

GRAND TRUNK RAILWAY SYSTEM

CHICAGO DIVISION

Employees Time Table

Safety No. 74 **First**

Effective 12.01 o'clock a. m.,
Sunday, April 29, 1928.
Superseding Time Table No. 73

CENTRAL STANDARD TIME

This Time Table is for the government and information of employees only, and is not an advertisement of the time of any train.

The Company reserves the right to vary therefrom as circumstances may require.

Read Rules and Special Instructions Carefully, Important Changes Have Been Made.

For Operating Rules and General Regulations, see Book of Rules.

On single track East or Southbound Trains, as indicated by Time Table heading, are (unless otherwise specified) superior to trains of same or inferior class, running in the opposite direction, in accordance with Rule No. 72.

DESTROY FORMER TIME TABLES

C. G. BOWKER,
General Manager

W. R. DAVIDSON,
Asst. Gen. Mgr.

J. A. CLANCEY,
Supt. Transportation

D. T. CRAWFORD,
Superintendent.

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General Instructions Governing Equated Tonnage Ratings

1. The equated tonnage of any train is determined by multiplying the number of cars in the train by the car factor and adding the result to the sum of the tare and contents.

EXAMPLE: (1) 42 cars Total gross weight 2100 tons
 Car Factor 10 x 42 cars..... 420 “
 EQUATED TONS 2520 “
 (2) 84 cars Total gross weight 1680 tons
 Car Factor 10 x 84 cars..... 840 “
 EQUATED TONS 2520 “

2. The car factor is an allowance for frictional car resistance and varies on different subdivisions according to the ruling grade. The principle being that on low gradients the frictional resistance is a higher proportion of the total resistance than on steeper gradients. By use of the car factor the trainload is so adjusted that the resistance is the same for all trains of equal equated tonnage, whether composed of fully loaded, partly loaded or empty cars.

3. Established ratings will be exceeded by 1% if by so doing another car can be handled in the train.

4. No reduction in tonnage on account of weather or other conditions will be made unless authorized by Superintendent or Chief Train Dispatcher.

5. New engines or engines out of shops after receiving medium or heavy repairs will be loaded 20% light on first outward trip and 10% light on return trip. Locomotive Foreman will advise Train Dispatcher and Yardmaster in such cases.

6. Passenger engine in freight service will be allowed a further reduction of one hundred (100) tons.

7. Unless special ratings are given, a reduction of 10% from the ratings shown in tables will be allowed for certain specified manifest freight trains. Assistant General Manager of the district will designate for which trains this allowance is to be made.

8. When an engine of different capacity from those shown in the table is used, the proper equated tonnage will be arrived at by taking the rating of the engine with the closest percentage capacity, dividing this rating by its percentage capacity and multiplying the result by the percentage of capacity of the engine to be used.

EXAMPLE:—

To find the equated rating of a 38% engine:—
 Published rating of 41% engine....2500 tons
 Equated rating of 38% engine.... $2500 \times 38 = 2317$ equated
 tons

41

9. To determine proper tonnage for pusher, doubleheader or helper engines, unless special rating is given, add to equated rating of the first engine 95% of the equated rating in effect for each class of helper.

10. In making up trains, weights must be obtained by taking tare from the car and contents from the waybill. When tare weights are not available, car weights may be taken as under:—

Passenger Cars:—

4-wheeled trucks.....50 tons	Hart cars .....18 tons
6-wheeled trucks.....60 tons	Stock cars .....17 tons
Refrigerator .....40 tons	Wooden frame box....17 tons
Freight Refrigerator.....27 tons	Flat cars .....14 tons
100,000 capy. steel gons., 23 tons	Caboose or vans.....20 tons
Steel frame box cars....20 tons	

11. In computing tonnage, fully loaded cars of grain, coal, rails, ties, lumber, etc., for which scale weights are not available, will be considered as carrying car capacity plus 10%.

12. When dead engines are included in a train, four times the car factor will be added to the weight of each. Weights of engines being hauled dead are to be taken as under:—

65% to 51% engines....175 tons	30% to 21% engines..100 tons
50% to 41% engines....150 tons	20% to 15% engines.. 75 tons
40% to 31% engines....125 tons	Below 15%.....50 tons

Example: Established rating 3,000 equated tons.

Car factor 10	
50 cars Gross weight.....	2070 tons
2-53% dead engs. gross weight.....	350 tons
Car factor 10 x 58.....	580 tons
EQUATED TONNAGE	3000 tons

13. The ratings given in the rating table are for the ruling grade; excess tonnage will be handled when it is to be set out short of or picked up beyond the ruling grade.

14. When an engine is unable to handle the authorized rating, a joint message, signed by Conductor and Engineer, will be sent to the Chief Dispatcher, advising the reduction made and giving the reason for same.

15. Yardmasters and Conductors will be held responsible for their trains being loaded to full authorized rating when tonnage is available.

NOTE— The equated tonnage of any train is determined by multiplying the number of cars in the train by the car factor and adding this result to the sum of the tare and contents.

Fair Weather Equated Engine Ratings Chicago Division

WEST

D F	Dead Freight	Car Factor	60% Engine	55% Engine	52% Engine	50% Engine	41% Engine	34% Engine	28% Engine	24% Engine
M F	Manifest Freight		6300-6311	3715-3757	3405-3524	6037-6041	2664-2684 5627-5631	5600-5611 5030-5048	661-707	1548-1555
D F	FLINT SUBDIVISION.....PORT HURON.....	9	4050	3700	3400	3250	2700	2200	1800	1500
M F	to.....NICHOLS.....		3400	3100	2850	2750	2500			
D F	SOUTH BEND AND HAY- FORD SUBDIVISIONS.....NICHOLS.....	9	3850	3500	3200	3100	2500	2100	1700	1400
M F	to.....ELSDON.....		3400	3100	2850	2750	2500			

EAST

D F	Dead Freight	Car Factor	60% Engine	55% Engine	52% Engine	50% Engine	41% Engine	34% Engine	28% Engine	24% Engine
M F	Manifest Freight		6300-6311	3715-3757	3405-3524	6037-6041	2664-2684 5627-5631	5600-5611 5030-5048	661-707	1548-1555
D F	FLINT SUBDIVISION.....NICHOLS.....	12	4400	4000	3750	3600	2900	2400	2000	1500
M F	to.....PORT HURON.....		3400	3100	2850	2750	2500			
D F	SOUTH BEND AND HAY- FORD SUBDIVISIONS.....ELSDON.....	12	4400	4000	3750	3600	2900	2400	2000	1500
M F	to.....NICHOLS.....		3400	3100	2850	2750	2500			
D F	Includes assistance Sedley to Valparaiso.....SEDLEY.....	6	2400	2200	2100	2000	1650	1350	1100	950
D F	to.....VALPARAISO..... <small>Without assistance</small>		2400	2200	2100	2000	1650	1350	1100	950

TELEPHONES

A telephone connection with Train Dispatchers' Circuit is in all telegraph offices, Port Huron to Elsdon, inclusive; listening telephones are in interlocking towers at—

Tappan
Lansing (Cedar Street)
Nichols
South Bend (N.Y.C.R.R.)
Olivers (Two miles West)
M. C., also N. J. I. & I.

Fort Wayne Crossing
Griffith
Harvey
Blue Island
Also in Depot at Ashburn
and Hayford

Listening Telephones At:

Kearsley Street, North Flint
East Yard, North Flint
Torrey (Booth—crossover switch)
Mundy
Trowbridge (In Booth on South Side of tracks at crossover switches)
Lansing (Booth—East end E. B. passing track)
Lansing (Booth—West end E. B. passing track)
Lansing (Logan Street)
Charlotte (In Booth at crossover switch west of freight

house between Seminary and Lovett Streets)
Bellevue (East end passing track)
Penfield
Battle Creek (M.C. Allegan D.)
Renton
Pavilion (In Booth west end Section House)
Chamberlains
Wakelee
Crumstown
Lottaville
Maynard (In Booth adjacent to Interlocking Tower P. C. C. St. L.)
Harvey Freight Office

H. C. WHITE, Supt. Terminals, Port Huron
M. COURNEY, Supt. Terminals, Elsdon (Hayford Subdivision)

TRAINMASTERS

H. E. BAILES, Flint Subdivision J. M. SOMMERS, South Bend and Kalamazoo Subdivisions

CHIEF DISPATCHERS

B. L. TYLER, G. W. KAY, Assistant

DISPATCHERS

F. C. KILLMAR	G. H. NEAL	E. J. COLE	G. A. PECK	B. H. BUTLER
E. R. BARNEY	F. L. BEEMAN	J. R. KAY	H. V. JONES	O. D. CAMPBELL

FLINT SUBDIVISION

WESTBOUND TRAINS.

Telegraph Stations		Coal and Water	Car Capacity of Passing Tracks	Distance from Port Huron	Time Table No. 74		FIRST CLASS							
					Effective 12.01 o'clock A. M.		STATIONS							
				Sunday, April 29, 1928		5	7	33	9	17	83	15		
						The Maple Leaf Daily	The New Yorker Daily	Mall and Express Daily	Mall and Express Ex. Sunday	Montreal & Chicago Express Daily	Chicago Night Express Daily	Internat'l Limited Daily		
						A. M.	A. M.	A. M.	A. M.	P. M.	P. M.	P. M.		
DN				0.00	LEAVE									
				2.02	PORT HURON	1.10	6.00	6.15	7.00	12.20	8.00	10.30		
DN	C&W			3.2	TUNNEL YARD									
				8.88	TAPPAN	1.13	6.03	6.20	7.03	12.23	8.03	10.33		
				10.18	SUNNYSIDE									
D				13.01	COODELLS	1.25	6.16		7.18	12.35	8.18	10.45		
DN				18.06	EMMETT	1.32	6.23		7.28	12.41	8.24	10.51		
D		70	26	26.60	CAPAC	1.42	6.33		7.43	12.51	F 8.35	11.01		
DN	W	48	83	33.98	IMLAY CITY	1.50	* 6.43		7.57	* 1.00	F 8.46	11.09		
D				38.66	ATTICA	1.55	6.48		8.06	1.05	8.54	11.14		
DN	W			45.99	LAPER	2.05	s 7.02		8.20	s 1.19	s 9.08	11.23		
D				52.71	ELBA	2.14	7.12		8.30	1.28	9.17	11.31		
D				56.70	DAVISON	2.18	7.17		8.38	1.33	F 9.25	11.36		
DN	C&W	105	77	61.71	BELSAY	2.24	7.23		8.46	1.39	9.33	11.41		
				3.62										
DN	C&W	105	77	61.71	BELSAY									
	W			65.75	NORTH FLINT									
				71.99	OTTERBURN									
				73.29	MUNDY									
DN				65.33	FLINT	s 2.33	s 7.37		s 8.54	s 1.50	s 9.40	s 11.54		
				68.42	TORREY	2.38	7.44		9.05	1.57	10.00	12.01		
				72.78	MUNDY				9.13		10.05			
D				74.48	SWARTZ CREEK	2.45	7.52		s 9.22	2.05	10.13	12.09		
D				78.71	DUFFIELD	2.50	7.58		s 9.31	2.10	10.19	12.14		
DN	C&W	90	82	82.65	DURAND	s 3.00	s 8.05		s 9.40	s 2.22	s 10.25	s 12.20		
							8.15		10.10		10.50	12.30		
D				87.47	BANCROFT	3.07	8.21		s 10.19	2.29	11.00	12.41		
DN		86	93	93.75	MORRICE	3.15	8.29		s 10.29	2.37	11.09	12.49		
D				95.92	PERRY	3.18	8.32		s 10.35	2.40	11.12	12.52		
D				100.24	SHAFTSBURG	3.23	8.37		s 10.42	2.45	11.18	12.58		
D	W			106.90	HASLETT	3.31	8.45		s 10.52	2.53	11.26	1.06		
				112.43	TROWBRIDGE	3.37	8.51		s 10.59	2.59	11.33	1.12		
DN	W	108	115	115.00	LANSING	s 3.45	s 8.58		s 11.10	s 3.07	s 11.37	s 1.24		
											11.55			
D				119.74	MILLETT	3.52	9.06		s 11.21	3.15	12.05	1.33		
D				127.24	POTTERVILLE	4.02	9.16		s 11.32	3.25	12.16	1.43		
DN	W	104	133	133.53	CHARLOTTE	s 4.11	s 9.28		s 11.44	s 3.35	s 12.30	s 1.54		
D				141.60	OLIVET	4.21	* 9.39		s 11.57	3.45	12.42	2.04		
DN		61	146	146.74	BELLEVUE	4.27	* 9.45		s 12.07	3.51	12.48	2.11		
				102	PENFIELD	4.35	9.53		s 12.19	3.59	12.57	2.18		
DN	C&W			158.64	NICHOLS YARD	4.42	10.01		12.30	4.06	1.06	2.26		
DN				159.30	BATTLE CREEK	4.44	10.05		12.34	4.08	1.10	2.30		
					ARRIVE	A. M.	A. M.	A. M.	P. M.	P. M.	A. M.	A. M.		
						Daily	Daily	Daily	Ex. Sunday	Daily	Daily	Daily		
						5	7	33	9	17	83	15		

Belsay Passenger Station, flag stop for No. 9.
 No. 7 will stop at Imlay City for passengers for Chicago and West, and to let off passengers from points east of Port Huron.
 No. 7 will stop at Olivet for passengers for Chicago and West, and to let off passengers from Detroit, Port Huron and east thereof; on Sundays will be a regular flag stop.
 No. 7 will stop at Bellevue for passengers for Chicago and West and will be regular flag stop on Sundays.
 No. 17 will stop at Imlay City for passengers for Flint and points west at which train makes regular stops.

ADDITIONAL SIDINGS

PILGRIM SIDING, 2 miles west of Capac. Spur track connected at East end with Eastbound track. Capacity 15 cars.
TORREY, holds 17 cars. Connected at West end with Westbound track.
CRAPO FARM, 1 1/4 miles west of Swartz Creek. Connected at West end with Westbound track. Flag station for Nos. 9 and 10.

FLINT SUBDIVISION

EASTBOUND TRAINS.

Time Table No. 74

Effective 12.01 o'clock
A. M.

Sunday, April 29, 1928

FIRST CLASS.

Telegraph Stations	Coal and Water	Car Capacity of Passing Tracks	Distance from Chicago	STATIONS								
				16 Night Mich. and Det. Exp. Daily	6 Atlantic Express Daily	4 The Maple Leaf Daily	10 Mail & Express Ex. Sunday	38 Mail & Express Daily	8 The New Yorker Daily	14 Internat'l Limited Daily		
				LEAVE	A. M.	A. M.	P. M.	P. M.	P. M.	P. M.	P. M.	
DN			176.64	BATTLE CREEK..	2.56	4.35	1.25	2.25		5.25	10.15	
DN	CAW		177.30	NICHOLS YARD..	2.58	4.37	1.27	2.27		5.27	10.17	
			182.50	PENFIELD.....	3.05	4.45	1.34	F 2.37		5.35	10.25	
DN		105	189.20	BELLEVUE.....	3.14	4.54	1.42	S 2.49		* 5.42	10.33	
D			194.34	OLIVET.....	3.21	5.01	1.48	S 2.59		* 5.49	10.39	
DN	W		202.41	CHARLOTTE ...	S 3.35	S 5.14	S 2.00	S 3.15		S 6.03	S 10.52	
D			208.70	POTTERVILLE..	3.44	5.24	2.09	S 3.26		6.11	11.01	
D			216.20	MILLETT.....	3.54	5.33	2.18	S 3.39		6.20	11.10	
DN	W	106	220.94	LANSING.....	S 4.08	S 5.43	S 2.25	S 3.48		S 6.30	S 11.20	
			223.51	TROWBRIDGE...	4.15	5.49	2.30	S 4.07		6.35	11.25	
D	W		229.04	HASLETT.....	4.20	5.57	2.37	S 4.18		6.43	11.33	
D			235.70	SHAFTSBURG...	4.28	6.06	2.45	S 4.30		6.52	11.41	
D			240.02	PERRY.....	4.38	6.12	2.50	S 4.41		6.58	11.46	
DN		98	242.19	MORRICE.....	4.44	6.16	2.53	S 4.48		7.02	11.49	
D			248.47	BANCROFT.....	4.48	6.23	3.00	S 5.01		7.11	11.56	
DN	CAW	92	258.29	DURAND.....	S 5.05	S 6.35	S 3.10	S 5.15		S 7.20	S 12.07	
D			267.23	DUFFIELD.....	5.20	6.40	3.15	S 6.00		7.30	12.13	
D		90	261.46	SWARTZ CREEK..	5.25	6.45	3.20	S 6.09		7.35	12.13	
			262.65	MUNDY.....	5.32	6.45	3.20	S 6.18		7.40	12.19	
			262.65	MUNDY.....	4.35							
			263.65	MUNDY.....	1.39							
			264.04	OTTERBURN.....	6.15							
			270.19	NORTH FLINT...	4.04							
DN	CAW		274.23	BELSAY.....								
			267.01	TORREY.....	S 5.39	6.52	3.27	S 6.27		7.47	12.26	
DN			270.10	FLINT.....	S 5.44	S 7.05	S 3.40	S 6.33		S 8.00	S 12.40	
DN	CAW		278.72	BELSAY.....	5.55	7.14	3.49	6.42		8.09	12.49	
D			279.24	DAVISON.....	F 6.15	7.23	3.56	S 7.02		8.15	12.57	
D			283.33	ELBA.....	6.20	7.29	4.01	S 7.11		8.20	1.02	
DN	W	41	290.02	LAPEER.....	S 6.34	S 7.43	4.10	S 7.26		S 8.32	F 1.14	
D			297.28	ATTICA.....	6.46	7.55	4.19	S 7.40		8.44	1.25	
DN	W		301.96	IMLAY CITY...	S 6.54	* 8.02	4.25	S 7.52		* 8.51	1.31	
D			309.34	CAPAC.....	S 7.06	* 8.13	4.33	S 8.06		9.00	1.40	
DN			317.88	EMMETT.....	S 7.19	* 8.24	4.43	S 8.19		9.11	1.51	
D		50	322.93	GOODSELLS.....	F 7.28	* 8.32	4.49	F 8.29		9.18	1.58	
			325.76	SUNNYSIDE.....								
			332.11	TAPPAN.....	7.40	8.45	5.00	8.45		9.30	2.10	
DN	CAW		332.42	TUNNEL YARD..								
DN			333.92	PORT HURON...	7.45	8.50	5.05	8.50	9.10	9.35	2.15	
			335.94	ARRIVE	A. M.	A. M.	P. M.	P. M.	P. M.	P. M.	A. M.	
					Daily	Daily	Daily	Ex. Sunday	Daily	Daily	Daily	
					16	6	4	10	38	8	14	

FROM MT. CLEMENS
SUBDIVISION

Belsay Passenger Station, flag stop for No. 10.
No. 8 will stop at Imlay City to let off passengers from Chicago and to pick up sleeping car passengers for Suspension Bridge and east.
No. 8 will stop at Olivet for passengers for Port Huron, Detroit, and East and to let off passengers from Chicago and West; on Sundays will be a regular flag stop.
No. 8 will stop at Bellevue to let off passengers from Chicago and will be a regular flag stop Sundays only.
No. 6 stops Imlay City, Capac, Emmett and Goodells to discharge sleeping car passengers.

The train order signal at Durand is dispensed with. Train must obtain a terminal clearance from the operator on duty before leaving there, unless otherwise provided.

All Eastbound trains will approach Oak Street, Durand, prepared to stop, making diamond stop west of crossover, expecting to find track occupied and will not proceed until track is known to be clear.

Cass City Subdivision train No. 49 is due at Imlay City at 9.20 a. m. and No. 52 is due at 12.55 p. m.

SOUTH BEND SUBDIVISION

WESTBOUND TRAINS.

Time Table No. 74

Effective 12.01 o'clock
A. M.

Sunday, April 29, 1928

FIRST CLASS.

Telegraph Stations	Coal and Water	Car Capacity of Passing Tracks	Distance from Fort Huron	STATIONS							
				83 Chicago Night Express Daily	15 Internat'l Limited Daily	5 The Maple Leaf Daily	7 The New Yorker Daily	9 Mail and Express Ex. Sunday	17 Montreal & Chicago Express Daily		
				LEAVE							
DN			159.30	BATTLE CREEK	1.30	2.38	4.50	10.10	12.44	4.13	
			166.60	RENTON	1.45	2.52	5.01	10.23	F 12.57	4.25	
D		100	170.97	CLIMAX	1.52	2.58	5.06	*10.29	S 1.05	4.31	
DN		105	175.80	SCOTTS	1.57	3.04	5.11	10.34	S 1.14	4.36	
D			178.74	PAVILION	2.01	3.08	5.15	10.39	S 1.20	4.40	
			181.15	INDIAN LAKE					F 1.24		
DN	W	119	183.71	VICKSBURG	S 2.10	S 3.16	S 5.23	S 10.49	S 1.30	S 4.49	
DN			189.18	SCHOOLCRAFT	2.18	3.24	5.30	10.56	S 1.40	4.56	
			195.65	CHAMBERLAINS					F 1.50		
DN		85	200.17	MARCELLUS	2.33	3.37	F 5.42	S 11.10	S 1.59	S 5.10	
			204.48	WAKELEE	2.39	3.42	5.47	11.16	S 2.07	5.16	
D			208.69	PENN	2.45	3.47	5.52	11.21	S 2.14	5.22	
DN	W	67	213.04	CASSOPOLIS	S 2.55	S 3.57	S 6.02	S 11.31	S 2.24	S 5.32	
D			221.97	EDWARDSBURG, MICH.	3.07	4.09	6.12	11.42	S 2.38	5.42	
DN		93	225.06	GRANCER, IND.	3.12	4.13	6.16	11.46	S 2.45	5.46	
D			231.91	MISHAWAKA	3.20	4.22	6.25	11.55	S 2.57	5.55	
			234.69	STUDEBAKER	3.24	4.27	6.29	11.59	3.01	5.59	
DN			235.48	SOUTH BEND	S 3.32	S 4.31	S 6.32	S 12.03	S 3.05	S 6.03	
DN	C&W	95	236.78	OLIVERS	3.40	4.38	6.40	12.11	S 3.15	6.11	
			244.37	CRUMSTOWN	3.51	4.48	6.49	12.21	S 3.29	6.21	
			245.69	KANKAKEE PIT							
D			251.43	MILL CREEK	4.01	4.58	6.57	12.30	S 3.42	6.30	
D		105	255.77	STILLWELL	F 4.09	5.05	7.02	12.36	S 3.51	6.35	
D			261.12	KINGSBURY	4.17	5.12	7.08	12.43	S 4.01	6.42	
DN		103	264.86	WELLSBORO	4.22	5.17	7.12	12.48	S 4.09	6.47	
D			265.80	UNION MILLS	4.23	5.18	7.13	12.49	S 4.12	6.48	
DN			272.05	HASKELLS	4.32	5.26	7.20	12.58	S 4.23	6.56	
			280.14	VALPARAISO	S 4.47	S 5.45	S 7.35	S 1.11	S 4.38	S 7.08	
			283.25	Ft. Wayne Cros'g							
DN		100	285.60	SEDELY	4.56	5.54	7.44	1.21	F 4.51	7.18	
D			290.74	AINSWORTH	5.03	6.00	7.50	1.27	S 4.59	7.24	
	W		296.32	LOTTAVILLE	5.11	6.06	7.56	1.34	F 5.08	7.31	
DN		90	299.86	GRIFFITH	5.17	6.11	8.02	1.39	S 5.16	7.36	
				ARRIVE	A. M.	A. M.	A. M.	P. M.	P. M.	P. M.	
					Daily	Daily	Daily	Daily	Ex. Sunday	Daily	
					83	15	5	7	9	17	

No. 7 stops Climax for passengers for Chicago and west thereof

KALAMAZOO SUBDIVISION

WESTBOUND TRAINS - First Class.

Telegraph Station	Coal and Water	Car Cap'y Pass'g Trks	Dist. from Pavilion	STATIONS	
				305 Mixed Ex. Sunday	311 Mixed Ex. Sunday
				LEAVE	
D			0	Pavilion	5.20
			2.5	Pomerooy	F 5.30
			4.3	Kealey	F 5.35
D	C&W		11.1	Kalamazoo	6.00
				ARRIVE	A. M.

SOUTH BEND SUBDIVISION

EASTBOUND TRAINS.

Time Table No. 74 Effective 12.01 o'clock A. M. Sunday, April 29, 1928				FIRST CLASS								
Telegraph Stations	Coal and Water	Car Capacity of Passing Tracks	Distance from Chicago	STATIONS	6 Atlantic Express Daily	10 Mall & Express Ex. Sunday	4 The Maple Leaf Daily	8 The New Yorker Daily	14 Internat'l Limited Daily	16 Night Mich. & Det. Express Daily		
				LEAVE	A. M.	A. M.	A. M.	P. M.	P. M.	P. M.		
DN			36.08	..... GRIFFITH	12.54	S 9.11	10.06	1.49	6.33	11.07		
	W		39.62	..... LOTTAVILLE	12.59	F 9.18	10.11	1.54	6.38	11.12		
D			45.20	..... AINSWORTH	1.06	S 9.27	10.17	2.01	6.45	11.19		
DN		90	50.34	..... SEDLEY	1.15	S 9.37	10.24	2.09	6.53	11.27		
			52.69	..... Ft. Wayne Cros'g		F 9.41						
DN	W	75	55.80	..... VALPARAISO	S 1.30	S 9.53	S 10.37	S 2.23	S 7.08	S 11.41		
DN			63.89	..... HASKELLS	1.41	S 10.07	10.47	2.34	7.19	11.52		
D			70.14	..... UNION MILLS	1.49	S 10.17	10.54	2.41	7.26	11.59		
DN			71.08	..... WELLSBORO	1.50	S 10.20	10.55	2.42	7.27	12.01		
D			74.82	..... KINGSBURY	1.55	S 10.27	11.00	2.47	7.32	12.06		
D			80.17	..... STILLWELL	2.02	S 10.36	11.06	2.54	7.39	12.13		
D			84.51	..... MILL CREEK	2.07	S 10.44	11.11	2.59	7.44	12.18		
			90.32	..... KANKAKEE PIT								
			91.57	..... CRUMSTOWN	2.15	S 10.56	11.19	3.07	7.52	12.27		
DN	C&W	68	99.16	..... OLIVERS	2.26	S 11.08	11.29	3.20	8.03	12.38		
DN			100.46	..... SOUTH BEND	S 2.35	S 11.20	S 11.37	S 3.27	S 8.11	S 12.47		
DN			101.25	..... STUDEBAKER	2.37	11.22	11.39	3.29	8.13	12.49		
D			104.08	..... MISHAWAKA	2.41	S 11.32	11.43	3.33	8.17	12.53		
DN			110.88	..... GRANGER, IND.	2.50	S 11.42 11.55	10 11.51	3.42	8.26	1.02		
D			113.97	..... EDWARDSBURG, MICH.	2.54	S 12.02	11.55	3.46	8.30	1.06		
DN	W		122.90	..... CASSOPOLIS	S 3.08	S 12.17	S 12.07	S 4.01	S 8.45	S 1.21		
D			127.25	..... PENN	3.15	S 12.26	12.13	4.07	8.52	1.28		
			131.46	..... WAKELEE	3.20	S 12.35	12.18	4.12	8.57	1.33		
DN		100	135.77	..... MARCELLUS	3.26	S 12.46	12.23	F 4.19	F 9.04	1.39		
			140.29	..... CHAMBERLAINS		F 12.53						
DN			146.76	..... SCHOOLCRAFT	3.38	S 1.05	12.35	4.31	9.17	1.52		
DN	W	68	152.23	..... VICKSBURG	S 3.49	S 1.17	12.44	S 4.42	S 9.28	S 2.04		
			154.79	..... INDIAN LAKE		F 1.21						
D			157.20	..... PAVILION	3.56	S 1.26	12.50	4.49	9.35	2.11		
DN		105	160.14	..... SCOTTS	4.00	S 1.33	12.54	4.53	9.39	2.15		
D			164.97	..... CLIMAX	4.07	S 1.41	1.00	* 5.00	9.46	2.22		
			169.34	..... RENTON	4.12	F 1.50	1.05	5.05	9.52	2.28		
DN			176.64	..... BATTLE CREEK	4.27	2.10	1.20	5.20	10.07	2.43		
				ARRIVE	A. M.	P. M.	P. M.	P. M.	P. M.	A. M.		
					Daily 6	Ex. Sunday 10	Daily 4	Daily 8	Daily 14	Daily 16		

No. 8 stops Climax to let off passengers from Chicago.
Nos. 9 and 10 stop on flag to let off and pick up passengers at Swift's.

ADDITIONAL SIDINGS

SWIFT'S, 1 1/4 miles west of Mill Creek, lead to Ice-Houses, connected East end with Eastbound track. Capacity 15 cars.

KALAMAZOO SUBDIVISION

EASTBOUND TRAINS - First Class.

TIME TABLE NO. 74 Effective 12.01 o'clock A. M. Sunday, April 29, 1928				EASTBOUND TRAINS - First Class.								
Telegraph Station	Coal and Water	Car Cap'y Pass'g Trks	Dist. from Kalamazoo	STATIONS	304 Mixed Ex. Sunday		310 Mixed Ex. Sunday					
				LEAVE	A. M.		P. M.					
D	C&W		0.0	..... Kalamazoo	4.15		5.00					
			6.8	..... Kealey	F 4.35		F 5.25					
			8.6	..... Pomeroy	F 4.40		F 5.30					
D			11.1	..... Pavilion	4.50		5.40					
				ARRIVE	A. M.		P. M.					

HAYFORD SUBDIVISION

WESTBOUND TRAINS.

Telegraph Stations		Coal and Water	Car Capacity of Passing Tracks	Distance from Port Huron	Time Table No. 74 Effective 12.01 o'clock A. M. Sunday, April 29, 1928							
					FIRST CLASS							
STATIONS					63 Suburban Ex. Sunday	83 Chicago Night Express Daily	15 Internat'l Limited Daily	5 The Maple Leaf Daily	7 The New Yorker Daily	9 Mall and Express Ex. Sunday	17 Montreal & Chicago Express Daily	
LEAVE					A. M.	A. M.	A. M.	A. M.	P. M.	P. M.	P. M.	
DN	90	299.86	Griffith	2.11		5.17	6.11	8.02	1.39	5.16	7.36	
		301.97	C. I. & S. Crossing	2.41								
		304.88	Maynard, Ind.	2.98		5.25	6.17	8.07	1.46	5.23	7.42	
D		307.31	Oak Glen, Ill.	3.43						5.28		
DN		310.74	Thornton Jct.	2.27		5.35	6.26	8.15	1.54	5.33	7.49	
D		313.01	Harvey	0.74	5.15	5.40	6.30	8.19	* 1.58	5.38	7.53	
		313.75	West Harvey	2.69	F 5.17					F 5.40		
DN	W	316.44	Blue Island	0.50	F 5.22	5.47	6.35	8.25	2.03	5.48	7.58	
		316.94	York Street	0.45	F 5.24					F 5.50		
		317.39	Wireton	0.50	F 5.29					F 5.52		
		317.89	Lincoln Cemetery	0.50	F 5.30					F 5.53		
		318.39	Oak Hill	3.50	F 5.31					F 5.54		
		318.89	Mount Hope	0.53	F 5.32					F 5.55		
		319.42	Mt. Greenwood	1.00	F 5.34	5.54	6.40	8.30	2.08	5.57	8.03	
		320.42	Tracy Avenue	1.05	F 5.36					F 5.59		
D		321.47	Evergreen Park	0.79	8 5.41	5.59	6.44	8.33	2.11	6.03	8.06	
		323.26	Ste. Maria	0.88	F 5.43					F 6.05		
		323.14	Ashburn	1.01	F 5.45					F 6.08		
		324.15	Hayford	0.51	F 5.47	6.07	6.52	8.40	2.19	6.11	8.14	
		324.66	Marquette Park	0.98	F 5.49					F 6.12		
		325.64	Chicago Lawn	0.52	8 5.52	6.10	6.55			8 6.15		
		326.16	59th Street	0.51	8 5.54					F 6.16		
		326.67	Glendale	0.48	F 5.56					F 6.17		
DN	C&W	327.15	Elsdon	1.73	8 5.59	6.15	6.57	8.45	2.25	6.20	8.20	
		328.88	Western Avenue	0.94	8 6.03					F 6.25		
		329.82	Ashland Avenue	0.50	8 6.06				* 2.31	8 6.28		
		330.32	Racine Avenue	0.50	8 6.08					F 6.30		
		330.82	Halsted Street	0.27	8 6.10					F 6.32		
		331.09	C. & W. I. Jct.	0.25	6.12	6.26	7.11	8.56	2.36	6.33	8.32	
		331.84	47th Street	4.60	8 6.14	8 6.28	8 7.12	8 8.57	8 2.37	8 6.34	8 8.33	
DN		335.94	Chicago		6.27	6.40	7.25	9.10	2.50	6.45	8.45	
ARRIVE					A. M.	A. M.	A. M.	A. M.	P. M.	P. M.	P. M.	
					Ex. Sunday	Daily	Daily	Daily	Daily	Ex. Sunday	Daily	
					63	83	15	5	7	9	17	

No. 7 stops Ashland Avenue to let off passengers from South Bend and East thereof.

No. 7 stops Harvey to let off passengers from Battle Creek and East thereof.

Trains Nos. 63 and 64 will not run on following holidays: — New Year's Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. When any of these holidays fall on Saturday, Train No. 162 will not run. When any of these holidays fall on Sunday, the following day, Monday, will be celebrated as a holiday and Trains 63 and 64 will not run.

USE C. & W. I. TIME TABLE BETWEEN C. & W. I. JUNCTION AND CHICAGO, AND BE GOVERNED BY C. & W. I. RULES.

Trains are not required to get terminal clearance at Griffith when passing from South Bend Subdivision to Hayford Subdivision or from Hayford Subdivision to South Bend Subdivision Posen, Ill., at Western Ave. (between West Harvey and Blue Island at M. P. 20.82), will be a flag stop for train No. 9.

HAYFORD SUBDIVISION

EASTBOUND TRAINS.

Time Table No. 74 Effective 12.01 o'clock A. M. Sunday, April 29, 1928				FIRST CLASS								
Telegraph Stations	Coal and Water	Car Capacity of Passing Tracks	Distance from Chicago	STATIONS	10	4	8	64	14	16	6	162
					Mall and Express Ex. Sunday	The Maple Leaf Daily	The New Yorker Daily	Suburban Ex. Sat. and Sun.	Internat'l Limited Daily	Night Mich. and Det. Exp. Daily	Atlantic Express Daily	Suburban Sat. Only
				LEAVE	A. M.	A. M.	P. M.	P. M.	P. M.	P. M.	P. M.	P. M.
DN			0.00	Chicago	7.45	9.05	12.45	4.45	5.30	10.05	11.50	12.20
			4.60	47th Street	8 7.55	8 9.15	8 12.55	8 4.55	8 5.40	8 10.15	8 12.00	8 12.30
			4.85	C. & W. I. Jct.	7.56	9.16	12.56	4.56	5.41	10.16	12.01	12.31
			5.12	Halsted Street	F 7.58			8 4.58				F 12.33
			5.62	Racine Avenue	F 7.59			8 5.00				F 12.35
			6.12	Ashland Avenue	8 8.00	* 9.18	* 12.58	8 5.03				8 12.38
			7.06	Western Avenue	F 8.02			8 5.06				F 12.41
DN	C&W		8.79	Eldson	8 8.09	9.26	1.06	8 5.11	5.51	* 10.26	12.11	8 12.46
			9.27	Glendale	F 8.10			8 5.13				F 12.48
			9.78	59th Street	F 8.11			8 5.15				F 12.50
			10.80	Chicago Lawn	8 8.13			8 5.17				8 12.52
			11.28	Marquette Park	F 8.15			F 5.20				F 12.55
			11.79	Hayford	F 8.17	9.31	1.12	F 5.22	5.56	10.32	12.17	F 12.57
			12.80	Ashburn	F 8.20			F 5.25				F 1.00
			13.68	Ste. Maria	F 8.22			F 5.27				8 1.02
D			14.47	Evergreen Park	8 8.25	9.36	1.18	8 5.30	6.02	10.36	12.23	8 1.05
			15.52	Tracy Avenue	F 8.27			F 5.32				F 1.07
			16.52	Mt. Greenwood	8 8.30	9.39	1.21	F 5.34	6.05	10.39	12.26	8 1.09
			17.05	Mount Hope	F 8.32			F 5.36				F 1.11
			17.55	Oak Hill	F 8.33			F 5.37				F 1.12
			18.05	Lincoln Cemetery	F 8.34			F 5.39				F 1.14
			18.55	Wireton	F 8.35			F 5.41				F 1.16
			19.00	York Street	F 8.36			F 5.43				F 1.18
DN	W		19.50	Blue Island	8 8.38	9.43	102 1.25	F 5.45	6.09	* 10.44	12.30	8 1.20
			22.19	West Harvey	F 8.42			F 5.50				8 1.27
D			22.93	Harvey	8 8.46	* 9.48	* 1.30	5.55	6.14	10.49	12.35	8 1.35
DN		73	25.20	Thornton Junction	8 8.51	9.52	1.34		6.18	10.53	12.39	
D			28.63	Oak Glen, Ill.	8 8.57	9.56	1.38		6.22	10.57	12.43	
			31.56	Maynard, Ind.	F 9.03	10.00	1.42		6.26	11.01	12.47	
			33.97	C. I. & S. Crossing								
DN			36.08	Griffith	8 9.11	10.06	1.49		6.33	11.07	12.54	
				ARRIVE	A. M.	A. M.	P. M.	P. M.	P. M.	P. M.	A. M.	P. M.
					Ex. Sunday	Daily	Daily	Ex. Sat. and Sun.	Daily	Daily	Daily	Sat. Only
					10	4	8	64	14	16	6	162

No. 8 stops Ashland Avenue for passengers for South Bend and beyond.
 No. 8 stops Harvey for passengers for Battle Creek and beyond.
 No. 16 will slow up at Eldson and Blue Island to receive mail.
 No. 4 stops Ashland Ave. and Harvey for passengers for Port Huron, Detroit and East.
 Use C. & W. I. Time Table between C. & W. I. Junction and Chicago,
 and be governed by C. & W. I. Rules.

Trains are not required to get terminal clearance at Griffith when passing from South Bend Subdivision to Hayford Subdivision or from Hayford Subdivision to South Bend Subdivision

Posen, Ill., at Western Ave. (between West Harvey and Blue Island at M. P. 20.82), will be a flag stop for train No. 10.

SPECIAL INSTRUCTIONS.

Special Instructions Governing Operation of Train Staff System Between VALPARAISO and SEDLEY

- (1) A train staff system is in use between Valparaiso and Sedley.
- (2) The section operated under the train staff system extends from the double track switch at Valparaiso to the double track switch at Sedley.
- (3) The staff system consists of staff instruments in the telegraph offices at Valparaiso and Sedley which are in charge of the telegraph operators. These instruments are receptacles for short metallic bars called train staffs.
The instruments are electrically connected and it is impossible to operate one without the knowledge and cooperation of the operator in charge of the other.
When a staff has been withdrawn from one instrument, another cannot be withdrawn from either instrument until the staff previously removed has been replaced in one of the instruments.
- (4) A staff in the actual possession of an engineer is the only authority for the movement of a train in either direction.
- (5) No engine with or without cars will run in either direction between the double track switch at Valparaiso and the double track switch at Sedley unless the engineer has in his possession a staff, except as provided in Rule 15.
- (6) An eastbound train may be allowed to leave Sedley while a preceding eastbound train is at Valparaiso with a portion of the train west of double track switch.
- (7) All eastbound trains will approach Valparaiso expecting to find the main track occupied.
- (8) Trains delayed in the train staff system zone must be protected as per rule 99, Book of Rules.
- (9) If train does not stop, operator will deliver staff to engineer, using staff hoop for that purpose, and will remain in view until rear end of train has passed and will give proceed signal to trainman to indicate that staff has been delivered to the engineer. Trainman will repeat the signal or failing to get the signal from the operator will stop train and ascertain whether or not engineer has staff.
- (10) If staff is delivered to conductor, he must personally deliver it to his engineer.
- (11) An engineer must not accept a staff from any person except his conductor or the operator.
- (12) In case a train parts or it is necessary to double, the staff must be retained by the engineer until all of his train is clear of the zone controlled by the train staff system.
- (13) Under no circumstances must a staff be transferred from one train to another.
- (14) When two or more engines are coupled, the staff will be handled by the engineer of the leading engine. The engineers of other engines must know that he has the staff before proceeding.
- (15) In case of failure of the train staff system, trains will be moved on train orders and the necessary clearance cards in accordance with operating rules.
- (16) Engineers of eastbound trains must deliver staff to operator when passing telegraph office at Valparaiso.
- (17) Engineers of westbound trains must deliver staff to operator when passing telegraph office at Sedley.
- (18) Engineers must reduce speed to ten miles per hour in order that staff may be delivered safely to operator.
- (19) If operator is not out to receive staff, train must stop and engineer must deliver staff to operator and make wire report.
- (20) A helper engine pushing an eastbound train will secure pusher staff from the operator at Sedley. The pusher staff is the authority for return movement of the helper

engine to Sedley. On return to Sedley, the pusher staff must be delivered to operator by the engineer or conductor of the helper engine and secured from him in the regular manner before again entering the zone controlled by the train staff system.

- (21) When the train staff system is in operation, train registers and terminal clearance (Form B) will be discontinued at Valparaiso and Sedley.
- (22) An eastbound interlocking home signal has been located 60 feet west of west crossover switch at Sedley. Indications as follows:—
Horizontal or red light—"Stop! and Stay."
45 degrees above horizontal or yellow light—"Proceed with Caution."
- (23) Instructions are hereby given to the operator at Sedley to the effect that the "Proceed with Caution" indication must not be given to an eastbound train until staff is ready for delivery.
- (24) The normal position of double track switch at Valparaiso is for eastbound trains and at Sedley for westbound trains.

WAY FREIGHTS Flint Subdivision

- Way Freight leaves Tunnel Yard 7.20 a. m., except Sunday, for Durand.
Way Freight leaves Durand 6.45 a. m., except Sunday, for Tunnel Yard.
Way Freight leaves Durand 6.30 a. m., except Sunday, for Nichols Yard.
Way Freight leaves Nichols Yard 6.00 a. m., except Sunday, for Durand.

South Bend Subdivision

- Way Freight leaves Nichols Yard 6.00 a. m., except Sunday, for Olivers.
Way Freight leaves Olivers 6.00 a. m., except Sunday, for Nichols Yard.

South Bend and Hayford Subdivisions

- Way Freight leaves Olivers 6.30 a. m., except Sunday, for Elsdon.
Way Freight leaves Elsdon 6.00 a. m., except Sunday, for Olivers.

Operating Rules and General Regulations in book form, effective August 6, 1911, and Transportation Department Signal Rules in book form, effective January 1st, 1924, will govern the movement of trains on this time table.

No Engineer or Conductor must undertake to handle an engine, with or without cars, over any portion of this Division until he has learned the road, location and use of signals, passed an examination on Grand Trunk Operating Rules and provided himself with a copy of current time table.

Special attention is called to Rule 98 of the Operating Rules and General Regulations governing stopping at non-interlocked crossings; Michigan, Indiana and Illinois State Laws fix a severe penalty for employees who violate this requirement.

STANDARD CLOCKS INDICATING STANDARD TIME ARE LOCATED AS FOLLOWS:—

Train Dispatchers' Office,
C. & W. I. R. R.....Chicago
Telegraph Office and Round
House Elsdon
Telegraph Office..Blue Island
Telegraph Office....Valparaiso
Telegraph Office.....Olivers
Telegraph Office....Kalamazoo

Train Dispatchers' Office
..... Battle Creek
Telegraph Office and Round
House Nichols Yard
Telegraph Office and Round
HouseDurand
Telegraph Office.....Flint
Telegraph Office and Round
HouseTunnel Yard
Telegraph Office....Port Huron

SPECIAL INSTRUCTIONS.—Continued.

TRAIN REGISTERS are located at Port Huron, Tunnel Yard, Belsay, Durand, Nichols Yard, Battle Creek, Pavilion, Kalamazoo, Studebaker, Olivers, Valparaiso, Sedley, Harvey, Blue Island, Elsdon and Chicago.

ALL FIRST-CLASS TRAINS will register at Port Huron, Durand, Battle Creek, Valparaiso, Sedley (see Rule 21, Staff Instructions, page 8), and Chicago, and will deliver O. S. ticket, form 254, to the operators at Belsay, Nichols Yard, Studebaker, Olivers and Elsdon, except when necessary to check the register.

Conductors of westbound First-Class Trains will deliver O. S. ticket, form 254, to operator at Sedley, when staff system is inoperative, who will register train and file tickets.

Conductors of train not required to stop at register stations, will throw off O. S. tickets. Operators will enter all information on same in register book. Failing to find O. S. ticket, operator must not enter anything in register book except as authorized by the train dispatcher.

Operators at Belsay, Nichols Yard, Studebaker, Olivers and Elsdon will register all First-Class Trains as per O. S. ticket, form 254, delivered by conductor.

Operators at Tunnel Yard will secure arrival time of First-Class Trains or Passenger Extras from operator at Port Huron and record in train register at Tunnel Yard.

Kalamazoo Subdivision trains register at Kalamazoo and Pavilion.

ALL EXCEPT FIRST-CLASS TRAINS will register at Tunnel Yard, Durand, Nichols Yard, Studebaker, Olivers, Valparaiso, Sedley (see Rule 21, Staff Instructions, page 4), and Elsdon and will deliver O. S. ticket, form 254, to the operators at Belsay and Studebaker, except when necessary to check the register. See Rule 83, page 22, Book of Rules.

Operators at Belsay, Studebaker and Olivers will register Second- and Inferior-Class Trains in accordance with O. S. ticket, form 254, delivered by these trains.

Trains 63, 64 and 162 will register at Harvey.

A WESTBOUND INFERIOR TRAIN, not finding Train 63 at Harvey, after leaving time of that train, will proceed, protecting itself as per Rule 99, avoiding delays to that train, if overtaken.

BULLETIN BOOKS are located at Dearborn Station, Chicago; Telegraph office and Round House, Elsdon; Telegraph office, Valparaiso; Telegraph office, Olivers; Telegraph office, Kalamazoo; Dispatchers' office, Battle Creek; Telegraph office and Round House, Nichols Yard; Telegraph office and Round House, Durand; Yardmaster's office, Flint; Round House, Belsay; Telegraph office and Round House, Tunnel Yard; Telegraph office, Port Huron.

HANDLING PASSENGER CARS.—Trainmen and Yardmen must see that air brakes are in service while switching passenger equipment.

When freight trains handle passenger cars "Deadhead," such cars must be placed next ahead of caboose. When the passenger cars carry passengers, they must be placed in rear of caboose on rear of train.

HANDLING DEAD ENGINES.—Unless instructed to contrary, in moving dead locomotives in train when in transit, they must be handled with the pilot end ahead and must be placed at least five cars from the train engine. If more than one dead engine in train, they must be separated by at least five cars.

HANDLING SNOW PLOWS.—Trains when running with snow plows of any description must reduce speed when passing trains on double track. The men in charge of the plows must lift the flanger and close the wings when passing trains on double track.

Pile drivers, steam shovels, boarding cars, or other cars occupied by employees or caretakers, handled on a freight train, must be placed five cars ahead of the caboose, when train is handling as many as five cars other than those referred to and machines must be handled ahead of boarding cars.

HANDLING WRECKING CRANES. — Speed of trains handling wrecking cranes not to exceed thirty miles per hour

between Port Huron and Chicago; twenty-five miles per hour over all other parts of the line; ten miles per hour when in or leaving sidings, and a slower rate of speed when in the judgment of the train and engine crew a slower rate of speed is necessary.

SWITCH RUNS must have air coupled and air brakes in service when making runs between yards.

No car or dead engine must be placed on or foul of a passing track without protection, or permission from Superintendent or Train Master.

AUTOMATIC BLOCK SIGNALS ARE IN OPERATION AS FOLLOWS:—

Between Granger and Studebaker, between Olivers and Valparaiso, between Sedley and C. & W. I. Junction, between Swartz Creek and Belsay.

NICHOLS.—One signal governing westbound train movement located 3000 feet east of east switches at Nichols Yard Signal governs to sign "End of Automatic Block West Bound," sign located 150 feet west of east switch to Nichols Yard.

SPEED RESTRICTIONS

No light engine shall run any one mile in less than two (2) minutes, or freight train shall run any one mile in less than one (1) minute and thirty (30) seconds.

Eastbound trains, when using westbound track from Renton to Battle Creek, will not exceed 25 miles per hour around the curves, account no elevation on curves.

When switch locomotives or locomotives from which engine trucks, pony trucks or side rods have been removed, are being hauled in a train, or engines under steam running tender first not equipped with pilot or leading trucks, the speed of the train must not exceed fifteen (15) miles per hour at any point.

When engines are required to use track in opposite direction to current of traffic, a whistle must be sounded at frequent intervals as a warning to employees and others on or about to cross track, except at places where it would be unlawful to sound whistle; at such places speed must be reduced so that train may be stopped within distance engineer can see that track is clear.

Between Port Huron and Chicago the following speeds must not be exceeded:—

Passenger trains, sixty miles per hour
Freight trains, forty miles per hour
Light engines, thirty miles per hour

Over bridges at Chicago —

Wallace St.	Lafin St.	Lincoln St.
Union St.	Justine St.	Winchester St.
Halsted St.	Ashland Ave.	Robey St.
Morgan St.	Marshfield St.	Seeley St.
Aberdeen St.	Paulina St.	Hoyne Ave.
Racine Ave.	Hermitage Ave.	Leavitt St.
Throop St.	Wood St.	Western Ave.
Loomis St.	Honore St.	

Engine Numbers	Miles per Hour	Engine Numbers	Miles per Hour
7474 - 7498	} 10	7522 - 7526.....	20
7519 - 7521		3405 - 3414	} 21
8222 - 8226		3430 - 3454	
6300 - 6311.....	15	3515 - 3524	} 22
6037 - 6041.....	17	8300 - 8329.....	
3715 - 3757.....	17	5030 - 5048	} 23
5627 - 5631.....	19	5604 - 5611	

Between Pavilion and Kalamazoo an engine, with or without cars, running pilot first and on straight track, must not exceed thirty miles an hour; approaching and rounding curves, fifteen miles an hour. Engines, running tender first and on straight track, must not exceed twenty miles an hour; approaching and rounding curves, ten miles an hour.

When clear signals are shown where one railway crosses

SPECIAL INSTRUCTIONS—Continued

another at grade, the speed of passenger trains must be restricted to thirty miles per hour and freight trains to twenty miles per hour until the entire train has passed the crossing, regardless of whether the crossing is interlocked or non-interlocked. These instructions supersede the third paragraph of Rule 98 in our Book of Operating Rules and General Regulations.

Conductors and engineers must not permit trains to be run at an excessive rate of speed descending grades, around sharp curves, or through junction stations and large yards.

PORT HURON.—All trains and engines will approach 32d Street, Port Huron, under control and be governed by hand signals from switch tender when passing through crossovers at that point.

BATTLE CREEK STATION.—All trains and yard engines must approach crossovers west of Main Street and east of Beach Street under control, prepared to stop if switches are not properly set or if track is occupied.

NICHOLS AND ELSDON.—Conditions are such that switch engines and freight trains frequently cross or occupy the main track. All engines with or without cars must approach and pass through these Yards with train under control, prepared to stop within the distance in which main track is known to be clear. This will in no way excuse those in charge of switch engines or trains from protecting against other trains in accordance with Rules.

YARD LIMITS

Engines with or without cars will move within yard limits as per Rules 91, 93, 99, D151 and D152, Book of Rules.

By night in foggy or stormy weather, proper lights must be displayed on all cars or engines obstructing main tracks in yard limits.

Yard Limit Boards are Located as Follows

ELSDON.—C. W. I. Junction and 1,000 feet east of Belt Railway Crossing at Hayford.

BLUE ISLAND.—7,305 feet west and 8,100 feet east of I. H. B. Crossing.

HARVEY.—1,000 feet west and 7,000 feet east of Passenger Station.

VALPARAISO.—2,900 feet west and 6,600 feet east of Passenger Station.

SOUTH BEND DISTRICT.—4,450 feet west of Coal Dock at Olivers and Studebaker Telegraph Office. Yard engines must protect themselves around the curve between N. Y. C. Crossing and Chapin Street.

KALAMAZOO.—2,000 feet east of Michigan Railway Overhead Bridge.

BATTLE CREEK DISTRICT (West).—5,280 feet west of Kendall Creek Crossing.

BATTLE CREEK DISTRICT (East).—14,000 feet east of Michigan Central Crossing near Marshall Street.

LANSING.—6,000 feet west of Logan Street and 10,694 feet east of Lansing Passenger Station.

DURAND.—5,500 feet west and 7,300 feet east of Passenger Station.

FLINT.—21,700 feet west of abandoned Passenger Station (North Flint), 5900 feet west of South Saginaw Street, Flint (Double track main line), and 10,560 feet east of Belsay Telegraph Office.

PORT HURON.—5,280 feet west of P. M. Crossing at Tappan and Court Street and junction with P. M.

DOUBLE TRACK

Between C. & W. I. Junction and Sedley.

Between Valparaiso and Olivers.

Between Studebaker and Battle Creek.

Between Battle Creek and Port Huron.

SINGLE TRACK

BETWEEN SEDLEY AND VALPARAISO.—(Be governed by Train Staff System Instructions, page 8.)

BETWEEN OLIVERS AND STUDEBAKER.—(Be governed by Train Orders.)

The switch at the end of double track at Studebaker is located just East of Eddy Street; telegraph office on south side of main lines at same location. Westbound trains will give proper whistle signal (Rule 14, page 16, Book of Rules) but must have train under control, prepared to stop before enter-

ing crossover, providing automatic signals governing the movement are in proceed position. Normal position of crossover switches will be for eastbound movements. Automatic signal on single track located 1515 feet west of end of double track will be clear when switch is in position for eastbound movement; automatic signal located 100 feet east of crossover at Eddy Street and north of main lines will be at caution when switch is lined for westbound movements. Both crossover switches are hand thrown, and will be handled by operator on duty. All trains will not exceed six (6) miles per hour through crossover.

JOINT TRACK

C. & W. I. JUNCTION and OHIO.—Conductors and Engineers of this Company, before running on the tracks of the C. & W. I. R. R., must provide themselves with a copy of its Current Time Table and Book of Rules, and be governed accordingly.

MORGAN STREET AND C. & W. I. JUNCTION, OHIO.—Santa Fe and Erie engines, with or without cars, use Grand Trunk Main Tracks between C. & W. I. Junction and Crossover at Morgan Street, which is one-half mile east of C. & W. I. Junction. Engines, with or without cars, must approach Crossover at Morgan Street under control. This will in no way excuse men using Crossover from failure to protect according to Rules.

HALL STREET, BATTLE CREEK.—Michigan Central trains and engines of their Battle Creek Division operate over the main tracks on Hall Street, between their connection just west of Main Street and their connection just east of Beach Street, under the following regulations:—

The Signals and Switches in connection with these movements are interlocked and operated from the Towers at Main Street and the M. C. Main Line Crossing west of Nichols Yard.

M. C. trains in both directions will use the G. T. Westbound Main Line between M. C. Connections at Beach Street and Crossover just east of Main Street.

M. C. Westbound trains will stop at the Electric Signal located on M. C. Wye connection. Conductors will push the button to ring up the Lever Man at East Main Street. The Lever Man will set the Crossover and M. C. Switch at Main Street for the M. C. train and then will notify the Lever Man at Main Line Crossing to clear the electric signal on M. C. Wye and set junction switch for M. C. train to proceed. When M. C. train arrives at Main Street Crossover, it must not proceed onto G. T. Eastbound track until the right-hand lower blade on bracket signal, 320 feet east of Main Street, has been set at proceed.

M. C. Eastbound trains will be governed by the Home Signal, located 200 feet west of Main Street Crossing, which signal, when lowered, will give M. C. trains the right to proceed to M. C. Wye connection at Beach Street.

The foregoing movements will be protected against Grand Trunk trains by the interlocking signals at Main Street and at M. C. Main Line Crossing. As there are no derails at Main Street, Grand Trunk train employees must have Eastbound trains under control, approaching Hall Street, prepared to stop if signals are set at danger.

Dwarf Signals located between Beach Street and M. C. Wye Crossing protect M. C. trains crossing station sidings 1 and 2, and Grand Trunk Eastbound trains using station sidings must not go east of Beach Street unless these signals show clear.

The position of the signals at night will be indicated by lights—green, clear—red, danger.

In addition to protecting Michigan Central movements the semaphore and dwarf signals, at Main Street, also protect Michigan Railway Co. (Electric) Crossing.

On the station sidings the two dwarf signals west of Main Street govern Eastbound movements; the dwarf signal east of Main Street governs Westbound movements.

On Westbound Main Line the blade on bracket of semaphore signal east of Main Street governs Westbound movements, and the dwarf signal west of Main Street governs Eastbound or back-up movements.

On the Eastbound Main Line the semaphore signal west of Main Street governs Eastbound movements, and the top blade on semaphore signal east of Main Street governs Westbound or back-up movements.

SPECIAL INSTRUCTIONS.—Continued

RAILROAD CROSSINGS, JUNCTIONS AND DRAW BRIDGES

Flint Subdivision

- FORT GRATIOT.**—(Old main line)—**POPLAR STREET.**—Pere Marquette (Port Huron and Northwestern Division)—Crossing—Not Interlocked; no derails; governed by Target. Lower Blade depressed allows Grand Trunk trains to cross.
- PORT HURON—BLACK RIVER BRIDGE.**—Governed by Semaphore. Semaphore arm standing horizontal indicates "STOP." When in this position at night a red light is displayed, and a red light displayed in center on top of bridge indicates that bridge is open.
- Semaphore arm 90 degrees from horizontal indicates "PROCEED." When in this position at night a green light is displayed, and a green light displayed in center on top of bridge indicates bridge is closed. In addition to these signals, Engineers must observe that the bridge is in proper position. Trains will not exceed six (6) miles per hour over this bridge.
- PORT HURON.**—16th Street; Interlocked. Junction with Pere Marquette.
- TAPPAN.**—Pere Marquette crossing; Interlocked. All engines and trains shall approach the signals under control, and when the same are found clear may pass the crossings at a rate of speed not to exceed twenty-five miles per hour trains.
- for passenger trains and fifteen miles per hour for freight Junction with Mt. Clemens Subdivision; Interlocked.
- IMLAY CITY.**—Junction with Cass City Subdivision.
- LAPEER.**—Michigan Central (Bay City Division) crossing; Interlocked.
- FLINT.**—Detroit United Railway (Electric) crossing; Interlocked.
- FLINT (1.38 miles east of).**—Flint Belt Railway Crossing; Interlocked.
- NORTH FLINT (2 miles east of).**—Flint Belt Railway Crossing; Interlocked.
- NORTH FLINT.**—Crapo St., D. U. R. (Electric), Crossing Interlocked. Saginaw St., D. U. R. Electric, Crossing governed by Semaphores interlocked; derails on Electric line only. Pere Marquette (Toledo Division Crossing). Governed by color light signals; red—stop; green—proceed.
- DURAND.**—Ann Arbor Ry. crossing governed by gates, not interlocked; no derails.
- Grand Haven Subdivision crossing governed by gate; not interlocked; no derails.
- Saginaw Subdivision crossing Port Huron Wye governed by gate, not interlocked; no derails.
- TROWBRIDGE.**—Pere Marquette (Grand Rapids Division) crossing; Interlocked.
- LANSING.**—Michigan Central (Saginaw Division) crossing, Interlocked. New York Central Lines (Lansing Division) crossing; Interlocked.
- LANSING.**—Washington Street, M. U. T. Co. (Electric) crossing, governed by semaphores, interlocked; derails on electric line only.
- CHARLOTTE.**—Michigan Central Railroad (Grand Rapids Division) crossing; Interlocked.

South Bend Subdivision

- NICHOLS YARD (¼ mile west).**—Michigan Central (Main Line) crossing; Interlocked.
- BATTLE CREEK.**—Hall Street, Michigan Central (Battle Creek Division) Crossing and Junction, semaphores and switches interlocked; no derails. (See special instructions, page 10.)
- BATTLE CREEK.**—Main Street, Michigan Railway Co. (Electric), crossing; semaphores interlocked. Derails on electric line only.
- M. C. R. R. (Allegan Division) crossing, 1 mile west of Passenger Station; governed by distant and home signals, electrically operated on G. T. only; electrically locked derails on M. C. R. R. only.
- Stop Boards have been located East and West of Michigan Railway Co. (Electric) crossing on Rumely Co. lead.

- PAVILION.**—Junction with Kalamazoo Subdivision.
- VICKSBURG.**—Penna. Lines (Michigan Division) crossing; governed by gates; not interlocked; no derails.
- SCHOOLCRAFT.**—New York Central Lines (Grand Rapids Division) crossing; Interlocked.
- CASSOPOLIS.**—Michigan Central (Air Line Division) crossing; Interlocked.
- GRANGER.**—Cleveland, Cincinnati, Chicago and St. Louis (Mich. Division) crossing; Interlocked.
- MISHAWAKA.**—Junction with New York Central Lines (Western Division).
- SOUTH BEND.**—New York Central Lines (Western Division); Interlocked.
- OLIVERS.**—N. Y. C. Crossing; not interlocked; no derails; governed by semaphore signals located just south of G. T. R. tracks near diamond crossing.
- OLIVERS (2 miles west of).**—M. C. R. R. (Benton Harbor and St. Joseph Division) crossing; Interlocked.
- New Jersey, Indiana & Illinois crossing; Interlocked.
- STILLWELL.**—N. Y. C. & St. L. R. R. (Indianapolis Division) crossing; Interlocked.
- WELLSBORO.**—Baltimore & Ohio (Chicago Division) crossing; Interlocked.
- Pere Marquette (LaCrosse Division) crossing; Interlocked.
- HASKELLS.**—Chicago, Indianapolis & Louisville (Michigan City Division) Crossing; Interlocked.
- VALPARAISO (Just east of passenger station).**—(Electric) Railway crossing; not interlocked; no derails.
- FORT WAYNE CROSSING.**—Pittsburgh, Fort Wayne & Chicago (Main Line) crossing; Interlocked.
- New York, Chicago & St. Louis (Main Line) crossing; Interlocked.
- LOTTAVILLE (1000 feet west of passenger station).**—Gary & Southern Railway (Electric) crossing; governed by gate. Normal position against G. & S. Ry. Not Interlocked; no derails. Trains will approach crossing prepared to stop, and will not proceed until gate is properly set and crossing seen to be clear. Speed over crossing must not exceed twelve miles per hour.

Kalamazoo Subdivision

- KALAMAZOO.**—New York Central Lines (Grand Rapids Division) Crossing, 1,650 feet east of passenger station; not interlocked; no derails; governed by target; vertical position allows Grand Trunk trains to proceed.
- Junction with Chicago, Kalamazoo & Southern, at Pavilion Jet. (just east of Lake Street); joint track from this point to crossover at Mills Street (first street west of Round House). Road trains to be under control when approaching and passing over joint track, expecting to find in use by G. T. and C. K. & S. switch engines.
- Michigan Central (Main Line) west of passenger station; crossing; interlocked.

Hayford Subdivision

- GRIFFITH.**—Erie Railroad (Chicago Division) crossing; Interlocked.
- Elgin, Joliet & Eastern Main Line and South Chicago Division, crossing; Interlocked.
- Michigan Central (Joliet Division) crossing; Interlocked.
- C. I. & S. CROSSING.**—Chicago, Indiana & Southern crossing; Interlocked.
- MAYNARD.**—P. C. C. & St. L. R. R. (Logansport Division); Interlocked.
- MAYNARD (¼ mile west of).**—Chicago, Indianapolis & Louisville (Chicago & Lafayette Division) crossing; Interlocked.
- THORNTON JUNCTION.**—C. & E. I. (Chicago Division) crossing; Interlocked.
- HARVEY.**—B. & O. C. T. R. R. crossing; Interlocked.
- BLUE ISLAND (¼ mile west).**—B. & O. C. T. R. R. Crossing; Interlocked.
- ASHBURN.**—Wabash (Chicago & St. Louis Division) Crossing; not interlocked; no derails; governed by gates.
- HAYFORD.**—Belt Railway of Chicago Crossing; not interlocked; no derails; governed by gate.

SPECIAL INSTRUCTIONS.—Continued

WARNING

Enginemen, Trainmen and Yardmen are warned not to ride on top or side of engines or cars passing through any tunnel, subway or under any overhead bridge protected by tell tales, or where it is known such structure will not clear a man on top of car; they are also warned not to ride on side of engine or car passing high switch stands, water columns, stock chutes or other obstructions known to be closer than 6 feet to nearest rail, and when approaching or passing over any through truss bridge.

On double track a flagman sent out in advance must not be recalled but picked up.

PORT HURON

TAPPAN AND PORT HURON.—Light engines may run between Tappan and Port Huron without orders, in accordance with double track instructions, keeping off the time of all regular trains, and protecting themselves as per Rule 99. Look out for Mt. Clemens Subdivision trains.

Trains running between Tappan and Port Huron must approach the crossover switches at Tappan and at the west end of the passenger yard, Port Huron (24th Street), under control and be prepared to stop unless switches are properly set.

All engines, with or without cars, in either direction between Tappan and Port Huron must move with train under control prepared to stop within the distance in which main track is known to be clear. This will not relieve train- or enginemen from protecting their train as per Rule 99.

All train and engine movements over Tenth Street Crossing, which is just East of Sixteenth Street Interlocking Tower, must not exceed a speed of ten miles per hour westbound. Eastbound movements, engines or cars, must not cross this crossing until after making stop not more than fifty (50) feet nor less than thirty (30) feet from the crossing.

PORT HURON AND FORT GRATIOT.—Approaching P. M. Passenger Station (at foot of Court St.), from the west, engineers must sound whistle before reaching the curve, and have their trains under control on the grade and lower curve.

Westbound trains must approach Thomas Street Intersection cautiously, prepared to stop if necessary before passing to the joint track.

Track between Court Street Passenger Station and Glenwood Avenue will be known as Yard Track, and must be respected as such. The Yard limits extend from Fort Gratiot to a point 600 feet west of Pt. Huron Sulphite and Paper Co. switch.

A semaphore is located at the west end of the Pere Marquette Yard at Port Huron, for the government of Pere Marquette and Grand Trunk trains. When a semaphore arm is perpendicular, allows Grand Trunk trains to pass in or out of the west end of yard. When horizontal, allows Pere Marquette trains to pass. Diagonal, stops all trains.

On either side of overhead bridges on this division that will not clear a man on top of a box car, tell tales or warning signals consisting of pieces of rope suspended from a wire have been located; the idea being to have the ropes strike a man whose duty requires him to be on top of cars in sufficient time to enable him to sit down on car before coming to and while passing under the overhead bridge, thereby avoiding injury by reason of striking the bridge.

GENERAL

Some Trainmen have tied ropes together and thrown them up over wires so that the rope would clear a man on top of a car, thereby exposing other employees to imminent danger. In future employees guilty of removing or intentionally displacing these ropes, except to repair or renew same, will be dismissed from the service of this Company. Conductors will be expected to promptly report such cases by wire, also notify the Superintendent or Trainmaster by wire where tell tales or warning signals are required, or where they are not in proper place.

The unauthorized use of motor cars, velocipedes, hand and push cars is forbidden.

When operated where there is more than one main track should be run in the direction of traffic; at the same time a careful watch must be kept at all times for approaching diverted trains. When used on a single track, trains may be expected from either direction.

The danger indication on all lamps on derails, with exception of derails at Interlocking plants, was changed from red to purple on August 31, 1922.

When rules require the headlight to be displayed, electric headlights on engines will be dimmed:—

- (a) In yards where switch engines are employed.
- (b) At meeting points.
- (c) Approaching stations at which stops are to be made, or where trains are receiving or discharging passengers.
- (d) When standing.
- (e) On two or more tracks when approaching trains running in the opposite direction.

Note.—Trains brought to a stop behind a preceding train must leave headlight dimmed until train ahead is in motion, trainmen safely on caboose and signals have been exchanged.

In observing each of the above requirements in connection with the dimming of headlights when passing over a highway at a grade, the full candle power of light must be used a safe distance from and until the engine has passed the highway.

Locomotive whistle signals for highway crossings must begin when engine is opposite whistle sign and be continued until crossing is reached.

Standard Signal of two long and two short blasts must be given.

Trains moving at slow speed must sound whistle as often as necessary in order that whistle be sounded while running entire distance between whistle sign and road crossing.

Employees must observe all passing trains and note whether they are complete and in order. Should there be any indication of conditions endangering the train, or any other train, they must take such measures for the protection of trains as may be practicable. Trainmen must look for and exchange signals with trainmen on passing trains, operators, signalmen, trackmen, bridgemen, and other employees as they pass.

The following code of signals to be used:—

HOT JOURNALS.—By day: Hold nose with first finger and thumb of right hand and point down toward track with left hand. By night: Swing lamp in small vertical circle, lamp to be held in hand by the guard wires around the globe.

CONNECTION DRAGGING.—By day or night. Stop signal to be given.

CAR DOOR SWINGING OR ABOUT TO FALL OFF.—By day: Raise and lower right hand full length of body slowly. By night: Same signal with hand lamp. In addition, give stop signal.

BRAKES STICKING.—By day: Shove hand in sliding movement out from body. By night: Same signal to be given with lamp in hand.

ALL CLEAR.—By day: Raise hand and hold it stationary. By night: Quick Sharp "All Right" signal.

FIGHTING FIRES

An organization of Yard Employees has been inaugurated at each terminal for the extinguishing of fires, using yard locomotives equipped with fire extinguishing apparatus.

General alarm for calling locomotives or other assistance will consist of a succession of short blasts on the whistle, to be followed by number of whistles showing location of fire, the alarm from switchers to be repeated until operator is sure same has been properly heard.

Enginemen and trainmen, upon an alarm of fire, will at once prepare to cut loose from train on which they are working, first clearing the main and ladder tracks and crossover switches and proceed promptly to point of fire.

Yardmasters, Assistant Yardmasters, Train Dispatchers, Levermen and Switch Tenders must see that all locomotives are promptly relieved of the work in which engaged and given the right-of-way over all running tracks and switches in order that they may reach the fire with the least possible delay.

All yard employees are required to familiarize themselves with the working of fire apparatus, code of fire signals, limits of each district, and to unite for the protection of company property.

The direction of fire operations will be in charge of Conductor of crew having fire apparatus; at fire where either the Supervisor of Fire Protection or Chief of Fire Brigade is present, fire operations will be under their general direction.

SPECIAL INSTRUCTIONS.—Continued

AIR BRAKE AND AIR SIGNAL RULES

GENERAL NOTICE.—The following rules are issued for the government of all employees whose duties bring them in contact with the operation of the Air Brake and Air Train Signal. If in the judgment of anyone whose duty it is to enforce a rule, such rule cannot be or ought not to be enforced, he must at once bring it to the attention of those in authority. It is also expected that prompt report will be made of any difficulty experienced in controlling trains.

Rule No. 1

Enginemen, trainmen, inspectors and Air Brake repair men must be thoroughly conversant with the operation and care of the Air Brake and Air Train Signal.

Rule No. 2

RESPONSIBILITY.—The Conductor and Engineer are both responsible for seeing that the brake is in perfect working order, and properly connected throughout the entire train, before starting from terminal stations and points at which it has been disconnected.

Rule No. 3

PIPES UNDER LOCOMOTIVE TENDER.—The brake pipe and Air Signal pipe, under locomotive tender, must always be blown out thoroughly just before the air hose are coupled. The inspectors or trainmen making couplings must do this.

Rule No. 4

TERMINAL TEST.—When an engine has been coupled to a train at the initial point of its run (and after taking slack of same) a terminal test of brakes must be made. Test to consist of a car to car examination to note that brake can be applied and released from locomotive, adjust piston travel, stop leakage, and do any other brake work possible to put train in a serviceable condition.

Rule No. 5

BLEEDING OFF BRAKES.—Bleeding off brakes while road engine is coupled to train is prohibited, except when a brake cannot be released from engine and cause cannot be remedied; it must then be cut out by closing cut-out cock in cross-over pipe, and auxiliary reservoir bled; release valve attached to auxiliary reservoir on passenger cars must be left open and remaining brakes in train again tested as per Rule No. 8. Before starting trains, trainmen must see that all brakes are released and brake-shoes clear of the wheels.

Rule No. 6

RUNNING TESTS.—Engineers on passenger trains, after leaving a terminal or any point where the make-up of their train has been changed, must as soon after starting as the speed of train will permit and without closing the engine throttle, apply the brakes sufficiently to know that they are in good working order, and noting that the length of the train line exhaust is in keeping with the length of the train.

This must also be done with all trains at a safe distance before commencing the descent of steep grades, approaching railway crossings at grade, junctions, draw-bridges, and points where trains are to be met or passed, in fact, at all places where failure of the brakes would be attended with accident.

Rule No. 7

CONDUCTOR MUST STOP TRAIN.—If Engineer fails to observe Rule No. 6, Conductor must stop train by opening conductors' valve and ascertain cause of such failure. A report must be made of all such cases.

Rule No. 8

ROAD TEST.—When train, for any reason, is parted between air cars, or air hose has burst, after all couplings have again been united, brakes must be applied and released from Engineer's brake valve, and trainmen must see that brake on car immediately behind the point of separation, and on last two cars, operates properly. If a car is taken into a passenger train, the signal to apply brakes must be given from the air signal on that car, but signal to release brakes must be given from air signal on rear car in train. In every case of testing air brakes on passenger trains the signals to apply and release brakes must be given from train signal.

Rule No. 9

BACK-UP MOVEMENT OF PASSENGER TRAINS.—A tail hose to govern the operation of the air brake must be used on the rear of each passenger train. Before train

is allowed to move, a test must be made to insure that brakes can be applied with this device. During back-up movement engineer's brake valve must be kept in running position. Conductors will be held responsible for back-up movement. Engineers must be on the alert and apply the automatic brakes if necessary to insure safety.

Rule No. 10

AIR-GAUGES.—Conductors must consult air-gauge in caboose frequently and Engineers must likewise consult Engine air-gauge to be sure that full pressures are being maintained at all times.

Rule No. 11

CUTTING OUT BRAKES.—Brakes must be cut out when any portion of the rigging has failed, where with proper handling, continual sticking occurs, or where there is a leak at triple valve exhaust, or at pressure-retaining valve, which cannot be stopped, but they must not be cut out unnecessarily. More than two consecutive brakes must not be cut out, and none on the car next to Engine, which must always have a quick action triple valve in good working order.

Rule No. 12

NOTIFY ENGINEER.—Engineer must be notified at once when it is necessary to cut out any brake in his train.

Rule No. 13

DEFECTIVE BRAKE PIPE ON PASSENGER CAR.—Should the brake pipe on a passenger car be defective, so that it cannot be used in a train, the car must not be sent out of any terminal point on a passenger train without authority from the Trainmaster or Superintendent, and, when such is given, the car must be placed on rear end of the train and its hose coupled to the car head, and all train pipe angle cocks opened, except the one on head end of car with defective pipe. To guard against running back in case it uncouples on a grade, a Brakeman must ride in this car and be prepared to use hand-brakes, which must previously be known to be in good condition.

Should the air-brake and the hand-brake both be defective, and it is necessary to haul the car, it must be placed second from the rear, and the hand-brake on the last car known to be in good condition. The car must be set out at the first opportunity.

Rule No. 14

DEFECTIVE ENGINEERS' BRAKE VALVE.—Engineers must not attempt to handle an air-brake train down any grade if Engineer's valve is defective in service or lap position, or if air pump is unable to keep the train line (brake-pipe) properly supplied with air.

Rule No. 15

CALLING FOR BRAKES.—A call for brakes from an Engine when running, must be promptly responded to by each trainman opening a Conductor's valve and then applying hand-brakes. Conductor's valve must not be closed until train stops. Under no other circumstances must hand-brakes be applied on cars upon which the air-brake is being used.

Rule No. 16

STANDING ON GRADES.—When necessary for a train with an engine to stand on a grade for over five minutes, air-brakes must be released and train held by hand brakes. If cars are to be detached from a train or engine, the air-brakes must be released and hand-brakes immediately applied before they are detached, and held applied until signal is received from engine to release same.

Rule No. 17

When cars upon which the air-brake is working are set out at any point, the auxiliary reservoirs must be bled before hand-brake is applied to secure cars in siding.

Rule No. 18

DOUBLE HEADING OF LOCOMOTIVES.—When two or more engines are coupled in the same train, the air hose must be united and the brakes tested and operated from the head engine. For this purpose a cut-out cock in the brake pipe just below the brake valve on all engines, except the leading engine, must be closed, air pumps kept running, brake valve handles in running position, and the maximum air pressures maintained. This procedure must also be followed when handling dead engine in train, but in this case the pump, of course, cannot be run.

SPECIAL INSTRUCTIONS.—Continued

Rule No. 19

EMERGENCY APPLICATION OF BRAKES. — Brakes must not be applied quickly only when necessary to avoid accident, and in such cases engine must not be reversed if driver brake is operating. Brake valve handle must be placed in emergency position, and left there until the train has stopped or the cause removed. On freight trains the brakes must not be released until after the train has stopped.

Rule No. 20

USE OF SAND.—Sand must always be used in emergency. When sand is once started it must be allowed to continue running until stop is completed.

Rule No. 21

PARTING AIR HOSE. — Air hose must not be pulled apart forcibly; instead, they must be separated by hand.

Rule No. 22

Conductors on freight trains must attach an air brake

defect card to the cross-over pipe of every car which has a defective brake and which is not already so carded.

Note A.—Remember a loaded train cannot be stopped in the same distance as an empty train—all other conditions being the same.

Note B.—On level track all the braking power is available for stopping, while on descending grades a portion must be utilized to prevent increase in speed; therefore, the necessity for having trains under control from the start.

Note C.—Keep in mind also that on level track a train running twenty miles per hour will require Four times the Distance to Stop as compared with a train running ten miles per hour, and a thirty-mile-per-hour train will require Nine times the Distance to Stop, as compared with a ten-mile-per-hour train.

Should anyone using this Time Table have any doubts as to its meaning, it is his duty to apply to the Superintendent or Trainmaster for the proper explanation.

HOURS OF SERVICE FOR TRAIN ORDER OFFICES

Telegraph Offices (D), other than twenty-four-hour offices (D-N), will be open as follows:—

Goodells.....	6.30 a. m. to 3.30 p. m. daily except Sunday
Emmett.....	7.00 a. m. to 7.00 a. m. daily except from 11.00 p. m. Saturday to 7.00 a. m. and 3.00 p. m. to 11.00 p. m. Sunday.
Capac.....	7.00 a. m. to 4.00 p. m. daily except Sunday
Attica.....	7.25 a. m. to 4.25 p. m. daily except Sunday
Elba.....	7.45 a. m. to 4.45 p. m. daily except Sunday
Davison.....	6.00 a. m. to 10.00 p. m. daily except Sunday
Swartz Creek.....	7.00 a. m. to 4.00 p. m. daily except Sunday
Duffield.....	8.55 a. m. to 5.55 p. m. daily except Sunday
Bancroft.....	6.00 a. m. to 3.00 p. m. daily except Sunday
Morrice.....	7.00 a. m. to 7.00 a. m. daily except from 7.00 a. m. Sunday to 7.00 a. m. Monday
Perry.....	7.00 a. m. to 4.00 p. m. daily except Sunday
Shaftsbury.....	8.30 a. m. to 5.30 p. m. daily except Sunday
Haslett.....	8.30 a. m. to 5.30 p. m. daily except Sunday
Millett.....	8.00 a. m. to 5.00 p. m. daily except Sunday
Potterville.....	7.30 a. m. to 4.30 p. m. daily except Sunday
Olivet.....	7.30 a. m. to 4.30 p. m. daily except Sunday
Bellevue.....	6.00 a. m. to 6.00 a. m. daily except from 6.00 a. m. Sunday to 6.00 a. m. Monday
Climax.....	7.00 a. m. to 4.00 p. m. daily except Sunday
Scotts.....	7.00 a. m. to 7.00 a. m. daily except from 7.00 a. m. Sunday to 7.00 a. m. Monday
Pavilion.....	7.00 a. m. to 4.00 p. m. daily except Sunday
*Kalamazoo.....	7.00 a. m. to 4.00 p. m. daily except Sunday
Marcellus.....	7.00 a. m. to 7.00 a. m. daily. Closed 7.00 a. m. to 10.00 a. m. and Noon to 3.00 p. m. on Sundays.
Penn.....	7.45 a. m. to 4.45 p. m. daily except Sunday
Edwardsburg.....	8.00 a. m. to 5.00 p. m. daily except Sunday
Mishawaka.....	7.00 a. m. to 6.00 p. m. daily except Sunday
Mill Creek.....	8.00 a. m. to 5.00 p. m. daily except Sunday
Stillwell.....	8.00 a. m. to 4.00 p. m. daily
Kingsbury.....	8.00 a. m. to 5.00 p. m. daily except Sunday
*Union Mills.....	8.00 a. m. to 5.00 p. m. daily except Sunday
Ainsworth.....	8.30 a. m. to 5.30 p. m. daily except Sunday
*Oak Glen.....	8.30 a. m. to 5.30 p. m. daily except Sunday
Harvey.....	8.15 a. m. to 5.15 p. m. daily except Sunday
Evergreen Park.....	5.15 a. m. to 2.15 p. m. daily except Sunday

*No train order signal.

SPECIAL INSTRUCTIONS.—Continued

INSTRUCTIONS TO PASSENGER TRAIN CONDUCTORS, FLAGMEN, BRAKEMEN AND PORTERS

The attention of Passenger Train Conductors, Flagmen, Brakemen and Baggage-men is called to the requirements of Rules 256 to 263 of the Book of Operating Rules and General Instructions.

Conductors, Flagmen, Brakemen and Porters when on duty are required to be neat and clean in their appearance, dressed with standard uniforms, clean linen and shoes, clothes pressed and brushed.

The man serving as flagman on a passenger train must ride in the last car occupied by passengers unless instructed to the contrary by the conductor in charge of the train; flagman must have with him, in same car, flagging equipment as required by Operating Rules and General Regulations.

Passenger Trainmen on duty must not occupy a seat with passengers, neither must they at any time occupy a seat in the smoking compartment of any car. Conductors and Trainmen, other than the Baggage-men, must not ride in the baggage car, except when their duties require them to do so.

Trainmen, while passing through sleeping car after occupants have retired for the night, will carry their lanterns under their coats.

At initial stations the Conductor to stand at the rear of the train (or at other suitable location according to class of station train starts from) and the brakeman and porter between the coaches (with stepping boxes when necessary) erect, coats buttoned, ready to ask destination and direct passengers to their proper cars.

At intermediate stations brakemen and porters (except where the rules require otherwise) should alight from rear of head coach so that they may, after assisting passengers off and on, be ready to give assistance in loading and unloading baggage and express. Conductors must move sharply in handling train orders or other station work. Brakemen must announce the next station (when leaving station in advance) three times in each coach, saying, "Next Station _____" and again when coming into station, saying, "_____ Station. This way out." Brakemen (or porters where such are employed) must keep coaches clean of waste-paper or other refuse. Coach seats must be turned in direction in which train is running when not in use. See that all coaches carrying passengers are supplied with drinking and washing water. Vestibules of coaches (except rear one) to be closed between stations on through trains. Vestibule platforms and steps to be swept clean as often as necessary and handle bars wiped before each stop; vestibule curtains to be closed and not uncoupled till train stops at Terminal or whenever change is made in equipment; stepping boxes must be used when required; Coach Closets to be locked before arrival at Terminals or important stations. Attention must be given to the heating, ventilation and lighting. The end to be obtained is comfort, proper ventilation and even temperature. Conductors must report on Form 829 all defects of equipment coming to their notice. The carriage of other than reasonable baggage in coaches and obstruction of car aisles must not be permitted. News Company's equipment should, where possible, be kept in baggage cars only.

On arrival at Terminals, stand at coaches, in full uniform, until last passenger has disembarked, direct passengers to exits or give whatever information may be asked for.

INJURIES TO PERSONS OTHER THAN PASSENGERS AND EMPLOYEES

1. In assisting in providing medical relief for persons injured, the Company has in view humanitarian consideration and desire for the general welfare of the service, but any such action is not to be regarded as an admission or evidence of liability.

2. In performance of this humanitarian duty in cases of injury to persons other than passengers or employees while upon the Company's premises, the assistance is to be limited to rendering first-aid only. First-aid means such medical and surgical services as are known to relieve the immediate danger or suffering of the injured person, and to make it safe and comfortable for such person to be removed from the Company's premises. Under no circumstances should it mean the performance of surgical operations or elaborate surgical dressings, such as setting fractures, etc. The further disposal of the injured person must rest with the Transporta-

tion Officer on duty. This officer is usually the Chief Dispatcher of the District.

3. The employees of the Company immediately handling the case should make every effort to see that the injured person is given in charge of friends or the Municipal Authorities.

4. Where the injuries are of such a character as to require hospital treatment, this should be arranged for by the friends or the Municipal Authorities.

5. Where it is impossible to reach friends or Municipal Authorities, such as in cases occurring in the night or in rural districts, the Chief Transportation Officer on duty may arrange for the injured person to be taken by train to the nearest general hospital. In such cases all concerned, including the Hospital Authorities, should be advised of the circumstances under which application for admission is being made, and particulars of this should appear on the casualty report.

6. The instructions of the Transportation Officer should be given in writing, or by telegraph if necessary, so that a copy may accompany the medical accounts for first-aid or such other medical services as may be authorized, for the information of our Chief Surgeon and General Claims Agent.

7. Employees of the Company, whether authorized to do so or not, when calling for the services of a physician, should notify said physician that the call is for first-aid only, which will not include services rendered subsequent to the first dressing on the Company's premises or adjacent thereto.

LIST OF SURGEONS

Detroit.....	DR. G. W. STOCKWELL, Asst. Chief Surgeon 801 Stroh Building
Chicago	Dr. M. L. Harris, Consulting Surgeon 25 East Washington Street
Chicago	Dr. A. A. Small, District Surgeon 231 S. La Salle Street
Chicago	Dr. T. J. Kaster, District Surgeon 1700 State Street
Chicago	Dr. Elzear LaMothe, Oculist 31 N. State Street
Elsdon (3510 West 63d Street).....	Dr. R. C. King, District Surgeon
Elsdon (5150 South Spalding Ave.).....	W. A. Tait, District Surgeon
Blue Island.....	R. L. James, District Surgeon
Harvey.....	J. W. Blair, District Surgeon
Griffith.....	F. A. Malmstone, District Surgeon
Valparaiso.....	R. D. Blount, District Surgeon
Union Mills.....	
South Bend.....	Thomas A. Olney, District Surgeon
Mishawaka.....	W. E. Borley, District Surgeon
Edwardsburg.....	G. A. Hughes, Local Surgeon
Cassopolis.....	W. C. McCutcheon, Local Surgeon
Marcellus.....	
Schoolcraft.....	R. S. Harter, Local Surgeon
Vicksburg.....	R. J. Collier, Local Surgeon
Kalamazoo.....	J. W. Bosman, District Surgeon
Scotts.....	G. M. Braden, Local Surgeon
Battle Creek.....	A. E. McGregor, District Surgeon
Battle Creek.....	Wm. M. Dugan, District Surgeon
Battle Creek.....	Drs. Sleight and Haughey, Oculists
Bellevue.....	
Charlotte.....	Dr. V. J. Rickard, Local Surgeon
Lansing.....	J. E. McIntyre, District Surgeon
Shaftsbury.....	W. H. Dunham, Local Surgeon
Perry.....	H. P. Halstead, Local Surgeon
Morrice.....	A. E. Ames, Local Surgeon
Durand.....	R. C. Fair, District Surgeon
Durand.....	L. S. Bates, Local Surgeon
Flint.....	C. H. O'Neill, District Surgeon
Flint.....	H. E. Randall, District Surgeon
Flint.....	E. C. Rumer, District Surgeon
Davison.....	J. F. Rumer, District Surgeon
Lapeer.....	Harry Zimmer, Local Surgeon
Imlay City.....	Geo. W. Jones, Local Surgeon
Capac.....	J. F. Waltz, Local Surgeon
Emmett.....	E. Haight, Local Surgeon
Port Huron.....	C. B. Stockwell, District Surgeon
Port Huron.....	A. J. McKenzie, District Surgeon
Port Huron.....	T. H. Cooper, District Surgeon
Fort Gratiot.....	S. S. Hanson, Local Surgeon

EXTRACTS FROM CITY AND VILLAGE ORDINANCES AS TO SPEED OF TRAINS, ETC.

ILLINOIS.—In accordance with the Illinois Commerce Commission order No. 123, the following rules shall be observed:—

(1) All trains must approach street crossings at grade within municipalities with caution, and, where view is obstructed from any cause, with train under control.

(2) Engines must not be backed nor cars pushed over grade crossing in switching movements within municipalities unless a member of the crew operating such engine or train either rides the tender or foremost car in position to observe all danger and to assist in stopping train, if necessary, or actually flags the crossing if crossing is unprotected by flagman.

BLUE ISLAND.—Whistling within the limits of the City of Blue Island, except that which may be necessary to prevent injury to persons, damage to property or required by law, has been prohibited by ordinance. City limits of Blue Island extend from 139th Street (about one-half mile east of Rock Island bridge) to 127th Street (first crossing east of brick yard). Violations of this ordinance are punishable by fine of not less than \$10 nor more than \$200.

SOUTH BEND.—Within the city limits eight miles per hour, all engines or locomotives with or without trains and the engine bell must be kept ringing. Person violating ordinance subject to a fine not exceeding \$100.00.

MISHAWAKA.—Within city limits twenty-five miles per hour; all trains. Persons violating ordinance subject to a fine not exceeding \$100.00.

BATTLE CREEK.—Between the Michigan Central Crossing and McCamly Street ten miles per hour, and the locomotive whistle must not be sounded within the city limits except when approaching railroad crossings or in cases in which no other safe method of signaling can be used; all trains. Person violating ordinance subject to a fine not exceeding \$50.00 and cost of prosecution, and the court may make a further sentence that in default of the payment of such fine and costs within a time to be fixed by such court, the person so convicted shall be imprisoned in the county jail or city prison until such fine and costs be paid, for a term not exceeding sixty days.

CHARLOTTE.—Within the city limits ten miles per hour; all trains.

LANSING.—Within the city limits ten miles per hour; all trains.

FLINT.—Section 1. That it shall be unlawful for the engineer, conductor or other person in charge of any steam locomotive, engine, coach, car or train of cars, to run or cause the same to be run across any public highway or street, lane or alley in the City of Flint, at a rate of speed exceeding twelve miles per hour.

Sec. 3. It shall be unlawful for the conductor, brakeman or other person having charge of the same, to oper-

ate any steam or electric passenger car or coach within the limits of the City of Flint without having the toilet room or rooms with which such car may be supplied securely locked so as to prevent the use of the same and the dumping of sewage or other offensive and insanitary matter or substance upon the ground, either upon property owned by any such railway company, or upon any public street, lane, alley or public place within the City of Flint.

Sec. 4. It shall be unlawful for the engineer or person in charge of any locomotive engine, while operating the same within the limits of the City of Flint, to use or cause to be used the locomotive whistle with which such locomotive may be supplied, except when it may be necessary to avoid obvious danger of collision with a person or property which may be upon the tracks of the railway over which such locomotive may be passing.

Sec. 5. It shall be unlawful for the engineer, conductor or brakeman or other person operating any switching train or engine, or who may be engaged in switching any cars within the limits of the City of Flint, to make what is known as a kicking or flying switch within said city limits in such a manner as to propel a car or cars over or across any public street, lane or alley in said city, unless such car or cars shall be coupled with a locomotive engine, or other cars coupled with such engine.

Sec. 6. It shall be unlawful for any switchman, brakeman, engineer, conductor or other employee of any steam railway company, operating within the City of Flint, to place or leave standing any locomotive, coach or car so that any part of such locomotive engine, coach or car shall stand or remain for a period of more than five minutes within the limits of any public street, lane or alley in said city, or within a distance of less than ten feet outside of the limits of any such street, lane or alley.

Sec. 11. Any person violating any of the provisions of said ordinance, shall upon conviction thereof, before any court of competent jurisdiction be punished by a fine of not more than one hundred dollars, or by imprisonment at hard labor in the county jail of Genesee County or the Detroit House of Correction, not exceeding ninety days, or both such fine and imprisonment in the discretion of the court or justice who shall try the offender.

LAPEER.—Crossing the following streets: Main, Monroe, Bentley, Court, Howard, Nepessing, Park and Oregon, or either of them, six miles per hour; all trains. Approach of locomotive or train to be signalled by ringing of engine bell. Person violating ordinance subject to fine of not less than \$5.00 nor more than \$25.00 and cost of prosecution or by imprisonment in county jail for a period not exceeding thirty days, or both in the discretion of the court.

PORT HURON.—Within the city limits ten miles per hour; all trains.

SPEED SCHEDULE

Miles per Hour	Time per Mile		Miles per Hour	Time per Mile		Miles per Hour	Time per Mile		Miles per Hour	Time per Mile	
4.00	15 min.	0 sec.	17.73	3 min.	23 sec.	23.23	2 min.	35 sec.	33.64	1 min.	47 sec.
5.00	12 "	0 "	17.82	3 "	22 "	23.38	2 "	34 "	33.96	1 "	46 "
6.00	10 "	0 "	17.91	3 "	21 "	23.53	2 "	33 "	34.29	1 "	45 "
7.00	8 "	34 "	18.00	3 "	20 "	23.68	2 "	32 "	34.62	1 "	44 "
8.00	7 "	30 "	18.09	3 "	19 "	23.84	2 "	31 "	34.95	1 "	43 "
9.00	6 "	40 "	18.18	3 "	18 "	24.00	2 "	30 "	35.29	1 "	42 "
10.00	6 "	0 "	18.27	3 "	17 "	24.16	2 "	29 "	35.64	1 "	41 "
11.00	5 "	27 "	18.37	3 "	16 "	24.32	2 "	28 "	36.00	1 "	40 "
12.00	5 "	0 "	18.46	3 "	15 "	24.49	2 "	27 "	36.36	1 "	39 "
13.00	4 "	36 "	18.56	3 "	14 "	24.66	2 "	26 "	36.73	1 "	38 "
14.00	4 "	17 "	18.65	3 "	13 "	24.83	2 "	25 "	37.11	1 "	37 "
15.00	4 "	0 "	18.75	3 "	12 "	25.00	2 "	24 "	37.50	1 "	36 "
15.06	3 "	59 "	18.85	3 "	11 "	25.17	2 "	23 "	37.89	1 "	35 "
15.13	3 "	58 "	18.95	3 "	10 "	25.35	2 "	22 "	38.30	1 "	34 "
15.19	3 "	57 "	19.05	3 "	9 "	25.53	2 "	21 "	38.71	1 "	33 "
15.25	3 "	56 "	19.15	3 "	8 "	25.71	2 "	20 "	39.13	1 "	32 "
15.32	3 "	55 "	19.25	3 "	7 "	25.90	2 "	19 "	39.56	1 "	31 "
15.38	3 "	54 "	19.35	3 "	6 "	26.09	2 "	18 "	40.00	1 "	30 "
15.45	3 "	53 "	19.46	3 "	5 "	26.28	2 "	17 "	40.45	1 "	29 "
15.52	3 "	52 "	19.57	3 "	4 "	26.47	2 "	16 "	40.91	1 "	28 "
15.58	3 "	51 "	19.67	3 "	3 "	26.67	2 "	15 "	41.38	1 "	27 "
15.65	3 "	50 "	19.78	3 "	2 "	26.87	2 "	14 "	41.86	1 "	26 "
15.72	3 "	49 "	19.89	3 "	1 "	27.07	2 "	13 "	42.35	1 "	25 "
15.79	3 "	48 "	20.00	3 "	0 "	27.27	2 "	12 "	42.86	1 "	24 "
15.86	3 "	47 "	20.11	2 "	59 "	27.48	2 "	11 "	43.37	1 "	23 "
15.93	3 "	46 "	20.22	2 "	58 "	27.69	2 "	10 "	43.90	1 "	22 "
16.00	3 "	45 "	20.34	2 "	57 "	27.91	2 "	9 "	44.44	1 "	21 "
16.07	3 "	44 "	20.45	2 "	56 "	28.12	2 "	8 "	45.00	1 "	20 "
16.14	3 "	43 "	20.57	2 "	55 "	28.35	2 "	7 "	45.57	1 "	19 "
16.22	3 "	42 "	20.69	2 "	54 "	28.57	2 "	6 "	46.15	1 "	18 "
16.29	3 "	41 "	20.81	2 "	53 "	28.80	2 "	5 "	46.75	1 "	17 "
16.36	3 "	40 "	20.93	2 "	52 "	29.03	2 "	4 "	47.37	1 "	16 "
16.44	3 "	39 "	21.05	2 "	51 "	29.27	2 "	3 "	48.00	1 "	15 "
16.51	3 "	38 "	21.18	2 "	50 "	29.51	2 "	2 "	48.65	1 "	14 "
16.59	3 "	37 "	21.30	2 "	49 "	29.75	2 "	1 "	49.31	1 "	13 "
16.67	3 "	36 "	21.43	2 "	48 "	30.00	2 "	0 "	50.00	1 "	12 "
16.74	3 "	35 "	21.56	2 "	47 "	30.25	1 "	59 "	50.70	1 "	11 "
16.82	3 "	34 "	21.69	2 "	46 "	30.51	1 "	58 "	51.43	1 "	10 "
16.90	3 "	33 "	21.82	2 "	45 "	30.77	1 "	57 "	52.17	1 "	9 "
16.98	3 "	32 "	21.95	2 "	44 "	31.03	1 "	56 "	52.94	1 "	8 "
17.06	3 "	31 "	22.08	2 "	43 "	31.30	1 "	55 "	53.73	1 "	7 "
17.14	3 "	30 "	22.22	2 "	42 "	31.58	1 "	54 "	54.55	1 "	6 "
17.22	3 "	29 "	22.36	2 "	41 "	31.86	1 "	53 "	55.38	1 "	5 "
17.31	3 "	28 "	22.50	2 "	40 "	32.14	1 "	52 "	56.25	1 "	4 "
17.39	3 "	27 "	22.64	2 "	39 "	32.43	1 "	51 "	57.14	1 "	3 "
17.48	3 "	26 "	22.78	2 "	38 "	32.73	1 "	50 "	58.06	1 "	2 "
17.56	3 "	25 "	22.93	2 "	37 "	33.03	1 "	49 "	59.02	1 "	1 "
17.65	3 "	24 "	23.08	2 "	36 "	33.33	1 "	48 "	60.00	1 "	0 "

