

CHICAGO NORTH SHORE and MILWAUKEE RAILWAY COMPANY

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

FOR THE YEAR 1950

SUPERINTENDENT OF WAY and STRUCTURES

Highwood, Illinois
March 15, 1951

CHICAGO NORTH SHORE and MILWAUKEE RAILWAY COMPANY

WAY and STRUCTURES DEPARTMENT

ANNUAL REPORT

FOR THE YEAR 1 9 5 0

FOREWORD

On October 1, 1950, Mr. Frank J. Kramer retired as Superintendent of Way, Structures and Power after 34 years of service with the Company. The Way and Structures Department and the Electrical Department which had been consolidated in 1944 were again separated. Mr. Harold G. Mason was appointed Superintendent, Way and Structures and Mr. T. J. Woods was appointed Electrical Engineer.

This report is an account of the work accomplished by the Way and Structures Department during the year 1950 and includes all A.F.E. and extraordinary maintenance work performed by contractors and regular Company forces as well as information and statistics relating to the regular maintenance work which are of interest at this time and will 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	3
TRACK and ROADWAY - Fencing	4
TIES and TIE PLATES	5
BRIDGE and BUILDING - Additions and Betterments	6
BRIDGE REPAIRS	9
BUILDING and PLATFORM REPAIRS	10
PLUMBING and HEATING	11
MACHINE SHOP	12
TIN SHOP	13
MISCELLANEOUS	13
PAINTING	14
SIGNALS and INTERLOCKING - Additions and Betterments	16
SIGNALS and INTERLOCKING - Maintenance Work	19
SIGNALS and INTERLOCKING - Crossing Protection	22
SUMMARY	23

TRACK and ROADWAY DIVISION

ADDITIONS and BETTERMENTS

SIDE TRACK CONSTRUCTION - WEBER - JOB ORDER 803

A contract was entered into with the Deckert Corporation for the construction of additional tracks in the Weber Industrial area. Work done consisted of the following items: -

- (1) The main switching lead on the east side of the Phillips Petroleum Company property was extended north 1,090 feet on a new 20-foot easement to connect with the track serving the Wyeth Company.
- (2) The west track serving Phillips Petroleum Company was extended south across Oakton Street to a connection with the east Phillips' track, 196 feet south of the center line of Oakton Street. Total length of extension is 324 feet. The east track was repaired from the south line of the building to a point 463 feet south. The original single track crossings over Oakton Street and the Phillips' driveway were removed and replaced with double track crossings. The Oakton Street crossing is monolithic steel and concrete construction. The driveway crossing consists of 112# rail on new oak ties laid with 8 inches of stone ballast under the ties and with all cribs filled to the top of the ties after which the ballast was fully grouted and the track zone paved with concrete. All track north of the Phillips Company was removed after the new connection to Wyeth was made. Bumping posts were installed at the north end of both Phillips' tracks and the north fence closed in.
- (3) A new siding 206 feet long was built to serve the Interstate Steel Company. This track lies on the west side of the main switching lead to Wyeth Company and extends north from the point of switch located 673 feet north of the north line of Oakton Street.
- (4) A new switching lead 803 feet long was built on the south 20-foot easement reserved to the Railway by the Harriet M. Hart agreement. This track extends East from a point of switch in the Wyeth lead 409 feet north of the north line of Oakton Street.
- (5) A new siding 400 feet long was built south of and parallel to the new switching lead to serve the Powers Regulator Company.

All tracks are built of 112# relayer rail on new oak ties fully tie plated and stone ballast. All turnouts are 9 degree - C. & N.W. standard. None of the tracks are electrified.

TRACK and ROADWAY DIVISION

ADDITIONS and BETTERMENTS - Continued

RETIRE MAIN TRACK GUARD RAIL - HOWARD-DEMPSTER LINE - A.F.E. 5138

3,318 lineal feet of 80# guard rail and 9,250 lineal feet of 65# guard rail were removed from main line tracks between the Canal Bridge and Howard Street. This guard rail was installed at the request of the C.R.T. Co. when the line was built and was not necessary for the heavier North Shore equipment.

SIDE TRACK EXTENSION - GLEN ROCK AVENUE, WAUKEGAN - A.F.E. 5126

The tail track west of the main line south of Glen Rock Avenue was extended south 340 feet, using 80# relay rail on new side track ties and cinder ballast to provide side track facilities for Braun Bros. Oil Company.

TRACK ABANDONMENT - MILWAUKEE - C. & M.E. Ry. - A.F.E. 6

C. & M.E. Ry. street car service north of the Milwaukee Terminal was discontinued on March 21, 1950. Track from Sixth and Clybourn to Second and Wisconsin was abandoned and a lump sum payment of \$10,000.00 made to the City of Milwaukee in lieu of removing the rails and replacing the pavement. Poles, trolley wire and feeder cables were removed by Transport Company forces and delivered to Harrison Street Yard.

RAIL RENEWAL - MILWAUKEE - C. & M.E. Ry. A.F.E. 8

The track and pavement on South Fifth Street was renewed from a point about 300 feet north of Mitchell Street to a point about 150 feet south of Greenfield Avenue. Existing 95# rail was relaid with new 128# rail laid on the old wood ties which were in good condition. Track was brought to grade with wood shims and steel plates, tie rods installed and all joints thermit welded. The track zone was repaved with brick grouted in place.

INSTALLATION OF CROSSOVER, BRADLEY ROAD - A.F.E. 5141

A trailing point No. 10 crossover was installed between the main line tracks approximately 500 feet east of Bradley Road on the Libertyville Line. Rail and special work is 100# relay material laid on new ties. 80# rail in the main line tracks was renewed with 100# relay rail through the crossover.

TRACK and ROADWAY DIVISION

MAINTENANCE WORK

In addition to the routine work of maintaining the track, cutting weeds, cleaning ditches, greasing curves, filling switch lamps and fighting snow, the following work was done:

Lined and surfaced all curves on Howard-Dempster Line from Howard Street to Oakton Street. Unloaded 17 cars of cinders for shoulders.

Installed 341 pairs of new 100# angle bars and 646 pairs of reconditioned 100# angle bars on the Howard-Dempster Line. All joints were renewed between the Canal Bridge and Dodge Avenue and in the curve east of Dodge Avenue.

Renewed high rail in southbound curve at Lake Bluff, Skokie Valley Line. 974 lineal feet of new 100# rail and 29 pairs of new 100# angle bars were installed.

Rebuilt the asphaltic crossing at 22nd Street, West Line. Renewed all ties and surfaced track on stone ballast.

The full planked main line crossing at Clarkson Street, Waukegan was renewed with blacktop. One plank was laid on each side of each rail. Ties were not renewed as they were found to be in good condition.

Curves north of Burlington Road, Kenosha and at Klinkerts Road, Racine were lined and surfaced.

The crossing at 21st Street, Racine was rebuilt and extended to meet the new concrete pavement placed by the City on 21st Street, west from the tracks. All ties were renewed in the sidings as well as the main line and asphaltic crossings installed with plank on each side of each rail.

The crossing at 6-Mile Road was renewed with plank and asphalt. The ties were in good condition and were not renewed.

All frogs at Ryan Crossing were built up by the Teleweld Company using the arc welding method. In addition the welder from the Bridge and Building Division made six trips to this location to build up various frogs.

TRACK and ROADWAY DIVISION

MAINTENANCE WORK - Continued

Rebuilt Grange Avenue crossing; renewed all ties and installed plank and asphalt surface.

Unloaded 18 cars of stone ballast for dressing track from Layton Avenue to Madison Division Bridge.

Repaired broken rails between Harrison Street and Mitchell Street, Milwaukee. Installed 18 thermit welded joints.

Repaired broken rails on Greenleaf Avenue, Wilmette, and made 22 thermit welded joints.

Rebuilt the plank and asphalt crossing at Park Avenue, Glencoe and renewed all ties.

Blanchard's siding at South Upton was shifted north to accommodate a new industry which has leased the site. The new location is 31 feet south of and parallel to the east-bound main line of the Libertyville Branch.

Rebuilt crossing at 4th Street, Libertyville. Renewed all ties and installed plank and asphalt surface.

Replaced full plank crossing at Brice Avenue, Mundelein with plank and asphalt construction. Ties were in good condition and were not renewed.

The facing point crossover at Mundelein Station was moved east 292 feet.

FENCING

Rebuilt west right-of-way fence from Howard Avenue, Milwaukee to the Madison Division bridge of the C. & N.W. Ry. - 7,500 lin. ft.

Rebuilt east right-of-way fence from Howard Avenue, Milwaukee to the C.M.St. P. and P. Ry. - 2,700 lin. ft.

TRACK and ROADWAY DIVISION

MAINTENANCE WORK - Continued

Installed 15,459 - 100# double shoulder tie plates as follows:

<u>SECTION</u>	<u>TIE PLATES</u>
1 - Dempster St.	5,188
2 - Briergate	970
3 - South Upton	4,494
4 - Waukegan	756
5 - Zion	43
6 - Kenosha	1,458
7 - Racine	640
9 - Grange Avenue	920
10 - Milwaukee	938
14 - Lake Forest	<u>52</u>
TOTAL TIE PLATES -	15,459

TIES RENEWED

Ties were renewed by Company forces as follows:

<u>SECTION</u>	<u>MAIN LINE</u>	<u>SIDE TRACK</u>	<u>SWITCH</u>
1 - Dempster Street	3,329	155	20
2 - Briergate	450	70	112
3 - South Upton	2,242	120	35
4 - Waukegan	546	205	34
5 - Zion	9	-	10
6 - Kenosha	981	75	28
7 - Racine	337	33	-
8 - 4-Mile Road	45	-	-
9 - Grange Avenue	531	-	-
10 - Milwaukee	461	118	21
11 - Libertyville	745	31	20
✓12 - Winnetka	412	-	35
✓13 - Highwood	1,183	62	27
✓14 - Lake Forest	<u>1,376</u>	<u>197</u>	<u>24</u>
	12,647	1,066	366

BRIDGE and BUILDING DIVISION

ADDITIONS and BETTERMENTS

RETIRE SHELTER AT BELMONT AVE., CHICAGO - A.F.E. 5172

The frame shelter located on the northbound platform at Belmont Avenue, Chicago was removed by the C.T.A. at their expense. All salvage was retained by the C.T.A.

CONSTRUCTION OF STAIRWAY AT DOWNEY'S - S.V.L. - A.F.E. 5178

A wood stairway, 8 feet wide and 11 feet long, was built at the north end of Downey's Station extending from the top of the bank to the concrete road on the west side of the station. A blacktop walk was built from the top of the stairs east to connect with the platform in front of the station. Both sides of the walk and stairway are provided with wood railings.

CONSTRUCTION OF PATHS AT NORTH CHICAGO JUNCTION - A.F.E. 5136

Two cinder paths, 4 feet wide, were constructed at North Chicago Junction to enable Trainmen to walk to the switches during the absence of switchmen. One path lies on the east side of the northbound Shore Line track and extends from the C. & N.W. bridge to the northbound east line platform. The second path extends from the south end of southbound Skokie Valley Line platform to the C. & N.W. bridge. Plank crosswalks are provided where the path crosses the Skokie Valley Line tracks.

EXTEND SOUTHBOUND PLATFORM AT EDISON COURT - A.F.E. 5148

The southbound platform was extended 104 feet south with standard wood construction in order to provide facilities for loading 6-car trains standing on the add track.

RETIRE STATION SHELTERS IN WISCONSIN - A.F.E. 5147

Standard frame shelters and wood connecting walks were retired at Pipers Road, Klinkerts Road and Five Mile Road, all in Racine County, Wisconsin.

BRIDGE and BUILDING DIVISION

ADDITIONS and BETTERMENTS - Continued

RETIRE SCALE HOUSE - RACINE QUARRY - A.F.E. 5170

The frame scale house at the Quarry was retired together with the concrete floor, concrete foundation and electric lighting. The scale pit was filled in with Quarry waste.

RETIRE SHELTERS AT BOLIVAR AVENUE - A.F.E. 5174

Retired 2 standard #3 frame shelters at Bolivar Avenue, Milwaukee County, Wisconsin.

RETIRE SHELTER AT MILWAUKEE TERMINAL - A.F.E. 5135

The frame shelter, formerly used as an office for attendants at the parking lot at Milwaukee Terminal, was removed by the operator of the parking lot.

ADDITION TO BAGGAGE ROOM - MILWAUKEE TERMINAL - A.F.E. 5142

Additional space for the Baggage Room was provided by building a partition across the east end of the station concourse approximately 16 feet west of the east end of the building. Construction consists of Masonite panels on wood studding. A 5-foot doorway is provided in the partition. The south wall of the concourse was rebuilt with the same type of construction and a new 5-foot sliding door installed. One radiator was installed in the northeast corner and a counter built across the west end of the room.

CHANGES IN TRANSPORTATION DEPARTMENT OFFICE - HIGHWOOD - A.F.E. 5134

Remodeling work done in this office consisted of removal of old Shore Line dispatch board; relocation of Chief Dispatcher's desk; removal of partition formerly inclosing Assignment Clerk's office; relocation of partition in hallway leading to Dispatcher's office; installation of self-closing window and electric door lock on steel door to Dispatcher's office and installation of inter-communication set between hallway and Dispatcher's office. ✓

BRIDGE and BUILDING DIVISION

ADDITIONS and BETTERMENTS - Continued

CONSTRUCT AND EQUIP RELAY REPAIR SHOP - HIGHWOOD - A.F.E. 5143

A semi-fireproof building, to be used as a relay repair shop, was built in the south yard at Highwood immediately south of the Signal Shop. Building is 14' x 18' in size of concrete block construction on concrete foundation, pre-cast concrete slab roof and wood floor on concrete sub-floor. Window sash are steel and door is metal-clad. The interior is lined with transite. 110/220 volt A.C. power was extended to the new shop and fluorescent light fixtures installed. Work remaining to be done consists of finishing benches and shelves and equipping the shop with tools and supplies.

EXTENSION OF PLATFORM - 4th STREET, LIBERTYVILLE - A.F.E. 5171

The westbound platform was extended 112 feet east using standard fill platform construction consisting of cinder fill with limestone screenings topping retained by 4" x 14" wood curb adjacent to the track.

BRIDGE and BUILDING DIVISION

MAINTENANCE WORK

BRIDGES and TRESTLES

The following repairs were made by Company forces: -

LAMB'S CROSSING, SKOKIE VALLEY LINE

Renewed 5 piles and 1 cap.

C.M.St. P. and P. Ry. CROSSING - MILWAUKEE

Renewed 160 ties and 40 pieces of guard rail.
65 ties were turned over and brush-painted with creosote. ✓
Installed 450 new 100# tie plates.

MUTUAL COAL TRESTLE - HIGHLAND PARK

Renewed 23 piles, 4 caps, 6 stringers, 6 ties and
10 braces with new material. Renewed 8 stringers, 28 ties ✓
and 2 mud sills with secondhand material. Repaired the
catwalks.

NAVAL STATION TRESTLE

Renewed 4 piles and 1 cap with new material.

CONTRACT WORK

ONWENTSIA ROAD, SKOKIE VALLEY LINE

The Herlihy Mid-Continent Company replaced the
east column of the center support of the bridge over U.S. 41
at Onwentsia Road, Lake Forest, which was damaged by collision
with a truck. The concrete collision wall was extended east
about 13 feet and raised in height about 4'-6" to a point
west of the column.

BRIDGE and BUILDING DIVISION

MAINTENANCE WORK

BUILDING and PLATFORM REPAIRS

In addition to routine minor repairs to buildings and platforms on the system, the following major items were done:-

At Adams and Wabash Station the partition separating the Ladies' Room from the mezzanine landing was moved 18 feet east to provide space for a new tenant operating a jewelry store and to reduce the size of the Ladies' Waiting Room.

The old frame freight house at Mundelein was taken down and moved to Dempster Street where it was re-installed to serve as a tool house for the section gang.

Two sets of windows were removed from the Dempster Interlocking Tower and reinstalled at South Upton Tower. The window openings at Dempster Street were boarded up.

Extensive repairs were made to tile roofs at Dempster and Harmswoods Stations.

Made extensive repairs to the high platform at Downey's Station, Skokie Valley Line and to the southbound main line platform at North Chicago Junction.

Moved the tool house from Ravinia Park to Edison Court for a tool house for the section gang. Moved the section tool house from 9th Street, Waukegan to Edison Court for a signal shop and retired the old sheet metal maintainers' shed.

Rebuilt the "H" type shelter at Holdridge Road. This shelter had been demolished in a crossing accident.

Repaired the tile roof on Zion Station.

Built and installed storm sash on all windows in Kenosha Freight House Office.

Repaired the tile roof on Kenosha Passenger Station.

At Harrison Street, Milwaukee, the baggage room was removed from the freight house portion of the building and relocated in the office immediately north of the waiting room.

BRIDGE and BUILDING DIVISION

MAINTENANCE WORK

BUILDING and PLATFORM REPAIRS - Continued

A new 3-ply built up roof was installed on the canopies over the two loading platforms at Milwaukee Terminal. The canopy over the sidewalk at the Sixth Street entrance was covered with 1 inch of insulation and a 3-ply built up roof applied. All work was done by the Winding Roofing Co. of Milwaukee.

Company forces laid new roll-roofing on the Church Street Station.

Renewed the platform curbs at Linden Avenue, Wilmette. ✓

The Signal Shop at Highwood was weather-proofed by the application of roll-roofing to the outside walls and construction of a Celotex ceiling. ✓

Renewed the deck on the troop loading platform in Highwood Yard. ✓

Repaired platform curbs at Lake Bluff, Shore Line. ✓

Renewed all curb planks on the eastbound platform at 4th Street, Libertyville.

PLUMBING and HEATING

Installed wall type, hand flushed urinals as follows: - Highwood Office basement - 2; North Chicago Junction - 1; Edison Court - 1; These were purchased as salvage from Great Lakes Naval Training Center.

Installed new hot air furnace in the Company House at 1320 Tenth Street, Waukegan.

Installed new 1-1/2" galvanized water line from the basement to the second floor in the Waukegan Garage.

Extended the car washer line at Edison Court 100 feet south with 3/4" galvanized pipe. This is a "Summer Line" installed above ground on wood posts.

BRIDGE and BUILDING DIVISION

MAINTENANCE WORK

PLUMBING and HEATING - Continued

Installed new Weil McLain hot water boiler at Zion Station.

Installed new Weil McLain steam boiler at Kenosha Station and renewed the flue pipe.

At Milwaukee Terminal the 3" cast iron water line was renewed from the curb line to the basement and all valves and fittings renewed at the meter. Work was done by our local plumber, Edward Pivonka.

Renewed the hot air furnace at Winnetka Station. ✓

Installed new 3/4" copper water service, 40 feet long, at Ravinia Station. ✓

Installed a complete new set of tuyeres and retort in the stoker at Highwood heating plant and installed a hand hole in the rear of the boiler. This work was done by Ralph Nelson of Waukegan. ✓

MACHINE SHOP

In addition to the routine work of maintaining plumbing and heating facilities, tools and work equipment, the following work was done:-

Overhauled 6 section gang motor cars and 7 small inspection speeders.

Rebuilt 8 push cars.

Made steel gear racks and did general welding and machining work for the Signal and Interlocking Division.

Overhauled all Barco tytampers..

Repaired 14 switch points and 10 frogs in the Shop.

Built up crossing frogs at Ryan Tower and National Avenue; special work at Milwaukee Terminal; rail ends on the draw bridges of the 6th Street Viaduct; switch points and frogs in Harrison Street Yard and switch points at Oklahoma Avenue and Austin Avenue.

BRIDGE and BUILDING DIVISION

MAINTENANCE WORK

TIN SHOP

About 75% of the time of this shop is devoted to making water coolers, flush tanks, water supply tanks, card holders, toilet chutes, destination sign box panels, car heater magazines, roof flanges, roof jacks and ventilators for the Mechanical Department. Made up all sheet metal work for cars in the reconditioning program.

In addition to the foregoing work for the Mechanical Dept. and miscellaneous spot maintenance to heating plants and sheet metal work on buildings, the following was done:

Made platform railing braces, sign braces, sign blanks, sand box corners, trash cans, tilt-top cans, roofs for switch cabinets and manual control boxes for automatic gates.

Renewed hot air furnaces at Winnetka Station and house at 1320 Tenth Street, Waukegan.

Installed new exhaust stack at Howard Street.

Installed stainless steel wall guard around the hot plate at North Chicago Junction Concession.

Repaired switch lamps, headlights and marker lamps.

MISCELLANEOUS

Constructed trolley troughs for new Edens Parkway and Nash overhead crossing.

Built 8 large switch cabinets, 7 sand boxes and 4 large coal boxes.

Made annual fire inspection at all passenger and freight stations, interlocking towers and section houses.

Installed concrete cribbing 4 feet high by 50 feet long to support the track shoulder at the culvert north of Pettibone Yard Office on the Skokie Valley Line.

BRIDGE and BUILDING DIVISION

MAINTENANCE WORK

MISCELLANEOUS - Continued

Repaired the inter-track fence at Great Lakes, ✓
Shore Line.

Repaired all blacktop crossings in Illinois
and in Wisconsin as far north as Racine.

Enlarged parking lots at Glenayre, Northfield,
Northbrook, Briergate and Zion.

Unloaded and spread 2 carloads of cinders for
walkway along loading track at Edison Court.

Constructed new wheel rack on north side of ✓
Car Repair Shop at Highwood.

Renewed 1,200 feet of fence on the east
right-of-way line from Ridgeland Avenue south.

Constructed 170 feet of chain link fence in ✓
rear of new buildings south of Washington Avenue, Highwood.

PAINTING

LOCATION

DESCRIPTION

Howard Street Station	-	Washed outside, painted inside.
" " Trainmen's Room	-	Washed inside.
Kenosha Station	-	Washed inside of station.
	-	Painted outside of shelter.
✓ Church Street, Evanston	-	Washed inside.
Wilmette Avenue	-	Washed inside.
Indian Hill	-	Washed inside.
Winnetka	-	Washed inside.
Hubbard Woods	-	Washed inside.
Glencoe	-	Washed inside.
Ravinia	-	Washed inside.
Highland Park	-	Washed inside, painted wainscot.
✓ Highwood Avenue	-	Washed inside.

BRIDGE and BUILDING DIVISION

MAINTENANCE WORK

PAINTING - Continued

<u>LOCATION</u>		<u>DESCRIPTION</u>
✓ Highwood Office		Painted outside of entire building; painted inside in west porches, payroll department, employment office, basement hall and Men's Room.
✓ Highwood Office Annex	-	Painted inside.
✓ Fort Sheridan	-	Washed inside.
✓ Lake Bluff	-	Washed inside.
Libertyville	-	Painted inside.
Mundelein	-	Painted basement.
Milwaukee	-	Painted "Car Stop" signs on poles.

CONTRACT PAINTING

The Milwaukee Terminal was cleaned and painted throughout by Surges Brothers, Inc. of Milwaukee. All plastered and cement surfaces, wood trim, pipes, radiators and doors in Public Rooms, Concession Office and Storeroom, Traffic Offices, Parcel and Baggage Rooms, Locker Room, Shop Office and Trainmen's Rooms and concourse were washed and painted one coat. All interior brick walls were thoroughly cleaned. All exterior wood and metal surfaces were washed and painted one coat. On the station platforms, all metal and wood surfaces were cleaned down to platform level and painted one coat. The undersides of sidewalk and platform canopies were painted two coats. All signs lettered on concrete or wood surfaces were repainted.

SIGNAL and INTERLOCKING DIVISION

ADDITIONS and BETTERMENTS

COOK COUNTY CROSSING PROTECTION PROGRAM

Work was continued on the program of crossing protection improvements for 10 grade crossings in Cook County. This work was started in 1949. All costs except engineering are borne by Cook County. A detailed account by locations follows.

CRAWFORD AVENUE - JOB ORDER 426

Two standard flashing light signals with front and back units were installed to operate in conjunction with the existing automatic gates. A third lamp was mounted on each gate arm and a large battery installed in a precast concrete battery box. Flashers were put in service on February 10, 1950.

OAKTON STREET - JOB ORDER 427

Two standard flashing light signals with front and back units and bells were installed to operate in conjunction with the existing automatic gates. The two west gates were relocated west of the interchange track and all four gates moved back from the curb for a maximum clearance. A single rail track circuit was installed on the interchange track through the crossing and extending to the main line clearance point. A larger battery was installed in a precast concrete battery box. Flashers were put in service on July 10, 1950.

NILES CENTER ROAD - JOB ORDER 428

Two standard flashing light signals with front and back units and bells were installed to operate in conjunction with the existing automatic gates. Gates were moved back from the curb to provide maximum clearance and a third lamp was mounted on each gate arm. A larger battery was installed in a precast concrete battery box. Flashers were put in service on April 11, 1950.

SIGNAL and INTERLOCKING DIVISION

ADDITIONS and BETTERMENTS - Continued

DEMPSTER STREET - JOB ORDER 429

Two standard flashing light signals with front and back units were installed to operate in conjunction with the existing automatic gates. One signal is equipped with a bell. A third lamp was mounted on each gate arm and a larger battery installed in a precast concrete battery box. Flashers were put in service on February 27, 1950.

GLENVIEW ROAD - JOB ORDER 431

Two standard flashing light signals with front and back units were installed to operate in conjunction with the existing automatic gates. One signal is equipped with a bell. A larger battery was installed in a precast concrete battery box. Flashers were put in service on June 13, 1950.

DUNDEE ROAD - JOB ORDER 433

Two standard flashing light signals with front and back units were installed to operate in conjunction with the existing automatic gates and a larger battery was installed in a precast concrete battery box. Flashers were put in service on April 19, 1950.

LAKE AVENUE, WILMETTE - A.F.E. 5152

Work was started on the installation of four, track circuit controlled, Griswold Signal Company automatic gates and flashers to replace the existing manually operated gates. At the end of the year the job was 60% complete.

RETIREMENT OF DEMPSTER INTERLOCKING PLANT - A.F.E. 5144

This A.F.E. provides for the retirement of the Dempster Terminal loading tracks and special work, the Dempster Interlocking Plant and Block Signal 134. Special work in the Main Line is to be replaced with straight rail. At the end of the year the interlocking machine and Signal No. 134 had been removed and work had started on removal of the pipe lines.

SIGNAL and INTERLOCKING DIVISION

ADDITIONS and BETTERMENTS - Continued

MODERNIZATION OF RACINE INTERLOCKING PLANT - A.F.E. 5097

As the first step in the rebuilding of this plant, new color light home, distant and dwarf signals were installed replacing the original semaphore signals which govern movements on the North Shore tracks. North Shore derails were removed. The distant signals were relocated to give sufficient braking distance for high speed operation and to fit into the future block signal system.

On the Milwaukee Road the upper quadrant home signals were changed to lower quadrant; the westbound distant signal was retired and the eastbound distant signal made an inoperative, lower quadrant signal.

FLASHING LIGHT SIGNALS AT KNOLLWOOD - A.F.E. 5117

Three Griswold Signal Company flasher light signals with front and back lamp units were installed to operate in conjunction with the existing automatic gates. Two signals are mounted on one pole at the northwest corner of the crossing and the third unit is located at the southeast corner. The eastbound gate cutout was relocated to the east side of the crossing. Flashers were put in service on December 5, 1950. The State of Illinois paid 50% of the cost of this work.

SIGNAL and INTERLOCKING DIVISION

MAINTENANCE WORK

In addition to the routine work of maintaining interlocking plants, block signals and crossing protection devices, the following work was done by Company forces and charged to maintenance accounts: -

Style "N" signal heads on Block Signals 89, 92, 93, 95 and 96 between Howard Street, Chicago and Dodge Avenue were replaced with Style "N-2" signal heads to improve indication and reduce lamp burnouts.

A third lamp was installed on each gate arm at East Prairie Road.

Renewed the cables to the automatic gates at Kostner Avenue. Three inch pipe was installed under both main tracks and the siding east of the crossing and was pushed across Kostner Avenue, north of the side track.

The Model "E" automatic sidewalk gate at the entrance to the Oakton Street Station was removed and a barricade erected.

Cleaned and refilled the mechanical switch at the north end of Oakton Street crossover.

A precast concrete battery box was installed at Clavey Road.

Aerial signal cable was renewed from Signal L30 to Signal 303, north of K.O. Tower.

A new concrete base was installed for Dwarf Signal L42 at South Upton. Trunking at Green Bay Junction was straightened and partially renewed.

New underground signal cable was installed on the east side of the main line from Signal 342 to the relay case at the Downey's fire crossing. From this point signal circuits are carried in the five crossing cable to a new junction box at the Pettibone Yard lead-out switch at Downey's Subway.

A precast concrete battery box was installed at Dugdale Road, Waukegan.

SIGNAL and INTERLOCKING DIVISION

MAINTENANCE WORK - Continued

At Belvidere Street, Waukegan, a three-inch pipe was pushed across the street on the east side of the crossing.

A precast concrete battery box was installed at Beanie Brook crossing.

Renewed the cable between relay case and autoflag at Beach Road.

Installed a precast concrete battery box at 33rd Street, Zion.

At Lebanon Avenue, Zion, the motor driven autoflag was replaced with a magnetic type unit.

At 26th Street, Zion, Signal 440 was relocated 10 feet farther south on a precast concrete base. Signal 441 was moved to the north side of the street and mounted on a precast base. Track cuts were moved to suit the new signal locations and all track cables renewed. The motor driven autoflag was replaced with a magnetic type unit and a precast concrete battery box installed.

A precast concrete battery box was installed at Winthrop Harbor Road.

All gate cables at 60th Street, Kenosha were renewed.

At 21st Street, Racine, the automatic gates were relocated in connection with the widening of the crossing and paving of the street. Pipe was installed through the crossing and across the tracks and all gate cables renewed.

Control wires for the manually operated electric crossing gates at 17th Street, Racine were installed in aerial cable from the C.M.St.P. and P. track to 17th Street. The new cable replaces the old wires formerly carried in trucking. Old type oil lanterns on the gate arms were replaced with two-way electric lights controlled by mercury switches.

The governor on the air compressor at Kinzie and Osborne, Racine, was changed out and taken to Highwood for overhauling.

SIGNAL and INTERLOCKING DIVISION

MAINTENANCE WORK - Continued

The Style "N" signal head on Signal 820 at Oklahoma Avenue was replaced with a Style "N-2" head to improve visibility and reduce lamp burnouts.

Cleaned and refilled the mechanical switchmen at Austin Avenue and Oklahoma Avenue on the single track. Both switch machines were changed out and taken to the Highwood Shop for repairs.

Changed out the mechanical switchman on the south end of the Oklahoma Avenue crossover.

Renewed cable to the northeast gate at Green Bay Road, Glencoe. ✓

At Deerpath Avenue, Lake Forest, the cables to the northeast gate were renewed and new bootlegs and track cables installed. ✓

Track cables were renewed at Westminster Avenue Lake Forest and a new meter box installed. ✓

The fire crossing signals at Downey's, East Line, was removed and taken out of service on April 12, 1950.

The manual control for Knollwood gates, east-bound, was moved from the scale house to a point 100 feet farther east.

Cleaned and refilled the mechanical switchman at the Rondout Scale House.

Moved the gate holding signal at 4th Street, Libertyville farther east to clear the platform extension.

A precast concrete battery box was installed at Garfield Avenue, Libertyville.

During the year, 35 relays were repaired in the C.T.A. Relay Shop; 3 motors were repaired by Holt Electric Company at Milwaukee and 25 motors were repaired by Cote Electric Company, Waukegan.

Nine automatic gate pedestals were replaced and taken to the Signal Shop for overhauling. Locations are as follows:

Oakton Street	-	1 gate	60th Street, Kenosha	-	2 gates
Dempster Street	-	1 "	21st Street, Racine	-	1 gate
Simpson Street	-	1 "	Knollwood	-	1 "
Willow Road	-	1 "	Milwaukee Avenue	-	1 "

SIGNAL and INTERLOCKING DIVISION

MAINTENANCE WORK

CROSSING GATE OPERATION

61 Automatic Gate Locations

	<u>1950</u>	<u>1949</u>
Gates broken by automobiles	96	125
Other interruptions*	270	287

20 Manually Operated Crossing
Gate Locations

Gates broken by automobiles	29	34
Other interruptions*	73	102

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

CROSSING GATES and SIGNALS MAINTAINED

Automatic Gates	43	50
Automatic Gates & Flashers	17	10
Manual Gates	20	20
Flasher Signals	6	6
Autoflags - Track Circuit	16	16
Autoflags - Manual Control	3	3
Block Signals - S.T. Miles	111.0	111.0
Switch Protection Signals	8	8
Fire Crossing Signals	-	4
Interlocking Plants	4	4
Smash Gates	3	3
Gate Indication Signals	15	15

WAY and STRUCTURES SUMMARY

	<u>1950</u>	<u>1949</u>
<u>TRACK CONSTRUCTION - LINEAL FEET</u>		
Side Track Constructed	3,163	1,426
Side Track Retired	1,147	100

RAIL INSTALLED - SINGLE TRACK FEET

128#	2,514	-
112#	2,823	-
100#	314	2,500
80#	<u>340</u>	<u>2,419</u>
TOTAL -	5,991	4,919

RAIL RENEWED IN KIND - SINGLE TRACK FEET

100#	487	702
80#	<u>-</u>	<u>-</u>
TOTAL -	487	702

RAIL REMOVED - SINGLE TRACK FEET

95#	2,514	-
80#	1,461	-
65#	<u>-</u>	<u>2,267</u>
TOTAL -	3,975	2,267

TIE PLATES INSTALLED

100#	15,439	13,603
------	--------	--------

ANGLE BARS RENEWED - PAIRS

100#	1,073	131
------	-------	-----

SUMMARY - Continued

	<u>1950</u>	<u>1949</u>
<u>SPECIAL WORK</u>		
Crossovers Installed	1	-
Turnouts Installed	4	2
Turnouts Removed	1	-
Crossings Built Up	2	3
Frogs Repaired	10	-
Switch Points Repaired	14	9
Thermit Welds	132	90

<u>TIES RENEWED</u>		
Main Line	12,647	8,608
Side Track	1,066	119
Switch	366	204
Bridge	166	481
3rd Rail	--	<u>533</u>
TOTAL -	14,245	9,965

*TIES INSTALLED ON NEW WORK

Main Line - New	22	466
Side Track - New	150	207
Switch - New	108	84

BALLAST - CARS

Stone	18	10
-------	----	----

BROKEN RAILS

100#	1	1
80#	3	1

*Does not include ties installed at Weber by Deckert Corporation as no inventory has been taken.

SUMMARY - Continued

	<u>1950</u>	<u>1949</u>
<u>CROSSINGS</u>		
Precast Concrete Crossings Installed	-	3
Gumwood Crossings Extended	-	2
Asphalt Crossings Rebuilt	8	2
<u>BRIDGE REPAIRS</u>		
Bridges Repaired	5	9
<u>PAINTING</u>		
Buildings - Painted and decorated	18	5
<u>CROSSING PROTECTION</u>		
Automatic Gates and Flashers Installed - Locations	-	2
Automatic Flashers Installed - Locations	7	-
Automatic Gates Damaged by Automobiles	96	125
Manual Gates Damaged by Automobiles	29	34
<u>FENCING</u>		
Right-of-Way Fence Rebuilt - Lin. Feet	11,400	42,200
<u>WEED KILLER</u>		
One Application - Single Track Miles	200	200
Total Solution Used - Gallons	40,900	33,200
<u>CARLOAD MATERIAL</u>		
Sand and Stone	32	21
Coal	29	19
Ties	69	8
Cinders	51	40
Miscellaneous	<u>9</u>	<u>8</u>
	190	96