

AUTHORIZED SURGEONS.

Location of Stretchers—(S)

Dr. B. I. Derauf, Chief Surgeon.....	St. Paul
Dr. A. McEwan,	
Dr. H. S. Proud,	
Dr. D. E. Derauf,	Associate Surgeons,
Dr. C. J. Hedlund,	N. P. B. A. Hospital,
Dr. R. M. Ahrens,	St. Paul (S)
Dr. J. E. Brown,	
Dr. R. R. Cranmer	Minneapolis
Dr. D. M. Thysell	Minneapolis
Dr. T. S. McClanahan	White Bear Lake (S)
Dr. F. M. McCarten	Stillwater

SPECIALISTS.

Dr. L. T. Simons, Eye, Ear, Nose & Throat.....	1039 Lowry Bldg., St. Paul
Dr. L. G. Edwards, Eye, Ear, Nose & Throat.....	1039 Lowry Bldg., St. Paul
Dr. Eugene L. Bauer, Ear, Nose & Throat.....	621 Lowry Bldg., St. Paul
Dr. Robert H. Monahan, Oculist (Eye Specialist).....	1023 Lowry Bldg., St. Paul
Dr. Richard C. Horns, Oculist (Eye Specialist).....	1137 Med. Arts Bldg., Minneapolis
St. Paul, General Office Bldg. (S)*	
St. Paul, Third Street, Car Foreman's Office (S)	
St. Paul, Fourth Street, Yard Office (S)*	
St. Paul, Mississippi Street, Round House (S)	
St. Paul, Mississippi Street, Yard Office (S)*	
St. Paul, Como Shops (S)*	
Northtown, Yard Office (S)*	
Northtown, Round House (S)*	
Northtown, Tool Car No. 4 Steam Derrick (S)	
N. P. Freight Yard, Yard Office (S)	

*Litter—No equipment.

NOTE.

N. P. B. A. physicians and surgeons, when called upon, will attend to all cases of sickness and accident to employees, passengers and others. In a case of illness, or of injury unrelated to railway operation to other than N. P. B. A. members, surgeon should endeavor to collect a reasonable fee for service from person attended. If unable to collect, Chief Surgeon should be notified.

Where injuries, to other than N. P. B. A. members, are directly related to railway operation, charge for service should be sent to the General Claim Agent of the railway company.

In case of emergency, proper aid should be procured until arrival of local surgeon, when case must be placed in his hands.

NORTHERN PACIFIC RAILWAY COMPANY

AND

MINNEAPOLIS & ST. LOUIS RAILWAY

JOINT TERMINAL

TIME TABLE 318

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

Sunday, May 31, 1959

For the Government of Employees only. The Company reserves the right to vary therefrom at pleasure. Be positive that you have the Current Time Table and destroy all previous numbers. Read carefully the Special Instructions and always carry for reference a copy of OPERATING RULES.

G. L. SLORAH,
Superintendent.

E. S. ULYATT,
General Superintendent of
Transportation.
D. A. THOMSON,
General Manager.

F. B. CLARK,
General Superintendent,
M. & St. L. RY.

A. W. SCHROEDER,
President,
M. & St. L. RY.

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WESTWARD

FIRST SUB-DIVISION

EASTWARD 3

Water, Fuel, Scales, Turn Tables, Wyes and Yard Limits.	Station Numbers.	Car Capacity of Sidings	THIRD CLASS		FIRST CLASS		Distance from Stillwater.	Time Table No. 318 May 31, 1959	Distance from St. Paul.	FIRST CLASS		THIRD CLASS	
				715		65				66		716	
				Way Freight		Passenger				Passenger		Way Freight	
				Daily Ex. Sun.		Daily				Daily		Daily Ex. Sun.	
X	LG12	Yard		L 12.45 AM			0.0	..... STILLWATER..... P	24.0			A 5.00 AM	
	LG9	18		1.00			3.9	..... SUMMIT.....	20.1			4.25	
	LG7			1.07			6.2	..... DULUTH JCT.....	17.8			4.20	
	LG4	15		1.15			9.1	..... MAHTOMEDI.....	14.9			4.10	
	LG2	84		1.20			10.6	..... DELLWOOD.....	13.4			4.05	
WX	L141	Yard		s 1.25 1.45		L 4.40 AM	12.7	Automatic Block	WB. WHITE BEAR..DN LAKE..... M. & D. JCT..... GN...GLOSTER...DN	Double Track	11.3	As 10.52 PM	4.00
XY	L142	Yard		1.50			13.7				10.3		s 3.30
X	L147			A 2.00 AM		A t 4.49 AM	18.9				5.1	L t 10.40 PM	L 3.15 AM

BETWEEN GLOSTER AND TROUT BROOK JCT. TRAINS AND ENGINES USING SOO LINE TRACK
WILL BE GOVERNED BY SOO LINE TIME TABLE AND RULES.

					L 2.10 AM			TROUT BROOK JCT.....						A 3.05 AM	
--	--	--	--	--	-----------	--	--	--	---------------------------	--	--	--	--	--	-----------	--

BETWEEN TROUT BROOK JCT. AND MISSISSIPPI ST. YARD, TRAINS AND ENGINES WILL BE
GOVERNED BY SECOND SUBDIVISION TIME TABLE.

OTWY	S142	Yard			A 2.15 AM			22.2	MY.....MISSISSIPPI ST.....PN						L 3.00 AM	
X	L147						L t 4.49 AM	18.9	GN...GLOSTER...DN	Automatic Block	Double Track	5.1	A t 10.40 PM			
	L149	Yard						21.1	.....CLAYMONT.....P			2.9				
	L150	Yard					4.53	21.5	.....EAST 7th STREET....			2.5	10.32			
	L151	Yard					5.01 AM	23.5	.....3rd STREET.....P			0.5	L 10.27 PM			

BETWEEN THIRD STREET AND ST. PAUL UNION DEPOT, TRAINS AND ENGINES
WILL BE GOVERNED BY ST. PAUL UNION DEPOT RULES AND REGULATIONS.

TWY	S142						A 5.10 AM 5.25 AM	24.0	U.....ST. PAUL.....DN (Union Depot) 10.6	0.0	10.25 PM 10.10 PM					
-----	------	--	--	--	--	--	----------------------	------	--	-----	----------------------	--	--	--	--	--

BETWEEN ST. PAUL AND MINNEAPOLIS TRAINS AND ENGINES USING GREAT NORTHERN
TRACKS WILL BE GOVERNED BY GREAT NORTHERN TIME TABLE AND RULES.

							A 5.55 AM		S.....MINNEAPOLIS.....DN (Passenger Station)		L 9.44 PM					
					1.10		.30		Time Over Sub-Division		.27			1.30		
					10.0		22.6		Average Speed Per Hour		25.1			14.9		

EXCEPT ON DOUBLE TRACK, EASTWARD TRAINS ARE SUPERIOR TO WESTWARD TRAINS OF THE SAME CLASS.
SEE RULE D-72.

SPECIAL INSTRUCTIONS PAGES 7, 8, 9, AND 10.

4 WESTWARD

SECOND SUB-DIVISION

Water, Fuel, Scales, Turn Tables, Weigh and Yard Limits.	Station Numbers	SECOND CLASS	FIRST CLASS						Time Table No. 318 May 31, 1959		Distance from St. Paul.
		167				315	325	317				309
		M. & St. L. 98				Soo 13	Soo Chgo. Div. 8	Soo 8	Soo 62		
		Freight				Passenger	Passenger	Passenger	Passenger		
		Daily				Daily Ex. Sat.	Daily Ex. Sat.	Daily Ex. Sat.	Daily		
TWY	8-143					L 9.20 PM	L 6.30 PM	L 8.00 AM	U.....ST. PAUL.....DN (Union Depot)	0.0	
BETWEEN ST. PAUL UNION DEPOT AND THIRD STREET, TRAINS AND ENGINES WILL BE GOVERNED BY ST. PAUL UNION DEPOT RULES AND REGULATIONS. (East Side Line)											
	L-151					L 9.23 PM	L 6.32 PM	L 8.02 AM	.....3RD STREET (East Side Line)..... 0.6 To Miss. St. Tower	0.6
OTW		L 7.00 PM							.....7TH STREET (West Side Line)..... 0.9	
	8-143	7.05				9.26	6.35	8.05	MX. MISSISSIPPI ST. TOWER...DN 0.6	1.8	
		7.07				A 9.27 PM	6.36	8.06	MY. MISSISSIPPI ST. YARD...PN 0.1	2.4	
		7.09					A 6.38 PM	A 8.07 AM	.....TROUT BROOK JCT..... 0.4	2.5
W	8-137	7.17							.....SOO LINE JCT..... 2.9	2.9
	8-136 1/2	7.22							.....COMO SHOPS.....P 0.6	5.8
	L-156 1/2	7.24							.....Q. N. CROSSING..... 0.6	6.7
Y									.....UNION.....P 0.5	7.3
	L-156								.....ST. ANTHONY PARK JCT...P To Park Jct. 1.0 To Eustis St. .08	7.8
	L-154								.....PARK JUNCTION.....P 1.6	8.8
OTWZ	8-128								.....EAST MINNEAPOLIS.....P 2.7	10.4
	8-134	7.26							NJ.....NORTHTOWN.....DN 0.1	13.1	
		7.31							.....EUSTIS STREET.....P 1.5	8.4
	A 7.34 PM								.....18TH AVE. SOUTH EAST...P 0.8	9.9
									.....20TH AVE. SOUTH..... 0.8	10.7
BETWEEN TWENTIETH AVENUE SOUTH AND THIRD AVENUE NORTH, MINNEAPOLIS, TRAINS AND ENGINES WILL BE GOVERNED BY M. & ST. L. RY. SPECIAL RULES AS SHOWN ON PAGE 11.											
		L 7.37 PM				L 8.45 PM			.....5TH AVE. SOUTH..... 0.8	11.5
		A 7.39 PM				8.46			.....3RD AVE. NORTH..... 0.7	12.2
						A 8.47 PM			.....FIRST STREET NORTH...P 0.1	12.3
		.89				.02	.07	.08	.07	Time Over Sub-Division	
	17.4					24.0	21.5	21.8	25.0	Average Speed Per Hour	

EXCEPT ON DOUBLE TRACK, EASTWARD TRAINS ARE SUPERIOR TO WESTWARD TRAINS OF THE SAME CLASS.
SEE RULE D-72.

SPECIAL INSTRUCTIONS, PAGES 7, 8, 9, 11, 12 AND 13.

SECOND SUB-DIVISION

EASTWARD 5

Distance from First Street No.	Time Table No. 318 May 31, 1959	FIRST CLASS								SECOND CLASS		
		304	310	326	320					166		
	Sec 14	Sec 7	Sec Chgo. Div. 5	Sec 68					M. & St. L. 95			
	Passenger	Passenger	Passenger	Passenger					Freight			
	Daily	Daily Ex. Mon.	Daily Ex. Sun.	Daily					Daily			
12.3	U.....ST. PAUL.....DN (Union Depot)		A 7.20 AM	A 8.45 AM	A 6.37 PM							

(East Side Line) BETWEEN ST. PAUL UNION DEPOT AND THIRD STREET, TRAINS AND ENGINES WILL BE GOVERNED BY ST. PAUL UNION DEPOT RULES AND REGULATIONS.

11.7	.....3RD STREET (East Side Line)..... 1.2 (To Miss. St. Tower)		A 7.18 AM	A 8.41 AM	A 6.35 PM							
	.....7TH STREET (West Side Line).....									A 5.00 AM		
10.5	MX..MISSISSIPPI ST. TOWER..DN		7.15	8.37	6.32					4.55		
9.9	MY..MISSISSIPPI ST. YARD..PN											
9.8	.....TROUT BROOK JCT.....		7.14	L 8.35 AM	6.31					4.53		
9.4	.....SOO LINE JCT.....		L 7.13 AM		L 6.30 PM					4.51		
8.5	.....COMO SHOPS.....P									4.43		
8.6	.....G. N. CROSSING.....											
8.0	.....UNION.....P									4.35		
4.5	.....ST. ANTHONY PARK JCT....P To Park Jct. 1.0 To Eustis St. .06									4.33		
	.....PARK JUNCTION.....P											
	.....EAST MINNEAPOLIS.....P											
	NJ.....NORTHTOWN.....DN											
8.9	.....EUSTIS STREET.....P									4.31		
2.4	.....18TH AVE. SOUTH EAST...P									4.21		
1.6	.....20TH AVE. SOUTH.....									L 4.17 AM		

BETWEEN TWENTIETH AVENUE SOUTH AND THIRD AVENUE NORTH, MINNEAPOLIS, TRAINS AND ENGINES WILL BE GOVERNED BY M. & ST. L. RY. SPECIAL RULES AS SHOWN ON PAGE 11.

0.8	.....6TH AVE. SOUTH.....	A 7.04 AM								A 4.13 AM		
0.1	.....3RD AVE. NORTH.....	7.03								L 4.10 AM		
0.0	.....FIRST STREET NORTH...P	L 7.02 AM										
	Time Over Sub-Division	.02	.07	.10	.07					.50		
	Average Speed Per Hour	24.0	25.0	15.0	26.0					13.6		

EXCEPT ON DOUBLE TRACK, EASTWARD TRAINS ARE SUPERIOR TO WESTWARD TRAINS OF THE SAME CLASS.
SEE RULE D-72.
SPECIAL INSTRUCTIONS, PAGES 7, 8, 9, 11, 12 AND 13.

WESTWARD

FOURTH SUB-DIVISION

EASTWARD

Water, Fuel, Scales, Turn Tables, Wyes and Yard Limits.	Car Capacity Sidings.	Station Numbers.	Distance from M. & D. Jct.	Time Table No. 318 May 31, 1959		EASTWARD— East Minneapolis to M. & D. Jct.
				STATIONS		
XY	Yard	L142	0.0	.....M. & D. JCT.....P		
	86	L140 ³ / ₄	8.1	.....ROSEVILLE.....		
X		L152 ³ / ₄	10.0	.....BELT LINE CROSSING.....		
WXYZ	Yard	L154	12.6	.....EAST MINNEAPOLIS.....P		

EASTWARD TRAINS ARE SUPERIOR TO WESTWARD TRAINS OF THE SAME CLASS.
SPECIAL INSTRUCTIONS, PAGES 7, 8, 9 AND 14.

Water, Fuel, Supplies, Turn Tables, Ways and Yard Limits.	FIRST CLASS					Time Table No. 318 May 31, 1959		Distance from Minneapolis
			3	11	315	25	1	
					Soo 13			
			Passenger	Passenger	Passenger	Passenger	Passenger	
			Daily Ex. Sat.	Sat. Only	Daily	Daily	Daily	
			L 8.35 PM	L 8.35 PM		L 7.45 PM	L 9.15 AM	8..... MINNEAPOLIS..... DN (Passenger Station) 0.3
BETWEEN MINNEAPOLIS PASSENGER STATION AND FIRST STREET NORTH MINNEAPOLIS, TRAINS AND ENGINES WILL BE GOVERNED BY GREAT NORTHERN TIME TABLE AND RULES.								
Z			L 8.37 PM	L 8.37 PM	L 8.47 PM	L 7.46 PM	L 9.17 AM	..... FIRST STREET NORTH..... P 0.4
			8.38	8.38	8.48	7.47	9.18	..... N. P. FREIGHT YARD..... P 0.2
			8.39	8.39	A 8.49 PM	7.48	9.19	..... 14th AVE. NORTH..... P 1.2
Y			8.42	8.42		7.51	9.22	..... MULBERRY JCT..... P 2.9
OTWZ			A 8.47 PM	A 8.47 PM		A 7.56 PM	A 9.27 AM	NJ..... NORTHTOWN..... DN
			.12	.12	.02	.11	.12	Time Over Sub-Division
			25.0	25.0	18.0	27.5	25.0	Average Speed Per Hour

EXCEPT ON DOUBLE TRACK, EASTWARD TRAINS ARE SUPERIOR TO WESTWARD TRAINS OF THE SAME CLASS.
SEE RULE D-72.

THIRD SUB-DIVISION

EASTWARD

Distance from Northtown.	Time Table No. 318 May 31, 1959					FIRST CLASS				
			26	12	4	304	2			
						Soo 14				
			Passenger	Passenger	Passenger	Passenger	Passenger			
			Daily	Mon. Only	Daily Ex. Mon.	Daily	Daily			
5.0		..... MINNEAPOLIS..... DN (Passenger Station) 0.3	A 6.10 AM	A 6.40 AM	A 6.40 AM		A 10.02 PM			
BETWEEN FIRST STREET NORTH, MINNEAPOLIS, AND MINNEAPOLIS PASSENGER STATION, TRAINS AND ENGINES WILL BE GOVERNED BY GREAT NORTHERN TIME TABLE AND RULES.										
4.7	AUTO BLOCK DOUBLE TRACK	..... FIRST STREET NORTH..... P 0.4	A 6.07 AM	A 6.37 AM	A 6.37 AM	A 7.02 AM	A 9.59 PM			
4.3		..... N. P. FREIGHT YARD..... P 0.2	6.06	6.35	6.35	7.01	9.58			
4.1		..... 14th AVE. NORTH..... P 1.2	6.05	6.34	6.34	L 7.00 AM	9.57			
2.9		..... MULBERRY JCT..... P 2.0	6.02	6.30	6.30		9.54			
0.0		NJ..... NORTHTOWN..... DN	L 5.58 AM	L 6.25 AM	L 6.25 AM		L 9.50 PM			
		Time Over Sub-Division	.12	.15	.15	.02	.12			
		Average Speed Per Hour	25.0	20.0	20.0	18.0	25.0			

EXCEPT ON DOUBLE TRACK, EASTWARD TRAINS ARE SUPERIOR TO WESTWARD TRAINS OF THE SAME CLASS.
SEE RULE D-72.

ALL SUBDIVISIONS.

1. SPEED RESTRICTIONS—

Maximum Speeds Permitted—

Passenger trains	75 MPH.
Freight and mixed trains	50 MPH.

The above speeds are subject to the restrictions of maximum speeds as shown by zones under each subdivision.

Where automatic block and interlocking rules and signal indications require movement at restricted speed, such movement must be made prepared to stop short of train, obstruction or switch not properly lined and be on lookout for broken rail or anything that may require the speed of a train to be reduced, but a speed of 15 MPH must not be exceeded.

The definition of Restricted Speed, designated on page 8 of the 1945 Edition of the Consolidated Code of Operating Rules will continue to apply except where automatic block and interlocking rules and signals govern as specified above.

Reduce speed limits, within the zones listed, are designated by Advance-warning signs (diagonally upwards), Reduce speed signs (square with clipped corners) and Resume speed signs (vertical green).

The Advance-warning signs are, except as otherwise specified, located approximately 3000 feet in advance of the Reduce speed signs, and the numerals on both signs indicate in miles per hour the maximum speed permitted from the Reduce speed sign to another Reduce speed limit, or to a sign indicating a higher speed, or to a Resume speed sign.

If speeds authorized by zones or Reduce speed signs, are greater than that prescribed below for certain trains or engines, such trains or engines must not exceed the prescribed speeds.

Locations where reduced speeds are required, but not indicated by signs, are listed under the zones of maximum speeds permitted for each subdivision.

All trains and engines, except as otherwise specified:

Through crossovers, turnouts and gantlets, except where fixed signals provide otherwise.....	15 MPH.
Handling steam wrecking cranes, pile drivers, locomotive cranes and similar equipment	30 MPH.
Handling 4-wheel scale test cars and } Main Line	35 MPH.
Scale Test Cars 252-253 and 254 } Branch Lines	25 MPH.
Picking up train orders from operators.....	30 MPH.

Diesel-electric engines—	Handling Trains	Running Light
No. 98	35 MPH.	35 MPH.
No. 99	50 MPH.	50 MPH.
No. 100	40 MPH.	40 MPH.
100 series	60 MPH.	60 MPH.
400 and 600 series	45 MPH.	45 MPH.
No. 500, 501 and 552-569 incl.....	65 MPH.	65 MPH.
No. 525	60 MPH.	60 MPH.
No. 550 and No. 551	75 MPH.	65 MPH.
700 series	45 MPH.	45 MPH.
No. 800 to No. 803, incl.	60 MPH.	60 MPH.
850 and 860 series	65 MPH.	65 MPH.
900 to 921 series	65 MPH.	65 MPH.
6000, 7000, 200 and 300 series except 244 and 245.....	65 MPH.	65 MPH.
No. 244, No. 245, 6500, 6600 and 6700 series	75 MPH.	65 MPH.
5400 series	55 MPH.	55 MPH.

Diesel-electric motor cars, in service or being towed—

Car B-13	55 MPH.
Cars B-6, B-11, B-15, B-16, B-18 and B-22.....	65 MPH.
Cars B-30, B-40 and B-41	75 MPH.

Diesel-electric engines may be handled dead in trains at not to exceed the authorized operating speed specified for such engines. Bridge or other restrictions must be observed for these engines the same as when in operating condition.

2. Single and Double Headers—operation—track and bridges—general.

Where there are no governing restrictions specified for double-

headers in the special instructions for each subdivision, they will be governed by the most restrictive instructions applicable to a single engine when of the same class and to the heavier engine when of different classes.

Where doubleheader restrictions, are specified, doubleheaders of different classes of engines will be governed by the restrictions applicable to doubleheaders of the heavier class.

When two, Four-Unit Diesel 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.

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

To avoid possibility of fire or damage to traction motors, diesel-electric engines must not be permitted to pass over or to stand on cinder pits containing live fire or hot cinders.

Under no circumstances should diesel-electric engines pass through water which is deep enough to touch the bottom of the traction motor frame. When passing through water, movement must always be at very slow speed (2 to 3 MPH).

Where multiple-unit diesel-electric engines are used in freight service, both the fireman and the head brakeman shall not be absent at the same time from the leading cab while the train is under way on main track between stations.

Unit letters will be used in addition to engine numbers of all passenger and freight road diesels except Engines 6600 & 6601. When two or more diesel units are coupled in multiple unit operation, the number of the leading unit only will be displayed in accordance with the provision of Rule 24 and used in train order as prescribed by Rule 206.

3. Use of warning headlight (Mars or Cyralite) on engines so equipped:

The warning headlight can be displayed either white or red, in either stationary or oscillating position, at the same time the standard headlight is used.

The warning white headlight may be used in a stationary position as a substitute headlight in case of failure of the standard headlight, but will normally be used as an oscillating light during the time full display of standard headlight is required.

The warning oscillating red headlight will be used when head end protection is required, either by day or by night, by engineer control, if the train becomes disabled or if stopped suddenly due to unusual occurrence with the possibility of an adjacent track being obstructed, or if it overruns the clearance point at a meeting or waiting point, or at the end of double track or at a junction, or in any emergency situation, independent of the standard headlight.

The engineer of an approaching train, finding the oscillating red headlight displayed, must stop and then be governed by conditions existing. If on an adjacent track which he finds unobstructed and safe for operation, may proceed at restricted speed until the standing train displaying the oscillating red headlight has been passed.

The warning red headlight will be displayed in stationary position in addition to the standard white headlight when a train is occupying the main track at a meeting point with an opposing train until the headlight of the opposing train has been dimmed, per Rule 17(b), after which the red headlight will be extinguished, and the standard white headlight turned on dim until the opposing train is into clear on siding.

The use of the warning red headlight does not in any manner relieve the train or enginemmen of responsibility for compliance with the provisions of Rules 99 and 102.

4. Rule 19, Figs. 2 to 9, inclusive, and Rule 19(b) of the Consolidated Code of Operating Rules and General Instructions, Edition, 1945, are supplemented as follows:

"When the rear unit of a train is equipped with built-in electric markers, or electric signal lamps, they must be lighted by day

and by night to be considered as markers, and the requirement for showing green to the front or direction of movement and green to the side will not apply."

"Train crews arriving at terminals must not extinguish the built-in markers, or electric signal lamps used as markers, until the train has been delivered to connecting crew or is clear of the main track and the switch is closed"

5. "Rule 6(A) is modified to include the following variations of the letter "W" which indicate:

W (full-faced type).....water facilities for both steam and diesel power.

W (Capital type).....water facilities for steam power only.

w (small type).....water facilities for diesel power only".

6. Rule 200—Lights will not be displayed by night on train order signals on the 3rd, 4th, 5th, 6th, 7th and 8th subdivisions. Trains will be governed by the day indication of these train order signals.

7. Rule D-97 applies on this division.

8. Rule 606: Emergency Signals are not used at interlockings or drawbridges 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.

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

4-wheel scale test cars must be handled only in local freight trains. All scale test cars must be placed immediately ahead of caboose.

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 their own wheels, they 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) Equipment 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.

- (c) Such equipment when not prepared and carded shall be handled at speeds not to exceed 30 miles per hour.

- (d) Such equipment that is geared for self-propulsion shall have the driving gears disconnected or removed.

- (e) 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.

Open cars loaded with material which may shift, such as poles, pipe, timbers, etc., shall not be placed immediately next to diesel-electric engines nor to caboose in trains.

10. Precautions must be taken on double track to prevent accidents from swinging doors or other loose construction attached to cars or engines. Trains handling logs must stop when being met or passed by passenger trains.

11. Engines and cars equipped with roller bearings shall not be allowed to stand alone without brakes being applied.

Roller bearing failures on cars or locomotives 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 roller bearing boxes have grease plugs locked with a metal strap which must be cut off with chisel before plug can be removed. In case 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. Electric Switch Locks—Two types in service—To operate either type, unlock and open the door.

On locks stenciled "FORCE DROP LOCK", turn lock handle to the plate reading "MOVE LEVER HERE AND WAIT FOR UNLOCK", then follow instructions in sections (a) (b) (c) (d). On other electric locks, follow instructions in sections (a) (b) (c) (d) after door is opened.

- (a) If indicator shows proceed or "UNLOCKED":

Turn lock handle to left until it rests on stop block.

Line switch in usual manner and movement may be made at once.

- (b) If indicator shows stop or "LOCKED" and no conflicting train movement is evident:

Unlock time release box (if provided) and push the button to start time release. After time release has completed operation, indicator will normally show proceed or "UNLOCKED." Turn lock handle to left until it rests on stop block.

Line switch in usual manner and movement may be made at once.

- (c) After final movement over switch is made:

Restore and lock switch in normal position.

Turn electric lock handle to right until it rests on stop block. Close and lock doors of time release box (if provided) and electric lock.

- (d) Exception—If indicator fails to show proceed or "UNLOCKED" after time release (if provided) has completed operation, and if electric lock is provided with emergency release located at left of indicator: Remove wire seal and operate emergency release lever.

Wait three (3) minutes after operating emergency release lever, then line switch for movement in usual manner. Immediately notify train dispatcher so he may call signal maintainer to reset emergency release, as signals will remain at stop until repairs are made.

13. Spring Switches—

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.

Signal operation at spring switches equipped for switch key operation—The normal indication of main track signals is Proceed. The normal indication of siding signal is Stop. To clear the siding signal when train is ready to enter main track, insert switch key in control box and turn to right. If route is clear the siding signal will immediately clear.

If siding signal does not clear by switch key operation, open release box and push the button which will put the time release mechanism into operation. After time release has operated, the siding signal will clear if there is no conflicting train movement. The release box door must be left open until leading wheels of train on the siding have passed the siding signal, then close and lock the release box door. If the siding signal has been cleared

and train on the siding is not ready to depart, if necessary to clear signals for a main track movement, open the release box door and push the button which will start the time release mechanism. After the time release mechanism has started to operate, close and lock the release box door.

When a train, light engine or any piece of equipment moves through a spring switch in such a manner as to throw the points, the conductor or a member of the crew shall observe if the signal governing movements in the opposite direction moves to the approach or the proceed position. If it remains in the stop position and there are no other train movements in evidence that would cause it to remain in that position, the dispatcher shall be notified from the nearest open telegraph office that the signal remained in the stop position and also, when practicable, the first opposing train cautioned.

14. Within yard limits all second class and inferior trains and transfer runs occupying main tracks, must display a red flag by day and in addition a red light by night on the rear end of the rear car, except when caboose is used marker lamps displaying red lights to the rear must be used by day and night. The presence or absence of a red flag or a red light will not relieve the approaching train of responsibility for collision where limited to restricted speed, either by speed restrictions or Rule 93. In case of collision, the responsibility will ordinarily rest with the approaching train.

15. Passenger extras, transfers and light engine movements may run ahead of delayed first class trains without train order authority; conductors and switch foremen and engineers of light engines will inform themselves through Yard Master, or Train Dispatcher Minneapolis, as to how late first class trains will be and avoid delaying them.

16. The City ordinances of St. Paul and Minneapolis prohibit the unnecessary use of the engine whistle.

17. BULLETIN STATIONS—

St. Paul, Telegraph Office, Union Depot.
4th Street, Yard Office.
Mississippi Street, Round House and Yard Office.
C.M.St.P.&P. New Yard, Round House & Yard Office.
Northtown, Round House and Yard Office.
N. P. Freight Yard, Yard Office.
East Minneapolis, Yard Office.

18. STANDARD TIME CLOCKS—

St. Paul, Telegraph Office, Union Depot.
Mississippi Street, Round House and Yard Office.
Minneapolis, Dispatcher's Office.
Northtown, Telegraph Office.
White Bear Lake, Telegraph Office.

19. WATCH INSPECTORS—

St. Paul, Christensen's, 144 East 5th Street.
" " A. Lindahl, 910 Payne Ave.
" " C. J. & H. W. Anderson, 1573 University Ave.
" " Northern Watch Co., 342 Robert St.
Minneapolis, Samuel H. Lindquist, 4171 Washington Ave. North.
" Emil Gustafson, 2201 Central Ave.
" Buchkosky & Wikstrom, 1106 West Broadway St.
" Oscar P. Gustafson, 410 Nicollet Ave.
" Kavchar Jewelry, 2213 Central Ave.
Stillwater, Peder Gaalaas.

FIRST SUBDIVISION.

BETWEEN 3RD STREET, ST. PAUL AND STILLWATER.

1. Speed Restrictions—

Zone—Between	Freight and mixed Trains	Passenger Trains
White Bear Lake and St. Paul	50 MPH	60 MPH
Between White Bear Lake and Stillwater	20 MPH	80 MPH
At St. Paul, between East 7th Street and 3rd Street	Westward use 15 minutes	15 MPH.
At St. Paul Union Depot, through crossovers, turnouts and puzzle switches		10 MPH.
	All back up movements....	8 MPH.
At White Bear Lake, all movements over State Highway No. 61		5 MPH.
Approach and move over 4th St. crossing at Restricted Speed.		

2. Bridge and Engine Restrictions—

Bridge 11, North Broadway Street, Stillwater:
Wrecking cranes 41 to 48 inc. and pile drivers No. 25-28 not permitted.
Weed destroyer tenders, Maximum capacity 5,000 gallons10 MPH.
Diesel engines10 MPH.
Heavy Car Restrictions—
Bridge 11—Cars with total weight exceeding 214,000 pounds not permitted except on authority of Superintendent.
Cars with total weight exceeding 169,000 pounds must be separated from each other and from engine or tender with a car 40 feet long with total weight not over 169,000 pounds; trains handling such cars 8 MPH.

3. At 3rd Street, St. Paul, crossing with C. B. & Q. R. R. is single track.

The N. P. Ry. and C. B. & Q. R. R. joint tracks between 3rd Street and Division Street are operated under yard rules. All train and engine movements, including first class trains over these tracks are controlled by switchtenders at 3rd Street and Signalman at Division Street and no train or engine may move over these tracks except as controlled by switchtenders at 3rd Street and signalman at Division Street. Eastward movements will only be made on proceed signal from switchtenders at 3rd Street and westward movements will be governed by interlocking signals operated from Division Street.

4. East of 4th St. Bridge, all westward trains using crossover to eastward main track will stop and proceed upon signal from 3rd Street Switchtender. Trains moving against the current of traffic on eastward main track will approach crossover expecting to find it in use.

5. Between 3rd Street and Claymont, trains running against the current of traffic, will approach Omaha Crossing at Forest Street prepared to stop and know that crossing is clear before proceeding.

Westward freight trains will be governed by the following instructions on the grade between Claymont and 3rd Street, St. Paul:

Engineer controlling train must adjust feed valve on engine to obtain 90 pounds brake pipe pressure following the stop for grade crossing at Gloster. Train to be stopped at Claymont for turning up retaining valves and making a brake pipe test. Engineer to sound one blast of whistle to advise trainmen that brakes are fully applied for test.

Retaining valve handles must be turned up to the low pressure position (horizontal) as follows:

Trains of 1000 tons or less, no retainers.

Trains of over 1000 tons and up to 4000 tons, use 15 retainers and as many more as engineer requests.

Trains of over 4000 tons, use 15 retainers and 1 additional retainer for each 100 tons in excess of 4000 tons and as many more as engineer requests.

Retainers to be turned up on head portion of train beginning at the engine and not turned down until stop has been made at 3rd Street.

6. AT EAST 7th STREET

Spur track switch at C&NW, Interlocking equipped with electric switch lock. The following will govern operation of electric lock and movement to or from spur track:

To enter spur track,

- (a) Interlocking must be lined for Northern Pacific.
- (b) Short unlock track circuit between eastward dwarf signal and switch must be occupied.
- (c) Provisions of Item 12 (sections a, c and d) page 8 apply.

To leave spur track when switch is lined and locked in normal position,

- (a) Interlocking must be lined for Northern Pacific.
- (b) Provisions of Item 12 (sections a, c and d), page 8 apply, except that movement must be made in accordance with indication displayed by dwarf signal located at clearance point. This signal will indicate proceed after switch is reversed if track is unoccupied westward to signal 1.3.

7. At Claymont and East 7th Street, switch foremen and engineers of light engines must call operator Gloster or switch-tender 3rd Street and inform themselves as to first class trains before entering main track. Movement may then be made ahead of delayed first class trains without train orders. Care must be used not to delay them.

8. At Gloster, automatic crossing protection signals at Frost Avenue do not operate for reverse current traffic movements. Trains or engines moving against the current of traffic must move over the crossing under protection of flagman.

A "STOP" sign for westward trains via Soo Line is placed on the Northern Pacific-Soo Line connection 500 feet east of Soo Line main track switch. If train orders or clearance received when stop is made authorizes movement onto Soo Line main track, train may proceed.

9. At White Bear Lake, normal position of switch at end of double track west of passenger station is for westward trains. Switch will be handled by Operator who will give Signal 12C to eastward Lake Superior Division trains when he has information required by Rule S-83 and authority of Lake Superior Division train dispatcher.

Eastward trains making stop at passenger station must stop with engine or cars west of white post located on south side of track.

Eastward Extras picking up in New Yard will cut off far enough west of Ramaley Avenue so as not to foul the ringing section of the automatic crossing signals on that avenue.

At new yard, the normal position of west switch of crossover will be for the lead to the yard.

Cars must not be spotted on Bald Eagle lead within 300 feet of Fourth Street crossing.

When trains will be delayed more than ten (10) minutes, crossings must be opened promptly.

10. From Summit to Stillwater, retaining valves must be used. Engineer will determine minimum, and Conductor will use any additional number that he considers necessary.

11. Yard Limits—

3rd Street Yard St. Paul to yard limit sign east of Gloster.

12. Short Clearances—

St. Paul Yard, overhead bridge at Omaha crossing, and tunnels under 7th Street, located 700 feet east of Third Street, will not clear a man on side of car. Minnehaha and Reaney Street bridges, opposite Hamm's Brewery, will not clear a man on top of car.

13. Register Stations—

St. Paul, Telegraph Office Union Depot.
Gloster, White Bear Lake. Stillwater.
Mississippi Street Yard Office, for trains originating or terminating.

14. Register Exceptions—

When no operator on duty at Mississippi St. Yard, check of the register shall be secured from Mississippi St. Tower.

At Gloster, trains will register by Form 608. Operators will deliver orders and clearances to trains passing through the wye at wye switch. Eastward trains passing through the wye will be given check of register on Form 602.

At White Bear Lake, westward second class trains and extras from the Lake Superior Division will register by Form 608 and will be given check of register on Form 602 and clearance by operator.

At Stillwater, conductors of trains and enginemen of light engines will fill out register Form 608, covering their arrival and departure and will deliver to the operator at White Bear Lake.

15. Clearance Exceptions—

At 3rd Street, C.M.St.P.&P. trains starting will be governed by clearance furnished at C.M.St.P.&P. yard.

At St. Paul, N. P. trains will be governed by clearance furnished at Union Depot.

At Mississippi St. Yard, when no operator on duty N. P. trains via Soo Line to Gloster will secure Soo Line clearances at Mississippi St. Tower.

At Gloster, C.M.St.P.&P. helper engines must secure clearance.

At White Bear Lake, no train order signal. All trains will secure clearance.

At Stillwater, clearance not required.

16. Cross-overs—

3rd Street, 4th Street, Claymont, Gloster, M. & D. Jct.

SECOND SUBDIVISION.

BETWEEN 3RD STREET, ST. PAUL AND 20TH AVE.

SOUTH, MINNEAPOLIS AND

LINE B, BETWEEN ST. ANTHONY PK. JCT. AND NORTHTOWN

1. Speed Restrictions— Zone—Between	Freight and mixed Trains	Passenger Trains
Mississippi St. Tower and 7th St. (West Side line) and 3rd St. (East Side line)	15 MPH.	20 MPH.
Mississippi St. Tower and First St. North	35 MPH.	35 MPH.
Except Lafayette Ave. and 7th St. Bridge (West Side line).....		All Trains 8 MPH.
23rd Ave. S. E. & 20th Ave. So. (Minneapolis)		25 MPH.
At Mississippi Street Interlocking		12 MPH.
At Como Avenue and Como Place, over crossings.....		35 MPH.
At Snelling Avenue, over crossing		15 MPH.

2. Bridge and Engine Restrictions—

Bridge 4, Chatsworth Street; Bridge 7, Raymond Avenue;
Bridge 7-1, Bayless Avenue Line A; Bridge 7 Bayless Avenue
Line B; Bridge 7-3, Manville Street Line A.

Trains handling wrecking cranes 45, 46, 47 and 48.....15 MPH.

Weed destroyer tenders loaded between 12,000 and
20,000 gallons10 MPH.

3. At 3rd Street, St. Paul, crossing with C. B. & Q. R. R. is single track. Westward second class and inferior trains may run ahead of delayed first class trains, when given the route by switchtenders. Double track switch on East Side Line is protected by a derail and color light signal on eastward main track. All eastward trains picking up or setting out cars must leave their train west of the derail.

The N. P. Ry. and C. B. & Q. R. R. joint tracks between 3rd Street and Division Street are operated under yard rules. All trains and engine movements, including first class trains over these tracks are controlled by switchtenders at 3rd Street and Signalman at Division Street and no train or engine may move over these tracks except as controlled by switchtenders at 3rd Street and signalman at Division Street. Eastward movements will only be made on proceed signal from switchtenders at 3rd Street and westward movements will be governed by interlocking signals operated from Division Street.

4. At Mississippi Street Interlocking—(Connection East and West Side Lines).

The train order signal at Mississippi St. tower is to govern Soo Line, Chicago Division outgoing trains exclusively.

All movements approaching on main track will be governed by the interlocking color light signal located 100 feet west of the interlocking tower, governing routes as follows: Top light governs movements on eastward main track to 3rd Street. Bottom light governs movements over turn-out to 4th Street yard, via west side line, and movements over cross-over between the eastward and westward main tracks of east side line.

Use whistle signals for routes as follows:

West Side Line	Two long.
East Side Line	Three long.
Round House	Four long.
Coal Dock	Five long.

All movements approaching on east side line will be governed by the interlocking color light signal located 500 feet east of Mississippi Street Bridge. Top light governs movements on westward main track and bottom light governs movements to back lead of Mississippi Street yard.

Use whistle signals for routes as follows:

Main Lines	One long.
Back Lead	Two long.

All movements approaching on west side line will be governed by the two armed semaphore located 500 feet east of Mississippi Street Bridge. Top arm governs movements for westward main track and bottom arm governs movements to back lead of Mississippi Street yard.

Use whistle signals for routes as follows:

Main Lines	One long.
Back Lead	Two long.

All eastward movements out of east end of Mississippi Street yard will be governed by color light signal located 50 feet west of Mississippi Street Bridge.

Use whistle signals for routes as follows:

West Side Line	Two long.
East Side Line	Three long.

5. At Soo Line Jct., Soo Line crews desiring to make reverse movements between Soo Line Jct. and switch of west leg of wye at Trout Brook Jct. before entering the main track will call signalman at Mississippi Street Tower and ascertain if all first class trains due have passed, or if any transfers are moving over westward track, between Mississippi Street Tower and Soo Line Jct. Movement must then be protected as per Rule 99.
6. At Como Ave., Como Place and Snelling Ave. crossings, where automatic electric signals are installed, engine whistles must not be sounded except to prevent accidents.
7. At Snelling Ave., St. Paul, Line "A".
When westbound trains are to pick up cars at Como or Koppers Coke, trains must stop and cut off engine at Automatic Signal 55, located 1400 feet west of Como Shops.
Conductors and switch foremen will be held responsible for the above instructions being complied with.
8. At Union, all eastward and westward trains going to or coming from Great Northern Yard, must call signalman St. Anthony Park Jct. on phone and obtain permission to cross over.
9. At St. Anthony Park Junction Interlocking—
Enginemen will call for routes as follows:
Straight Main Line East or West (Line A).....One long.
Line A to Line B Westward trackTwo long.
Line A to Eastward track Line BThree long.
Line B to Line A Eastward trackOne long.
Line A is 2nd and 3rd Subdivision.

10. **At Eustis Street Yard**, all trains must call St. Anthony Park Jct. signalman on phone located in Yard Office and obtain permission to cross over before fouling either the eastward or westward main track. In order to prevent cars running out over the de-rails at the west end of Eustis Street Yard, the hand brakes must in all cases be set with a club on the first six (6) cars from the west end of each track. Yard foremen will be held responsible for knowing this is done.
11. Between Eustis Street and 25th Avenue S. E. engine bell will be kept ringing while engine is in motion.
12. Line B, double track line, nonautomatic block, is a switching and alternate route between St. Anthony Park Jct. and Northtown, via East Minneapolis. All movements on these tracks are governed by the provisions of Rule 93. Transfer runs occupying main tracks must display a red flag by day and in addition a red light by night on the rear end of the rear car, except when caboose is used, marker lamps displaying red lights to the rear must be used by day and night. The presence or absence of a red flag or a red light will not relieve the approaching train of responsibility for collision where limited to restricted speed, either by speed restrictions, or Rule 93. In case of collision, the responsibility will ordinarily rest with the approaching train.
13. **At Park Jct.**, when cars are set out in the Eastbound Yard, sufficient hand brakes must be set to prevent cars running out at west end. Also when trains or portions of trains are left standing on the main track while cars are being set out or picked up, air must first be set before cutting off engine or cars.
14. **Yard Limits—**
3rd Street, St. Paul to 20th Avenue South, Minneapolis, including 3rd and 4th Street Yard, St. Paul.
15. **Short Clearances—**
At St. Paul, short clearances for man on side of car:
Lafayette Ave. bridge on East and West Side Lines, stone wall west of Lafayette Ave. bridge on East Side Line and stone wall along diagonal track, 4th Street Yard.
At St. Paul, tunnels on East and West Side Lines and 6th Street bridge in 4th Street Yard will not clear a man on side or top of car.
At St. Paul, doorway of Atlas Mfg. Company's building near Robbins and Eustis Streets will not clear a man on top or side of car and the picking up or setting out of cars must be done outside of building.
At Southeast Minneapolis, three overhead cranes are located on spur to Lewis Bolt and Nut Co. galvanizing plant. Employees must not ride on top of cars approaching or moving under the overhead trolley beams. Beams will not clear a man on top of box car or high load.
16. **Register Stations—**
St. Paul, Telegraph Office Union Depot.
St. Paul, 4th Street Yard Office, for M. & St. L. freight trains.
Mississippi Street Yard Office, for trains originating or terminating.
17. **Clearance Exceptions—**
At 7th Street, Mississippi Street Yard, Soo Line Jct., 6th Ave. South, 3rd Ave. North and First Street North, clearance not required.

18. **Crossovers—**
3rd Street, Mississippi Street, Maryland Street, Soo Line Jct., Chatsworth Street, Snelling Ave., Union St. Anthony Park Jct., Eustis Street, 27th Ave. South East, 18th Ave. South East, East end Mississippi River bridge, 19th Ave. South, 10th Ave. South, 8th Ave. South, 7th Ave. South, 6th Ave. South, 2nd Ave. North, 3rd Ave. North.
19. **Derail Switches—**
St. Paul, East Side line, eastward track near 4th Street Bridge.

FOLLOWING M.&ST.L.R.Y. SPECIAL RULES GOVERN MAIN TRACK MOVEMENTS BETWEEN 20TH AVE. SOUTH AND 3RD AVE. NORTH, MINNEAPOLIS.

These special rules govern main tracks of the Minneapolis & St. Louis Railroad Company between 3rd Avenue North and 20th Avenue South, Minneapolis, and they supersede all other rules and instructions inconsistent therewith.

Maximum speed limit for passenger trains, 20 miles per hour; for all other trains and light engines, 15 miles per hour.

Between 3rd Avenue North and 6th Avenue South, and between 18th and 20th Avenues South, maximum speed limit for passenger trains, 15 miles per hour; for all other trains and light engines, 10 miles per hour.

All trains and engines must move under control between 3rd Avenue North and 20th Avenue South.

"Under Control" as used herein means being able to stop within the distance track is seen to be clear.

All trains, transfers and light engines will register by ticket at 3rd Avenue North.

Between 1st and 2nd Streets South, Minneapolis; 9:00 AM to 5:00 PM daily except Sundays and holidays, all trains and engines approaching the crossover will come to a stop unless proceed signal is received from the flagman on the ground at or near this crossover. Trains and engines on Minneapolis and St. Louis tracks be signaled with a green flag by day and a green light by night. Trains and engines on Minneapolis Eastern be signaled with a yellow flag by day and a yellow light by night.

5:00 PM to 9:00 AM daily and 9:00 AM to 5:00 PM on Sundays and holidays, trains and engines using the Minneapolis Eastern tracks will proceed over crossover under flag protection. Other trains and engines must at all times approach this crossover under full control, expecting to find the crossover occupied.

Proceed signals given by flagman on the ground at or near the crossover between 1st and 2nd Streets South, Minneapolis, only govern the crossover and must not be construed as indicating that main track beyond is clear.

Unless otherwise ordered train orders are not required between 3rd Avenue North and 20th Avenue South. Engines and trains must use right-hand track and move with the current of traffic. Switch engines may use the double track between these points on time of all except first class trains, under protection, but be prepared to clear main track without delay to regular trains and transfers; and may use the track UNDER PROTECTION, on the time of first class trains after such trains are five minutes late.

Second and inferior class and extra trains and switch engines may run ahead of first class trains which are five minutes or more late when this can be done without delay to first class trains, and may be run ahead of each other, without orders. All trains, switch engines and light engines occupying main tracks at any point between 3rd Avenue North and 20th Avenue South must be protected, but this rule will in no manner relieve enginemen of responsibility in case of collision, for failure to

FOURTH SUBDIVISION.

BETWEEN EAST MINNEAPOLIS AND M. & D. JCT.

1. Speed Restrictions—
Between
East Minneapolis and M. & D. Jct. 30 MPH.
2. Bridge Restrictions—
Weed destroyer tenders, Maximum capacity 12,000
gallons 10 MPH.
3. At East Minneapolis, normal position of east wye switch, east
of Broadway crossing, will be for the Minneapolis Branch main
track.
4. At White Bear Lake, New Yard, Conductors on transfers mov-
ing via Minneapolis Branch will call train dispatcher Min-
neapolis, on telephone, immediately before departure and ad-
vise time train will depart.
5. Register Stations—
East Minneapolis.
6. Clearance Exceptions—
At M. & D. Jct. and East Minneapolis clearance not required.

SPECIAL INSTRUCTIONS FOR GREAT NORTHERN FAIR GROUNDS AUTOMATIC INTERLOCKING

Signals for train movements in either direction on either track
will not indicate Proceed unless gates are set and properly locked
against G. N. trains and the smash board on the route desired is in
the Proceed position.

The derail on NP Industry Track is connected to and thrown by
the switchstand.

When a train is stopped by a Home or Dwarf signal trainman
will go to the crossing, unlock the release box and operate the release
after making certain gates are set against G. N. trains.

SPECIAL INSTRUCTIONS FOR 18TH AVE. N. E. MINNEAPOLIS AUTOMATIC INTERLOCKING.

The signals for the G. N. tracks are color light type and for the
N. P. track are semaphore type equipped with smashboards.

N. P. trains must Stop within one hundred (100) feet of the
home signals and wait for two (2) minutes for time relay to operate
before smashboards and signal will indicate Proceed.

If the smashboards do not clear and signal does not indicate pro-
ceed after two minutes have elapsed, and no train is approaching on
an opposing line, trainman shall go to the crossing and operate the
hand release. After operating release, wait two (2) minutes and if
the automatic home signal does not indicate Proceed and no immedi-
ate crossing train movement is evident, the trainmen at the crossing,
after placing themselves in position to flag any train movement on the
conflicting line, may hand signal their train to proceed over the
crossing.

SPEED TABLE

Time Per mile			Time Per mile		
Minutes	Seconds	Hour	Minutes	Seconds	Hour
0	45	80	1	12	50
0	46	78.3	1	15	48
0	47	76.6	1	20	45
0	48	75	1	25	42.3
0	49	73.5	1	30	40
0	50	72	1	40	36
0	51	70.6	1	45	34.3
0	52	69.2	1	50	32.7
0	53	67.9	2	---	30
0	54	66.6	2	10	27.6
0	55	65.4	2	15	26.6
0	56	64.2	2	20	25.7
0	57	63.1	2	30	24
0	58	62.0	2	40	22.5
0	59	61.0	2	45	21.8
1	---	60	2	50	21.2
1	1	59	3	---	20
1	2	58	3	9	19
1	3	57.1	3	20	18
1	4	56.2	3	31	17
1	5	55.3	3	45	16
1	6	54.5	4	---	15
1	7	53.7	5	---	12
1	8	52.9	6	---	10
1	9	52.1	7	30	8
1	10	51.4	10	---	6

RAILROAD CROSSINGS AND INTERLOCKINGS.

First Sub-Division

EAST 7TH STREET.

C&NW Crossing—Interlocking. Operated by trainmen.

GLOSTER. Soo Line Crossing (Gate).

DULUTH JCT. Soo Line Crossing.

2nd Sub-Division

MISSISSIPPI STREET.

Junction East and West Side Lines—Interlocked.

G. N. CROSSING. Fair Grounds—Automatic interlocking.

ST. ANTHONY PARK JUNCTION.

Junction Lines A and B—Interlocked.

LINE B—PARK JCT.

Minn. Transfer Ry. Crossing—Interlocked.

18TH AVE. SOUTH EAST.

C. M. St. P. & P. Crossing—Interlocked.

3rd Sub-Division

FIRST STREET NORTH. G. N. Crossing.

15TH AVE. NORTH. Soo Line Jct.—Interlocked.

18TH AVE. NORTH EAST.

G. N. Crossing with Mulberry Line—Automatic Interlocking.

NORTHTOWN. G. N. Crossing.

4th Sub-Division

BELT LINE CROSSING.

Belt Line Crossing—Automatic interlocking.

Limit of load measurements based on 52' cars with 42' truck centers.
Note—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								GOVERNING STRUCTURE
		HEIGHT ABOVE TOP OF RAIL								
		1'0" Wide	2'0" Wide	3'0" Wide	4'0" Wide	5'0" Wide	6'0" Wide	Max. Height	Max. Width	
1st Subdivision	White Bear Lake to 3rd Street Jct., St. Paul...	17' 1"	17' 1"	17' 1"	17' 1"	17' 1"	17' 1"	17' 1"	11' 0"	Seventh Street Tunnel and Minnehaha Ave. Over Crossing, St. Paul.
1st Subdivision	Stillwater to White Bear Lake.....	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	Overhead Highway Bridge M.P. 10 & 1514
2nd Subdivision	3rd St., St. Paul to 19th Ave. South, Minneapolis.....	{ W. B. 19' 2" E. B. 19' 4"	19' 1"	18' 10"	18' 8"	18' 6"	18' 3"	19' 2"	12' 0"	Lafayette Ave. Bridge, Mississippi St. Over Crossing & Tunnels No.1 & No. 2, St. Paul.
2nd Subdivision	West Side Line, St. Paul.....	{ W. B. 18' 0" E. B. 18' 0"	17' 10"	17' 8"	17' 5"	17' 2"	16' 11"	18' 0"	12' 0"	Westminster Street Tunnel.
2nd Subdivision	East Minneapolis to White Bear Lake via Gloster.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	Rice Street Over Crossing, St. Paul.
2nd Subdivision	19th Ave. South to 1st Street North, Minneapolis.	16' 2"	16' 1"	16' 1"	16' 1"	16' 1"	16' 0"	16' 2"	11' 0"	First Street So. & Hennepin Ave. Over Crossings.
3rd Subdivision	1st Street North, Minneapolis to Northtown.	17' 11"	17' 11"	17' 11"	17' 11"	17' 11"	17' 11"	17' 11"	12' 0"	Northtown—"Soo Line" Over Crs'g
4th Subdivision	M. & D. Jct. to East Mpls. Jct.....	18' 11"	18' 11"	18' 11"	18' 11"	18' 11"	18' 11"	18' 11"	12' 0"	Near M. P. 8—"Soo Line" Over Crs'g
		LIMIT OF LOAD—MEASUREMENT								GOVERNING STRUCTURE
		HEIGHT ABOVE TOP OF RAIL								
		7'0" Wide	7'6" Wide	8'0" Wide	8'6" Wide	9'0" Wide	9'6" Wide	Max. Height	Max. Width	
1st Subdivision	White Bear Lake to 3rd Street Jct., St. Paul...	17' 1"	17' 1"	17' 1"	17' 1"	17' 1"	17' 1"	17' 1"	11' 0"	Seventh Street Tunnel and Minnehaha Ave. Over Crossing, St. Paul.
1st Subdivision	Stillwater to White Bear Lake.....	20' 6"	20' 6"	20' 6"	20' 6"	20' 2"	20' 1"	20' 6"	12' 0"	Overhead Highway Bridge M.P. 10 & 1514
2nd Subdivision	3rd St., St. Paul to 19th Ave. South, Minneapolis.....	{ W. B. 18' 0" E. B. 18' 4"	17' 11"	17' 9"	17' 7"	17' 5"	17' 3"	19' 2"	12' 0"	Lafayette Ave. Bridge, Mississippi St. Over Crossing & Tunnels No.1 & No. 2, St. Paul.
2nd Subdivision	West Side Line, St. Paul.....	{ W. B. 16' 8" E. B. 16' 9"	16' 7"	16' 5"	16' 3"	16' 0"	15' 8"	18' 0"	12' 0"	Westminster Street Tunnel.
2nd Subdivision	East Minneapolis to White Bear Lake via Gloster.	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	20' 6"	12' 0"	Rice Street Over Crossing, St. Paul.
2nd Subdivision	19th Ave. South to 1st Street North, Minneapolis.	16' 0"	16' 0"	16' 0"	16' 0"	16' 0"	16' 0"	16' 2"	11' 0"	First Street So. & Hennepin Ave. Over Crossings.
3rd Subdivision	1st Street North, Minneapolis to Northtown.	17' 11"	17' 11"	17' 11"	17' 11"	17' 11"	17' 11"	17' 11"	12' 0"	Northtown—"Soo Line" Over Crs'g
4th Subdivision	M. & D. Jct. to East Mpls. Jct.....	18' 11"	18' 11"	18' 11"	18' 11"	18' 11"	18' 11"	18' 11"	12' 0"	Near M. P. 8—"Soo Line" Over Crs'g
		LIMIT OF LOAD—MEASUREMENT								GOVERNING STRUCTURE
		HEIGHT ABOVE TOP OF RAIL								
		10'0" Wide	10'6" Wide	11'0" Wide	11'6" Wide	12' 0" Wide	Max. Height	Max. Width		
1st Subdivision	White Bear Lake to 3rd Street Jct., St. Paul...	16' 9"	16' 2"	15' 6"	.....	.....	17' 1"	11' 0"		Seventh Street Tunnel and Minnehaha Ave. Over Crossing, St. Paul.
1st Subdivision	Stillwater to White Bear Lake.....	20' 1"	20' 1"	20' 1"	20' 1"	20' 1"	20' 6"	12' 0"		Overhead Highway Bridge M.P. 10 & 1514
2nd Subdivision	3rd St., St. Paul to 19th Ave. South, Minneapolis.....	{ W. B. 16' 10" E. B. 17' 4"	16' 5"	15' 10"	15' 2"	14' 5"	19' 2"	12' 0"		Lafayette Ave. Bridge, Mississippi St. Over Crossing & Tunnels No. 1 & No. 2, St. Paul.
2nd Subdivision	West Side Line, St. Paul.....	{ W. B. 15' 4" E. B. 14' 6"	14' 10"	14' 3"	13' 8"	13' 0"	18' 0"	12' 0"		Westminster Street Tunnel.
2nd Subdivision	East Minneapolis to White Bear Lake via Gloster.	20' 6"	20' 6"	20' 6"	17' 8"	17' 6"	20' 6"	12' 0"		Rice Street Over Crossing, St. Paul.
2nd Subdivision	19th Ave. South to 1st Street North, Minneapolis.	16' 0"	16' 0"	16' 0"	.....	.....	16' 2"	11' 0"		First Street So. & Hennepin Ave. Over Crossings.
3rd Subdivision	1st Street North, Minneapolis to Northtown.	17' 11"	17' 11"	17' 11"	17' 11"	17' 11"	17' 11"	12' 0"		Northtown—"Soo Line" Over Crs'g
4th Subdivision	M. & D. Jct. to East Mpls. Jct.....	18' 11"	18' 11"	18' 11"	18' 11"	18' 11"	18' 11"	12' 0"		Near M. P. 8—"Soo Line" Over Crs'g

T. A. GREGORY,
Asst. Supt.

R. H. ANDERSON,
Trainmaster

G. W. MINKEL,
Trainmaster

E. P. HUGHES,
Trainmaster

W. E. BUCKLEY,
Trainmaster

R. W. HALL,
Trainmaster

S. O. ERICKSON,
Chief Dispatcher