

AUTHORIZED SURGEONS.

Location of Stretchers—(S)

Dr. A. W. Ido, Chief Surgeon.....	St. Paul
Dr. M. A. Shillington,	} Assistant Surgeons, N. P. B. A. Hospital, St. Paul (S)
Dr. H. G. Collie,	
Dr. B. I. Derauf,	
Dr. J. W. Jesion,	
Dr. Elwyn Evans,	
Dr. Louis Rosenblatt,	
Dr. W. E. Harris	
Dr. E. R. Lowe.....	South St. Paul
Dr. R. R. Cranmer.....	Minneapolis
Dr. I. C. McDonald.....	Minneapolis
Dr. F. R. Gratzek.....	Minneapolis
Dr. W. R. Humphrey.....	Stillwater (S)
Dr. J. H. McClanahan.....	White Bear (S)
Dr. T. S. McClanahan.....	White Bear

SPECIALISTS.

Dr. L. A. Nelson, Oculist. 830 Lowry Bldg., St. Paul
Drs. H. E. Binger and L. T. Simons,
Eye, Ear, Nose and Throat. 1039 Lowry Bldg., St. Paul
Dr. H. S. Clark, Oculist. 1845 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, Round House (S)
Northtown, Tool Car No. 4 Steam Derrick (S)
Minneapolis Lower Yard, Yard Office (S)

NOTE.

Surgeons will attend, when called upon officially, to all cases of accident occurring to employees or passengers. In cases of sickness it is the intention to limit medical service to the locality or town where a surgeon resides, unless some urgent necessity exists, for which distinct official authority must be had in accordance with established regulations.

Railway Officials are required to call on the nearest authorized surgeons whenever practicable, when surgical or medical services are needed. When such are accessible, the Association will not be responsible for bills for medical services rendered by any other physician. In the event of a sudden emergency, arising from accident, if necessary, proper surgical aid should be procured until the arrival of a regularly appointed surgeon, when the case should be placed in his charge, and in no case should the service of any but an authorized company surgeon be continued at the expense of the Railway Company or of the Association after such surgeon is able to assume charge of the case.

Boarding and Nursing are furnished only at **Northern Pacific hospitals**. The Northern Pacific Beneficial Association will not be responsible for bills incurred elsewhere unless specially authorized or approved by the Chief Surgeon, and then only in critical cases of injury or illness occurring in the discharge of duty.

NORTHERN PACIFIC RAILWAY COMPANY

—AND—

MINNEAPOLIS & ST. LOUIS RAILROAD

JOINT TERMINAL

TIME TABLE 230

In Effect at 12:01 A. M. Central
or 90th Meridian Time.

Sunday, June 20, 1937

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 TRANSPORTATION RULES.

W. C. SLOAN,
General Manager.

T. M. FLYNN,
Superintendent.

J. W. DEVINS,
General Manager,
M. & St. L. R. R.

F. R. BARTLES,
Assistant General Manager.

P. H. McCAULEY,
General Superintendent of
Transportation.

R. E. RYAN,
General Superintendent,
M. & St. L. R. R.

2 WESTWARD

FIRST SUB-DIVISION

Water, Fuel, Scales, Turn Tables, Wyes and Y and Limits.	Station Numbers.	Car Capacity of Sidings.	THIRD CLASS		SECOND CLASS		FIRST CLASS		Time Table No. 230		Distance from St. Paul		
			721	715	625	627	61	65	June 20, 1937.				
			Way Freight	Way Freight	C. M. St. P. & P. Freight	Freight	Passenger	Passenger	Succeeding No. 229				
			Ex. Sun.	Ex. Sun.	Daily	Daily	Ex. Sun.	Daily	STATIONS				
WTX	LG12	Yard		L 10.00 AM						.....STILLWATER.....P	24.0	
	LG9	18		f 10.15						.....SUMMIT.....P	20.0	
	LG7			f 10.24						.....DULUTH JCT.....P	17.8	
	LG4	15		f 10.34						.....MAHTOMEDI.....P	14.9	
	LG2 1/2			f 10.38						.....CLUB HOUSE.....P	13.7	
	LG2	S4		f 10.39						.....DELLWOOD.....P	13.3	
WTX	L141	Yard	L 2.30 PM	s 10.45	L 4.00 AM	L 3.45 AM	L 12.20 PM	L 5.25 AM	BLOCK	WB...WHITE BEAR...DN	DOUBLE	11.3	
	L141 1/2		2.33	11.45	4.02	3.47		f 5.27		0.6	LAKE SHORE.....P	10.0
YX	L142	Yard	2.37	11.49	4.05	3.50				1.0	M. & D. JUNCTION...P	9.7
X	L147	Yard	A s 2.55 PM	A 11.55 AM	4.17	A 4.05 AM	s 12.32	s 5.40		4.7		GN...GLOSTER...DN	5.0
To Mississippi Street Yard.3.6													
BETWEEN MISSISSIPPI STREET AND GLOSTER TRAINS USING SOO LINE TRACK WILL BE GOVERNED BY SOO LINE TIME TABLE AND RULES.													
WCT	S142	Yard	A 3.10 PM	A 12.10 PM		A 4.25 AM			AUTOMATIC	MY. MISSISSIPPI ST...DN	TRACK		
Y	L147	Yard			4.17		s 12.32	s 5.40		YARD		GN...GLOSTER...DN	5.0
X	L149	Yard			4.23					2.1	CLAYMONT...P	2.9
	L150	Yard			4.35		12.37	s 5.46		0.4	EAST SEVENTH ST....P	2.5
	L151	Yard			A 4.50 AM		12.42	5.52		2.0	THIRD STREET...P	0.5
WTY	S142		Via Soo Line	Via Soo Line		Via Soo Line	A 12.45 PM	A s 5.55 AM		0.5	U.....SAINT PAUL.....DN	0.0	
10.4													
BETWEEN ST. PAUL AND MINNEAPOLIS TRAINS USING GREAT NORTHERN TRACKS WILL BE GOVERNED BY GREAT NORTHERN TIME TABLE AND RULES.													
								A 6.40 AM		S.....MINNEAPOLIS.....DN			
			Ex. Sun.	Ex. Sun.	Daily	Daily	Ex. Sun.	Daily		(Passenger Station)			
			.25	.55	.38	.20	.25	.30		Time Over Sub-Division			
			15.1	20.7	17.8	18.9	27.1	22.6		Average Speed Per Hour			

EASTWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN OPPOSITE DIRECTION.

SPECIAL INSTRUCTIONS, PAGES 7, 8, 11 and 12.

FIRST SUB-DIVISION

EASTWARD 3

Distance from Stillwater.	Time Table No. 230 June 20, 1937. Succeeding No. 229	FIRST CLASS				SECOND CLASS				THIRD CLASS			
		62	66			628	626			722	716		
		Passenger	Passenger			Freight	C. M. St. P. & P. Freight			Way Freight	Way Freight		
		Ex. Sun.	Daily			Daily	Daily			Ex. Sun.	Ex. Sun.		
	STATIONS												
0.0	.....STILLWATER.....P										A 9.00 AM		
4.0	.....SUMMIT.....										f 8.44		
6.2	.....DULUTH JCT.....										f 8.37		
9.1	.....MAHTOMEDI.....										f 8.26		
10.3	.....CLUB HOUSE.....										8.22		
10.7	.....DELLWOOD.....										8.21		
12.7	WB...WHITE BEAR...DN	A 8.55 AM	A 12.30 AM			A 9.20 PM	A 9.50 PM			A 7.10 AM	8.15		
13.3	.....LAKE SHORE.....					9.17	9.46			7.08	8.00		
14.3	.....M. & D. JUNCTION.....					9.13	9.42			7.05	7.56		
19.0	GN...GLOSTER...DN	s 8.43	s 12.14			L 8.55 PM	9.22			L 6.50 AM	L 7.45 AM		
	To Mississippi Street Yard.3.6												
BETWEEN MISSISSIPPI STREET AND GLOSTER TRAINS USING 500 LINE TRACK WILL BE GOVERNED BY 500 LINE TIME TABLE AND RULES.													
22.6	MY...MISSISSIPPI ST...DN					L 8.40 PM				L 6.40 AM	L 7.30 AM		
19.0	GN...GLOSTER...DN	s 8.43	s 12.14				9.22						
21.1	.....CLAYMONT.....P												
21.5	.....EAST SEVENTH ST....	s 8.38	12.07										
23.5	.....THIRD STREET.....P	8.33	12.01 AM				L 9.00 PM						
24.0	U...SAINT PAUL.....DN	L 8.30 AM	L 11.59 PM			Via Soo Line				Via Soo Line	Via Soo Line		
	10.4												
BETWEEN ST. PAUL AND MINNEAPOLIS TRAINS USING GREAT NORTHERN TRACKS WILL BE GOVERNED BY GREAT NORTHERN TIME TABLE AND RULES.													
	S...MINNEAPOLIS...DN		L 11.20 PM										
	(Passenger Station)												
		Ex. Sun.	Daily			Daily	Daily			Ex. Sun.	Ex. Sun.		
	Time Over Sub-Division	.25	.31			.25	.60			.20	1.00		
	Average Speed Per Hour	27.1	21.8			15.1	12.9			18.9	19.0		

EASTWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN OPPOSITE DIRECTION.

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

4 WESTWARD

SECOND SUB-DIVISION

Water, Fuel, Seales, Turn Rates, Wyes and Yard Limits.	SECOND CLASS		FIRST CLASS								Time Table No. 230 June 20, 1937 Succeeding No. 229		Distance from St. Paul.
		167	323	327	317	315	325	309	319	303			
		M. & St. L. 66	Soo 3	Soo 107	Soo 8	Soo 109	Soo Chgo. Div. 6	Soo 62	Soo 105	Soo Chgo. Div. 2			
		Freight	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger			
		Daily	Daily	Daily	Daily	Daily	Daily	Daily	Ex. Sun.	Daily	STATIONS		
WTY					L 8.25 PM		L 5.45 PM	L 1.50 PM		L 8.20 AM	U.....SAINT PAUL.....DN	0.0	
					8.27		5.48	1.52		8.23	0.6.....THIRD STREET.....	0.6	
											To Mississippi Street 1.2.....SEVENTH STREET.....		
WCT	L 9.00 PM	9.05			8.30		A 5.55 PM	1.55		A 8.30 AM	0.9 MX...MISSISSIPPI ST. Y'D...DN	1.8	
	9.09				A 8.32 PM			A 1.58 PM			1.1.....SOO LINE JCT.....	2.9	
											3.0		
W	9.17										.....COMO SHOPS.....P	5.9	
											0.8.....G. N. CROSSING.....	6.7	
	9.22										0.6.....UNION.....P	7.3	
Y	9.24										0.5.....ST. ANTHONY PARK JCT....P	7.8	
	9.26										0.6.....EUSTIS STREET.....P	8.4	
											1.5		
	9.31										.....18TH AVE. SOUTH EAST...P	9.9	
	9.34										0.9.....NINETEENTH AVE. SOUTH....	10.8	
	9.37	L 10.28 PM	L 9.33 PM		L 8.07 PM				L 8.37 AM		.....SIXTH AVE. SOUTH.....	11.5	
	A 9.40 PM	A 10.30 PM	A 9.35 PM		A 8.09 PM				A 8.41 AM		0.8.....FIRST STREET NORTH....P	12.3	
											MINNEAPOLIS		
	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Ex. Sun.	Daily	Time Over Sub-Division		
	.40	.02	.02	.07	.02	.10	.08	.04	.10		Average Speed Per Hour		
	17.1	24.0	24.0	24.9	24.0	10.8	21.8	12.0	10.8				

EASTWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN OPPOSITE DIRECTION.

SPECIAL INSTRUCTIONS, PAGES 8, 9, 10, 11 AND 12.

Distance from Minneapolis.	Time Table No. 230 June 20, 1937 Succeeding No. 229	FIRST CLASS								SECOND CLASS	
		328	324	304	326	310	312	302	320	164	166
		Soo 108	Soo 4	Soo 110	Soo Chgo. Div. 5	Soo 7	Soo Chgo. Div. 1	Soo 106	Soo 63	M. & St. L. 97	M. & St. L. 95
STATIONS		Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Freight	Freight
		Daily	Daily	Daily	Daily	Daily	Daily	Ex. Sun.	Daily	Daily	Daily
12.3	U.....SAINT PAUL.....DN 0.6				A 7.35 AM	A 7.38 AM	A 4.15 PM		A 5.19 PM		
11.7	THIRD STREET..... From Mississippi Street 1.2				7.32	7.35	4.12		5.17	A 4.00 AM	A 6.45 AM
	SEVENTH STREET..... 0.9										
10.5	MX.....MISSISSIPPI ST. Y'D.....DN 1.1				L 7.25 AM	7.31	L 4.05 PM		5.14	3.54	6.36
9.4	SOO LINE JCT..... 3.0					L 7.28 AM			L 5.11 PM	3.48	6.30
6.4	COMO SHOPS.....P 0.8									3.33	6.18
5.6	G. N. CROSSING..... 0.8										
5.0	UNION.....P 0.8									3.26	6.11
4.5	ST. ANTHONY PARK JCT.....P 0.6									3.23	6.08
3.9	EUSTIS STREET.....P 1.5									3.20	6.05
2.4	18TH AVE. SOUTH EAST..... 0.9									3.12	5.57
1.5	NINETEENTH AVE. SOUTH..... 0.7									3.08	5.53
0.8	SIXTH AVE. SOUTH..... 0.8	A 5.57 AM	A 6.30 AM	A 7.15 AM				A 4.40 PM		3.04	5.49
0.0	FIRST STREET NORTH.....P MINNEAPOLIS	L 5.55 AM	L 6.28 AM	L 7.13 AM				L 4.38 PM		L 3.00 AM	L 5.45 AM
		Daily	Daily	Daily	Daily	Daily	Daily	Ex. Sun.	Daily	Daily	Daily
	Time Over Sub-Division	.02	.02	.02	.10	.10	.10	.02	.08	1.00	1.00
	Average Speed Per Hour	24.0	24.0	24.0	10.8	17.4	10.8	24.0	21.8	11.4	11.4

EASTWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN OPPOSITE DIRECTION.

SPECIAL INSTRUCTIONS, PAGES 8, 9, 10, 11 AND 12.

WESTWARD			FOURTH SUB-DIVISION				EASTWARD				
Water, Fuel, Scales, Turn Tables, Wyes and Yard Limits.	Car Capacity of Sidings.	Station Numbers.					Distance from M. & D. Jct.	Time Table No. 230 June 20, 1937 Succeeding No. 229			
								STATIONS			
YX	Yard	L142					0.0	.....M. & D. JCT.....P			
	24	L144½					3.4	.....^{3.4} LITTLE CANADA.....			
	49	L149½					7.0	.....^{4.5} ROSE.....			
X		L152½					9.7	.....^{1.3} BELT LINE CROSSING.....			
WYOX	Yard	L154					12.2	.....^{2.5} EAST MINNEAPOLIS.....P			
								Time Over Sub-Division			
								Average Speed Per Hour			

EASTWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN OPPOSITE DIRECTION.

SPECIAL INSTRUCTIONS, PAGES 10, 11 AND 12.

6 WESTWARD

THIRD SUB-DIVISION

Water, Fuel, Scales, Turn Tables, Wyes and Yard Limbs.	FIRST CLASS										Time Table No. 230 June 20, 1937 Succeeding No. 229 STATIONS S.....MINNEAPOLIS.....DN (Passenger Station) 0.5	Distance from Minneapolis.
	3	323	7	327	315	13	1	319	65			
	N. P. 3	Soo 3	N. P. 7	Soo 107	Soo 109	N. P. 13	N. P. 1	Soo 105	N. P. 65			
	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger			
	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Ex. Sun.	Daily			
	L 11.15 PM		L 9.55 PM			L 9.30 AM	L 9.10 AM		L 6.45 AM			
BETWEEN PASSENGER STATION AND FIRST STREET NORTH, MINNEAPOLIS, TRAINS WILL BE GOVERNED BY GREAT NORTHERN TIME TABLE AND RULES.												
WOT		L 10.30 PM		L 9.35 PM	L 8.09 PM			L 8.42 AM		.....FIRST STREET NORTH.....P 0.3	DOUBLE TRACK	0.5
	11.19	10.31	9.59	9.36	8.10	9.34	9.14	8.44	A 6.50 AM	.....N. P. FREIGHT YARD.....P 0.3		0.8
	11.20	A 10.32 PM	10.00	A 9.37 PM		9.35	9.15	A 8.45 AM		.....FIFTEENTH AVE. NORTH..... 1.2		1.1
Y	11.24		10.04		A 8.11 PM	9.39	9.19			.....MULBERRY LINE JCT.....P 1.5		2.3
WCOT	A 11.30 PM		A 10.10 PM			A 9.45 AM	A 9.25 AM			NJ.....NORTHTOWN.....DN		3.8
	Daily	Daily	Daily	Daily	Daily	Daily	Daily	Ex. Sun.	Daily			
	.15	.02	.15	.02	.02	.15	.15	.03	.05	Time Over Sub-Division		
	15.2	18.0	15.2	18.0	18.0	15.2	15.2	12.0	9.6	Average Speed Per Hour		

EASTWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN OPPOSITE DIRECTION.

THIRD SUB-DIVISION

EASTWARD

Distance from Northtown	Time Table No. 230		FIRST CLASS										
	June 20, 1937		328	324	8	304	302	4	2	14	66		
	Succeeding No. 229												
	STATIONS												
3.8	S.....	MINNEAPOLIS.....DN (Passenger Station) 0.5	Soo 108	Soo 4	N. P. 8	Soo 110	Soo 106	N. P. 4	N. P. 2	N. P. 14	N. P. 66		
			Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger	Passenger		
			Daily	Daily	Daily	Daily	Ex. Sun.	Daily	Daily	Daily	Daily		
					A 7.10 AM			A 7.35 PM	A 10.12 PM	A 10.35 PM	A 11.00 PM		
BETWEEN PASSENGER STATION AND FIRST STREET NORTH, MINNEAPOLIS, TRAINS WILL BE GOVERNED BY GREAT NORTHERN TIME TABLE AND RULES.													
8.3	.....	FIRST STREET NORTH.....P 0.3	A 5.54 AM	A 6.27 AM		A 7.12 AM	A 4.37 PM						
8.0	.....	N. P. FREIGHT YARD.....P 0.3	5.53	6.25	7.05	7.11	4.35	7.30	10.07	10.30	L 10.55 PM		
2.7	.....	FIFTEENTH AVE. NORTH..... 1.2	L 5.52 AM	L 6.24 AM	7.04	L 7.10 AM	L 4.34 PM	7.29	10.06	10.29			
1.5	.....	MULBERRY LINE JCT.....P 1.5			7.00			7.25	10.02	10.25			
0.0	NJ.....	NORTHTOWN.....DN			L 6.55 AM			L 7.20 PM	L 9.57 PM	L 10.20 PM			
			Daily	Daily	Daily	Daily	Ex. Sun.	Daily	Daily	Daily	Daily		
	Time Over Sub-Division		.02	.03	.15	.02	.03	.15	.15	.15	.05		
	Average Speed Per Hour		18.0	12.0	15.2	18.0	12.0	15.2	15.2	15.2	9.6		

EASTWARD TRAINS ARE SUPERIOR TO TRAINS OF THE SAME CLASS IN OPPOSITE DIRECTION.

SPECIAL INSTRUCTIONS, PAGES 10, 11 AND 12.

FIRST SUBDIVISION.

1. Between Third Street and Union Depot, double track; trains and engines will be governed by Saint Paul Union Depot Rules and Regulations.
2. At Third Street, St. Paul, crossing with C. B. & Q. Railway is single track.
3. East of Seventh Street Tunnel, all westward trains must approach cross-over switch under control, expecting to find cross-over in use.
4. Between Third 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.
Mountain Grade Rules will govern operation of westward freight trains as follows:
Rear brakeman will protect rear of train.
Engineman will apply brakes making a continuous service reduction of 20 pounds from brake pipe pressure. If application for stop is made from 70 pounds brake pipe pressure he will add sufficient as stop is being completed to make a total reduction of 20 pounds; on completion he will give one blast of the whistle as advice to trainmen that brakes are fully applied.
Conductor will then start from caboose and head brakeman from engine, inspect all brakes from the ground, noting number of brakes applied and holding, as indicated by cylinder piston rods. Correct piston travel should not be less than six inches and not over nine inches. On meeting the brakeman will advise conductor of number of good brakes in portion of train brakeman inspected, conductor will then determine tons per good brake by dividing total tonnage by number of good brakes in train. It must be understood that no train will be handled down this grade having less than eighty-five (85) per cent operative brakes.
On conductor and brakeman meeting, signal will be given to engineman to release, he will answer by two blasts of the whistle, place and leave handle of brake valve in release position and as quickly as possible, charge up train line to eighty-five (85) or ninety (90) pounds pressure before starting.
When brakes are released, conductor will go forward and brakeman continue to rear, each turning up all retaining valves on his portion of train. All must be used.
Brakeman will return to his regular position and conductor will notify engineman as to the total number of cars and the number of tons per good brake in train, and they will confer and agree as to precautions necessary to control train safely.
If tonnage per good brake is found by the test to exceed 50, it should be taken as an indication of possible need of hand brake assistance and trainmen must be on the alert to render such aid if its necessity becomes apparent. The engineman will call for hand brake aid whenever there are indications of his losing control of the train. Except in cases of liability of losing control, no hand brakes will be used while descending the grade. Brakeman will ride on top of train from Claymont to Third Street. Engineman will pull out slow enough so conductor can catch caboose after seeing that brakes are released.
Conductor must observe caboose gauge constantly during the descent of hill and promptly render any assistance which pressure shown thereby may indicate as needed.
In case of accident, train breaking in two, or pulling out draw bar, hand brakes must be applied on train immediately to prevent train or cars getting away.
5. At Claymont and East Seventh Street, yard foremen or enginemen with light engines must call operator Gloster or switch-tender Third 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. Cars must be used not to delay them.
6. At Gloster, the operator will hand up orders and clearances to trains passing through the wye, at the wye switch. Conductors will hand register ticket, Form 608, to operator, who will register such train in train register. Cars may be placed on tracks Nos. 1, 2, 3, 4 and passing track.

7. At White Bear, main line movements in either direction between White Bear and the new yard must be made with the current of traffic. Flying switches over highway crossings are prohibited. All trains must approach and pull over Fourth Street crossing under control. All eastward second class and inferior trains must receive proceed signal from operator before entering single track east of double track switch.
8. Between White Bear and Stillwater, Nos. 715 and 716 will carry passengers.
9. Between Summit and Stillwater, retainers must be used.
10. At Stillwater, conductors of trains and enginemen of light engines will make out register ticket Form 608, covering their arrival and departure and will deliver them to the operator at White Bear.
11. Yard Limits—
Third Street Yard St. Paul to Yard Limit board east of Gloster. Within yard limits, trains, transfers and switch movements occupying main track, must have a flagman at rear end and if stopped, flagman must be on ground ready to protect against following movements. The responsibility for collision will ordinarily rest with engineman of approaching train.
12. Bridge and Engine Restrictions—
Bridge O-1, Fourth Street:
Engines classes A, A-1, Q-5, Q-6, W-3, W-5, Z, Z-1, Z-2, Z-3 and Z-4 eight (8) miles per hour.
Engines lighter than A, Q-5 and W-3, twenty (20) miles per hour.
Engines classes A-2, Z-5 and Z-6 not permitted.
C. M. St. P. & P. Mallet type engines class N fifteen (15) miles per hour.
Engines heavier than class G-1 or W-3 prohibited on new bridge over Phalen Creek at Griffin Wheel Company's plant.
Bridge 11, Broadway Street, Stillwater:
Engines classes F-1, L-9, Q, S-4 and S-10 eight (8) miles per hour.
Engines classes T, Q-1 and heavier not permitted.
Engines classes W and heavier not permitted on tracks 1, 2, 3 and 4 at Gloster.
13. Speed Restrictions—
Speed of passenger trains must not exceed that shown on time table, from East Seventh Street to Third Street, St. Paul.
Freight trains eight (8) miles per hour through Seventh Street tunnel and between tunnel and Third Street, St. Paul.
Westward freight trains must use fifteen (15) minutes from Claymont Yard to Third Street, St. Paul.
Class W-3 engines twenty-five (25) miles per hour over Soo Line tracks between Gloster and Trout Brook Jct.
Five (5) miles per hour over State Highway No. 1 where it crosses Stillwater Branch at White Bear. Eastward trains fifteen (15) miles per hour between Yard Limit board and Stillwater passenger station.
14. Pusher District—
Stillwater and 2 miles west.
15. Short Clearances—
St. Paul Yard, overhead bridge at Omaha crossing, and tunnel at Seventh 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.
At Stillwater passenger station, close clearance exists at roof of train shed.
16. Register Stations—
St. Paul, Telegraph Office, Union Depot.
Mississippi Street Yard Office, for trains originating or terminating there.
Gloster.
White Bear.
Stillwater.
17. Register Exceptions—
At Gloster, trains running through between Third Street and White Bear in either direction will register by card Form 608.

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

18. **Clearance Exceptions—**

Extra trains and yard engines moving with the current of traffic may run between Third Street and Claymont, or between points intermediate, and may leave Claymont and East Seventh Street without orders or clearance card.

Trains may leave Stillwater and East Seventh Street without clearance card.

At Gloster, trains running through between Third Street and White Bear in either direction will not require clearance if train order signal is in proceed position, except that trains which leave St. Paul without clearance card must obtain clearance card at Gloster.

19. **Cross-overs—**

Third Street, East Seventh Street, Claymont, Gloster (2), M. & D. Junction (2), White Bear (2).

20. **Derail Switches—**

East Seventh Street, west end of team track.
Claymont, west end of siding.
Summit, east end of siding.

SECOND SUBDIVISION.

BETWEEN THIRD STREET, ST. PAUL AND TWEN-

TIETH AVENUE SOUTH, MINNEAPOLIS.

1. **Between Third Street and Union Depot,** trains and engines on double track will be governed by St. Paul Union Depot Rules and Regulations.

2. **At Third Street, St. Paul,** crossing with C. B. & Q. Railway 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 semaphore on eastward main track. All trains in either direction will stop at end of double track and proceed only on switchtender's signal. All eastbound trains picking up or setting out on the "Rag House" track must stop back of the derail.

3. **At Mississippi Street Interlocking—**

Enginemen approaching on main line will be governed by the two-arm semaphore located one hundred feet west of the interlocking tower, governing routes as follows: Top arm governs movements on eastward main line to Third Street. The bottom arm governs movements over turn-out to Fourth Street yard, via West Side Line, and movements over cross-over between the eastward and westward tracks of East Side Line. Enginemen will call for routes as follows:

- — — West Side Line.
- — — East Side Line.
- — — Round House.
- — — Coal Dock.

Enginemen approaching on either East or West Side Lines will be governed by the two-arm semaphores which control westbound movements on East and West Side Lines and which are located five hundred feet east of Mississippi Street bridge. Top arms govern movements on westward main lines and bottom arms govern movements to back lead of Mississippi Street Yard. Enginemen will call for routes as follows:

- — — Main Lines.
- — — Back Lead.

Enginemen coming down back lead at east end Mississippi Street Yard, will be governed by the two-arm semaphore located fifty feet west of Mississippi Street bridge, the top arm governs East Side Line and lower arm West Side Line. Enginemen will call for routes as follows:

- — — West Side Line.
- — — East Side Line.

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

4. **At Mississippi Street and St. Anthony Park Junction,** diverging inferior class trains will not be required to procure orders on the time of delayed first class trains moving in the same direction on double track, but when given the route by towerman will be governed accordingly and may proceed, but if detained and are overtaken by such delayed first class trains, must let them by promptly.

5. **At West End Mississippi Street Yard, Como and Union,** foremen or enginemen with light engines must call St. Anthony Park tower, or Mississippi Street tower and inform themselves as to first class trains before entering upon main track. Movements may then be made ahead of delayed first class trains without train orders, but care must be used not to delay them.

6. **At Como Avenue and Como Place crossings,** where automatic electric signals are installed, engine whistles must not be sounded except to prevent accidents.

7. **At Union,** all eastward and westward trains going to or coming from Great Northern Yard, must call towerman St. Anthony Park on phone and obtain permission to cross over.

8. **At St. Anthony Park Junction Interlocking—**

Enginemen will call for routes as follows:

- — — Straight Main Line East or West (Line A)
- — — Line A to Line B Westward track
- — — Line A to Eastward track Line B
- — — Line B to Line A via West Wye
- — — Line A to Line B via West Wye
- — — Line B to Line A Eastward

9. **At Park Junction,** all eastward trains filling out or picking up trains at that point, must call towerman St. Anthony Park on phone and secure line-up of trains on Line A.

10. **At Eustis Street Yard,** all trains must call St. Anthony Park tower on phone located in Yard Office and obtain permission to cross over before fouling either the eastward or westward main line. In order to prevent cars running out over the derrails 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 St. Paul and 20th Avenue South, Minneapolis,** passenger train flagmen must ride outside on rear platform to be in position to drop off immediately their train stops and protect it. Conductors will see that flagmen comply with this rule.

12. **Yard Limits—**

Third Street, St. Paul to 20th Avenue South, Minneapolis, including Third and Fourth Street Yards, St. Paul. Within yard limits, trains, transfers and switch movements occupying main track, must have a flagman at rear end and if stopped, flagman must be on ground ready to protect against following movements. The responsibility for collision will ordinarily rest with engineman of approaching train.

13. **Bridge and Engine Restrictions—**

Class W and W-3 engines must not move on track six (6) beyond the west end of the Yard Office on West Side Line at Fourth Street, account sharp curve. Engines classes A-2, Z-5 and Z-6 will not pass through Tunnels Nos. 1 and 2 near Westminster Street. Class A engines not permitted on Line "A," St. Anthony Park to First Street North, Minneapolis.

Como Yard. East end—Class W and G engines permitted only on passing, Scale and Store No. 1 tracks. West end—Class W and G engines permitted only on west lead as far as No. 9 switch, and on House and Wheel tracks.

14. **Speed Restrictions—**

Speed of trains eight (8) miles per hour passing Lafayette Avenue on West Side Line leading to and from Seventh Street, St. Paul.

All trains will approach "Home Signal" at Mississippi Street Interlocking plant, St. Paul, under control, prepared to Stop and must not exceed twelve (12) miles per hour through the plant.

Passenger trains will not exceed thirty-five (35) miles per hour over crossings at Como Avenue and Como Place, on Line A, St. Paul.

Passing Snelling Avenue, between Como Shops and G. N. Crossing fifteen (15) miles per hour.

Between Twenty-third Ave. S. E. and Twentieth Ave. South Minneapolis, twenty-five (25) miles per hour.

15. Short Clearances—

At St. Paul, short clearances for man on side of car:

Lafayette Avenue bridge on East and West Side Lines, stone wall west of Lafayette Avenue bridge on East Side Line and stone wall along diagonal track, Fourth Street Yard.

At St. Paul, tunnels on East and West Side Lines will not clear a man on top of car.

At St. Paul, doorway of Superior Metal Products 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 Lewis Bolt and Nut Co. track, Southeast Minneapolis, box and stock cars, high loads or engines, are not permitted to be moved under or beyond overhead trolley beams near end of track by yard crews. When set in, high cars or high loads will be left not less than ten feet from easterly trolley beam, and will be placed at same distance by plant employees, when such cars are to be taken out, before coupled onto by engine. Employees must not ride on top of cars approaching or moving under the overhead trolley beams.

16. Register Stations—

St. Paul, Telegraph Office, Union Depot.

St. Paul, Fourth Street Yard Office, for M. & St. L. freight trains.

Mississippi Street Yard Office, for trains originating or terminating there.

17. Clearance Exceptions—

Trains may leave Mississippi Street Yard, Soo Line Junction, Sixth Avenue South and First Street North without clearance cards.

Extra trains and yard engines moving with the current of traffic may run via Line "A" or Line "B" between Northtown and Third Street, St. Paul, or between points intermediate, without orders or clearance card.

18. Crossovers—

Third Street, Mississippi Street (2), Maryland Street, Soo Line Junction, Rice Street, Como Avenue, Chatsworth Street, Snelling Avenue, Union, St. Anthony Park Junction (2), Eustis Street, Twenty-seventh Avenue South East, Eighteenth Avenue South East, East end Mississippi River bridge, Nineteenth Avenue South, Eighth Avenue South, Sixth Avenue South, Second Avenue North, Third Avenue North.

19. Deraul Switches—

St. Paul, East Side line, eastward track near Fourth Street Bridge.

Sculley Gravel Spur, Lafayette Ave., east end.

Northwestern Fuel Company Yard 1, east end.

Northern States Power Co. Delivery track 1, east end.

Northern States Power Co. Alley track, east end.

Mississippi Street, St. Paul, foot of Outbound Emergency track.

West End of Oil Transfer track.

West End of Coal Dock Hopper track.

West End of Bunker Hill track.

Rice Street spur, east end.

Grant Construction Co. spur, east end.

Como, east and west end of siding.

Snelling Avenue, Minnesota Bi-Product Co's Yard, west end.

Snelling Avenue team track, west end.

Snelling Avenue, Shieley's Gravel spur, west end.

Bayless Avenue spur, west end.

Eustis Street Yard, tracks 1, 2 and lead at west end, track 1 and lead at east end.

Brown Sheet Metal track, north end.

South East Minneapolis, west end Harris Machinery Co. track.

South East Minneapolis, west end Acme Foundry Co. track.

Fifteenth Avenue, S. E., College of Mines spur, east end.

SECOND SUBDIVISION.

BETWEEN 20TH AVENUE SOUTH AND 1ST STREET NORTH, MINNEAPOLIS. GOVERNED BY FOL- LOWING M. & ST. L. SPECIAL RULES:

All trains, transfers and light engines will register by ticket at 1st Street North.

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

Between 1st Street 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 1st Street North and 20th Avenue South.

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

Unless otherwise ordered train orders are not required between 1st Street 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 the 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 1st Street 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 observe speed restrictions or for failure to move under control at any point, and in case of collision, responsibility will ordinarily rest with the approaching train.

Movements over crossovers must be protected in both directions. Movements between 1st Street North and First St. South will be governed by automatic block signals; the end of track section protected by automatic block signals is indicated by a sign post reading, "End Block." Lights will govern train movements by day as well as by night; one light only should appear at any one time. A green light indicates track clear, Proceed. A yellow light indicates Caution, that block in advance is occupied, approach next signal at end of block under control. A red light indicates Stop, block not clear, broken rail, open switch or other obstruction, and train must be brought to a full stop at least 20 feet back of signal and may then proceed under control expecting to find the block obstructed and enginemen will be held responsible in case of accident caused by overtaking a preceding train. When signals are out of order, that is when two lights or more show at the same time, or when a white light is shown, or when no lights show, it will be considered a Stop Signal and trains will proceed accordingly; enginemen will report the signal that is out of order to Superintendent at first available telephone or telegraph office. It must be understood that automatic block signals in no way relieve men in charge of trains, switching transfers and light engines, of protecting whenever and wherever required by these special rules.

Switches at 1st Street North will be handled by switch tenders. All trains and engines must approach these switches under control, prepared to stop, and must not proceed until it is known that the track is clear, switches are right, and a proceed signal has been received from the switch tender.

Semaphore signal located at Eighteenth Avenue South is connected with main track switch to wheat yard, railway transfer. All eastward trains or engines will approach signal prepared to stop and will not pass the signal unless at proceed position.

When signal is at stop position and when not on the time of first class trains and when weather conditions are favorable for vision, trains (except first class) and engines with or without cars may occupy the eastward main track between the signal and Twentieth Avenue South without flag protection.

Engine bell must be kept ringing when engine is moving at all points between 1st Street North and 20th Avenue South.

"Proceed" hand signals given by watchman stationed at either side of Minneapolis Eastern crossover only govern that particular location and connecting tracks, and must not be construed as indicating that main track beyond is clear. Cars must not be left on main track without an engine attached unless unavoidable in case of accident, in which event they must be protected by flagmen.

Between sunset and sunrise and at other times when day signals cannot be clearly seen, a red light must be displayed on the rear of all transfer trains; when such trains are provided with cabooses, proper display of markers is required.

Between 1st Street North and 20th Avenue South, passenger train flagmen must ride outside on rear platform to be in position to drop off immediately their train stops and protect it. Conductors will see that flagmen comply with this rule.

These special rules govern main tracks of the Minneapolis & St. Louis Railroad Company between 1st Street North and 20th Avenue South, Minneapolis, and they supersede all other rules and instructions inconsistent therewith.

THIRD SUBDIVISION.

1. **At Minneapolis Great Northern Passenger Station**, when passenger trains are pushed, helper engine will be cut off at the stop board.
2. **At Minneapolis**, the normal position of the double track switch at west end of the Mulberry Line, at Mulberry Line Junction will be for westward train movements.
3. **Between 1st Street North and Northtown**, all trains will run at restricted speed expecting to find yard engines using main tracks. Transfer and light engine movement may be made ahead of delayed first class trains without train orders, but conductors, foremen and enginemen will inform themselves through the yardmaster or train dispatcher as to how late first class trains will be and avoid delaying them. Passenger train flagmen must ride outside on rear platform to be in position to drop off immediately their train stops and protect it. Conductors will see that flagmen comply with this rule.
4. **At Northtown**, switchtenders territory extends from Soo Line overhead bridge to three hundred and ten (310) feet east of 33rd Ave. N. E. overhead bridge. All trains moving through this territory must receive signal from switchtender before proceeding. Eastward trains from eastward main line to Line A will not be governed by "Stop Board" located above tracks east of Soo Line overhead bridge.
5. **Yard Limits—**
First Street North, Minneapolis, to Yard Limit board west of Northtown. Within yard limits, trains, transfers and switch movements occupying main track, must have a flagman at rear end and if stopped, flagman must be on ground ready to protect against following movements. The responsibility for collision will ordinarily rest with engineman of approaching train.
6. **Bridge and Engine Restrictions—**
At Minneapolis Great Northern Passenger Station, Class A engines will use tracks Nos. 6, 7, 8, 9, 10 and 11 only. Engines classes G-1, G-2, T and heavier not permitted over the following tracks in Minneapolis:
Bousfield Wooden Ware Co. tracks,
Glueck Brewing Co. tracks,
Ramsey Street tracks,
Track 6, 24th Avenue North Yard.
Engines classes W and heavier, except class G, not permitted over Gould Elevator tracks.
At Minneapolis General Electric Co., engines classes G-1, G-2 and T are permitted on track 5 only, and then as far as the clearance post. Engines are not permitted on trestle bridges.
7. **Speed Restrictions—**
Regular trains will not exceed schedule speed and irregular trains must use not less than twelve (12) minutes, between 1st Street North and Northtown.

8. Short Clearances—

At Minneapolis, between Plymouth Avenue and Twentieth Avenue North, the clearance along the Omaha delivery track adjoining the main line and between the Omaha delivery and receiving tracks is not sufficient to permit men riding on side of cars at all points.

At Northtown, University Ave. bridge at east end of yard will not clear a man on side or top of car.

9. Register Stations—

Minneapolis, Great Northern passenger station.

Minneapolis, Freight Yard, for first class trains and passenger extras originating or terminating there.
Northtown.

10. Register Exceptions—

At Northtown, first class trains and passenger extras will register by card Form 608.

11. Clearance Exceptions—

Eastward trains will not require clearance card at Northtown if train order signal is in proceed position.

Trains whose runs terminate at N. P. Freight Yard, Minneapolis, may leave Minneapolis G. N. passenger station without clearance card.

Trains may leave N. P. Freight Yard and Fifteenth Avenue North without clearance cards.

Extra trains and yard engines moving with the current of traffic may run via Line "A" or Line "B" between Northtown and Third Street, St. Paul, or between points intermediate, without orders or clearance card.

12. Crossovers—

N. P. Freight Yard (3), Fifteenth Avenue North, Broadway Street, Grand Street, Mulberry Line Junction, Lowry Avenue, Northtown.

13. Deraill Switches—

Minneapolis Lower Yard, east end of transfer track, west end High Line team track 2nd Street. East end 2nd Street team track. Track leading to Carnegie Fuel Co. Yard.

North Minneapolis, west end of Omaha transfer track.

Brown Sheet Iron, Plant No. 2, near 23d Avenue, west end of track.

North East Minneapolis, east end of yard.

East end Fleishman Malting Co. Yard.

East end of track Long 1.

West end of Soo-Atlantic track.

Northtown, east and west end Ice House track.

FOURTH SUBDIVISION.

1. **At East Minneapolis**, normal position of crossover switches east of Broadway crossing, connecting wye with branch main line will be for crossover. Line "B" extends between Northtown and switch connecting with Line "A," at St. Anthony Park Junction, and includes the west wye at St. Anthony Park Junction. Train movements over this line are subject to all rules governing yard operation. The proper display of markers is required of crews furnished with cabooses while operating over the running tracks on Line "B." When movements are made without cabooses, a member of the crew will be required to ride the rear car. However, it should be understood that responsibility for collision will ordinarily rest with engineman of the approaching train. Switches on "B" Line must be lined for the running tracks unless a member of crew is left in charge of the switch.
2. **Bridge and Engine Restrictions—**
Speed will be restricted over Bridge 8, as follows:
Single and double header engine classes G-1, G-2, W, W-1, W-2 and W-4 ten (10) miles per hour.
Engine classes T and lighter fifteen (15) miles per hour.
Single or double header engine classes A, Q-5, Q-6, W-3, W-5, Z, Z-1, Z-2, Z-3, Z-4 and Z-5 not permitted.
3. **Speed Restrictions—**
Class T engines twenty-five (25) miles and class W twenty (20) miles per hour at any point.

Trains eight (8) miles per hour approaching and passing through home signal limits of Automatic Interlocking Plant at Belt Line Crossing.

4. **Pusher District—**
East Minneapolis and 2½ miles toward White Bear.
5. **Register Stations—**
East Minneapolis.
6. **Derail Switches—**
East Minneapolis, west end Brighton Elevator track.
Little Canada, west end of siding.
Rose, east and west end of siding.
Belt Line Crossing, Great Lakes Pipe Co. track.

ALL SUBDIVISIONS.

NOTE

Effective with Time Table No. 217, Schedule meeting or passing stations are indicated by figures in full-faced type; numbers of the trains meeting, passing, or being passed will not be shown.

1. Northern Pacific conductors taking their trains at St. Paul Union Depot will register at Assistant Superintendent's office.
2. **Speed Restrictions—**
Passenger trains one (1) mile per minute.
All trains thirty (30) miles per hour over interlocked crossings. This however does not affect any previous ruling at plants where speed is limited to less than thirty (30) miles.
Fifteen (15) miles per hour through cross overs, turnouts, gauntlets and passing telegraph offices where orders are received.
Engines classes A, Q-5 and Q-6, sixty (60) miles per hour; W, W-1, W-2 and W-4, forty (40) miles per hour; W-3 and W-5, forty-five (45) miles per hour.
3. Passenger extras and light road engines may run ahead of delayed first class trains without orders.
4. Except as otherwise provided enginemen will be required only to consult register at initial or starting point.
5. Before moving a work or wrecking train, the whistle signal (14-b) or (14-h) must be sounded for the protection of men working about such trains.
6. When conditions permit, enginemen on freight trains will receive proceed signal from rear of train before passing any station.
7. When it becomes necessary to temporarily utilize a side track as main track, in addition to setting and locking switches for side track, flagman with proper flagging material must be stationed to fully protect approaching trains per rules, until movement over main track is resumed. When conductors find it necessary to leave switches set for siding, they must fully protect approaching trains until relieved by trackmen, or other employees, fully competent and equipped to do so.
8. In automatic block territory gas-electric motor cars must not be stopped on sand, and when handled in freight trains, must be behind cabooses.
9. Precautions must be taken on double track to prevent accidents from swinging doors or other loose construction attached to cars or locomotives.
10. Before occupied outfit cars are switched or handled, air brakes must be cut in.
11. Engines coupling to passenger trains, and in making coupling between passenger cars, engine or cars must be brought to a full stop not more than thirty (30) or less than twelve (12) feet from the train before making coupling.
12. In the Twin City Terminals, overhead bridges, protected by tell tales, will not clear man riding on tank of class A engines.

13. Derail switches will be set in full derail position when not in use.
14. Always observe position of switch-points after throwing switch, and see that the switch lever is pushed firmly into the notch before leaving switch.
15. At points where there are close clearances, trainmen will work on the opposite side of train from them; and, if necessary, the fireman will receive the signals and communicate them to the engineman.
16. **BULLETIN STATIONS—**
St. Paul, Assistant Superintendent's Office.
Fourth Street, Yard Office.
Mississippi Street, Round House and Yard Office.
Northtown, Round House and Yard Office.
Minneapolis, Lower Yard Office.
East Minneapolis, Yard Office.
White Bear Telegraph Office.
17. **STANDARD TIME CLOCKS—**
St. Paul, Assistant Superintendent's Office.
Mississippi Street, Round House and Yard Office.
Minneapolis, Dispatcher's Office.
Northtown, Telegraph Office.
White Bear, Telegraph Office.
18. **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., 109 Endicott Bldg.
Minneapolis, Samuel H. Lindquist, 4171 Washington Ave. North.
" W. B. Dahl, Central and Lowry Avenues N. E.
" Munns & Pomerleau, 221 East Hennepin Ave.
" Geo. H. Johantgen, 1016 West Broadway Street.
" Allen & Berg, 3rd Street & Hennepin Ave.
Stillwater, Peder Gaalaas.

RAILROAD CROSSINGS AND INTERLOCKINGS.

First Sub-Division

EAST SEVENTH STREET.

C. St. P. M. & O. Crossing—Interlocking. Operated by trainmen.

GLOSTER.

Soo Line Crossing.

Second Sub-Division

MISSISSIPPI STREET.

Junction East and West Side Lines—Interlocked.

G. N. CROSSING.

G. N. Crossing—Automatic interlocking.

ST. ANTHONY PARK JUNCTION.

Junction Lines A and B—Interlocked.

EIGHTEENTH AVENUE SOUTH EAST.

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

Third Sub-Division

FIRST STREET NORTH.

G. N. Crossing.

FIFTEENTH AVENUE NORTH.

Soo Line Junction—Interlocked.

EIGHTEENTH AVENUE NORTH EAST.

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

NORTHTOWN.

G. N. Crossing.

Fourth Sub-Division

BELT LINE CROSSING.

Belt Line Crossing—Automatic interlocking.

INSTRUCTIONS TO TRAINMEN ON OPERATIONS OF AUTOMATIC INTERLOCKING PLANTS.

Standard Interlocking Rules 601 to 605 and 661 to 671, Inclusive, Supplemented by the Following General and Special Instructions Shall Govern in the Use of Automatic Interlocking Plants.

GENERAL INSTRUCTIONS

Signals at automatic interlockings clear on the approach of trains, and a train on either line first receiving a proceed signal indication will move over the crossing regardless of class.

When a train is stopped by a home signal and no train on the opposing line is approaching the crossing, trainman will go to the crossing, unlock the Release Box and operate the hand release.

To Operate Hand Release. Turn knob to the right until it stops. Hold in this position 3 or 4 seconds, then release knob. The clockwork release will return to its normal position after the required time interval has expired, and signal for the desired route should indicate **Proceed**. If desired signal fails to indicate **Proceed**, and no smashboards are in use, trainman may signal his train over the crossing after making certain that all signals for conflicting routes are at **Stop**, and no conflicting train movement is evident.

Where smashboards are in use and are in the **Proceed** position and operation of the hand release does not clear the home signal for the route desired, trainman shall lock the **Release Box**, and signal his train to proceed over the crossing, after making certain that all signals and smashboards on conflicting routes are at **Stop** and no immediate conflicting train movement is evident.

If smashboards for the route desired are in the **Stop** position and operation of the hand release does not clear the desired signal, trainman must operate the smashboard by hand and then if the desired signal does not clear, may signal his train to proceed over the crossing, after making certain that signals and smashboards on all conflicting routes are at **Stop** and no immediate train movement is evident.

To Operate Smashboard By Hand. Crank for hand operation of smashboard is located in the release box at crossing. After opening the small door at the back of the mechanism locked with a switch lock, place crank over the shaft, turn crank slowly and uniformly to the left until the smashboard has moved to the **Proceed** position, being sure the entire stroke has been completed. Restore **Crank and Lock** all apparatus before leaving.

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 Great Northern trains and the smash board on the route desired is in the **Proceed** position.

Northern Pacific industry track is equipped with a facing point lock in addition to the standard switch stand. There is a derail on this track which is also connected to and thrown by this switch stand.

Facing Point Lock must be properly set after locking switch in normal position before main line signals will indicate **Proceed**.

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 in accordance with General Instructions, after making certain gates are set against Great Northern trains.

SPECIAL INSTRUCTIONS FOR 18th AVENUE N. E. MINNEAPOLIS AUTOMATIC INTERLOCKING.

The signals for the Great Northern tracks are color light type and for the Northern Pacific track are semaphore type equipped with smashboards.

Northern Pacific 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 **Proceed** 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**.

If after an elapse of two (2) minutes the automatic home signal does not indicate **Proceed** and no immediate 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 in accordance with the General Instructions.

SPECIAL INSTRUCTIONS FOR BELT LINE AUTOMATIC INTERLOCKING

Trains will not exceed eight (8) miles per hour approaching and passing through the home signal limits.

		LIMIT OF LOAD—MEASUREMENT											
		HEIGHT ABOVE TOP OF RAIL											
		1' 0" Wide	2' 0" Wide	3' 0" Wide	4' 0" Wide	5' 0" Wide	6' 0" Wide	7' 0" Wide	7' 6" Wide	8' 0" Wide	Max. Height	Max. Width	
1st Subdivision.	Stillwater to 3rd Street Jct., St. Paul.	16' 10"	16' 10"	16' 10"	16' 10"	16' 10"	16' 10"	16' 10"	16' 10"	16' 10"	16' 10"	11' 2"	
2nd Subdivision	3rd St. St. Paul to 19th Ave. South, Minneapolis ..	16' 5"	16' 3"	16' 1"	15' 10"	15' 7"	15' 3"	15' 0"	14' 10"	14' 8"	16' 5"	11' 0"	
2nd Subdivision	East Minneapolis to White Bear via Gloster. . .	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	11' 6"	
2nd Subdivision	19th Ave. South to 1st Street North, Minneapolis. .	16' 3"	16' 3"	16' 3"	16' 3"	16' 3"	16' 3"	16' 3"	16' 3"	16' 3"	16' 3"	11' 0"	
3rd Subdivision	1st Street North, Minneapolis to Northtown. . .	17' 8"	17' 8"	17' 8"	17' 8"	17' 8"	17' 8"	17' 8"	17' 8"	17' 8"	17' 8"	11' 6"	
4th Subdivision	M. & D. Jct. to East Mpls. Jct.	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	11' 6"	

		LIMIT OF LOAD—MEASUREMENT											
		HEIGHT ABOVE TOP OF RAIL											
		8' 6" Wide	9' 0" Wide	9' 6" Wide	10' 0" Wide	10' 2" Wide	10' 6" Wide	11' 0" Wide	11' 6" Wide	Max. Height	Max. Width		
1st Subdivision	Stillwater to 3rd Street Jct., St. Paul.	16' 10"	16' 10"	16' 6"	16' 0"	15' 9"	15' 4"	14' 6"	.....	16' 10"	11' 2"		
2nd Subdivision	3rd St. St. Paul to 19th Ave. South, Minneapolis. . .	14' 6"	14' 3"	14' 1"	13' 10"	13' 9"	13' 6"	13' 3"	.....	16' 5"	11' 0"		
2nd Subdivision	East Minneapolis to White Bear via Gloster.	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	20' 3"	11' 6"		
2nd Subdivision	19th Ave. South to 1st Street North, Minneapolis. . .	16' 3"	16' 3"	16' 3"	16' 3"	16' 3"	16' 3"	16' 3"	.....	16' 3"	11' 0"		
3rd Subdivision	1st Street North, Minneapolis to Northtown.	17' 8"	17' 8"	17' 8"	17' 8"	17' 8"	17' 8"	17' 8"	17' 8"	17' 8"	11' 6"		
4th Subdivision	M. & D. Jct. to East Mpls. Jct.	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	18' 8"	11' 6"		

W. D. PEARCE,
Assistant Superintendent.

L. J. BENNER,
Trainmaster.

H. FLANAGAN,
Trainmaster.

C. C. CORSER,
Trainmaster.

C. H. SCHUTT,
Trainmaster.

E. H. BRILEY,
Chief Dispatcher.