

REPORT  
ON  
THE STATUS OF THE WORK  
OF SEPARATION OF GRADE CROSSINGS  
CITY OF DETROIT

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## PURPOSE OF REPORT

The purpose of this report is to summarize briefly the present status of the work of separating the grade crossings of the streets and steam railways in the City of Detroit, and to suggest measures which, if adopted, will secure a more rapid prosecution of this work, and at the same time will make possible adequate protection of the interests of the City of Detroit.

## HISTORY OF WORK DONE

Although for years past, grade crossings in the city have been separated from time to time by the construction of bridges which carried the streets over the railways (See appendix No 1 - Bridges), the first extensive work of grade separation was commenced under an agreement between the City of Detroit and certain of the railroad companies, as set forth in the Proceedings of the City Council under date of June 30, 1903.

This agreement covers the separation of grade crossings in the district between Woodward\* and Michigan Avenues, together with the crossing at Junction Avenue. In addition to the City of Detroit, the parties to this agreement are the Michigan Central Railroad Company, the Lake Shore and Michigan Southern Railway Company, the Grand Trunk Rail Company of Canada, and the Detroit United Railway Company. This agreement was later

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\*Woodward Avenue crossing separated in 1901-1902 under separate agreement

amended to extend the eastern limit of the work to Russell Street at the Boulevard. Including the amendment, this agreement involves 37 grade crossings. Of this number, work has been completed on 23 crossings. Construction work is in progress on 7 others, leaving 7 crossings on which no construction work has been done.

On October 17, 1906, the city entered into a separate agreement with the Michigan Central Railroad Company for the separation of its grade crossings on the main line from the Michigan Central Railroad Depot to and including Livernois Street involving 13 crossings.

Again, in 1913, under separate agreement with the City, the Michigan Central Railroad Company separated its portion of the grade crossing on the main line at Central Avenue.

On May 28, 1916, an agreement was entered into between the City of Detroit and the Michigan Central Railroad Company, the New York Central Railroad Company, Wabash Railroad Company, Pere Marquette Railroad Company, and the Detroit United Railroad Company covering the separation of grade crossings "in the district from Junction Avenue to River Rouge", and involving 10 grade crossings between these limits. It is understood that construction work under this agreement will be started in the spring of 1917.

Under the terms of these agreements, the railroad companies pay the entire cost of construction work, and the city assumes the payment of all the

abuttal damages, and, the cost, expense, charges or liability in any procedure which may be instituted to effect such separation of grades, or which may be instituted to prevent the performance of the agreement.

Also, it was agreed that the railroad companies shall be required to expend an aggregate sum of \$200,000, within the period of any one year, and no more, and that the city, in constructing new streets, shall pass them under the railways and shall pay the entire cost of such work. The Street Railway Company shall remove and reconstruct its tracks, trolley poles, etc., including pavement between the outer rails, and shall bear one-half the cost of sub-drainage and other sub-surface work.

Those agreements were entered into voluntarily by the City and the railroad companies without action of the State Railroad Commission. Lacking voluntary action on the part of the railroads concerned, a proposed agreement covering the separation of grade crossings along the lines of the Grand Trunk Railway Company of Canada and the New York Central Railroad Company (lessee) is now before the state Railroad Commission awaiting an order from that body. This agreement involves 44 grade crossing on the main line of the Grand Trunk Railway between the Brush Street station and a point north of Ferry Avenue. The terms of the agreement and the division of costs are as yet undetermined. If the President of the Grand Trunk Railway was quoted correctly in his interview with a representative of the Detroit News, as published

November 14, 1916, he is proceeding under the assumption that the division of costs in previous agreements will obtain in this case also; i.e., the Railway Company to pay construction costs, and the city abuttal damages. However, the Act 92, Public Acts of 1893, provides that in case the railway and the city fail to agree, the Railroad Commission shall determine "the portion of such cost or expense, if any, which would be just and equitable" that the city pay.

In 1907 the City prepared preliminary plans for the separation of grade crossings on the main line of the Wabash Railway Company involving 17 crossings. Since the preparation of these plans, extension of the limits of the city has added 12 crossings which must be separated in this section of the work. Other than the preparation of these plans, nothing has been done toward the separation of these 29 crossings.

#### WORK TO BE DONE

The appended itemized list (See appendix No. 2) based on data furnished by the City Engineer, shows a total of 178 grade crossings not yet separated. Of this number, as noted in the list, 17 are included in existing agreements, and 44 are included in the agreement now awaiting action of the State Railroad Commission - leaving 117 crossings on which no action has been taken. As before noted, of these 117 crossings, preliminary plans were prepared in 1907 for 17, on the main line of the Wabash Railway Company.

Tabulated, these figures show clearly the situation:

<u>Grade Crossings</u>	
To have been separated	222
Separated	44
To be separated	178
Covered by existing agreements	<u>17</u>
Awaiting action	161
Pending action of the state Railroad Commission	<u>44</u>
No action taken	117

In a report to the Council Committee on Grade Separation, the City Engineer classifies the 178 crossings remaining to be separated as follows:

Very dangerous	4
Dangerous	121
Moderately dangerous	43
Well protected	<u>10</u>
Total	178
Having street car lines	25

It is to be expected that preparation of preliminary and final plans may change the number of crossings to be separated. The figures given are, however, sufficiently accurate to show the extent of the problem which confronts the city.

A very rough estimate of the probable cost of the construction work remaining to be done is

\$14,000,000, excluding abuttal damages, altho the cost also is subject to wide variations, depending upon the plans finally adopted.

AGENCIES CONCERNED IN PROBLEM

The following agencies are concerned in the problem of grade separation:

The Michigan Railroad Commission  
The City of Detroit  
    Represented by  
        Council Committee on Grade Separation  
        Corporation Counsel  
        City Engineer  
The Railroad companies

The supervision of the problem of grade separation thruout the city is but one of a multiplicity of duties assigned to the State Railroad Commission. This body cannot be expected to take the lead in demanding the separation of grades in any particular locality. In fact, the terms of the Act providing for the separation of grades indicate clearly that the first step is an agreement between the railroad company and the officer or board representing the particular locality concerned in the problem. If the railroad company and such representative board or officer are unable to agree, then upon certification by such board or officer that separation of grades is necessary for the public benefit or upon petition signed by twenty owners of real estate abutting on the street or highway involved in the desired grade separation, it becomes the duty of the Railroad Commission to investigate the necessity for such

separation of grades.

The initiative, therefore, clearly rests with the officer or board representing the locality concerned, and as stipulated in the Grade Separation Act, when the crossing in question is within the limits of a city, this representative is the Common Council of the city. In the case of Detroit, therefore, initiative rests with the City Council working through its Committee on Grade Separation. In technical matters this Committee is advised by the City Engineer, and in legal matters by the Corporation Counsel. However, practice does not follow theory in this matter, and no one agency seems to be representing the City in taking the initiative or assuming the responsibility for prosecution of this important work.

Of the agencies listed at present, the Corporation Counsel appears to be taking the lead and is doing what he can. Pressure of other work of necessity interferes so that it is manifestly impossible for him to concentrate his attention upon this problem.

The City Engineer makes the necessary surveys, plans, and estimates, as and when called upon to do so. As the railroad companies, under existing agreements, perform and pay for the work of construction, the City Engineer has nothing to do with the preparation of detailed construction plans. It is, however, the practice of the City Engineer to check the work of construction sufficiently to make certain that the work is done in accordance with the agreements. Also, when



deemed necessary, city inspectors are assigned to this work. There should seem to be no basis for adverse criticism of the work done by the City Engineer's Office. To the contrary, the preparation of preliminary plans appears to have been done satisfactorily and with a surprisingly small force.

Although the Office of the City Engineer is but one of several bureaus reporting to the Commissioner of Public works, in this work custom seems to have eliminated the Commissioner of Public Works as a factor in the solution of the problem. Plans for grade separation are not brought to his attention, and he frankly states that he knows nothing about the work on grade separation being done in his department, excepting in so far as he sees mention of it in the newspapers. This condition is due probably to the fact that the position of Commissioner of Public Works in the past has not been occupied by an engineer. The present incumbent is an engineer of recognized ability.

Lack of concentration of responsibility so weakens the city's position, that as a result of compromises inevitable in reaching a basis for agreement, a well thought out plan of the City Engineer may emerge so emasculated as to be unrecognizable. The proposed separation of grades in DeQuindre Street is a case in point. The original plan prepared by the City Engineer called for depression of the railway tracks under and south of Gratiot Avenue. A series of hearings before the Michigan Railroad Commission has so changed the plan that it is now proposed that the railway tracks be

raised and the streets depressed, with the result that Jefferson Avenue, a main artery for the city's traffic, must be lowered approximately 16 feet in order to pass beneath the railroad. This sacrifice of the city's interests may be the best solution of the problem, but this conclusion should be accepted only after the most searching examination of all the factors involved.

It is important that grade crossings be separated promptly. It also is essential that the best interests of the city be conserved, - which thru the city's business interests presupposes fairness to the railroads. There is, however, no good reason why both of these results cannot be secured. In the haste to get the grades separated, care should be taken that undesirable and irreparable change in physical conditions is not foisted on the community.

In gathering this information, the striking facts brought out were:

1. There is no single agency representing the city which is primarily responsible for formulating a comprehensive plan of grade separation, initiating work as need requires, safeguarding the city's interests, and prosecuting present work to a rapid conclusion.
2. The Committee on Grade Separation of the Common Council is, through the death of its chairman, deprived of a leader interested primarily in grade separation, and from its form of organization, is unable to undertake an aggressive direction of all the phases, - engineering, legal, social, and industrial - of grade separation.

3. The Office of the Corporation Counsel is engrossed in a large number of urgent matters which tend to prevent him undertaking to direct grade separation matters; nor has the Corporation Counsel authority to order the preparation of comprehensive grade separation plans.
4. The City Engineer, like the Corporation Counsel, is occupied with duties which appear more immediately urgent than the problem of grade separation, and also is without authority to assume leadership in this matter.
5. By precedent, the Commissioner of Public Works is not expected to initiate grade separation plans, nor pass upon those under consideration.
6. No comprehensive plan of grade separation looking to the progressive elimination of present grade crossings in the city, the extension of the present city limits, the future congestion of population and traffic has been prepared.

RECOMMENDATIONS

It is therefore, recommended:

1. That upon the organization of the new Council and the appointment of committees for 1917, the President the Council give special attention to the personnel of the Committee on Grade Separation, in order that a small, competent, and energetic committee, which will help materially in speeding up the work of grade separation, be secured.
2. That the precedent by which the Commissioner of Public Works is relieved of responsibility for grade separations be removed, and that, in the future the Commissioner be responsible for the initiation of grade separation plans and for rapid prosecution of work undertaken.
3. That the Commissioner of Public Works be authorized by the Common Council to organize a Bureau of Grade Separation, and to employ, under contract for a period of years, an engineer to have full charge of the problem of grade separation; and that the Commissioner be further authorized to engage consulting services as required.
4. That the Commissioner of Public Works, who shall be made responsible for the details and progress in plans for grade separation, use his best judgment as to the method by which the Bureau of Grade Separation be organized, determining whether it shall be under the direction of the City Engineer; or separate from but utilizing the services of assistants from the Engineer's office, or an independent bureau with its own staff, reporting directly to the Commissioner.
5. That it be the duty of this Bureau to prepare comprehensive plans for future

grade separation, in mind the extension of the city's limits and the congestion of population and traffic, public safety and convenience, transportation facilities for the city's business, and aesthetic arrangement of the city's streets. Further, this Bureau shall present such plans to the Commissioner of Public Works, and through him, to the Committee on Grade Separation of the City Council, with recommendations as to action.

6. That the Corporation Council engage an attorney, or delegate one of his assistants, to take charge of all legal matters pertaining to the work of grade separation, and to act as legal advisor to the Council Committee on Grade Separation and through the Commissioner of Public Works to the proposed Bureau of Grade Separation.

This Bureau will not relieve the Common Council of responsibility as official representative of the City in grade separation matters, but it will provide the council with a ready means of keeping in close touch with the situation. Moreover, it will give the Council and the public assurance that the problem of grade separation is being worked out in a broad, business-like and expeditious manner, and that the interests of the city are strongly represented and fully protected.

APPENDIX No. 1

GRADE CROSSINGS SEPARATED

Bridges

Jefferson - M. C.  
Jefferson - D. & M.  
Larned,  
Congress  
Boulevard - D. & M.  
Fort  
Lafayette  
12th  
Howard  
Vermont  
Porter  
12th  
Howard  
Vermont  
Porter  
14th  
Baker  
15th

Subways

Completed

Russell - North  
Boulevard  
Hastings - North  
Milwaukee  
Beaubien  
Brush  
John R.  
Woodward  
Cass  
Second                      Agreement of June 30th, 1903  
Third  
Greenwood  
14th  
15th  
6th  
Grand River  
Warren  
Vinewood  
Boulevard

Scotten  
Michigan - East  
Michigan - West  
Junction

Total - 23

Subways

Completed

Livernois  
Military  
Clark  
Scotten  
Vinewood  
Boulevard  
24th                    Agreement of October 17th, 1906  
23rd  
Beecher  
20th  
18th  
17th  
16th  
Central Avenue        Agreement of 1913  
M. C. R. R. portion separated

Total - 14

Under Construction

Holden  
Lincoln  
Trumbull  
Commonwealth        Agreement of June 30, 1903  
12th  
Wabash  
Kirby

Total - 7

Total Subways Completed or Under Construction - 44

Appendix No. 2

GRADE CROSSINGS TO BE SEPARATED

Total Number 178

1. Lake Shore, Michigan central, and Grand Trunk

McKinley  
Roosevelt  
25th  
24th Under agreement June 30th, 1903  
23rd  
Buchanan  
Maybury

Total - 7

2. Wabash, Lake Shore & Michigan Central

Dearborn (Street Railway)  
Fort (Street Railway)  
Lafayette  
Lawndale  
Springwells Under agreement of May 29th, 1913  
Central  
Beard (or Green)  
Waterman  
Dix (street Railway)  
Livernois

Total - 10

3. Grand Trunk Railroad

Rivard  
St. Antoine Side Track - not included in  
proposed order  
Hastings  
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Riopelle  
Orleans  
Franklin  
Woodbridge  
Jefferson  
Larned Awaiting order of State Railroad  
Commission  
Congress  
Fort (Street Railway)  
Lafayett (Street Railway)  
Monroe  
Macomb  
Clinton  
Mullett



Catherine	(Street Railway)	
Sherman		
Maple		
Chestnut		
Antietam		
Jay		
Gratiot	(Street Railway)	
Adelaide		
Division		
Alfred		
Brewster		
Wilkins		
Erskine		
Scott		
Hale		
Mack		
St. Joseph		
Illinois	Awaiting action of State Railroad	
Leland		
Alexandrine		
Superior		
Willis		
Canfield		
Garfield		
Forest		
Hancock		
Warren		
Theodore		
Farnsworth		
Frederick		
Ferry		
Harper		
Twombly		
Milwaukee	(Street Railway)	Not included in proposed order
Clay		
Holbrook		

Total - 52

4. Wabash Railroad

24th		
Blvd. Jeff.		
Minnie		
Swain		
Pleasant		
Campau		
Clark	(Street Railway)	
McKinstry		Preliminary plans prepared in 1907. No action taken

Summit  
Ferdinand  
Morrell  
Junction  
Campbell  
Cavalry  
Military  
Dragoon  
Artillery  
Crawford  
Radmacher  
Waterman  
Post  
Green  
Solvay  
West End Ave.,  
Harbaugh  
Woodmere-Dearborn - Carbon  
Dey  
Cates  
Forman

No preliminary plans prepared  
of these crossings

Total - 29

5. Detroit, Lansing & Northern R. R.  
(Pere Marquette)

Plymouth  
Livernois  
Tireman  
Warren  
McGrau  
Harbert  
Alvert  
Buchanan  
Michigan (Street Railway)  
Otis

Total - 10

6. Detroit Terminal Railroad

Outer Belt Line

Jefferson (Street Railway)  
Kercheval  
Waterloo  
Charlevoix

Inner Belt Line

Orleans  
DeQuindre  
St. Aubin  
Dubois  
Chene (Street Railway)  
Jos. Campau  
McDougall  
Walker  
Adair  
Leib  
Mt. Elliott  
Lafayette (Street Railway)  
St. Paul  
Kercheval (Street Railway)  
Waterloo  
Charlevoix  
Berlin  
Mack (Street Railway)  
Pulford  
Sylvester  
Gratiot (Street Railway)  
Forest  
Warren  
Theodore  
Palmer  
Boulevard  
Harper (Street Railway)  
  
Mt. Elliott  
Dunn

Total - 33

7. Michigan Central Spur Track

West Jefferson (Street Railway)  
Reeder  
Harvey  
Driggs  
Cavalry  
Military  
Dragoon  
Artillery  
Crawford  
Reed  
Radmacher  
waterman  
Post  
Green

Solvay  
West End Avenue  
Cary  
Ford  
Dearborn (Street Railway)  
White and Harbaugh  
Leigh  
Copland

Total - 22

8. Michigan Central; Wabash, Pere Marquette  
Railroad, Spur Track - South from Wabash - Main  
Line

Jefferson (Street Railway)  
South

Total - 2

9. New York Central & Pere Marquette & Delray  
Terminal Railroad - Spur Track with Edison Plant

West Jefferson (Street Railway)  
South Post

Total 3

10. Detroit, Toledo & Ironton Railroad

West Jefferson (Street Railway)  
Dearborn (Street Railway)  
Thaddeus (Street Railway)  
Vanderbilt  
Mackie  
West End Avenue

Total 7

11. Pere Marquette Railroad

Barron  
Fort & Forman  
Dearborn

Total - 3