

city will be enabled to control the transportation and light and power delivery within the city with some slight reservations on behalf of the power companies concerned. Although the Toronto Ry. Co., should the city carry out the scheme, will maintain its corporate capacity, more or less as a holding concern for other allied concerns, all rights to build and operate railways on any streets within the city limits will be obliterated under the city's agreement to purchase.

The valuation placed on the Toronto Ry. Co.'s physical assets by the experts engaged for the purpose is \$9,894,482, and for the intangible assets, consisting chiefly of the franchise rights to operate surface railways exclusively, in Toronto, \$10,713,553. The value of those portions of the radial lines within the city limits is placed at \$411,447, including \$193,649 for an exclusive franchise on a part of Yonge St., and the value of the assets of the Toronto Electric Light Co. is placed at \$6,132,754. The actual value thus placed on the total physical assets, which the city desires to take over, is \$16,245,034, thus leaving \$13,754,966 difference between the value of the physical assets, and the price proposed to pay, viz., \$30,000,000, as representing the value of the total intangible assets. So far as the railway proper is concerned, the valuers have estimated the net surplus earnings of the company up to September, 1921, to be worth \$10,713,533, based on the present earning capacity, with the operating cost kept to 55% of the gross earnings. It cannot of course be claimed that the city could operate at so low a figure as 55% of the gross earnings, but allowing 65% of the gross earnings for operation, and with the estimated loss on the present civic lines, for the same period, viz., \$1,341,772.72, practically the same figure is reached. The remaining difference, apart from \$193,649 for the exclusive radial franchise on a part of Yonge St., would therefore represent the value to the city of the goodwill of the Toronto Electric Light Co.'s business, and the extinguishing of competition in the lighting and power business, as well as creating a monopoly of street railway transportation for the city.

Following are the valuation figures as summarized in the report laid before the city council:

the value placed on the Toronto Electric Light Co., of \$6,132,754, totals, \$27,077,236. The value of the Toronto and Mimico Division of the Toronto and York Radial Ry. is not included in the figures above quoted, nor is it dealt with in the valuers' report, as such valuation has already been dealt with by arbitration under the Ontario Railway and Municipal Board, and the value fixed at, approximately, \$75,000.

It has been decided to have a report from a firm of accountants on the commercial

value of the proposition, and John Mackay and Co. have been engaged for this purpose. H. H. Couzens, General Manager, Toronto Hydro Electric system, has also been instructed to report on the actual utility of the physical assets of the Toronto Electric Light Co., and to what extent they can, with advantage, be incorporated with the civic Hydro Electric system. When these reports are received a special meeting of the council will be called to deal with them.

Report on Proposed Municipal Electric Railways by the Ontario Hydro Electric Power Commission.

The engineers of the Hydro Electric Power Commission of Ontario have prepared a report and estimate of the proposed municipal hydro electric railway for the district north east of Toronto, as requested by the different municipalities in that territory, as mentioned in previous issues of Canadian Railway and Marine World. In May, 1913, the councils of the townships of Scarboro, Markham, Uxbridge, Pickering, Whitby and Reach and some of the towns and villages in that district forwarded resolutions to the Commission requesting a report and estimates on a municipally owned electric railway to connect that district with Toronto. The Commission's engineers were instructed to obtain the necessary information, and prepare estimates showing the traffic that might be expected, the capital cost, operating revenue, and expenses of the proposed line. This has been accomplished most thoroughly, and very detailed information is given in the report.

Briefly speaking, as every point on the proposed line is within 45 miles of Toronto, and the service given by the steam lines is said to be insufficient to meet the requirements for purposes of best development, it is believed that a good portion of the existing traffic might be diverted to the proposed line, which with new traffic that an electric line always develops, is expected to make the project a profitable one. The agricultural section of the country traversed is said to be the equal of any in Ontario, with the exception of from 15 to 20 miles, and is one

liminary lines, and from data secured, it was decided to make a study of three different routes from the north east boundary of Toronto to Unionville. From this point both easterly and northerly, the route was more or less fixed by the centres of population, and the contour of the country. The surveyed lines are all shown on the accompanying plan, but these lines were only run for trial and estimating purposes, and may be deviated from in the event of actual construction.

Of the three parallel routes at the Toronto end, the easterly one was run to pass through the centre of Scarboro Tp., but was found unfavorable for actual construction, the middle route offering almost equal service, with a much lower construction cost. As it is anticipated that a considerable portion of the district traversed by the westerly line will be annexed by Toronto within the near future, and it is controlled by three large estate companies, the financing of their portion would be simplified. The construction of this line would be less than either of the others, and while half a mile longer, it brings the line 1½ miles nearer the centre of the city. Estimates on the westerly and middle routes were prepared, but in view of the disadvantages of the easterly route, it was not considered in the report.

From Toronto north to the height of land at Goodwood, there is a difference in elevation of 700 ft., giving an average ascending grade of 0.5% that cannot be avoided. All grades have been kept below 2%, with a

SUMMARY OF EXHIBITS, TORONTO RAILWAY CO. REPORT.

	Net cost new	Eng. % added	Total	Net present value	Eng. % added	Total	Net cost new	Depreciation	Net present value
	\$	\$	\$	\$	\$	\$	\$	\$	\$
Track.....	1,668,021.14	250,221.94	1,918,243.08	1,088,700.44	155,805.07	1,244,505.51	1,668,021.14	629,920.70	1,038,100.44
Electrical distribution system.....	940,602.46	141,103.54	1,081,706.00	790,991.95	118,650.05	909,642.00	940,602.46	149,700.51	790,901.95
Rolling stock.....	4,529,911.00	228,445.50	4,758,356.50	3,075,644.10	159,732.71	3,235,376.81	4,529,911.00	1,454,266.90	3,075,644.10
Power plant equipment.....	1,478,685.00	147,867.00	1,626,552.00	1,090,609.00	109,069.00	1,200,678.00	1,478,685.00	388,076.00	1,090,609.00
Shop equipment and tools.....	163,648.16	8,182.41	171,830.57	104,324.82	5,216.24	109,541.06	163,648.16	59,223.34	104,424.82
Furniture and fixtures.....	16,049.20	.....	16,049.20	12,969.99	.....	12,969.99	16,049.20	3,079.21	12,969.99
Realty and buildings.....	2,408,974.00	.....	2,408,974.00	2,146,759.00	.....	2,146,759.00	2,408,974.00	262,215.00	2,146,759.00
			11,979,801.35			8,802,513.37			
Legal expenses, carrying charges, incidentals on total at 5%.....	598,990.07	.....	598,990.07	598,990.07	.....	598,990.07	598,990.07	.....	598,990.07
Bond discount at 5%.....	628,939.57	.....	628,939.57	167,717.22	.....	167,717.22	628,939.57	461,222.35	167,717.22
Stores.....	309,773.00	15,489.00	325,262.00	309,773.00	15,489.00	325,262.00	325,262.00	.....	325,262.00
	12,745,683.60	789,309.39	13,532,992.99	9,336,479.59	558,003.07	9,894,482.66	12,750,172.60	3,407,204.01	9,351,968.59

Recapitulation: Net cost new and engineering organization, etc., added \$13,532,992.99; Net present value and engineering organization, etc., added \$9,894,482.66; Net depreciation \$3,407,204.01.

In connection with the radial lines within the city limits, the Metropolitan Division of the Toronto and York Radial Ry. is valued at \$64,354, and the Toronto and Scarboro Division at \$27,300, with \$193,649 as the value of the exclusive franchise for operating on a part of Yonge St. The value of the portion of the Toronto Suburban Ry. proposed to be acquired is fixed at \$51,144, thus making \$20,944,482, the value of the railway properties in question, including physical assets, franchises, etc., and which, added to

of the most thickly settled portions of the province. The ability of an electric line to stop at frequent intervals, such as cross roads, would, it is claimed, give it a marked advantage over steam railways with their infrequent stops. The layout of the steam lines radiating from Toronto, makes necessary in many cases a roundabout trip to go a short distance across country, which the electric line proposes to ameliorate in several sections of the district to be traversed.

A survey party was organized to run pre-

maximum curvature of 5 degrees. The soil throughout the entire district, with the exception of a sandy stretch in Uxbridge Tp., is a light loam, with gravel present in sufficient quantities near the trial lines to ensure an ample and cheap supply of ballast. The estimates on track construction have been prepared on a 14ft. roadbed, 80 lb. rails, 6 by 8 in. by 8 ft. cedar ties spaced 3,000 to the mile, gravel ballast, 8 bar woven wire fence with gates, cattle guards, etc.

All culverts have been designed to carry