cars over 35 ft. long and weighing between 220,000 lbs. and 263,000 lbs. must be separated from each other by a car weighing under 177,000 lbs.
3. **At North Bend**—Normal position of west wye switch will be for the wye.
4. **At Preston**—Trains departing must keep at least fifteen (15) minutes apart.
5. **At Tanner**—Engines and loads not permitted on St. Regis runaround track. Track may be used for empties only.
6. **Register Station**—Woodinville.
7. **Clearance Exceptions**—At North Bend clearance not required.
8. Unless otherwise instructed, protection against following trains, as required by Consolidated Code Rule 99, is not necessary on the 12th Subdivision.

THIRTEENTH SUBDIVISION (HARTFORD LINE)

1. **Speed Restrictions:**

Zone—Between	Maximum Speeds Permitted
Snohomish and Edgcomb.....	35 MPH
Trains handling wrecking crane, pile driver, or locomotive crane.....	20 MPH
Advance-warning signs are located 1500 feet in advance of the Reduce speed signs.	
2. **Bridge and Engine Restrictions:**

Wrecking cranes 45 to 48 incl., over bridges..... 15 MPH
3. **At Bromart and Edgcomb**, the normal position of junction switch is for the Thirteenth Subdivision.
4. **At Snohomish**—The track extension from the tail of the wye crosses a high speed main highway at "D" Avenue (2323 feet northwesterly from the wye tail track switch). Before train or engine movements are made over this crossing, the manually controlled highway crossing signals must be placed in operation by a member of the crew operating the electric switches which are contained in metal boxes on poles located on each side of the street and north of the track. After movements have been completed, the signals must be restored to non-operating.
5. **At Hartford**—Switch leading to the mill should be left lined for the mill track to act as a derail for the lumber and shingle sheds.
6. **Clearance Exceptions**—At Bromart and Edgcomb, clearance not required.
7. **Yard Limits**—Tracks between yard limits east of Bromart and west of Snohomish operated as one yard.

FIFTH SUBDIVISION (SUMAS BRANCH)

1. **Speed Restrictions:**

Zone—Between	Maximum Speeds Permitted
North Portal and Edgcomb.....	30 MPH
Edgcomb and Wickersham	35 MPH
Wickersham and Sumas	40 MPH
Except,	
Trains handling wrecking cranes, pile driver or locomotive crane	25 MPH
Advance-warning signs are located 1500 feet in advance of the Reduce speed signs.	
At Seattle—Between South Portal and Bay St.....	20 MPH
At Interbay:	
Through crossover, 1000 feet east of station.....	10 MPH
Between governing signals of interlocking at GN crossing of lead to Naval Supply Depot Spur.....	20 MPH
Approach public crossing at University Way and 15th Ave N.E. at reduced speed, not exceeding 10 MPH over crossing, and protecting all switch movements by flagman.	
Between Keith and Navalair Jct., approach public crossing on 65th Street at reduced speed.	
Between Lake and Bothell, do not exceed 15 MPH over crossing at 170th Street (Lake Forest Park) located 3378 feet west of MP 18, between the hours of 8:00 A.M. and 4:00 P.M., Mondays through Fridays.	
At Bothell, within corporate limits.....	30 MPH
North Portal and Sealine Jct.	30 MPH
Sealine Jct. and GN Jct.	25 MPH
First class trains will move at reduced speed between Sealine Jct. and GN Jct.	
GN Jct. and Edgcomb	30 MPH
At Sedro Woolley, within corporate limits	30 MPH
At Sumas, within corporate limits	25 MPH
2. **Bridge and Engine Restrictions:**

Wrecking cranes 45 to 48 incl. over bridges..... 15 MPH

On Terry Avenue Line wrecking cranes 45 to 48 incl. not permitted.

Bridge 4, Lake Washington Canal, between Interbay and Fremont, over bascule span..... 20 MPH

Heavy car restrictions:

Cars under 35 ft. long and weighing between 177,000 lbs. and 220,000 lbs. when coupled in groups of two or more, over Bridges 61.1 and 85 and 110
3. **Extra Trains**—Between Black River and Woodinville will run via Eleventh Subdivision unless otherwise instructed by train order.
- Between Bromart and Edgcomb will run via Thirteenth Subdivision unless otherwise instructed by train order.
4. **At Seattle, Interlocking at South Portal and King Street Passenger Station Tunnel Rules:**
 - (a) Great Northern Interlocking Rules, as set forth in the Consolidated Code of Operating Rules, supplemented by the following special instructions govern train and engine movements between North Portal and South Portal.
 - (b) A positive block is maintained in both directions between these stations. Trains and engines may make a forward or backward movement within these limits, without flag protection, observing governing signal indications.
 - (c) No train or engine will make a complete through movement between North Portal and South Portal against the current of traffic, or pass the governing signal at the immediate entrance to the tunnel on either track displaying a Stop indication, except on the authority of a tunnel card properly completed by operator in charge and OK'd by the operator at opposite station. When this governing signal indicates stop, trains and engines, after stopping, must proceed at restricted speed to the next signal and be governed by its indication.
 - (d) Tunnel cards shall be used as required; Form 26 for movement against the current of traffic from North Portal to

3. At Bellingham, flagman must precede all trains between Champion and Laurel Streets.
Trains must stop and be preceded by flagman crossing Holly St. Normal position of gate at GN crossing is against NP trains.
4. Register Stations—Bellingham.
5. Derails—At Bellingham, derail on main track 568 feet east of GN crossing, between Bellingham and South Bellingham.
6. Clearance Exception—At Wickersham, clearance not required.

SIXTEENTH SUBDIVISION

(GRAYS HARBOR LINE)

1. Speed Restrictions:

Zone—Between	Maximum Speeds Permitted
Saint Clair and Belmore.....	35 MPH
Belmore and Gate	40 MPH
Gate and Elma	30 MPH
Elma and MP 59	40 MPH
MP 59 and Hoquiam	35 MPH
St. Clair to Hoquiam, trains handling wrecking crane, pile driver or locomotive crane.....	20 MPH

Hoquiam and Moclips:
 Trains handling wrecking crane, pile driver or locomotive crane.....15 MPH
 Other trains
- Advance-warning signs are located 1500 feet in advance of the Reduce speed signs.
- At Olympia, through tunnel speed must be controlled so that train can be stopped on emerging.
- Eastward trains between east end of the curve at east end of tunnel and east city limits.....20 MPH
 All other trains within corporate limits.....10 MPH
- At Gate, approach Eighteenth Subdivision Junction Switch at reduced speed.
- At Oakville, within corporate limits.....30 MPH
 At Elma, within corporate limits.....30 MPH
 At Montesano, within corporate limits.....30 MPH
 At Hoquiam, within corporate limits.....30 MPH
 At Aberdeen—Over streets and crossings.....10 MPH
 Within City Limits, elsewhere.....20 MPH
2. Bridge and Engine Restrictions:

Wrecking cranes 45-48 incl., not permitted between Hoquiam and Moclips and over Bridge 9.1, Tumwater Branch.

Wrecking cranes 45-48 incl., elsewhere:
 Over bridges
- 2500, 2800 and 3600 series locomotives on Bridge 91.1.....10 MPH
- Heavy Car Restrictions:
 Cars under 35 ft. long and weighing between 177,000 lbs. and 220,000 lbs. must be separated from each other by a car weighing under 177,000 lbs. over Bridges 91.1, 94, 97, and 9.1, Tumwater Branch. These cars may be coupled together in continuous strings elsewhere but restrict speed:
 Over Bridge 46

FOURTH SUBDIVISION

MAIN (PRAIRIE) LINE

1. Speed Restrictions:

Zone—Between	Maximum Speeds Permitted	
Double and single tracks:	Freight	Passenger
15th St. and Tenino Jct.	30 MPH	45 MPH
With helper engines.....	25 MPH	25 MPH

At Tacoma:
 Westward trains or engines approach Pacific Ave. at Reduced Speed
 Between Commerce St. and 15th St. 6 MPH 6 MPH
 Between Wilkeson St. and Commerce St., on descending grade: 20 MPH 30 MPH

All Trains

At South Tacoma, entering double track15 MPH
 At McChord Field and Mobase—on Government tracks.....10 MPH
 At Rainier, within corporate limits30 MPH
 At Yelm, within corporate limits30 MPH
 At Roy: Within corporate limits30 MPH
 Over street crossings25 MPH
 At Tenino, within corporate limits30 MPH

Advance warning signs are located 3000 feet in advance of the reduce speed signs.
2. Bridge and Engine Restrictions:

Bridge 22.1 between Roy and Yelm, trains handling logs10 MPH
 Wrecking cranes 45-48 inclusive over Bridge 22.120 MPH

At McChord Field: Engines must not go beyond derail of McChord Field track connections.
3. Extra Trains: Between Tenino Jct. and Tacoma, will run via Third Subdivision unless otherwise instructed by train order.
4. At Tacoma: Third Subdivision instructions apply.
 See Items 5 and 6, Third Subdivision.
5. At South Tacoma: Normal position of double track switch is for westward track. 42nd and 51st Street crossings must not be blocked over ten minutes.
6. At Lakeview:

Normal position of main track junction switch is for Fourth Subdivision.

Due to rusty rail conditions which contribute to poor shunting of the track circuit, an indicator light is installed at Lake Street. Signals 91 and 92.

This indicator light is mounted on the track side of the cable pole on the instrument case at the crossing. If the crossing signal flashing lights are operating properly, the indicator light will flash in unison with them. If the indicator light is not flashing, all trains will stop and flag over the crossing.
7. At Mobase and McChord Field: Train or engine movements over cantonment tracks must be made at reduced speed. Toilets of cars must be kept locked and no refuse thrown from trains.

At Mobase: Permanent drainage ditch, about 3 feet deep and 1700 feet long in place between main track leading into cantonment and first track south, does not allow room to walk between these tracks.

Gate into Mount Rainier Army Depot will be kept locked at all times with switch lock. Northern Pacific crews having cars to set out or pick up from this interchange will be permitted to open gate, perform switching, and will relock the gate upon leaving.

On hospital spur at Mobase, trains must back in, as concrete wall and platform paralleling track on engineer's side will not clear engine or man on side of car.
8. The Army has gun emplacements in the area east of Northern Pacific Prairie Line between Roy and Hillhurst, the firing to be over our main track.

and 8:15 AM, 11:50 AM and 12:20 PM, 12:40 PM and 1:05 PM, 3:25 PM and 3:45 PM, and between 4:50 PM and 5:30 PM:

East Union Avenue East Fourth Avenue East State Avenue
Legion Way Columbia Street at West Seventh

j. No public road or street crossing may be blocked to vehicular traffic by any standing engine, car or train during the hours prescribed in paragraph i above.

k. No car may be left standing on any track within 25 feet of a street right-of-way line, except on spurs or sidings serving industries.

By reason of the grade on the scale track in the Union Pacific Yard, crews must leave one good hand brake set on the north end of this track at all times.

Second track north of main track from crossover opposite freight depot to west main track switch, used exclusively for repair track.

5. At Belmore and Little Rock: When necessary, sidings may be blocked with cars without notice.
6. At Gate, normal position of the main track junction switch is for the Eighteenth Subdivision.
7. At Montesano, switch leading to industry spur west end of team track to be left set for spur to act as derail.
8. At Aberdeen, the normal position of switch at the end of double track is for eastward trains, and normal position of Junction switch, 260 feet east of passenger station, is for the UP track. Restricted clearance between coach track No. 1 just east of passenger station and UP main track, at turnout. Trains and engines using coach track No. 1 must protect against trains using UP track.
Westward trains will stop east of Chehalis Street when Wishkah River drawbridge signals do not indicate clear route.
Aberdeen Plywood Corporation, street crossing, first street west of Passenger Station, must not be blocked.
9. Between Aberdeen and Hoquiam, yard engines may operate without train order authority.
10. At Hoquiam River Drawbridge:
All trains handling rock stop and make inspection of rock before passing over bridge.
To call for route when running against current of traffic, one long, one short, one long blast of whistle.
11. At Hoquiam, Bridge 3.2, located on Horn Track, will be left open when tenders are not on duty. Trains will not pass over drawbridge until "proceed" signal is received from drawbridge tender, using yellow flag by day and a yellow light by night.
12. Register Stations:
Olympia—for trains originating and terminating.
Aberdeen and Hoquiam.
13. Clearance Exceptions:
At Saint Clair, clearance not required.
At Hoquiam, all trains must secure clearance.
At Moclips, clearance not required.
At Gate, clearance not required.
At Aberdeen, all trains must secure clearance.

Rocky Point should cut their train east of Signal 95.8 to take advantage of this feature.

(2) The main to main crossover located just west of Cowlitz Gardens Road crossing is circuited so that a train making a move from the westward main to the eastward main will not activate the gates until the train occupies the eastward main track. Rule 103 must be observed.

(3) The eastward and the westward approaches on the Columbia & Cowlitz Railroad connection over the crossing are provided with timing circuits set for 1 minute, and train occupancy of these approaches for more than one minute will cause the gates to clear and the train must observe Rule 103 when it approaches the crossing.

17. At Longview Junction—Trains from Longview using west leg of wye to enter Third Subdivision main tracks will not pass governing signal if signal indicates Stop, except under protection of flag against first class trains. If signal indicates Proceed, movement may be made without flag protection.

Normal position of switch to the wye just east of Cowlitz River Bridge is for the west leg of wye.

Normal position of tail track switch on east leg of wye is for the tail track.

Eastward trains stopping at Longview Junction to perform work must clear the west crossover so that westward trains can cross over to the west end of the yard.

18. At Longview—Following whistle signals to be used for routes by trains or engines approaching Drawbridge 0.59 from East Yard:

To west leg of wye.....1 long
To east leg of wye.....4 short

19. At Kalama—

No train shall stop or remain closer than 150 feet from City property line at Kingwood Street for more than 10 minutes. Signs are placed and cars must not be left between the signs. Trains, after setting out or picking up, must leave Kingwood Street Crossing clear.

20. At Vancouver—Junction switch at west end of Columbia River Bridge will be set for NP Main Track. Eastward trains stop before engine reaches fouling point between NP and SP&S tracks.

No train order signal maintained.

No. 1 track will be used as eastward siding.

At 39th Street automatic crossing gate operation is in effect and westward trains making pickups or setouts to the Northern Pacific siding or the SP&S Yard Lead must not leave cars on the westward track west of Signal 1350.

Main line switch of SP&S crossover must be left lined for yard lead when movement is made from westward track to the SP&S yard lead.

Main line crossover switches must be left open when movement is made from westward main track to Northern Pacific siding or eastward main track. If necessary to clear eastward track for eastward trains, gates must be cleared by using manual control switches.

When recoupling to cars left on westward main track, crossing must be cleared on eastward side before proceeding westward. SP&S yard crews must use manual control switches when working in vicinity of crossing to prevent unnecessary operation of gates.

One manual control switch is located near SP&S yard lead and another near Guthrie spur.

Street crossings must not be blocked to exceed five (5) minutes.

21. Switches Equipped with Electric Switch Locks:

At Tacoma, switch connecting east end of Coach Yard tracks to eastward passenger track.

Nisqually, switch leading to 17th Subdivision and the west switch of crossover.

These indicator lights are mounted on the track side of the cable pole on the instrument case at each of these crossings. If the crossing signal flashing lights are operating properly these indicator lights will flash in unison with them. If indicator lights are not flashing all trains will stop and flag over such crossing.

7. **At Lakeview**—Normal position of main track junction switch is for the Seventeenth Subdivision.
8. **Register Stations:** Nisqually.
9. **Register Exceptions:** At Nisqually trains register by Form 608.
10. **Clearance Exceptions**—At Lakeview trains will not require clearance if train order signal indicates proceed.

EIGHTEENTH SUBDIVISION (GATE LINE)

1. **Speed Restrictions:**

Zone—Between	Maximum Speeds	Permitted
	Freight	Passenger
Centralia and Gate	30 MPH	35 MPH
	All Trains	
Trains handling wrecking crane, pile driver, or locomotive crane	20 MPH	
At Centralia—Over streets within corporate limits.....	30 MPH	
At Blakeslee Junction—Over CMStP&P and UP crossings	15 MPH	
Advance-warning signs are located 1500 feet in advance of the Reduce speed signs.		
2. **Bridge and Engine Restrictions:**

Wrecking cranes 45 to 48 incl. over bridges.....15 MPH

Heavy car restrictions:

Cars over 35 ft. long and weighing between 220,000 lbs. and 263,000 lbs.:

Over Bridges 1, NP Route 2, and 12.120 MPH
3. **Movement of Trains between Centralia and Blakeslee Junctions:**

NP track will be known as Route 2; UP track will be known as Route 1. Both routes are included in Centralia yard limits. Eastward movements will be made over Route 2. Westward movements will be made over Route 1.
4. **Blakeslee Junction Interlocking:**

If signal does not indicate proceed the time release may be operated according to instructions inside of box on instrument house at crossing.

Spring switch, trailing from west end of connection from Route 1 to NP main track, normal position for NP main track.

Hand throw switch, at east end of connection leading from NP main track to Route 1, normal position for connection.

Spring switch trailing from each end of connection between Route 2 and UP main track, normal position of west switch for the connection, of the east switch for NP main track.
5. **At Centralia:** Crossings at Pearl and Tower Streets must not be blocked to exceed 5 minutes.
6. **At Grand Mound and Rochester**—When necessary, sidings will be blocked with cars without notice.
7. **At Gate** normal position of main track junction switch is for Eighteenth Subdivision.
8. **Register Stations:** Centralia Passenger Station.
9. **Register Exceptions:** At Centralia Trains 695 and 696 register by Form 608 at Yard Office.
10. **Clearance Exceptions:** At Gate, clearance not required.

Flat cars loaded with logs, wood bolts, or veneer blocks must not be handled in trains over—

Bridge 14, Chambers Creek lift bridge, between Titlow and Steilacoom.

3. **Dragging Equipment Indicators** located as follows:

Between Titlow and Ketron, on eastward and westward interlocking signals at Bridge 14, Chambers Creek Lift Bridge, for normal direction of traffic only.

That part of Rule 240-T stating "A member of train or engine crew must report to Control Operator immediately" does not apply. After train crew has inspected train for dragging equipment, Superintendent must be notified from first available point of communication.
4. **Extra Trains**—Between Tenino Jct. and Tacoma, will run via Third Subdivision unless otherwise instructed by train order.
5. **At U.P. Jct.:**

Following whistle signals to be used for Interlocking routes:

Westward Trains, Westward track1 long

Union Station2 longs

To UP Yard3 longs

Eastward trains via Drawbridge Line:

To Fourth Subdivision1 long, 1 short, 1 long

To Union Station1 long, 4 shorts

Westward trains from Fourth Subdivision:

To Moon Yard or Union Station1 short, 1 long

To Drawbridge Line1 long, 1 short

Train order signal will not govern trains via Drawbridge line or Fourth Subdivision.

When ready to leave Union Station, push button must be operated to call for signals; two rings for Drawbridge Line, one ring for Fourth Subdivision.
6. **At Tacoma:**

Switching movements along or over public crossings must be preceded by flagmen who are required to give proper warning for safety of persons approaching crossings, except when locomotive is equipped with flashing amber light and precedes other units of train.

During switching operations when visibility is restricted due to weather, smoke or steam conditions, flagmen must use flares at grade crossings not protected by flashing lights, bell signals or traffic signals, and at the following specific intersections:

 1. East 11th and Canal Streets
 2. East 11th Street and St. Paul lumber mill
 3. Puyallup Ave. and East L Street

Except for thru trains in motion, trains or switching movements are not permitted to block the following crossings for in excess of 4 consecutive minutes:

 1. Canal Street
 2. Lincoln Avenue
 3. McCarver Street
 4. McKinley Avenue
 5. Pacific Avenue
 6. Pine Street
 7. Puyallup Avenue
 8. Ruston Way
 9. St. Paul Avenue
 10. Wilkeson Street
 11. East D Street
 12. East 11th Street
 13. East 15th Street
 14. South 15th Street
 15. South 17th Street
 16. South 19th Street
 17. South 21st Street
 18. South 23rd Street
 19. South 25th Street
 20. South 56th Street
 21. South 74th Street

When grade crossing is cleared in accordance with the above, waiting vehicles and pedestrians are to be allowed to cross before crossing is again occupied.

TWENTIETH SUBDIVISION (OCOSTA BRANCH)

1. **Speed Restrictions:**

Zone—Between	Maximum Speeds Permitted
Markham and South Aberdeen.....	25 MPH
South Aberdeen and Cosmopolis.....	12 MPH
Markham and Cosmopolis, trains handling wrecking crane, pile driver or locomotive crane.....	10 MPH
2. **Bridge and Engine Restrictions:**
 Wrecking cranes 45-48 incl. over bridges10 MPH
 Except over Bridge 2Not Permitted
 2500, 2800 and 3600 series locomotives on Br. 210 MPH
3. **At Cosmopolis on Weyerhaeuser tracks:** Restricted overhead and side clearance on track 3 inside warehouse. All engine movements, with or without cars, over crossings must be protected by flagman. Both chlorine spurs have derails locked in derail position. The procedure for moving cars is as follows: The train crew will notify the gateman they require entrance to the chlorine spur. He will advise the shift foreman who will be responsible for the handling of derail, supervision of switching and restoring derail so that no damage to chlorine lines can occur.
4. The tracks between Aberdeen Jct. and former Junction City are operated as part of the Sixteenth Subdivision.
5. **Clearance Exceptions—At Cosmopolis and Markham,** clearance not required.
6. Unless otherwise instructed, protection against following trains, as required by Consolidated Code Rule 99, is not necessary on the 20th Subdivision, between South Aberdeen Jct. and Markham.

TWENTY-FIRST SUBDIVISION (WILLAPA HARBOR LINE)

1. **Speed Restrictions:**

Zone—Between	Maximum Speeds Permitted
Chehalis Jct. and South Bend	All Trains 30 MPH
Trains handling wrecking crane, pile driver, or locomotive crane	20 MPH
Advance-warning signs are located 1500 feet in advance of the Reduce speed signs.	
2. **Bridge and Engine Restrictions:**
 Wrecking cranes 45-48 incl.Not Permitted
 Wrecking cranes 41-44 incl., pile drivers 25-28 incl., 2500, 2800 and 3600 series locomotives, and cars over 35 ft. long weighing between 220,000 lbs. and 263,000 lbs.:
 Over Bridges 0, 2, 5, and 3710 MPH
 Cars under 35 ft. long weighing between 177,000 lbs. and 220,000 lbs. when coupled in groups of two or more:
 Over Bridge 3820 MPH
 Over Bridges 0, 2, 5 and 3710 MPH
3. **At Chehalis Jct.:**
 Switch leading to Third Subdivision and east switch of west crossover are electrically locked.
 See Also Item 15 of Third Subdivision.
4. **Between Chehalis Jct. and PeEll:** Track will be used jointly by NP and CMStP&P between Chehalis Jct. and Dryad Jct. and by NP CMStP&P and CW Railway between Millburn and Dryad Jct. and by NP and CW Railway between Dryad Jct. and PeEll operated by and in accordance with NP Time Table and Special Instructions.
 At Chehalis Jct., westward trains from CMStP&P to Twenty-first Subdivision, will stop at signal located on CMStP&P track, line the switch to eastward NP track, and, if signal indicates "proceed", train may enter eastward track; then, if train rights permit, line the switch for the Twenty-first Subdivision.
 Eastward trains, from Twenty-first Subdivision, to enter CMStP&P tracks, will be governed by indications of signal on Twenty-First Subdivision.
5. **At Raymond—**All trains stop before passing over Ocean Beach Highway, 527 feet east of station, and all switching movements over this crossing must be protected by flagman.

Eastward trains originating at Head of Bay Yard must obtain authority from operator at U. P. Jct. before leaving yard.

15. **At Tacoma:**
 Third Subdivision instructions apply.
 See Items 5 and 6, Third Subdivision.
16. **Special Track Circuit:**
 On the West Seattle Line at Spokane Street Interlocking, a special track circuit in operation within interlocking limits requires all train movements be completed.
17. **Switches Equipped with Electric Switch Locks:**
 At Argo, switch at west end of crossover and switch on westward main track, just west of Argo, leading to Oregon Street transfer. Equipped with emergency release.
 At Black River, the east wye switch to the 11th Subdivision and the west switch of the crossover between main tracks. Equipped with emergency release.
 At Auburn, the junction switch leading to 1st Subdivision and the switches at both ends of the first crossover east of the passenger station. Not equipped with emergency release.
 The west switch of the crossover between main tracks, located 750 feet west of MP 24—
 The east and west switches of tracks leading off the eastward main track to H&R and stock yard tracks—
 The east switch of main track crossover at MP 22—
 The extreme east yard switch leading off westward main track—
 Each of the three crossover switches on the "Inbound track", leading to westward main track, between MP 22 and 700 feet west of MP 22—
 At Meeker, the east switch of the crossover leading from the 7th Subdivision connection to westward main track and the west switch of the crossover between main tracks.
 At Tacoma—Switch connecting west end of Coach Yard tracks to eastward passenger track. Switch connecting Cammarano Spur to westward passenger track.
18. **Yard Limits:** Tracks between yard limit signs east of Argo and west of Keith operated as one yard. Tracks between yard limit signs west of Sumner and east of Puyallup operated as one yard.
 Tracks between yard limit signs west of Reservation and east of McCarver St., and South Tacoma operated as one yard.
19. **Register Stations:** Seattle, South Portal Tower, Stacy St. Yard Office, Auburn Yard Office, for trains originating or terminating and for through trains running via yard tracks. Register at Auburn Yard will also show information of the arrival and departure of first class trains at Auburn.
 Reservation.
 Head of Bay Yard Office for extra trains that originate or terminate, at Head of Bay Yard or at UP crossing on Drawbridge Line.
20. **Register Exceptions:** At Reservation trains may register by Form 608.
21. **Clearance Exceptions:** At Seattle, trains from Stacy St. Yard secure clearance at Spokane St. Tower; trains from Second Avenue yard at South Portal Tower.
 At Auburn Yard, all through trains running via yard tracks must secure clearance.
 At Black River, clearance not required.
 At Meeker, trains originating must secure authority from dispatcher through operator at Puyallup, before entering Second Subdivision main track. Clearance will be issued at Puyallup.
 At Reservation, westward extra trains will secure clearance.
 Westward extra trains, except westward extra trains originating at Tacoma Union Station or changing crews at Tacoma Union Station or on freight tracks adjacent thereto, may run with the current of traffic to Reservation without clearance, but must secure clearance at Reservation for movement beyond.
 At Tacoma Union Station, when conductors and engineers run through Tacoma on both Second and Third Subdivisions, first class trains will not require clearance.

N. P. TACOMA DIVISION

TWENTY-FOURTH SUBDIVISION

(NACHES AND TIETON BRANCHES)

1. Speed Restrictions:

Zone—Between	Maximum Speeds Permitted
Yakima and Tieton and Yakima and Naches: Trains with wrecking crane, pile driver or locomotive crane.....	10 MPH
Engines	20 MPH
All other trains:	
Yakima and Tieton	20 MPH
Brace and Naches	20 MPH

2. Bridge and Engine Restrictions:

Wrecking cranes 41-48 incl. and pile drivers 25-28 incl.	Not Permitted
2500, 2800 and 3600 series locomotives:	
Bridge 4, Naches Branch	Not Permitted
Bridges 1 and 3.1, Naches Branch and Bridge 10.1	10 MPH
Other diesel locomotives, single unit only permitted separated from loads by one empty 40 ft. car, over Bridge 4 between Brace and Glead	8 MPH
Cars under 35 ft. long and weighing between 177,000 lbs. and 220,000 lbs. when coupled in groups of two or more:	

Over Bridges 1 and 3.1, Naches Branch and over Bridge 10.1	10 MPH
Over Bridge 4, Naches Branch	Not Permitted
Above cars when separated from each other by a car weighing under 177,000 lbs. are permitted over Bridge 4, Naches Branch.	
Cars over 35 ft. long and weighing between 177,000 lbs. and 220,000 lbs. must be separated from each other by a car weighing under 177,000 lbs. over Bridge 4, Naches Branch.	
Cars over 35 ft. long and weighing between 220,000 lbs. and 263,000 lbs.:	
Bridge 4, Naches Branch	Not Permitted
Bridge 2.2, Tieton Branch	10 MPH

3. At Brace, normal position of switch is for Tieton Branch.

4. Mountain Grade—Tieton Branch, MP 6 to MP 8, between Weikel and Cowiche.

See All Subdivisions Mountain Grade operation.

At Cowiche, air brake tests as prescribed by Air Brake Rules must be made before beginning descent of mountain grade Cowiche to Brace. Air test card to be delivered to operator at Yakima.

Descending trains will carry 90 pounds brake pipe pressure Cowiche to Yakima. Following any stops during descent, engine-man must fully recharge brakes before starting, and conductor must not give proceed signal until at least 80 pounds is shown on caboose gauge.

5. Register Station—Yakima passenger station.

6. Clearance Exceptions—At Naches and Tieton, clearance not required.

7. Derails—At Naches, on main track 200 feet east of east switch.

prevailing instructions of Pacific Coast Railroad, as carried in the Time Table.

Between 7:01 AM and 6:01 PM, all train movements between Spokane Street Tower and Argo will use the Colorado Avenue Line.

5. Dragging Equipment Indicators located as follows:

At Argo—On eastward and westward interlocking signals for normal direction of traffic only.

6. At Seattle:

From 7:00 AM until 12:01 AM westward trains or engines entering King Street Station must not pass the fouling point of the trailing point crossover between eastward and westward Main Track located about 2000 feet west of Holgate Street without proceed signal from switchtender.

All trains and engines using main tracks, otherwise known as Tunnel Tracks 4 and 5, between the hours of 1:30 PM and 5:30 PM daily, use extreme caution when approaching plank crossing directly opposite King Street Passenger Station account passengers and Red Caps with baggage carts use this crossing when transferring from Union Pacific Train 457 to Great Northern Train 360; also when passengers from King Street Station are loading to Union Pacific Train 458.

King Street Yardmasters and Towermen will see that no trains are allowed to block this O&W crossing between 1:30 PM and 2:30 PM and between 4:45 PM and 5:30 PM.

Trains and engines will use four-party track as eastward running track from King Street to Atlantic Street.

Trains on West Seattle Line making movements across Spokane Street will actuate the crossing signals on approach to Spokane Street. Eastward trains stopping north of the north traffic lane and westward trains stopping south of the south traffic lane will hold the crossing signals at the "STOP" position. Crossing protection "Stop and Start" push buttons are located just north and south of Spokane Street on West Seattle Line and are to be used by train crews to stop and start the crossing protection as required by switching moves.

At Lander Street.

Trains operating in either direction on NP running track or GN Mud Track will actuate signals at a point 400 feet from crossing. Separate time relays are provided for each approach to these tracks and set to turn off crossing signals when train occupies approach in excess of 60 seconds. Should movement over Lander Street be made after crossing signals have timed out, movement must be protected in accordance with Rule 103.

At Spokane Street Tower, following whistle signals to be used for interlocking routes:

To or from Argo via Pacific Coast Main Line.....	3 long.
To or from Argo via Colorado Avenue.....	2 long.
From West Seattle	1 long, 1 short.
To West Seattle Line	1 long, 1 short, 1 long.
To Interchange	2 long, 1 short.
From Interchange	1 long, 2 short, 1 long.

At Spokane Street trainmen on trains using Pacific Coast Railroad eastward track must secure train orders from Tower operator and deliver to engineer and conductor.

Spokane Street Interlocking crossover located 800 ft. east of tower is equipped with hand throw switches mechanically locked from Interlocking Tower. Switches must be unlocked by towerman before trainmen can line for desired movement.

Eastward trains from Pacific Coast or Milwaukee Railroads desiring to use crossover will sound whistle signal, 1 short, 1 long, 1 short, and proceed on interlocking signal indication to west switch of crossover. After towerman unlocks crossover switches, trainmen will line by hand for desired movement.

Westward trains from Northern Pacific Colorado Avenue Line desiring to use crossover will sound whistle signal 1 long, 3 short, 1 long, for Pacific Coast eastward track, or whistle signal 1 long, 4 short, 1 long for Pacific Coast westward track. Trainmen will line crossover and movement may proceed after receiving hand signal from towerman.

On King County Spur near Marginal Way and South Willow Street fifty-foot box cars with cushion underframes must be handled with care account curvature exceeding 30 degrees.

MAXIMUM CLEARANCES

Note—Limit of load measurements based on 52 ft. cars with 42 ft. truck centers. Heights and widths in table allow 6 inch clearance.

Height of center of gravity above top of rail not to exceed 84 inches.

SUBDIVISION	HEIGHT ABOVE TOP OF RAIL																GOVERNING Structure																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	MAXIMUM LOAD WIDTH WHEN CENTERED ON CAR																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	21'-0"	20'-0"	20'-0"	19'-0"	18'-6"	18'-0"	17'-6"	17'-0"	16'-6"	16'-0"	15'-6"	14'-6"	14'-0"	13'-6"	13'-0"	12'-6"		12'-0"	11'-6"	10'-6"	10'-0"	9'-6"	9'-0"	8'-6"	8'-0"	7'-6"	7'-0"	6'-6"	6'-0"	5'-6"	5'-0"	4'-6"	4'-0"	3'-6"	3'-0"	2'-6"	2'-0"	1'-6"	1'-0"	0'-6"																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
1st Sub. Yakima-East Auburn.....	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"

20. Yard Limits—Track between yard limit signs east of Palmer Junction and west of Kanaskat operated as one yard.

21. Register Stations:

Yakima Passenger Station for first class trains and passenger trains operating as extras.

Yakima yard office for second class and inferior trains except passenger trains operating as extras. This register will also show information of the arrival and departure of first class trains at Yakima.

Easton, Lester.

Auburn Passenger Station for first class trains, except first class trains originating or terminating at Auburn Yard.

Auburn Yard—for trains originating and terminating and through trains running via yard track. This register will also show information of the arrival and departure of first class trains at Auburn.

22. Register Exceptions:

At Auburn passenger station first class trains may register by Form 608.

At Lester and Easton all trains will register by Form 608 and check of register may be furnished by Form 602 issued by the operator when authorized by the train dispatcher.

At Ellensburg—Train register in passenger station to be used by train and engine crews originating and terminating, information required by this form to be furnished for record purposes. Register check Form V train order will be furnished first class and passenger trains operating as extras to train and engine crews originating.

23. Rule D-83 does not apply at Stampede or Martin.

24. Clearance Exceptions:

At Auburn Yard, all through trains running via yard tracks must secure clearance.

At Ellensburg, first class trains must secure clearance.

SECOND SUBDIVISION

(MAIN LINE)

1. Speed Restrictions:

Maximum Speeds Permitted
All Freight and
Mixed trains Passenger

MP 0 (Seattle) and MP 4 (east of Argo)	50 MPH	60 MPH
MP 38 and MP 40 (Tacoma)	30 MPH	30 MPH
Between Argo and Tacoma against the current of traffic	49 MPH	59 MPH
At Black River Interlocking	40 MPH	60 MPH
At Reservation Interlocking	30 MPH	30 MPH

All Trains

At Seattle: King St. Station, over switches	8 MPH
King St. Station, entering tunnel tracks	10 MPH
West of Holgate St., puzzle switches	10 MPH

Between

King St. and Argo, over all public crossings	20 MPH
At Argo Interlocking	30 MPH

At Puyallup within Corporate limits.....30 MPH

At Sumner, Kent and Auburn within corporate limits....40 MPH except at Auburn all trains will approach junction switch and crossovers at east end of passenger station platform at reduced speed.

At Seattle, all trains and engines using westward or eastward main tracks between the east switch of the Diagonal Wye and King Street Station move at reduced speed. Second class and inferior trains, or engines, may use main track with current of

MAXIMUM CLEARANCES—Continued

Note—Limit of load measurements based on 52 ft. cars with 42 ft. truck centers. Heights and widths in table allow 6 inch clearance.

SUBDIVISION	HEIGHT ABOVE TOP OF RAIL																Governing Structure			
	MAXIMUM LOAD WIDTH WHEN CENTERED ON CAR																			
	21'-0"	20'-0"	19'-6"	19'-0"	18'-6"	18'-0"	17'-6"	17'-0"	16'-6"	16'-0"	15'-6"	15'-0"	14'-6"	14'-0"	13'-6"	13'-0"		1'-6"	1'-0"	0'-6"
15th Sub. Bellingham Branch.....	7'-10"	7'-10"	7'-10"	7'-10"	7'-10"	7'-10"	7'-10"	7'-10"	9'-0"	10'-5"	11'-8"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	Fire Escape, Holly St. Bellingham
16th Sub. Grays Harbor Line (St. Claire-Gate).....	0'-0"	0'-0"	0'-0"	0'-0"	0'-0"	3'-4"	10'-9"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	Olympia Subway
16th Sub. Grays Harbor Line (Gate-Aberdeen Jct.).....	8'-0"	10'-2"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	11'-3"	10'-8"	10'-5"	10'-1"	Bra. 41, 46, 52.1 and 68
16th Sub. Grays Harbor Line (Aberdeen Jct. Line).....	8'-0"	10'-4"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"		10'-3"	10'-3"	9'-4"	Bra. 72.3 and 84
18th Sub. Gate Line (Gate-Centralia).....	8'-0"	9'-11"	11'-8"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	Br. 1 Skookumchuck River
19th Sub. Elina Branch (Elina-Shelton).....	12'-0"	12'-2"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	11'-9"	11'-6"	11'-3"	10'-11"	Bra. 2.1 & 2.2 Wildcat Creek
19th Sub. Elina Branch-U.S. Govt. Line-Shelton-Bremerton & Sanger.....	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	Br. 0 Goldsborough Creek
20th Sub. Coosia Branch to Coombs Marim.....	8'-6"	9'-6"	10'-4"	11'-3"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	U. P. Br. 53.33 Chehalis River
21st Sub. Willapa Harbor Branch.....	8'-4"	10'-3"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	11'-7"	11'-3"	10'-10"	Bra. 2, 5, 6, 16.1, 38, 42, 46 and 53
22nd Sub. Yacolt Branch.....	0'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	Highway Overhead Br. M.P. 1 & 2375

- Dual control switches**—At Easton and Lester, switches at end of double track, normal position for westward track are dual control and electrically operated with remote control by operator. At Martin—switch at west end of siding, normal position for main track. Switch at end of double track, normal position for eastward track. At Stampede—Switch at east end of siding, normal position for main track. Switch at end of double track, normal position for westward track.
- Open Flame Switch Heaters:**
Open flame switch heaters are installed and will be operated at the following switches during the winter months:

Kanaskat.....	East Siding Switch
Eagle Gorge.....	East Siding Switch
Maywood.....	East Siding Switch
- Logs**—Logs, wood bolts or veneer blocks loaded on flat cars without permanent steel stakes will not be handled through Stampede Tunnel between Martin and Stampede nor after dark west of Lester.
Trains handling logs, wood bolts or veneer blocks loaded on all types of flat cars will make inspection of these loads at Easton and Lester.
- Both tracks between Lester and Stampede and between Martin and Easton are signaled for movements in both directions. At Kennedy, crossover movements are governed by signals located at each end of the crossover.
- Centralized Traffic Control between Stampede and Martin.**
Employees must not enter tunnels between Martin and Stampede unless authorized by the control operator. Before authorizing occupancy of the tunnels, the control operator must reverse and block the tunnel lever in the control machine and specify the time limit authority. After tunnels have been cleared, employee to whom authority was granted must promptly advise control operator, who must then restore the tunnel lever in control machine to normal position.
Positive block must be maintained between Stampede and Martin. Between east switch at Stampede and west switch at Martin protection by Rule 99 will not be required.
Westward trains, except passenger trains, must be held at Martin while a preceding passenger train is occupying the track to be used between Stampede and Lester.
After the passenger train has arrived at Lester, the control operator at Easton may advance a westward train being held at Martin.
Eastward trains, except passenger trains, must be held at Stampede while a preceding passenger train is occupying the track to be used between Martin and Easton.
After the passenger train has arrived at Easton, the control operator at Easton may advance an eastward train being held at Stampede.
Westward trains, except passenger trains using eastward track Stampede to crossover at Kennedy, must not be permitted to meet an eastward passenger train on eastward track at Kennedy.
Exception may be made to the above five paragraphs when authorized by the train dispatcher and under favorable weather conditions, for the movement of light engines, and all light tonnage trains not exceeding the engine rating on ascending grade.
A vertical mounted alternating flashing lunar white signal is located 200 feet west of the west portal of Tunnel 3. The signal is approach lighted by eastward trains and is an indicator for the ventilating plant. Eastward trains will not enter the tunnel unless they receive a flashing lunar white signal. If the signal remains dark, it indicates that the ventilating fans are operating and train must be stopped and the control operator at Easton must be notified to stop the fans before proceeding into the tunnel. CTC telephone for this purpose is available inside the snowshed of tunnel.
The ventilating plant at Tunnel 3 is remotely controlled by the control operator at Easton, the instructions for which are posted at the control machine.
Spur track switch located 900 feet west of MP 49 at Stampede is equipped with an electric lock and release of lock is controlled by operator at Easton, who must be contacted to release the lock.

ENGINES
(TONNAGE SHOWN IS PER UNIT RATING)

SUBDIVISION	DISTRICT	TACOMA DIVISION	Ruling Grade %	99 100-106 400-427 700-724 750 800-803	107-177	5400- 5410	550-551 556 6500- Series 6600- 6601	244 245 6000- 6005 6051 6052 6700 Series	500-501 525 552-555 557-569 850-863 900 Series 6007-6020 6050	200 Series 300 Series 7000 Series Except 244 & 245	2500 2800 3600 Series
First Eastward		Auburn to Lester.....	1.00	745	890	1500	985	1310	1500	1600	3300
		Lester to Easton.....	2.20	350	420	750	460	600	750	800	1430
First Westward		Yakima to Thrall.....	0.50	1310	1560	3110	1730	2250	2910	3340	4980
		Thrall to Ellensburg.....	0.35	1670	2000	3970	2210	2880	3540	4480	6320
		Ellensburg to Easton.....	0.80	900	1070	2150	1130	2125	2125	2380	3470
		Easton to Lester.....	2.20	350	420	750	460	600	750	800	1430
Fifth. Eastward		Sumas to Wickersham.....	0.60	1140	1360	2710	1440	1975	2540	2900	4360
		Wickersham to Sedro-Wooley..	0.65	1140	1360	2710	1440	1975	2540	2900	4360
		Sedro-Wooley to Clear Lake...	0.00								
		Clear Lake to Edgcomb.....	0.65	1140	1360	2710	1440	1975	2540	2900	4360
		Edgcomb to Bromart.....	0.00								

or articles which might become unsanitary. Supply of cards warning passengers that train is operating thru Green River watershed is kept in locker in each end of coaches. Before locking toilet doors trainmen will display warning cards on the doors sufficiently in advance to notify passengers of this requirement.

- At Lester—Crews switching and moving cars east of Signal 592 on eastward track will set all westward signals at Stop on that track to and including Signal 503 on signal bridge at west end of Stampede.

Crews switching and moving cars on westward track east of Signal 594 will set all westward signals at Stop on that track to and including Signal 505 on signal bridge at west end of Stampede and will also set westward controlled signals at Stop in CTC territory at Stampede and Martin unless the route at Stampede is lined for other than the westward main track.

If it becomes necessary for crews to switch cars east of Signal 592 on the eastward track, or Signal 594 on the westward track, a member of crew must secure permission from Dispatcher before doing so to avoid stopping tonnage trains.

- At Easton—Normal position of switch leading from east end of west No. 2 track to eastward main track is for west No. 2 track and must be left lined for No. 2 track when not in use.

- At Ellensburg—All train, engine and car movements over Fifth Street Crossing, on Auxiliary Tracks, must be preceded by trainmen.

Normal position of switch to old caboose track will be for that track, to serve as a derail in event of cars running out of yard. Main track switch equipped with "Attend to derail" sign, and target of caboose track switch will display yellow indication when in normal position.

At the Ellensburg Lumber Company's loading platform there is no overhead clearance.

- At Yakima—Freight trains arriving Yakima freight yard will be secured by setting not less than six (6) hand brakes on head end of eastward, and on rear end of westward trains.

Similar precautions must be observed while trains are being made up, the hand brakes to be applied until after engine is coupled to train and train air brake system is effective.

Time of first class trains and passenger trains operating as extras applies at passenger station. These trains taking siding will use high-line pocket unless otherwise instructed. Unless otherwise provided, time specified for other westward extra trains applies at yard office.

A flashing lunar white indicator is in service at Meade Avenue. This indicator is located in the southeast quadrant of the Meade Avenue crossing, on a 22 foot mast. Indicator will not operate until crossing signals have been in operation a minimum of 20 seconds. Train movements other than through movements on the Main Track or Track No. 1 must not enter crossing until flashing lunar white indicator is operating or unless Rule 103 is complied with. In switching movements on Main Track and Track No. 1, Rule 103 must be complied with if indicator is not operating.

A "CROSSING SIGNAL RESTART" sign is located north of the Main Track 600 feet west of Meade Avenue crossing. Eastward trains holding Main Track must stop west of this sign. If train is too long to be stopped west of this restart sign, train must be cut west of sign and the balance pulled 150 feet east of Meade Avenue.

"KEEP TRACKS CLEAR HERE TO CROSSING" clearance signs are located 150 feet east and west of Meade Avenue north of Main Track and south of Track 5. Care must be taken to keep the area between these signs clear of cars.

To avoid blocking street crossings, westward trains with more than 65 cars will not leave the east yard, when meeting trains, until the eastward train arrives.

Flagman must precede cars shoved over Yakima Avenue crossing in addition to other crossing protection.

Normal position of switch leading to siding extending between east end of Yakima Yard and Union Gap is for siding. Switch to spur track leading off this siding, located 200 feet east of

TONNAGE RATINGS—FREIGHT ENGINES

TONNAGE RATING INSTRUCTIONS
This rating is made to governing grade only and will in no manner interfere with handling additional tonnage where the grades will permit.

ENGINES

(TONNAGE SHOWN IS PER UNIT RATING)

SUBDIVISION	DISTRICT	TACOMA DIVISION	Ruling Grade %	99 100-106 400-427 700-724 750 800-803	107-177	5400- 5410	550-551 556 6500- Series 6600- 6601	244-245 6000-6005 6051 6052 6700 Series	500-501 525 552-555 557-569 850-863 900 Series 6007-6020 244 & 245 6050	200 Series 300 Series 7000 Series Except 244 & 245	2500 2800 3600 Series
Eleventh Westward	Black River to Woodinville....		0.50	1530	1820	3640	2020	2630	3420	3900	5800
	North Bend to Fall City.....		1.35	830	1020	1210	890	990	1340	1460	2450
Twelfth Eastward	Fall City to Preston Siding.....		1.95	410	480	960	540	700	850	1050	1800
	Preston Siding to Woodinville....		0.62	1140	1360	2710	1440	1975	2540	2900	4240
Twelfth Westward	Woodinville to Issaquah.....		1.00	745	890	1770	985	1310	1640	1900	3300
	Issaquah to Preston.....		2.20	350	420	750	460	600	750	900	1430
	Preston to Fall City.....		2.20	350	420	750	460	600	750	900	1430
	Fall City to North Bend.....		0.70	1070	1270	2540	1410	1840	2260	2830	4050

- Cars of Excessive Height, Width and Length.**
Agents must, before accepting cars exceeding 10' 11" in width or 15' 6" in height above top of rail for movement from stations under their supervision, arrange for carmen to measure such loads and advise measurements to Chief Dispatcher, who will authorize movement.
Measurements must be shown on waybills and excessive dimension card, Form 954, completed, must be attached to each side of car.
Proper placards must be applied to cars exceeding 15 ft. 6 in. in height or exceeding 10 ft. 10 in. in width.
Message must be issued to train crews handling such loads.
Conductors must notify all members of crew when high or wide loads are handled in their train, and must know that dispatcher has knowledge of such cars which exceed published clearances.
Trains which are operating on mountain grades with curves 8° or over must handle 85 feet or longer flat cars, either empty or with empty trailers, and also empty auto racks, in the last fifty cars in a train and preferably as near the caboose as practicable.
- Positioning Loaded Multi-Level and TOFC Equipment in Trains.**
To minimize damage to automobiles moving on multi-level cars or TOFC equipment, caused by diesel spray from locomotives, blowing of various commodities loaded in open top cars, such cars will be placed in train not less than five cars from the engine and will not be placed next to hopper, gondola, or tank cars loaded with stone, gravel, sand, lime, coal, soda ash, chemicals, etc., subject to wind, vapor or fume action on adjacent cars or placed next to empty cars previously loaded with such commodities.
This does not apply to territory between Portland and Seattle.
- Positioning of Loaded Woodchip Cars in Trains.**
To avoid contamination by woodchips, all commodities carried in open top cars must not be placed in train behind woodchip cars.

FIRST SUBDIVISION (MAIN LINE)

- Speed Restrictions:**

Zone—Between	Maximum Speeds Permitted All Freight and Mixed trains	Passenger
Yakima and MP 16 (Kountze).....		70 MPH
Easton and Cabin Creek.....	60 MPH	60 MPH
Cabin Creek and Martin in either direction	20 MPH	30 MPH
Descending against the current of traffic	20 MPH	25 MPH
Through Stampede Tunnel No. 3.....	30 MPH	30 MPH
Stampede Tunnel No. 3 and Lester in either direction	20 MPH	30 MPH
Descending against the current of traffic	20 MPH	25 MPH
Lester and MP 82 (Kanaskat).....	60 MPH	60 MPH
MP 82 and MP 101 (East of Auburn)....		70 MPH
MP 101 and MP 103 (East Auburn)....	60 MPH	60 MPH
At Ellensburg—Within corporate limits..	35 MPH	50 MPH
Approach Ellensburg and Yakima passenger stations at reduced speed.		
All Trains		
At Lester—Movements over Loop Track		5 MPH
At Yakima—Over Yakima Ave., B, C and D Street.....		20 MPH
At Cle Elum—Over important public crossings.....		25 MPH
See Mountain Grade Operation.		
- Bridge and Engine Restrictions:**
2500, 2800 and 3600 series locomotives on yard track over Bridge 9010 MPH
At Holmes Spur engines not permitted on logging company tracks.
At Ellensburg, engines turning on wye track must start movement via east leg and move slowly on curves.
At Easton, engines not allowed beyond clearance point on Miller's Spur.

TONNAGE RATINGS—FREIGHT ENGINES

TONNAGE RATING INSTRUCTIONS
This rating is made to govern ruling grades only and will in no manner interfere with handling additional tonnage where the grades will permit.

TACOMA DIVISION		ENGINES (TONNAGE SHOWN IS PER UNIT RATING)									
SUBDIVISION	DISTRICT	Ruling Grade %	99 100-106 400-427 700-724 750 800-803	107-177	5400- 5410	550-551 556 6500- 6600- 6601	244-245 6000-6005 6051 6052 6700 Series	500-501 525 552-555 557-569 850-863 900 Series 6007-6020 6050	200 Series 300 Series 7000 Series Except 244 & 245	2500 2800 3600 Series	
Third Eastward	Tacoma to Chehalis.....	0.30	2730	3300	3870	2920	3210	4250	4630	6950	
	Chehalis to Napavine.....	1.00	745	890	1600	1000	1300	1600	1800	3300	
	Napavine to Portland.....	0.00	.....	.....	.....	.....	.....	.....	.....	.....
Third Westward	Portland to Vader.....	0.45	1530	1820	3300	2000	2630	3420	4000	4980	
	Vader to Napavine.....	0.95	820	970	1760	1330	1360	1810	2000	3380	
	Napavine to Tacoma.....	0.30	2730	3300	3870	2920	3210	4250	4630	6950	
Fourth Eastward	Tacoma to South Tacoma.....	2.20	350	750	800	700	600	800	900	1430	
	South Tacoma to Rainier.....	0.90	745	1300	1750	1500	1300	1600	2400	3400	
	Rainier to Tenino Jct.....	0.65	745	2000	3200	2000	2500	3200	3500	4670	
Fourth Westward	Tenino Jct. to Rainier.....	1.00	745	1300	1750	1500	1500	1800	1900	3300	
	Rainier to Tacoma.....	0.50	1310	2000	3000	2000	2250	2600	3340	4980	

N. P. TACOMA DIVISION—

tion, on all units, retaining valve handles will be turned up on all loads and one-half of empty cars, alternating the empties. If engine is to be detached, trainmen must not close the angle cock on car or engine until whistle signal has been given. After recoupling and opening the angle cock, brake system must be recharged to the required pressure and upon receipt of proper signal, application and release test of brakes on rear car shall be made from the engine as outlined in Air Brake Rules.

Maintaining Method of Braking on Descending Grades:

Trains handled by diesel-electric engines equipped with 8-EL, 24-RL or 26-L brake equipment must use the maintaining method of braking.

To avoid derailling cars in the head portion of freight trains while descending grades 2.2% or greater, engineers must limit maximum dynamic braking amperage, in line with the number and type of diesel units in the engine consist, to that shown in the following tables:

Table 1

Any combination of four-motored diesel units, equipped with dynamic brakes, coupled in multiple

Number of Units	Maximum allowable amperage
3	700
4	650
5	580
6	540
7	500
8	460
9	430
10	410

Table 2

All six-motored diesel units coupled in multiple

Number of Units	Maximum allowable amperage
3	575
4	480
5	430
6	400
7	375
8	350
9	330
10	310

When any 5400 or 6000 series units are in an engine consist, to avoid overloading and damaging the electrical equipment, the maximum dynamic brake amperage must not exceed 540 amperes, regardless of the number or type of other units in the engine consist.

When six-motored diesel units are coupled in multiple with four-motored diesel units, each six-motored diesel unit must be counted as two units to arrive at the number of units to use in determining the maximum allowable dynamic brake amperage permissible as shown under Table 1. Example: engine consist of two 2500 series units and two 200, 300 or 7000 series units, a total of four units operating the train, but a total of six units for use in determining maximum allowable dynamic brake amperage permissible under Table 1, which would be 540 amperes.

Trains handled by diesel-electric engines with 8-EL, 24-RL or 26-L brake valve, using the maintaining method of braking, and with dynamic brake operative on all units, may handle the following tonnage without the use of retaining valves on grades not exceeding 2.2% descending.

Table 1

Any combination of four-motored diesel units, equipped with dynamic brakes, coupled in multiple

Number of Units	Tonnage
5 or more	6,500
4	5,200
3	3,900
2	2,600
1	1,300

Table 2

All six-motored diesel units coupled in multiple

Number of Units	Tonnage
3 or more	6,500
2	4,400
1	2,200

When any combination of four-motored and six-motored diesel units are in a consist, the total tonnage handled on the descending grade must not exceed the sum of the tonnage taken from the above table for each type of diesel unit. In no event shall the total tonnage exceed 6,500 tons for any combination of diesel units.

If the train tonnage exceeds the limits specified above for handling trains without retaining valves on 2.2% descending grade, use one retaining valve for each fifty tons over tonnage specified, starting from first car at head end of train.

TONNAGE RATINGS—FREIGHT ENGINES

TONNAGE RATING INSTRUCTIONS
This rating is based on each rating grade only and will in no manner interfere with handling additional tonnage where the grades will permit.

ENGINES

(TONNAGE SHOWN IS PER UNIT RATING)

ENGINE'S (TONNAGE SHOWN IS PER UNIT RATING)									
TACOMA DIVISION									
SUBDIVISION	DISTRICT	Ruling Grade %	99 100-106 400-427 700-724 750 800-803	107-177	5400- 5410	550-551 556 6500- Series 6600- 6601	244-245 6000-6005 6051 6052 6700 Series	500-501 525 552-555 557-569 850-863 900 Series 6007-6020 6050	200 Series 300 Series 7000 Series Except 244 & 245
Sixteenth Westward	St. Clair to Lacey.....	1.45	510	1000	1200	680	890	1130	1300
	Lacey to Olympia.....	0.60	1010	2000	2500	1800	2080	2240	3000
	Olympia to Belmore.....	1.50	500	800	1100	800	900	1050	1220
	Belmore to Gate.....	0.60	820	2500	3200	3000	3000	3400	4000
	Gate to Hoquiam.....	0.60	745	3000	3000	3500	4000	4000	5000
	Hoquiam to Moclips.....	0.70	1850	2500	2800	2500	2700	2800	3300
Sixteenth Eastward	Moclips to Hoquiam.....	0.45	1140	3000	4000	3000	3000	3500	4500
	Hoquiam to Gate.....	0.45	1530	3000	4000	3000	3000	3500	4500
	Gate to Belmore.....	0.80	1340	1630	1930	1440	1580	2120	2310
	Belmore to Olympia.....	0.45	1310	3000	4000	2500	3300	4000	4400
	Olympia to Lacey.....	1.60	480	800	1040	750	840	1100	1220
	Lacey to St. Clair.....	1.00	1100	1360	1590	1180	1300	1750	1920

15. Watch Inspectors—

Yakima—Hutchinson's; Ellensburg—Lacey Jewelry.
Cle Elum—Dean R. Ireland.
Auburn—Donald A. Nelson.
Seattle—Zales Jewelry, Bob Cline, Center Jewelry Co., Richard's Jewelry, West Seattle Jewelers, Rainier Jewelers.
Tacoma—Mierows, 900 Broadway, A. G. Paulson, Merlin J. Denzer, 3815 South Yakima Ave.
Centralia—Salewsky Jewelers; Vancouver—W. L. Runyon.
Portland—Roy and Molin, 316 S.W. Alder St.
Everett—J. L. Whitney.
Snohomish—S. V. Willhigh and F. F. Fisher's Jewelry.
Arlington—Robert J. Buttel.
Kirkland—Eastside Jewelers.
Bellingham—Erving H. Easton.
Aberdeen—William Wiitamaki Jewelry Store.
Hoquiam—Carl Kneipp.
Olympia—LeRoy Jewelers; Shelton—J. C. Beckwith.
Bremerton—V. Swanson; South Bend—H. Holte.
Sumner—Muker Jewelry.

16. Log Instructions.

Rule 805(E) will not apply to trains handling only logs in the consist.

Conductors must personally know that cars are not overloaded or improperly loaded and are safe to move without loss of lading, giving particular attention to permitted maximum width of load as per clearance tables.

Top or "peaker" logs will not be handled on loads of thirteen or more logs in order that binders will bear on all outside logs instead of being held away from sides of logs by a top log. Cars must not be accepted for movement when loaded to a height exceeding 13 feet above top of rail, except where height of not more than one log extends above 13 foot limit to a maximum height of not more than 14 feet above top of rail.

Lost logs must be reported and when they obstruct traffic or other tracks, or damage roadway, trains must be stopped and effort made to clear obstruction. Special precautions should be observed to avoid logs falling from cars when using overhead crossings and in all cases of obstructions, take prompt action to protect trains.

A careful running inspection must be made before entering tunnels, and if visibility is such as to prevent a good running inspection, stop for inspection must be made prior to entering tunnels.

TRAINS HANDLING LOGS, WOOD BOLTS, OR VENEER BLOCKS, LOADED ON FLAT CARS WITHOUT PERMANENT STEEL STAKES, WILL BE GOVERNED BY THE FOLLOWING INSTRUCTIONS:

Loaded flat cars without permanent steel stakes will not be handled in trains unless logs are secured with at least two log binder cables, or two 2"x.050" high tension steel bands, or two 1 1/4"x.065" high tension steel bands with binder cables or steel bands so placed that they will bear on each end of all top logs. Such bands or cables must extend around the entire load. In addition, where logs of less than full length are loaded on top of the so-called bunk log, there must be additional binder cables or bands as necessary so that cables or bands will bear on each end of such short logs. Bands and cables must be tight.

When necessary to cut cable binders, binders should be securely fastened to deck of car to avoid possibility of loose binders catching in switch points.

Such trains must, when running between stations, have a trainman stationed on rear platform or cupola of caboose to watch for logs, wood bolts or veneer blocks that may be lost from cars, and obstruct other tracks, and take prompt action to protect trains in case of obstruction. After dark such trainman must be provided with lighted electric lamp or lantern or fuses to watch for logs.

Double Track—Trains handling logs, wood bolts or veneer blocks loaded on any type of flat car will be governed by the following instructions: Conductors will notify train dispatcher when logs, wood bolts, or veneer blocks, loaded on flat cars are in their train, and secure train order that trains, except work trains, on opposite track will be held at the next station until they have arrived.

TONNAGE RATINGS—FREIGHT ENGINES

TONNAGE RATING INSTRUCTIONS
This rating is made to govern ruling grades only and will in no manner interfere with handling additional tonnage where the grades will permit.

TACOMA DIVISION		ENGINES (TONNAGE SHOWN IS PER UNIT RATING)							
SUBDIVISION	DISTRICT	99 100-106 400-427 700-724 750 800-803	107-177	5400- 5410	550-551 556 6500- Series 6600- 6601	244-245 6000-6005 6051 6052 6700 Series	500-501 525 562-555 557-569 850-863 900 Series 6007-6020 6050	200 Series 300 Series 7000 Series Except 244 & 245	2500 2800 3600 Series
Nineteenth Eastward	Elma to McCleary Jct.....	1.00	1400	1900	1350	1500	1900	2100	3300
	McCleary Jct. to Stimson.....	1.00	1400	1900	1350	1500	1900	2100	3300
	Stimson to Shelton.....	1.50	900	1200	800	900	1200	1300	2275
Nineteenth Westward	Shelton to Bremerton-Bangor..	1.50	900	1200	800	900	1200	1300	2275
	Bangor-Bremerton to Shelton..	1.50	900	1200	800	900	1200	1300	2275
	Shelton to Marmac.....	1.00	1300	1750	1200	1350	1750	1900	3300
Twenty-First Westward	Marmac to Stimson.....	2.50	210	700	500	550	700	780	1190
	Chehalis Jct. to Adna.....	0.00	1310	4000	3600	3300	4000	4700	10660
	Adna to Pe Ell.....	0.55	1310	3150	2200	2450	3150	3450	5060
	Pe Ell to Pluvius.....	1.40	550	1275	900	1000	1275	1400	2360
	Pluvius to South Bend.....	0.40	1310	3000	3000	3300	4000	4700	4980

If the units of a consist are of different gear ratio, the engine must not be operated at speeds exceeding that of the unit having the lowest maximum permissible speed. Also, the overload short time rating of any unit in the consist must not be exceeded. Unless otherwise authorized, use of diesel units in multiple on the head end of trains shall not exceed the number in the following table:

TYPE OF DIESEL UNITS IN CONSIST	MAXIMUM NUMBER OF UNITS TO BE USED
All 6 Motor Type Units	6
All 4 Motor Type Units	8
Mixed Consist Containing 3 or less 6 Motor Units	7
Mixed Consist Containing 4 or more 6 Motor Units	6

- Heavy Cars:**
Cars heavier than the following not permitted without authority of Superintendent:
35 ft. or less in length 220,000 lbs.
Over 35 ft. long 263,000 lbs.
- Train inspection.**
When blowing snow or other conditions restrict visibility to the point that proper running inspection can not be made, freight trains will reduce speed to the extent required, stopping if necessary, to make such train inspection. Train crews will avail themselves of service stops to comply with the foregoing. Conductor will determine frequency of such inspections, dependent on visibility conditions, avoiding unnecessary delay to trains.
- Rule 14(A) is modified to the extent that written information may also be left with the red signal to permit train to proceed from the red signal after stopping.
- Rule 213 is modified to the extent that a legible copy of each train order will also be furnished the rear trainman on passenger trains addressed.
- Rule 223. Lights will not be displayed on 6th, 7th, 10th, 12th, 14th, 15th, 17th, 20th, 21st, 22nd, 23rd and 24th Subdivisions. Trains will be governed by the day indication of these train order signals.
- Rule 509 will not apply on the Northern Pacific Railway when signal governs movement over or through a spring switch. In Automatic Block Signal Territory when a train or engine has been stopped by a signal governing movement over or through a spring switch and signal continues to display a stop indication, after complying with Rule 104(H), movement may proceed at restricted speed through entire block. When stopped at leaving end of siding the indication may be due to an opposing train proceeding on an approach indication and every precaution consistent with train rights and condition of track ahead must be taken before proceeding.
- Rule 729 is modified as follows: Employees must familiarize themselves with the Interstate Commerce Commission regulations governing the handling and transportation of explosives and other dangerous articles and be governed accordingly. When handling cars placarded "Explosives", "Dangerous", "Poison Gas", or "Dangerous Class D Poisons", it must be known they are in proper place in the train as provided by Bureau of Explosives Poster No. 1.
- Cars will not be handled behind light-weight observation cars except in emergency or when so authorized by the superintendent. In such cases passengers shall not be permitted to pass between such cars while train is in motion due to the unprotected opening.
Four-wheel scale test cars must be handled in local freight trains when available and excessive delay will not result. Exception: If local service is not immediately available, these cars may be handled in dead freight which must be governed by speed restrictions for the handling of four-wheel scale test cars shown under Item 1. All scale test cars must be placed immediately ahead of caboose.
Air dump cars, series 89000-89059, will be handled only in work trains and local trains when available. If local trains not available, cars may be handled on the rear of other trains at a speed not to exceed 35 MPH.