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# NORTHERN PACIFIC RAILWAY COMPANY

## TACOMA DIVISION

### Special Instructions No. 2

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

**Sunday, May 20, 1962**

**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.**

**I. W. BREWER,  
Superintendent.**

**F. L. STEINBRIGHT,  
General Manager.**

**E. S. ULYATT,  
General Superintendent of  
Transportation.**

# ALL SUBDIVISIONS

## 1. Speed Restrictions:

	Maximum Speeds Permitted
Passenger trains.....	75 MPH
"B", "BB", "BBB", "BL" and "F" Manifest Trains.....	55 MPH
Other freight and mixed trains.....	50 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 4-wheel scale test cars { Main Line.....	35 MPH
and scale test car 254..... { 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
DF trains handling logs.....	35 MPH

	Handling trains	Running light
Diesel-electric engines		
No. 98.....	35 MPH	35 MPH
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 and 245.....	65 MPH	65 MPH
Nos. 244 and 245.....	75 MPH	65 MPH
400, 600 and 700 series.....	45 MPH	45 MPH
500, 501 and 552-569, incl.....	65 MPH	65 MPH
No. 525.....	60 MPH	60 MPH
No. 550-551.....	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

Diesel-electric motor cars in service or being towed:	
Car B-18.....	65 MPH
Cars B-30, B-40 and B-41.....	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.

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. When two Four-Unit Diesel Electric Engines are used to double-head freight trains, the leading engine only will apply power to start train, or to make backup movement with cars.

## 2. Heavy Cars:

Cars heavier than the following not permitted without authority of Superintendent:

30 ft. or less in length.....	210,000 lbs.
Over 30 ft. long:	
1st, 2nd, 3rd and 11th Subdivisions.....	300,000 lbs.
4th Subdivision.....	270,000 lbs.
5th Subdivision.....	251,000 lbs.
All other Subdivisions.....	210,000 lbs.

GATX series 38824 to 38829 from Hooker Chemical at Tacoma loaded with caustic for Hoquiam are expected to have a gross weight of 250,000 lbs. When loaded with a gross weight of over 210,000 lbs. they must be separated with a car not exceeding 169,000 lbs. from engine and other heavy cars. These cars may be handled Tacoma to Centralia without restriction but are subject to heavy car restrictions shown under item 2 of the 16th and 18th Subdivisions.

3. Rule 3(C) of the Consolidated Code of Operating Rules is amended as follows: Employees governed by Time Service Rules must not wear wrist watches while on duty unless such watches are of an approved type.

4. Rule 10(H). When it is known in advance there will not be a flagman at yellow signal, per Rule 10(H), the following form of train order is authorized and will be issued when requested by foreman in charge:

ACCOUNT MEN AND EQUIPMENT ON TRACK BETWEEN MP — AND MP — BETWEEN (STATION) AND (STATION) FROM — M UNTIL — M ALL TRAINS MUST APPROACH AND PROCEED THROUGH THIS TERRITORY AT RESTRICTED SPEED PREPARED TO STOP MAINTAINING A CAREFUL LOOKOUT FOR HAND SIGNALS RESTRICTED SPEED MUST NOT BE EXCEEDED UNLESS FOREMAN IN CHARGE VERBALLY AUTHORIZES A DIFFERENT SPEED.

Foreman in charge of work must notify Chief Dispatcher in writing, furnishing location, time and date such protection is desired.

When train order is issued, foreman will be given copy of such order if practicable. If not practicable, he will be verbally advised when train order is in effect.

Yellow flags must be placed one and one-half (1½) miles from outer work limits.

When this train order is in effect, trains must approach and proceed through this territory at restricted speed maintaining a careful lookout for signals and be prepared to stop at red signal.

Restricted speed must not be exceeded unless foreman in charge of work verbally authorizes a different speed.

A green signal will be displayed to the right of each track at limit of restriction, but train may resume speed in advance of green signal when verbally authorized by foreman.

The above wording is a modification of Rule 10(H). The foreman may display a red signal anytime he requires its use account impassable track and trains will be governed by Rule 10(G).

(Note) The last sentence in the order would allow use of radio if desired to increase speed through limits.

5. When rear car of a Union Pacific passenger train is equipped with an oscillating red rear and light on which an auxiliary marker is mounted, markers need not be displayed as required by Operating Rules 19, D-19, 19(A) and 19(B). When such

train is clear of main track at night and rear end protection is not required the red rear end light must be extinguished, and auxiliary marker must display green light to rear. Rear trainman is responsible for proper display of the auxiliary marker, as well as the rear end light.

6. **Rule 200:** Lights will not be displayed on train order signals on the 6th, 7th, 8th, 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.
7. Rule 519 of the 1959 edition of the Consolidated Code of Operating Rules will not apply on the Northern Pacific Railway. The following rule governs: "Unless otherwise provided, in automatic block signal territory, when a train or engine has been stopped by a signal governing movement through or over a spring switch and signal continues to display the Stop indication, after complying with Rule 104(B), movement may be made as provided by Rules 501(A)2 and S-509(B)."
8. **Rule 607:** Emergency Signals are not used at interlockings operated by the Northern Pacific Railway.
9. 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.

Diesel-electric motor cars, when handled dead in freight trains, must be behind caboose.

Four-wheel scale test cars must be handled only in local freight trains. Exception: If there is no local service available, these cars may be handled in dead freights 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.

**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 at reduced 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, Cle Elum, Easton.  
 Auburn, Yard Office, Round House.  
 Seattle, South Portal Tower, Middle Yard, Round House.  
 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, SP&S Round House.  
 Woodinville, Everett, Yard Office, Round House.  
 Arlington.  
 Enumclaw, Milwaukee Depot.  
 Bellingham, Telegraph Office, Round House.  
 Sumas.  
 Hoquiam, Passenger Station, Round House.  
 Aberdeen, Freight Office.  
 Elma, Raymond, Olympia, Bremerton and Bangor Telegraph Offices.

## 14. Standard Time Clocks—

Yakima, Yard Office.  
 Ellensburg, Cle Elum, Easton.  
 Auburn, Yard Office, Round House.  
 Seattle, South Portal Tower, Middle Yard Office, Round House.  
 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; Bangor, Telegraph Office.

## 15. Watch Inspectors—

Yakima—Hutchinson's; Ellensburg—Lacey Jewelry.  
 Cle Elum—Dean R. Ireland.  
 Auburn—Donald A. Nelson.  
 Seattle—Ben Tipp, Bob Cline, Center Jewelry Co., Richard's Jewelry, West Seattle Jewelers, Rainier Jewelers.  
 Tacoma—Mierows, 1105 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—Oscar P. Nelson, Merryfield Jewelry Co., J. L. Whitney.  
 Snohomish—S. V. Willhight.  
 Arlington—Robert J. Buttel.  
 Kirkland—Eastside Jewelers.  
 Bellingham—Erving H. Easton.  
 Aberdeen—William Wiitamaki Jewelry Store.  
 Hoquiam—Carl Kneipp, Fred Wetzell.  
 Olympia—LeRoy Jewelers; Shelton—J. C. Beckwith.  
 Bremerton—V. Swanson; South Bend—H. Holte.  
 Sumner—Muker Jewelry.

## 16. Log Instructions.

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.

Trains handling logs, wood bolts, or veneer blocks, loaded on flat cars, will be governed by the following instructions:

Loaded log flats will not be handled in trains unless logs are secured with two log binder cables or by two 2" 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 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 he must be provided with lighted electric lamp or lantern or fuses to watch for logs.

#### Double Track

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.

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 restricted 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 under certain of the subdivisions in the following pages.

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

**Logs loaded in gondolas, skeletonized gondolas and side stake log cars (SBF cars)** must comply with the following instructions and may then 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 side of gondola. Inside logs must have good lay with four inches of log below end of gondola.
2. Two 2-inch steel bands per pile of logs must be used when outside logs are loaded with two-thirds 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 feet from end of logs, being around and over such log in the top of load. If there are short logs on top of load, another band is required.
3. When loaded in gondolas, two 8-ft. stakes on each side of and two 2-inch bands per pile of logs may be used with logs loaded one foot below top of stakes, with five strands No. 9 wire or ¾-inch band across top of load between stakes.
4. When loaded in gondolas, four 8-ft. stakes on each side of car may be used with five strands No. 9 wire or ¾-inch band across top of load between stakes. No bands around logs are required.
5. 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.

8 ft. logs loaded crosswise on gondola cars or wood racks must have side protection of wire mesh or boards per Fig 14 of AAR loading rules.

#### 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.

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 operation, 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.

If helper or pusher engine is attached to train ahead of road engine or at rear of train, an application and release test shall be made from the leading engine as outlined in Air Brake Rules.

When helper is cut in ahead of the rear portion of freight train, the procedure outlined in Air Brake Rules must be followed.

#### Maintaining Method of Braking on Descending Grades:

Trains handled by diesel-electric engine, having dynamic brake operating on all units, may use the maintaining method of braking if automatic brake valve has been modified for its use and enginemen have been approved for the maintaining method of braking by road foreman.

Brake valves that have been modified, will be identified by the letter "M" stenciled on the automatic brake valve pedestal. On these brake valves so modified, the first service position of the automatic brake valve handle is the maintaining position. With the automatic brake valve applied and the brake valve handle in this position, brake pipe pressure will be automatically maintained equal to the pressure in the equalizing reservoir.

On these brake valves so modified, first service position of the brake valve is nullified for brake application. Service position must be used to make service application of the train brakes.

Trains handled by diesel-electric engine modified for the maintaining method of braking and having dynamic brake in effective operation on all units; the following tonnage may be handled without the use of retaining valves on grades not exceeding 2.2% descending:

4 unit diesel-electric engine.....	5,250 tons
3 unit diesel-electric engine.....	3,900 tons
2 unit diesel-electric engine.....	2,600 tons
1 unit diesel-electric engine.....	1,200 tons

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.

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.

If helper having dynamic brakes is used on descending grade and tonnage does not exceed the specified tonnage of both engines ascending grade, use no retaining valves when dynamic brake is operative on all units of both engines.

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. Cars of Excessive Height and Width.

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.

#### 21. Centralized Traffic Control.

Limits of Centralized Traffic Control (CTC) are identified by roadway signs indicating the beginning and ending of CTC territory.

### FIRST SUBDIVISION

#### (MAIN LINE)

1. Speed Restrictions:	Maximum Speeds Permitted		
		B-BB-BBB	
Zone—Between	Freight	Manifest	Passenger
Yakima and MP 16 (Kountze)	50 MPH	55 MPH	70 MPH
MP 16 and MP 38 (Easton)	50 MPH	55 MPH	75 MPH
Easton and Cabin Creek	50 MPH	55 MPH	60 MPH
Cabin Creek and Martin, in either direction	20 MPH	20 MPH	30 MPH
Descending against the current of traffic	20 MPH	20 MPH	25 MPH
Through Stampede Tunnel No. 3	30 MPH	30 MPH	30 MPH
Stampede Tunnel No. 3 and Lester, in either direction	20 MPH	20 MPH	30 MPH
Descending against the current of traffic	20 MPH	20 MPH	25 MPH
Lester and MP 82 (Kanaskat)	50 MPH	55 MPH	60 MPH
MP 82 and MP 101 (East of Auburn)	50 MPH	55 MPH	70 MPH
MP 101 and MP 103 (East Auburn)	50 MPH	55 MPH	60 MPH

Between Pomona and Thrall and between Lester and Kanaskat the Advance-warning signs are located 1500 feet in advance of the Reduce speed signs.

Approach Ellensburg and Yakima passenger stations at restricted speed.

At Lester—Movements over Loop Track	5 MPH
At Yakima—over Yakima Ave., B, C, and D Streets	20 MPH
At Ellensburg—Within corporate limits:	
Passenger trains	50 MPH
Freight trains	35 MPH
At Cle Elum—over important public crossings	25 MPH

See also Mountain Grade Operation.

#### 2. Bridge and Engine Restrictions:

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.

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 Easton—Between Candy track and Roundhouse and between Candy track and old turntable shed, grain elevator chute 10 feet long and 8 feet deep at end of ties at each location. Grain elevator shaft close clearance to Candy track alongside old roundhouse.

#### 4. At East Maywood—Runaround track off main spur will not be used by engines.

#### 5. 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 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 dwarf signal near junction switch. Trains using this track, enter the track circuit approximately 500 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 dwarf signal. 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 dwarf 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 shows "proceed". If switch indicator shows "proceed", main track switch may be opened and train or engine movement will then be governed by indication displayed by dwarf 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 westward interlocking signal, located on westward main track about 500 feet east of First Subdivision junction switch.

Trains or engines will not pass westward interlocking 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 interlocking signal located immediately west of main track crossover in STOP position except under protection of flag against first-class trains. If signals indicate movement may proceed, flag protection will not be required.

At Auburn, Second Subdivision instructions govern.

6. 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.

Unless required to take siding, through first class trains having transfer to make will hold main track, and trains handling Tacoma connections will use transfer track north of main track while transferring. Telltales are located on main track at each end of transfer platform to call attention to restricted clearance of umbrella shed.

7. At Palmer Jct.—Trains from 7th Subdivision must not pass Stop 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.

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

9. 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.

10. 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.

11. At Cle Elum—Electric coal bunker, on westward siding, will not clear man on side of car or engine. Logs will not be handled on this track.

Switch on west leg of wye leading to coal dock track must be left lined for coal dock track.

12. 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. When switching the loading platform, trainmen will pass signals from the North side of the track.

13. 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 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 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.

#### 14. Sidings:

**Cle Elum:** No. 6 track between crossover opposite passenger station and first crossover east is eastward siding. Track between crossover west of coal dock 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.

**Thrall:** 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.

#### 15. Switches Equipped with Electric Switch Locks:

**At Palmer Jct.,** 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.

#### 16. 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.

17. **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.

#### 18. 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

Lester.....West Double Track Switch

19. **Logs**—Westward trains handling logs between Lester and Auburn will stop at Eagle Gorge for inspection of logs.

Logs, wood bolts, or veneer blocks, loaded on flat cars, will not be handled through Stampede Tunnel, between Martin and Stampede, nor after dark, west of Lester.

20. 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.

#### 21. 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.

Helper engines cut off at either Martin or Stampede will immediately contact the control operator and be governed by his instructions.

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.

## 22. Mountain Grade Operation.

Mountain grade between Easton and Lester.

See All Subdivisions Mountain Grade Operation.

### (a) Helper Engines:

**Diesel-Electric engines in helper or pusher service:**

When diesel-electric engines are used in helper service in freight or mixed trains exceeding full tonnage rating of the road engine, the diesel-electric helper engine will be placed ahead of approximately 40% of the train tonnage, unless otherwise instructed. Except in emergency, not more than two diesel units will be added as helpers behind caboose. When diesel-electric helper is used the dynamic brakes should be used on all diesel-electric engines when descending grades.

Speed of freight trains at exit of Tunnel No. 3 should be controlled by use of dynamic brake on leading engine when so equipped. The dynamic brake lever on helper engine should be operated to increase the braking force as rear portion of train reaches the steeper grade after leaving Tunnel No. 3, and its use gradually increased to its full capacity as needs indicate to enable control of speed as required.

The application of the air brakes on helper engine when dynamic braking is used must be prevented by use of release position of the independent brake valve during time of application of train brakes by engineer on leading engine.

- (b) 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.

- (c) 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.

- (d) 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. Conductors and engineers must fill out air test card before leaving Easton or Lester.
- (e) 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.
- (f) 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.
- (g) 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.
- (h) 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-1) When descending trains are recoupled following the cutting out of diesel helper engines at Easton or Lester, engineer on road engine will apply brakes on train to the amount of a service reduction of 25 pounds, readjust feed valve to 80 pounds, then place handle of automatic brake valve in running position.
- (i) 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.

23. **Helper District**—Between Easton and Lester.

24. **Pusher District**—Between Auburn and Lester.

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

### 26. Register Stations:

Yakima Passenger Station for first class trains and passenger extras.

Yakima yard office for second class and inferior trains except passenger extras.

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.

### 27. 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 extra trains to train and engine crews originating.

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

### 30. 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	
Zone—Between	Freight	Passenger
MP 0 (Seattle) and MP 4 (east of Argo)	50 MPH	60 MPH
MP 4 and MP 36 (west of Reservation)	50 MPH	75 MPH
MP 36 and MP 40 (Tacoma)	50 MPH	60 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
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 restricted 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 restricted speed. Second class and inferior trains, or engines, may use main track with current of 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.

Trains and engines, moving east from Second Avenue Yard, will stop at a point 300 feet west of Puzzle Track Switch, just west of Holgate St.

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 restricted 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:

Reservation to East D Street, via Head of Bay Line.....30 MPH  
Between East D Street and 21st Street .....20 MPH

On curves and over Drawbridge 39, between UP crossing on Drawbridge Line and 15th St. ....15 MPH  
Between 15th St. and Union Station on incline .....10 MPH

### 2. Bridge and Engine Restrictions:

On West Seattle Line, wrecking cranes 45 to 48 incl. not permitted.

Br. 36.8, West Seattle Line, bascule span.....20 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.

Flat cars loaded with logs, wood bolts, or veneer blocks in trains not permitted over Bridge 39, Tacoma Waterway, Drawbridge Line, except as authorized in emergency.

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 crossover 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 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 Signal 21 and Westward Signal 46.

### 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.

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.

Trolley wires will not clear man on top of car at First Ave. South and Railroad Way; on West Seattle Line at Pioneer Sand and Gravel spur at Spokane St., and at Eleventh Ave. Southwest.

Sirens located about 500 feet west of Horton St. and about 500 feet east of Spokane St. with a red flasher light above and between main tracks at Horton St. Immediate action must be taken by crews of trains or engines to stop clear of this crossing, or if occupying same, to clear it promptly to avoid delay to fire equipment.

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.

At 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.

#### 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 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 stop signal to enter the 2nd Subdivision if signal indicates stop, except under protection of flag. 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.

Logs destined Everett will be set out on west leg of wye track from 11th Subdivision switch.

#### 11. At Auburn:

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

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 5 of First Subdivision special instructions.

Normal position of switches leading from NP connection to H&R Yard is for Air Port Lead at east end and for H&R Lead at west end. These switches are equipped with NP switch locks and must be left lined and locked in normal position when not in use.

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 6:30 AM to 2:30 PM and 4:00 PM to 12:00 Midnight.

12. **At Meeker:** Trains from 7th Subdivision must not pass Stop 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. **At Reservation:** Trains on NP tracks will stop before reaching the Milwaukee overhead bridge just west of Tower if a train handling logs is passing overhead.

15. **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.

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

16. **At Tacoma:** Third Subdivision instructions apply. See Item 5. Third Subdivision.

17. **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.

18. **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.

19. **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 Reservation and east of McCarver St., and South Tacoma operated as one yard.

20. **Register Stations:** Seattle (South Portal Tower), Middle Yard. 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, terminate, change crews, set out or pick up at Head of Bay Yard or at UP crossing on Drawbridge Line.

21. **Register Exceptions:** At Reservation trains may register by Form 608.

22. **Clearance Exceptions:** At Seattle, trains from Middle 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 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.

### THIRD SUBDIVISION (MAIN LINE)

1. Speed Restrictions:	Maximum Speeds Permitted	
	Freight	Passenger
<b>Zone—Between</b>		
<b>Both tracks:</b>		
<b>Tacoma and Vancouver:</b>		
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 current of traffic on westward track, Evaline to Vader, on curves.....		50 MPH
<b>Eastward track:</b>		
UP Jct. and McCarver St.....	30 MPH	30 MPH
McCarver St. and MP 51 (east of Bucoda)	50 MPH	75 MPH
MP 51 and MP 59 (just east of Chehalis Jct.).....	50 MPH	60 MPH
except, Chehalis Jct. Interlocking.....	35 MPH	50 MPH
MP 59 and MP 136 (Vancouver).....	50 MPH	75 MPH
<b>Westward track:</b>		
MP 136 (Vancouver) and MP 59 (just east of Chehalis Jct.).....	50 MPH	75 MPH
MP 59 and MP 51 (east of Bucoda).....	50 MPH	60 MPH
except, Chehalis Jct. Interlocking.....	35 MPH	50 MPH
MP 51 and McCarver St.....	50 MPH	75 MPH
McCarver St. and UP Jct.....	30 MPH	30 MPH
<b>At Titlow, over</b>		
Sixth Avenue crossing.....	25 MPH	
Day Island crossing.....	25 MPH	
<b>At Steilacoom, within corporate limits.....</b>		
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.		
<b>Handling loaded Chip Cars between</b>		
Vancouver and Longview Junction.....	30 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	
<b>At Vancouver, over</b>		
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 restricted 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  
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.

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 Signal 129 and Westward Signal 154.

Between Woodland and Ridgefield, on Eastward Signal 1179 and Westward Signal 1208.

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 track.....1 long

Union Station .....2 longs

To UP Yard .....3 longs

Eastward trains via Drawbridge Line:

To Fourth Subdivision .....1 long, 1 short, 1 long

To Union Station .....1 long, 4 shorts

Westward trains from Fourth Subdivision:

To Moon Yard or Union Station .....1 short, 1 long

To Drawbridge Line .....1 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 Sperry Mill:**

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

7. **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. Logs, wood bolts, or veneer blocks, loaded on flat cars, must not be moved through tunnel.

8. **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.

9. **At Nisqually,** Trains from Seventeenth Subdivision must not pass stop 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.

10. **At Saint Clair—**Trains from the Sixteenth Subdivision must not pass stop 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.

11. **At Tenino Junction—**Trains from the Fourth Subdivision must not pass stop 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 Tenino Jct., it will be left in this box.

12. **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. Engines must not be left on main tracks while members of crews are eating.

Not more than one engine at a time will use Grays Harbor stub track at west end of passenger station while crews are eating. When this track is occupied, other engines may use house tracks No. 1, 3 or team track.

Loud speaker with push button talk-back is located east of Signal 523 for use by trainmen and yardmen to communicate with Yardmaster.

To avoid blocking Chestnut Street by westward trains, through trains following other trains doing work at Centralia stop east of Signal 550 until that signal clears.

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

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

14. **At Chehalis Junction**—When the Home 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 CMS&P tracks. The junction and crossover switches must be operated by hand.

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

15. **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.

16. **At Longview Junction**—Trains from Longview using west leg of wye to enter Third Subdivision main tracks will not pass stop 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.

17. **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

18. **At Kalama**—Normal position of switch to Mountain Timber spur is for the spur.

Normal position of switch to Columbia Veneer spur is for the tail track.

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.

19. **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 westbound track west of Signal 1350.

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

Main line crossover switches must be left open when movement is made from westbound 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.

20. **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.

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 and the east switch of west crossover.

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

21. **Logs:** Flat cars loaded with logs, wood bolts or veneer blocks must not be handled in trains after dark except between Chehalis Jct. and Centralia, and then only as provided under instructions for all subdivisions.

**At Ostrander Tunnel**, under conditions allowing for full view of tunnel, a trainman may ride on rear of train with lighted fusee, and if positive that track is clear and no logs have fallen, will give proceed signal after having passed through tunnel. The conductor of train will decide at time of stopping for inspection and be responsible for knowing that track is clear after passing through.

21. **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.

22. **Register Stations:**

Head of Bay Yard office for extra trains that originate, terminate, change crews, set out or pick up at Head of Bay Yard.

U. P. Junction.

Centralia.

Chehalis for 21st Subdivision trains.

Longview Freight Station for trains originating and terminating.

Vancouver Telegraph Office.

Portland Telegraph Office.

23. **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.

At Chehalis, Second class and inferior trains to and from 21st Subdivision register by Form 608 when operator on duty.

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.

25. **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; trains originating will not require clearance.

Chehalis Junction; NP trains originating will not require clearance.

## FOURTH SUBDIVISION

### MAIN (PRAIRIE) LINE

#### 1. Speed Restrictions:

Zone—Between Double and single tracks:	Maximum Speeds Permitted	
	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 ..... Restricted Speed  
Between Commerce St. and 15th St. .... 6 MPH  
Between Wilkeson St. and Commerce St., on descending grade:

Passenger trains .....	30 MPH
Freight and mixed trains.....	20 MPH

At South Tacoma, entering double track.....15 MPH  
At McChord Field and Mobase—on Government tracks..10 MPH  
At Rainier, within corporate limits.....40 MPH  
At Yelm, within corporate limits.....35 MPH  
At Roy: Within corporate limits .....35 MPH  
Over street crossings .....25 MPH  
At Tenino, within corporate limits.....40 MPH

#### 2. Bridge and Engine Restrictions:

Bridge 22.1 between Roy and Yelm, trains handling logs .....10 MPH

#### Heavy car restrictions, Bridges 22.1 and 33:

Trains handling cars with total weight exceeding 169,000 pounds when coupled in groups or next to engine .....20 MPH  
If such cars are separated from each other and from engine with one car 40 ft. long with total weight not over 169,000 pounds, the speed restriction will not apply.

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 Item 5 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 Seventeenth 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 restricted 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.

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.

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 east and west of passenger 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 10 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. Trains handling logs 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 or left in register box.

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. **Pusher District**—Between Tacoma and South Tacoma.
15. **Yard Limits:** Tracks between yard limit signs west of Reservation and east of McCarver St. and South Tacoma operated as one yard.
16. **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.
17. **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.
18. **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.

## FIFTH SUBDIVISION (SUMAS BRANCH)

1. **Speed Restrictions:**

Zone—Between	Maximum Speeds Permitted
	All Trains
North Portal and Edgecomb.....	30 MPH
Edgecomb and Wickersham .....	35 MPH
Wickersham and Sumas .....	30 MPH
Except, Trains handling wrecking cranes, pile driver or locomotive crane .....	25 MPH
Advance-warning signs are located 1500 feet in advance of 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 Home 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 restricted 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 restricted 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 restricted speed between Sealine Jct. and GN Jct. ....	30 MPH
GN Jct. and Edgecomb .....	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 per- mitted.	
Bridge 4, Lake Washington Canal, between Interbay and Fremont, over bascule span.....	20 MPH
Bridge 85, between Clear Lake and Sedro-Woolley, over drawspan .....	20 MPH

Heavy car restrictions over Bridge 61.1 and 110. Trains handling cars less than 30 ft. long with total weight exceeding 169,000 pounds when coupled next to engine or in groups or handling longer cars with total weight exceeding 169,000 pounds when coupled next to engine:

Over Bridge 61.1 .....	20 MPH
Over Bridge 110.....	10 MPH

If such short cars are separated from each other and all such heavy cars are separated from engine by one car 40 ft. long weighing under 169,000 pounds, the speed restrictions will not apply.

3. **Extra Trains**—Between Black River and Woodinville will run via Eleventh Subdivision unless otherwise instructed by train order.

Between Bromart and Edgecomb 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 (edition of 1959), 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 home 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 home 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 South Portal, and Form 26A for movement against the current of traffic from South Portal to North Portal, and/or for passing the governing home signal at stop.
- (e) Tunnel card does not dispense with the observance of or compliance with the indications of southward home signals at the south end of the tunnel, governing entrance to South Portal interlocking, or the northward home 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 home signal at the immediate entrance to the tunnel displays a Stop-indication, a Tunnel Card must first be secured, as prescribed by Rules (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 Rules 240-A, 240-G, 240-J and 240-K.

Green over red (240-C) route through South Portal interlocking to southward main track (tunnel track 4) properly lined.

Red over yellow (240-J and 240-K) diverging route through South Portal interlocking properly lined.

These indications repeat the indications of the dwarf 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 dwarf 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.

A dwarf type automatic block signal, GN Rules 240 B (Figure 6) and 240 E (Figure 11) located at the south interlocking limits between tracks 3 and 4 governs southward train and engine movements on Track 4.

- (k) Dwarf 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 240-A and 240-H 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 St. Tunnel are governed by a home signal located about 300 feet east of tower. 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 dwarf signal located 300 feet east of tower.

Westward movements from old main track are governed by a home signal located 200 feet east of tower. Upper light governs route to NP main track; lower light governs route to GN main track.

Whistle signal: 4 long to NP main track; 2 long, 1 short to GN main track.

Westward movements from waterfront are governed by a dwarf signal located 300 feet east of tower.

Whistle signal: 3 long to NP main track; 1 long to Pier 14 lead.

Eastward movements from NP 5th Subdivision main track are governed by a home signal located 1000 feet west of tower. Upper light governs route to tunnel; lower light governs diverging routes.

Whistle signal: 1 long to tunnel; 3 long to waterfront; 4 long to old main track; 5 long to GN running track; 1 short from American Can Spur to main track.

Eastward movements from Pier 14 lead are governed by a dwarf signal located 100 feet east of tower. Whistle signal: 1 long to waterfront.

Eastward movements against the current of traffic into the tunnel are governed by a dwarf signal located 250 feet west of the north entrance to the tunnel.

6. **At Bridge 4, bascule span**—Whistle signals to be used by westward trains and engines for interlocking routes:

To Fremont: 1 long.

To Ballard: 1 long, 1 short.

7. **At Woodinville**—Normal position of junction switch is for Eleventh Subdivision.

8. **At Bromart and Edgcomb**—Normal position of junction switch is for Thirteenth Subdivision.

Road crossings between Bromart and Bridge 35 may not be blocked more than fifteen (15) minutes.

9. **At GN Snohomish**—No NP train order signal maintained.

Highway crossing signals just east of GN passenger station are automatically operated on all tracks by approaching trains. When the crossing is not to be fouled by a train standing or switching on the control sections, the operation of the signals should be temporarily suspended by a member of the crew operating the manual control in accordance with instructions inside the control box. Care must be used to have the signals restored to operation in case of the approach of another train.

10. **At Lowell**—Private road crossing leading to EP&P Company, east of station, is the only vehicular route to the plant. Train stopping should avoid blocking this crossing when practicable.

11. **At Everett**: Manually-operated, electrically-locked gates are in service at N.P. Railway freight house line crossing of G.N. Railway "C" Line. Normal position of gates is across the N.P. freight house lead. The control gate located on east side of G.N. crossing is electrically locked. Instructions for operating are posted.

12. **At Sealine Jct. and GN Jct.**: Normal position of switches is for Great Northern movement. Telephone located at GN Jct. to enable crews to call Everett operator. Switch foreman and conductor must contact operator at Everett and inform themselves as to first class trains before opening switch. Care must be used not to delay first class trains.

13. **At GN Delta Jct. Interlocking**—Westward trains will call for route by one long, one short, one long blast of whistle. Eastward trains by one long, one short, two long blasts of whistle.

14. **At Kruse**—A switch indicator, governing train and engine movements from the Northern Pacific track to the Great Northern main track, consisting of a single unit (normally dark) and a switch-key-controller mounted on an iron mast, is located at the clearance point of the Northern Pacific connection, and must be operated by a member of the crew who, together with the engineer, must observe and be governed by its indication before fouling the GN main track or lining main track switch for movement to the GN main track.

If indicator displays a yellow light when switch-key-controller is operated, switch may be lined and movement to main track may be made immediately in accordance with train rights and operating rules. Display of yellow light must continue until leading wheels have passed clearance point.

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, after lining switch, waiting three minutes and taking every precaution to provide proper protection.

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 with logs must not run via King Street Tunnel.
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, Sumas.  
Arlington for Fourteenth Subdivision trains.
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 GN-Snohomish, eastward trains must secure clearance.  
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.

## SIXTH SUBDIVISION

### (ROSLYN BRANCH)

1. **Speed Restrictions:**

Zone—Between	Maximum Speeds Permitted
	All Trains
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 (a), 8th paragraph, 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	Maximum Speeds Permitted
Kanaskat Jct. and Bayne Jct. via joint track, all trains.....	15 MPH
Palmer Jct. and Meeker:	
Trains handling wrecking crane, pile driver	
or locomotive crane.....	20 MPH
Other trains.....	25 MPH
Cascade Jct. and Wilkeson and Carbonado:	
Trains handling wrecking crane, pile driver	
or locomotive crane.....	10 MPH
Other trains.....	20 MPH
Meeker and Orting handling Hemlock Logs.....	10 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
Carbonado, Wilkeson and Orting.....	20 MPH

2. **Bridge and Engine Restrictions:**  
Between Cascade Jct., Wilkeson and Carbonado wrecking cranes 45 to 48 inclusive not permitted.  
Elsewhere, wrecking cranes 45 to 48 inclusive over bridges .....15 MPH  
Heavy car restrictions over Bridges 16 and 16.1 Trains handling cars less than 30 ft. long with total weight exceeding 169,000 pounds when coupled next to engine or in groups, or handling longer cars with total weight exceeding 169,000 pounds when coupled next to engine:  

Over Bridge 16.....	10 MPH
Over Bridge 16.1.....	20 MPH

If such short cars are separated from each other and all such heavy cars are separated from engine by car 40 ft. long weighing under 169,000 pounds, the speed restriction will not apply.  
Heavy car restrictions over Bridges 0. and 4. All such cars listed above must be separated as specified above and trains handling same must not exceed..... 25 MPH  
At Carbonado, siding must not be used beyond a point 500 feet east of west switch.
3. **At Bayne Jct.**, normal position of junction switch is for joint CMStP&P and NP track between Bayne Jct. and Kanaskat Jct.
4. **At Enumclaw:** While using main track of White River Lumber 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 White River Company's tracks must be protected by flagman.
5. **At Wilkeson**—Normal position of junction switch is for Carbonado Line. Clearance under tippie of Wilkeson Products Co.'s coal bunker is 13' 4" from top of rail.

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 7 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 Carbonado to junction at Wilkeson and 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, Kanaskat Jct. and Palmer Jct., clearance not required.
10. **Derails:** At Wilkeson on main track in front of coal bunkers. At Carbonado on main track 215 feet east of west switch of siding.

## EIGHTH SUBDIVISION (GREEN RIVER BRANCH)

1. **Speed Restrictions:**  
Zone—Between Bagley Jct. and Kanaskat:  
Trains handling wrecking crane, pile driver, or locomotive crane .....10 MPH  
Other trains .....15 MPH  
Advance-warning signs are located 1500 feet in advance of the Reduce speed signs.  
At Selleck—Restricted speed between one thousand feet west of siding and Anacortes Veneer Company's interchange tracks.
2. **At Kanaskat**—Normal position of wye switch is for west leg of wye.
3. **At Kanaskat Jct.**, normal position of junction switch is for joint CMStP&P and NP track between Kanaskat Jct. and Bayne Jct.
4. **At Selleck**—Anacortes Veneer Company's tracks may be used except engines must not pass engine stop sign on Track 1 and must not pass spar tree on Track 2. All movements must be made at restricted speed, looking out for engines and cars of the Anacortes Veneer Co.
5. **Mountain Grade**—Between Selleck and Kanaskat, the grade reaches a maximum of 2.0%.  
See All Subdivisions Item on Mountain Grade operation.
6. **Register Station—Kanaskat.**
7. **Clearance Exceptions**—At Kanaskat Jct., and Bagley Jct. clearance not required.

## TENTH SUBDIVISION (ORTING BRANCH)

1. **Speed Restrictions:**  
Zone—Between:  
Lake Kapowsin and MP 8.....10 MPH  
MP 8 and Orting.....20 MPH  
MP 8 and Orting handling Hemlock logs .....10 MPH  
Lake Kapowsin and Orting—  
Trains handling wrecking crane, pile driver or locomotive crane .....10 MPH  
Advance warning signs are located 1500 feet in advance of the Reduce speed signs.

2. **Bridge and Engine Restrictions:**  
Multiple unit diesels 5400 series to 7000 series incl. and wrecking cranes 45 to 48 incl. not permitted.  
Bridge 8, Puyallup River, all trains.....20 MPH  
Wrecking cranes 41 to 44 incl. and pile drivers 25 to 30 incl.....15 MPH  
  
Heavy car restrictions, Bridge 8:  
Cars less than 30 ft. long with total weight exceeding 169,000 pounds must be separated from each other and from engine, and cars more than 30 ft. long with total weight exceeding 169,000 pounds must be separated from engine with one car 40 ft. long with total weight not over 169,000 pounds.
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.
6. Unless otherwise instructed, protection against following trains, as required by Consolidated Code Rule 99, is not necessary on the Tenth Subdivision.

## ELEVENTH SUBDIVISION (BELT LINE)

1. **Speed Restrictions:**  
Zone—Between Black River and Woodinville:  
Trains handling wrecking crane, pile driver, or locomotive crane .....20 MPH  
Other trains .....30 MPH  
At Renton, within corporate limits.....20 MPH  
Except between 7th Avenue South and 2nd Avenue North .....10 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  
Bridge 23, Sammamish River at Woodinville:  
Trains handling wrecking cranes 41 to 44 incl. and pile driver 25 to 33 incl. ....20 MPH  
  
Heavy Car Restrictions, Bridge 23:  
Trains handling cars with total weight exceeding 169,000 pounds and next to engine or in groups.....20 MPH  
If such heavy cars are separated from each other and from engine with one car 40 ft. long with total weight not over 169,000 pounds, speed restriction will not apply.
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

## THIRTEENTH SUBDIVISION

### (HARTFORD LINE)

- 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 Quendall**—Road crossing on Barbee Mill spur must be inspected for gravel and debris and known to be safe before passing over it.
  7. **At Bellevue**—Do not leave cars between main track and gate at Safeway spur account descending track.
  8. **At Woodinville**—Normal position of junction switch is for Eleventh Subdivision.
  9. **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 Item 9 of 2nd Subdivision.)
  10. **Yard Limits**—Track between yard limit sign west of Renton and the connections with double track at Black River operated as one yard.
  11. **Register Stations:**  
Black River and Woodinville.
  12. **Register Exceptions:** At Black River all trains register by Form 608 when operator is on duty.  
At Woodinville Trains 675 and 676 register by Form 608 when operator is on duty.

## 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 to 48 incl. not permitted.  
 Pile drivers 26 to 33 incl. when boom is supported on idler car—over bridges .....15 MPH  
 Between Issaquah and North Bend, wrecking cranes 41, 42, 43 and 44 and pile driver 25 not permitted.  
 All high trestles.....15 MPH  
 Bridge 31.2 between Fall City and Snoqualmie Falls.....10 MPH  
**Heavy Car Restrictions,** Bridge 6, Sammamish River, between Woodinville and Redmond; Bridge 27.2, Raging River, between Preston and Fall City; Bridge 35, Snoqualmie River, between Snoqualmie and North Bend; and Bridge 5.46, Snoqualmie Falls Lumber Company spur.  
 Cars with total weight exceeding 169,000 pounds must be separated from each other and from engine with one car 40 ft. long with total weight not over 169,000 pounds.  
 Trains handling such cars over bridges .....20 MPH
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. **Register Station**—Woodinville.
6. **Clearance Exceptions**—At North Bend clearance not required.
7. Unless otherwise instructed, protection against following trains, as required by Consolidated Code Rule 99, is not necessary on the 12th Subdivision.

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.	
At Snohomish, over public crossing just west of Snohomish River Bridge.....	10 MPH
2. **Bridge and Engine Restrictions:**  
 Wrecking cranes 45 to 48 incl., over bridges..... 15 MPH  
 Draw span, Bridge 38, Snohomish River..... 20 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.

## FOURTEENTH SUBDIVISION

### (DARRINGTON BRANCH)

1. **Speed Restrictions:**  

Zone—Between	Maximum Speeds Permitted
Arlington Jct. and Darrington, all trains.....	15 MPH
2. **Bridge and Engine Restrictions:**  
 Wrecking cranes 45 to 48 incl. not permitted.  
 Trains handling logs over steel Bridges 2, 7, 10, 11, 18 and 22.1..... 5 MPH  
**Heavy Car Restrictions** over steel Bridges 2, 7, 10, 11, 18 and 22.1:  
 Cars less than 30 ft. long with total weight exceeding 169,000 pounds must be separated from each other and from engine and cars more than 30 ft. long with total weight exceeding 169,000 pounds must be separated from engine with one car 40 ft. long with total weight not exceeding 169,000 pounds.  
 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. **Register Stations**—Arlington and Darrington.

4. **Clearance Exceptions**—At Arlington Jct., clearance not required. Trains secure clearance at Arlington. At Darrington, clearance not required.
5. **Derails**—At Darrington, on main track 300 feet west of passenger station.
6. 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 Bellingham.....	20 MPH
except over public crossing between MP 15 and Larson .....	15 MPH

Trains handling wrecking crane, pile driver, or locomotive crane:

Wickersham and MP 5 (west of Park).....	15 MPH
MP 5 and MP 8.....	10 MPH
MP 8 and Bellingham.....	15 MPH

Advance warning signs are located 1500 feet in advance of the Reduce speed signs.

At Bellingham, between Kentucky Street and Passenger station .....
 15 MPH |
2. **Bridge and Engine Restrictions:**  

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

Bridge 22 and track at east end of this bridge is unsafe for operation. This is first bridge west of Great Northern crossing.
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**—Wickersham and 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 .....	20 MPH

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 restricted 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 and Hoquiam, all trains and engines at restricted speed within yard limits.	
At Aberdeen—Over streets and crossings.....	10 MPH
Within City Limits, elsewhere.....	20 MPH

### 2. **Bridge and Engine Restrictions:**

Wrecking cranes 45 to 48 incl. over bridges—Not permitted between Hoquiam and Moclips. Elsewhere.....15 MPH

Bridge 9, Deschutes River; Bridge 68, Wishkah River, at Aberdeen; Bridge 72.2, Hoquiam River, at Hoquiam.....20 MPH

Bridge 91.1, wrecking cranes 41 to 44 incl., and pile driver 25 to 30 incl.....15 MPH

### Heavy Car Restrictions:

Bridge 46, Cloquallum River, between Malone and Elma. Cars less than 30 ft. long with total weight exceeding 169,000 pounds coupled in groups or next to engine or cars more than 30 ft. long with total weight exceeding 169,000 lbs. next to engine.....10 MPH

If such short cars are separated from each other and all such cars are separated from engine with one car 40 ft. long with total weight not over 169,000 pounds, above speed restriction will not apply.

Bridge 82, Chenois Creek; Bridge 84, Berg Slough, between Hoquiam and Tulips; Bridge 86, Humptulips River between Tulips and Copalis; Bridge 91-1, Copalis River between Carlisle and Onslow; Bridge 97, Joe Creek, between Aloha and Pacific Beach.

Cars with total weight exceeding 169,000 pounds must be separated from each other and from engine with one car 40 ft. long with total weight not over 169,000 pounds.

Trains handling such cars .....

 20 MPH |

In addition to the above heavy car restrictions, GATX series 38824 to 38829 when loaded with caustic for Hoquiam:

Bridges 20 and 42 .....	20 MPH
Bridge 46 .....	10 MPH
Bridge 59 .....	20 MPH
Bridges 68, 72.1 and 72.2 .....	10 MPH

At Aberdeen Jct.: On main spur track between Aberdeen Jct. and Junction City engines are not permitted on Wager Mill Spur.

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 9 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 dwarf 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 dwarf 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 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, trains originating will not require clearance.  
At Hoquiam, all trains must secure clearance.  
At Moclips, clearance not required.  
At Gate, clearance not required.

## SEVENTEENTH SUBDIVISION (AMERICAN LAKE LINE)

1. Speed Restrictions:	Maximum Speeds Permitted	
	Freight	Passenger
Zone—Between		
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
Advance-warning signs are located 1500 feet in advance of the Reduce speed signs.		

At Fort Lewis:

Over Dupont highway public crossing just east of passenger station .....	5 MPH
On DuPont Spur, and all tracks within Dupont plant.....	15 MPH
On Dupont Spur, while handling STAX tank 9875 and 9876 under load.....	10 MPH

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.  
At Fort Lewis use one unit only when switching Dupont Spur.
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 9 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 restricted 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 restricted 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 restricted 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 38 and 39
41st Division Drive	Signals 56 and 57
Lake Street	Signals 91 and 92

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)

<b>1. Speed Restrictions:</b>	<b>Maximum Speeds Permitted</b>	
Zone—Between	Freight	Passenger
Centralia and Gate	30 MPH	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.

At Centralia—Over streets within corporate limits.....30 MPH

At Blakeslee Junction—Over CMStP&P and UP crossings .....15 MPH

**2. Bridge and Engine Restrictions:**

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

Heavy car restrictions, Bridge 1, Skookumchuck River, between Centralia and Blakeslee Jct. NP Route 2.

Cars less than 30 ft. in length with total weight exceeding 169,000 pounds must be separated from each other and from

engine and cars more than 30 ft. long with total weight exceeding 169,000 pounds each, must be separated from engine with one car 40 ft. long with total weight not over 169,000 pounds.

In addition to the above heavy car restrictions, GATX series 38824 to 38829 when loaded with caustic for Hoquiam:

Bridge 1	10 MPH
Bridges 4, 9, 11, 12 and 12.1	20 MPH

**3. Movement of Trains between Centralia and Blakeslee Junction:**

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 home 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 Yard Office.**

**9. Clearance Exceptions: At Gate, clearance not required.**

## NINETEENTH SUBDIVISION

### (ELMA BRANCH AND U. S. GOVERNMENT RAILWAY)

<b>1. Speed Restrictions:</b>	<b>Maximum Speeds Permitted</b>
Zone—Between	
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:**

Bridges 1, 2 and 2.1, between Elma and White; Wrecking cranes 41 to 48 incl. and pile drivers 25 to 33 incl. ....15 MPH

Elsewhere wrecking cranes 45 to 48 incl. over bridges..15 MPH

Heavy car restrictions:

Cars with total weight exceeding 169,000 pounds must be separated from engine and each other with car 40 ft. long with total weight not over 169,000 pounds.

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

See All Subdivisions Mountain Grade operation.

At 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.

Descending trains will carry 90 pounds brake pipe pressure Stimson to Shelton. Following any stops during descent, engine-man must fully recharge the brakes before starting, and con-

ductor must not give proceed signal until at least 80 pounds is shown on caboose gauge.

Immediately following departure from McCleary engineman of eastward freight trains will increase brake pipe pressure to 90 pounds.

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. Gate across track to Navy storage yard is secured with private lock. Key located in telephone box and must be left there after gate is returned to normal position.
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 93.  
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.

## 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 to 48 incl. over bridges.....15 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.....30 MPH  
Freight Passenger  
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. not permitted.  
Heavy Car Restrictions for following bridges:  
Bridge 0, Newaukum River,  
Bridge 2, Chehalis River, between Chehalis Jct. and Littell,  
Bridge 5, Chehalis River, between Adna and Millburn.  
Bridge 6, Chehalis River, between Millburn and Ceres,  
Bridge 16.1, Chehalis River, between Dryad and Dryad Jct.,  
Bridge 23, Chehalis River, between Pe Ell and McCormick,  
Bridge 38, Willapa River, between Lebam and Nallpee,  
Cars less than 30 ft. in length with total weight exceeding 169,000 pounds must be separated from each other and from engine, and cars more than 30 ft. long with total weight exceeding 169,000 pounds each, must be separated from engine with one car 40 ft. long with total weight not over 169,000 pounds.  
Bridge 53, Willapa River, between Raymond and South Bend, over draw span.....20 MPH
3. **At Chehalis Jct.:**  
Switch leading to Third Subdivision and east switch of west crossover are electrically locked.  
**See Also Item 13 of Third Subdivision.**
4. **Between Chehalis Jct. and Pe Ell:** 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 Pe Ell 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 home signal on Twenty-First Subdivision.
5. **At Pe Ell**—on M&E spur engines must not go beyond Brow log or Spar tree.
6. **At Raymond**—All trains stop before passing over Ocean Beach Highway, 250 feet west of station, and all switching movements over this crossing must be protected by flagman.
7. **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.
8. **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.**
9. **Register Stations:** Chehalis, South Bend.  
Pe Ell and Millburn for CW trains.
10. **Clearance Exceptions**—At South Bend, Dryad Jct., and Chehalis Jct., trains originating will not require clearance.



## TWENTY-SECOND SUBDIVISION (YACOLT BRANCH)

1. **Speed Restrictions:**  

Zone—Between	Maximum Speeds Permitted
Yacolt and Vancouver Jct.....	20 MPH
Except on curves.....	15 MPH
Trains handling wrecking crane, pile driver, or locomotive crane .....	15 MPH
Trains handling logs or wrecking cranes, pile drivers or locomotive cranes, approaching and passing through tunnel west of Yacolt.....	10 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. **Clearance Exceptions**—At Vancouver Jct. and Yacolt, clearance not required.
4. **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 crane .....	10 MPH
2. **Bridge and Engine Restrictions:**  
 Wrecking cranes 41 to 48 incl. and pile drivers 25 to 33 incl. not permitted.  
 Bridge 1.2 Yakima River between Yakima and Terrace Heights. Single unit of diesel engine only and separated from loads by one empty 40 ft. car..... 8 MPH  
**Heavy Car Restrictions:**  
 Cars with total weight exceeding 169,000 pounds must be separated from each other and from engine with one car 40 ft. long with total weight not over 169,000 pounds.
3. **At Yakima:** At "G" and "H" Street crossings, city ordinance provides trains and engines must protect movement over crossings 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. **Register Station**—Yakima passenger station.
6. **Clearance Exceptions**—At Moxee City, clearance not required.
7. Unless otherwise instructed, protection against following trains, as required by Consolidated Code Rule 99, is not necessary on the 23rd Subdivision.

## 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 MP 4 (Between Brace and Weikel) .....	20 MPH
MP 4 and Weikel .....	10 MPH
Weikel and Tieton .....	20 MPH
Brace and Naches .....	20 MPH

2. **Bridge and Engine Restrictions:**  
 Wrecking cranes 41 to 48 incl. and pile drivers 25 to 30 incl. not permitted.  
 Bridge 4, Naches River, between Brace and Glead: Single unit of diesel engine only and separated from loads by one empty 40 ft. car..... 8 MPH  
**Heavy Car Restrictions:**  
 Cars with total weight exceeding 169,000 pounds must be separated from each other and from engine with one car 40 ft. long with total weight not over 169,000 pounds.
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.

Note—Limit of load measurements based on 53' cars with 43' track centers.  
Heights and widths in table allow 6 inches clearance.

## MAXIMUM CLEARANCES

Table is based on open car loading equally divided on either side of center line of car.

### LIMIT OF LOAD—MEASUREMENT.

	HEIGHT ABOVE TOP OF RAIL										GOVERNING STRUCTURE	
	1 ft. Wide	2 ft. Wide	3 ft. Wide	4 ft. Wide	5 ft. Wide	6 ft. Wide	7 ft. Wide	8 ft. Wide	Max. Height	Max. Width		
Main Line (Seattle Middle Yard-Reservation)	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	Bridge No. 17.2, Green River.
West Seattle Line	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	Bridge 36.8, West Waterway
Lake Union Line	20' 6"	20' 6"	18' 3"	18' 3"	18' 3"	18' 2"	18' 2"	18' 2"	20' 6"	20' 6"	12' 0"	Signal Boxes at 14th Ave.
1st Subdiv.	19' 1"	18' 1"	18' 0"	17' 10"	17' 8"	17' 6"	17' 3"	16' 11"	18' 1"	18' 1"	12' 0"	Tunnel No. 3.
2nd Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	Drawbridge No. 39.
2nd Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	Bridge No. 8.78, Puyallup River.
3rd Subdiv.	18' 5"	18' 5"	18' 5"	18' 5"	18' 5"	18' 5"	18' 5"	18' 5"	18' 5"	18' 5"	12' 0"	Approach to Drawbridge No. 39 at 15th Street.
3rd Subdiv.	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	12' 0"	Approach to Drawbridge No. 39 at 15th Street.
3rd Subdiv.	20' 6"	20' 6"	20' 6"	20' 3"	19' 11"	19' 6"	18' 11"	18' 7"	20' 6"	20' 6"	12' 0"	Nelson Bennett Tunnel.
3rd Subdiv.	20' 6"	20' 2"	19' 10"	19' 5"	19' 0"	18' 6"	18' 0"	17' 7"	20' 6"	20' 6"	12' 0"	Nelson Bennett Tunnel and Ruston Tunnel.
3rd Subdiv.	20' 6"	20' 4"	20' 1"	19' 9"	19' 8"	19' 2"	18' 8"	18' 5"	20' 6"	20' 6"	12' 0"	Ostrander Tunnel.
3rd Subdiv.	20' 6"	20' 5"	20' 2"	19' 11"	19' 8"	19' 2"	18' 9"	18' 2"	20' 6"	20' 6"	12' 0"	Ostrander Tunnel.
3rd Subdiv.	20' 5"	20' 5"	20' 5"	20' 5"	20' 4"	20' 0"	19' 7"	19' 2"	20' 6"	20' 6"	12' 0"	Bridge 0.59 Cowitz River near Longview Jct.
4th Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	Nisqually River Bridge.
5th Subdiv.	18' 10"	18' 10"	18' 10"	18' 10"	18' 10"	18' 10"	18' 10"	18' 10"	20' 6"	20' 6"	12' 0"	Bridge 85, Slagitt River.
5th Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	Seattle Tunnel and Main Street Over Crossing.
6th Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	Bridge 28, Puyallup River.
7th Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	Bridge 28, Puyallup River.
7th Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	Bridge 28, Puyallup River.
8th Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	Bridge 28, Puyallup River.
8th Subdiv.	18' 10"	18' 10"	18' 10"	18' 7"	18' 3"	18' 0"	17' 8"	17' 6"	18' 10"	18' 10"	12' 0"	Puyallup River Bridge No. 8.
10th Subdiv.	18' 10"	18' 10"	18' 10"	18' 7"	18' 3"	18' 0"	17' 8"	17' 6"	18' 10"	18' 10"	12' 0"	Puyallup River Bridge No. 8.

11th Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	Bridge 2, Cedar River.
12th Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	
13th Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	Bridge No. 38, Snohomish River.
14th Subdiv.	20' 2"	20' 2"	20' 2"	20' 2"	20' 2"	20' 2"	20' 1"	19' 11"	20' 2"	20' 2"	20' 2"	20' 2"	Bridge No. 7, 10, 11, and 18.
15th Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	Fire Escape, Holly St., Bellingham.
16th Subdiv.	18' 0"	18' 0"	18' 0"	18' 0"	17' 11"	17' 10"	17' 10"	17' 10"	18' 0"	18' 0"	18' 0"	18' 0"	Olympia Subway.
16th Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	Bridge No. 52.1, Sateop River.
16th Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	Br. 72.2, Hoquiam River.
16th Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	Highway Over Crossing at Tumwater.
16th Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	
17th Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	Bridge No. 1, Skookumchuck River.
18th Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	
19th Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	U. P. Br. No. 53.33, Chehalis River.
20th Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	Bridges 2, 5, 6, 16.1, 38, 42, 45 & 53.
21st Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	
22nd Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	
23rd Subdiv.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	Bridge No. 1.2, Yakima River.
24th Subdiv.	19' 8"	19' 8"	19' 8"	19' 8"	19' 8"	19' 8"	19' 8"	19' 8"	19' 8"	19' 8"	19' 8"	19' 8"	Bridge No. 4, Naches River.
24th Subdiv.	20' 0"	20' 0"	20' 0"	20' 0"	20' 0"	20' 0"	20' 0"	20' 0"	20' 0"	20' 0"	20' 0"	20' 0"	Flume Crossing near M. P. 7.

Note—Limit of load measurements based on 20' cars with 42' track centers. Heights and widths in table allow 6 inches clearance.

## MAXIMUM CLEARANCES

Table is based on open car loading equally divided on either side of center line of car.

### LIMIT OF LOAD—MEASUREMENT.

	HEIGHT ABOVE TOP OF RAIL								Max. Height	Max. Width	GOVERNING STRUCTURE
	8 ft.	9 ft.	9 ft.	10 ft.	10 ft.	11 ft.	11 ft.	12 ft.			
	6 in.	6 in.	6 in.	6 in.	6 in.	6 in.	6 in.	6 in.			
Main Line (Seattle Middle Yard-Reservation) .....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	Bridge No. 17.2, Green River.
West Seattle Line .....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	West Waterway Br. 36.8.
Lake Union Line .....	18' 1"	18' 1"	18' 1"	18' 1"	18' 1"	18' 1"	18' 1"	18' 1"	20' 6"	12' 0"	Signal Braces at 14th Ave.
1st Subdiv. ....	18' 9"	18' 7"	18' 5"	18' 2"	18' 0"	18' 0"	18' 0"	18' 1"	18' 1"	12' 0"	Tunnel No. 3.
2nd Subdiv. ....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	Drawbridge No. 39.
3rd Subdiv. ....	18' 5"	18' 5"	18' 5"	18' 5"	18' 5"	18' 5"	18' 5"	18' 5"	20' 6"	12' 0"	Bridge No. 8.78, Puyallup River.
3rd Subdiv. ....	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	12' 0"	Approach to Drawbridge No. 39 at 15th Street.
3rd Subdiv. ....	18' 1"	17' 11"	17' 6"	17' 2"	16' 8"	16' 2"	15' 9"	15' 2"	20' 6"	12' 0"	Approach to Drawbridge No. 39 at 15th Street.
3rd Subdiv. ....	18' 9"	18' 5"	15' 11"	15' 6"	14' 11"	14' 5"	13' 9"	12' 6"	20' 6"	12' 0"	Nelson Bennett Tunnel.
3rd Subdiv. ....	17' 9"	17' 5"	17' 0"	16' 6"	16' 1"	15' 7"	15' 1"	14' 4"	20' 6"	12' 0"	Nelson Bennett Tunnel and Russon Tunnel.
3rd Subdiv. ....	17' 9"	17' 5"	17' 0"	16' 6"	16' 1"	15' 7"	15' 1"	14' 4"	20' 6"	12' 0"	Ostrander Tunnel.
3rd Subdiv. ....	19' 0"	18' 9"	18' 7"	18' 5"	18' 2"	18' 0"	17' 9"	17' 7"	20' 5"	12' 0"	Bridge 0.59 Cowitz River near Longview Jct.
4th Subdiv. ....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	Nisqually River Bridge 22.1.
5th Subdiv. ....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	Bridge 85 Skagit River.
5th Subdiv. ....	18' 10"	18' 10"	18' 7"	18' 1"	17' 7"	17' 1"	16' 7"	16' 0"	18' 10"	12' 0"	Seattle Tunnel and Main Street Over Crossing.
6th Subdiv. ....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	Bridge No. 28, Puyallup River.
7th Subdiv. ....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	
7th Subdiv. ....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	
8th Subdiv. ....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	
10th Subdiv. ....	17' 2"	17' 0"	16' 10"	16' 8"	16' 6"	16' 4"	16' 3"	16' 1"	18' 10"	12' 0"	Puyallup River Bridge No. 8.

11th Subdiv. ....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	Bridge No. 2, Cedar River.
12th Subdiv. ....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	
13th Subdiv. ....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	Bridge No. 38, Snohomish River.
14th Subdiv. ....	19' 10"	19' 9"	19' 7"	19' 4"	19' 1"	18' 8"	18' 0"	17' 3"	20' 2"	20' 2"	20' 2"	Bridge No. 7, 10, 11, and 18.
15th Subdiv. ....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	Fire Escape, Holly St., Bellingham.
16th Subdiv. ....	17' 9"	17' 9"	17' 9"	17' 8"	17' 7"	17' 5"	17' 3"	17' 2"	18' 0"	18' 0"	18' 0"	Olympia Subway.
16th Subdiv. ....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	Bridge No. 52.1, Satsop River.
16th Subdiv. ....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	Bridge 72.2, Hoquiam River.
16th Subdiv. ....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	
17th Subdiv. ....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	
18th Subdiv. ....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	Bridge No. 1, Skookumchuck River.
19th Subdiv. ....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	
20th Subdiv. ....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	U. P. Bridge No. 53.33, Chehalis River.
21st Subdiv. ....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	Bridges 2, 5, 6, 16.1, 38, 42, 45, & 53.
22nd Subdiv. ....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	
23rd Subdiv. ....	20' 1"	19' 10"	19' 7"	19' 4"	19' 1"	18' 10"	18' 7"	18' 4"	20' 6"	20' 6"	20' 6"	Bridge No. 1.2, Yakima River.
24th Subdiv. ....	19' 8"	19' 8"	19' 8"	19' 8"	19' 8"	19' 8"	19' 8"	19' 8"	19' 8"	19' 8"	19' 8"	Bridge No. 4, Naches River.
24th Subdiv. ....	20' 0"	20' 0"	20' 0"	20' 0"	20' 0"	20' 0"	20' 0"	20' 0"	20' 0"	20' 0"	20' 0"	Flume Crossing near M. P. 7.

# **TONNAGE RATINGS—FREIGHT ENGINES**

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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 6500- Series 6600- 6601	244 245 6000- 6005 6051 6052 6700 Series	500-501 525 552-569 850-863 900 Series 6007-6020 6050	200 Series 300 Series 7000 Series Except 244 & 245
First Eastward	Auburn to Lester.....	745	890	1500	985	1310	1500	1600
	Lester to Easton.....	350	420	750	460	600	750	800
	Yakima to Thrall.....	1310	1560	3110	1730	2250	2910	3340
First Westward	Thrall to Ellensburg.....	1670	2000	3970	2210	2880	3540	4430
	Ellensburg to Easton.....	900	1070	2150	1130	2125	2125	2380
	Easton to Lester.....	350	420	750	460	600	750	800
Fifth..... Eastward	Sumas to Wickersham.....	1140	1360	2710	1440	1975	2540	2900
	Wickersham to Sedro-Wooley..	1140	1360	2710	1440	1975	2540	2900
	Sedro-Wooley to Clear Lake...	1310	1560	3100	1730	2250	2910	3340
	Clear Lake to Edgecomb.....	1140	1360	2710	1440	1975	2540	2900
	Edgecomb to Bromart.....	510	610	1210	680	890	1130	1300

Fifth Eastward	Bromart to Maltby.....	480	560	1140	610	804	1210	1220
	Woodinville to Lake.....	1140	1360	2570	1440	1975	2540	2900
	Lake to Keith.....	1010	1200	2400	1330	1730	2240	2580
	Keith to Seattle.....	1140	1360	2570	1440	1975	2540	2900
	Seattle to Interbay.....	4680	5580	.....	6190	8050	9900	12370
Fifth Westward	Interbay to Keith.....	630	750	1500	770	1100	1350	1600
	Keith to Woodinville.....	1530	1820	3460	2020	2630	3420	3900
	Woodinville to Maltby.....	430	510	1000	570	725	910	1100
	Maltby to Bromart.....	745	890	1770	985	1550	1640	1900
	Bromart to Arlington.....	1530	1820	2200	1650	1820	2430	2650
Fifth Westward	Arlington to McMurray.....	745	890	1770	985	1550	1640	1900
	McMurray to Sedro-Wooley...	1310	1560	3110	1730	2250	2910	3340
	Sedro-Wooley to Thornwood...	745	890	1770	985	1550	1640	1900
Eleventh Eastward	Thornwood to Sumas.....	1140	1360	2710	1440	1975	2540	2900
	Woodinville to Kirkland.....	745	890	1770	985	1310	1640	1900
	Kirkland to Black River.....	.....	.....	.....	.....	.....	.....	.....

# TONNAGE RATINGS—FREIGHT ENGINES

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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 6500- Series 6600- 6601	244-245 6000-6005 6051 6052 6700 Series	500-501 525 552-569 850-863 900 Series 6007-6020 6050	200 Series 300 Series 7000 Series Except 245 & 245
Eleventh Westward	Black River to Woodinville....	1530	1820	3640	2020	2630	3420	3900
	North Bend to Fall City.....	745	890	1770	985	1310	1640	1900
	Fall City to Preston.....	410	480	960	540	700	850	1050
Twelfth Eastward	Preston to Woodinville.....	1140	1360	2710	1440	1975	2540	2900
	Woodinville to Issaquah.....	745	890	1770	985	1310	1640	1900
	Issaquah to Preston.....	350	420	750	460	600	750	900
Twelfth Westward	Preston to Fall City.....	350	420	750	460	600	750	900
	Fall City to North Bend.....	1070	1270	2540	1410	1840	2260	2830

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SUBDIVISION	DISTRICT	99 100-106 400-427 700-724 750 800-803	107-177	5400- 5410	550-551 6500- Series 6600- 6601	244-245 6000-6005 6051 6052 6700 Series	500-501 525 552-569 850-863 900 Series 6007-6020 6050	200 Series 300 Series 7000 Series Except 244 & 245
Thirteenth Eastward	Edgecomb to Getchell.....	510	610	1210	680	1100	1325	1350
	Getchell to Snohomish.....	820	970	2040	1020	1360	1810	2070
	Snohomish to Hartford.....	550	650	1300	720	940	1125	1400
Thirteenth Westward	Hartford to Getchell.....	510	610	1210	680	890	1025	1300
	Getchell to Edgecomb.....	1850	2200	4380	2440	3170	4130	4710
	Arlington and Darrington.....	1140	1360	2460	1440	1975	2540	2900
Fourteenth Eastward and Westward	Bellingham to Larson.....	350	420	800	460	600	880	900
	Larson to Wickersham.....	745	890	1500	985	1300	1600	1900
	Wickersham to Mirror Lake....	380	460	830	510	660	940	1020
Fifteenth Westward	Mirror Lake to M. P. 15.....	1140	1360	2460	1440	1975	2540	2900
	M. P. 15 to Larson.....	510	610	1100	680	1100	1325	1350
	Larson to Bellingham.....	590	700	1260	745	1025	1380	1490

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SUBDIVISION	DISTRICT	99 100-106 400-427 700-724 750 800-803	107-177	5400- 5410	550-551 6500- 6601	244-245 6000-6005 6051 6052 6700 Series	500-501 525 552-569 850-863 900 Series 6007-6020 6050	200 Series 300 Series 7000 Series Except 244 & 245
Third Eastward	Tacoma to Chehalis.....	1850	2200	4000	2000	3170	4130	4500
	Chehalis to Napavine.....	745	890	1600	1000	1300	1600	1800
	Napavine to Portland.....							
Third Westward	Portland to Vader.....	1530	1820	3300	2000	2630	3420	4000
	Vader to Napavine.....	820	970	1760	1330	1360	1810	2000
	Napavine to Tacoma.....	1850	2200	4000	2000	3170	4130	4500
Fourth Eastward	Tacoma to South Tacoma.....	350	750	800	700	600	800	900
	South Tacoma to Rainier.....	745	1300	1750	1500	1300	1600	2400
	Rainier to Tenino Jet.....	745	2000	3200	2000	2500	3200	3500
Fourth Westward	Tenino Jet. to Rainier.....	745	1300	1750	1500	1500	1800	1900
	Rainier to Tacoma.....	1310	2000	3000	2000	2250	2600	3340

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SUBDIVISION	DISTRICT	99 100-106 400-427 700-724 750 800-803	107-177	5400- 5410	550-551 6500- 6601	244-245 6000-6005 6051 6052 6700 Series	500-501 525 552-569 850-863 900 Series 6007-6020 6050	200 Series 300 Series 7000 Series except 244 & 245
Seventh Westward	Palmer Jet. to Tacoma.....	1310	1560	2840	1730	2250	2910	3340
	Wilkeson and Carbonado to South Prairie.....							
Seventh Eastward	Tacoma to Orting.....	1220	1460	2650	1580	2125	2670	3120
	Orting to South Prairie.....	745	890	1600	985	1310	1600	1900
	South Prairie to Buckley.....	450	700	1150	700	790	1150	1160
	Buckley to Palmer Jet.....	745	890	1600	985	1300	1600	1900
	South Prairie to Wilkeson.....	350	420	800	460	600	880	900
	Wilkeson to Carbonado.....	350	420	800	460	600	880	900

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SUBDIVISION	DISTRICT	99 100-106 400-427 700-724 750 800-803	107-177	5400- 5410	550-551 6500- Series 6601	244-245 6000-6005 6051 6052 6700 Series	500-501 525 552-569 850-863 900 Series 6007-6020 6050	200 Series 300 Series 7000 Series except 244 & 245
Sixteenth Westward	St. Clair to Lacey.....	510	1000	1200	680	890	1130	1300
	Lacey to Olympia.....	1010	2000	2500	1800	2060	2240	3000
	Olympia to Belmore.....	500	800	1100	800	900	1050	1220
	Belmore to Gate.....	820	2500	3200	3000	3000	3400	4000
	Gate to Hoquiam.....	745	3000	3000	3500	4000	4000	5000
Sixteenth Eastward	Hoquiam to Moclips.....	1850	2500	2800	2500	2700	2800	3300
	Moclips to Hoquiam.....	1140	3000	4000	3000	3000	3500	4500
	Hoquiam to Gate.....	1530	3000	4000	3000	3000	3500	4500
	Gate to Belmore.....	1670	2500	3540	2200	2900	3540	4430
	Belmore to Olympia.....	1310	3000	4000	2500	3300	4000	4400
	Olympia to Lacey.....	480	800	1040	750	840	1100	1220
	Lacey to St. Clair.....	630	1500	2800	2500	2500	3000	3500

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SUBDIVISION	DISTRICT	99 100-106 400-427 700-724 750 800-803	107-177	5400- 5410	550-551 6500- Series 6601	244-245 6000-6005 6051 6052 6700 Series	500-501 525 552-569 850-863 900 Series 6007-6020 6050	200 Series 300 Series 7000 Series Except 244 & 245
Seventeenth Eastward	Lakeview to Nisqually.....	1100	2500	3200	2500	2800	3000	3500
Seventeenth Westward	Nisqually to Fort Lewis.....	700	800	1080	750	840	1000	1250
	Fort Lewis to Murray.....	1100	1350	1800	1350	1400	1850	2000
Eighth Westward	Murray to Lakeview.....	1100	2500	3300	2300	2500	3200	3600
	Bagley Jct. to Kanaskat.....	.....	.....	.....	.....	.....	.....	.....
Eighth Eastward	Kanaskat to Bagley Jct.....	330	400	810	440	580	810	865
Tenth Eastward	Orting to Lake Kapowsin.....	410	480	850	540	700	850	1050
Eighteenth Westward	Centralia to Gate.....	1310	2500	3800	3000	3500	3800	4500
	Gate to Rochester.....	745	1360	1780	1250	1400	1800	1950
Eighteenth Eastward	Rochester to Grand Mound.....	1850	3000	4000	3000	3300	4300	4700
	Grand Mound to Centralia.....	1850	3000	4000	3000	3300	4300	4700



# TONNAGE RATINGS—FREIGHT ENGINES

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## ENGINES

(TONNAGE SHOWN IS PER UNIT RATING)

TACOMA DIVISION		DISTRICT						
SUBDIVISION		99 100-106 400-427 700-724 750 800-803	107-177	5400- 5410	550-551 6500- Series 6600- 6601	244-245 6000-6005 6051 6052 6700 Series	500-501 525 552-569 850-863 900 Series 6007-6020 6050	200 Series 300 Series 700 Series except 244 & 245
Nineteenth Eastward	Elma to McCleary Jct.....	745	1400	1900	1350	1500	1900	2100
	McCleary Jct. to Stimson.....	745	1400	1900	1350	1500	1900	2100
	Stimson to Shelton.....	510	900	1200	800	900	1200	1300
	Shelton to Bremerton-Bangor...	510	900	1200	800	900	1200	1300
	Bangor-Bremerton to Shelton...	510	900	1200	800	900	1200	1300
Nineteenth Westward	Shelton to Marmac.....	550	1300	1750	1200	1350	1750	1900
	Marmac to Stimson.....	210	525	700	500	550	700	780
	Chehalis Jct. to Adna.....	1310	2200	4000	3600	3300	4000	4700
Twenty-First Westward	Adna to Pe Ell.....	1310	2450	3150	2200	2450	3150	3450
	Pe Ell to Pluvius.....	550	975	1275	900	1000	1275	1400
	Pluvius to South Bend.....	1310	3000	4000	3000	3300	4000	4700

Twenty-First Eastward	South Bend to Frances.....	1310	2450	3150	2200	2450	3150	3450
	Frances to Pluvius.....	430	770	1020	700	850	1020	1120
Twenty-Second Westward	Yacolt to Vancouver Jct.....	745	1500	1775	1250	1350	2000	2400
Twenty-Second Eastward	Vancouver Jct. to Homan.....	750	975	1275	900	950	1275	1400
	Homan to Yacolt.....	650	870	1150	800	900	1150	1250

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D. E. CARLSON,  
Assistant Superintendent.

D. PEINOVICH,  
Assistant Superintendent.

R. C. JUDSON,  
Trainmaster.

J. W. SCHMIDT,  
Trainmaster-Roadmaster.

E. M. OVERLIE,  
Trainmaster.

G. W. THOMPSON,  
Trainmaster.

L. F. WIECKING,  
Trainmaster.

W. E. THOMPSON,  
Trainmaster.

C. G. STILLMAN,  
Chief Dispatcher.