

# ANNUAL REPORT OF THE ENGINEERING AND PUBLIC WORKS DEPARTMENT

## 1942



CITY ENGINEER'S OFFICE

YEARLY REPORT

1942

OFFICE COPY

## I N D E X

	<u>Page</u>
Letter of Transmittal.....	1
Total Yearly Net Expenditure.....	2
Roads and Streets.....	3 - 10
Yearly comparative labour costs.....	5
Maintenance paved streets.....	7
City Forest.....	8
Yearly comparative costs.....	10
Public Works.....	11 - 13
Bathing Beach.....	14
Street Lighting.....	14 - 17
Cement Walks.....	18
Sewerage Domestic.....	19
Water.....	20 - 27
Water Ordinary.....	20
Water Meters.....	20
Distribution System.....	22
Water Pumping Station.....	23
City Analyst Report.....	24
Yearly and Comparative Costs.....	25
Principal Material Purchased During Year.....	26

January 18, 1943.

TO HIS WORSHIP THE MAYOR AND ALDERMEN  
OF THE CITY OF FREDERICTON

Gentlemen:

I submit herewith this report which is a statement of the work done in the different City Departments under the direct supervision of the City Engineer, and covers the period of time from the first of December 1941 to the first of December 1942.

This report is written with the purpose of reporting to the Council on the costs of the various Departments for the year. It is also written with the idea of having on file an accurate record of the different activities and costs under these Departments.

Following in the body of this report is a detailed statement of work done, comparative expenditures and unit costs under these different departments. The detailed report of any particular department can readily be found by referring to the Index on the preceding page.

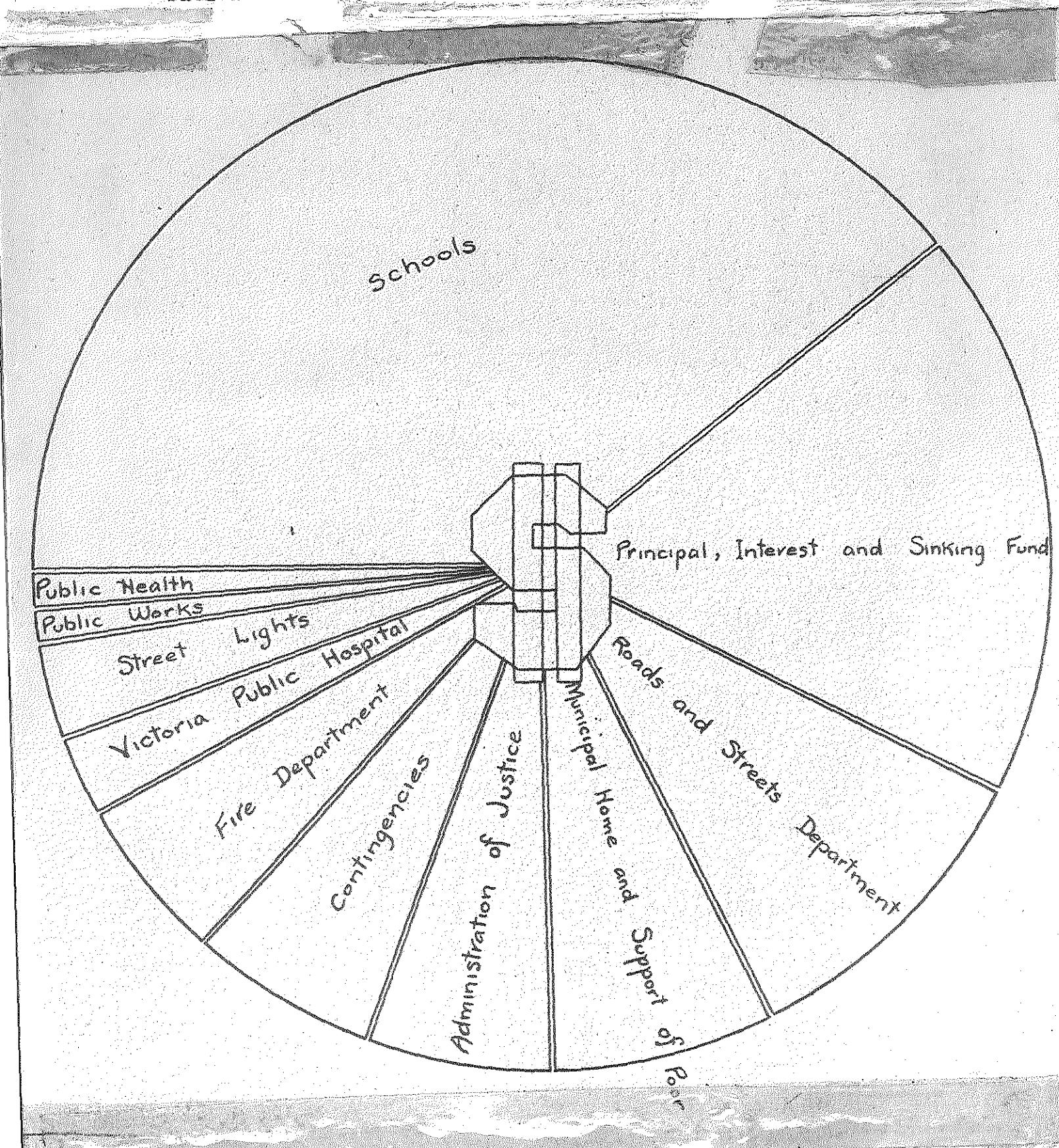
Respectfully submitted,

  
J. D. MacKay  
City Engineer

### TOTAL YEARLY EXPENDITURE

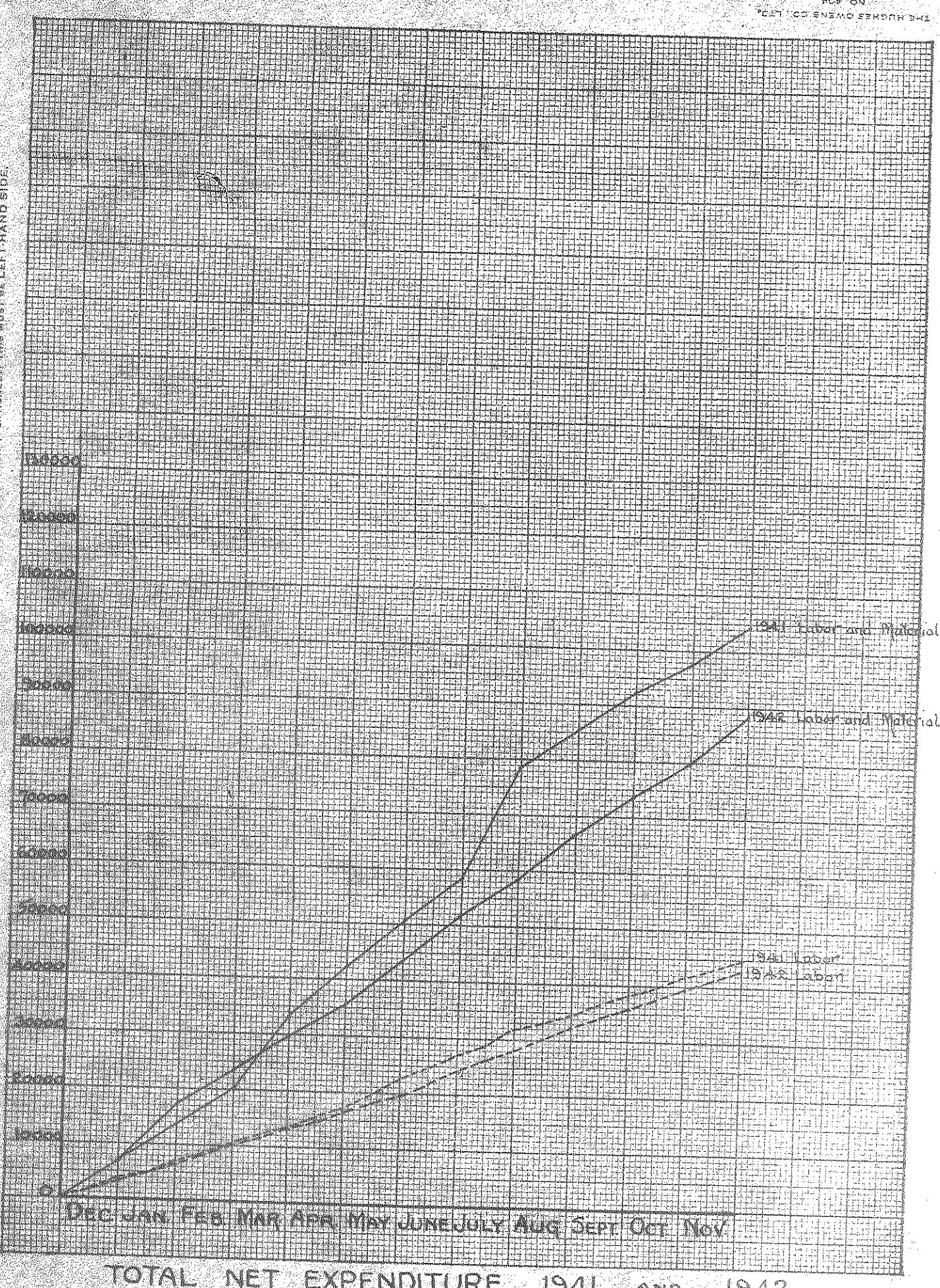
The total yearly net expenditure under the direct supervision of the City Engineer this year amounted to \$88,704.39. This expenditure will be taken up in detail under the different headings in this report.

A graphic comparison of expenditure for labour and material for the year 1942, and a chart showing the distribution of the 1942 Fredericton Tax Dollar are shown here:-



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TOTAL NET EXPENDITURE 1941 AND 1942.

## ROADS AND STREETS

This year we had an appropriation for Roads and Streets of \$30,000. We over-expended this appropriation by \$5,798.93. This over-expenditure is accounted for by what might be called Capital Expenditure such as curb and gutter construction which was made under the Roads and Streets Department Appropriation and which expenditure was not taken into account when the appropriation was made up.

The City of Fredericton Roads and Streets system is for convenience divided into two parts, namely, the Urban District and the Outlying or Rural District.

The Urban District is roughly bounded as follows: on the North and East by the St. John River, and on the South and West by the line of Albert and Dundonald Streets.

The Outlying or Rural District would be the district within the city limits outside the above mentioned boundaries.

We have in Fredericton altogether some 44 1/3 miles of roads and streets and about 32 miles of sidewalk. This sidewalk all lies within the Urban District and is pretty well covered by cement sidewalks.

Our paved and unpaved streets are divided between the Rural and Urban Districts as follows:-

### Roads and Streets

	<u>Urban</u>	<u>Outlying</u>	<u>Total</u>
Paved	11.85	3.46	15.31
Gravel	<u>5.83</u>	<u>23.21</u>	<u>29.04</u>
Total	17.68	26.67	44.35

### Roads and Streets Expenditure 1942:-

Gross Expenditure.....	\$39,215.84
Credits.....	3,416.91
Net Expenditure.....	35,798.93
1942 Appropriation.....	<u>30,000.00</u>
Dr. Balance.....	\$ 5,798.93

The above Credits are made up as follows:-

Item 1.	Received from other City Departments for work done and material sold by Roads and Streets Department.....	\$ 372.89
Item 2.	Work done for and material sold to private parties by Roads and Streets Department.....	441.02
Item 3.	Wood sold from City Forest (Odell Property). .....	<u>2,603.00</u>
	Total.....	\$3,416.91

### The Gross Expenditure is divided as follows:-

Labour.....	\$22,545.62
Material Charges and Workmen's Compensation Board.....	16,670.22
	\$39,215.84

I have divided the labour charges of \$22,545.62 into the following items. Although these items are made up entirely of labour costs, they give a good idea of the amount and kind of work done by the Roads and Streets Department during the year.

<u>Snowploughing sidewalks.....</u>	\$ 136.19
<u>Snow Control:- Shovelling and hauling snow, ploughing or scraping roads, cleaning gutters of ice and snow, and any other means of snow control.....</u>	2,850.87
<u>Streets:- General work of maintenance of streets and sidewalks and any other items such as building culverts, curbs and gutters or pavements which are not mentioned under some particular heading.....</u>	2,142.61
<u>Surface Sewers:- Cleaning, flushing and repairing surface sewers and building new surface sewers within street limits.....</u>	274.60
<u>Sanding Walks:- Storing sand in winter storage piles and spreading same on slippery walks.....</u>	365.63
<u>Yard:- Men working in blacksmith shop and repair work in City Yard, taking summer equipment out and storing winter equipment, etc.....</u>	1,158.84
<u>Street Sprinkling:- Water cart.....</u>	157.86
<u>Stone Crushing:- Repairs to crusher and crushing stone....</u>	nil
<u>St. John Road:- All work done on the River Road from Alexandra Street to eastern city line other than work done by power maintainer and pavement maintainer.....</u>	93.22
<u>Deak and Wilsey Roads:- All work done on these roads other than work done by power maintainer.....</u>	514.04
<u>New Maryland Road:- From C.P.R. Crossing to southern city line. All work done on this road other than that done by power maintainer.....</u>	7.04
<u>Outlying Roads:- Hanwell Road, Cross Road lying between Brick Hill and College Hill Road and Forest Hill Road. All work done on these roads other than work done by power maintainer.....</u>	695.10
<u>Street Cleaning:- All cleaning and removal of dirt, leaves, etc. from streets.....</u>	6,180.69
<u>Tarvia Repairs:- Patching and repairing asphalt and tar pavements and sidewalks and applying seal coat of light tar or asphalt to pavements.....</u>	1,470.40
<u>City Road Patrol.....</u>	545.41
<u>Quarry.....</u>	nil
<u>Wood Lot at Quarry.....</u>	nil
<u>City Forest.....</u>	<u>5,953.12</u>
Total.....	\$22,545.62

Following is a table comparing labour expenditure in these items from 1937 to 1942.

TABLE COMPARING YEARLY COSTS IN ROADS AND STREETS  
LABOUR ITEMS

	<u>1937</u>	<u>1938</u>	<u>1939</u>	<u>1940</u>	<u>1941</u>	<u>1942</u>
Snowploughing						
sidewalks	54.43	366.43	218.74	195.30	291.24	136.19
Snow Control	1,263.06	3,146.37	3,659.33	2,760.65	5,348.52	2,850.87
Streets	3,162.53	1,332.94	818.07	1,703.53	762.84	2,142.61
Surface Sewers	911.68	206.26	240.64	526.81	263.66	274.60
Sanding Walks	621.94	277.05	484.82	324.06	325.52	365.63
Yard	1,377.97	1,399.56	2,067.65	1,689.70	1,481.46	1,158.84
Gravel	41.62	54.07				
Street Sprinkling	772.93	418.70	502.15	554.36	597.70	157.86
Stone Crushing	1,926.04	61.92	245.19	152.28		
St. John Road	81.73	34.07	23.05	1.20	130.71	93.22
Doak & Wilsey Rds.	417.07	2,282.07	126.78	30.02	93.95	514.04
New Maryland Rd.	157.35	76.41	195.40	127.86	500.29	7.04
Outlying Roads	651.36	212.64	491.20	932.81	939.09	695.10
Street Cleaning	3,522.89	4,546.64	5,024.94	6,293.55	5,567.61	6,180.69
Tarvia Repairs	931.35	678.43	2,059.88	940.05	910.09	1,470.40
City Road Patrol	780.16	507.82	486.73	634.88	535.19	545.41
Quarry	1,277.23		37.31	90.30		
Richardson Con.Co.	109.14					
Wood Lot				999.00	459.50	
City Forest					4,609.32	5,953.12
Total	18,060.48	15,801.78	16,681.88	17,956.36	22,816.69	22,545.62

Some of these above labour items may be better understood by the following explanations:

Snow Control:-

Snowploughing roads and streets.....	\$ 280.50
Shovelling and hauling snow.....	1,664.77
Scarifying walks.....	8.50
Cutting drains on hills.....	61.70
Catch basins.....	440.51
Snow fences.....	154.50
Thawing culverts.....	88.75
Thawing sand.....	10.35
General Expenses.....	141.29
Total.....	\$2,850.87

Snow Fences:-

In our snow fencing this year we used 4800 feet of lathmade snow fence which we had manufactured in 1939. Besides this premade fence, we also erected 400 feet of brush fence.

Streets:-

Repairs (Maintenance of gravel streets).....	\$ 381.31
Painting traffic lines on streets.....	100.75
Gravelling streets.....	49.40
Concrete curb and gutter construction (East side Odell Avenue, East and West side Saunders Street) ..	805.00
Repairing City Plant.....	269.45
A. R. P. (testing pumps).....	125.15
Calcium Chloride.....	68.80
Oiling streets.....	37.90
Surveying.....	15.20
Provincial Government Building (College Hill).....	169.60
General Expenses.....	<u>120.05</u>
Total.....	\$2,142.61

Curb and gutter this year consisted of Saunders Street from Smythe Street to Odell Avenue on both sides of the street, totaling 952 lineal feet of curb and gutter; and Odell Avenue from Saunders Street to Charlotte Street on the East side, and Saunders Street to Woodstock Road on the West side, totaling some 1336 feet. In all, on these two blocks we constructed 2288 lineal feet of concrete curb and gutter.

Outlying Roads:-

The labour expenditure of \$695.10 is made up as follows:-

Hanwell Road.....	\$134.25
Cross Roads.....	57.25
Forest Hill.....	45.60
O'Dell Road.....	332.67
College Hill.....	21.80
Experimental Farm Road.....	69.80
General Expenses.....	<u>33.73</u>

Total.....\$695.10

These items are made up entirely of maintenance except for that of \$332.67 on the O'Dell Road. This labour was expended on the road lying within the O'Dell Property owned by the City. The road from the gate to the gatehouse was reshaped and gravelled, and from the gatehouse through to the Hanwell Road a truck road was constructed and gravelled.

Cleaning Streets:-

The labour cost of \$6,180.69 shows an increase of \$613.08 over last year's labour expenditure. This is about the normal cost of this department for the last three years.

Tarvia Repairs:-

The labour expenditure of \$1,470.40 is divided as follows:-

Patching streets.....	\$ 856.10
Tarring streets (sealing).....	197.15
Patching asphalt walks.....	74.40
Paving between curb and sidewalks....	271.40
General Expenses.....	<u>71.35</u>

Total.....\$1,470.40

All street sealing this year was done with R.C. 3 Asphalt and at the following locations:-

Aberdeen Street from York to Smythe  
Northumberland Street from Aberdeen to Saunders  
Westmorland Street from Aberdeen to Valley Tracks  
Westmorland Street from Queen to Campbell  
Campbell Street from Westmorland to Phoenix Square  
Campbell Street from Regent to Court House Square  
Regent Street from Queen to Campbell  
Regent Street from C.N.R. Tracks to G.P.R. Tracks  
Court House Square  
St. John Street from Charlotte to Aberdeen

NOTE:- These above locations were premixed pavement laid in 1941 by the Canada Construction Company.

Westmorland Street from Brunswick to Queen  
Regent Street from King to Queen  
St. John Street from Charlotte to Queen

Besides the above mentioned surface sealing we treated one gravel street, Argyle Street, from York Street to Westmorland Street with two applications of bituminous material, building up on this block a light surface treatment. All the rest of our gravel streets within the city proper were treated with calcium chloride. This treatment took 45 tons of calcium chloride and gave us very fair results.

One piece of road, about one-quarter mile long, on the St. John Road between the Wilsey Road and the Valley Railway Tracks was treated with Bunker Oil. This was put on in two applications and gave very good results for the season. This particular piece of road had been originally paved but on account of faulty sub-soil the pavement had been entirely lost, but by applications of gravel this section has been brought to the standard of a good gravel road.

The following table shows the bituminous material used in 1942.

	Asphalt				
	R.C.4	R.C.3	M.C.-I Primer	Colas	Bunker Oil B.
<b>Gals. in stock</b>					
Spring 1942	0	1900	0	0	0
Gals. purchased 1942	675	8025	1679	585	1215
Available for season 1942	675	9925	1679	585	1215
Stock on hand Fall 1942	80	1000	360	0	240
Used in season 1942	595	8925	1319	585	975

Gravel:-

This year 2557 cubic yards of gravel and sand was purchased from the Devon Lumber Company delivered where and when required in the City of Fredericton at 90¢ per cu. yd. except that delivered between the 15th of December and the 15th of April during which time the City paid \$1.00 per cu. yd.

Surface Sewers:-

All surface sewers in the City were flushed and all catch basins cleaned and repaired during the summer season at a labour cost of \$274.60.

City Forest:-

Under the heading and included in our regular Roads and Streets cost is a labour expenditure of \$5,953.12. This amount is divided into the following items:-

1	Cutting and piling cordwood in woods.....	\$2,089.50
2	Hauling wood from woods to woodyard.....	985.97
3	Sawing wood with wood-cutter.....	455.30
4	Splitting wood in woodyard.....	434.15
5	Delivering wood to workmen.....	603.58
(6)	Cutting and yarding logs.....	238.60
7	Haying.....	28.00
(8)	Caretaker's wages.....	424.60
(9)	Miscellaneous.....	628.52
(10)	General Expenses.....	64.40
	Total.....	\$5,953.12

Besides this labour cost the City Forest shows a material expenditure of \$1,231.61, making a total cost against the City Forest of \$7,184.73.

These above expenditures gave us the following merchantable material:-

Cords

352 Delivered to the Municipal Home and municipal poor  
3 Delivered to Fire Station  
197 Delivered to men on City Works payroll  
12 Delivered to P'ton School Board at Mills School  
25 Delivered to City Yard to heat garage, etc.  
150 In shed at Victoria Public Hospital  
10 Piled in woodyard on O'Dell Property  
749 Cords of wood.

Of the above 749 cords of wood only 649 cords were cut during the winter of 1941-42. The other 100 cords were cut in the fall of 1941 before December 1st, 1941; also there were cut in the fall of 1942 and piled in the woods 99 cords of green wood. This 99 cords were cut before December 1st, 1942.

During this year the main road through the O'Dell Property was regraded and gravelled to make it fit for truck traffic. A number of old buildings on the property were torn down and the front of the property was generally cleaned up to give it an attractive appearance. Some repairs were made to the caretaker's house and a dam was constructed on the small brook near the buildings on the property for fire protection purposes.

Six tons of hay were cut and hauled to the City barn on Needham Street.

At a spring located on the property a short distance south of the caretaker's house the underbrush was cleaned out, seats were constructed, and stone fireplaces were built to make this location available for picnickers.

The woods work on the property during last year was planned with the help of Prof. B. H. Fleiger of the University of New Brunswick. Under his direction some 674 logs, making slightly over 35,000 bd. ft. of lumber, were cut and yarded in the woods. This cut took only about one-third of the stand on the area from which it was taken. All trees were first marked by Prof. Fleiger as being mature trees and past their prime. The area cut consisted of some 12.5 acres. This type of cutting would be called a selective cutting.

During the summer season this property was used quite extensively by the citizens for picnicing, etc. It was also used very extensively by No. 70 Training Centre as a ground where their men were trained in different types of their basic training work.

A full description of this property was written in my 1941 report. This report also included recommendations made by the Society of Forest Engineers. Practically all these suggestions have been followed.

Following is a financial statement for the year 1942 showing returns against the expenditure of \$7,184.73 made on this property.

Logs

35,000 bd. ft. @ \$17.00.....\$ 595.00

Wood

Wood cut from the 1st of December 1941 to December 1st, 1942 and delivered, 649 cords @ \$8.00 5192.00

Wood cut before Dec. 1st, 1941 and delivered in 1942 and credited in 1941 Report at \$5.00, 100 cords @ \$3.00..... 300.00

Wood cut in fall of 1942 before 1st. of Dec. 1942 and piled in woods, 99 cords @ \$5.00..... 495.00

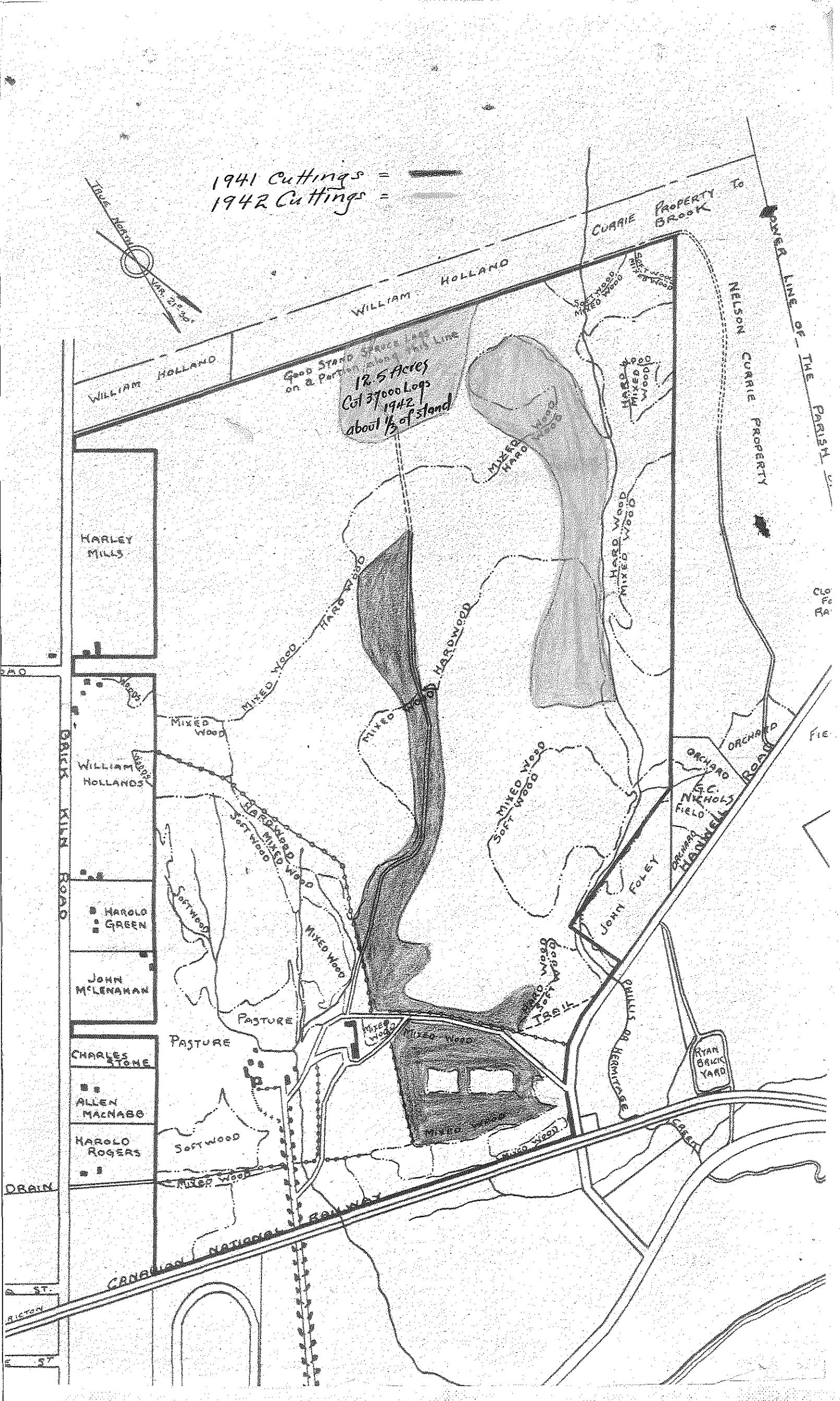
Hay

6 Tons of hay cut and delivered to City barn on Needham Street @ \$10.00..... 60.00

Total.....\$6,642.00

These above figures show a debit of \$542.72. When the actual money spent is balanced against the financial return from the property on the City Books, this property would show an even greater debit balance because the wood, which I have credited at \$8.00 delivered, was mostly charged to the Municipal Home and the City workmen at \$6.00 a cord, thus giving both the Municipal Home and the City workmen a bonus of \$2.00 a cord. At the time of writing, all wood being sold from the O'Dell Property is charged at \$8.00 a cord.

Following is a map of the O'Dell Property with locations showing 1941 cuttings marked in red and 1942 cuttings marked in green.



**TABLE SHOWING COMPARATIVE COSTS OF ROADS AND STREETS**

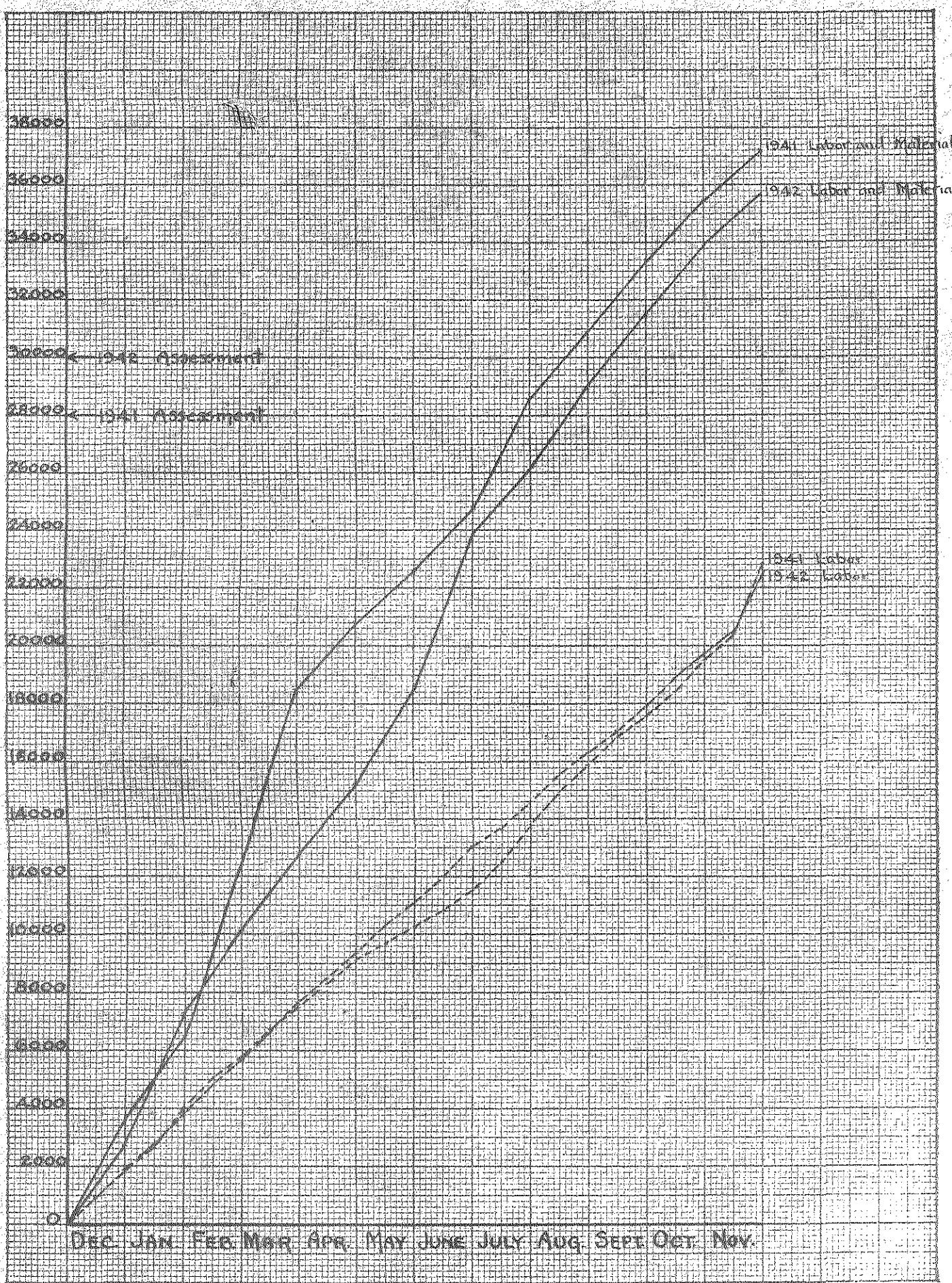
Years 1927 to 1942

<b>Year</b>	<b>Expenditure for Labour</b>	<b>Gross Expenditure Labour and Material</b>	<b>Credits</b>	<b>Net Costs Labour and Materials</b>	<b>Appropriation</b>
1927	15,692.00			24,245.00	26,000.00
1928	17,122.45			26,058.70	26,000.00
1929	14,490.47			26,682.98	31,000.00
1930	16,553.53			34,556.33	32,000.00
1931	26,024.54	50,849.60	15,511.97	35,337.63	31,000.00
1932	25,430.96	39,101.62	4,822.19	34,279.43	25,000.00
1933	10,607.99	19,161.38	333.28	18,829.10	19,000.00
1934	13,332.51	23,665.94	2,311.50	21,354.36	20,000.00
1935	25,264.14	46,588.85	21,502.31	25,086.54	23,000.00
1936	18,357.05	33,238.01	11,059.77	22,178.24	23,000.00
1937	18,060.48	34,931.68	12,641.95	22,289.73	20,000.00
1938	15,601.78	24,273.83	781.88	23,491.95	22,000.00
1939	16,681.88	32,509.93	1,762.67	30,747.26	28,000.00
1940	17,956.36	33,058.59	2,190.50	30,868.09	28,000.00
1941	22,816.69	40,283.46	3,050.12	37,233.34	28,000.00
1942	22,545.62	39,215.84	3,416.91	35,798.93	30,000.00

The following plate shows graphic comparison of Roads and Streets costs for years 1941 and 1942.

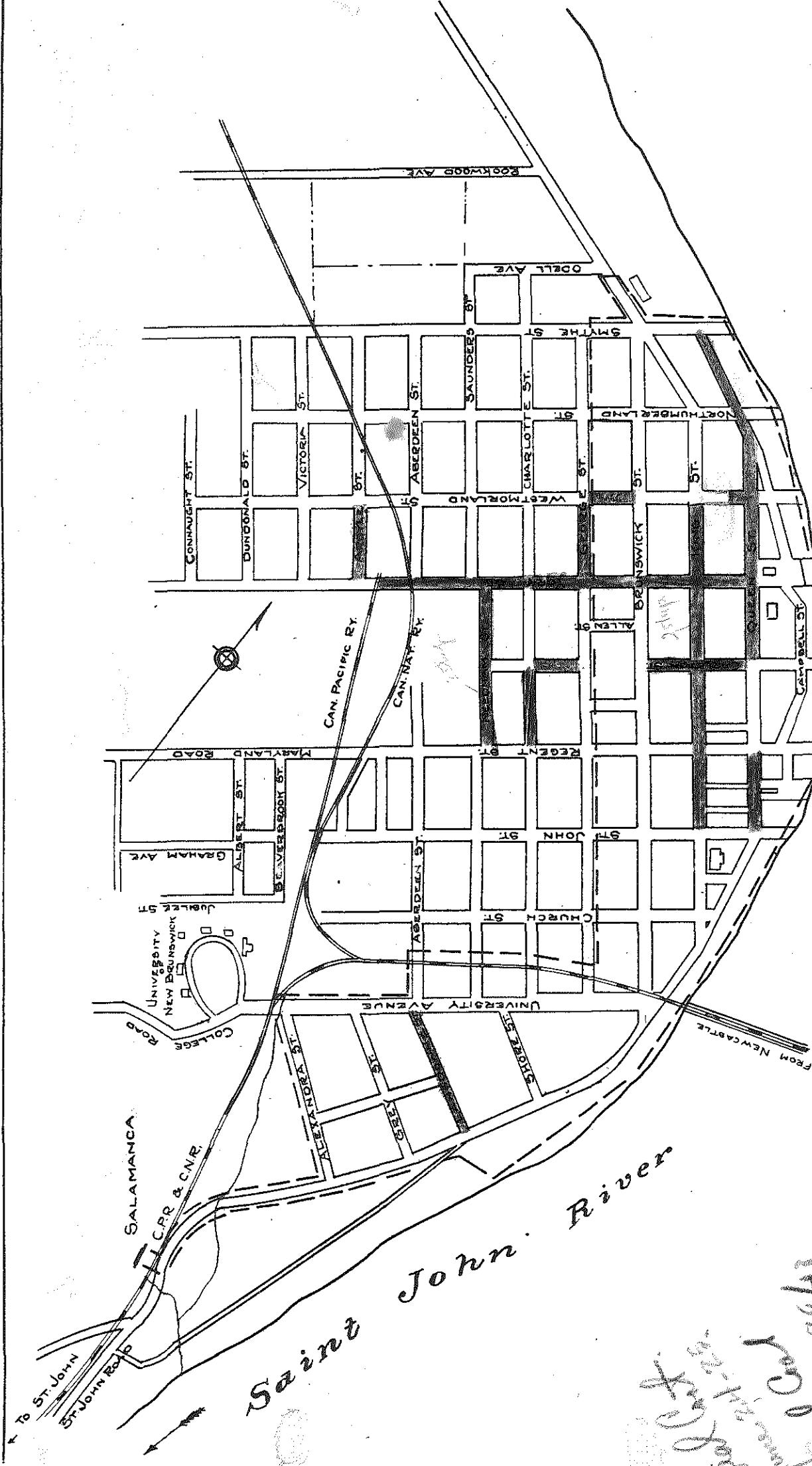
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ROADS AND STREETS COSTS 1941 AND 1942.

MAP OF FREDERICTON N.B.

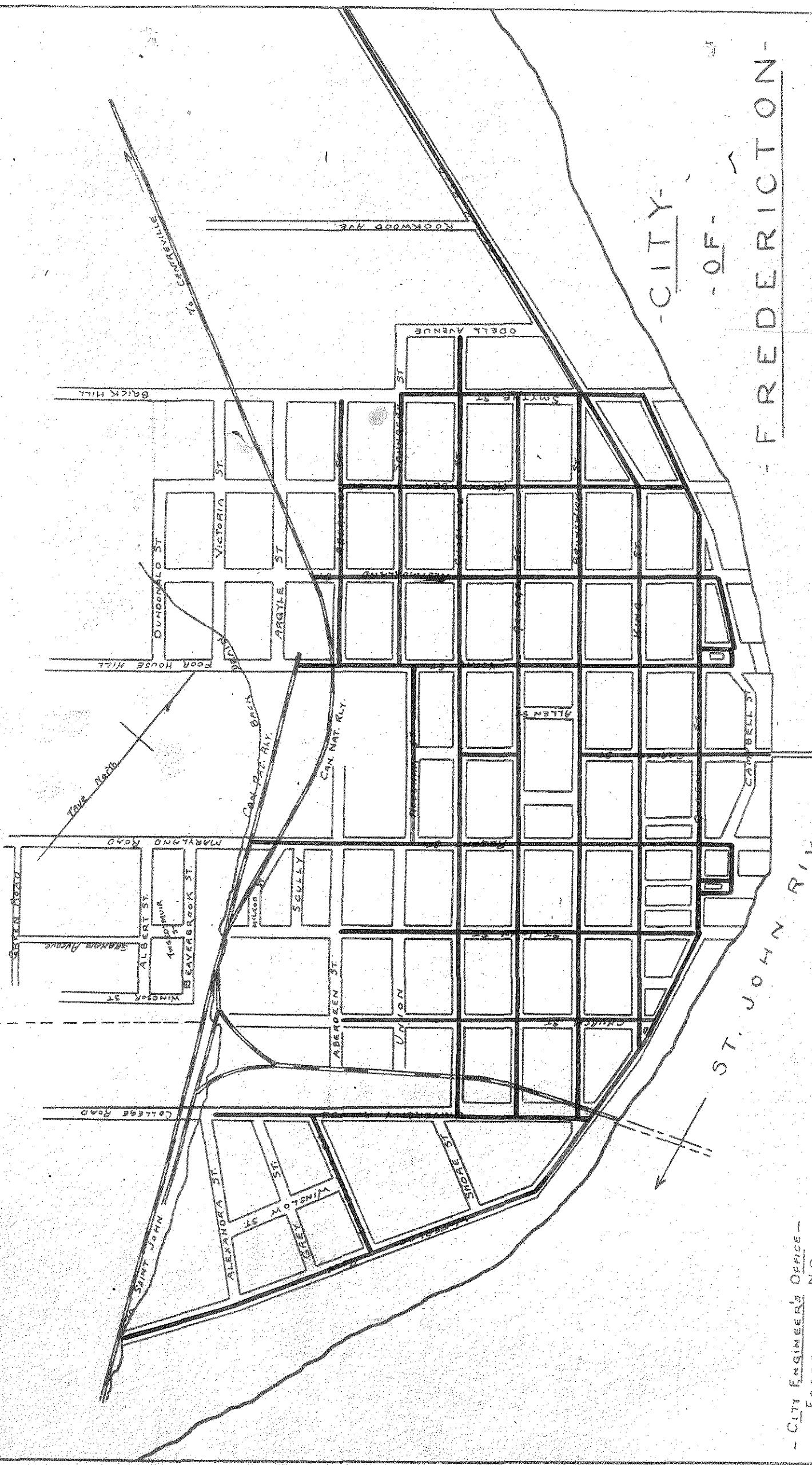


PAVEMENT AS IN PLACE 1942

-FREDERICKTON-

-OF-

-CITY-



CITY ENGINEER'S OFFICE  
FREDERICTON N.B.  
Nov 1941

Scale - 1-inch equals 800 ft

## PUBLIC WORKS

Gross Expenditure.....	\$8,180.32
Credits.....	455.85
Net Expenditure.....	<u>7,724.47</u>
1942 Appropriation.....	4,000.00
Dr. Balance.....	<u>\$3,724.47</u>

The Credits are made up as follows:-

Work done for Department of National Defence.....	\$ 177.75
Work done for Victoria Public Hospital.....	105.22
Wages paid by Public Works Department for man working in Old Burial Ground.....	111.45
Cutting trees on private property.....	<u>61.43</u>
Total.....	\$ 455.85

The Gross Expenditure of \$8,180.32 is made up as follows:-

Labour.....	\$6,089.55
Material and Workmen's Compensation.....	<u>2,090.77</u>
	\$8,180.32

The above labour item is divided as follows:-

Dump.....	\$1,817.15
Back Drain.....	82.37
Surface Sewers.....	511.30
Trees.....	858.75
Unforeseen Account.....	<u>2,819.98</u>
	\$6,089.55

### Surface Sewers:-

Surface sewers with a labour expenditure of \$511.30 consisted of the reconstruction of the drain running from Rockwood Avenue to Woodstock Road near the Children's Home and from there underground to the River. The portion between Rockwood Avenue and Woodstock Road was reconstructed and lowered. This consisted of some 690 lineal feet of which 231 feet at the end adjacent to Woodstock Road was boxed in with a hemlock deal box and covered, and the remaining 459 feet was deepened, sloped, and left as an open ditch. The portion of the drain which was boxed in includes that portion which passes through the lands of Leonard Box and Earl Fraser.

Trees:-

No spraying was done on the City Trees this year. The labour cost of \$858.75 was spent on cutting and pruning work.

Unforeseen Account:-

The labour cost is divided as follows:-

Queen Square Rink.....	\$ 217.15
Placing trees on river for river roads.....	14.95
Victoria Public Hospital (pouring cement for laundry).	85.00
St. Dunstan's School Rink.....	8.95
Military District # 7 (Engineer on thawing machine)...	109.95
Delivering sand to residents (A.R.P.).....	23.70
Ploughing cemetery (Woodstock Road).....	7.55
Salvage collection.....	103.52
Victory Loan (beacon fire on river).....	2.15
Military Training Centre # 70 (tractor driver).....	5.85
Removing debris at fire York and Queen Streets.....	48.45
A. R. P.....	125.00
Greens.....	1,329.79
Playgrounds.....	95.75
Spraying for mosquitoes.....	14.12
Old Cemetery (Brunswick Street).....	315.50
Red Cross sign.....	3.50
Christ Church Cathedral (ashes).....	12.35
Legion fence.....	6.75
Wharfs (making roads for fire pumps).....	53.40
Wharf (cleaning).....	10.00
A. & B. Clubhouse.....	10.80
Charlotte Street School (ashes).....	4.20
Cellar at Waverly Hotel.....	3.75
Fire (Rankine's on St. John Road).....	12.30
Well, Rev. A. S. Goster (filling).....	5.25
Drag (U.N.B.).....	5.40
Children's Home.....	3.50
Grappling for child from Children's Home.....	10.00
General Expenses.....	<u>171.40</u>
Total.....	\$2,819.98

TABLE SHOWING COMPARATIVE YEARLY COSTS OF PUBLIC WORKS

Years 1927 to 1942

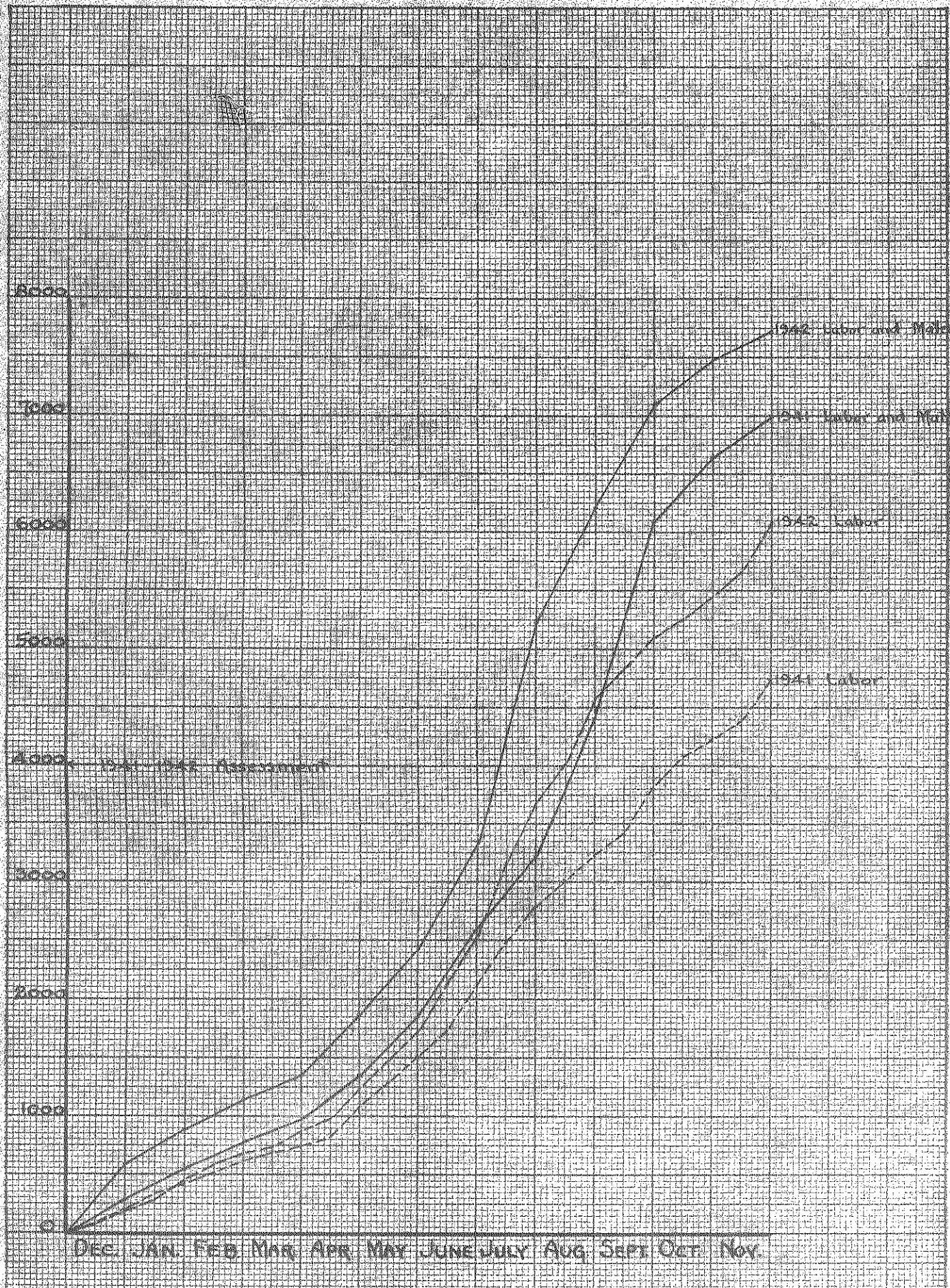
Year	Expenditure for Labour	Gross Expenditure Labour and Material	Credits	Net Costs Labour and Materials	Appropriation
1927	1,204.90			2,520.00	4,000.00
1928	2,470.39			3,156.87	3,000.00
1929	1,685.59	2,606.00		2,626.00	5,000.00
1930	2,729.82	3,379.09	237.90	3,159.19	5,000.00
1931	1,574.17	1,982.91	61.95	1,920.96	2,500.00
1932	3,797.65	4,992.98	322.35	4,670.63	2,500.00
1933	3,948.39	5,394.06	474.89	4,919.17	4,500.00
1934	3,734.85	4,929.00	1,302.36	3,626.64	4,000.00
1935	2,906.24	4,425.84	2,776.96	1,648.88	3,000.00
1936	2,867.38	4,211.33	2.73	4,208.60	3,000.00
1937	3,673.48	4,283.52	123.45	4,160.07	5,000.00
1938	5,135.07	8,631.67	664.00	7,967.67	4,000.00
1939	3,937.07	4,606.53	255.10	4,361.43	4,000.00
1940	5,610.71	6,826.22	1,204.89	5,621.33	4,000.00
1941	4,751.76	7,204.65	204.95	6,999.70	4,000.00
1942	6,089.55	8,180.32	455.85	7,724.47	4,000.00

The following plate shows graphically a comparison of 1941 and 1942 Public Works costs.

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TOP C4  
CAT. NO. 24240-8400H-SHI



## PUBLIC WORKS COSTS 1941 AND 1942.

### BATHING BEACH

This year the City maintained no civic caretaker at the bathing beach. The Playgrounds Committee had their super-visors in charge of the playgrounds take charge of the bathing beach during the afternoons. The City had a labour expenditure of \$44.03 which was incurred in cleaning up the beach and keeping the bathing houses and equipment in repair.

### STREET LIGHTS

The City street lighting system at the present time consists of:-

1. A series lighting system which lights most of the City.
2. A multiple lighting system on Queen Street.
3. A multiple lighting system in C.N.R. Subway.

System No. 1, the series lighting system, consists of some 17.9 miles of line and 362 lamps. This system is divided into four circuits two of which are controlled each by a 25 K.W. constant current transformer, the other two of which are each controlled by a 15 K.W. constant current transformer. These transformers, along with the main switchboard, are housed in a transformer room in the old street lighting building on Carleton Street.

The four circuits are made up as follows:-

Lower Front Circuit:-

	Transformer Size
25-600 C.P. Lamps at .372 K.W. demand.....	9.300
39-250 C.P. Lamps at .155 K.W. demand.....	6.045
9-100 C.P. Lamps at .0716 K.W. demand.....	.644
	<u>15.989</u> K.W.
	<u>25</u> K.V

Lower Rear Circuit:-

131-250 C.P. Lamps at .155 K.W. demand.....	20.305 K.W.	25 K.V
---	-------------	--------

Upper Front Circuit:-

10-600 C.P. Lamps at .372 K.W. demand.....	3.720	
63-250 C.P. Lamps at .155 K.W. demand.....	9.765	
	<u>13.485</u> K.W.	<u>15</u> K.V

Upper Rear Circuit:-

3-600 C.P. Lamps at .372 K.W. demand.....	1.116	
82-250 C.P. Lamps at .155 K.W. demand.....	12.712	
	<u>13.828</u> K.W.	<u>25</u> K.V

Total Demand..... 63.605 K.W.

NOTE:- On the lower front circuit one 600 C.P. standard nearest the Post Office was removed and one multiple lighting unit was used in its stead.

On the lower rear circuit two 250 C.P. lamps were installed, one near the C.P.R. Track on University Avenue and the other on College Hill near the junction of the College Hill Road and the road to the Beaverbrook Gymnasium.

*St John*

System No. 2, the multiple lighting system on Queen Street, consists of 22 units located on Queen Street between Westmorland and ~~West~~ Streets. Each unit consists of a 500 W. 115 Volt lamp set in a novalex lumina fixture and hung on a bracket attached to the pole, these units being controlled by a control switch which is energized by our series street lighting system. This system was installed and is owned, maintained, and energized by the Maritime Electric Company, the City paying the Company \$75.00 per year for each unit.

System No. 3 consists of six multiple lights, each of 250 W. strength, located in the C. N. R. Subway. This system is also controlled by a control switch which is energized by the series street lighting system.

The power for Systems 1 and 3 is purchased from the Maritime Electric Company at a contract price as agreed upon in the contract between the Maritime Electric Company and the City made in 1927. This contract also covers the maintenance cost of \$20.00 a year per mile of pole line which is paid by the City to the Company.

All materials such as wire, poles, pole fixtures, lamps, lamp fixtures, transformers, etc. is paid for by the City but installed by the Company under their contract price for maintenance. Any new installations which require an enlargement of circuits must be paid for by the City both labour and material.

The street lighting costs for the year 1942 are as follows:-

Expenditure.....	\$ 9,803.27
1942 Appropriation.....	10,000.00
Cr. Balance.....	196.73

This Expenditure is made up as follows:-

60-600 C.P. lamps at \$1.68.....	101.25
216-250 C.P. lamps at 97½¢.....	210.60
16-150 W. Lamps used in Subway.....	4.80
Current on Subway lighting and series fixtures from Nov. 28/41 to Nov. 28/42 (257,701 K.W.hrs)....	6,966.94
Charges on multiple fixtures installed on Queen Street at the contract price of \$75.00 a light per year.....	1,617.71
Maintenance, labour as per contract price.....	330.96
Material purchased for new installation and maintenance of lamp fixtures (including only such articles as lamp standards, lamp brackets, heads, sockets, shades, etc.).....	455.59
Material used and extra labour supplied by Maritime Electric Co. in line maintenance extension.	20.46
Miscellaneous charges (part of City Engineer's car expenses).....	85.00
Telephone in transformer room.....	9.96
Total.....	\$9,803.27

The total per capita charge for street lighting 1942,  
population 10,862 persons  $\frac{9803.27}{10862} = 90.2\text{¢}$

**TABLE SHOWING CURRENT CHARGES FOR 1942  
ON SERIES LIGHTING**

Date of Bill	K.W.H.	Demand in K.W.	Average No. of Burning Hours per Night	Bill per Month
Nov. 28/41				
to Dec. 31/41	28,266	66.9	14 $\frac{3}{4}$	\$ 714.14
Dec. 31/41				
to Jan. 30/42	28,819	64.9	14 $\frac{1}{2}$	721.43
Jan. 30/42				
to Feb. 27/42	24,724	64.9	13	639.27
Feb. 27/42				
to March 30/42	20,806	63.6	11 $\frac{1}{4}$	557.74
March 30/42				
to April 30/42	18,913	66.9	9 $\frac{1}{2}$	527.38
April 30/42				
to May 29/42	16,022	68.9	8 $\frac{1}{2}$	473.52
May 29/42				
to June 30/42	16,398	68.9	7 $\frac{1}{4}$	480.78
June 30/42				
to July 29/42	13,663	71.2	7 $\frac{1}{2}$	431.18
July 29/42				
to Aug. 28/42	16,692	70.9	8 $\frac{3}{4}$	491.32
Aug. 28/42				
to Sept. 28/42	21,081	69.6	10 $\frac{1}{2}$	576.26
Sept. 28/42				
to Oct. 28/42	25,628	71.6	12	675.25
Oct. 28/42				
to Nov. 28/42	26,489	66.9	13 $\frac{1}{2}$	678.67
	257,701			\$6,966.94

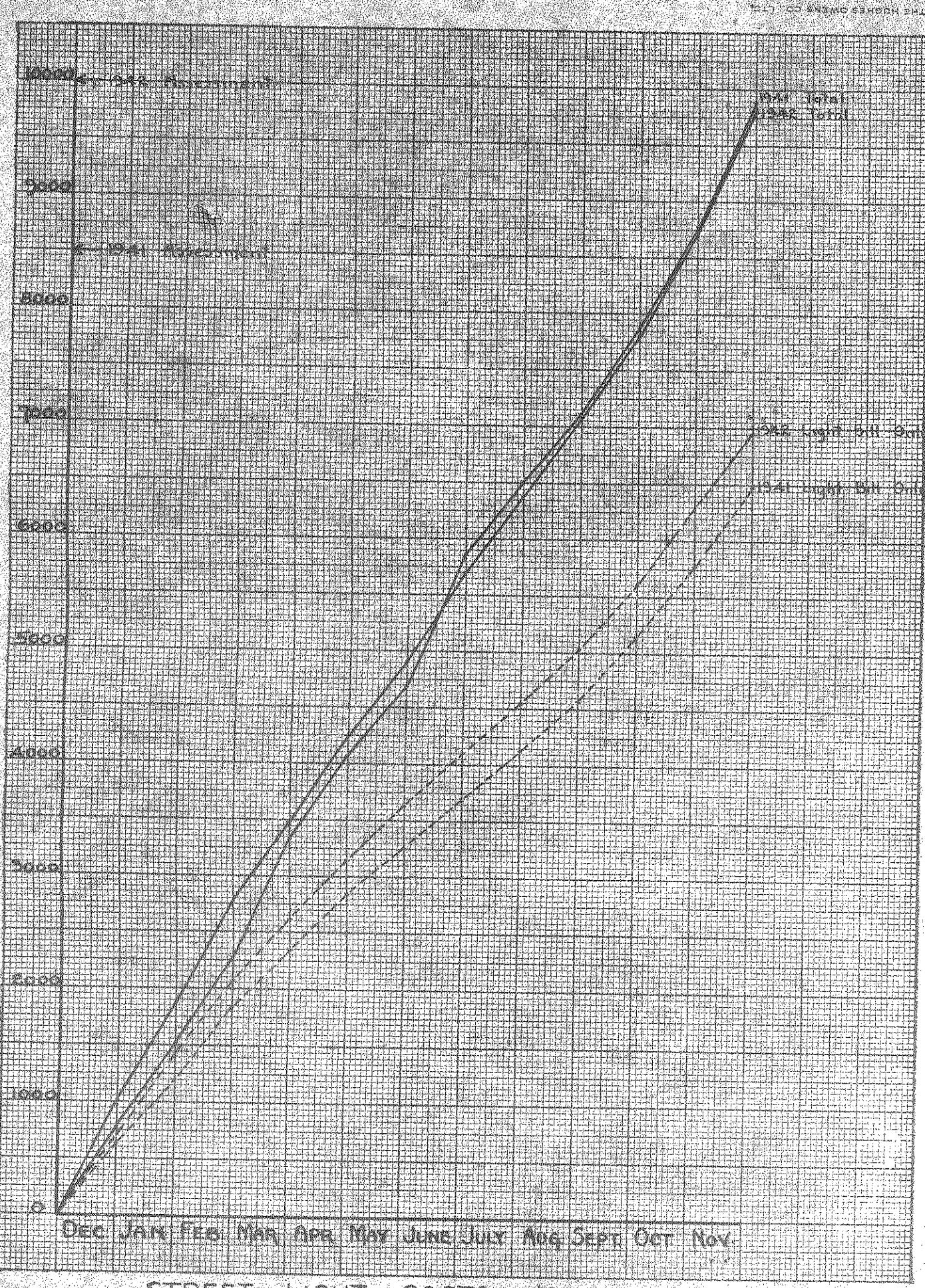
**TABLE SHOWING COMPARATIVE YEARLY COSTS IN STREET LIGHTING**

Year	Total Yearly Cost	Yearly Appropriation
1927	\$ 8,088.41	\$ 8,000.00
1928	7,323.41	7,000.00
1929	7,434.72	7,000.00
1930	7,115.40	7,000.00
1931	6,672.23	10,000.00
1932	6,532.51	6,000.00
1933	6,425.87	6,000.00
1934	6,165.28	6,000.00
1935	6,632.33	6,000.00
1936	6,957.72	7,000.00
1937	9,688.62	7,000.00
1938	8,314.06	9,000.00
1939	8,645.97	7,500.00
1940	8,173.25	7,500.00
1941	9,888.78	8,500.00
1942	9,803.27	10,000.00

A graphic comparison of 1941 and 1942 street light expenditure and power cost is shown on the following plate: The curve for power cost includes the bill for the series lighting and the lighting of the Subway only, and does not include the bill for the multiple fixtures installed on Queen Street and owned by the Maritime Electric Company.

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IF SHEET IS READ THIS WAY (HORIZONTAL) THIS MUST BE TOP.  
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DEC JAN FEB MAR APR MAY JUNE JULY AUG SEPT OCT NOV

STREET LIGHT COSTS 1941 AND 1942.

CEMENT WALKS

Total Expenditure.....\$893.85

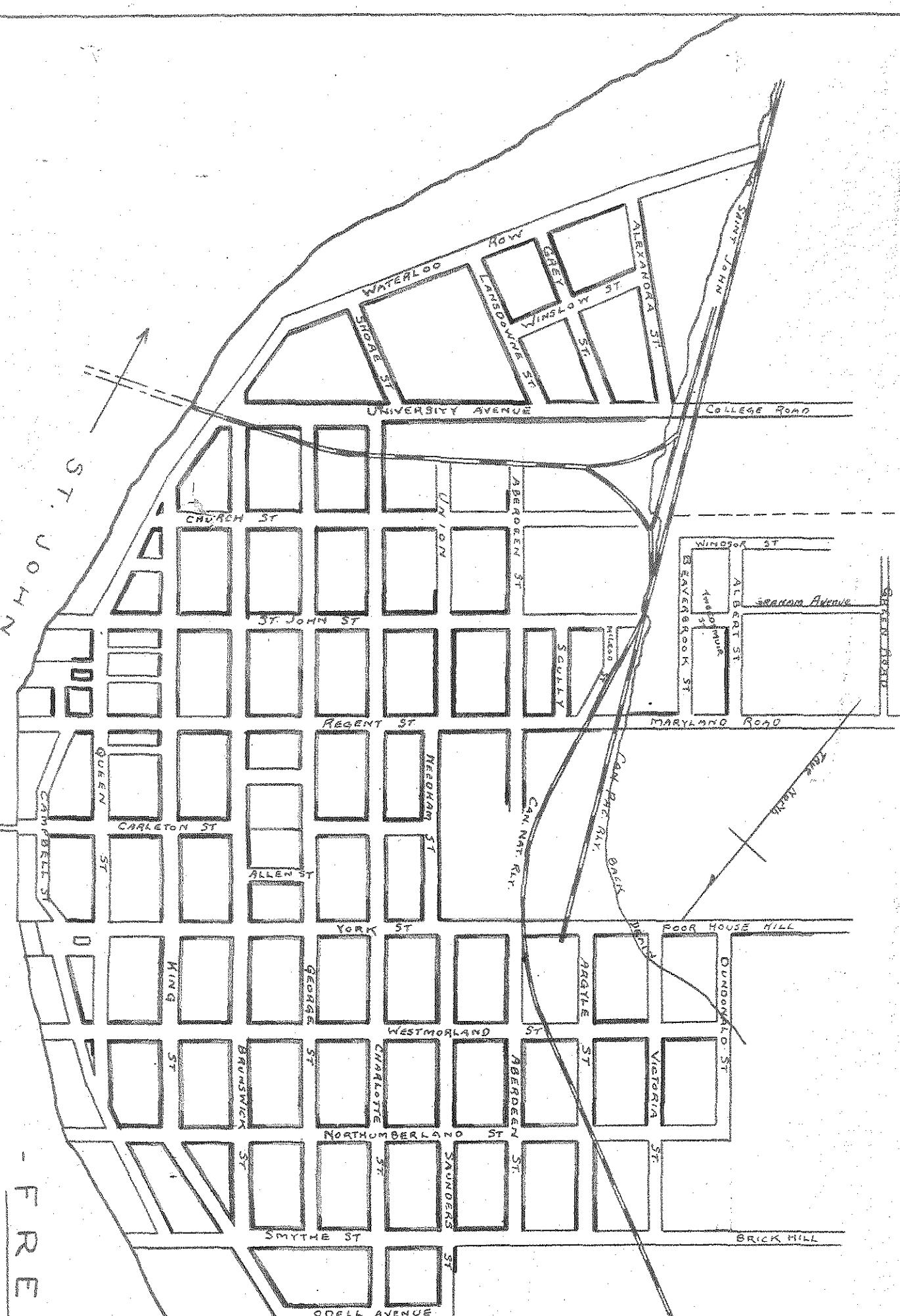
One piece, some 615 feet, of cement sidewalk was laid this year on Albert Street, north side, between Regent and Tweedsmuir Streets.

Besides the above mentioned new construction, a number of our previously laid cement walks had to be repaired.

Following is a map showing the cement sidewalks made this year in red and those made in previous years in blue.

- CITY ENGINEER'S OFFICE -  
FREDERICTON N.B.  
Nov. 1941

Scale - 1 inch equals 800 ft.



- F R E D E R I C T O N -

- O F -

- C I T Y -

CONCRETE WALKS LAID 1942 =  
CONCRETE WALKS LAID PREVIOUS 1942 =

### SEWERAGE DOMESTIC

Gross Expenditure.....	\$1,991.90
Credits.....	<u>530.91</u>
Net Expenditure.....	\$1,460.99

The credit of \$530.91 is made up of work done on the domestic sewerage for private parties. This work consists of all sewerage installation and sewerage maintenance other than that done on the principal sewerage main which serves the street.

Only one small extension to the sewerage system was made this year when it was found necessary to extend the 8-inch domestic sewer on Northumberland Street south 60 feet to pick up a new customer.

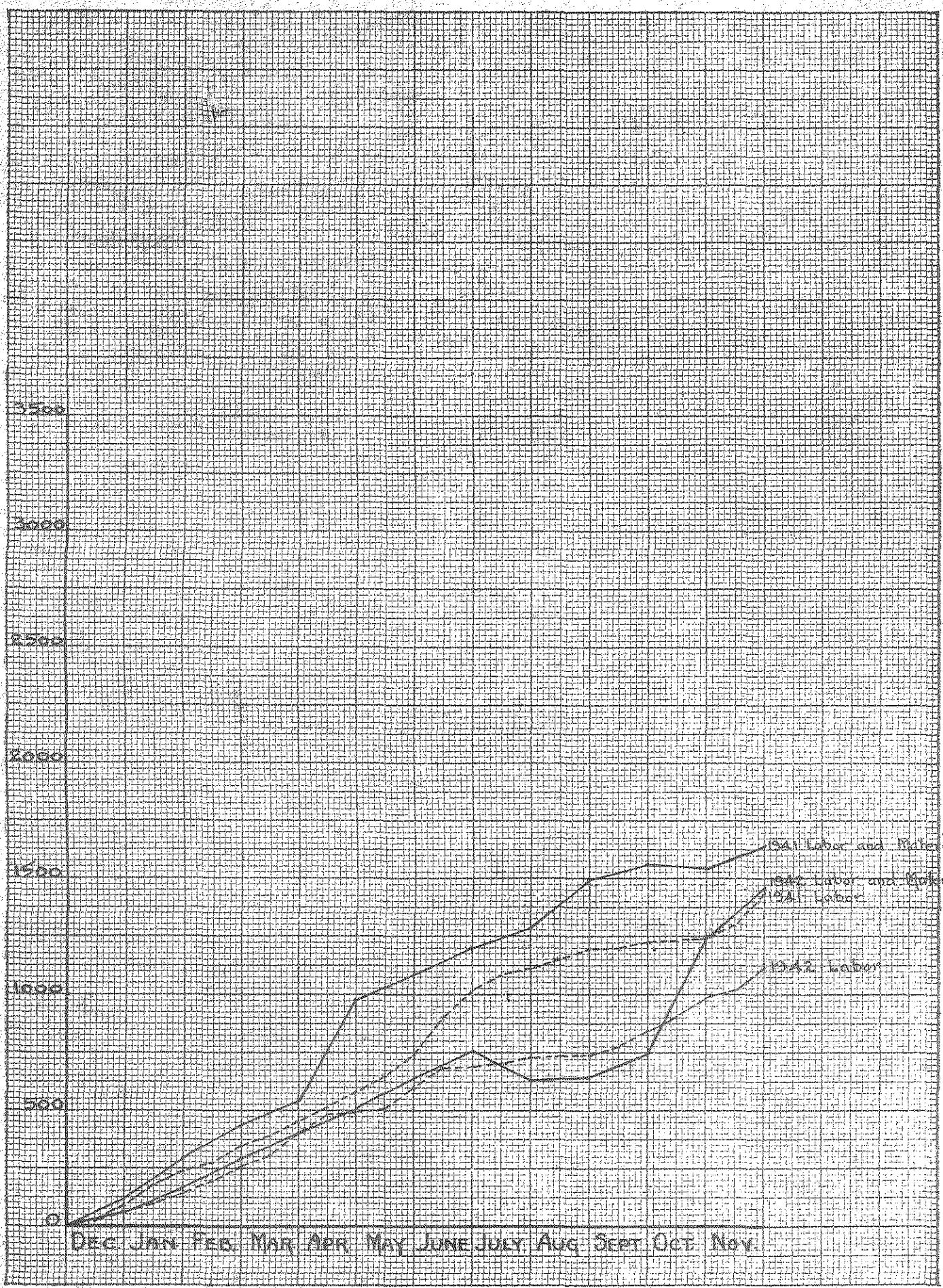
The entire domestic sewerage system was flushed out once during the summer between May 26th and June 2nd at a labour cost of \$118.70.

The number of new customers connected with the City Sewerage System this year..... 8  
Old sewerage connections dug out and relaid... 7

A graphic comparison for domestic sewerage costs for 1941 and 1942 is shown on the following plate:-

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SEWERAGE DOMESTIC COSTS 1941 AND 1942.

## WATER

The expenditure in this department is divided into two headings, namely, "Water Ordinary" and "Water Pumping Station."

### Water Ordinary:-

This account takes in all expenditure for water outside the pumping station and pumping station grounds. The expenditure under this heading is made up as follows:-

Gross Expenditure.....	\$ 5,396.93
Credits.....	411.44
Net Expenditure.....	<u>\$ 4,985.49</u>

The credits are made up of work done for and material sold to private parties when installing a water service over ground other than city property or when the material is to be used on parts of systems which do not belong to the City.

The gross expenditure is made up as follows:-

City Payroll for hydrants.....	\$ 399.83
City Payroll for meters.....	1,273.13
City Payroll for Water Ordinary.....	1,734.95
Total Payrolls.....	<u>3,407.91</u>
Material and other charges.....	<u>1,989.02</u>
Gross Expenditure.....	<u>\$ 5,396.93</u>

### Hydrants:-

We have in the City 149 hydrants plus three hydrants which have been installed by the Military Department which makes in all 152 hydrants which must be maintained by the City crews.

The labour costs show an average cost per hydrant for labour only of \$2.63.

### Meters:-

Of all our water services in the City 563 are charged under flat rate and 1169 are on meter, giving us altogether 1732 services.

The labour cost this year per meter for installing, reading, repairing, etc. is \$1.09.

Thirty-seven meters were stopped this year and had to be repaired.

All meters are read twice a year and bills are sent out twice a year. We have about 74 customers whose meters are read once a month although they also are billed only twice a year. These are customers who ordinarily have large consumptions and where a stopped meter or a meter turned over without being noticed would mean considerable loss of revenue to the City. All meters on military buildings are included in this group of monthly read meters.

Private meters in service 1941.....	1125
Private services metered for first time 1942.....	2
Meters in service Military Training Centre # 70... .	23
Meters in service Military Depot # 7.....	<u>22</u>
Private meters taken off service.....	<u>3</u>
Services on meter November 1942.....	<u>1169</u>

Of the above listed meters the two private services metered for the first time this year are made up of two meters put in the Loyalist Building, thus this building is divided into three water accounts although it has only one water service feeding into the building.

At Military Training Centre # 70 of the above 23 meters listed 2 were placed this year, and in Military Depot # 7, 20 of the 22 meters listed were placed this year.

Of the 3 meters shown as having been taken off service, one was taken off the Kilburn House on Smythe Street which was taken over by the Hospital for a Nurses Home and pays no water bill. Another was from the new Victory Building which is now handled by one meter where it formerly had been handled by two meters. The third meter came from the Normal School where the two readings necessary to be taken on a compound meter were reduced to one reading by installing a  $1\frac{1}{4}$ " meter in place of the compound meter.

This year we purchased from the Neptune Meter Company the following new water meters:-

24 - 5/8 Trident Cold Water Meters with  $3/4"$  connections, straight reading, Imperial Gallons. The Serial No. on these meters were 6332815 - 6332838

10 - 1" Trident Cold Water Meters with  $1\frac{1}{4}"$  connections, straight reading, Imperial Gallons. The Serial No. on these meters were 6332839 - 6332847 - 6332850

Meters in store room January 1st, 1943:-

5/8 meters repaired and fit for service.....	2
5/8 meters that can be repaired and made fit for service.....	6
New 5/8 meters.....	1
3/4 meters fit for service.....	0
1-in. meters that can be repaired.....	2
New 1-in. meters.....	0
New 1-in. meters with $1\frac{1}{4}"$ connections.....	2
$1\frac{1}{2}$ in. meters fit for service.....	1
Compound meters fit for service.....	0
Compound meters not fit but which can be repaired.....	2
$1\frac{1}{2}"$ Crest Meters.....	1

### DISTRIBUTION SYSTEM

New water services installed this year.....	8
Old services relaid this year.....	24
Frozen services which had to be thawed.....	11
Services discontinued.....	1
Water breaks repaired.....	6

We had in the City on the 30th day of November 1942  
1732 water services.

The Fredericton Distribution System consists of 16.71 miles of water main made up of the following sizes:-

10 inch main.....	1.53 miles
8 inch main.....	4.21 miles
6 inch main.....	9.09 miles
4 inch main.....	1.60 miles
3 inch main.....	.28 miles

This does not include the water mains installed by the Department of National Defence at Military Training Centre No. 70 or at Military Depot No. 7. These two installations are made up of 4330 feet of 6-inch water main and are directly connected to the City Distribution System.

The water mains were flushed out this year and because of our large daily consumption we had to make these flushings during our off peak load during the night.

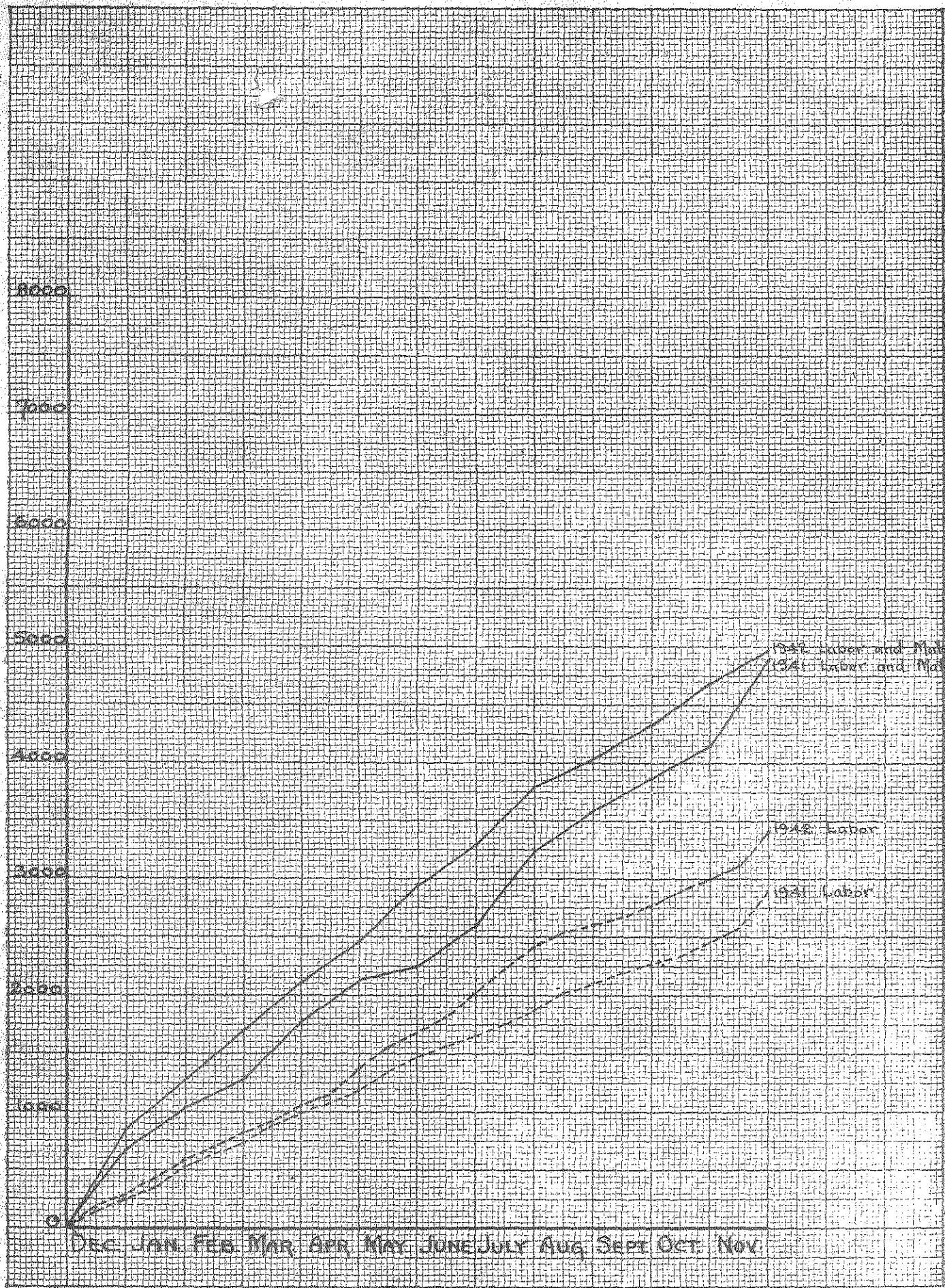
**TABLE SHOWING COMPARATIVE YEARLY COSTS  
WATER ORDINARY**

<u>Year</u>	<u>Labour</u>	<u>Material</u>	<u>Gross Expenditure</u>	<u>Credits</u>	<u>Net Expenditure</u>
1929	3,236.77	2,203.13	5,439.90		5,539.90
1930	3,647.97	2,313.18	5,961.15		5,961.15
1931	3,836.33	4,376.87	8,213.20		7,933.55
1932	2,666.30	1,854.06	4,520.36	122.47	4,397.89
1933	2,333.25	1,604.17	3,937.42		3,907.15
1934	3,247.51	4,112.34	7,359.85	891.23	6,468.62
1935	5,372.83	5,897.23	11,270.06	398.42	10,871.64
1936	4,303.14	3,725.91	8,029.05	392.35	7,636.70
1937	3,718.36	3,938.81	7,657.67	265.46	7,401.21
1938	4,797.47	2,254.68	7,052.15	153.11	6,899.04
1939	4,201.24	3,248.61	7,449.85	570.44	6,879.41
1940	4,231.75	2,708.22	6,939.97	808.46	6,131.49
1941	2,908.37	2,446.27	5,354.64	459.08	4,895.56
1942	3,407.91	1,989.02	5,396.93	411.44	4,985.49

A graphic comparison of expenditure on water ordinary for years 1941 and 1942 is shown on the following page:-

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WATER ORDINARY COSTS 1941 AND 1942.

## WATER PUMPING STATION

The water pumping station was as usual under the supervision of the plant superintendent and chief engineer, John Malloy.

During the year we installed one new impeller and shaft complete with seal rings and bearings in our 6-inch low lift pump, the other pump having had a new impeller installed last year. We also installed a new impeller and shaft complete in one of our 6-inch service pumps. As the other service pump had an almost new impeller installed last year these four pumps, namely, the two low lift pumps and two service pumps are in an efficient condition.

Three new hydraulic valves were purchased this year and at the last of the year one of them had been installed on the influant of No. 1 Filter.

The firebox of No. 1 Boiler had been gradually going out of shape probably due to the water getting around the boiler during the flood of 1936. One layer of brick was removed from the inside of the firebox and rebuilt. New feed and blowdown lines were installed and the fire door arch torn out and renewed.

Because of some trouble in our alum mixing tanks in dissolving the alum, steam leads were installed to heat the water in these tanks thus dissolving the alum much quicker.

On the building itself the main roof had some minor repairs and the rain troughs were removed from around the building. These rain troughs were copper and upon removal were given to the local salvage.

Our alum shed had become very dilapidated. It was blocked and rebraced inside.

The intake crib in the river was thoroughly cleaned by shovelling and pumping out the sediment which had collected there. The top of this crib was recovered with new deal.

*Raw Water Pump*  
The ~~clear water~~ well was drained and cleaned out once during the year.

The coagulating basin was cleaned out three times during the year.

An Aqueco Electro-Chemical Coagulation Equipment was installed in the Filter Department. This equipment included four electrical units each individually controlled. The purpose of these units is to aid and speed up the coagulation electrically so that flocculation is complete when the treated water leaves the mixing chambers. These units were installed by cutting a hole through the concrete top of the coagulating basin. A small house was built over this equipment and connected to the filter room by a gallery.

The terms on which the equipment was purchased are as follows:- 25% of the purchase price to be paid on completion of the installation and balance in three month's time should the installation prove satisfactory to the City Analyst, Mr. E. W. Hagerman, and the City Engineer, Mr. J. D. MacKay. If, in the opinion of these two City employees, the installation be not satisfactory then it will be removed by the Aqua Electric Corporation Ltd. with no further cost to the City of Fredericton.

This equipment was installed around the last of November and is at present under test. The total purchase price of the equipment is \$3,875.00 delivered, and installed and including the Dominion Government Sales Tax.

This fall it was decided to enclose the Water Pumping Station by a wire fence to keep out loiterers and persons who had no legitimate business in the water works. A 6-foot wire fence was constructed surrounding the water pumping station and outlying buildings at a cost of \$369.00. The work was done by the water maintenance crew except for the posts for the fence which were cut on College Property by the Roads and Streets Department.

It will be noticed by looking at the table of comparison of water pumped and costs for the last sixteen years shown on page 26 that the amount of water pumped this year was almost 1/4 more than our normal pumpage. This is accounted for entirely by the military installations and personnel who have been stationed in Fredericton. This extra water is consumed by direct military uses in supplying camps, etc., and by a certain amount of extra commercial uses in laundries and other commercial enterprises which are servicing the military installations.

The plant and equipment have been kept up by the water employees in a satisfactory manner during the season and a good pure water has at all times been delivered to the customers.

The following is a report of the City Analyst for the year 1942.

#### FREDERICTON WATER SUPPLY - Year 1942

Total count of Bacteria per c.c., Agar, 48 Hour, Room Temp (68)

Dates of Tests	Raw Water	Effluent	Tap Water	Per Cent Removal
1941				
December 30	1200	5	4	99.6
1942				
January 5	---	4	20	From Forestry Bldg. water stored in open tanks
" 11	650	1	5	99.4
" 21	564	4	4	99.3
" 28	700	2	3	99.7
February 5	900	6	5	99.1
" 12	500	1	4	99.2
" 16	1020	3	7	99.7
" 22	400	1	2	99.5
March 5	1300	6	8	99.4
" 12	1500	4	5	99.7
" 16	1700	3	1	99.8
" 20 Ross Drug Fire	1300	4	4	at 123 Char. St.
" 28	1500	2	3	99.8
April 4	1600	2	4	99.8
" 12	1800	1	1	99.9
" 23	4200	2	3	99.9
" 29	4000	3	3	99.9
May 4	1800	2	3	99.8
" 10	1200	3	3	99.8
" 22	625	1	2	99.7
" 31	425	2	4	99.5
June 8	310	3	2	99.0
" 17 Freshet	1200	21	16	99.8
" 20	4400	9	10	99.7
" 26	900	3	2	99.7

Dates of Tests		Raw Water	Effluent	Tap Water	Per Cent Removal
1942					
July	2	800	1	2	99.8
"	9	540	1	5	99.8
"	11	510	3	2	99.4
"	21	630	1	0	99.9
"	30	440	2	3	99.5
August	13	480	2	3	99.5
"	21	800	2	1	99.7
"	28	700	3	2	99.7
September	1	400	2	2	99.5
"	6	500	4	5	99.8
"	14	600	1	2	99.8
"	27	850	3	2	99.7
October	8	700	0	2	100.0
"	19	500	2	2	99.3
"	25	780	1	2	99.8
November	6	670	10	6	98.5
"	17	2100	7	3	99.7
"	24	950	7	5	99.3
December	1	1300	1	-	99.9
Averages		1376	3.4	3.9	99.6

On several occasions, when conditions were worst, tests were made for coli. In all cases they were found present in the raw water but not in the filtered water.

Fredericton, N. B.  
December 10, 1942

E. W. HAGEMAN

#### Water Pumping Station Cost 1942:-

Gross Expenditure.....	\$23,400.09
Credits.....	3,724.19
Net Expenditure.....	\$19,675.90

This Credit of \$3,724.19 is made up as follows:-

96.455 tons of coal charged to Pumping Station and sold to other City Departments.....	\$ 534.19
Water charged to Sewerage Domestic for flushing domestic sewers.....	70.00
Water used in City Hall Building.....	50.00
Water used in Old Street Lighting Building on Carleton Street.....	25.00
Water used in City Yard.....	10.00
Water used in City Alms House.....	25.00
Water used in City Parks.....	50.00
To yearly rental of 148 hydrants at \$20.00.....	2,960.00
	\$3,724.19

The Gross Expenditure is divided as follows:-

City Payroll for salaries of engineer at Pumping Station.....	\$ 5,888.71
Work done by other City employees in and around Pumping Station.....	1,054.35
Total City Payrolls.....	6,943.06
Material and Workmen's Compensation Charge.....	16,457.03
Gross Expenditure.....	\$23,400.09

The material cost of \$16,457.03 is itemized as follows:-

Item # 1	Light supplied and power supplied by the Maritime Electric Co. 343,400 K.W.H.....	\$ 8,183.00
Item # 2	Transformer Charges.....	151.92
Item # 3	Lime, 8650 lbs.....	367.46
Item # 4	Alum, 90,496 lbs.....	1,647.03
Item # 5	Coal, 371.215 tons (96.455 tons of preceding amount sold to other City Departments).....	2,049.12
Item # 6	Fuel oil.....	-----
Item # 7	Engine oil, 172 gals. D.B. Oil.....	107.25
Item # 8	Motor Oil, 12 gals. Mobile B.....	13.44
Item # 9	Gasoline, 125 gals.....	26.88
Item 10	Maintenance and repairs of the building and machinery.....	1,171.01
Item 11	New installations.....	1,423.46
Item 12	Supplies, packing, rags, etc.....	18.61
Item 13	Stationery, forms, charts, etc.....	66.86
Item 14	Workmen's Compensation Board.....	112.50
Item 15	Mr. E. W. Hagerman's salary.....	900.00
Item 16	Hoisting chemicals.....	89.50
Item 17	Miscellaneous, telephone, etc.....	128.99
	Total.....	\$16,457.03

**COMPARISON OF WATER PUMPED AND COSTS  
FOR LAST SIXTEEN YEARS**

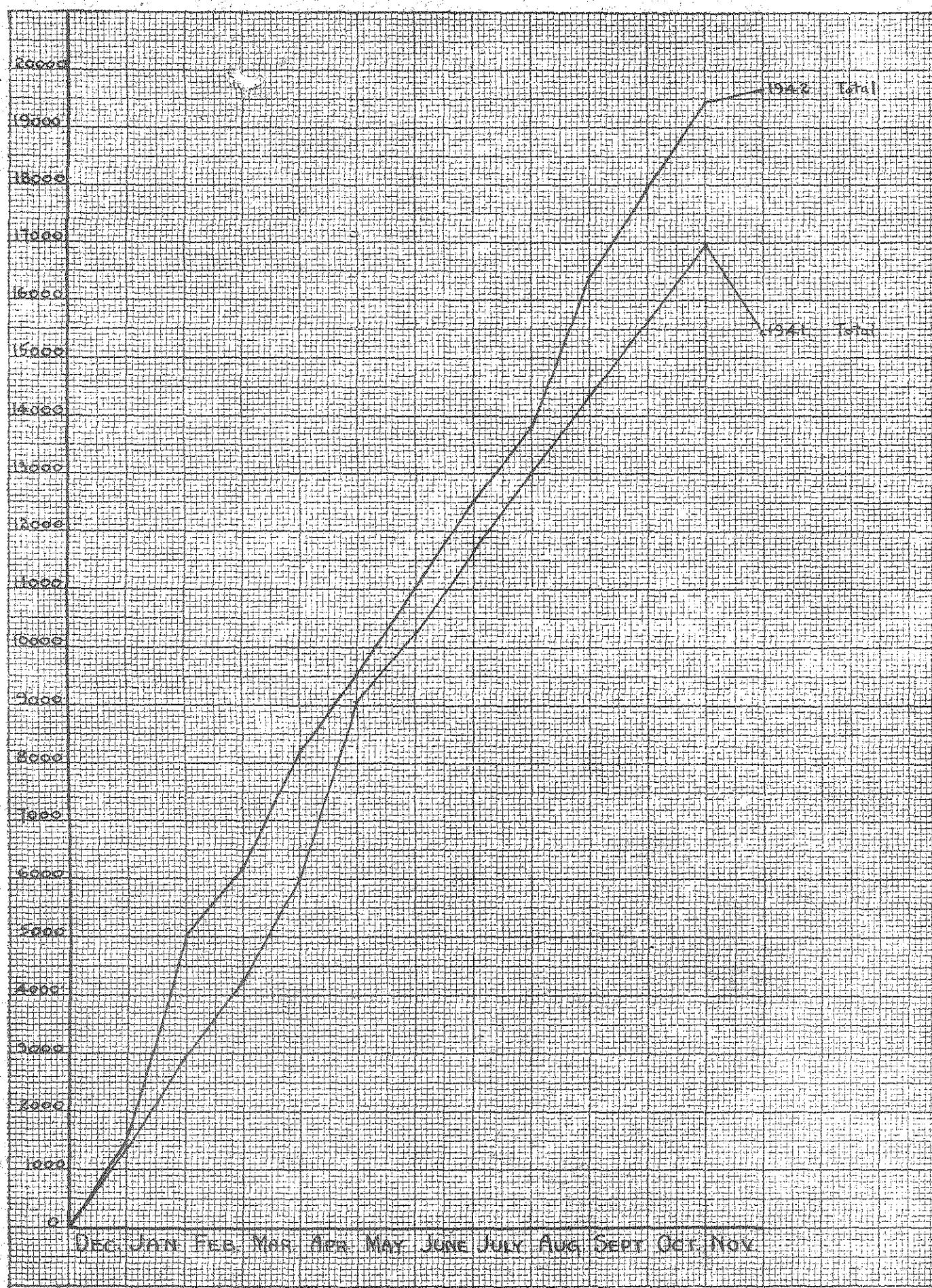
Year	I. G. Water Pumped	Yearly Gross Expenditure at Pumping Station	Pumping Station cost per 1000 gals.	Total Yearly Water Costs (Net Expendi- ture of Water Ordinary and Gross Expendi- ture of Water Pumping Station)	Total Yearly Cost per 1000 Gallons
			(using Gross Expendi- ture)		
1927	198,168,000	18,040.65	9.10 cents	\$24,636.62	13.0 cts.
1928	192,890,000	18,245.05	9.46 cents	26,122.73	13.5 cts.
1929	195,590,000	17,722.44	9.00 cents	32,142.34	16.4 cts.
1930	204,405,000	16,791.22	8.21 cents	22,752.37	11.1 cts.
1931	187,164,000	16,425.55	8.8 cents	24,559.10	13.0 cts.
1932	171,032,000	16,915.58	9.9 cents	21,313.47	12.5 cts.
1933	175,050,000	16,483.67	9.5 cents	20,390.82	11.6 cts.
1934	202,720,000	15,999.50	7.9 cents	22,468.12	11.1 cts.
1935	197,641,000	16,251.61	8.1 cents	27,123.25	13.5 cts.
1936	193,450,000	17,189.21	8.8 cents	24,825.91	12.6 cts.
1937	187,008,000	19,678.21	10.5 cents	27,079.42	14.5 cts.
1938	181,558,000	19,239.49	10.6 cents	26,138.53	14.4 cts.
1939	199,662,000	18,144.43	9.1 cents	25,023.84	12.5 cts.
1940	203,975,000	22,503.35	11.3 cents	28,634.84	14.0 cts.
1941	222,255,000	19,474.56	8.8 cents	24,370.12	11.0 cts.
1942	257,205,000	23,400.09	9.1 cents	28,385.58	11.0 cts.

All these preceding costs shown under water pumping station and water ordinary do not include the costs of billing and collecting of water bills or any other overhead charges included in the City Government cost, nor do they include bond payments or Sinking Fund Charges.

The following chart gives a graphic comparison of water pumping station costs for the years 1941 and 1942.

THIS MARGIN RESERVED FOR BINDING.

IF SHEET IS READ THIS WAY (HORIZONTALLY) THIS MUST BE TORN.  
IF SHEET IS READ THE OTHER WAY (VERTICALLY) THIS MUST BE LEFT HAND SIDE.



WATER PUMPING STATION COSTS 1941 AND 1942.

Table compiled from Daily Pumping Station Charts  
Year 1942, showing water pumped and material  
and machinery used in pumping

Total Hours Month	Month	T. Gallons Water Pumped	Low Lift Pump			Service Pump	
			Hrs. Power Supplied by No. 1 Motor	No. 1 Motor	No. 2 Motor	No. 1 Motor	No. 2 Motor
744	December	141 1/42	18,940,000	63,100	27,000	744 646 <sup>1</sup> 699 <sup>3</sup>	20 min.
744	January	20,420,000	84,300	29,700	744 744 744	27 hrs. 5 min.	13 hrs
672	February	18,435,000	75,600	26,700	672 676 <sup>2</sup> 676 <sup>2</sup>	1 hr. 5 min.	
744	March	21,900,000	68,300	28,100	744 720 720		
720	April	20,695,000	51,600	26,800	744 720 720		
744	May	21,850,000	39,200	26,900	744 720 720		
720	June	22,090,000	30,800	32,400	744 744 744		
744	JULY	25,005,000	25,000	27,000	744 744 744		
744	August	22,265,000	29,400	744 720 720	152 <sup>1</sup> 212 <sup>1</sup> 155 <sup>1</sup>	25 min.	
720	September	22,035,000	3,200	30,300	667 <sup>2</sup> 531 <sup>2</sup> 689 <sup>2</sup>	13 hrs. 15 min. 3 hrs. 20 min.	
744	October	22,440,000	32,800	27,600	744 704 720	1 hr. 10 min. 40 hrs. 45 min. 27 hrs. 50 min.	
720	November	21,130,000	38,000	29,500	22 <sup>2</sup> 22 <sup>2</sup>		
8760		257,205,000	491,900	343,400	8760 882 <sup>1</sup> 7217 <sup>1</sup>	18 <sup>4</sup> hrs. 15 min.	13 hrs

At the conclusion of this Report I am inserting the following table:-

TABLE SHOWING PRINCIPAL PURCHASES OF  
MATERIAL USED BY DEPARTMENTS  
HERE BEFORE MENTIONED

Material	Amt. Purchased in 1942	Average Price f.o.b. F'ton	Amt. Now in Stock
4" Soil pipe	148 feet	55¢ per foot	
4" Terra Cotta pipe	0		
5" Terra Cotta pipe	1000 feet	.318¢ per ft.	900 feet
6" Terra Cotta pipe	0		
8" Terra Cotta pipe	590 feet	45¢ - 46¢ per ft.	150 feet
10" Terra Cotta pipe	300 feet	61¢ per ft.	
12" Terra Cotta pipe	0		
15" Terra Cotta pipe	0		
20" Terra Cotta pipe	0		
24" Terra Cotta pipe	0		
10" Corrugated Iron pipe	0		
12" Corrugated Iron pipe	0		
18" Corrugated Iron pipe	0		
24" Corrugated Iron pipe	0		
30" Corrugated Iron pipe	0		
36" Corrugated Iron pipe	0		
Portland cement	979 bags	75¢ - 85¢ per bag	
Dynamite 50%	0		
Brick	2150	\$16 - \$20 per 1000	
Crushed trap rock 3/4 size	71 tons	\$1.75 per ton	50 yards
Stone dust	212 tons	50¢ per ton	
Gravel (pit)	2557 1/2 yards	90¢ - \$1.00 per yd.	50 yards
Calcium chloride	45 tons	\$23.08 - \$35.42 a ton	18 bags
Road machine blades	12 blades	\$7.50-\$7.55 per blade	
Lime	8650 lbs.	\$4.24 per 100 lbs.	2 drs-600 lb
Alum	90,596 lbs (45.248 tons)	\$1.82 per 100 lbs	
Coal (run of mine Minto)	10 cars (477.65 tons)	\$5.52 per ton	7 tons
Springhill	1710 lbs.	\$11.50 per ton	
Colas	585 gals.		
Primer M.C.I	1679 gals.	14.5¢ per gallon	9 barrels
Asphalt (premixed pavement)	0		
Tarvia	0		
R.C.3	8025 gals.	13.3¢ per gallon	26 barrels
R.C.4	675 gals.	14.5¢ per gallon	2 barrels
Bunker Oil	1215 gals.	8.5¢ per gallon	6 barrels
5/8" Copper tubing	1254 feet	15.59¢ per foot	
3/4" Copper tubing	0		
1" Copper tubing	0		
10" Cast Iron pipe	0		
8" Cast Iron pipe	0		
6" Cast Iron pipe	0		
4" Cast Iron pipe	0		
Fittings for above 10-8-6-4	0		
Lumber	23,465 feet	\$30 - \$45 per 1000	
Lead	210 lbs.	\$12 per 100 lbs.	
Elm trees	6	\$1.75 per tree	
4" Gate valves	1	\$18.53 per valve	
6" Gate Valves	2	\$30.55 per valve	

Material	Amt. Purchased in 1942	Average Price f.o.b. F'ton	Amt. Now in Stock
1" x 1½" Trident Cold Water Meter	10	\$30.98 each	
3/4" Trident Cold Water Meter	6	\$20.66 each	
5/8" Trident Colt Water Meter	18	\$14.09 each	
Sewer rods	100 ft.	\$91.31 per 100 ft.	
Special Ethylene Glycol			
Type Anti-Freeze	30 gals.	\$3.84 per gal.	11½ gals.
2" Galvanized pipe	386 ft. 9 in.	10.23¢ per foot	
1" Galvanized pipe	119 ft. 1½ in.	14.70¢ - 18¢ per ft.	
1½" Galvanized pipe	49 ft. 6 in.	19½¢ - 24¢ per ft.	
Impeller and shaft complete with seal rings and 2 SKF bearings for low lift pump	1	\$201.25	
Impeller and shaft complete with seal rings and bearings for service pump	1	\$328.26	
Catch basins (frame and cover)	4	\$26.62 per catch basin	2 complete
Special hydraulic operated gate valves 6"	3	\$108.00 each	

Water Installations . . . . . 1942

December 3/41	Gaetano Di Giacinto	722 King St	Box to Wall	5/8" Copper
Dec. 6-7-8-9	U.N.B. College Field		1"	Galv. Iron
Dec. 11-12	Mrs E. Hurley	456 George Street		Repaired
Jan. 23-24	Phoenix Apartments	Phoenix Square		"
April 6	Miss Anna Kelly	313 Charlotte Street		"
April 13	Joseph Corsetti	381-385 King Street	Box to Wall	
April 15-16	Chippin, Velinski & Lang	258 King St.	Relaid New Service	
April 18	Joseph Wilby	81 Regent Street	"	" "
April 20	Alec. Murray	366 George Street	Repairing Water Box	
April 20	Ernest Bell	270 Charlotte Street	"	" "
April 14	J.J. Doherty	293 King Street	"	" "
April 14	James Forbes	137 Saunders St.	"	" "
April 20-21-22	Mrs F.H. Rowe	678 Union St.	Relaid New Service	
April 23	Ms. J.T. Doherty	141 King Street	"	" "
April 24	James McConaghay	275 George Street	"	" "
April 25-26-27-28	Major Good Est.	369-371 Brunswick	"	" "
April 28	William Kenny	178 Northumberland	RPaired Water Break	
April 29	Queen Hotel	Queen Street	Digging & Shutting off old Water Service	
April 30	Repairing Water Gate Corner York And Queen Streets			
May 6-7	William H. Goodine	238 George St	Relaid New Service	
May 8	Edward Colwell	267-269 George St	"	Box to Wall
May 9-11-12	Mrs Edgecombe	736 King Street	"	New Service
May 13-14-15	Mrs Emma Todd	682 Brunswick St	"	" "
May 19-20-21	Mrs Staples	280 Saunders Street	"	" "
May 22-23	Mrs W.P. Keenan	527 Charlotte Street	"	" "
June 4-5-6	Sterling Brannen	148 Argyle St	"	" "
June 9-10-11	Mrs Holtz	Winslow Street	New Water Service	
June 15	Repairing Water Leak on Queen St Corner Carleton and Queen Sts.			
June 15-17-19	"	Hydrant corner Carleton and King Streets		
May 5	Mrs Gertrude Balmer	157 Charlotte Street	Relaid New Water Service	
June 19-20-22	City Dairies	552 King Street	1"	New Service
June 23	Mr. Brown	563-565 Brunswick St.	Repaired New Service	
June 23	A. and B. Club	Queen Street	Repaired Break	

## Water Installations

1942

June 24-25	John Pickard	177 Argyle St	Relaid New Service
June 25-26	Miss Areta Gerow	459 Charlotte Street	" " "
June 26-27-29	Mrs Sterling Saunders	136 Carleton St	" " "
June 30	H.G. Kitchen	259-261 George St	" " "
June 30-July 2	Roy Perley	227 Brunswick Street	" " "
July	Dr. Wright	488 George Street	" " "
July	Repaired Hydrant on University Avenue Near Grey Street		
July 30	Sam Minue Estate	313-315 George St	Relaid New Service
Sept 14-15-16	Milton Tomilson	McLeod Avenue	New Water Service
Sept 19-21	Thomas Hughes	Woodstock Road	" " "
Sept 22-23-24-25	Mr. Whiting	Woodstock Road	" " "
Sept 30-Oct 1	Miss Helen Gorman	125 King Street	Relaid Water Service
Oct 7	Ernest Stevenson	57 Saunders St	" " "
Oct 15-16	Harry Hebblewaite	546 Windsor St	New Water Service

Domestic Sewers New and Repaired 1942

January 14	Windsor Hall	151 Westmorland St.	Dug Out
" 15	Leonard C. Box	184 Woodstock Road	" "
March 20-21-23	Dr. C.C. Jones	252 Waterloo Row	New Sewer
March 30-31 &			
April 1 - 2	Repairing main Sewer on Regent Street South of C.P.R. Tracks		
April 6 - 7	" " "	Beaverbrook Street	
April 9 - 10	Mrs Lillian Fox	214 Brunswick Street	Dug Out
April 11	Mrs F. Belyea	224 Brunswick Street	" "
May 5	Beaver brook Building	University Avenue	Repairing Break
June	L.W. Barker	98 Carleton Street	New Sewer
July	Dr. H.S. Wright	488 George Street	" "
July	Mrs Holtz	Winslow Street	" "
Sept 14-15-16	Milton G. Tomilson	McLeod Avenue	" "
Sept 19-21-22	Thomas Hughes	194 Woodstock Road	" "
Sept 22-23-24-25	Mr Whiting	Woodstock Road	" "
October 5	Thomas Fulton	368 Saunders Street	Dug Out
October 8	H.G. Kitchen	335 " " "	" "
October 15-16	Harry Hebblewaite	546 Windsor Street	New Sewer
October 30 -31	Extension of Northumberland Street Sewer 60 "		
October 31	Mr. Perley Currie	500 Northumberland Street	New Sewer

Stopped Meters..... October 1942

Charles Colwell.....704 Charlotte Street

Mrs Lillian Fox.....214 Brunswick Street

Roy Cameron.....247 Brunswick Street

Mrs B.Morton.....448 George Street

Mrs A.McDougall.....322 Regent Street

W.W.Boyce.....366 York Street

Custom House Basement 503 Queen Street

Cuisippi Corsetti....381 King Street

Gov. Provincial Building (West) Supplying Offices 450 King Street

Mrs W.P.Keenan.....241 Regent Street

Stopper Meters April 1942

Mrs. J.H.Barker.....127 Brunswick Street  
James Hughes.....614 Brunswick Street  
O.E.Batt.....435 University Avenue  
Dominion Entomological Bldg... University Avenue  
James Pringle.....143 Charlotte Street  
C.B.Morgan.....321 Church Street  
Province of New Brunswick.... 71 St. John Street  
Mrs.Gertrude E Perkins.....247 St. John Street  
E.Yerxa.....205 Victoria Street  
E.E.Cameron.....328 Smythe Street  
Wood Motors Ltd.....101 Regent Street  
Fraser Dunbar.....184 Regent Street  
Windsor Hall.....155 Westmorland Street  
Hiram Lodge.....135 Carleton Street  
E.E.Cameron.....242 York Street  
Mrs Harvey.....245 York Street

A.F.Belding ..... 180 SAUNDERS ST.

McCUTCHEON

248 " "

SMITH

221 George "

MISS Areta Gerow

251 "

SAM MINUE

313 "

SAM MINUE

317 "

Wm. ROBINSON

725 "

ORANGE HALL

279 Queen ST.

ALBERT KITCHEN 293 KING ST

Gov't Prov. Bldg (SUPPLYING Garage) 452 King ST.

F. A. GOOD 670 KING ST.

PROVINCIAL NORMAL SCHOOL Queen ST (LARGE)