

*Original  
Blackhall  
Report  
on the Elgo-Waukegan  
Busses*

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FOR  
CHICAGO NORTH SHORE AND MILWAUKEE RAILROAD COMPANY  
WAUKEGAN CITY LINES  
PROPOSED SERVICE REVISIONS

1932

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WAUKEGAN CITY LINES  
PROPOSED SERVICE REVISIONS

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WAUKEGAN CITY LINES  
PROPOSED SERVICE REVISIONS

GENERAL SUMMARY

The application of gas buses is recommended to replace the existing car lines and to improve and extend the present gas bus system. This offers the best means of providing an efficient modern transportation system. Extensive track reconstruction is in prospect on the rail lines which can hardly be justified. Also, modern rolling stock is highly desirable to assure a service that will be more attractive to patrons.

Gas buses can be operated at a much lower cost than the street cars, also a good many savings can be effected in comparison with the present operation due to the elimination of track maintenance, overhead maintenance, and the car house and shop at North Chicago, higher schedule speeds and a better and more flexible layout of the transportation system. The improved service should prove more attractive to patrons and offer an excellent opportunity to increase annual net income. It is estimated with 5% increase in passengers carried and operating economies effected, an estimated net income can be realized of approximately \$6,332 as against a loss of \$43,213 in 1933. See Exhibit "N".

A total of ten new gas buses and ten of the buses now in use on the present bus system will be required to serve the routes indicated on attached Map Exhibit "B". A 20 passenger vehicle is recommended as best suited for the service. The investment required for the ten new buses is \$50,000. The investment required for spare parts etc., is estimated at \$5,000, making a total investment of \$55,000.

The present garage and shop facilities at Tenth Street are ample to adequately house and service the equipment required for the proposed bus system. OK.

In connection with the revision of the city line operation the revision of the interurban operation is being considered due to the fact that the City of Waukegan and the Highway Department of the State of Illinois have plans for the reconstruction of the storm and sanitary sewer system, and the repaving of South Genesee Street from 10th Street to Belvidere Street. This work has been deferred for the past two years at the request of the railroad. It is estimated that the cost of rehabilitation of the track structure involved would range between \$121,895 and \$163,059 depending on the method of carrying out the improvement. See Exhibit "S".

If and when these improvements are made it may be advisable to abandon interurban operation over the east line from North Chicago Junction to County Street Terminal and operate over the west line to Edison Court. This change would involve the closing of County Street Terminal and the station at North Chicago Junction.

Additional tracks and facilities would be required at Edison Court to take care of the increased service in and out of this station and the transfer of passengers from the Shore Line to the Chicago-Milwaukee (Skokie) trains. Station and platform facilities will be provided at 22nd Street, West Line for the accommodation of North Chicago passengers. The estimated cost of these facilities is \$20,000. Economies effected by the closing of the County Street terminal would approximate \$7,300 annually.

There are several industries on the East Line between North Chicago Junction and Tenth Street now receiving freight service. This business however has not been considered profitable. The number of cars and revenue is shown on Exhibit "P".

If the proposed revisions of service are not made and the present methods of operation are continued, the railroad is faced with an expenditure in the near future of between \$121,895 and \$163,059 for track rehabilitation and the replacement of at least ten of its present city cars at \$14,000 or \$140,000, making a total expenditure of approximately \$275,000. Whereas for an expenditure of \$55,000 for ten new buses and necessary accessories, etc., and \$20,000 for additional facilities for the interurban operation over the west line, or a total expenditure of \$75,000, economies can be made and improved service provided to effect an estimated net income of \$6,333 annually on the city line operation and an estimated saving of \$7,300 annually on the interurban operation.



## WAUKEGAN CITY LINES

### PROPOSED SERVICE REVISIONS

#### PROPOSED ROUTES

Maps of the present and proposed routes are attached to this report as exhibits "A" and "B". It is proposed to completely abandon rail operation in Waukegan and North Chicago and substitute three bus routes described as follows:

#### RED LINE

The Red Line will start from Morrow and Kristan Avenue, thence on Kristan Avenue to Twenty-second Street to State Street to Genesee Street to Franklin Street to North Avenue to Greenwood Avenue to Jackson Street. Return will be on Jackson Street to Glen Flora Avenue to North Avenue and thence to Morrow and Kristan Avenues on the northbound route. Headway is to be fifteen minutes base with seven and one-half minute service in the peak hours. Four buses will take care of off peak service and eight will be needed for the rush hours. Running time, including lay over time, for the round trip of 11.8 miles will be 60 minutes.

#### YELLOW LINE

The Yellow Line will operate over the same route as the present Grand Avenue Line, with the same headways but with a faster running time. It is proposed to use three buses on a forty-five minute running time for the round trip and alternate these on the Brown Line to the Saint Therese Hospital as is being done on the present Sunday schedule on this line. The round trip distance is 9.9 miles.

#### BROWN LINE

The proposed Brown Line will have a round trip mileage of 7.8 miles. A description of the route is as follows:

From Tenth and Jackson Streets on Jackson Street to Belvidere Street to Sheridan Road to Washington Street to Saint Therese Hospital. Return on Washington Street to County Street to Madison Street to Genesee Street to Belvidere Street to McAllister Avenue to Tenth Street to Jackson Street.

It is proposed to use a thirty minute headway with forty-five minute running time, alternating buses between this line and the yellow Line. In addition it is proposed to run service on Washington Street between Sheridan Road and Lewis Avenue on a fifteen minute base headway with ten minutes during rush hours which will require one bus during off peak and two during peak hours.

The present tripper service to the Tannery and the Johns Manville plants is to be continued. This is shown in green on Exhibit "B".

## WAUKEGAN CITY LINES

### PROPOSED SERVICE REVISIONS

#### PRESENT OPERATION

The present city service in Waukegan and North Chicago is given by two rail lines and two motor coach routes.

#### NORTH AVENUE LINE

The North Avenue street car line has a one-way length of 5.06 miles. The route is as follows:

Greenwood Avenue and North Avenue on North Avenue  
to Franklin Street to County Street to Water Street  
to South Genesee Street to North Chicago Junction.  
Return on South Genesee Street to Clayton Street  
to County Street and then over the same route.

Alternate cars are operated over Glen Flora Avenue from North Avenue to western Avenue and are part of the same route. During the morning and evening peak hours cars are operated south to Downeys Crossing over the Shore Line Route - a distance of 0.59 miles.

The headway over the North Avenue line is fifteen minutes from 5:05 a.m. to 5:35 a.m., and ten minutes from 5:35 a.m. to 8:35 a.m. 7 cars are required and the running time is 31 minutes to and from Downeys. From 8:35 a.m. to 3:35 p.m. the headway is fifteen minutes with a running time of 25 minutes northbound from North Chicago Junction and 27 minutes southbound to North Chicago Junction. Service is provided by four cars. From 3:35 p.m. to 6:05 p.m. a ten minute headway is provided with the same running time and number of cars as in the morning peak. After 6:05 p.m. until 11:05 p.m. a fifteen minute headway with 4 cars and the same running time as the daytime off peak period. From 11:05 p.m. to 12:05 a.m. twenty minute service is provided with 3 cars. The last car leaves North Chicago Junction, northbound, at 12:35 a.m. and pulls in at 1:25 a.m. On Sunday a twenty minute service is provided until 1:05 p.m. and fifteen minute service thereafter with the last trip the same as on week days. On Saturdays the morning service is the same as on week days, but the fifteen minute headway is continued through the afternoon.

The portion of the line from North Chicago Junction to Tenth Street, Waukegan is double track open type construction.

#### WASHINGTON STREET LINE

The Washington Street car line has a one-way length of 1.35 miles. Operation is over Washington Street between Sheridan Road and Lewis Avenue. A ten minute service is provided from 5:50 a.m. to 7:30 p.m. with two cars and a round trip running time of twenty minutes. From 7:30 p.m. to 12:50 a.m. the headway is increased to twenty minutes, and one car is operated. On Sundays a twenty minute service is operated all day.



#### GRAND AVENUE LINE - BUS OPERATION

The Grand Avenue bus line has a round trip length of 9.9 miles. The route is as follows:

From Tenth Street and Jackson, on Tenth Street to Mcallister Avenue to Belvidere Street to Genesee Street to Grand Avenue to the County Hospital with alternate buses stopping at McAree Road. Returning over same route to Belvidere Street and Mcallister Avenue, thence on Belvidere Street to Jackson Street to Tenth Street.

The headway is thirty minutes from 5:30 a.m. to 11:00 p.m. with a thirty minute running time in each direction. Two buses are used. From 7:00 a.m. to 8:00 a.m. and from 4:00 p.m. to 6:00 p.m. a tripper is operated between Washington Street and Genesee Street and McAree Road providing a fifteen minute headway between those points. On Sundays a thirty minute service is operated all day with a 45 minute running time for the round trip. 3 buses are used alternating between the Grand Avenue and the Saint Therese Hospital lines.

#### SAINT THERESE HOSPITAL LINE - BUS OPERATION

The Saint Therese bus line has a round trip length of 9.0 miles. The route extends from Tenth Street and Jackson Street as follows:

On Jackson Street to Belvidere Street to Sheridan Road to Washington Street to Glen Rock Avenue to Butrick Street to Lloyd Street to Lewis Avenue to Washington Street to Saint Therese Hospital. Returning over same route to Washington and County Streets thence on County Street to Madison Street to Washington Street to Belvidere Street to Mcallister Avenue to Tenth Street to Jackson Street.

A thirty minute headway is provided from 5:46 a.m. to 10:15 p.m. Two buses are operated on a running time of one hour for the round trip. From 8:46 a.m. to 3:46 p.m. and after 6:46 p.m. one bus operates only between Tenth Street and Jackson Street and Washington Street and Genesee Street, laying over at the County Street Interurban Terminal for thirty minutes. On Sundays hourly service is maintained with a running time of forty-five minutes for the round trip. The Sunday service is operated in conjunction with the Grand Avenue line with three buses alternating between the two lines. Morning and evening service is operated from Washington Street and Genesee Street on Genesee Street to Franklin Street to North Avenue to Greenwood Avenue to the Johns Manville plant and return, and also from Washington Street and Genesee Street on Washington Street to Spring Street to Clayton Street to Sand Street to Greenwood Avenue and return.



UNDER AN AGREEMENT DATED JULY 20, 1931, the Metropolitan Motor Coach Company leased to the Chicago North Shore and Milwaukee Railroad Company the following routes:

Waukegan-Kenosha  
Ill.C.C.Case No. 12498

From Waukegan on Sheridan Road, north through Zion and Winthrop Harbor to Kenosha.

Waukegan-Gurnee  
Ill.C.C.Case No. 12868

From Waukegan over Grand Avenue to Gurnee.

North Chicago-Waukegan  
Ill.C.C.Case No. 14031

Stewart Avenue and 22nd Street, North Chicago, on 22nd Street to Commonwealth Avenue; thence northerly on Commonwealth Avenue to 18th Street; thence easterly on 18th Street to Victoria Street; thence northerly on Victoria Street to 10th Street and across the city limits of North Chicago into the City of Waukegan, said 10th Street separating the cities of Waukegan and North Chicago, thence easterly on 10th Street to McAllister Avenue; thence northerly on McAllister Avenue to Belvidere Street; thence northeasterly and easterly on Belvidere Street to Genesee Street; thence northerly on Genesee Street to Washington Street, all in the State of Illinois; also on Sheridan Road from the end of the street car line on Glen Flora Avenue in Waukegan, Illinois, to Greenwood Avenue as supplemental to its present operation over this operation of Sheridan Road, now included in its Waukegan-Kenosha route; thence east on Greenwood Avenue to Sand Street or to the plant of the Johns-Manville Company, all in the State of Illinois.

City of Waukegan  
Ill.C.C.Case No. 16156

From Grand Avenue and Genesee Street, south on Genesee Street to Belvidere Street, thence westerly on Belvidere Street to Jackson Street, thence south on Jackson Street to 10th Street and return, all in the City of Waukegan.

Waukegan-State Line  
Ill.C.C.Case No. 17585

From the intersection of Washington Street, Waukegan, and State Route No. 42A, sometimes referred to as Waukegan Road or Greenbay Road, northerly to the state line between the states of Illinois and Wisconsin, and return.

WAUKEGAN CITY LINE  
PROPOSED SERVICE REVISIONS  
FRANCHISES AND CERTIFICATES

The present Street Car Service in Waukegan and North Chicago is operating under the following ordinances and franchises:

On February 14, 1917 the City of Waukegan passed an ordinance granting permission to the Chicago North Shore and Milwaukee Railroad to construct, maintain, and operate a railroad through the City of Waukegan, for a period of 30 years, over and on the following streets:

- On Genesee Street from Tenth to Clayton
- On Clayton Street from Genesee to County
- On County Street from Clayton to Franklin
- On Franklin Street from County to North Avenue
- On North Avenue from Franklin to Glen Flora
- On Glen Flora from Sheridan Road to the main line of the C.N.S.&M.R.R.
- On Washington Street from Sheridan Road to Lewis Avenue

and provided for the reconstruction of the then existing tracks in accordance with provisions in the ordinance.

On February 13, 1928, the City of Waukegan passed an ordinance granting permission to the Chicago North Shore and Milwaukee Railroad to construct, maintain, and operate a railroad, for a period of 30 years, in, upon and along Belvidere, Utica, Water and North Avenue.

On February 13, 1928, the City of Waukegan passed an ordinance to the North Shore and Waukegan Railway, to construct, maintain, and operate a railway, for a period of 20 years, in, upon and along County Street from Water Street to Clayton Street. This line was leased to the Chicago North Shore and Milwaukee Railroad Company.

On November 15, 1902, the City of North Chicago passed an ordinance granting the Chicago and Milwaukee Electric Railroad Company permission to lay down, maintain, and operate a railroad in State Street in said Village.

On October 25, 1904, the City of North Chicago passed an ordinance permitting the railroad to remove its tracks in State Street from the intersection of Broadway and State and the North Limits of said Village and operate on private right of way.



WAUKEGAN CITY LINE  
PROPOSED SERVICE REVISIONS

TRACK CONSTRUCTION

The track in pavement built under the 1917 Franchise in the City of Waukegan is constructed with 91# Rail on International Steel ties on concrete ballast paved with brick.

The track in pavement built under the 1928 Franchise in the City of Waukegan is constructed with 102# Rail on Dayton Resilient ties on concrete ballast paved with concrete.

The open track in operation from North Chicago Junction to Tenth Street, Waukegan, was relaid with second hand 80# A.S.C.E. rail in 1924 and surfaced with cinders. It is well tied and maintained.

The track and roadway, as a whole, has been fairly well maintained, and would not require reconstruction for at least ten years, except possibly that portion used jointly with the interurban lines on Genesee Street from Tenth Street to Water Street.

However, the City of Waukegan has had under consideration the repaving of Genesee Street from Tenth Street to Belvidere Street for some time, and also the reconstruction of the storm and sanitary sewers in this area if State Aid is available. If and when this work is done, the railroad will undoubtedly be called upon to reconstruct its track. Agitation has been on from time to time to repave Genesee Street from Belvidere to Clayton and to reconstruct the storm and sanitary sewers in this area. If and when this is done, the railroad will undoubtedly be called upon to reconstruct its tracks.

An estimate of the cost to maintain the existing tracks for the next ten years is shown on Exhibit Q.



WAUKEGAN CITY LINES  
PROPOSED SERVICE REVISIONS

PRESENT EQUIPMENT

There are 24 cars available for the Waukegan-North Chicago City Service, the class and character being shown in Exhibit K-1. Gradual increase in maintenance expense due to increasing repairs required to keep up old equipment is reflected in the estimated maintenance cost as shown in Exhibit Q.

It is the recommendation of the Mechanical Department that cars 500 to 509, which are 23 years old, should be retired as soon as possible on account of

Excess weight of equipment  
Obsolete motors  
High steps  
Rattan Seats  
Necessity for 2 man operation

Cars 316 to 325 are 14 years old, and are not attractive to passengers on account of their poor riding qualities and slat seats.

Cars 313 to 315 are one-man double truck cars with maximum traction trucks and are 16 years old. These cars are but little better than the 316 to 325 class.

Cars 359 and 360 are good equipment of modern type and are the only modern equipment in Waukegan City Service.

Modern equipment to replace the present equipment now in service would cost approximately \$14,000 per unit.

The present bus equipment, shown on Exhibit K-2, now available for the city service is five to eleven years old, and is hard riding, slow acceleration, slow deceleration, slow speed equipment, unattractive to the public on account of loose vibrating bodies and old type bus seats, should be retired as soon as possible. Modern equipment to replace the most active of the present equipment would cost approximately \$5,000 per unit.

WAUKEGAN CITY LINE  
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RETIREMENT AND SALVAGE

If the proposed revision of service is put into effect and if it involves the abandonment of the interurban operation from North Chicago Junction to Tenth Street, it is planned to salvage all the track material in the open track and sidings and remove all stations, shelters, platforms, crossings and crosswalks. It is estimated that approximately 500 gross ton of rail and special work is in track which would net about \$8.00 a ton on cars - or \$4,000. The stations, and shelters can be wrecked by company forces and the material salvaged and placed in stock would offset the cost of retirement.

If authority can be obtained it is proposed to leave the track in pavement undisturbed and surface the track zone where there is brick pavement and the flangeway where there is concrete pavement with an asphaltic type paving material at an estimated cost of \$8,000.

The amount that it is possible to realize on the sale of the right of way from North Chicago Junction to Tenth Street has not been determined.

The possibility of the sale of the land, car house and shop at North Chicago has not been determined.

The net salvage value of the equipment is \$6,325 as shown on Exhibit T.

The line material as estimated has a salvage value of \$5,142. The cost of removing and returning this material, including poles, fixtures, and all overhead wires is estimated at \$8,372 - About \$611 worth of slow moving material could be placed into stock and about \$200 could be realized from the sale of our interest in jointly used poles.

Cost of Retirement		\$ 8,372.00
Salvage junk value		<u>4,531.60</u>
		\$ 3,840.40
Credit for material taken into stock	\$ 611.00	
Sale of Pole Interest	<u>200.00</u>	<u>\$ 811.00</u>
Net Cost of Retirement		\$ 3,029.40
<u>Recapitulation of Salvage</u>		
Road Material		\$ 4,000.00
Right of Way, Car Houses and Land - undetermined		
Equipment		<u>6,325.00</u>
		\$10,325.00
Cost of Surfacing Track	\$8,000.00	
Net cost of Line and Overhead	<u>3,029.40</u>	<u>\$11,029.40</u>
Net Cost Effecting Retirement		\$ 704.40