

A. A. SPRAGUE AND BERNARD J. FALLON, RECEIVERS FOR
CHICAGO NORTH SHORE AND MILWAUKEE RAILROAD COMPANY

A N N U A L R E P O R T

1941

Office of Engineer, Maintenance of Way
Highwood, Illinois
January 29, 1942.

A. A. SPRAGUE AND BERNARD J. FALLON RECEIVERS FOR
CHICAGO NORTH SHORE AND MILWAUKEE RAILROAD COMPANY

MAINTENANCE OF WAY DEPARTMENT

ANNUAL REPORT

FOR THE YEAR 1941

Office of Engineer, Maintenance of Way
Highwood, Illinois
January 29, 1942.

F O R E W O R D

The Annual Report for the work accomplished by the Maintenance of Way Department in 1941 includes all work done under A. F. E. and extraordinary maintenance, and also provides such information and statistics relating to regular maintenance work, which are of interest at this time and would be of value in the future for record and reference purposes.

I N D E X

	<u>PAGE</u>
TRACK AND ROADWAY - ADDITIONS AND BETTERMENTS	1
TRACK AND ROADWAY - MAINTENANCE WORK	6
TIES RENEWED	8
BRIDGE AND BUILDING - ADDITIONS AND BETTERMENTS	9
BRIDGE REPAIRS	11
BUILDING AND PLATFORM REPAIRS	12
BUILDINGS PAINTED	14
COMPANY HOUSES DECORATED	15
MACHINE SHOP	16
TIN SHOP	16
MISCELLANEOUS BRIDGE AND BUILDING WORK	17
SIGNALS AND INTERLOCKING - ADDITIONS AND BETTERMENTS	18
SIGNALS AND INTERLOCKING - MAINTENANCE WORK	21
CROSSING GATE OPERATION	22
CROSSING GATES AND SIGNALS MAINTAINED	22
EQUIPMENT	23
WINNETKA GRADE SEPARATION	24
SACRED HEART GRADE SEPARATION	24
SUMMARY	26

TRACK AND ROADWAY DIVISION

ADDITIONS AND BETTERMENTS

INSTALLATION OF PRECAST CONCRETE SLAB CROSSINGS AT CHURCH STREET, HARRISON STREET, LAKE AVENUE AND COUNTY LINE ROAD, S.V.L. - A.F.E. 4275, 4274, 4273, and 4267.

These A.F.E.'s provide for installation of precast concrete crossings, automatic gates and flashing light signals at each crossing. The retirement of existing crossings and crossing protection and the necessary adjustment and relocation of block signals and track cuts. The crossing protection work is described in the Signal and Interlocking Division Report. At all four crossings the Railroad forces installed new ties and tie plates, thermit welded all joints and raised the track on new ballast. The Cook County Highway Department paved the devil strip with concrete and furnished the crossings slabs which were installed by the Railroad Forces at the County's expense.

CHURCH STREET 3 cars of stone used on main line and 5 cars of cinders on siding. 8 joints welded. The County improved the road with black top. 3500

HARRISON STREET 6 cars of stone used on main line and 4 cars of cinders on siding. 8 joints welded. The County improved the road with black top. 5355

LAKE AVENUE 4 cars of cinders used on siding. 10 joints welded. The County paved the approaches with concrete. A dead track crossing in the third track position was removed. 3740

COUNTY LINE ROAD 390 track feet of 80# rail was relaid with new 100# rail, 4 joints welded and 2 cars of stone used on main line. The County improved the road with black top. 3965

RAIL RENEWAL ON SKOKIE VALLEY LINE - A.F.E. 4271. 36,140

17,184 track feet of 80# A.S.C.E. rail was relaid with new 100# R.E. rail on the northbound track from Lake Avenue to the Kotz Road substation. 6 rail anchors were installed per rail. 1000 Verona Triflex Springs were installed on the first 250 joints north of Lake Avenue. The northbound track is now 100# rail from Howard Street to Kotz Road. 3265

SIDING EXTENSION AT 11th STREET, WAUKEGAN - A.F.E. 4291

The siding serving the Phillips Petroleum Company and the North Shore Foundry was extended north across 11th Street for a distance of 290 feet. Track was built of 65# relayer rail on side track ties and cinder ballast and was electrified. Included in this project was the moving of a Company-owned house to a new location on Tenth Street.

TRACK AND ROADWAY DIVISION

ADDITIONS AND BETTERMENTS - CONTINUED

RENEWAL OF DOUBLE SLIP SWITCH AT HIGHWOOD - A.F.E. 4292.

The 65# double slip switch located in front of the Highwood Office Building was renewed with new 80# material.

RAIL RENEWAL ON SHORE LINE - A.F.E. 4212.

2,794 track feet of 65# A.S.C.E. rail was relaid with 80# A.S.C.E. relayer rail on both tracks in Lake Forest. The crossover at Rose Terrace was retired. 241 track feet of 65# A.S.C.E. rail was relaid with 80# A.S.C.E. relayer rail on both tracks at the end of double track south of Lake Bluff on the Libertyville Branch.

INSTALLATION OF GRAVEL FILL AND REARRANGEMENT OF TRACKS AT LAKE BLUFF, LIBERTYVILLE LINE - A.F.E. 4315.

672 Cu.Yds. of gravel were placed along side the precast concrete crib wall between the Skokie Valley and Libertyville Branch tracks. The eastbound track was retired between Green Bay Road and Mawman Avenue, a distance of 1200 feet, and the turnout from double to single track, formerly at Green Bay Road, was relocated at the foot of Mawman Avenue. The west-bound track was shifted south to clear the new fill. 500 ft. of 8 inch vitrified pipe was placed along the foot of the old wall to provide drainage through the fill. 223 track feet of 65# rail was relaid with second-hand 80# rail.

RAIL RENEWAL AT MUNDELEIN - A.F.E. 4236.

1232 track feet of 65# rail, including 1 turnout, were relaid with second-hand 80# rail on the old interchange tracks at Mundelein.

RAIL RENEWAL ON LIBERTYVILLE LINE - A.F.E. 4307.

6,422 track feet of 65# rail was relaid with second-hand 80# rail on the Libertyville line. 5,585 track feet was relaid on the East Bound track between the Des Plaines River and Rockland Road and 837 track feet was relaid on the West Bound track west of the River.

BALLAST IN ILLINOIS - A.F.E. 4249.

8 cars of stone were unloaded to fill in the devil strip and tie cribs at various points on the Skokie Valley and Milwaukee Divisions between Dempster Street and the State Line. No track work was done on this A.F.E. during the year.

1350

2010 Total
1780
230
S.C.

2145

1740

7765

840

TRACK AND ROADWAY DIVISION

ADDITIONS AND BETTERMENTS - CONTINUED

TIE PLATES IN ILLINOIS - A.F.E. 4283.

13,601 80#-100# Tie Plates were installed on ties renewed at the following locations in Illinois:-

<u>Section</u>	<u>Tie Plates</u>
1 - Winnetka	568
3 - Highwood	1,600
4 - Lake Forest	4,138
5 - Libertyville	1,040
7 - Edison Court	1,156
8 - Beach	1,270
17 - Glenayre	1,713
18 - Briergate	220
20 - Deerpath	650
21 - South Upton	<u>1,246</u>
TOTAL	13,601

3700
1535
2165 SL

TIE PLATES IN WISCONSIN - A.F.E. 4284.

5,392 80#-100# Tie Plates were installed on ties renewed at the following locations in Wisconsin:-

<u>Section</u>	<u>Tie Plates</u>
9 - Mc Keon Road	1,254
10 - Kenosha	1,194
11 - Racine	524
12 - Four Mile Road	706
13 - Carrollville	691
14 - Grange Avenue	<u>1,023</u>
TOTAL	5,392

1545

TRACK AND ROADWAY DIVISION

ADDITIONS AND BETTERMENTS - CONTINUED

RENEWAL OF RAILROAD CROSSING AT RYAN TOWER - A.F.E. 4285.

The 90# double track over double track crossing with the Chicago and North Western Railway was renewed with a new 112# crossing. 270 track feet of 80# and 50# rail was relaid with new 112# rail. 500 compression rail fastenings known as type CL-16 from the Rails Company were installed on this job.

11,920

BALLAST IN WISCONSIN - A.F.E. 4250.

20 cars of stone and 15 cars of cinders were unloaded to fill in the devil strip and tie cribs at various points in Wisconsin between the State Line and Harrison Street. No track work was done on this A.F.E. during the year.

3380

TRACK RECONSTRUCTION ON 6th STREET, MILWAUKEE - A.F.E. 4303.

The track and pavement on South Sixth Street was rebuilt from the north end of the Scott Street Curve to National Avenue a distance of 1,328 feet. New 102# rail was laid on the old ties which were found to be in very good condition. Tie rods were installed and all joints thermit welded. Treated oak shims were used to bring the rail to grade. The track zone was paved with Ready-Mixed High Early Strength Concrete installed by a contractor. The Scott Street curve was repaired and repaved with the old brick. The street was closed to vehicular traffic and single track operated during the progress of the work.

33,900

TRACK RECONSTRUCTION ON WELLS STREET, MILWAUKEE - A.F.E. 4243

The track and pavement on Wells Street, between Third and Second Streets, was rebuilt under service. New 102# rail was laid on the old ties and brought to grade with treated oak shims. Tie rods were installed and all joints thermit welded. The brick paving was relaid on a base of high early strength ready-mixed concrete. Normal rail and street traffic was maintained during the progress of this work.

4860

TRACK AND ROADWAY DIVISION

ADDITIONS AND BETTERMENTS - CONTINUED

ADDITIONAL INTERCHANGE FACILITIES AT MUNDELEIN - A.F.E. 4324 7005

A new south wye track 1,363 feet long, was built jointly with the Soo Line. The Passenger Storage track was moved south and extended 281.5 feet. All grading was done by contract. A total of 1,560 feet of second hand 100# rail and 731 feet of second hand 80# rail was installed on our portion of these tracks.

EXTENSION OF SIDE TRACK AT ZION - A.F.E. 4326 No charge

The north end of the west side track at Zion was extended 115 feet and moved west on to private property to serve the Benton Lumber Company. Track was built of second hand 80# rail on treated side track ties and cinder ballast.

TRACK AND ROADWAY DIVISION

MAINTENANCE WORK

In addition to the routine work of maintaining the track and right of way, the following work was done on operating accounts:-

39 joints were thermit welded and 50 square yards of brick paving repaired on Greenleaf Avenue, Wilmette.

20 square yards of brick paving repaired at Kenilworth.

330 square yards of brick pavement repaired in Highland Park, 9 joints were thermit welded and 110 square yards of brick pavement were surfaced with asphalt.

The northbound track from Lake Avenue to Kotz Road Substation, Skokie Valley Line, was lined and surfaced.

The reverse curves at 18th Street, North Chicago, West Line, were lined and surfaced.

The plank crossing at 16th Street, North Chicago, West Line, was renewed using treated gumwood sections. All ties were renewed and tie plated.

The plank crossing at Ridgeland Avenue, Waukegan, was repaired. The entire roadway across the right of way was surfaced with asphalt.

The Burlington Road and Klinkert Road curves and the northbound curve at College Avenue were lined and surfaced and the super-elevation adjusted. Alignment was run by the string lining method.

Both tracks from Oklahoma Avenue to Harrison Street crossover were lined and surfaced.

At 5th and Michigan Streets, Milwaukee, the Transport Company renewed the crossing and raised the grade in connection with the work of paving Michigan Street. The railroad forces installed 236 track feet of 102" rail in the approaches to this crossing and repaved 350 square yards with brick.

TRACK AND ROADWAY DIVISION
MAINTENANCE WORK - CONTINUED

Cracks in concrete pavement in Milwaukee were filled with hot asphalt and 125 square yards of brick pavement repaired.

5 cars of stone and 8 cars of cinders were unloaded at various points on the line and charged to operating.

Track was surfaced and lined from the Greenhouse to the River on the southbound and for 1200 feet west of the River on both tracks on the Libertyville Branch.

The crossing at 16th Street, North Chicago, East Line, was widened and rebuilt. New ties and planks were installed.

The curves east and west of Dodge Avenue and the curve west of Asbury Avenue, on the Howard-Dempster Line, were lined and surfaced and the super-elevation adjusted.

TRACK AND ROADWAY DIVISION
MAINTENANCE WORK - CONTINUED

TIES RENEWED

<u>Section</u>	<u>TIES</u>		
	<u>Main Line</u>	<u>Side Track</u>	<u>Switch</u>
1 - Winnetka	301	-	18
3 - Highwood	1345	126	30
4 - Lake Forest	2019	23	13
5 - Libertyville	985	58	99
6 - Waukegan City	-	56	3
7 - Edison Court	650	209	27
8 - Zion	677	247	45
9 - Mc Keon Road	720	-	52
10 - Kenosha	666	282	114
11 - Racine	763	-	-
12 - Four Mile Road	414	-	-
13 - Carrollville	411	3	54
14 - Grange Avenue	511	25	13
15 - Milwaukee	55	4867 193	11
16 - Howard-Dempster Line	14	-	148
17 - Glenayre	*1595	78	47
18 - Briergate	*1135	9	8
20 - Deerpath	655	25	25
21 - South Upton	771	4170 143	8
Total -	13,687	1,477	715

* 333 6"x8"x8'-6" ties installed in precast concrete slab crossings.

All ties are creosoted red oak.

BRIDGE AND BUILDING DIVISION

ADDITIONS AND BETTERMENTS

SEA BAG CHUTE AT CONGRESS STREET BAGGAGE ROOM - A.F.E. 4293. 370

The Rapid Transit Company built a metal lined chute from the baggage platform to the ground, in order to facilitate the handling of sea bags at this location.

CONSTRUCTION OF CAT-WALK AT CONGRESS STREET STUB - A.F.E. 4308. 1065

The Rapid Transit Company built a timber walk 270 feet long, 161 feet being 3 feet wide and 109 feet being 2'-6" wide. This walk is cantilevered from the structure on 6x6 stringers spaced 4 feet apart. Deck and railing is 2x6 lumber.

SHELTER AT LINCOLN AVENUE, HIGHLAND PARK - A.F.E. 4241. 250

A standard 16 foot open shelter was built on the northbound platform replacing an old style station and canopy.

IMPROVEMENT OF WASHROOM FACILITIES AT HIGHWOOD SHOP - A.F.E. 4317. See 1942

This A.F.E. provides for installing new toilets and wash stands in the present wash room, reinforcing the floor of the room above and installing addition wash stands and reinforcing the floor of the large locker room. A composition flooring material is to be installed on all three floors. At the end of the year the locker room floor had been resurfaced and 5 new toilet bowls installed.

CONSTRUCTION OF CROSSWALKS AT NILES CENTER ROAD - A.F.E. 4327. 940

The Railroad forces built wood crosswalks over both tracks on both sides of the street and furnished the material for 4900 square feet of concrete sidewalks across the right of way on both sides of the street. The Village of Skokie furnished W.P.A. labor to lay the concrete walks.

BRIDGE AND BUILDING DIVISION

ADDITIONS AND BETTERMENTS - CONTINUED

ENLARGEMENT OF SHELTER AT LAKE BLUFF, SKOKIE VALLEY LINE -
A.F.E. 4332.

345

The existing 16 foot shelter at this point was extended to 32 foot length. Construction is same style as original building.

ENLARGEMENT OF STATION AT NORTH CHICAGO JUNCTION - A.F.E. 4309.

4960

A 20 foot extension was built on the south end of this station and the interior completely remodeled. A new concession was installed using fixtures retired from Highland Park. The building was painted inside and outside. The ceiling and the walls above the wainscoting were covered with weatherwood Blend Tex made by the U.S. Gypsum Company. The ticket office was relocated at the north end of the station and provisions made for two ticket sellers.

CONSTRUCTION OF STOREROOM AT MILWAUKEE BARN - A.F.E. 4312.

980

An enclosure 15'x24' with balcony above was built along the north wall of the barn west of the boiler room. The space on the first floor was closed in with wire mesh and a stairway was built leading up to the balcony.

BRIDGE AND BUILDING DIVISION

MAINTENANCE WORK

BRIDGES AND TRESTLES

Cleaned the two bridges at Salem Avenue, Zion, and painted two coats. 750

Renewed 104 ties and 8 pieces of guard rail on the northbound track at Bethlehem Avenue, Zion, tie plates were installed on all ties renewed. The entire bridge was cleaned and painted two coats. 850

The State Line bridge was cleaned and painted two coats. 250

Renewed one complete bent at Austin Avenue.

Renewed 21 caps, 54 stringers and 158 ties at Harrison Street material trestle. Repaired the walks and railings. 2000

Renewed all ties and guard rails at Dodge Avenue. A total of 196 ties was used.

Renewed sills of both temporary bents at Hartrey Avenue.

Renewed cap on temporary bent at east end of Canal Bridge.

Renewed 8 stringers at south Upton, Skokie Valley Line.

Renewed 17 ties at South Upton, Libertyville Line.

Renewed 9 caps, 17 stringers, 144 ties and 24 pieces of guard rail at the Des Plaines River. 3000

BRIDGE AND BUILDING DIVISION

MAINTENANCE WORK

BUILDINGS AND PLATFORMS

In addition to making minor repairs to all buildings and platforms on the system the following major work was done:-

Extensive repairs made to trailer loading ramp at Montrose after a train had backed into it.

At Church Street the vestibule at the south end of the station was removed and all doors made single acting.

Two temporary wood platforms were built south of the southbound platform at Kenilworth.

Ravinia subway repaired and painted. Most of the lining was renewed. 1000

The ticket office in Highwood Station was remodeled and a small portable ticket booth installed south of the station.

Renewed the roofs on the south storehouse, carpenter shop and machine shop.

Finished rebuilding roof on east half of Public Service Building at Highwood. Entire roof coated with built up asphalt. The old pits were floored over and the entire second floor made available for storage purposes. 2000

Removed the blue print room from Public Service Building to basement of Office Building.

Renewed floor in Barber Shop in the trainmen's building at Highwood.

Considerable work was done in the north storehouse, reinforcing floors and removing partitions.

Rebuilt stairs at Lake Bluff, Shore Line.

Rebuilt platform at North Chicago Freight Station.

Built a small office in the south end of the building for Keeshin Trucking Company. Repaired a small corrugated steel shed located east of the Freight House and moved Skokie Oil Company's material from Freight House to shed.

BRIDGE AND BUILDING DIVISION

MAINTENANCE WORK

BUILDINGS AND PLATFORMS - CONTINUED

Rebuilt repair pits at Waukegan Garage to accommodate new buses.

Repaired all platforms, shelters and small buildings, from Tobin Road to Harrison Street, Milwaukee.

Repaired crosswalks in Racine and Kenosha.

Repaired and recoated roofs on Harrison Barn, Harrison substation and Clyborn Street Freight House.

Repaired pits at Harrison Barns.

Repaired brickwork in substation buildings at Kenosha, Racine and Oak Creek.

BRIDGE AND BUILDING DIVISION

MAINTENANCE WORK

BUILDINGS PAINTED AND DECORATED

LOCATION

Congress Street Baggage Room	Painted Inside
Montrose Freight Station	Painted Inside
Church Street Station	Washed Inside
Linden Avenue	Painted 2 Shelters
Winnetka Station	Painted Inside and Outside
Glencoe Station	Painted Outside
Green Bay Road Shelter	Painted Inside and Outside
Highland Park Station	Painted Inside
Highwood Station	Painted Inside and Outside
Washington Street, Highwood	Painted Shelter, Gate Tower and Tool House.
Highwood Section House	Painted Inside and Outside
Highwood Yard	Painted Outside of all Buildings in South Yard.
Highwood Annex	Painted Trainmen's Room and Entire Outside.
Highwood Barn	Painted Outside
Highwood Storehouse	Painted Inside and Outside
Highwood M.D. Station	Painted Outside
Highwood Office	Painted Porch Ceilings
Fort Sheridan Station	Painted Outside
Lake Forest Station	Painted Inside
Hamlin Avenue Section House	Painted Inside
Harmswoods Station	Painted Living Quarters
Glenayre Section House	Painted Inside
Glenayre Station	Painted Living Quarters
Eriergate Section House	Painted Inside
Deerpath Section House	Painted Inside
Deerpath Station	Painted Living Quarters
South Upton Section Houses	Painted Inside
North Chicago Junction	Painted Shelter, Telephone Booths and Railings.
10th Street Garage	Painted Inside
Waukegan Terminal	Painted Inside
Edison Court Station	Painted Inside
Harrison Street Station	Painted Inside
South Upton Tower	Painted Inside
Rondout Scale House	Painted Inside
Libertyville Section House	Painted Inside
Mundelein Station	Painted Inside

BRIDGE AND BUILDING DIVISION

MAINTENANCE WORK

COMPANY HOUSES DECORATED

LOCATION

2727 Woodbine Avenue, Evanston	Paint Interior
1131 Greenleaf Avenue, Wilmette	Paint Interior of Store
1137 Greenleaf Avenue	Paint Interior of Store
Elm Street Station, Winnetka	Paint Barber Shop
557 Green Bay Road, Glencoe	Paint and Paper Interior
563 Green Bay Road, Glencoe	Paint and Paper Interior
1310 Tenth Street, Waukegan	Paint Inside and Outside
1210 Washington Street, Waukegan	Paint Interior of Store and two Flats.
1110 Porter Street, Waukegan	Paint and Paper Interior
3215 - 20th Street, Racine	Paint and Paper Interior
2042 Grove Avenue, Racine	Paint and Paper Interior
1105 Grove Avenue, Racine	Paint and Paper Interior

BRIDGE AND BUILDING DIVISION

MAINTENANCE WORK

MACHINE SHOP

Overhauled 2 section speeders and 2 signal speeders and made running repairs on all speeders and push cars.

Repaired 12 frogs and 6 switch points.

Maintained Way Department tools and work equipment.

Maintained oil burners at Winnetka and Lake Forest Stations.

Made and repaired parts for crossing gates.

Built up crossings at 5th and Greenfield and at 5th and Wisconsin and all frogs in Highwood Yard.

Cut bars and pins and welded parts for Mechanical Department.

TIN SHOP

Made water coolers, copper flush tanks, water supply tanks, card holders, toilet chutes, destination box panels, car heater magazines, roof flanges, roof jacks, ventilators and other work requested by the Mechanical Department for repairs to cars.

Did necessary sheet metal work required by repairs to buildings and heating plants.

BRIDGE AND BUILDING DIVISION

MAINTENANCE WORK

MISCELLANEOUS

Maintained stations in Chicago at Adams and Wabash, Wilson Avenue and Howard Street, Montrose M. D. Station and Congress Street Baggage Room.

Operated steam heating plants at Wilson Avenue Station, Highwood Office, North Chicago Barn, Waukegan Garage and Milwaukee Barn.

Repaired 1000 feet of fence between Downeys and Lake Bluff on the Skokie Valley Line, 500 feet between 13th Street and Wright Avenue, Racine, and 1000 feet east of Knollwood.

Built new bumpers for loading trailers on tracks 3 and 4 at Harrison Street, Milwaukee.

Rebuilt and painted wood right of way fence at Highland Park between Central Street and Elm Place.

Repaired asphalt crossings.

Operated the Weed Killer over the system.

Repainted all crossing and station signs from Waukegan to East Prairie Road.

Made repairs to Company Houses as requested by Real Estate Department.

SIGNAL AND INTERLOCKING DIVISION

ADDITIONS AND BETTERMENTS

INSTALLATION OF AUTOMATIC GATES AND FLASHERS AT CHURCH STREET, HARRISON STREET, LAKE AVENUE AND COUNTY LINE ROAD, S.V.L. - A.F.E. 4275, 4274, 4273, and 4267.

These A.F.E.'s provide for installation of pre-cast concrete crossings, automatic gates and flashing light signals at each crossing. The retirement of existing crossings and crossing protection and the necessary adjustment and relocation of block signals and track cuts. The crossing improvements are described in the Track and Roadway Division Report. At the end of the year the following work had been done:

CHURCH STREET Concrete bases and track cable installed.

HARRISON STREET Concrete bases installed. One flasher pole set up and reflex crossbuck sign attached.

LAKE AVENUE Flashing light signals installed and operating. Block Signal 164 moved to south side of street. Existing auto flag, operated jointly with the Chicago and North Western Railway Company has been retired. All work completed except installation of automatic gates.

COUNTY LINE ROAD All work completed except installation of gates and flasher signals. At this location our crossing protection is to be inter-connected with that of the Chicago and North Western Railway Company.

INSTALLATION OF AUTOMATIC CROSSING PROTECTION AT HARBOR STREET, GLENCOE - A.F.E. 4316.

One Model "A" and three Model "E" automatic gates were installed at this crossing and the existing flashing light signal relocated. These facilities are inter-connected with similar automatic protection on the Chicago and North Western Railway Company.

INSTALLATION OF AUTOMATIC FLASHER SIGNALS AT DUGDALE ROAD, WAUKEGAN - A.F.E. 4304.

Two standard flasher signals, operated with the existing auto flag track circuits, were installed at this crossing. The old style auto flag was removed.

See 1941 TR

3470

470

SIGNAL AND INTERLOCKING DIVISION

ADDITIONS AND BETTERMENTS - CONTINUED

CHANGES TO CONTROL CIRCUITS FOR AUTOMATIC GATES AND AUTO FLAGS-
DEMPSTER TO STATE LINE - A.F.E. 4260.

In order to provide adequate crossing protection for faster trains, track circuits for automatic gates and autoflags were extended for 14th Street, North Chicago, both directions; 16th Street, North Chicago, northbound; Grand Avenue, southbound; Glen Flora Avenue, northbound; Lebanon Avenue, 29th Street, 21st Street, 18th Street and Winthrop Harbor, both directions; 26th Street, Zion, northbound. A two position holding signal was placed at Grand Avenue to indicate position of gates to northbound trains.

CHANGES TO CONTROL CIRCUITS FOR AUTOMATIC GATES IN WISCONSIN -
A.F.E. 4261.

Track circuits for automatic gates were extended for 21st Street, Racine, both directions.

CHANGES TO CHICAGO AND NORTH WESTERN RAILWAY FACILITIES AT
RYAN INTERLOCKING PLANT - A.F.E. 4238.

Trap circuits were installed to carry the Chicago and North Western Block Signal Circuits through the Railway crossing. Work remaining to be done in 1942 consists in the removal of derails.

CHANGES TO CHICAGO NORTH SHORE AND MILWAUKEE RAILROAD FACILITIES
AT RYAN INTERLOCKING PLANT - A.F.E. 4280.

This A.F.E. calls for installation of light type home and distant signals to replace semaphore type signals. Distant signals to be relocated to provide longer braking distances. Track circuits are to be installed between distant signals and plant and through interlocking limits. All detector bars and derails to be removed. This work will fit into the proposed block signal system. At the end of the year some signal material had been received and all signal and relay case bases installed.

INSTALLATION OF AUTOMATIC CROSSING GATES AT WEST NICHOLSON ROAD -
A.F.E. 4286.

Two Model "A", track circuit controlled, automatic gates were installed at West Nicholson Road, formerly known as Oak Creek Road, in Milwaukee County.

SIGNAL AND INTERLOCKING DIVISION

ADDITIONS AND BETTERMENTS - CONTINUED

3205

CHANGES IN BLOCK SIGNAL SYSTEM, HARRISON TO AUSTIN AVENUE -
A.F.E. 4282.

The facing point switch protection signals at Oklahoma and Austin Avenues were incorporated into The Block Signal System. The northbound block zone was extended south to Bolwar Avenue and a new 2-position signal installed at Norwich Street to repeat the indication of signal 681 at Austin Avenue. Signal 683 was moved south 500 feet and wired to repeat the indication of signal 685 at Oklahoma Avenue. "Mechanical Switchmen" and mechanical Facing Point Locks were installed on the switches at Austin Avenue and Oklahoma Avenue.

AUTOMATIC BLOCK SIGNALS HARRISON STREET, MILWAUKEE TO
5-MILE ROAD - A.F.E. 4329.

During 1941 preliminary plans were prepared for automatic 3-color light block signals in this territory. An A.F.E. was made and the work authorized. Orders were placed with the Union Switch and Signal Company for the signal apparatus. The Kerite Cable Company for the underground cable, and various electrical supply companies for transmission line and transformer material. This block system will be incorporated into the changes of the Ryan Interlocking Plant and into the existing block system on the single track, Austin to Oklahoma, to provide continuous automatic block signaling from the Harrison Street yard to 5-Mile Road.

SIGNAL AND INTERLOCKING DIVISION

MAINTENANCE WORK

In addition to the routing work of maintaining interlocking plants, block signals, manual and automatic gates and autoflags, the following major items of maintenance work were done:-

At Lake Avenue, Wilmette, Shore Line, the gate shanty was raised about 3 feet and moved closer to the track. Necessary changes were made to gate pipes and pull wires.

The west gates at Roger Williams Avenue were moved closer to the track to give more room between the North-Western and North Shore tracks.

The northbound cut-in for the North Gate Road Automatic gates was moved north to clear the Fort Sheridan Station platform. A two-position signal was installed at the crossing to show the position of the gates to approaching northbound trains.

One complete automatic gate was installed at Dundee Road, replacing a similar gate demolished by an automobile.

At South Upton 1,500 feet of aerial cable, from the Tower east to Home Signal R-50, was taken down and the signal wires installed in trunking. The wires from the tower to case 14 were partially renewed.

One gate pedestal was replaced at 22nd Street, West Line, due to being damaged by an automobile.

Distant and home signals at Kenosha were lowered to improve visibility.

Extensive repairs were made to derails, detector bars, trunking and wiring at Ryan Tower following the derailment of a Chicago and North Western train on February 9th.

SIGNAL AND INTERLOCKING DIVISION

MAINTENANCE WORK - CONTINUED

CROSSING GATE OPERATION

54 automatic gate locations, including Middle Road Barrier.

	<u>1941</u>	<u>1940</u>
Gates Broken by Automobiles	149	151
Other Interruptions*	280	357

20 Manually operated crossing gate locations.

	<u>1941</u>	<u>1940</u>
Gates Broken by Automobiles	35	32
Other Interruptions*	70	74

*Includes interruptions due to power failures, blown fuses, mechanical failures, frosted contacts, line trouble, track circuit trouble, sleet, etc.

CROSSING GATES AND SIGNALS MAINTAINED

	<u>LOCATIONS</u>	
Automatic Gates	53	52
Automatic Gates and Flashers	1	0
Manual Gates	20	21
Flasher Signals - Track Circuit	4	3
Autoflags - Track Circuit	19	21
Autoflags - Manual Control	3	3
Block Signals - S.T. Miles	84.1	83.7
Switch Protection Signals	7	7
Interlocking Plants	5	5
Smash Gates	3	3

EQUIPMENT

PURCHASE OF SPEEDERS - A.F.E. 4300.

845

2 one-man gasoline-powered Fairmont speeders were bought for the Signal Division. A Buda Section Motor car was bought for the Track and Roadway forces. These cars replace obsolete and worn-out equipment.

PURCHASE OF MOWING MACHINES - A.F.E. 4305.

420

2 Gasoline-powered mowing machines were purchased for cutting weeds on the right-of-way. We now have 4 such modern mowing machines on the property.

PURCHASE OF WOODWORKING MACHINERY - A.F.E. 4311.

1050

A new swing cut-off saw and a rebuilt woodworking machine, combining jointer, band saw, rip saw, shaper, boring machine and mortiser, were purchased for the Highwood Carpenter Shop. A 220 volt power line was installed to furnish current to operate these machines.

PURCHASE OF SWITCH HEATERS - A.F.E. 4322.

1190

300 Bethlehem Winter King switch heaters were purchased and installed. We now have a total of 700 switch heaters in service in various yards and interlocking plants.

WINNETKA GRADE SEPARATION

Total 1,396,500
S.L.

The Maintenance of Way forces performed the following work on this project;-

Built 4 additional sand boxes for station platforms.

Moved section tools from old tool house at Pine Street to new house at Willow Road.

Made and installed 3 standard clearance posts at Indian Hill siding and both ends of Pine Street passing track.

Assisted in removal of temporary bridges at Sunset Road and Indian Hill.

Removed station fixtures from Northfield and installed in new station at Hubbard Woods.

See 1942

SACRED HEART GRADE SEPARATION

In June, 1941, the State of Illinois started construction on the Grade Separation at Sacred Heart, Lake Forest.

Work done by the Maintenance of Way forces included the removal of the existing station platforms, highway crossings and crossing protection.

The work performed by the contractors of the State of Illinois consisted of the relocation and extension of the water mains in Westleigh Road, the excavation and paving of the approaches to the bridge site, the construction of a double track runaround 2,100 feet long including 250 feet of double track temporary trestle, and the removal of the signal protection for the Sacred Heart Siding.

At the end of 1941, the State Contractors had completed the north and south abutment and approximately 40% of the center pier.

Effective, September 25, the railroad traffic was diverted from the present mains to the runaround tracks. Temporary platforms were built at Westleigh Road and the necessary adjustments made to the permanent station.

SACRED HEART GRADE SEPARATION - CONTINUED

In order to handle carload freight business resulting from this work, a temporary siding approximately 1,000 feet long was constructed on the east side of the right of way immediately south of Westleigh Road and at the same time the permanent main tracks north of Westleigh Road received their first lift on stone ballast and the frame work for the permanent platforms was completed.

S U M M A R Y

TRACK CONSTRUCTION*

	<u>1941</u>	<u>1940</u>
Main Line Retired - Lineal Feet	1,208.5	-
Side Track Constructed - Lineal Feet	1,581.0	166
Side Track Removed - Lineal Feet	-	2,059

RAIL INSTALLED - SINGLE TRACK FEET*

128#	-	167
112#	270.5	-
102#	3,484	4,181
100#	18,354	640
80#	11,392	3,735
65#	290	-

RAIL REMOVED - SINGLE TRACK FEET*

95#	3,484	4,348
90#	99	-
80#	17,745.5	2,699
65#	12,120	3,569

TIE PLATES AND RAIL ANCHORS INSTALLED*

80#-100# Tie Plates	18,893	17,319
100# Rail Anchors	5,350	168
80# Rail Anchors	-	3,240

NOTE *Does not include material involved in Grade Separation Projects.

S U M M A R Y - C O N T I N U E D

SPECIAL WORK*

	<u>1941</u>	<u>1940</u>
Turnouts Installed	1	2
Turnouts Removed	2	3
Railroad Crossings Renewed	1	-
Crossings Built Up	2	-
Frogs Repaired	12	6
Thermit Welds	202	301

TIES RENEWED*

Main Line	13,687	9,623
Side Track	1,477	2,971
Switch	715	467
Third Rail	-	421
Bridge	619	-

TIES INSTALLED ON NEW WORK*

Side Track	996	80
Switch	52	38

BALLAST - CARS*

Stone - Main Line	44	76
Gravel - Main Line	65	-
Cinders - Main Line	23	105
Gravel - Side Tracks	53	-
Cinders - Side Tracks	27	4

714

NOTE * Does not include material used on Grade Separation Projects.

S U M M A R Y C O N T I N U E D

BROKEN RAILS

	<u>1941</u>	<u>1940</u>
100#	-	1
80#	19	17
65#	9	21
	28	39

BRICK PAVING REPAIRS - SQUARE YARDS

Wilmette	50	65
Kenilworth	20	10
Highland Park	330	-
Waukegan	900	1,600
Milwaukee	125	150

SWITCH HEATERS INSTALLED

Winter King Switch Heaters	300	350
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CROSSINGS

Concrete Slab Crossings Installed	4	1
Gumwood Crossings Installed	1	2
Asphalt Crossings Installed	-	1
Asphalt Crossings Rebuilt	-	4
Plank Crossings Rebuilt	2	1
Grade Crossings Eliminated	1	-

BRIDGE REPAIRS

Bridges Repaired	9	9
Bridges Painted	4	2

S U M M A R Y C O N T I N U E D

PAINTING

	<u>1941</u>	<u>1940</u>
Buildings Painted Outside	31	15
Buildings Painted Inside	22	18
Buildings Painted Inside and Outside	6	2
Company Houses Decorated	12	24

CROSSING PROTECTION

Manual Gates Retired - Locations	1	-
Automatic Gates Installed - Locations	2	-
Automatic Flashers Installed - Locations	2	-
Auto Flags Retired - Locations	2	-
Automatic Gates Damaged by Automobiles	149	151
Manual Gates Damaged by Automobiles	35	32

FENCING

Right of Way Fence Rebuilt - Feet	2,500	16,800
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WEED KILLER

One Application - Single Track Miles	190	160
Two Applications - Single Track Miles	-	21
Total Solution used - Gallons	46,500	65,000

CARLOAD MATERIAL

Sand and Stone	206	130
Coal	45	39
Ties	58	32
Cinders	70	136
Miscellaneous	52	23
	<u>431</u>	<u>360</u>