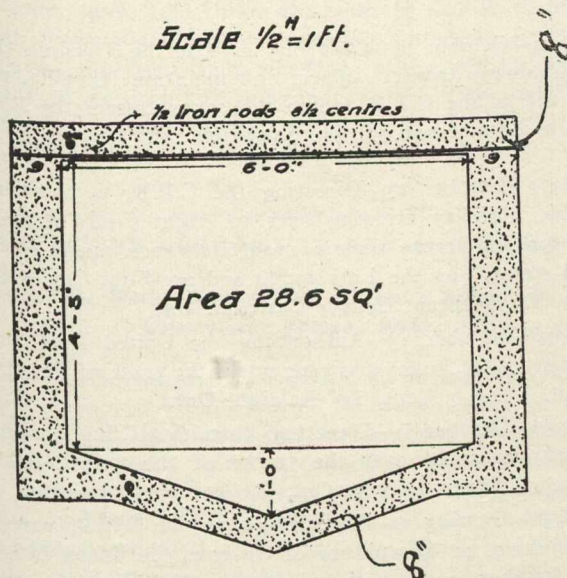


The cost of this sewer was as follows:—

	Cost per ft.
Labor moulding top 1-3 of sewer	\$0.29
Labor moulding 2-3 sewer in place	0.98
Materials—	
Cement, 1.31 bags	0.655
Cost of centres and moulds	0.149
Gravel, 0.215 cubic yards	0.339
Tools and repairs of same, tow, nails, oil, etc	0.141
Lumber	0.195
	\$2.759
Excavation 13 feet deep	2.765
Total cost per foot	\$5.524



Cross Section of Concrete Sewer on Trolley Street.

This sewer, built in 1905, is the oldest we have of this material, and sufficient time has not elapsed to pronounce with certainty as to its superiority over brick.

The next concrete sewer was built in 1906 and was 3 feet 6 inches in diameter, circular in form, and constructed similarly to that last described on Sanford Avenue. A comparative cost of cement and brick sewers of same capacity is here given:—

Cement Sewer on Catharine Street, Wood Street to the Bay, Built in 1906.

3 ft. 6 in. diameter, 10 ft. 6 in. deep, and 1,465 ft. in length.

	Cost per ft.	Total cost.
Excavation, labor 20c. per hour....	\$1 63	\$2,389 61
Cement work, moulds	1 19	1,745 60
Cement, 2,091 bags at 50c.	71	1,045 50
Gravel and sand	16	233 75
Lumber	09	137 48
Repairing tools, rubber boots, nails, oil, etc.	06	82 13
Advertising and inspection	11	164 30
Engineering Department, levels, stationery	05	77 57
Manhole	04	41 01
1,465 ft.	\$4 04	\$5,917 04

Note.—Cement concrete sewer, 3 feet 6 inches diameter, without excavation. Cost, \$2.06 per foot.

Brick Sewer on Catharine Street, from Wood Street to Barton Street, Built in 1903.

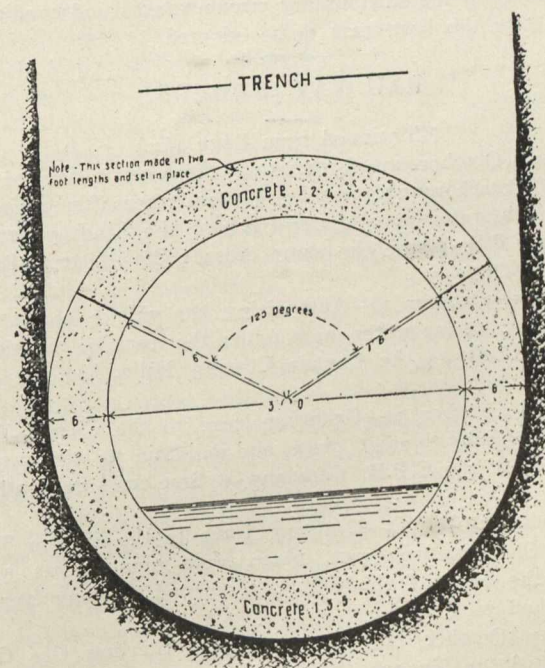
18 ft. deep and 2,933 ft. in length.

	Cost per ft.	Total cost.
Labor, excavating and filling, 18c. per hour	\$3.908	\$11,462 55
Labor, brick work, 35c. per hour..	0.738	2,165 81
Brick, \$6.90 per M.	0.895	2,625 93
Cement, 50c. per bag	0.468	1,374 55
Sand and gravel	0.104	306 15
Lumber	0.094	276 24
Dynamite	0.02	60 80
Tools, repairs	0.122	357 61
Iron pipe	0.13	383 82
Manhole castings	0.01	39 82
2,933 ft.	\$6.489	\$19,053 28

Brick sewer at current rates, same size, without excavation, would cost \$2,757 per foot.

Cost of Above Sewer at Current Rates for Wages and Material.

	Cost per ft.
Labor, excavating and filling at 20c. per hour.	\$4.30
Labor, brick work at 45c. per hour.....	0.95
Brick at \$9.50 per M.	1.235
Cement at 50c. per bag	0.468
Sand and gravel	0.104
	\$7.057



Cross Section of Concrete Sewer, Sanford Ave.

In 1907 a large reinforced concrete sewer was built composing the trunk sewer of an extensive district at the east end of the city.

For a large portion of its length this sewer had very little cover, and the following forms were designed to meet the existing conditions. The excavation was in very hard blue