

# ANNUAL REPORT OF THE ENGINEERING AND PUBLIC WORKS DEPARTMENT

## 1963



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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 various City Departments under the direct supervision of the City Engineer.

This report covers the period January 1, 1963 to December 31, 1963 and is written for the purpose of maintaining an accurate record on file of the activities and costs of the various departments.

During the year, along with regular maintenance, City crews and contractors constructed the following work:-

Concrete Curb and Gutter .....	4.20 miles
Concrete Sidewalk .....	2.15 miles
Grading and Gravelling .....	4.20 miles
Ditching (Doak and Wilsey Roads) .....	0.50 miles
New Street Construction .....	1.60 miles
New Pavement, 3/4" Dense Mix (Atlas Construction Co.) ..	6.52 miles
Recapping various City Streets (Atlas Construction Co.)...	.81 miles
Sealing various City Streets (Atlas Construction Co.)...	2.97 miles
10" to 60" Surface Sewer .....	3.87 miles
6" to 8" Domestic Sewer .....	2.44 miles
4" to 10" C. I. Water Main .....	2.15 miles

Contractors under contract with the Public Works Department of the City of Fredericton in 1963 constructed or began construction on the following projects:-

- Ashfield Construction - To installing Domestic Sewer, Surface Sewer and Water on Irvine Street, Perley Court and Bailey Drive, Carleton Realty Subdivision.
- Ashfield Construction - To installing Domestic Sewer and Water on Dunn's Crossing Road.
- Everett Farris - To installing Domestic Sewer, Surface Sewer, Water and Rough Grading Roads at Skyline Acres, Fredericton Housing Ltd., Forest Hill. (Canterbury Drive, Essex Street to Cambridge Crescent; Cambridge Crescent from Leicester Street to Canterbury Drive and Coventry Crescent from Manchester Court to Cambridge Crescent.)
- Everett Farris - To installing Domestic Sewer, Surface Sewer and Water on Jones Street and Gregg Court, Burden Subdivision.

- M. E. Phillips & Sons Limited - To installing Domestic Sewer, Surface Sewer and Water on York Street and Mansfield Street, Atkinson Subdivision.
- Robert Morse Corp. - To Supply and Installation for Diesel Driven Pumping Equipment at Fredericton Water Works (Pumping Station).
- International Water Supply Company - Supply and Installing new Pumping Equipment for new Well in Carleton Ward.
- Aden Sullivan - To Drilling Rock Wall Well in Carleton Ward.
- Atlas Construction Co. - To laying Asphalt Pavement on City Streets and Parking Areas.
- Associated Designers and Inspectors - Supervision and Inspection of Asphalt Pavement.
- Associated Designers and Inspectors - Consulting Services for the elimination of Forest Hill Railway Crossing.
- Brunswick Builders Ltd. - Supply and erection of a pre-engineered Steel Building, City Yard.
- Sub-Surface Surveys Ltd. - Test Drilling for Fire Station and Tower Site.
- Sub-Surface Surveys Ltd. - River Front Development Investigation.
- Forbes and Sloat - Supply and delivery of Crushed Gravel.

The current expenditures for the twelve-month period January 1, 1963 to December 31, 1963 appear as follows:-

	<u>Appropriation</u>	<u>Expenditure</u>	<u>Debit</u>	<u>Credit</u>
Street Lights	\$ 51,975.00	52,400.10	425.10	
Public Works	25,200.00	26,031.17	831.17	
Roads & Streets	213,700.00	219,783.45	6,083.45	
Sanitation	59,259.00	58,903.16		355.84
Wilmot Park	3,450.00	3,840.97	390.97	
Odell Park	4,300.00	3,757.37		542.63
Carleton Park	4,500.00	5,459.21	959.21	
Old Burial Ground	2,350.00	1,547.59		802.41
Street Cleaning	44,000.00	44,854.62	854.62	
Loyalist Burial Ground	100.00	140.16	40.16	
Queen's Square	2,000.00	1,828.37		171.63
Clearing Park Areas	<u>1,000.00</u>	<u>1,845.55</u>	<u>845.55</u>	
TOTALS =	<u>\$ 411,834.00</u>	<u>420,391.72</u>	<u>10,430.23</u>	<u>1,872.51</u>

	<u>Revenue</u>	<u>Net Expenditure</u>	<u>Credit</u>
Water Pumping Station)		48,405.54	
Water Ordinary )	\$ 230,441.92	62,754.93	85,292.02
Sewerage Domestic )		19,859.51	
Salaries		<u>14,129.92</u>	
TOTALS =	<u>\$ 230,441.92</u>	<u>145,149.90</u>	<u>85,292.02</u>

The City of Fredericton occupies a total of some 23.5 square miles. This area excludes the water area occupied by the Saint John River within the boundaries of the City.

The preliminary report on the 1961 census shows the City's population as 19,683.

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

Respectfully submitted,

City Engineer.

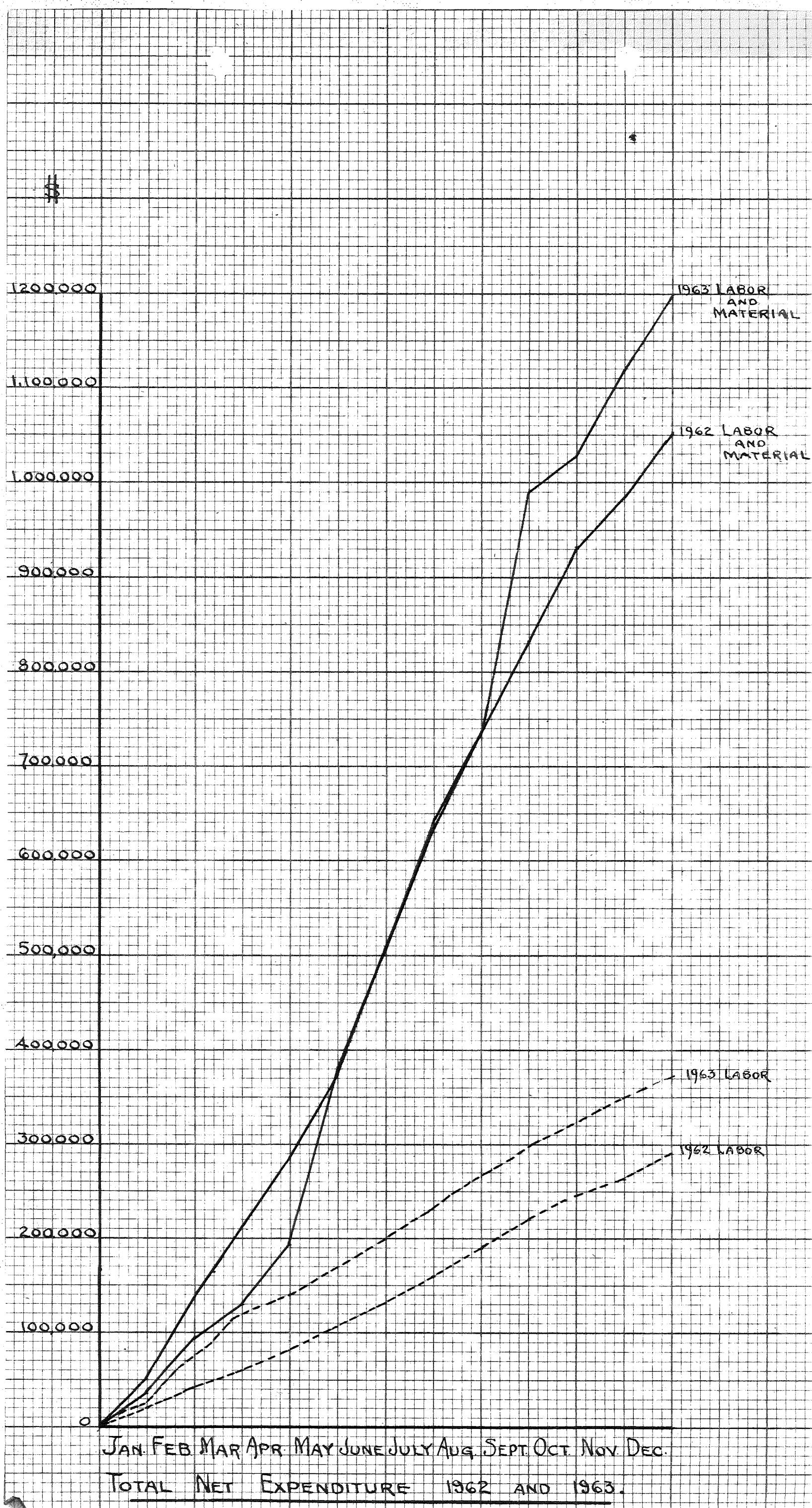
### TOTAL YEARLY EXPENDITURE

The total yearly net expenditure under the direct supervision of the City Engineer in 1963 amounted to \$1,193,500.66.

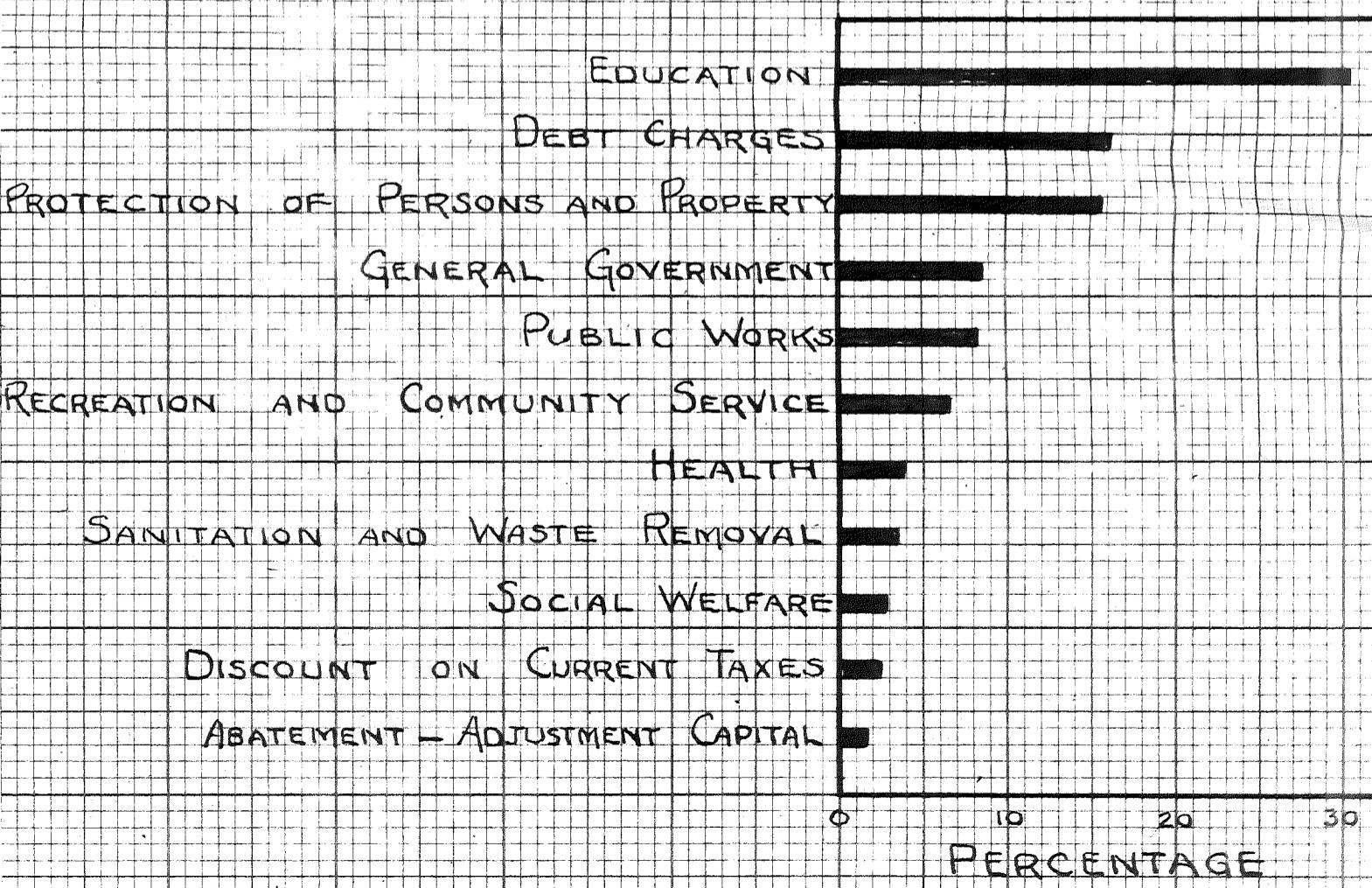
A graphic comparison of expenditures for labor and labor and material for the year 1962 and the year 1963 is shown on the following graph.

The location of new construction completed and commenced in 1963 is shown on maps inserted after page 4 of this report.

Following the maps is a graph showing the distribution of the City of Fredericton Tax Dollar.



## DISTRIBUTION OF THE 1963 CITY DOLLAR



## ROADS and STREETS

In 1963 the appropriation for Roads and Streets was \$213,700.00.

There are in Fredericton some 64.99 miles of Roads and Streets; 12.66 miles being located on the north side of the Saint John River and 52.33 miles on the south side. In addition there are 46.93 miles of concrete sidewalks; 8.31 miles on the north side and 38.67 miles on the south side of the Saint John River.

The paved and unpaved Roads and Streets are divided between the Rural and Urban districts (Inside and Outside Tax Rate) as follows:-

### Roads and Streets

	<u>Urban</u>	<u>Rural</u>	<u>Total (Miles)</u>
Paved	46.07	5.45	51.52
Unpaved	<u>5.10</u>	<u>8.37</u>	<u>13.47</u>
TOTALS =	<u>51.17</u>	<u>13.82</u>	<u>64.99</u>

### Roads and Streets Expenditures - 1963

Gross Expenditure .....	\$ 304,179.79
Credits .....	<u>84,396.34</u>
Net Expenditure .....	\$ 219,783.45
1963 Appropriation .....	<u>213,700.00</u>
DEBIT .....	<u>\$ 6,083.45</u>

The above Credits of \$84,396.34 are made up as follows:-

Materials or charges for machinery to private parties .....	\$ 3,476.35
Journal Voucher (Materials sold to other departments) .....	842.42
Journal Voucher (Gas, Oil, Antifreeze, Diesel Fuel, Kerosene) .....	6,191.34
Journal Voucher (Machinery rental on other accounts) .....	72,435.75
Rebate for Winter Works Project N.B. - 54 (Federal Government) .....	92.13
Rebate from Compensation Board (Injured Workmen)....	<u>1,358.35</u>
TOTAL .....	<u>\$ 84,396.34</u>

The Gross Expenditure is divided as follows:-

Labor - Being the total of Roads and Streets Payrolls, (\$104,760.00) plus the cost of hired trucks or any other machinery hired by the hour (\$50,643.00) ..... \$ 155,403.02

Material- Which includes Workmen's Compensation, Charges Unemployment Insurance and all materials including purchase and repairs to City owned equipment ..... \$ 148,776.77

The labor charges of \$155,403.02 are divided into the following items. These items give a good idea of the amount and kind of work done by the Roads and Streets Department during the year.

ITEM 1

L A B O R

Snowplowing Sidewalks:- 46.98 miles ..... \$ 4,932.42  
46.98 miles of sidewalks were kept plowed in 1963. To the labor cost of \$4,932.42 must be added \$9,371.44 (Workmen's Compensation, Pension Fund, Gas, Oil, Repairs, Sanding & Depreciation) resulting in a unit cost for plowing and sanding sidewalks of approximately \$304.47 per mile for 1963.

ITEM 2

L A B O R

M A T E R I A L S

T O T A L C O S T

Snow Control:- Blowing, shovelling and hauling snow, plowing or scraping roads, cleaning gutters, thawing catch basins of ice and snow and any other means of snow control, 64.99 miles ..... 79,099.01

The following table shows comparative labor cost of Snow Control for the years 1961 to 1963 inclusive:-

	<u>1961</u>	<u>1962</u>	<u>1963</u>
Snowplowing Roads and Streets	\$ 9,489.92	5,380.93	11,269.45
Blowing, Hauling & Shovelling Snow	27,624.71	13,416.85	62,073.65
Catch Basins	3,369.45	2,374.16	4,818.13
Snow Fences	674.19	577.77	702.51
Plowing Parking Areas			235.27
Thawing Culverts		39.39	
<b>TOTALS</b> ...\$	<b>41,158.27</b>	<b>21,789.10</b>	<b>79,099.01</b>

64.99 miles of Roads and Streets were plowed and maintained during the winter months.

The unit cost per mile of plowing and maintaining City Roads and Streets was approximately \$2,484.00 and was calculated as follows:-

L A B O R  
continued

Labor including hired machines	
(Snow Control) .....	\$ 79,099.01
Labor (Sanding Roads) .....	9,862.63
Workmen's Compensation, Pension and Holiday Fund .....	7,579.51
City Trucks (3607 hrs. @ \$2.00 per hour) .....	7,214.00
City Road Patrols (1960 hrs. @ \$7.00 per hour) .....	13,720.00
City Bulldozers (185 hrs. @ \$4.50 per hour) .....	832.50
(573½ hrs. @ \$6.50 per hour) .....	3,727.75
City Thawing Machines (500 hrs. @ \$2.00 per hour) .....	1,000.00
Front End Loader (749 hrs. @ \$8.00 per hour) .....	5,992.00
City Snow Blowers (995 hrs. @ \$15.00 per hour) .....	14,925.00
Sand (5,760 cubic yards) .....	7,200.00
Rock Salt (314 tons @ \$17.80 per ton) .....	5,589.20
1960 Ford Sand Spreader (362 hours @ \$6.00 per hour) .....	2,172.00
Michigan Shovel T-6K (418 hours @ \$6.00 per hour) .....	2,508.00
City Jeeps (865 hours @ \$2.50 per hr.) .....	2,162.50
<b>TOTAL</b>	<b>\$ 163,534.10</b>

PLUS - Cost of Snow Control -  
Sidewalks ..... 14,303.86  
**TOTAL COST OF SNOW CONTROL @.....\$ 177,837.96**  
RENTAL RATES

Snow Fall in Fredericton for the last  
five years was as follows:-

January 1, 1959 to December 31, 1959 ...	61.50 inches
January 1, 1960 to December 31, 1960 ...	88.40 inches
January 1, 1961 to December 31, 1961 ...	93.89 inches
January 1, 1962 to December 31, 1962 ...	90.80 inches
January 1, 1963 to December 31, 1963 ...	106.10 inches

Snow Fences:- Eleven thousand feet of  
lath and wire snow fencing was erected  
under Snow Control to prevent drifting snow  
from building up on Outlying Roads, 2,000  
feet of new fencing was purchased in 1963  
from the New Brunswick Wire Fence Company.

ITEM 3 Sanding Streets and Walks:-  
Storing sand in Winter Storage piles and  
spreading same on slippery streets and  
walks ..... \$ 11,271.58

6,560 cubic yards of sand was used  
during the winter of 1963, purchased from  
S. S. Baird and Sons and W. W. and W. R.  
Thomas.

L A B O R  
continued

ITEM 4      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 ..... \$ 34,467.89

Repairs to Streets (repairs to curbs, sidewalks, bridges, culverts, erecting of guard rails, cutting grass, constructing barricades, rip-rapping, ditching, etc.) ..... \$ 3,150.32  
 Repairs to Machinery ..... 16,624.91  
 Dust Control ..... 682.54  
 Weather Account (Holidays) ..... 13,995.03  
 Sodding and Seeding ..... 15.09  
 TOTAL ..... \$ 34,467.89

In 1963, 24,017 gallons of Bunker Oil were used for dust control.

The total cost including labor, materials and machinery maintenance, under this heading, amounted to \$95,094.97.

ITEM 5      Surface Sewers:- ..... \$ 6,309.93

The Surface Sewers in the City were flushed where necessary and all Catch Basins were cleaned and repaired during the year and repairs were made to any leaks that occurred or extensions needed to the sewer outfalls, amounting to \$7,145.51, which includes labor, city machinery and materials.

ITEM 6      Yard:- Caretaker at City Yard, repair work in City Yard, Heat, Power, etc. ..... \$ 3,912.51

The total cost including labor, materials and city machinery amounted to \$6,303.29.

ITEM 7      Grading and Gravelling:- Grading and application of gravel on City Roads and Streets ..... \$ 77.20

685.20 tons of crushed gravel was used in the maintenance and repairs to Gravel Roads under Roads and Streets.

The Gravel was purchased from Forbes and Sloat. The contract price for gravel was as follows:-

Class of Gravel	Price per ton delivered to the job
Class C (3" Crushed)	\$ 1.01 per ton
Class A (1 $\frac{1}{4}$ " Crushed)	\$ 1.09 per ton

L A B O R  
continued

A stock pile was placed at the site of the Old City Dump on Wilsey Road for spring frost boils and excavation repairs.

The total cost including labor, materials and machinery for maintenance of Gravel Roads, under the heading "Roads and Streets" amounted to \$883.36.

ITEM 8      Doak Road:- All work done on the Doak Road, other than work done by the Motor Graders..... \$ 668.90

A section of this Road, near the southerly end was ditched on both sides. The total cost amounting to \$668.90 was made up as follows:-

Labor .....	\$ 104.90
Hired Machinery .....	\$ 564.00
Total Cost	<u>668.90</u>

ITEM 9      Wilsey Road:- All work done on the Wilsey Road, other than work done by the Motor Graders ..... \$ 444.36

A section of this Road, south of the residence of Mr. Tyler Hodgson, was ditched on the westerly side this year. The total cost amounted to \$444.36 (Labor - \$60.36; Hired Machinery, \$384.00.)

ITEMS 10 & 11

New Maryland and Rural Roads:-

No expenditures were made on these Roads in 1963 under this heading .....

ITEM 12      Asphaltic Concrete Repairs and Paving Entrances:- Patching and repairing Asphalt or Tar Pavement, applying seal coat, light tar or asphalt to pavements and applying asphalt to driveways ..... \$ 11,998.06

TOTAL COST

Labor and Machinery ...	\$ 21,137.15
Materials .....	<u>11,478.05</u>
TOTAL .....	<u>\$ 32,615.20</u>

The labor expenditure charged to the account amounted to \$11,998.06.

L A B O R  
continued

In 1958 a large aggregate dryer and aggregate conveyor belt was purchased to facilitate the mixing of patching material in the City Yard. This equipment has resulted in an improvement to the quality of the patching material produced at the yard and has also accelerated the operation.

When local contractors have plants set up, patching material can be obtained more economically. Patching material, when available was obtained from Diamond Construction Company (1961) Limited, Atlas Construction Company and W. J. Gorman.

The total expenditure for Pavement Repairs and Driveways for 1963 was \$32,615.20 and was computed as follows :-

ASPHALT

7740 Gallons RC <sub>3</sub> .....	\$ 3,125.29
3105 Gallons RS <sub>2</sub> .....	1,531.26
1170 Gallons RS <sub>1</sub> .....	<u>412.50</u> \$ 5,069.05

LESS Stock 1963

1260 Gallons RC <sub>3</sub> ...\$ 516.60	
1890 Gallons RS <sub>2</sub> ... <u>926.10</u> \$ 1,442.70	
	\$ 3,626.35
<u>PLUS Freight &amp; Cartage Charges ..</u>	<u>13.25</u>
	\$ 3,639.60

<u>LESS</u> 1. Credits on return of drums                                  \$ 1,102.00	
2. Liquid Asphalt sold to Diamond Construction Co.                        22.50	
3. Liquid Asphalt sold to Atlas Construction Co.                        53.00      1,177.50	
	\$ 2,462.10

PLUS Cost of Hot Mix Asphalt  
in Patching Streets  
and Driveways, obtained  
from Diamond Construction  
Co. (1961) Ltd., Atlas  
Construction Co. and  
W. J. Gorman ..... \$ 7,478.30

TOTAL HOT MIX ASPHALT COST ..... \$ 9,940.40

Kerosene (1180 Gallons) ..... 309.16

Crushed Rock  
374.74 tons ..... \$ 883.68

Less 1963 stock  
(100 Tons)..... 300.00 \$ 583.68

L A B O R  
Continued

<u>Crusher Dust</u>	
287.70 tons .....	\$ 575.40
<u>Less 1963 stock</u>	
(200 tons) .....	<u>400.00</u> \$ 175.40
Gravel (9.65 tons) .....	9.75
Sand (98 Yards) .....	38.20
Depreciation on Conveyor, Hopper and Dryer) .....	651.69
Maritime Electric Co. (Power) .....	40.72
Repairs to Plant .....	81.66
Coal (6.07 tons) for Heating Asphalt	145.68
Labor (City employees, including Pension Fund, Workmen's Compensation and Holiday Account) .....	14,157.71
City Machinery: Trucks, Roller, Loader, Boiler, etc. .....	6,327.75
Miscellaneous .....	<u>103.40</u>
<u>TOTAL EXPENDITURE ITEM #12</u> .....	<u>\$ 32,615.20</u>

ITEM 13

City Road Graders: (Operator's Wages) .....\$ 934.19

The repair charges on City Road  
Graders for the last three years are as  
follows:-

<u>Date Purchased</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>
1955 Allis Chalmers (AD - 40)	\$ 2,155.09	1,773.06	2,794.22
1961 Galion	366.50	2,302.13	5,488.39
1962 Austin Western (300 Pacer)		708.94	2,315.50

ITEM 14

Parking Lots:- .....\$ 30.33

The Public Parking lots were  
graded and gravelled where necessary and  
were kept in a satisfactory condition in  
1963. The total expenditure under this  
heading, including labor, city machinery  
and materials, amounted to \$275.31.

ITEM 15

Paint Department:- Painting, repairing  
and installing street signs on City Streets..\$ 1,256.64

The total expenditure including  
labor and materials, amounted to \$2,002.78.

L A B O R  
Continued

ITEM 16

Lincoln Road:- No expenditures were made in 1963 under this heading ..... \$ -----

TOTAL LABOR & HIRED MACHINERY COSTS,  
ROADS AND STREETS 1963 ..... \$ 155,403.02

LABOR COSTS ONLY FOR 1963, AMOUNTED TO \$104,840.02

Following is a table comparing Labor and Hired Machinery Expenditure on these Items from 1960 to 1963:-

TABLE COMPARING YEARLY COSTS OF LABOR AND  
HIRED MACHINERY ON ROADS and STREETS ITEMS

<u>ITEM</u>	<u>1960</u>	<u>1961</u>	<u>1962</u>	<u>1963</u>
1. Snowplowing sidewalks	\$ 2,520.81	3,841.47	1,741.60	4,932.42
2. Snow Control	31,282.37	41,158.27	21,789.10	79,099.01
3. Sanding Streets & Walks	8,972.51	5,818.55	6,387.58	11,271.58
4. Streets Account	37,255.49	32,384.51	36,709.41	34,467.89
5. Surface Sewer	4,975.35	6,104.26	5,031.12	6,309.93
6. Yard	3,729.32	3,357.61	3,923.57	3,912.51
7. Grading and Gravelling	781.31	105.72	900.78	77.20
8. Doak Road	830.47	134.22	372.62	668.90
9. Wilsey Road	7,023.35	32.64	635.03	444.36
10. New Maryland Road	1,531.92	-----	-----	-----
11. Rural Roads	424.30	25.05	-----	-----
12. Pavement Repairs and Driveways	9,580.46	9,023.69	10,794.57	11,998.06
13. City Road Patrols	783.35	770.66	1,109.07	934.19
14. Parking Lots	12.28	241.71	212.50	30.33
15. Paint Department	-----	910.59	960.17	1,256.64
16. Lincoln Road	-----	130.30	646.56	-----
TOTALS =	\$ 109,703.29	104,039.25	91,218.68	155,403.02

The following items of machinery were purchased this year and charged to Roads and Streets:-

- 1 - 1963 Chevrolet Model C1405, Serial Number 3C1405618043, Motor No. 795993, equipped with heater, 670 x 15 - 4 ply Nylon Tires, extra Sun Visor, 4 sliding Windows, Driver and Auxillary Seats, full width Suburban Seat, \$3,420.00, less discount \$684.00, less trade-in allowance(\$400.00) plus N.B.S.S. & E. Tax \$70.08 ..... \$ 2,406.08

1 - 1963 Ford 300 Tudor, Serial #593931-  
 462E63L, Motor #QG33566 .....\$ 3,050.00  
LESS trade-in 1960 Ford Fairlane .. 1,830.00  
   \$ 1,220.00  
   N.B.S.S.& E. TAX ..... 36.60  
   Licence ..... 26.00 ...\$ 1,282.60

1 - 1963 Dodge 3 Ton Truck, Model #S8D500,  
 Engine #S8D526885C, Serial #2582922603,  
 Red, Tires and Rim 7-8.25 x 20 - 10 Ply  
 Nylon Cord, Wheel Base 172" - 178",  
 heavy duty springs, two speed rear axle,  
 five speed transmission, heavy duty  
 front shocks, heater and defroster,  
 directional lights front and rear, mud  
 flaps, heavy duty V-8 engine, complete  
 with oil filter, undercoated .....\$ 3,750.00  
   Plus 3% S.S. & E. Tax ..... 112.50 ...\$ 3,862.50

1 - Model T-18, A-1 Stow Vibrator .....\$ 850.00  
 Serial #633652  
 Wisconsin Engine Model ACW  
 Serial #3528783  
 Spec. #210840  
   Plus 3% S.S. & E. Tax ..... 25.50 ...\$ 875.50

1 - Model P.S. Stow Porto Screed .....\$ 292.50  
   Plus 3% S.S. & E. Tax ..... 8.78 ...\$ 301.28

1 - Infra-Red Heater S/N302-7150 .....\$ 75.00  
   Plus 3% S.S. & E. Tax ..... 2.25 ...\$ 77.25

1 - Model TD-5 International  
 Crawler Tractor, Serial #10583A,  
 Motor #TD-3300, with #10  
 Angle Dozer 29-D-14", Shoes .....\$ 6,089.32  
   Plus 3% S.S. & E. Tax ..... 182.68 ...\$ 6,272.00

1 - Model 450 Hough Payloader, Serial  
 #17BN6002, 1.25 to 1.50 cubic yard  
 Bucket Capacity (SAE Rates)  
 12 Ply Nylon Cord tires, 80 H.P.,  
 Minimum @ Governed R.P.M.,  
 Displacement - 210 cu. in. minimum.  
 Governed R.P.M. - 2200 to 2400.  
 Weight 15,300 to 18,000 lbs.  
 Torque Drive, Cab, Service Brakes,  
 Four Wheel Hydraulic Parking,  
 Mechanical Hydraulic Hose Lines,  
 Heavy Duty Windshield Wiper  
 Motors, Heavy Duty Standard Equip-  
 ment .....\$ 16,390.00  
   Plus 3% S.S. & E. Tax ..... 491.00 ...\$ 16,881.00

TOTAL .....\$ 31,953.21

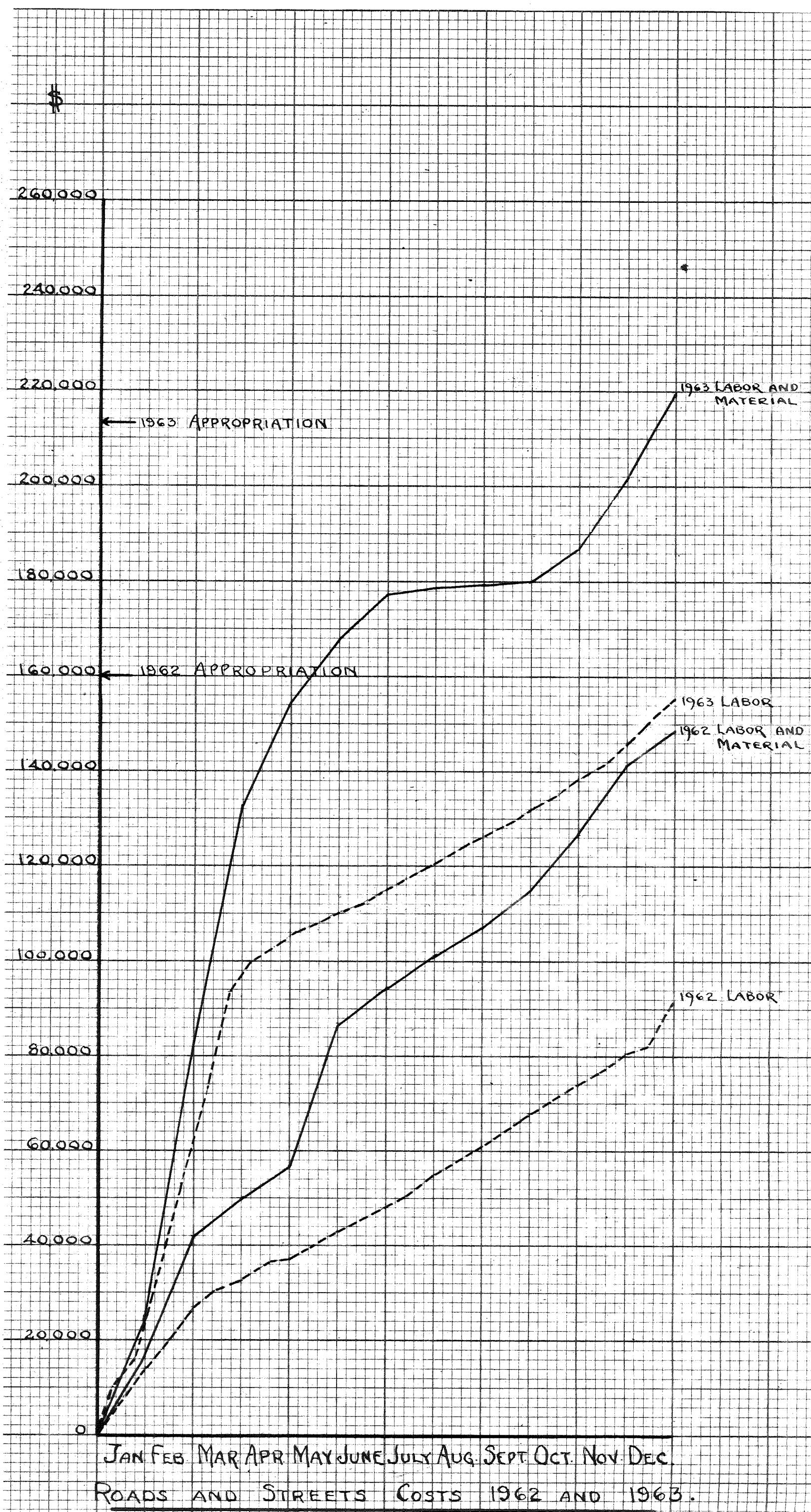
The latter two items of equipment; namely,  
 Hough Loader and T.D.-5 International Crawler Tractor  
 were purchased and paid for in 1963, but were not  
 included in the 1963 Budget, and thus were put under  
 the heading "Roads and Streets", Deferred Payment,  
 which amounted to \$23,153.00.

The following is a list of vehicles and machinery used in the Roads and Streets Department, together with the repair costs for 1962 and 1963, including tires and tubes.

<u>Name of Vehicle</u>	<u>Year Purchased</u>	<u>Repairs 1962</u>	<u>Repairs 1963</u>
Austin Western Grader (300 Pacer)	1962	\$ 774.76	2,315.50
Allis Chalmers Grader AD-40	1955	2,025.94	5,488.39
Galion Grader	1961	2,366.23	2,794.22
Caterpillar D-6 Bulldozer	1953	6,014.31	2,354.78
Case 420 Crawler Tractor	1961	1,046.47	2,634.82
Case 420 Crawler Tractor	1962	115.86	700.16
TD-5 International Crawler Tractor	1963	-----	138.63
Michigan T6K Shovel (3/8 yard)	1947	3,421.21	5,969.69
Unit Shovel (3/4 yard)	1957	1,383.01	5,739.56
Pettibone Mulliken Loader	1958	1,668.38	5,647.85
Hough 450 Model Loader	1963	-----	264.94
Airpic Compressor	1953	217.65	68.99
Ingersol Rand Compressor	1957	1,097.78	365.96
Tarvia Roller Model #157	1955	176.42	89.68
Willys Jeep #11	1961	201.88	963.70
Willys Jeep #12	1962	61.31	352.15
Willys Jeep #17	1960	377.27	411.65
Willys Jeep #40	1962	225.96	276.51
Dodge 3-Ton	1963	-----	71.25
G.M.C. 3-Ton	1962	116.50	570.29
International 3-Ton	1961	299.04	441.65
Chevrolet 3-Ton	1960	271.59	410.01
Ford 3-Ton	1959	1,090.98	881.27
G.M.C. 1-Ton	1960	789.09	1,494.46
International 1-Ton	1959	390.54	586.21
Chevrolet Panel (Traded in 1963)	1957	221.80	50.30
Chevrolet Panel	1963	-----	136.13
Ford Fairlane (Traded in 1963)	1960	317.61	39.57
Ford Tudor (300)	1963	-----	61.05
Expendable Accessories (Grader Blades, Bolts, Nuts, Bull- dozer Blades and Corners, etc.)		-----	<u>6,198.69</u>
TOTAL COST	=	\$ 24,671.59	<u>47,517.79</u>

The following equipment is used on Snow Control and repair and maintenance costs for this equipment is shown as follows:-

<u>Name of Vehicle</u>	<u>Year Purchased</u>	<u>Repairs 1962</u>	<u>Repairs 1963</u>
Sicard Snow Blower #30	1949	\$ 335.78	4,736.72
Sicard Snow Blower #39 (1952 Model)	1961	816.26	9,127.69
Sicard Snow Blower #47 (Purchased in 1963, to be paid for in 1964)	1963	-----	5.77
Ford Sand Spreader	1960	<u>92.68</u>	<u>254.30</u>
TOTAL COST	=	<u>\$ 1,244.72</u>	<u>14,124.48</u>



## WINTER WORKS PROGRAM

The Public Works Department, in 1963, took advantage of assistance offered under the Winter Works Incentive Program on all projects which qualified for same.

Assistance was obtained on several projects which were part of the Capital Works Program for the year and which were commenced or were in progress during the period for which assistance is available; namely, November 1st to May 31st.

The following is a list of projects on which assistance was obtained and the credits for same appear in the appropriate accounts or will be credited in 1964 when claims are finalized.

JANUARY 1, 1963 - MAY 31, 1963

<u>Project Description</u>	<u>Total Direct Payroll Cost</u>	<u>Amount Claimed</u>	<u>Net Labor Cost to City of F'ton</u>
1. Drilling Well - Carleton Ward	\$ 1,380.12	690.06	690.06
2. Stock-Piling Concrete Pipe	1,033.96	440.05	593.91
3. Services - Skyline Acres	895.59	447.79	447.80
4. Services - Atkinson sub-division	25.76	12.88	12.88
5. Services - Burden sub-division	181.11	90.55	90.56
6. Carleton Park Development Program	790.32	355.07	435.25
TOTALS FOR PERIOD JAN. 1/63 to MAY 31/63	= \$ <u>4,306.86</u>	<u>2,036.40</u>	<u>2,270.46</u>

NOVEMBER 1, 1963 - DECEMBER 31, 1963

<u>Project Description</u>	<u>Total Direct Payroll Cost</u>	<u>Amount Claimed</u>	<u>Net Labor Cost to City of F'ton</u>
1. Clearing New Park Areas (Skyline Acres)	\$ 1,272.09	637.45	634.64
2. Clearing Simcoe & Oxford Streets	598.76	299.78	298.98
3. Services - Skyline Acres	3,088.94	1,315.52	1,773.42
4. Construction of Storage Shed, City Yard	1,651.99	825.99	826.00
5. Clearing New Streets	<u>130.79</u>	<u>65.25</u>	<u>65.54</u>
TOTALS FOR PERIOD NOV. 1/63 to DEC. 31/63 =	<u>\$ 6,742.57</u>	<u>3,143.99</u>	<u>3,598.58</u>

SUMMARY FOR YEAR 1963

Total Direct Payroll Cost ..... \$ 11,049.43  
Less Amount Claimed ..... 5,180.39  
NET LABOR COST TO CITY OF FREDERICTON ..... \$ 5,869.04

CAPITAL ACCOUNT CURB AND GUTTER

The Net Expenditure under this heading amounted to \$42,833.43.

For the above expenditure of \$42,833.43, concrete curb and gutter was constructed at the following locations:-

<u>Location</u>	<u>Lineal Feet</u>
Forest Acres Court (both sides) .....	3,172
Turnbull Court (both sides) .....	777
Church Street, Aberdeen Street to end of right of way (both sides) .....	1,377
Smythe St., near Montgomery Street (west side).....	75
Montgomery St., York St. to Smythe St. (both sides)..	3,792
Montgomery St., Regent St. to west College line (both sides) .....	3,049
Windsor St., Fenety St. to Montgomery St. (both sides)	1,190
Canterbury Drive, Forest Hill Road to Cambridge Crescent (both sides) .....	2,261
Chelsea Court (both sides) .....	530
Leicester Street, Woodbridge St. to Cambridge Crescent (both sides) .....	1,480
Sheffield Court (both sides) .....	880
Cambridge Crescent (Canterbury Drive to Leicester Street (both sides) .....	1,026
Brighton Court (both sides) .....	308
Valley View Street, Hanson Street to Windsor Street (both sides).....	1,289
Birch Court (both sides) .....	<u>985</u>
TOTAL .....	<u>22,191</u>

All the listed Curb and Gutter was constructed by City Crews.

All the concrete poured was purchased ready-mixed on the job from the firm of Elmtree Concrete Limited at a price of \$14.50 per cubic yard. A cubic yard of concrete poured 20.6 lineal feet of Curb and Gutter.

The unit cost of one lineal foot of Curb and Gutter, found by dividing the total length laid which equals 22,191 lineal feet, into the total cost of \$42,833.43, is \$1.93 per lineal foot.

The topsoiling of Boulevards is included in the above cost.

### CAPITAL ACCOUNT PAVING

Gross Expenditure .....	\$ 197,122.17
Credit .....	<u>2,540.12</u>
Net Expenditure .....	<u>\$ 194,582.05</u>

The above credit of \$2,540.12 is the amount to be paid to the City of Fredericton by the Provincial Government for one-half the cost of recapping Regent Street, from Montgomery Street to near the Trans Canada Highway, a distance of approximately 2400 feet.

The net expenditure of \$194,582.05 was made up as follows:-

- 1 - New Pavement
- 2 - Recapping City streets
- 3 - Surface Seal to City streets

#### 1/ New Pavement

The following streets were paved with Asphalt Pavement by the Atlas Construction Company Limited:-

<u>Streets</u>	<u>Lineal Feet</u>
King's College Road, York St. towards Smythe St. ...	110
St. Mary's St., Highland Avenue to City Limits .....	2,230
- Highland Avenue, St. Mary's St. to Residence #305 ..	1,430
Friel Street .....	876
Hughes Street, Union Street to MacLaren Avenue .....	1,290
Crerar Court .....	360
Neill Street, MacLaren Ave. to McEvoy Street .....	978
McEvoy St., MacLaren Avenue to existing pavement ...	975
Irvine Street, Gibson St. to Residence #773 .....	900
Titus Street, Union Street to Barker Street .....	729
Dayton Court .....	275
Campbell St., Westmorland St. to Northumberland St..	740
1952 - Inglewood Drive, Sherwood Court to Parkhurst Drive..	1,180
1953 - Harewood Court .....	805
Rookwood Avenue, C.N.R. track to Waggoner's Lane ...	420
Waggoner's Lane, Rookwood Ave. to Smythe Street ....	1,310
1954 - Smythe St., Hawthorne Terrace to Montgomery Street..	1,265
Spruce Terrace .....	620
Montgomery St., Smythe St. to U.N.B. College Line ..	4,603
Squires Street .....	625
Valley View St., Hanson St. to Windsor Street .....	625
Fenety St., Burden line to Windsor Street .....	473
Windsor St., King's College Rd. to Montgomery Street	1,540
Church St., Aberdeen St. to end of right of way ....	898
Forest Hill, near Trans Canada Highway to House #812	2,500
Woodbridge Street .....	982
Forest Acres Court .....	1,451
Turnbull Court .....	335

Forward ..... 30,525

Streets (continued)Lineal Feet

	Carried Forward	30,525
- Canterbury Drive, Forest Hill Road to Cambridge		
Crescent .....	1,017	
Chelsea Court .....	248	
Sheffield Court .....	365	
Leicester Street, Woodbridge Street to Cambridge		
Crescent .....	785	
Cambridge Crescent, Canterbury Dr. to Leicester St.	556	
Brighton Court .....	204	
Birch Court .....	468	
← Union Street, C.N.R. Subway east .....	150	
Hazen Street .....	115	
	TOTAL .....	<u>34,433</u>

In addition, the Tourist Bureau Driveway on Woodstock Road, the Municipal Home Driveway on York Street and Parking Areas at the York Arena and Beaverbrook Rink were also paved.

The above pavements were laid to a thickness of 3". The street grading and preparatory work was done by regular City crews. The pre-mixed material was supplied and laid by the Atlas Construction Company Limited from its plant situated in the Currie Pit on Route #28, Maryland Road. The company charged the City of Fredericton, \$6.90 per ton for the pavement in place. The total tonnage used for the above construction amounted to 18,620.82.

2/ Recapping City Streets

The following City Streets were recapped with Asphalt Pavement by the Atlas Construction Company Limited:-

<u>Streets</u>	<u>Lineal Feet</u>
Hanson Street, from Residence #647 to King's College Road .....	685
Regent Street, Montgomery Street to near Vanier Highway .....	2,400
Reid Street, Albert St. to King's College Road .....	<u>1,200</u>
	TOTAL .....
	<u>4,285</u>

The Recapping of City Streets was laid by the Atlas Construction Company Limited at a cost of \$6.90 per ton. 1,058.45 tons of asphalt was used in recapping City streets.

3/ Surface Seal to City Streets

The following City streets were given an application of asphalt seal:-

<u>Streets</u>	<u>Lineal Feet</u>
MacLaren Avenue, Bridge St. to Gibson Street .....	5,210
Bridge Street, Water St. to MacLaren Avenue .....	1,500
Union Street, St. Mary's Street to C.N.R. Underpass	5,900
Woodstock Road, Hanwell Road to Golf Club Road ...	1,600
Golf Club Road, Woodstock Road to City Limits .....	700
Miles Street, Union Street to Barker Street .....	760
TOTAL .....	<u>15,670</u>

The pre-mixed material was supplied and laid by the Atlas Construction Company Limited at a cost of \$10.00 per ton.

Following is the total amount paid by the City of Fredericton to Atlas Construction Co. Ltd. for supplying and applying asphalt pavement to City Streets.

19,679.27 tons of asphalt pavement @	
\$6.90 per ton .....	\$ 135,786.96
2,180.50 tons Surface Seal ( $\frac{1}{4}$ " Mix)	
@ \$10.00 per ton .....	21,805.00
3,246 Gallons RS <sub>1</sub> @ 25¢ per Gallon....	811.50
25,690 Gallons N. B. Prime @ 40¢	
per Gallon .....	<u>10,276.00</u>
TOTAL .....	<u>\$ 168,679.46</u>

The supervision and inspection of asphalt paving on City Streets was carried out by Associated Designers and Inspectors. Following is the amount paid by the City of Fredericton to this Firm:-

To Supervision and Inspection of  
21,859.77 tons of Asphalt Paving  
@ 20¢ per ton .....\$ 4,371.95

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CAPITAL ACCOUNT DOMESTIC SEWER

Gross Expenditure & Stocked Material ..	\$ 83,098.66
Less Inventory, Dec. 31, 1963 ..	<u>4,772.20</u>
	\$ 78,326.46
Credits .....	<u>26,882.39</u>
Net Expenditure .....	<u><u>\$ 51,444.07</u></u>

Included in the net expenditure of \$51,444.07 is the amount of \$2,755.40 holdback from jobs completed in 1962 and showing in 1963 accounts.

The above Credits are made up as follows:-

C. Montgomery Campbell )	\$ 2,329.60
F'ton Housing Limited ) Local Improvement	10,665.53
E. E. Burden )	1,981.95
Carleton Realty Company ) Charges	2,525.26
E. C. Atkinson )	2,226.58
Government of Canada (Winter Works Incentive Program) .....	1,606.24
Journal Voucher (Materials paid for by Capital Account Domestic Sewer and used by other City Departments) .....	<u>2,596.33</u>
TOTAL .....	<u><u>\$26,882.39</u></u>

Domestic Sewer Mains were constructed at the following locations:-

LINEAL FEET

<u>Location</u>	<u>3" T.C.</u>	<u>3" Transite</u>	<u>6" Force Main (6" Ductile)</u>
Atkinson Subdivision		963	
Burden Subdivision		1,178	
Carleton Realty		1,036	
Dunn's Crossing Road		2,437	1,066½
Forest Acres Court	10	249	
King's College Road		1,030	
Pembroke Crescent		1,040	
F'ton Housing Subdivision (Forest Hill)	5	3,861	
TOTALS =	<u>15</u>	<u>11,794</u>	<u>1,066½</u>

The actual cost of installing the above listed Sewer Mains was as follows:-

<u>Location</u>	<u>Payment to Contractors including Reserves for Holdback</u>	<u>City Labor and Machinery</u>	<u>Material</u>	<u>Total</u>
Atkinson Subdivision	\$ 2,160.40		1,928.66	4,090.06
Burden Subdivision	2,981.00	495.61	2,391.19	5,867.80
Carleton Realty	3,074.00	77.08	2,058.06	5,209.14
Dunn's Crossing Road	17,252.00	833.53	15,004.58	33,090.16
Forest Acres Court		467.81	667.06	1,134.87
King's College Road		2,195.23	1,900.09	4,095.32
Pembroke Crescent		1,355.71	2,273.44	3,629.15
F'ton Housing Sub- division	<u>9,574.00</u>	<u>495.54</u>	<u>7,182.33</u>	<u>17,251.87</u>
TOTALS=	<u>\$ 35,042.40</u>	<u>5,920.56</u>	<u>33,405.41</u>	<u>74,368.37</u>

All above costs include any holdback payments, which will appear in 1964 accounts, but do not include credits from Winter Works Incentive Program, thus showing the actual cost of construction greater than the net expenditure. To arrive at the cost per lineal foot of construction, the cost of \$74,368.37 must be used for determining same.

City Machinery and City Workmen installed the Domestic Sewer on Pembroke Crescent and extended the previously laid Sewers on Forest Acres Court and King's College Road.

A Sewerage Lift Station was installed on the Dunn's Crossing Road near the residence of Mr. Ivan Ward.

Total lineal feet laid,  $12,875\frac{1}{2}$ , at an average cost per lineal foot of \$5.73.

Materials in stock, December 31, 1963:-

695 lineal feet of 8" T.C.Pipe @ \$0.86 per foot .....	\$ 597.70
29 $\frac{1}{2}$ lineal feet of 10" T.C.Pipe @ \$1.19 per foot .....	35.11
58 lineal feet of 12" T.C.Pipe @ \$1.55 per foot .....	89.90
423 lineal feet of 6" Transite Pipe @ \$0.80 per foot ....	33.84
659 lineal feet of 8" Asbestos Cement Pipe @ \$1.46 per foot .....	962.14
829 lineal feet of 10" Asbestos Cement Pipe @ \$1.88 per foot .....	1,558.52
171 lineal feet of 12" Asbestos Cement Pipe @ \$2.40 per foot .....	410.40
27 Manholes (Covers and Frames) @ \$40.17 complete .....	<u>1,084.59</u>
TOTAL .....	<u>\$ 4,772.20</u>

CAPITAL ACCOUNT SURFACE SEWER

Gross Expenditure & Stocked	
Material .....	\$ 163,246.13
Less Inventory, Dec. 31, 1963	<u>5,326.64</u>
	157,919.49
Credits .....	<u>38,483.26</u>
Net Expenditure .....	<u>\$ 119,436.23</u>

Included in the net expenditure of \$119,436.23 is the amount of \$3,604.07 holdback from jobs completed in 1962 and showing in 1963 accounts.

The above credits are made up as follows:-

Fredericton Housing Limited)		\$ 12,655.95
E. E. Burden )		3,725.50
Greendale Limited ) Local Improvement		2,426.80
Carleton Realty )		3,323.00
E. C. Atkinson ) Charges		2,690.35
C. Montgomery-Campbell )		2,801.30

Work done and materials sold to private parties, other than above .....	664.42
Government of Canada (Winter Works Incentive Program)	1,105.17
Journal Vouchers (Materials paid for by Capital Account Surface Sewer and used by other City Departments) .....	<u>9,090.77</u>
TOTAL .....	<u>\$ 38,483.26</u>

Under this heading Surface Sewer Mains were constructed at the following locations:-

LOCATION	PIPE									
	60"	54"	48"	36"	30"	24"	18"	15"	12"	10"
Atkinson Subdivision								771	162	122
Burden Subdivision							1236		361	
Back Drain									24	
Back Drain Diversion	568	100	412	1124	40		12			
Church Street									600	60
Carleton Realty Subdivision								349	808	224
Hanwell Road	16					60	2706	952		
King's College Rd.							100	1452	362	416
Montgomery Street					52					129
Gibson Street										69
Pembroke Crescent									1008	78
F'ton Housing Subdivision							284	1084	2693	428
Smythe St. Outfall				148	8	12				
F'ton Housing Sub- division (1963-1964)					756	200	300		4	6
TOTALS =	584	100	412	1324	856	308	6002	3518	6076	1246

Total lineal footage, all sizes ... 20,426

An itemized account was kept of installing Surface Sewers at the above locations and expenditures were made as follows:-

Location	Payment to Contractors including Reserves for Holdback	City Labor and Machinery	Material	Total
Atkinson Subdivision	3,309.70	20.70	2,643.39	5,973.79
Burden Subdivision	4,827.60	1,367.69	4,574.32	10,769.61
Back Drain		2,624.67	11,244.24	13,868.91
Back Drain Diversion		3,329.23	19,924.93	23,254.16
Church Street		342.11	972.19	1,314.30
Carleton Realty	4,204.50	103.26	2,879.05	7,136.81
Hanwell Road		10,166.79	12,264.58	22,431.37
King's College Road		3,103.80	2,480.51	5,584.31
Montgomery Street		5,917.48	5,392.96	11,310.44
Gibson Street		308.17	504.98	813.15
Pembroke Crescent		2,575.07	1,898.93	4,474.00
F'ton Housing Sub- division	11,732.90	1,075.39	9,289.96	22,098.25
Smythe St. Outfall		581.85	1,596.64	2,179.49
F'ton Housing Sub- division (1963-1964)		7,373.37	6,256.12	13,629.49
TOTALS =	\$ 24,074.70	38,889.58	81,922.80	144,887.08

All above costs include any holdback payments which will appear in 1964 accounts, but do not include credits from Winter Works Assistance or holdbacks from 1962 accounts.

City Workmen and City Machinery installed Surface Sewers at the following locations:-

City Back Drain  
 Back Drain Diversion  
 Church Street  
 Hanwell Road  
 King's College Road  
 Montgomery Street  
 Gibson Street  
 Pembroke Crescent  
 Smythe Street Outfall  
 F'ton Housing Subdivision (1963-1964)

Following is the cost for laying various sizes of pipe including Catch Basins, in place by Contractors and City Workmen.

#### COSTS by CONTRACT

Size of Pipe	Atkinson Subdivision	Burden Subdivision	Carleton Realty	Fredericton Housing Ltd.
18"		6.56		5.73
15"	5.94		4.50	5.27
12"	4.97	5.48	5.48	4.75
10"	4.81	5.32	5.32	4.59

## COSTS BY CITY CREWS AND MACHINERY

Size of Pipe	Back Drain	Back Drain Diversion	Church Street	Hanwell Road	King's College Road	Montgomery Street	Gibson Street	Pembroke Crescent	Smythe Street Outfall	F'iton Housing (1963-1964)
60"										
54"										
48"										
36"										
30"										
24"										
18"										
15"										
12"	12.24	23.87 20.95 17.39		24.21						
10"	4.52	9.25	5.66	9.59	5.600	5.51	15.64		14.49	11.78
		2.39	2.23	6.00	5.97	6.923			10.10	11.05
				5.50	5.81	5.88			7.75	8.19
					5.74			4.13		
								3.87		

Stock on hand December 31, 1963:-

357	lineal feet of 10" Concrete Pipe @ \$0.76 per foot .....	\$ 271.32
1396	lineal feet of 12" Concrete Pipe @ \$0.92 per foot .....	1,284.32
1044	lineal feet of 15" Concrete Pipe @ \$1.44 per foot .....	1,503.36
348	lineal feet of 18" Concrete Pipe @ \$1.90 per foot .....	66.12
96	lineal feet of 24" Concrete Pipe @ \$4.76 per foot .....	456.96
164	lineal feet of 30" Concrete Pipe @ \$5.49 per foot .....	900.36
	Catch Basins (Covers and Frames) 20 @ \$42.21 complete .....	<u>844.20</u>

TOTAL ..... \$ 5,326.64

CAPITAL ACCOUNT WATER

Gross Expenditure and Stocked	
Material .....	\$ 148,155.46
Less Inventory, Dec.31/63..	<u>33,557.23</u>
Gross Expenditure - 1963 .....	114,598.23
Less Credits .....	<u>20,652.20</u>
Net Expenditure .....	<u>\$ 93,946.03</u>

Included in the net expenditure of \$93,946.03  
is the amount of \$10,979.96 holdback from jobs  
completed in 1962 and showing in 1963 accounts:-

The above credits are made up as follows:-

Fredericton Housing Ltd.)		\$ 8,696.50
E. E. Burden ) Local Improvement		2,710.95
Greendale Limited )		1,615.97
Carleton Realty ) Charges		2,059.06
E. C. Atkinson )		1,815.52
Work done and materials sold to private parties, other than above .....		1,474.42
Cancellation of Federal Sales Tax on concrete .....		2.48
Government of Canada (Winter Works Incentive Program)....		1,355.15
Journal Voucher (Materials paid for by Capital Account Water and sold to other City Departments) .....		<u>922.15</u>
TOTAL .....		<u>\$20,652.20</u>

Water Main installations were made at the  
following locations:-

LOCATION	SIZE OF C. I. PIPE			
	10"	8"	6"	4"
Atkinson Subdivision		986	29	
Burden Subdivision			953	
Carleton Realty	552	377	10	
Dunn's Crossing Road		2676	113	
N.B. Livestock Association			298	
King's College Road and Pembroke Crescent			1021	
Fredericton Housing Limited	1422	1371	1298	
TOTALS =	1974	5410	3722	249

Total lineal footage, all sizes ... 11,359 feet.

An itemized account was kept of installing  
water mains at the following locations and  
expenditures were made as follows:-

Location	Payment to Contractors including Reserves for Holdback	City Labor and Machinery	Material	Total
Atkinson Subdivision	\$ 2,525.75		4,634.52	7,160.27
Burden Subdivision	2,301.00	402.65	2,931.14	5,634.79
Carleton Realty	3,026.50	78.46	5,674.99	8,779.95
Dunn's Crossing Road	11,921.50	1,013.66	13,423.04	26,363.20
N.B. Livestock Assoc.		403.89	704.18	1,108.07
King's College Road & Pembroke Crescent		1,673.56	3,639.10	5,312.66
F'ton Housing Ltd.	10,398.00	1,189.03	18,968.99	30,556.02
TOTALS	= \$ 30,172.75	4,761.25	49,980.96	84,914.96

All above costs include any holdback payments which will appear in 1964 accounts but do not include credits from Winter Works Assistance or holdbacks from 1962 projects.

City Workmen and City Machinery installed Water under the above heading at the following locations:-

N. B. Livestock Association (Exhibition Grounds)  
King's College Road and Pembroke Crescent

The following shows the cost per foot for laying various sizes of Cast Iron Pipes by Contractors and City Workmen and includes gates and manholes but not including fire hydrants:-

#### COST BY CONTRACT

Size of Pipe	Atkinson Subdivision	Burden Subdivision	Carleton Realty	Dunn's Crossing Road	Fredericton Housing Limited
10" C.I.				8.39	8.46
8" C.I.	7.11			7.24	7.31
6" C.I.	5.99	5.91		6.21	3.42
4" C.I.				5.46	6.28

#### COST BY CITY WORKMEN AND MACHINERY

Size of Pipe	N. B. Livestock Assoc. (F'ton Exhibition Grounds)	King's College Road and Pembroke Crescent
6" C.I.	3.72 (Sand)	5.20

Included in the net expenditure for Capital Account Water are the following:-

1. Capital Account Drilled Well (Carleton Ward)
2. Capital Account Reservoir Site, Montgomery Street
3. Capital Account Booster Station, Montgomery Street

## 1. CAPITAL ACCOUNT DRILLED WELL

Expenditure ..... \$ 13,781.74

In 1963, the City of Fredericton entered into an agreement with Aden Sullivan to drill a Rock Wall Well in Carleton Ward near the site of the 1,000,000 Gallon Reservoir constructed in 1959.

The drilling of the Well, erection of a building to house the pumping equipment and the electrical was completed in 1963. Installation of pumping equipment, connection from Well to reservoir and the installation of Meters will be completed in 1964. The building was erected by City Workmen.

The expenditure for 1963 was as follows:-

Development of Rock Wall Well.....	\$ 5,484.00
Construction of Pump House .....	2,825.03
Electrical Equipment (75% installing electrical equipment) .....	1,115.25
Mechanical Equipment (Pipe, Tubes, Valves, (etc. ....)	\$ 660.75
(Pump 85% Payment (1963 .....	<u>4389.25</u> ... <u>5,050.00</u>
TOTAL GROSS EXPENDITURE .....	\$ 14,474.28

LESS the following Credits:-

Elmtree Concrete (To cancel Federal Sales Tax) .....	\$ 2.48
Government of Canada (Winter Works Incentive Program) .....	<u>690.06</u> ... <u>692.54</u>
TOTAL NET EXPENDITURE .....	<u>\$ 13,781.74</u>

It is estimated when the above construction is completed in 1964, the developed cost will be in the vicinity of \$20,000.00 for a capacity of 400 I.G.P.M.

## 2. CAPITAL ACCOUNT RESERVOIR SITE, MONTGOMERY ST.

Expenditure ..... \$ 4,110.00

In 1961 the City of Fredericton awarded a contract to York Structural Steel to erect a 250,000 Imperial Gallon Reservoir at a contract price of \$41,100.00 to take care of future City expansion. The construction of this tank began in 1961 and was completed in 1962. The above expenditure of \$4,110.00 was the holdback on the above 1961 and 1962 construction.

3. CAPITAL ACCOUNT BOOSTER STATION, MONTGOMERY STREET

Expenditure .....\$ 3,974.76

In 1962 tenders were called for the construction of a Booster Pumping Station on Montgomery Street. This building was constructed by Weyman Construction Company. Tenders were also called to supply and install pumping equipment in this building for a Booster Pumping Station. This contract was awarded to Canadian Fairbanks Morse Company Limited. The above construction and installation was completed in 1962.

The above expenditure of \$3,974.76 as shown on 1963 accounts included the following:-

Provincial Secretary-Treasurer (S.S. & E. Tax on Pumps) .....	\$ 233.46
Holdback on Pumping Equipment 1962	1,167.30
Holdback on Building 1962 .....	<u>2,574.00</u>
TOTAL .....	<u>\$ 3,974.76</u>

CAPITAL ACCOUNT INDUSTRIAL AREA WATER & SEWER

Expenditure .....\$ 2,033.51

In August, 1960, the Fredericton City Council passed a resolution to construct a road through the Industrial Area near Doak Station. In 1962, a contract was awarded to Everett Farris to install Water and Sewer on a portion of this road. The above expenditure is the amount of holdbacks and Bond Discount (Water \$783.88, Sewer \$849.63 and Bond Discount \$400.00) on this installation which was completed in 1962.

CAPITAL ACCOUNT GRAVEL ROADS

Gross Expenditure .....	\$ 75,486.50
Credit .....	<u>23,266.50</u>
Net Expenditure .....	<u>\$ 52,220.00</u>

The above credit of \$23,266.50 is made up as follows:-

Fredericton Housing Limited)		\$ 9,845.10
E. E. Burden )		3,069.00
Greendale Limited )	Local Improvement	1,829.40
Carleton Realty )		2,436.00
E. C. Atkinson )	Charges	2,055.30
C. Montgomery-Campbell )		2,150.40
Government of Canada (Winter Works Incentive Program)		<u>1,381.30</u>
TOTAL		<u>\$ 23,266.50</u>

Included in the above expenditures are:-

- 1 - Grading and Gravelling newly Curbed Streets
- 2 - New Road construction and gravelling
- 3 - Clearing of new streets
- 4 - Miscellaneous

1/ The following newly curbed streets were graded and gravelled:-

<u>Location</u>	<u>Lineal Feet</u>
Forest Acres Court .....	1,451
Turnbull Court .....	335
Church St., Aberdeen Street to end of right of way .....	898
Montgomery St., Regent St. to U.N.B. College line .....	1,703
Windsor St., Fenety St. to Montgomery Street .....	475
Canterbury Drive, Forest Hill to Cambridge Crescent .....	1,017
Chelsea Court .....	243
Leicester St., Woodbridge St. to Cambridge Crescent .....	785
Sheffield Court .....	365
Cambridge Crescent, Canterbury Drive to Leicester Street..	556
Brighton Court .....	204
Montgomery St., Smythe Street to York Street .....	1,900
Valley View St., Hanson St. to Windsor Street .....	625
Birch Court .....	<u>463</u>
TOTAL .....	<u>11,030</u>

2/ The following streets were constructed and  
gravelled under this heading:-

<u>Location</u>	<u>Lineal Feet</u>
Irvine Street, Noble Street easterly .....	652
King's College Road, end of 1957 work to York Street ...	750
Pembroke Crescent .....	980
Gregg Court .....	450
Bailey Drive, Noble Street to Perley Court .....	450
Perley Court .....	275
Canterbury Drive, Essex St. to Cambridge Crescent .....	1,470
Coventry Crescent, Manchester Court to Cambridge Cres...	1,200
Cambridge Crescent, Leicester St. to Canterbury Drive...	1,290
York Street, Peders n Crescent to Mansfield Street .....	260
Mansfield St., York St. to E. C. Atkinson line, easterly	<u>685</u>
TOTAL .....	<u>8,462</u>

3/ New streets were cleared on City property,  
Atkinson property and Greendale Limited  
Subdivisions under Winter Works Assistance.

4/ Under this heading, Public Parking Lots  
were gravelled and gravel was stock  
piled at the City Yard on Dundonald Street  
and at the site of the Old Dump on the Wilsey Road,  
and an application of gravel applied on Union Street,  
from C. N. R. Subway east 200 feet.

## SPECIAL CAPITAL WORKS PROJECTS - 1964

Preliminary investigations were carried out and reports were received on two projects which have been the subject of much discussion in the past.

The two projects were:-

- 1 - Soils investigation and report on proposed River Front Development
- 2 - Study and report by consulting firm on Forest Hill Crossing elimination.

1/ The results of test drilling by Sub-Surface Survey and a report on same by Prof. H. W. MacFarlane, showed that the River Front Development, in the opinion of Mr. MacFarlane, could be constructed providing certain precautions were taken prior to and during construction of same.

At the present time, further action on this project has been abandoned due to the lack of financial support for same by City Council.

2/ Associated Designers and Inspectors, Consulting Engineers, were retained by the City to investigate into and report on the problem of the Forest Hill Crossing elimination.

The report made by the firm outlined two schemes which would be practical to construct and which would eliminate the Forest Hill Crossing.

Scheme "A" involved the construction of an overpass and a series of ramps which would provide access and egress to and from Forest Hill and Waterloo Row and construction of same would take place between Elmcroft Place and Waterloo Row, near Salamanca.

Scheme "B" involved an overpass and a connecting road along the "Flats" to Waterloo Row and Alexandra Street.

The Consulting Firm recommended Scheme "A", primarily on the basis of fewer traffic conflicts.

The City Council, after hearing objections from citizens of the area, decided not to accept either scheme and approved a modified scheme of access to Forest Hill from Beaverbrook Street at University Avenue and from Waterloo Row at Salamanca and proceeded with the purchase of the property required for a right-of-way from Salamanca to Forest Hill. The modified scheme was prepared in the office of the City Engineer.

At the time of writing this report, the Forest Hill Crossing problem is still under study by the

Public Works Committee of the Fredericton City Council.

The breakdown of costs of these projects is as follows:-

1 - Capital Account River Front Development

Expenditure ..... \$ 5,169.75

The above expenditure is made up as follows:-

Department of Lands & Mines (Prints) .....	\$ 3.60
Sub-Surface Survey (Test Drilling) .....	4,633.15
Sub-Surface Survey (Report on Testing Program) .....	<u>533.00</u>
TOTAL COST .....	<u>\$5,169.75</u>

2 - (a) Capital Account Forest Hill Overpass

Expenditure ..... \$ 3,881.75

The above expenditure was made to Associate Designers and Inspectors for Engineering study and report on recommended solution to Forest Hill Crossing problem.

(b) Capital Account Forest Hill Access

Expenditure ..... \$ 10,285.34

The above expenditure is made up as follows:-

Ernest Tims (Land & House) .....	\$ 8,000.00
Mrs. Audrey McArthur (Land) .....	1,000.00
Receiver General of Canada (Land; Mr. Rideout, V.L.A.).	1,000.00
Anric Engineering Survey Work .....	<u>285.34</u>
TOTAL COST .....	<u>\$10,285.34</u>

LOCAL IMPROVEMENT - 1963

<u>Location</u>	<u>Service</u>	<u>Cost</u>	<u>Subdividers Share at By-Law Rates</u>	<u>Cost to City of Fredericton</u>
Skyline Acres (F'ton Housing)	Water	\$ 30,556.02	\$ 8,696.50	\$ 21,859.52
	Domestic Sewer	17,251.87	10,665.53	6,586.34
	Storm Sewer	22,098.25	12,655.95	9,442.30
	Gravel Road	<u>23,931.21</u>	<u>9,845.10</u>	<u>14,086.11</u>
	TOTALS =	<u>\$ 93,837.35</u>	<u>\$ 41,863.08</u>	<u>\$ 51,974.27</u>
Mansfield Street (Atkinson)	Water	7,160.27	1,815.52	5,344.75
	Domestic Sewer	4,090.06	2,226.58	1,863.48
	Storm Sewer	5,973.79	2,690.35	3,283.44
	Gravel Road	<u>7,946.81</u>	<u>2,055.30</u>	<u>5,891.51</u>
	TOTALS =	<u>\$ 25,170.93</u>	<u>\$ 8,787.75</u>	<u>\$ 16,383.18</u>
King's College Rd. (Montgomery- Campbell)	Water	Installed by City in 1956		
	Domestic Sewer	4,095.32	2,329.60	1,765.72
	Storm Sewer	5,584.31	2,801.30	2,783.01
	Gravel Road	<u>4,136.45</u>	<u>2,150.40</u>	<u>1,986.05</u>
	TOTALS =	<u>\$ 13,816.08</u>	<u>\$ 7,281.30</u>	<u>\$ 6,534.78</u>
Pembroke Crescent (Greendale Ltd.)	Water	5,312.66	1,615.97	3,696.69
	Domestic Sewer	3,629.15	1,981.35	1,647.30
	Storm Sewer	4,474.00	2,426.80	2,047.20
	Gravel Road	<u>8,680.82</u>	<u>1,829.40</u>	<u>6,851.42</u>
	TOTALS =	<u>\$ 22,096.63</u>	<u>\$ 7,854.02</u>	<u>\$ 14,242.61</u>
Jones Street & Gregg Court (Burden)	Water	5,634.79	2,710.95	2,923.84
	Domestic Sewer	5,867.80	2,951.00	2,916.80
	Storm Sewer	10,769.61	3,725.00	7,044.61
	Gravel Road	<u>9,086.56</u>	<u>3,069.00</u>	<u>6,017.56</u>
	TOTALS =	<u>\$ 31,358.76</u>	<u>\$ 12,456.45</u>	<u>\$ 18,902.81</u>
Bailey Drive Perley Court Irvine Street (Carleton Realty)	Water	3,779.95	2,059.06	6,720.89
	Domestic Sewer	5,209.14	2,525.26	2,683.88
	Storm Sewer	7,136.81	3,323.00	3,863.81
	Gravel Road	<u>6,671.85</u>	<u>2,436.00</u>	<u>4,235.85</u>
	TOTALS =	<u>\$ 27,847.75</u>	<u>\$ 10,343.32</u>	<u>\$ 17,504.43</u>

All the above services, excepting King's College Road and Pembroke Crescent were constructed under contract, with City forces and machinery constructing the gravel roads. The cost shown includes holdback payments to Contractors, which are payable in 1964.

\$ 214,127.50

88,585.42

125,592.08

PUBLIC WORKS

Gross Expenditure .....	\$ 26,687.16
Credits .....	<u>655.99</u>
Net Expenditure .....	\$ 26,031.17
1963 Appropriation.	<u>25,200.00</u>
DEBIT .....	<u>\$ 831.17</u>

The credits of \$655.99 were made up as follows:-

Capital Real Estate (1 print, City of Fredericton) .....	\$ 1.20
Scotty's Taxi (1 print, City of Fredericton) .....	1.20
Irving Oil Co. Ltd. (2 prints, City of Fredericton) ....	2.40
Mr. N. J. Smith (1 print, City of Fredericton) .....	1.25
Mr. Hubert Nelson (Damage to tree) .....	25.00
Board of School Trustees (Mowing center field, race track) .....	6.50
Journal Voucher (J. L. Simms, error in entry) .....	4.94
Journal Voucher (Machinery) .....	588.50
Insurance Claim (Damage to tree, Riverside Motors) ....	<u>25.00</u>
TOTAL .....	<u>\$ 655.99</u>

The labor charge under the Public Works expenditure was incurred as follows:-

Trees .....	\$ 8,971.00
Survey .....	90.25
Back Drain .....	110.80
Back Drain Diversion.	11.80
Surface Sewers .....	343.62
Unforseen Account ...	<u>3,021.39</u>
TOTAL .....	<u>\$12,543.86</u>

TREES:-

Expenditure .....

\$ 13,496.82

The above expenditure includes \$8,971.00 for labor, \$2,508.00 for machinery (jeeps, trucks, shovel, etc.) \$47.81 for oil, \$1,370.01 for machinery charges and \$600.00 to Mr. Charles Smith, Honorarium for services rendered.

+ 712.04 Chaw  
+ 19.99 B.M.S.

In 1963, 46 trees were removed on the recommendation of the Fredericton Tree Commission. The condemned trees were either in a decadent condition or were a menace to public safety.

Following is the list of trees removed in 1963:-

Elms .....	29
Poplar .....	3
Maple .....	12
Birch .....	<u>2</u>
TOTAL .....	<u>46</u>

The procedure followed at the present time is as follows:-

The trees are condemned by four members of the Fredericton Tree Commission. The list, signed by the four members of the commission, is then forwarded to the office.

Trees on private property which are condemned as possible breeding places for the Elm Bark Beetle, which carries the fungus of Dutch Elm Disease, are also removed by City crews. One such tree was found this year on the property of Mr. Herbert P. McConaghay, 314 Lincoln Road.

Permission for the removal of trees on private property, as well as a statement to the effect that no claim for damage will be filed by the property owner, are obtained before proceeding with this work.

The system is working very well with a minimum of delay, after the tree has been condemned.

438 trees were pruned during the year as well as the usual planting program.

Several large elms were uprooted on Brunswick Street by a violent wind storm (Hurricane Ginny) that hit the City during the month of October.

Spraying for the Fall Canker Worm was carried out in several areas of the City where the infestation was high enough to warrant spraying with the Roto-Mist Blower.

Trees were planted at the following locations:-

<u>Location</u>	<u>Number of Trees</u>
Windsor Street .....	26
Montgomery Street .....	12
York Street .....	27
Squires Street .....	29
Mitchell Street .....	3
Smythe Street .....	27
Spruce Terrace .....	16
Waggoner's Lane .....	15
Rookwood Avenue .....	8
Inglewood Drive .....	14
Harewood Crescent .....	25
Beaverbrook Court .....	4
Beaverbrook and Dundonald Streets .....	11
Crerar Court .....	6
Dayton Court .....	6
TOTAL .....	<u>229</u>

The following is a list of trees replaced in 1963:-

<u>Location</u>	<u>Number of Trees</u>
University Avenue .....	1
Valley View Court .....	1
Hanson Street .....	2
Fenety Street .....	1
Church Street .....	2
Waterloo Row .....	1
MacLaren Avenue .....	6
Woodstock Road .....	9
Loyalist Court .....	1
King's College Road .....	3
Dundonald Street .....	8
TOTAL .....	<u>35</u>

Under the above heading, the following trees were purchased in 1963:-

40 Norway Maples 8 - 10' @ \$4.00 each .....	\$ 160.00
16 Norway Maples 8' @ \$3.25 each .....	52.00
38 Crimson King Maples 8-10' @ \$4.25 each .....	161.50
23 Crimson King Maples 7-8' @ \$3.50 each .....	80.50
45 Silver Maples 7' @ \$2.50 each .....	112.50
43 Tilia Cordata 7' @ \$3.50 each .....	150.50
47 Tilia Pallida 7' @ \$3.50 each .....	164.50
9 Tilia Euchlora 8' @ \$3.50 each .....	31.50
1 Red Oak 8-10' .....	3.00
2 Red Maple 7' @ \$3.50 each .....	<u>7.00</u>
TOTAL .....	<u>923.00</u>

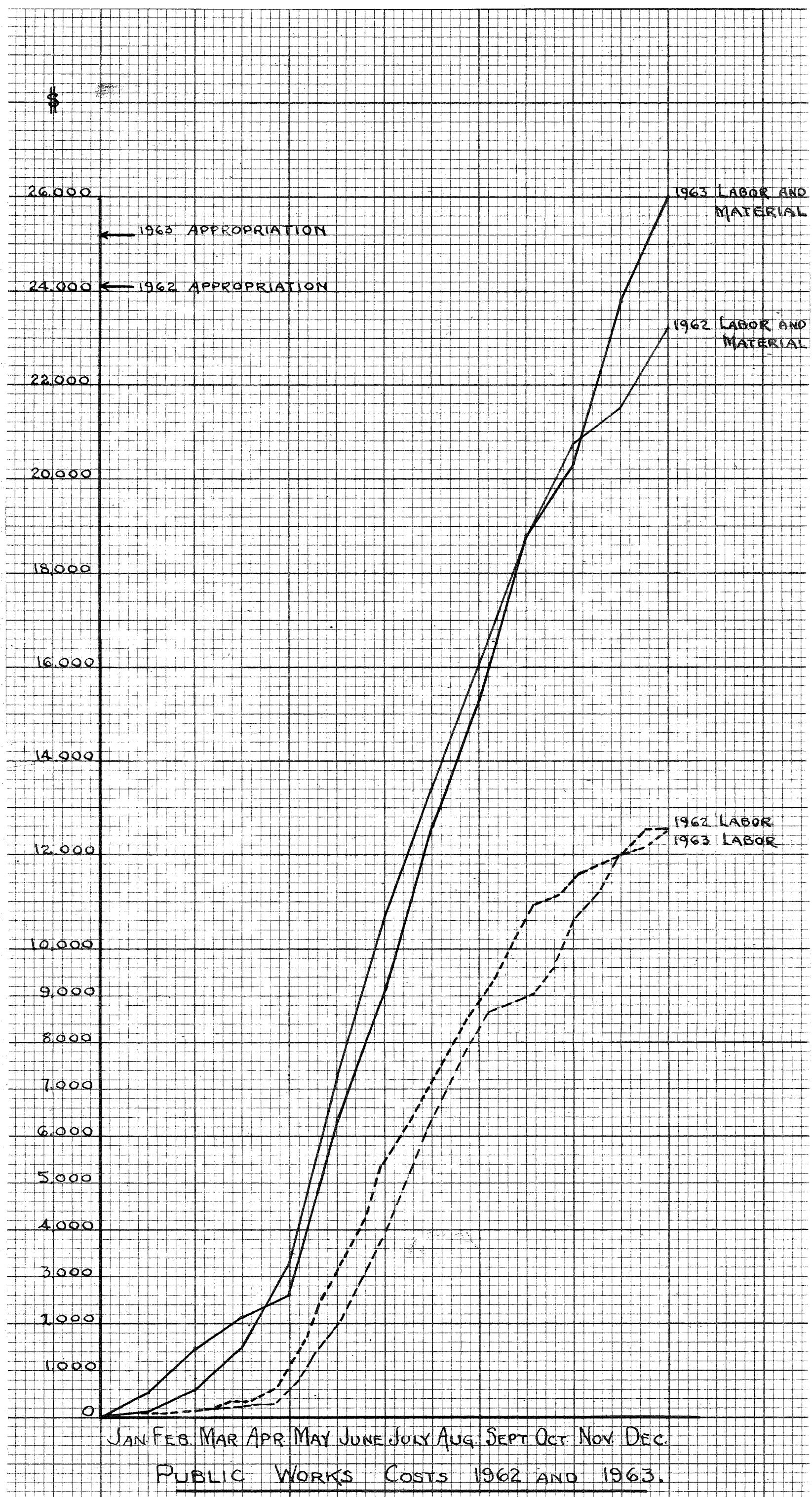
#### SURVEYING:-

Under this heading, expenditure amounted to \$973.26; made up of \$90.25 wages for labor and \$883.01 for material charges.

The labor charge of \$90.25 was for helpers with the Engineers during the course of their work during 1963 on other than programmed projects.

The material charges of \$883.01 were made up as follows:-

J. C. Ristein Co. (Stakes) .....	\$ 125.08
Paul Burden Ltd. (Frisco Rods and Hand Levels) .....	253.39
Kelvin & Hughes (Rental on Level) .....	100.44
Anric Engineering Co. Ltd. (Survey of Waterloo Row, Jaffrey and St. Marys Streets) .....	297.80
Kelvin & Hughes (Repairs to Level and Transit) .....	97.75
Miscellaneous (Express on Levels and Transit) .....	<u>8.55</u>
TOTAL .....	<u>883.01</u>



BACK DRAIN:-

Under this heading the expenditure amounted to \$118.80 made up of \$110.80 for labor and \$8.00 for machinery charges. The above expenditure was for general maintenance to the Back Drain.

BACK DRAIN DIVERSION:-

The expenditure under this heading amounted to \$11.80 and was for maintenance to Drain (cleaning Catch Basins).

SURFACE SEWERS:-

Expenditure .....\$ 1,083.34

The above expenditure is made up as follows:-

Labor .....	\$ 343.62
Machinery .....	158.00
Material .....	<u>581.72</u>
TOTAL .....	<u>\$1,083.34</u>

Under this heading an offtake sewer, towards the Canadian National Railways from Inglewood Drive, was extended 96 feet with 30" Concrete Pipe to take care of the surface water for the construction of new housing on the south side of Inglewood Drive.

UNFORSEEN ACCOUNT - LABOR

Removal of Christmas Trees from City Streets .....	\$ 175.33
Placing trees around Sewer Outfall, Gray Street ..	12.80
Attendants at Dynamite Course .....	38.40
Benches (Painting and Repairing) .....	167.67
Greens (Cutting, raking, seeding, topsoil, etc.)..	2,299.50
Repairs to Carleton Ward Monument .....	5.28
Cabinet for Engineer's Office .....	38.50
Sir James Dunn Fountain (Queen Street) .....	59.92
Spraying Swamps .....	23.76
Cleaning Wharf (Regent Street) .....	41.96
Cleaning Trailer Park Area (Woodbridge Street) ...	17.36
Removal of Building, Carleton Ward (St.Marys St.)	125.77
Band Concert .....	3.34
Taking of Inventory for 1963 .....	<u>11.80</u>
TOTAL .....	<u>\$3,021.39</u>

### ODELL PARK

Expenditure ..... \$ 3,757.37

The above expenditure is made up as follows:-

J. L. Simms (Plywood) .....	\$ 25.03
E. M. Young Ltd. (Chains, Hooks, Paint) .....	11.13
Lansdowne Nursery (Purchase of 7 trees and express charge) .....	23.90
Atlas Building Supplies (Shingles, Nails) .....	3.07
James S. Neill & Sons (Enamel, Pentox, Brushes, Scythes, Bush Hooks) .....	41.30
Federal Hardware (Hooks, Screws) .....	3.35
Richard's Electric (Installing 100 Ampere Service)....	175.53
N. B. Telephone Company .....	50.64
Workmen's Compensation (Assessment 1963) .....	96.00
Eastern Chain Saw Co. (Parts and repairs to saw) ....	13.35
Provincial Secretary-Treasurer (S.S. & E. Tax re 1962 Audit) .....	.58
Journal Voucher (Materials) .....	6.53
Journal Voucher (Gas and Oil) .....	7.31
Journal Voucher (Machinery) .....	43.50
Journal Voucher (Labor) .....	<u>3,256.10</u>
TOTAL .....	<u>\$ 3,757.37</u>

### CARLETON PARK

Gross Expenditure ..... \$ 7,814.28

Credits ..... 2,355.07

Net Expenditure ..... \$ 5,459.21

The above credit of \$2,355.07 is made up as  
follows:-

Journal Voucher (Credit re Queen's Square Development Budget) .....	\$ 500.00
Journal Voucher (Credit re Clearing Park Areas Budget). ....	500.00
Journal Voucher (Credit re Public Works Budget) .....	1,000.00
Federal Public Works (Rebate re project N.B. 173).....	<u>355.07</u>
TOTAL .....	<u>\$ 2,355.07</u>

The above expenditure includes the following  
items:-

- 1 - Carleton Park (Maintenance)
- 2 - Carleton Park (Development)

The expenditure for maintenance amounted to \$1,519.63 and was made up as follows:-

Canadian Pacific Railway Co. (Rental) ..\$	700.00
Canadian Pacific Railway Co. (Taxes on Park Area) .....	410.97
Journal Voucher (Machinery) .....	147.00
Journal Voucher (Labor) .....	<u>261.66</u>
TOTAL .....	\$ <u>1,519.63</u>

For the above expenditure, paths were scuffed, grass was kept mowed and in general, the Park was kept in a clean and orderly condition.

In 1963 the development of the east end of Carleton Ward Park, rented from the Canadian Pacific Railway Company in 1961, was completed with the construction of paths and the planting of trees and shrubs. In addition a Little League Ball Park was constructed and completed on Noble Street, south of the Carleton Ward Fire Station, situated on MacLaren Avenue.

The cost for the completion of development of Carleton Park and construction of Little League Ball Field was as follows:-

Diamond Construction Co. Ltd. (229.70 tons $\frac{1}{4}$ minus rock) .....	\$ 516.83
Avenue Florists (Purchase of 11 trees) .....	36.75
Lansdowne Nursery (Purchase of 46 trees) .....	90.55
- Bemrose & Kilburn (456 cu. yds. topsoil @ \$1.80 per cubic yard) .....	820.80 -
Capital Garden Supply (Seed and Fertilizer) .....	380.25
- Blanchard McKay (533 cu. yds. topsoil @ \$1.80 per cubic yard) .....	1,058.40 -
- W. W. Thomas (35 cu. yds. topsoil @ \$1.80 per cubic yard) .....	63.00 ~
Miles Tire Service (10 Bags Calcium Chloride) .....	41.20
Brewer Brothers Ltd. (Rent on seeder) .....	3.71
Secretary-Treasurer (S.S. & E. Tax on rent on seeder) ..	.11
Journal Voucher (Machinery) .....	890.50
Journal Voucher (Labor) .....	<u>2,392.55</u>
TOTAL .....	\$ <u>6,294.65</u>

WILMOT PARK

Expenditure ..... \$ 3,840.97

The above expenditure is made up as follows:-

Material used on Lawns and Flower Beds .....	\$ 37.06
Supplies and Repairs to Lawn Mowers .....	48.74
Material and Labor charges expended on Caretaker's House	173.21
Repairs and Painting Posts at Wilmot Park .....	21.78
Installation, New Lights - Wilmot Park (14-4' Fluorescents)	367.50
Miscellaneous (Tools, light bulbs, wheelbarrow, etc.)...	33.94
Journal Voucher (Machinery) .....	346.50
Journal Voucher (Labor) .....	2,781.24
Journal Voucher (Water Rates) .....	25.00
Journal Voucher (Domestic Sewer) .....	6.00
TOTAL .....	<u>\$3,840.97</u>

In 1963 the Caretaker's residence on Odell Avenue was painted and 14-4' Multiple Fluorescent Lamps were installed in Wilmot Park, replacing the former Series Lighting System.

CLEARING PARK AREAS

Gross Expenditure ..... \$ 2,188.28

Credit ..... 342.73

Net Expenditure ..... \$ 1,845.55

The above credit of \$342.73 was the amount received from the Government of Canada for Winter Works Assistance for clearing Park areas. Further credit from the Government of Canada on these projects will be included in 1964 accounts.

Under this heading, two Park areas were cleared; namely, Fredericton Housing Limited (Skyline Acres) and on Noble Street, south of the Carleton Ward Fire Station.

## RECREATION

Expenditure ..... \$ 1,829.62

The above expenditure does not include all playground expenditure, but only those which appear on department payrolls or costs of materials ordered through the office of the City Engineer. The salaries of the Recreation Director and Playground Supervisors hired for the summer months are not in the above costs, nor does the cost of equipment on the playgrounds appear here.

The above cost is divided as follows:-

Diamond Construction Co. Ltd. (79.85 tons $\frac{1}{4}$ minus rock @ \$2.00 per ton) .....	\$ 159.70
Journal Voucher (Gas and Oil) .....	149.02
Journal Voucher (Machinery) .....	94.50
Journal Voucher (Lighting Henry Park) .....	16.25
Journal Voucher (Materials) .....	11.19
Journal Voucher (Labor) .....	648.96
Journal Voucher (Water, Swimming Pools) .....	500.00
Journal Voucher (Water, Wading Pools and Rinks) .....	<u>250.00</u>
TOTAL .....	<u>\$ 1,829.62</u>

The above labor charge of \$648.96 is made up as follows:-

Playgrounds .....	\$ 362.15
Carleton Ward Wading Pool ...	4.72
Little League Ball Park (Waterloo Row) .....	16.06
Rink, Wilmet Park .....	1.60
Rink, Forest Hill .....	46.13
Rink, Albert Street .....	31.20
Rink, University of N.B. ....	136.00
Rink, Carleton Ward .....	<u>51.10</u>
TOTAL .....	<u>\$ 648.96</u>

## CITY HALL

Expenditure ..... \$ 484.29

The above cost is of course, only the expenditure for City Hall made through the office of the City Engineer and is not the total expenditure made on City Hall.

The expenditure of \$484.29 is made up as follows:-

Labor at City Hall .....	\$ 293.75
J. S. Neill & Sons Ltd. ....	9.94
E. M. Young .....	2.62
Journal Voucher (Materials) .....	2.98
Journal Voucher (Water Rates 1963) .....	100.00
Journal Voucher (Sewer Rental 1963) .....	50.00
Journal Voucher (Sprinkler System Charge 1963) .....	<u>25.00</u>
TOTAL .....	<u>\$ 484.29</u>

#### MUNICIPAL HOME

Expenditure .....\$ 43.74

The above expenditure is, of course, only part of the Municipal Home costs, but is the expenditure which was made through the office of the City Engineer and is therefore shown in this report.

The above expenditure is made up as follows:-

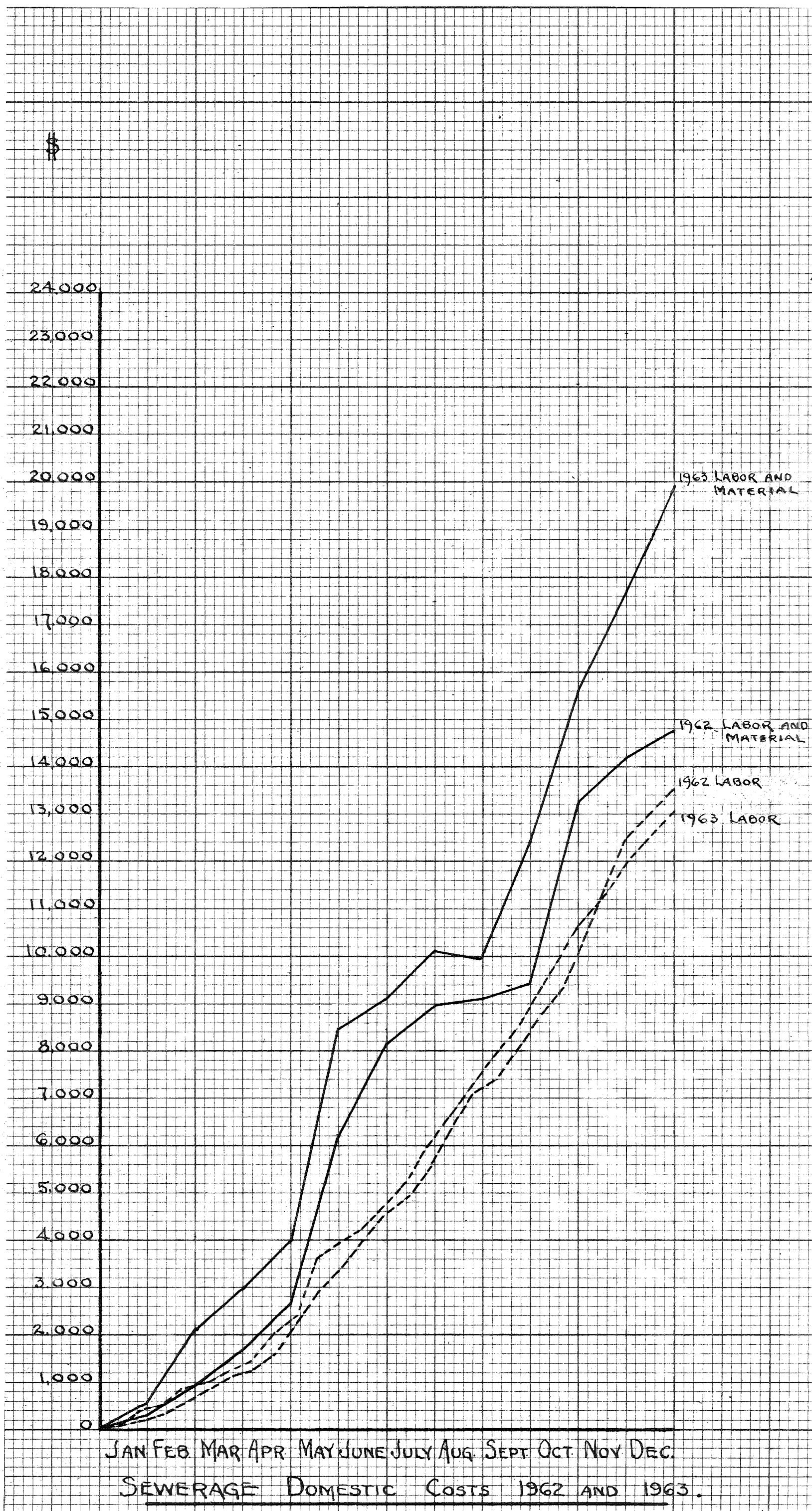
Journal Voucher (Machinery) .....	\$ 35.00
Journal Voucher (Labor) .....	<u>8.74</u>
TOTAL .....	<u>\$ 43.74</u>

#### SEWERAGE DOMESTIC

Machinery Cost .....	\$ 5,716.25
Material Cost .....	13,606.30
Labor Cost .....	<u>13,083.96</u>
Gross Expenditure .....	\$ 32,406.51
Credits .....	<u>12,547.00</u>
Net Expenditure .....	<u>\$ 19,859.51</u>

The above credits are made up as follows:-

Material, Labor and Machinery supplied for house connections .....	\$ 12,171.47
Jack's Esso Service Station (Cleaning floor drain)....	18.97
Lawson Motors Ltd. (Cleaning floor drain) .....	17.25
Irving Oil Co. Ltd. (Thawing floor drain) .....	57.20
Capital Garage Ltd. (Sale of #50 Sanfax) .....	20.00
Mrs. Florence M. Mann (Filling in old cess pool) .....	<u>14.44</u>
Forward .....	\$ 12,299.33



	Carried Forward .....	\$ 12,299.33
Capital Co-op. Ltd. (Cleaning sewer) .....	32.9	
N. B. Telephone Co. (Repairs to sewer service) .....	4.22	
Fredericton Exhibition Ltd. (Repairs to sewer service)	15.68	
Elm City Chrysler Ltd. (Cleaning floor drain) .....	6.20	
Gunter's Plumbing (Cleaning floor drain) .....	22.62	
Journal Voucher (Sewer rental, Fire Department) .....	100.00	
Journal Voucher (Sewer rental, City Hall) .....	50.00	
Journal Voucher (Sewer rental, Wilmot Park) .....	6.00	
Journal Voucher (Material) .....	<u>10.00</u>	
TOTAL .....	<u>\$ 12,547.00</u>	

The customers connected to the City Sewer System in 1963 were 168.

No Domestic Sewer extensions were made under this heading but do appear under "Capital Account Sewerage Domestic."

All sewer mains were flushed and cleaned in 1963.

The Fredericton Domestic Sewer System consists of 53.33 miles (11.97 miles in Carleton Ward and 41.36 miles in the City proper) of Sewer mains and are made up as follows:-

36" Armco Pipe .....	0.05 miles
36" Concrete Pipe ....	0.84 miles
30" Concrete Pipe ....	0.20 miles
24" Terra Cotta Pipe..	0.54 miles
18" Terra Cotta Pipe..	1.29 miles
15" Terra Cotta Pipe..	1.63 miles
12" Terra Cotta Pipe..	6.27 miles
10" Terra Cotta Pipe..	.92 miles
8" Terra Cotta Pipe..	35.38 miles
12" Transite Pipe ....	0.53 miles
12" Corrugated Pipe...	0.07 miles
10" Transite Pipe ....	0.48 miles
8" Transite Pipe ....	4.83 miles
6" C.I. Forced Main..	0.30 miles

#### OLD BURIAL GROUND

The Old Burial Ground between Brunswick Street and George Street was kept in good condition in 1963. Several Mountain Ash, Dogwood and Junipers were planted.

The tombstones that could be repaired and were not too seriously damaged by vandals were repaired. The grass was kept mowed and sodding and seeding was done wherever necessary.

In 1963 a Bird Bath was erected by the Kindness Club in memory of the Misses Beverley.

Gross Expenditure .....	\$ 1,878.59
Credit .....	<u>331.00</u>
Net Expenditure .....	<u>\$ 1,547.59</u>

The above credit was the amounts received from interest on Trust Funds and Bonds.

The expenditures on the Old Burial Ground were as follows:-

J. S. Neill & Sons Ltd. (Roofing, shears, etc.) .....	\$ 6.94
Avenue Florists (24 trees) .....	82.13
Capital Garden Supply (Grass, Seed) .....	15.75
City Heat & Electric (Repairs to mower) .....	7.53
Maritime Electric Co. Ltd. (6 Fluorescent Lights) ....	450.00
Journal Voucher (Gas and Oil) .....	34.00
Journal Voucher (Machinery) .....	7.94
Journal Voucher (Labor) .....	<u>1,274.30</u>
TOTAL .....	<u>\$ 1,878.59</u>

#### CEMENT WALKS

Gross Expenditure .....	\$ 25,298.93
Credits .....	<u>12,247.12</u>
Net Expenditure .....	<u>\$ 13,051.81</u>

The above credits of \$12,247.12 are made up as follows:-

Government of Canada (Winter Works Program) .....	\$ 774.88
Journal Voucher (Sidewalk) .....	100.00
Monies receivable re 1963 Cement Walk Accounts .....	<u>11,372.24</u>
TOTAL .....	<u>\$ 12,247.12</u>

For the above expenditure, concrete sidewalks were laid at the following locations:-

<u>Location</u>	<u>Lineal Feet</u>
Gibson Street, Union St. to Barker St. (east side)....	400
Hayes St., Union St. to Water St. (west side) .....	345
St. Mary's St., Jaffrey St. to City Limits (west side)	2,480
Highland Ave., St. Mary's St. to residence of E. Howes, 305 Highland Ave. (west side) ....	1,258
Union St., residence #879 to C.N.R. right of way, (north side) .....	<u>380</u>
Forward .....	4,863

<u>Location</u>	<u>Lineal Feet</u>
Carried Forward .....	4,863
King's College Road, near Graham Avenue to Windsor Street (south side) .....	545
Montgomery St., York St. to Smythe St. (north side)....	1,938
Windsor St., Montgomery St. to Fenety St. (west side)..	545
Montgomery St., Regent St. to Windsor St. (north side).	1,175
Canterbury Drive, Forest Hill Road to Cambridge Crescent (west side) .....	960
Cambridge Crescent, Canterbury Drive to Leicester Street (north side) .....	500
Leicester St., Woodbridge St. to Cambridge Crescent (west side) .....	<u>805</u>
TOTAL .....	<u>11,331</u>

The cost of the above sidewalks is apportioned; one-half to the City and one-half to the property owner.

The concrete for the above construction of sidewalks was obtained from Elmtree Concrete Ltd. @ \$14.50 per cubic yard.

The property owner was charged \$1.08 per lineal foot which does not include Workmen's Compensation, Pension and Holiday Fund.

#### SANITATION

Gross Expenditure ....	\$ 103,924.38
Credit .....	<u>166.60</u>
Net Expenditure ....	<u>\$ 103,757.78</u>

The above credit is made up as follows:-

Jerry's Service Station (Flushing Station Yard).....	\$ 16.60
Journal Voucher (Rentals on Flusher) .....	<u>150.00</u>
TOTAL .....	<u>\$ 166.60</u>

Under the heading "Sanitation" the following projects are included:-

- 1 - Garbage Collection
- 2 - Sanitary Land Fill
- 3 - Street Cleaning

#### 1 - Garbage Collection

The Garbage collection is operated by H. R. Corey (Fredericton) Ltd. The amount paid in 1963 for this operation was \$43,016.70.

## 2 - Sanitary Land Fill

Expenditure ..... \$ 15,886.46

The above expenditure is made up as follows:-

The Gleaner Ltd. (Printing tenders, garbage collection)	\$ 114.24
J. S. Neill & Sons Ltd. (1 Hasp for padlock) .....	.25
E. M. Young Ltd. (50 lbs.) Warfarin).....	25.13
Journal Voucher (Machinery) .....	796.00
Journal Voucher (5 Gallons Diesel Fuel) .....	.90
Journal Voucher (City Labor and hired trucks) \$1,028.22	
plus \$1,480.00 .....	2,508.22
Mr. Kenneth L. Barker .....	<u>12,441.72</u>
TOTAL .....	<u>\$ 15,886.46</u>

In 1961 Mr. Kenneth L. Barker was awarded a five-year contract for bulldozing services at the Sanitary Land Fill at a cost of \$12,441.72 per year.

## 3 - Street Cleaning

Grass Expenditure ..... \$ 45,021.22

Credit ..... 166.60

Net Expenditure ..... \$ 44,854.62

The labor expenditure charged to this account amounted to \$31,463.32 and city machinery and material charges amounted to \$13,557.90.

The above expenditure of \$13,557.90 is made up as follows:-

Hand Brooms, Shovels, Rakes, Forks, repairs to Carts, etc. ....	\$ 566.38
Main Broom Wire (Canadian Wire Brush Co. and United Sales Co.) .....	1,925.50
Gutter Broom Wire (Stratton Equipment Co.) .....	342.48
Rewind with Calabar Fibre .....	511.42
Labor and repair charges on 1960 Elgin Sweeper .....	2,633.63
Labor and repair charges on Sicard Flusher .....	1,773.29
Gas, Oil and Antifreeze to Sweeper and Flusher: 4525.70 Gallons Gas .....	1,131.45
194 Quarts Oil .....	64.02
5½ Gallons Antifreeze .....	17.70
Purchase of Hose and Couplings for Flusher .....	183.88
Repairing and Painting Waste Cans .....	18.76
Journal Voucher (Material) .....	2.09
Journal Voucher (Machinery) .....	4,301.50
Miscellaneous (Car allowance, printing, diesel fuel, etc.) .....	<u>85.80</u>
TOTAL .....	<u>\$13,557.90</u>

The Elgin Sweeper (purchased in 1960) worked 1148 hours. The actual cost for cleaning streets with this machine was \$10,766.28 and was calculated as follows:-

Labor and repairs on 1960 Elgin Street Sweeper .....	\$ 2,847.98
Main Broom Wire .....	1,925.50
Gutter Broom Wire .....	342.48
Rewind with Calabar .....	511.42
Gas (1539.30 Gallons) .....	384.85
Oil (56 Quarts) .....	18.48
Antifreeze (4½ Gallons) .....	10.62
Water (390,000 Gallons) .....	145.50
Insurance on 1960 Elgin Sweeper .....	55.00
Depreciation on 1960 Elgin Sweeper .....	2,221.56
Labor (including Workmen's Compensation, Holiday and Pension Fund) .....	<u>2,302.89</u>
TOTAL .....	<u>\$ 10,766.28</u>

The operating dates for the above machine (Sweeper) were from April 19, 1963 to November 27, 1963.

In 1955 the City of Fredericton purchased a Sicard Master Flusher with a capacity of 2,250 Imperial Gallons. The price of this machine was \$19,435.00 and was paid for in 1956. The operating dates for the above mentioned machine (Flusher) were from May 13, 1963 to November 13, 1963.

The Flusher worked 812 hours. The actual cost for flushing streets with this machine was \$7,712.38 and was computed as follows:-

Gas (2986.40 Gallons) .....	\$ 746.60
Labor and repairs to Sicard Flusher .....	2,639.78
Oil (138 Quarts) .....	45.54
Antifreeze (3 Gallons) .....	7.08
Water (3,654,000 Gallons) .....	692.32
Insurance .....	96.00
Depreciation .....	1,950.00
Labor (including Workmen's Compensation, Holiday Fund and Pension Fund) .....	<u>1,535.06</u>
TOTAL .....	<u>\$ 7,712.38</u>

The following is a list of machinery used in the Sanitation Department together with the repair costs, showing a comparison of costs for 1962 and 1963, including tires and tubes.

Name of Machine	Year Purchased	Repairs 1962	Repairs 1963
Elgin Street Sweeper	1960	\$ 3,456.39	2,847.98
Sicard Flusher (2250 I.G.)	1955	<u>427.82</u>	<u>2,349.62</u>
TOTAL .....		<u>\$ 3,884.21</u>	<u>5,197.60</u>

### CITY SCALES

Expenditure ..... \$ 275.33

Weight and measures service for Public weighing was discontinued, as of May 31, 1963. The City Scales were advertised by public tender and sold to the highest bidder. The scales were removed from Campbell Street in August.

Following is the expenditure incurred:-

Forbes and Sloat (21.25 tons gravel) .....	\$ 23.16
Journal Voucher (Machinery) .....	67.00
Journal Voucher (Labor) .....	<u>185.17</u>
TOTAL .....	<u>\$ 275.33</u>

The wages of the Weigh Scale Operator from January 1, 1963 to May 31, 1963 do not appear in the above expenditure.

### FIRE DEPARTMENT

Expenditure ..... \$ 10,848.28

The above expenditure is made up as follows:-

Journal Voucher (3006.9 Gallons Gasoline) .....	\$ 751.74
Journal Voucher (Machinery) .....	10.00
Journal Voucher (Removing Snow in front of Fire Station) .....	30.00
Journal Voucher (401 hydrants, rental) .....	9,624.00
Journal Voucher (Labor) .....	31.70
Journal Voucher (Water Charges 1963) .....	300.00
Journal Voucher (Sewer Rental 1963) .....	100.00
Journal Voucher (Materials) .....	.84
TOTAL .....	<u>\$10,848.28</u>

ADMINISTRATION OF JUSTICE

Expenditure ..... \$ 3,391.82

Journal Voucher (11239.0 Gallons Gasoline) .....	\$ 2,809.78
Journal Voucher (116 Quarts Oil) .....	38.28
Journal Voucher (Cement, sand, decals, cedar, varsol)	42.25
Journal Voucher (Machinery) .....	174.25
Journal Voucher (Labor) .....	<u>327.26</u>
TOTAL .....	<u>\$ 3,391.82</u>

LOYALIST BURIAL GROUND

On the recommendation of the Park Committee of the Fredericton Town Planning Commission, the Loyalist Cemetery on the "Flats" adjacent to the back of lots in Elmcroft Place was improved in 1958.

In 1963 the upkeep expenditure amounted to \$140.16. It is intended that this area be used as a tourist attraction with pedestrian traffic only from the Little League Ball Field on the "Flats."

J. T. CLARK MEMORIAL BUILDING

Expenditure ..... \$ 406.69

The above expenditure was for snow removal and the supplying of Janitor service due to injury to regular Janitor.

### CONTINGENT

Expenditure ..... \$ 30.28

In 1960 Lord Beaverbrook donated a fountain to the City of Fredericton. This fountain was erected in 1961 on the Green on Queen Street, approximately 100 feet east of the Robert Burns Monument.

The above expenditure was for labor used on removing and placing a protective covering on the fountain during the winter months.

### QUEEN'S SQUARE IMPROVEMENT

Gross Expenditure ..... \$ 2,106.26

Credit ..... 277.89

Net Expenditure ..... \$ 1,828.37

The above credit of \$277.89 was the amount received from the Government of Canada for Winter Works Assistance for improving Queen's Square.

The above expenditure of \$2,106.26 is made up as follows:-

Mr. Blanchard McKay (348 cu. yds. topsoil @ \$1.80 per cubic yard) .....	\$ 626.40
Bemrose and Kilburn (174 cu. yds. topsoil @ \$1.80 per cubic yard) .....	313.20
Capital Garden Supply (50 lbs. Grass Seed) .....	15.75
J. S. Neill & Sons (1 Gallon Paint) .....	8.36
Journal Voucher (Credit to Carleton Park) .....	500.00
Journal Voucher (Machinery) .....	79.00
Journal Voucher (Labor) .....	<u>563.55</u>
TOTAL .....	<u>\$ 2,106.26</u>

For the above expenditure, paths were reconstructed and topsoil applied to a selected area which was fenced off as protection for grass growth. This method will be used in future until the sodding has been restored over the entire square.

### MUNICIPAL PARKING LOT

In 1958 the City of Fredericton constructed a Parking Area on the north side of Brunswick Street between York Street and Carleton Street, just east of J. Clark & Sons property (T. Eaton Co. property).

The expenditure for the upkeep of the above Parking Lot for 1963, as shown through the office of the City Engineer, was \$504.50 and was made up as follows:-

Journal Voucher (Labor) .....	\$ 372.50
Journal Voucher (Machinery) .....	<u>132.00</u>
TOTAL .....	<u>\$ 504.50</u>

The above charge was for plowing and removing snow and keeping the parking lot in a satisfactory condition.

### INDUSTRIAL DEVELOPMENT

Expenditure .....\$ 468.31

In 1963 the construction of a new industry was begun on the Industrial Road, namely "Mobile Homes Ltd."

The expenditure of \$468.31 was for installing a culvert from the main road to the new construction site and was as follows:-

Journal Voucher (City labor) .....	\$ 45.23
Journal Voucher (84 cubic yards sand @ \$0.90 per cubic yard) .....	75.60
Journal Voucher (City Machinery) .....	62.00
Journal Voucher (52' - 30" Concrete Pipe).....	<u>285.48</u>
TOTAL .....	<u>\$ 468.31</u>

### ASSESSING and COLLECTING

Due to the change in Administration Office Staff, two office clerks were transferred from the Water Department to the Assessing and Collecting Department. This salary transfer amounted to \$6,420.00.

### TOURIST AND INDUSTRY

The expenditure under this heading amounted to \$4.72 and was for erection of a sign.

### STREET LIGHTS

The City Street Lighting System on December 31, 1963 consisted of:-

- 1 - A Series Lighting System on the south side of the Saint John River
- 2 - A Multiple Lighting System on the south side of the Saint John River
- 3 - A Multiple Lighting System in the C.N.R. Subway
- 4 - A Series Lighting System in Carleton Ward
- 5 - A Multiple Lighting System in Carleton Ward

#### SYSTEM NO. 1

The Series Lighting System consists of some 22.48 miles of line and 235 lamps. This system is divided into four circuits, one of which is controlled by a 25 K.W. constant current transformer, the other three by 15 K.W. constant current transformers. Three of these transformers along with the main switchboard are housed in a building, the site of which was purchased from Willett Fruit Company on Carleton Street, south of Needham Street. The fourth transformer is on a pole situated on Regent Street, between King's College Road and Albert Street and controls the rear circuit for Maryland Heights.

The four circuits are made up as follows:-

<u>Lower Front Circuit</u>	<u>Load</u>	<u>Transformer Size</u>
9-600 C.P.Lamps @ .350 K.W. demand	3.15 K.W.	
27-250 C.P.Lamps @ .160 K.W. demand	4.32 K.W.	
1-Fluorescent Lamp @ .50 K.W. demand	.50 K.W.	
	<u>7.97</u> K.W.	15 K.W.
<u>Upper Front Circuit</u>		
22-250 C.P.Lamps @ .160 K.W. demand	3.52 K.W.	
10-Fluorescent Lamps @ .50 K.W. demand	<u>5.00</u> K.W.	
	<u>8.52</u> K.W.	15 K.W.
<u>Upper Rear Circuit</u>		
28-600 C.P.Lamps @ .350 K.W. demand	9.80 K.W.	
68-250 C.P.Lamps @ .160 K.W. demand	10.88 K.W.	
6 Fluorescent Lamps @ .50 K.W. demand	<u>3.00</u> K.W.	
	<u>23.68</u> K.W.	25 K.W.
<u>Maryland Heights</u>		
6-600 C.P.Lamps @ .350 demand	2.10 K.W.	
58-250 C.P.Lamps @ .160 demand	<u>9.28</u> K.W.	
	<u>11.38</u> K.W.	15 K.W.

### SYSTEM #2 and #5

The Multiple Lighting System as on December 31, 1963 was as follows:-

257-500 Watt Incandescent Units @ \$60.00 per light per year  
 172-200 Watt Incandescent Units @ \$40.00 per light per year  
 59 -400 Mercury Vapor Units @ \$90.00 per light per year  
 45 -250 Mercury Vapor Units @ \$60.00 per light per year  
 155 - 4' Fluorescent Units @ \$60.00 per light per year  
 44 - 6' Fluorescent Units @ \$75.00 per light per year

Each of the above units, excepting the Fluorescents, consists of either a 500, 400 Mercury, 250 Mercury or 200 Watt, 125 Volt Lamp, set in a nouvalex luminar fixture and hung on a bracket attached to the pole. These units are controlled by a control switch which is energized by the series lighting system. The system was installed and is maintained by the Maritime Electric Company, the City paying the Company \$60.00 per year for each 500 Watt Unit; \$40.00 per year for each 200 Watt Unit; \$90.00 per year for each 400 Mercury Vapor Lamp; \$60.00 per year for each 250 Mercury Vapor Lamp; \$60.00 per year for each 4 foot Fluorescent Lamp and \$75.00 per year for each 6 foot Fluorescent Lamp.

### SYSTEM #3

System #3 consists of 4 Multiple Lights, each of 150 Watt strength, located in the C. N. R. subway. This system is also controlled by a control switch which is energized by the Series Lighting System.

### SYSTEM #4

System #4 is a Series Lighting System which had formerly been installed in the Town of Devon and consists of 8.59 miles of line and 182 lamps. The system originally comprised three circuits, but in 1960 a new circuit was added due to the change from 2500 Lumen series lamps on Gibson Street to Fluorescent series lamps. The three former circuits are controlled by three 15 K.W. constant current transformers, located on a pole platform on Pine Street, while the new circuit is controlled by a 15 K. W. constant current transformer, situated on a pole on the road leading from MacLaren Avenue to the Carleton Ward School.

The four circuits comprise the following areas:-

Carleton Ward (Up) mainly from Hughes Street west; Carleton Ward (Central) mainly between Hughes Street and Pine Street including Dobie Subdivision; Carleton Ward (Down), Pine Street east to Irving Oil Company premises and between Canadian Pacific Railway tracks and Union Street and Carleton Ward (rear) including Gibson Street from Devon Avenue to the City line and the easterly extremities of the Dobie Subdivision.

<u>Carleton Ward (Up)</u>	<u>Load</u>	<u>Transformer Size</u>
2-600 C.P.Lamps @ .350 demand	.70 K.W.	
39-250 C.P.Lamps @ .160 demand	6.24 K.W.	
15 Fluorescent Lamps @ .50 demand	<u>7.50</u> K.W.	
	14.44 K.W.	15 K.W.

#### Carleton Ward (Central)

46-250 C.P.Lamps @ .160 demand	7.36 K.W.
12 Fluorescent Lamps @ .50 demand	<u>6.00</u> K.W.
	13.36 K.W.
	15 K.W.

#### Carleton Ward (Down Front)

13-250 C.P.Lamps @ .160 demand	2.08 K.W.
14 Fluorescent Lamps @ .50 demand	<u>7.00</u> K.W.
	9.08 K.W.
	15 K.W.

#### Carleton Ward (Down-Rear)

1-600 C.P.Lamps @ .350 demand	.35 K.W.
19-250 C.P.Lamps @ .160 demand	3.04 K.W.
21 Fluorescent Lamps @ .50 demand	<u>10.50</u> K.W.
	13.89 K.W.
	15 K.W.

The power for Systems 1, 3 and 4 is purchased from the Maritime Electric Company at a contract price as agreed upon in a contract between the Maritime Electric Company and the City of Fredericton, made in 1957. This contract also covers the maintenance cost of \$20.00 per year per mile of pole line which is paid for by the City to the Company.

All materials such as wire, poles, pole fixtures, lamps, lamp fixtures, transformers, etc. are paid for by the City, installed by the Maritime Electric Company, under their contract price for maintenance. Any new installations that require an enlargement of circuits must be paid for by the City of Fredericton, including labor and material.

The Street Lighting costs for the year 1963 are as follows:-

Gross Expenditure .....	\$ 52,776.59
Credit .....	<u>376.49</u>
Net Expenditure .....	\$ 52,400.10
1963 Appropriation .....	<u>51,975.00</u>
DEBIT .....	<u>\$ 425.10</u>

The above credit of \$376.49 is made up as follows:-

Journal Voucher (Credit re lights in Henry Park) .....	\$ 16.25
Journal Voucher (Lights in Wilmot Park) .....	16.25
Insurance claim re damaged transformer .....	<u>343.99</u>
TOTAL .....	<u>\$ 376.49</u>

The Street Lighting expenditure of \$52,776.59 is made up as follows:-

12 - No. F72T12/CW/HO Fluorescent Lamps ....	\$ 41.06
46 - No. F48T12/CW/HO Fluorescent Lamps ....	106.82
60-600 C.P.Series Lamps .....	66.44
768-250 C.P.Series Lamps .....	501.21
6 - 150 Watt Bulbs .....	2.10
4 - 200 Watt Bulbs .....	<u>2.06</u>
Replacement cost 1963 .....	\$ 719.69
Power Costs for subways and series lighting December 23/62 to December 31/63 (362,000 K. W. Hours) .....	9,207.87
Charges on Multiple Fixtures owned and operated by the Maritime Electric Company @ \$40.00, \$60.00, \$75.00 and \$90.00 per light per year ...	39,116.40
Maintenance and Contract of Pole Line .....	621.36
Maintenance of Lamp Fixtures, including such articles as lamp standards, lamp brackets, heads, sockets, shades, cut-outs, time switches, etc. ....	223.96
Material and Labor used in major repairs and new installations .....	2,061.14
Light Bill - Fredericton Highway Bridge .....	676.56
Cenotaph Light Bill .....	<u>149.61</u>
TOTAL .....	<u>\$ 52,776.59</u>

Total Cost of Series System .. \$ 13,660.19

During the year 1963, various changes and extensions were made to the City of Fredericton Street Lighting System and are listed as follows:-

Additions:-

- 1 - 250 Lamp, replaced with 600 C.P. Lamp at corner of Medley Street and Dobie Street.
- 1 - 250 Lamp, added on McKeen Street between Union Street and River.

All Series Lighting on Barker Street, east of Gibson, Miles and Titus Streets replaced with Multiples.

On Regent Street, Series Lighting from Railway Crossing replaced with Multiple Fluorescents.

On Downtown Front Circuit all Series wire, north of Churchill Row was removed and lamps replaced with Multiple Incandescents and Fluorescents.

Wilmot Park and Odell Park converted to Multiples.

- 1 - 4' Fluorescent placed at corner of Churchill Row and St. John Street
- 1 - 600 C. P. Lamp placed at corner of Church and Churchill Row
- 1 - 600 C. P. Lamp placed at corner of Aberdeen and St. John Streets
- 1 - 600 C. P. Lamp placed at corner of Scully and St. John Streets
- 1 - 600 C. P. Lamp placed at corner of McLeod and St. John Streets
- 1 - 600 C. P. Lamp placed at corner of Carleton and Needham Streets
- 1 - 600 C. P. Lamp placed at corner of Carleton and Aberdeen Streets
- 1 - 600 C. P. Lamp placed at corner of Hanson and King's College Road
- 1 - 600 C. P. Lamp placed at corner of York and King's College Road
- 1 - 600 C. P. Lamp placed at corner of Windsor and King's College Road
- 1 - 600 C. P. Lamp placed at Neill's Warehouse, Church Street
- 1 - 600 C. P. Lamp placed at corner of Albert and Palmer Streets
- 1 - 250 C. P. Lamp placed on Carleton St. in front of Street Light Sub-Station
- 1 - 250 C. P. Lamp placed on King's College Road between Regent and Reid Streets
- 1 - 4' Series Fluorescent on Smythe Street, first pole south of Connaught Street
- 1 - 6' Series Fluorescent on Smythe Street by Shamrock Terrace
- 1 - 400 Mercury Vapor Unit on Queen St., between Smythe and Northumberland Streets
- 24 - 4' Fluorescent Units on Lincoln Road
- 4 - 200 Watt Incandescent Units on Hanwell Road
- 1 - 6' Fluorescent Unit east of Research Station, Lincoln Road
- 3 - 200 Watt Incandescent Units on Pedersen Crescent
- 5 - 200 Watt Incandescent Units on Beechwood Crescent
- 24 - 4' Fluorescent Units on Regent Street Hill
- 3 - 6' Fluorescent Units on Regent Street Hill
- 1 - 6' Fluorescent Unit on corner of Regent and Montgomery Streets
- 1 - 6' Fluorescent Unit on corner of Regent and Priestman Streets
- 1 - 500 Watt Incandescent Unit corner Woodstock Road and Golf Club Road

1 - 500 Watt Incandescent Unit on Woodstock Road west of Golf Club Road  
1 - 500 Watt Incandescent Unit on Woodstock Road between Hanwell Road and Barker Equipment  
3 - 6' Fluorescent Units on Campbell Street east of Bridge  
1 - 4' Fluorescent Unit on Campbell Street east of Bridge  
2 - 500 Watt Incandescent Units on Smythe Street in front of Beechwood Crescent  
2 - 200 Watt Incandescent Units on Smythe Street in front of Beechwood Crescent  
4 - 200 Watt Incandescent Units on Priestman Street  
1 - 200 Watt Incandescent Unit on Smythe Street by H. Mills Residence  
1 - 6' Fluorescent Unit corner of Saunders St. and Odell Avenue  
2 - 4' Fluorescent Units on Queen Street, between Parliament Square and Church Street  
1 - 6' Fluorescent Unit on corner Queen and Church Streets  
1 - 6' Fluorescent Unit on corner of Secretary Lane and King St.  
1 - 4' Fluorescent Unit on Odell Avenue between Charlotte and Saunders Streets  
7 - 500 Watt Incandescent Units in front of Parliament Buildings  
2 - 500 Watt Incandescent Units on St. John Street between King and Queen Streets  
2 - 4' Fluorescent Units on Barker Street  
2 - 4' Fluorescent Units on Odell Avenue  
1 - 6' Fluorescent Unit on Odell Avenue  
1 - 200 Incandescent Unit on Highland Avenue  
3 - 500 Watt Incandescent Units on Noble Street  
3 - 500 Watt Incandescent Units on Inglewood Drive  
2 - 500 Watt Incandescent Units on Hanwell Road between Woodstock Road and C. N. R.  
1 - 500 Watt Incandescent Unit corner Hanson Street and Valley View Street  
1 - 500 Watt Incandescent Unit corner Windsor and Valley View Streets  
15 - 250 Mercury Vapor Units, Skyline Acres  
1 - 200 Watt Incandescent Unit on Miles Street  
1 - 500 Watt Incandescent on St. John Street, between King and Brunswick Streets  
1 - 500 Watt Incandescent on Church Street, between George and Brunswick Streets  
3 - 4' Fluorescent Units in vicinity of Cathedral  
4 - 6' Fluorescent Units in vicinity of Cathedral  
1 - 4' Fluorescent Unit, corner Titus and Barker Streets  
1 - 4' Fluorescent Unit at York Arena  
1 - 6' Fluorescent Unit corner Miles and Barker Streets  
1 - 6' Fluorescent Unit at Railway Crossing, Barker Street  
5 - 4' Fluorescent Units on Barker Street, below Railway Crossing  
3 - 6' Fluorescent Units at Legion Parking Lot  
1 - 250 Watt Mercury Vapor on Coventry Crescent  
1 - 250 Mercury Vapor Unit on Canterbury Drive  
3 - 6' Fluorescent Units on York Street, between King and Queen Streets

Removals:-

21 - 200 Watt Incandescent Units from Lincoln Road  
1 - 500 Watt Incandescent Unit from Lincoln Road  
1 - 500 Watt Incandescent Unit corner Reid and Regent Streets  
1 - 200 Watt Incandescent Unit from corner Golf Club Road and Woodstock Road

7 - 200 Watt Incandescent Unit from Woodstock Road between  
     Hanwell Road and Barker Equipment  
 4 - 500 Watt Incandescent Units on Campbell Street, east of  
     Highway Bridge  
 1 - 500 Watt Incandescent Unit from Beaverbrook Rink  
 1 - 200 Incandescent Unit corner Valley View and Windsor Streets  
 1 - 200 Incandescent Unit corner Valley View and Hanson Streets  
 2 - 500 Incandescent Units on York Street between King and  
     Brunswick Streets.

Transfers:-

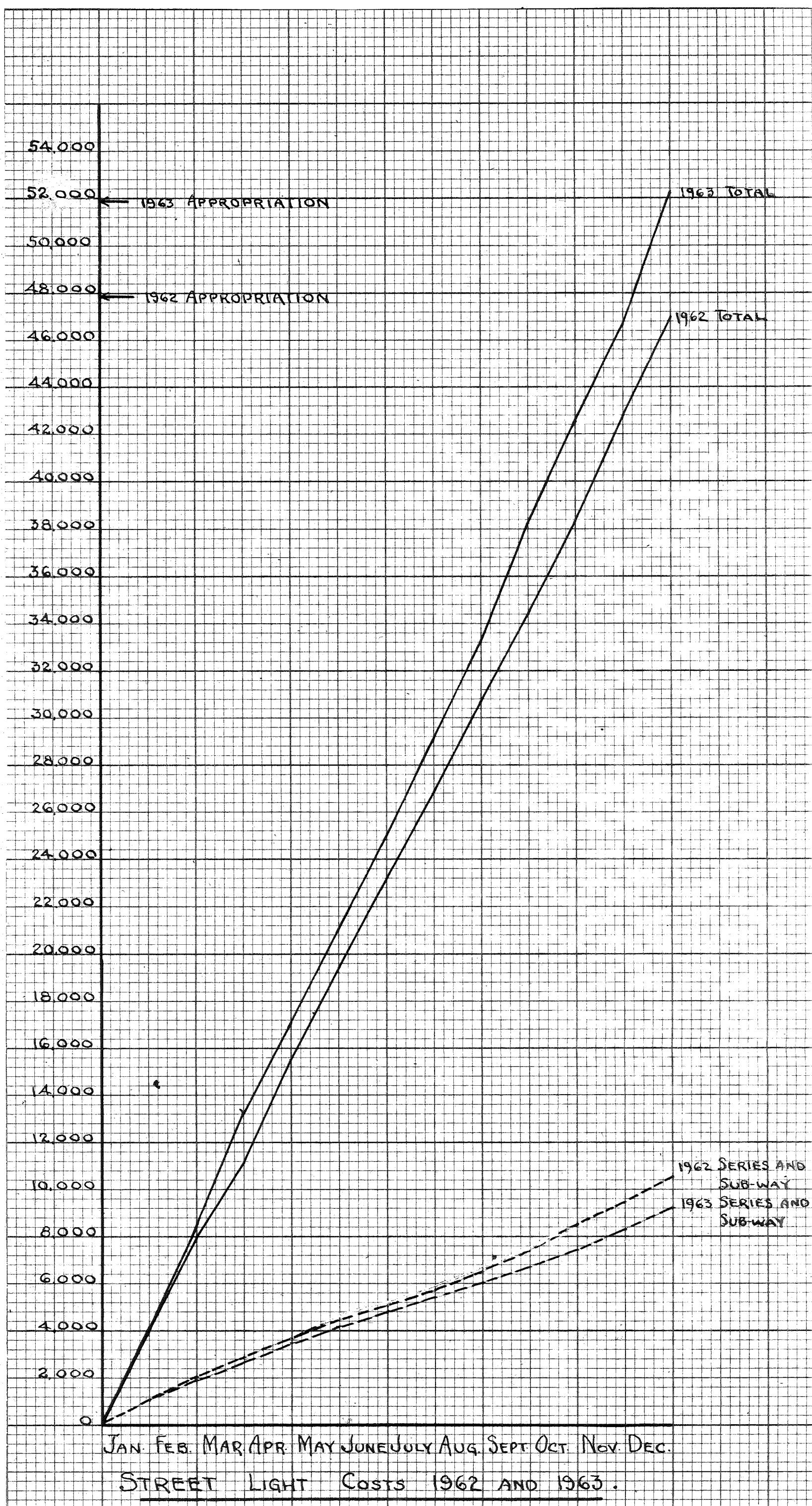
12 - 200 Watt Incandescent Units from Lincoln Road to  
     Noble Street ..... 4  
     Miles Street ..... 3  
     Titus Street ..... 2  
     St. John St. between Charlotte &  
         Churchill Row ..... 1  
         Jones Street ..... 2  
 1 - 200 Watt Incandescent Unit to Church Street, between  
     Charlotte and Churchill Row  
 4 - 200 Watt Incandescent Units from Lincoln Road to Pembroke  
     Crescent  
 3 - 4' Fluorescent Units from York Street, between King and  
     Queen Streets  
     to York Street, between King and Brunswick Streets  
 4 - 200 Watt Incandescent Units from Lincoln Road to Priestman St.  
 1 - 200 Watt Incandescent Unit from Forest Hill to Colter Court

The total per capita charge for Street  
 Lighting for 1963, population of 19,683 as per 1961  
 census, is:-

$$\frac{52,400.10}{19,683} = \$2.66$$

TABLE SHOWING COMPARATIVE YEARLY COST IN  
 STREET LIGHTING

<u>Year</u>	<u>Total Yearly Cost</u>	<u>Yearly Appropriation</u>
1949	15,720.93	16,000.00
1950	25,300.30	20,000.00
1951	23,848.42	20,000.00
1952	25,211.39	25,000.00
1953	25,487.71	27,000.00
1954	23,812.54	27,000.00
1955	28,542.77	27,000.00
1956	31,877.10	27,700.00
1957	33,101.56	29,000.00
1958	36,038.79	33,500.00
1959	39,907.64	37,500.00
1960	44,481.71	44,010.00
1961	46,835.74	46,965.00
1962	46,939.38	47,875.00
1963	52,400.10	51,975.00



## W A T E R

There are two separate water systems in the City of Fredericton.

1. During 1963 the south side of the Saint John River derived its water from three Gravel Wells located in Wilmot Park; namely No. 1, No. 3 and No. 4.

Number 2 Well on Saunders Street cannot be used in its present state because of the prohibitive manganese content, which causes "Red" water and stains linens, etc. and is not acceptable as a Municipal Supply. The electric power has been discontinued for the operation of this Well.

2. The water supply on the north side of the Saint John River is derived from three Wells. Two of these Wells are outside the City limits and pump directly into the system, which has a 1,000,000 Imperial Gallon Reservoir, completed by Maritime Engineering Limited in 1959. The third Well is located on Bridge Street.

Preliminary results of investigation into complaints of rusty water on Barker Street in 1962 indicated a manganese and iron build-up in dead-end mains.

This condition appeared to prevail predominately in dead-end mains and would indicate that a reaction is taking place between the water and the main, due to lack of circulation and the presence of manganese in the water.

Further tests in dead-end mains on the westerly end of Union Street also shows that there is a manganese and iron build-up taking place, although the complaints of rust have been negligible, compared to Barker Street.

Immediate action taken was the reactivating of the Rifle Range Well and reduction of output and use of the Bridge Street Well, which appears to be the source of the manganese and iron contamination.

The City Council authorized the drilling of a new Well on higher ground to ensure an ample supply of water for Carleton Ward, as well as trying to avoid areas that are known to contain manganese deposits.

The new Well was drilled in 1963 by Mr. Aden Sullivan at the site of the 1,000,000 Imperial Gallon Reservoir, off Highland Avenue, under the Winter Works Incentive Program. For further information see heading "Capital Account Water" which includes "Capital Account Drilled Well, Carleton Ward", page 27.

Chlorine has been added to the Water in Carleton Ward since the reports from the City Analyst showed objectionable Coliforms in the water. A liquid solution (HTH) is added at the Killarney Road Well.

The water costs for the City of Fredericton are divided into two headings:-

"WATER ORDINARY"

and

"WATER PUMPING STATION"

WATER ORDINARY

This account includes all expenditures, other than Capital expenditure for water and expenditures other than the Main Pumping Station and cost of supply from Wells. It also includes all current water expenditures in Carleton Ward.

The expenditure under this heading is made up as follows:-

Gross Expenditure .....	\$ 83,885.74
Less Credits .....	<u>21,130.81</u>
Net Expenditure .....	<u>\$ 62,754.93</u>

The Credits are made up as follows:-

Work done for and materials 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 the system which do not belong to the City .....	\$ 9,917.86
Department Public Works, Provincial Government (2 Couplings) .....	5.28
Town of Newcastle (2 - 6" C. I. Sleeves) .....	38.56
Insurance Claim(Damage to hydrant).....	35.00
Ronald H. Collett (Repairs to damaged hydrant, King Street) .....	35.32
Fredericton Housing Ltd. (1 - 6" x 10" Sleeve) .....	36.97
Leachman's Plumbing & Heating (1 coil 66'- $\frac{3}{4}$ " Copper) ..	23.10
Hagerman's Plumbing & Heating (Copper Pipe & Union)...	3.95
C. W. Ritchie and Sons Ltd. (1 Union) .....	1.30
Vernon Glenn (Copper Pipe and Union) .....	7.45
Atlas Construction Co. Ltd. (Repairs to hydrant).....	31.88
Nashwaaksis Local Improvement (Repairs to Water Main) ..	40.08
Mitton Enterprises Ltd. (Repairs to Water Shut-Off)...	10.41
G. Clark (Refund convention expenses) .....	13.75
W. J. Bearisto Co. Ltd. (2 Unions) .....	2.60
Ogilvie Flour Mills Ltd. (Thawing frozen water service)	3.69
Journal Voucher (Rental on hydrants - Fire Department)	9,624.00
Journal Voucher (Water supplied to City owned buildings, swimming and wading pools) .....	1,200.00
Journal Voucher (Material) .....	45.00
Miscellaneous (Changing and repairing frozen water meters at various locations) .....	<u>54.61</u>
TOTAL .....	<u>\$21,130.81</u>

The Gross Expenditure is made up as follows:-

City Payroll for Hydrants .....	\$ 3,825.30
City Payroll for Meters .....	4,624.93
City Payroll for Water Ordinary .....	21,679.74
City Payroll for Carleton Ward Pumping Stations .....	832.04
City Payroll for Lincoln Booster Station .....	390.11
City Payroll for Smythe St. Booster Station .....	432.31
City Payroll for Montgomery Street Booster Station ...	<u>405.31</u>
TOTAL PAYROLLS .....\$ 32,189.74	
Material and other charges .....	<u>51,696.00</u>
GROSS EXPENDITURE .....\$ 83,885.74	

No water extensions were laid under this heading in 1963. They appear under "Capital Account Water."

Sprinkler systems were installed in 1963 at the following locations:-

Kileel Building (Grand Hotel),  
Queen Street

Buzzell's Dry-Cleaning, Queen St.

There are at present 62 Sprinkler Systems in the City. The City charge for water supplied for Sprinkler Systems is \$25.00 per year.

Hydrants:-

There are in the City, 419 hydrants; 315 on the south side of the Saint John River and 105 on the north side. The credit for rental charge on these hydrants appears under credits to Water Ordinary.

Hydrants were installed at the following locations in 1963:-

<u>Location</u>	<u>Number</u>
Cambridge Crescent .....	2
Coventry Crescent .....	2
Canterbury Drive .....	2
York Street .....	1
Mansfield Street .....	1
Pembroke Crescent .....	1
Gregg Court .....	1
Jones Street .....	1
Perley Court .....	1
Bailey Drive .....	1
Dunn's Crossing Road .....	4
Exhibition Grounds .....	1
TOTAL .....	<u>18</u>

### METERS:-

There are 4,320 water services in the City, 487 are charged under flat rate and 3,833 on meter rate.

The labor cost per meter for installing, reading, repairing, etc. is \$1.20 for 1963.

221 Meters were installed in 1963.

In 1963, 28 discontinued services were dug out and shut off at the main.

All meters are read twice a year and bills are sent out twice a year. 188 meters are read once a month, although they are billed twice a year. These are meters of customers who ordinarily have large consumptions and where a stopped meter or meter digit turned over without being noticed would mean a considerable loss of revenue to the City. All meters on Military Buildings are included in the group of monthly meter readings.

### Meters in Stock, December 31, 1963:-

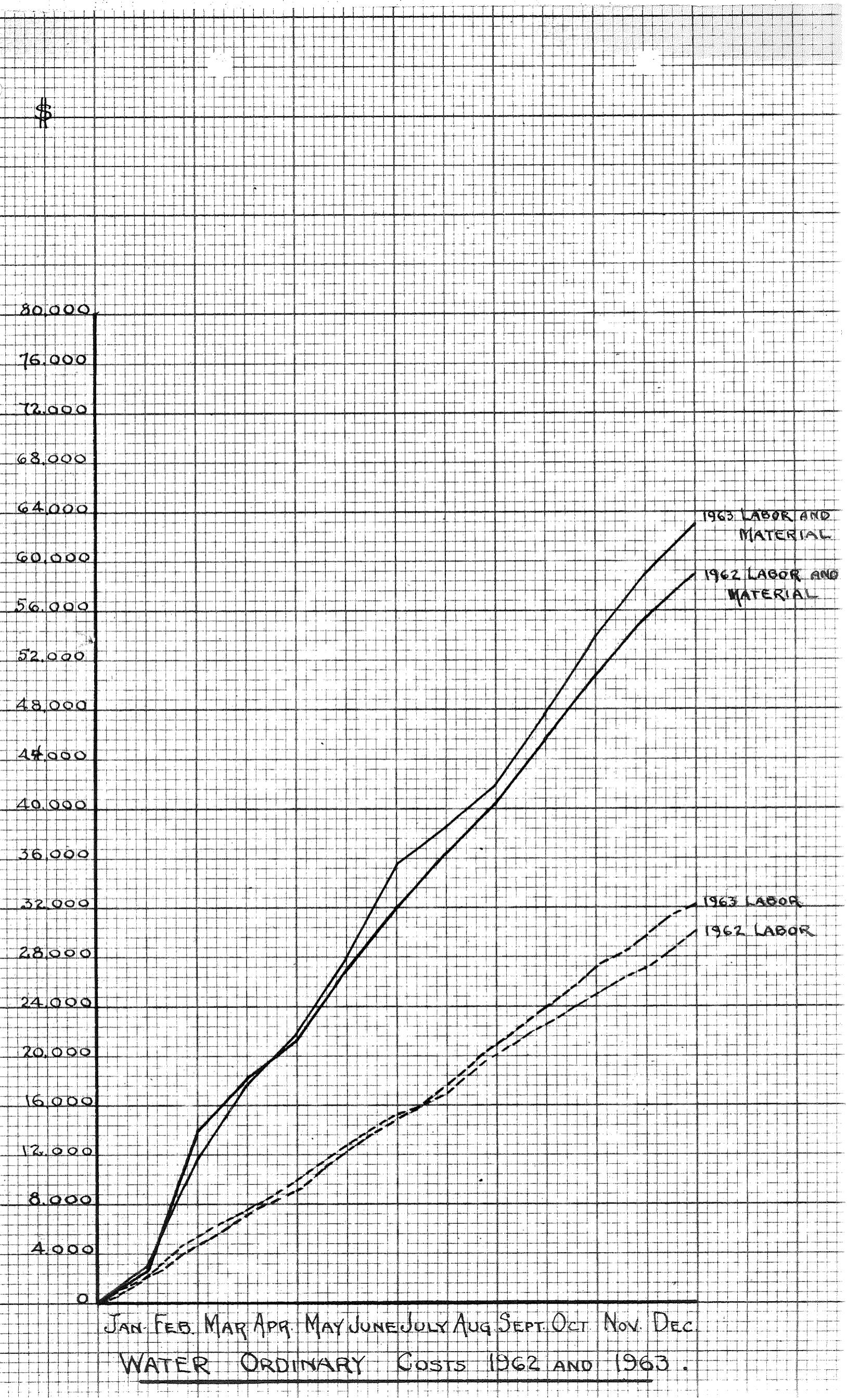
5/8" Meters	- Repaired and fit for service .....	28
3/4" Meters	- Repaired and fit for service .....	1
1" Meters	- Repaired and fit for service .....	0
1 1/4" Meters	- Repaired and fit for service .....	3
3" Meters	- Repaired and fit for service .....	1
New 1/2" Meters	.....	20
New 1" Meters	.....	6
New 1 1/4" Meters	.....	0
New 1 1/2" Meters	.....	1
New 2" Meters	.....	1
TOTAL	.....	<u>61</u>

### DISTRIBUTION SYSTEM:-

New Services installed 1963 .....	170
Old Services relaid 1963 .....	40
Frozen Services that had to be thawed .....	18

The Fredericton distribution system consists of 55.08 miles of water main, made up of the following sizes:-

18" Main .....	0.98 miles
14" Main .....	0.33 miles
12" Main .....	5.08 miles
10" Main .....	4.36 miles
8" Main .....	11.66 miles
6" Main .....	26.94 miles
4" Main .....	5.46 miles
3" Main .....	0.27 miles
TOTAL .....	<u>55.08</u> miles



This does not include the water main installed by the National Defence at the Exhibition Grounds, Military Depot #7, now Department of Health and Social Welfare, Woodstock Road and the Army Garage, Waggoner's Lane.

The supply system consists of .36 miles of 14" Cast Iron Pipe, extending from the Well site at Wilmot Park to the Pumping Station and .10 miles of 15" Steel Pipe extending from the Intake Pier in the Saint John River to the Pumping Station.

Also included in the above expenditure was the purchase of the following meters from Neptune Meters Ltd.:-

2 - 2" Trident Style 3, cold water meters, flanged, straight reading, imperial gallons, flanges included.

6 - 1" Trident C.I.B. cold water meters, straight reading, imperial gallons, complete with couplings.

100 - 5/8" Neptune Trident seal proof cold water meters, complete with straight reading, imperial gallons, registers, and one-half inch couplings.

The number of meters installed in 1963 was 221.

Following is the list of vehicles used and charged to "Water Ordinary" showing a comparison of repair charges for 1962 and 1963, including tires and tubes.

Name of Vehicle	Year Purchased	Repairs 1962	Repairs 1963
Dodge 1 Ton (traded in 1963)	1958	\$ 508.47	
Chevrolet $\frac{1}{2}$ Ton	1963		156.57
International $\frac{1}{2}$ Ton	1958	514.76	811.28
Chevrolet $\frac{1}{2}$ Ton	1959	70.14	139.94
TOTALS .....		\$1,093.37	1,107.79

### WATER PUMPING STATION

Gross Expenditure .....	\$ 48,441.10
Less Credits .....	<u>35.56</u>
Net Expenditure .....	<u>\$ 48,405.54</u>

The above credit is made up as follows:-

George H. Constable (damage in Pumping Station Lawn) .....	\$ 15.00
Journal Voucher (Gas) .....	<u>20.56</u>
TOTAL .....	<u>\$ 35.56</u>

The above expenditure is divided as follows:-

City Payrolls for salaries of employees at Pumping Station .....	\$ 20,781.19
Work done by other City employees in and around Pumping Station .....	<u>1,771.14</u>
TOTAL CITY PAYROLLS.....	<u>\$ 22,552.33</u>
Material Charges .....	<u>25,888.77</u>
TOTAL .....	<u>\$ 48,441.10</u>

The material cost of \$25,888.77 is itemized as follows:-

Item 1 Light and Power supplied by Maritime Electric Co. (571,847 K.W. Hours) .....	\$ 12,292.00
Item 2 Light and Power supplied by Maritime Electric Co. at Wells in Park .....	6,725.89
Item 3 Heating (5592.8 Gallons Furnace Oil) .....	822.48
Item 4 Gasoline .....	---
Item 5 Liquid Chlorine (750 lbs.) .....	116.09
Item 6 Oil (1 Case HDX #10 .....\$ 7.78 (45 Gallons Mobile) .....	<u>65.36</u> ..... 73.14
Item 7 Maintenance and repair to buildings, machinery and intake pier .....	1,801.26
Item 8 Instruments .....	500.15
Item 9 Supplies, packing, rags, lamps, etc. ....	233.18
Item 10 Stationary, forms, charts, chemicals, ink, etc. .....	229.12
Item 11 Workmen's Compensation (charged to Water Ordinary, 1963) .....	---
Item 12 E. W. Hagerman (City Analyst actual salary - \$1800.00).....	1,510.08
Item 13 Lime .....	---
Item 14 Diesel Fuel (3,000 Gallons) .....	482.20
Item 15 Repairs to Smythe Street Valve House (2,000,000 I. G. Reservoir) .....	184.38
Item 16 Maintenance of Pumping Equipment at Wells..	349.03
Journal Voucher (City Machinery) .....	133.00
Journal Voucher (Materials) .....	52.75
Miscellaneous (Telephone, Uniforms, etc.) .....	<u>384.02</u>
TOTAL .....	<u>\$ 25,888.77</u>

Following is a further explanation of some of the above items:-

Item #3 - Heating :-

Following is the yearly consumption and costs of heating the Fredericton Pumping Station Plant for the last seven years:-

<u>Year</u>	<u>Gals. Furnace Oil</u>	<u>Cost</u>
1957 (Heat from Victoria Public Hospital, 749,210 lbs. steam @ \$1.84 per lb.) .....	3507.1	\$ 1,378.54 439.98
1958 .....	4513.4	766.10
1959 .....	6110.8	1,005.50
1960 .....	6165.5	1,012.19
1961 .....	4513.8	709.01
1962 .....	5079.1	763.10
1963 .....	5592.8	822.43

Item #7 - Maintenance and Repairs

In reference to Item #7, the following is included:-

- 1 - Cleaned raw water Well
- 2 - Built a manhole for siphoning raw water Well
- 3 - Reroofed a section of the Fredericton Pumping Station at a cost of \$2,061.20, including labor charge of \$891.88 and material cost of \$1,169.32.
- 4 - Maintenance of Well pump houses and equipment.

Item #8 - Instruments

Under this heading a colora meter and pneumatic recorder were purchased in 1963.

The Pumping Station plant at the present time has all the Wells operating automatically on demand. The St. John River supply operates manually and the supply must pass through the Filter Plant for purification. This supply will only be used in an emergency, that is, when the Wells are not operating due to failure, etc. or when the demand of water is higher than the Wells can produce or during a prolonged electrical interruption, probably longer than 24 hours.

During a 24-hour interruption, the 2,000,000 Imperial Gallon Reservoir will supply the system unless there is a serious break or a fire when a high consumption of water is required.

COMPARISON OF WATER PUMPED AND COSTS  
FOR SOUTH SIDE OF RIVER  
FOR LAST NINETEEN YEARS

<u>Year</u>	<u>Water Pumped Imperial Gallons</u>	<u>Gross Expenditure at Pumping Station</u>	<u>Pumping Station cost per 1,000 Gallons</u>	<u>Gross Expenditure</u>
1945	321,355,000	23,900.14	7.7 cents	
1946	338,979,000	25,640.43	7.5 cents	
1947	319,243,000	37,123.42	11.6 cents	
1948	322,339,000	31,050.97	9.6 cents	
1949	345,320,000	30,513.39	9.8 cents	
1950	372,412,000	44,548.09	11.9 cents	
1951	367,130,000	35,058.57	9.5 cents	
1952	339,330,000	40,476.10	11.9 cents	
1953	351,310,000	36,179.74	10.3 cents	
1954	388,540,000	40,403.81	10.4 cents	
1955	376,591,000	48,063.07	12.7 cents	
-1956	448,096,000 (13 Mos.)	41,351.18	9.2 cents	
1957	469,185,000	42,465.50	9.0 cents	
1958	454,765,000	42,388.56	9.4 cents	
1959	487,704,000	47,923.19	9.8 cents	
-1960	520,081,000	50,280.09	9.6 cents	
1961	510,250,000	45,081.88	8.8 cents	
1962	499,830,000	48,298.53	9.7 cents	
1963	519,168,000	48,441.10	9.3 cents	

The column in the preceding comparison, showing Imperial Gallons pumped, does not include water used from Wells in Carleton Ward.

By taking the average consumption of Carleton Ward as 300,000 Gallons per day, the estimated water pumped for 12 months from these Wells was 109,500,000 Imperial Gallons.

The total amount of water pumped from January 1, 1963 to December 31, 1963 therefore, for the whole City, is 628,668,000 Imperial Gallons.

The total net water expenditure for the City, from January 1, 1963 to December 31, 1963 is \$111,160.47.

Therefore the net cost to pump and deliver to the customer 1,000 Imperial Gallons of Water, from January 1, 1963 to December 31, 1963, is  $\frac{\$111,160.47}{628,668} = 17.7$  cents.

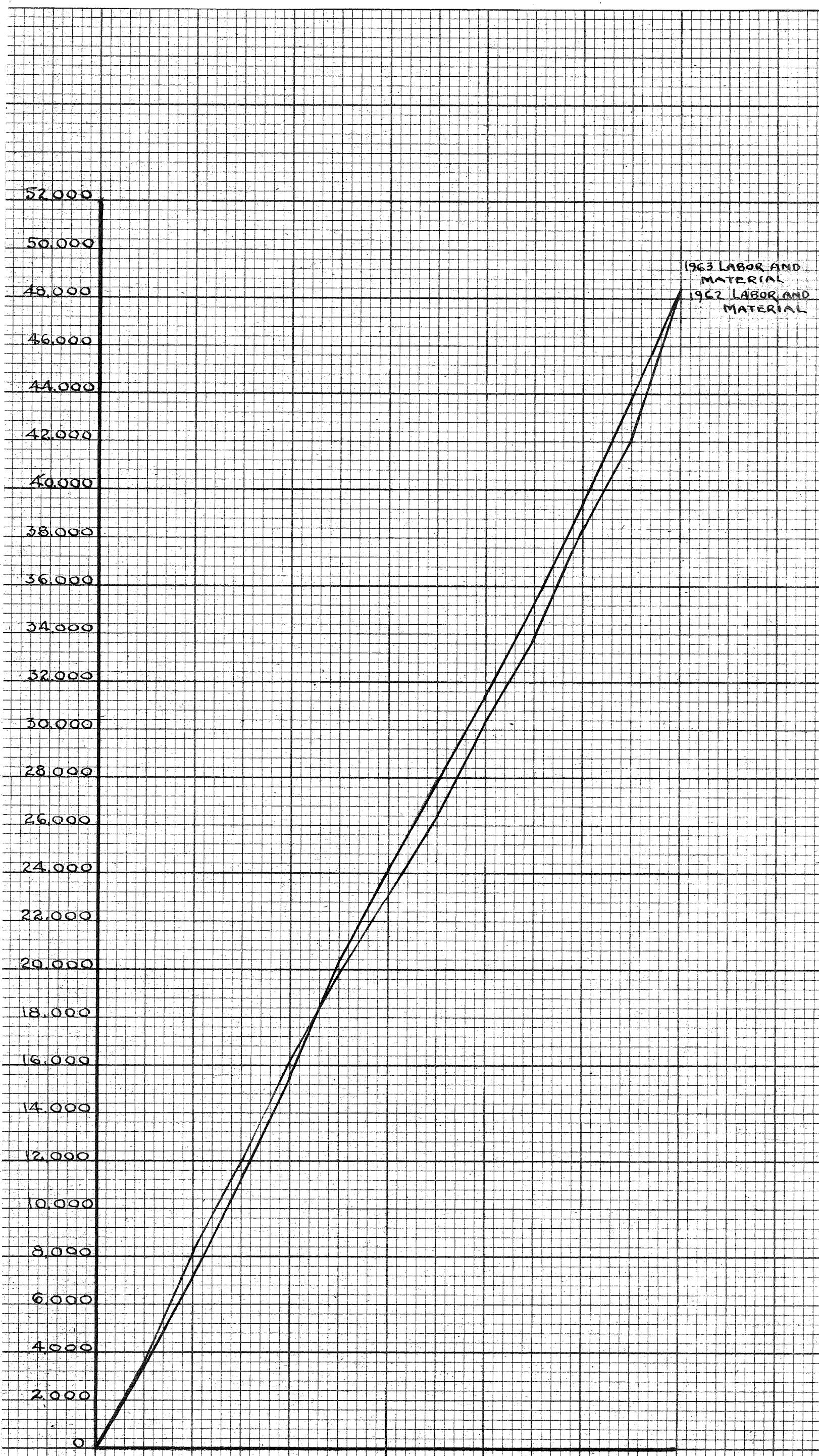
All the preceding costs shown under "Water Pumping Station" and "Water Ordinary" do not include the cost of billing and collecting water bills or any other overhead charge included in the City Government cost, nor do they include bond payment or sinking fund charges.

The Water Pumping Station was under the  
Supervision of Plant Superintendent, Mr. George Clark.

Accompanying this report is the report of  
Mr. E. W. Hagerman, City Analyst, on the Fredericton  
Water Supply from January 1, 1963 to December 31, 1963.

Respectfully submitted,

*A. K. Lovell*  
CITY ENGINEER.



JAN FEB MAR APR MAY JUNE JULY AUG SEPT OCT NOV DEC.

WATER PUMPING STATION COSTS 1962 AND 1963

## FREDERICTON WATER SUPPLY

YEAR 1963

January 1st to December 31st

The six Wells, three on each side of the Saint John River continue to supply the City with ample water of excellent quality. A few complaints are received as to its hardness and staining of porcelain plumbing fixtures.

Hardness varies slightly with the combination of Wells in use. The south Fredericton supply averages about 90 parts per million (6.3 grains per gallon) and Carleton Ward water runs about the same, perhaps a few parts per million softer.

The stains on plumbing fixtures are due to iron and manganese compounds which occur in trace quantities in most of the Wells. A build up of these small quantities sometimes occurs in dead ends of the pipe system where the circulation is poor. Flushing the mains in the troublesome sections corrects the undesirable conditions.

The raw Well water is free of organic matter and requires very little chlorine to produce a free residual of 0.1 part per million which is the approximate amount carried by the effluent leaving the Pumping Station.

This chlorine is a safe guard against accidental contamination from breaking mains, cross connections, etc., but it disappears more or less in proportion to the distance from the chlorination point. Disappearance of the chlorine is probably a complicated process. Some may pass to the high points in the plumbing as gas and redissolve in the water there. This might explain why those people who drink the first cup of water issuing from the tap in the morning, sometimes complain of strong chlorinous tastes. Probably the greater part of the residual combines with the old scale on the pipe walls. By the time the water reaches the distant ends of the system all the free chlorine is gone.

It seems possible that bacteria can gain entrance to the pipe system at these end points. New additions to the mains are sterilized as they are laid but new plumbing in buildings is not. Organisms introduced here, where little or no chlorine exists, could live and grow back against the stream until they encountered a chlorine concentration in which they could not exist. This may explain the occasional positive test, localized and non repeating.

Sixty-one samples were collected in 1963 and were tested for the Coliform Group. From each sample, 5 portions of 5 cc each were planted in Lactose Broth, making a total of 305 portions tested. Out of the 305, only one was truly positive (confirmed on Brilliant Green Bile). Only one positive is almost too good but since the water entering the mains is almost sterile, very few coliforms should be found. The few that do occur have probably gained entrance in such manner as mentioned above.

Complaints of chlorinous tastes were few during 1963. The chlorine dose may have been slightly less on the Carleton Ward side of the river but has remained the same on the south side. Possibly the supply of active material which entered into combination with chlorine to form these tastes is disappearing. Consumers may have become aware that the objectionable tastes are not due to chlorine but to detergents and so are rinsing their dishes more thoroughly.

Following is a brief of the UNITED STATES TREASURY STANDARDS, as applicable to the Fredericton Water Supply.

- 1 - A sample consists of five portions
- 2 - Each portion contains 10 cc of water to be tested
- 3 - The confirmed test shall be used to show the presence of the coliform group. The confirmatory media is 2% Brilliant Green Bile. The primary media is Lactose Broth.

#### APPLICATION OF TEST

- 1 - Of all the 10 cc portions examined per month, not more than 10% shall show positive.
- 2 - When less than 20 samples per month are examined one sample may have 3 positive portions.
- 3 - The procedure given, using a standard sample of 5 portions, provides for an estimation of the MOST PROBABLE NUMBER (MPN) of Coliform bacteria per 100 cc of sample, as set forth in the following table.

<u>Negative</u>	<u>Positive</u>	<u>When 5 ~ 10 cc portions are tested</u>
5	0	Less than 2.2 per 100 is the MPN
4	1	Less than 2.2 per 100 is the MPN
3	2	Less than 5.1 per 100 is the MPN
2	3	Less than 9.2 per 100 is the MPN
1	4	Less than 16 per 100 is the MPN
0	5	More than 16 per 100 is the MPN

Using this table it is seen that for 11 months the MPN was less than 2.2 and for one month it was 2.2 (March).

A list of sampling stations is attached.

Fredericton, N. B.  
February 21, 1964.

(Signed) E. W. Hagerman  
CITY ANALYST.

<u>DATE of SAMPLE</u>	<u>ORIGIN of SAMPLE</u>	<u>POSITIVE SAMPLES ONLY WILL BE NOTED</u>
January 2	U.N.B. Engineering Bldg.	
January 8	R. B. Malloy, 63 McKeen Street	Iron Stains, No coliforms
January 12	Union Motors, Union Street	
January 13	Greer and Lawson, 377 Gibson St.	
January 22	927 Union Street .....	(Iron .05 ppm)
January 22	127 Charlotte Street	(Manganese .03 ppm)
February 6	142 Gill Street	
February 11	Fire Station, MacLaren Avenue	
February 16	E. E. Cunningham, Golf Club Road	
February 22	H. Bailey, 99 Smith Street	
February 27	R. L. Fleet, 46 Cambridge Cres.	
March 4	D. D. Pringle, 277 Gibson Street	
March 9	U.N.B. Engineering Bldg.	
March 14	B. B. Barnes, 209 Canterbury Dr.	
March 21	Greer and Lawson, 377 Gibson St.	
March 28	H. Bailey, 99 Smith Street	1 positive-4 negative
March 31	H. Bailey, 99 Smith Street	
April 3	D. D. Pringle 277 Gibson St.	
April 8	U.N.B. Engineering Bldg.	
April 15	H. Bailey, 99 Smith Street	
April 22	H. Bailey, 99 Smith Street	
April 27	Fire Station, MacLaren Avenue	
May 4	H. Bailey, 99 Smith Street	
May 8	Irving Service Sta. (near Boat Club)	
May 14	127 Charlotte Street	
May 19	D. D. Pringle, 277 Gibson Street	
May 27	H. Bailey, 99 Smith Street	
May 29	Beaverbrook Playhouse	
June 4	H. Bailey, 99 Smith Street	
June 10	Greer and Lawson, 377 Gibson St.	
June 15	U.N.B. Engineering Bldg.	
June 24	Union Motors, 479 Union Street	
June 30	Killarney Well	
July 5	U.N.B. Engineering Bldg.	
July 8	Greer and Lawson, 377 Gibson St.	
July 15	Pumping Station, Raw Well Water	
July 19	Atkinson Development (south of Montgomery St.)	
July 25	160 Friel St. (near break in pipe)	
August 5	116 Montgomery Street	
August 8	Greer and Lawson, 377 Gibson St.	
August 12	H. Bailey, 99 Smith Street	
August 16	U.N.B. Engineering Bldg.	
August 24	127 Charlotte Street	
August 30	H. Bailey, 99 Smith Street	
September 4	Greer and Lawson, 337 Gibson St.	
September 9	Fire Station, MacLaren Avenue	
September 14	Canadian Oil Co., Union & Friel	
September 25	H. Bailey, 99 Smith Street	
September 18	127 Charlotte Street	

October 1 Fire Station, MacLaren Ave.  
October 7 U.N.B. Engineering Bldg.  
October 12 127 Charlotte Street  
October 17 Fire Station, MacLaren Avenue  
October 23 Greer and Lawson, 337 Gibson St.

November 3 R. B. Malloy, 63 McKeen Street  
November 9 U.N.B. Engineering Bldg.  
November 16 H. Bailey, 99 Smith Street  
November 21 Union Motors, 479 Union Street  
November 28 York Structural Steel, 955 Union St.

December 4 R. B. Malloy, 63 McKeen Street  
December 9 H. Bailey, 99 Smith Street  
December 14 R. B. Malloy, 63 McKeen Street  
December 20 Fire Station, MacLaren Avenue  
December 27 127 Charlotte Street

WATER INSTALLATIONS 1963.

L.	April 17	Suburban Con. Co.	105 Harewood Crescent	5/8" Copper
2.	April 18	Suburban Con. Co.	270-272 Inglewood Drive	3/4" Copper
3.	April 19	A. W. Cowan	284-286 Inglewood Drive	3/4" Copper
4.	April 19	Suburban Con. Co.	706 Valleyview Street	5/8" Copper
5.	May 6	Albert Belcher	46 Wilsey Road	5/8" Copper
6.	May 6	Carleton Realty Co.	758 Devon Avenue	5/8" Copper
7.	May 7	A. R. Clark	21 Forest Acres Court	5/8" Copper
8.	May 8	A. R. Clark	5 Forest Acres Court	5/8" Copper
9.	May 9	A. R. Clark	31 Forest Acres Court	5/8" Copper
10.	May 10	Hill Bros. Ltd.	114 Beechwood Crescent	5/8" Copper
11.	May 12	Hill Bros. Ltd.	150 Beechwood Crescent	5/8" Copper
12.	May 14	Hill Bros. Ltd.	922 Smythe Street	5/8" Copper
13.	May 14	Moulder & McPhee	415 Pedersen Crescent	5/8" Copper
14.	May 21	James Langley	122 Wilsey Road	5/8" Copper
15.	May 30	Texaco Oil Co. Ltd.	612 King Street	3/4" Copper
16.	May 31	Eldon Dunphy	1474 Valleyview Street	5/8" Copper
17.	May 11	Fredericton Housing Ltd.	23 Essex Street	5/8" Copper
18.	June 3	Monteith Bros.	158 Queen Street	5/8" Copper
19.	June 17	Ferris Housing Ltd	58 Beechwood Crescent	5/8" Copper
20.	Junell 18	Hill Bros. Ltd.	26 Beechwood Crescent	5/8" Copper
21.	June 20	Fredericton Housing Ltd.	28 Essex Street	5/8" Copper
22.	June 23	Hill Bros. Ltd.	1003 Smythe Street	5/8" Copper
23.	June 24	Hill Bros. Ltd.	1011 Smythe Street	5/8" Copper
24.	June 24	Fredericton Housing Ltd.	18 Essex Street	5/8" Copper
25.	June 25	Fredericton Housing Ltd.	<del>18</del> Essex Street Canterbury Drive	5/8" Copper
26.	June 26	Fredericton Housing Ltd.	284 Canterbury Drive	5/8" Copper
27.	June 26	Everett Porter	167 Noble Street	5/8" Copper
28.	June 26	Carleton Realty Co.	177 Noble Street	5/8" Copper
29.	June 28	Donald McLaggan	217 Noble Street	5/8" Copper
30.	June 28	Brunswick B. Allen	633 Hillcrest Drive	5/8" Copper
31.	July 2	Malcolm Cumming	159 Forest Hill	5/8" Copper
32.	July 4	Valley Construction Co.	261 Montgomery Street	5/8" Copper
33.	July 5	Valley Construction Co.	241 Montgomery Street	5/8" Copper
34.	July 8	Diamond Construction Co.	306 University Avenue	1" Copper
35.	July 9	Roy D. Kitchen	160 Noble Street	5/8" Copper
36.	July 9	Robert R. Chase	140 Noble Street	5/8" Copper
37.	July 11	R. B. Walton	149 Noble Street	5/8" Copper
38.	July 16	John T. Clark	9 Forest Acres Court	5/8" Copper
39.	July 18	G. G. Duclos	15 Forest Acres Court	5/8" Copper
40.	July 18	Fredericton Housing Ltd.	328 Canterbury Drive	5/8" Copper
41.	July 19	Fredericton Housing Ltd.	294 Canterbury Drive	5/8" Copper
42.	July 22	Fredericton Housing Ltd.	308 Canterbury Drive	5/8" Copper
43.	July 22	Fredericton Housing Ltd.	348 Canterbury Drive	5/8" Copper
44.	July 23	Eldon Dunphy	790 Windsor Street	5/8" Copper
45.	July 23	Fredericton Housing Ltd.	318 Canterbury Drive	5/8" Copper
46.	July 24	Fredericton Housing Ltd.	713 Valleyview Street	3/4" Copper
47.	July 24	Suburban Construction Co.	312-314 Inglewood Drive	3/4" Copper
48.	July 24	Fredericton Housing Ltd.	291 Canterbury Drive	5/8" Copper
49.	July 25	Fredericton Housing Ltd.	131 Canterbury Drive	5/8" Copper
50.	July 25	Fredericton Housing Ltd	165 Canterbury Drive	5/8" Copper
51.	July 26	Fredericton Housing Ltd.	145 Canterbury Drive	5/8" Copper
52.	July 26	Fredericton Housing Ltd.	134 Cambridge Crescent	5/8" Copper
53.	July 26	Paul Lynch	298-300 Inglewood Drive	3/4" Copper
54.	July 26	Norman Webb	99 Beechwood Crescent	5/8" Copper
55.	July 27	Fredericton Housing Ltd.	338 Canterbury Drive	5/8" Copper
56.	July 29	Hill Bros. Ltd.	715 Montgomery Street	5/8" Copper
57.	July 30	Fredericton Housing Ltd.	109 Cambridge Crescent	5/8" Copper
58.	July 30	Fredericton Housing Ltd.	99 Cambridge Crescent	5/8" Copper
59.	July 31	Fredericton Housing Ltd.	146 Cambridge Crescent	5/8" Copper
60.	July 31	Fredericton Housing Ltd.	160 Cambridge Crescent	5/8" Copper

61.	Aug. 1	Fredericton Housing Ltd.	301 Canterbury Drive	5/8" Copper
62.	Aug. 1	Fredericton Housing Ltd.	201 Canterbury Drive	5/8" Copper
63.	Aug. 2	G. F. Boone	197 Forest Acres Court	5/8" Copper
64.	Aug. 2	C. B. Morrison	51 Forest Acres Court	5/8" Copper
65.	Aug. 2	Fredericton Housing Ltd.	120 Cambridge Crescent	5/8" Copper
66.	Aug. 2	Fredericton Housing Ltd.	125 Cambridge Crescent	5/8" Copper
67.	Aug. 9	Church of Later Day Saints	990 Smythe Street	1" Copper
68.	Aug. 12	Hill Bros. Ltd.	35 Beechwood Crescent	5/8" Copper
69.	Aug. 14.	F. L. Newson	469 Mansfield Crescent	5/8" Copper
70.	Aug. 15	H. D. Nelson	248 Albert Street	5/8" Copper
71.	Aug. 16	Fredericton Housing Ltd.	326-328 Inglewood Drive	3/4" Copper
72.	Aug. 19	Fredericton Housing Ltd.	79 Coventry Crescent	5/8" Copper
73.	Aug. 19	Fredericton Housing Ltd.	59 Coventry Crescent	5/8" Copper
74.	Aug. 20	Fredericton Housing Ltd.	49 Coventry Crescent	5/8" Copper
75.	Aug. 20	Fredericton Housing Ltd.	119 Coventry Crescent	5/8" Copper
76.	Aug. 20	Fredericton Housing Ltd.	116 Coventry Crescent	5/8" Copper
77.	Aug. 21	Fredericton Housing Ltd.	88 Cambridge Crescent	5/8" Copper
78.	Aug. 21	Fredericton Housing Ltd.	98 Cambridge Crescent	5/8" Copper
79.	Sug. 22	Fredericton Housing Ltd.	117 Cambridge Crescent	5/8" Copper
80.	Aug. 22	Fredericton Housing Ltd.	205 Cambridge Crescent	5/8" Copper
81.	Aug. 22	Francis Atkinson	Regent Street	1" Copper
82.	Aug. 22	Eldon Dunphy	489 Pedersen Crescent	5/8" Copper
83.	Aug. 23	Eldon Dunphy	944 York Street	5/8" Copper
84.	Aug. 23	Fredericton Housing Ltd.	185 Cambridge Crescent	5/8" Copper
85.	Aug. 23	Fredericton Housing Ltd.	195 Cambridge Crescent	5/8" Copper
86.	Aug. 23	Fredericton Housing Ltd.	155 Cambridge Crescent	5/8" Copper
86.	Aug. 22	N.B. Live Stock Breeders	Exhibition Grounds	4-1" Copper
87.	Aug. 24	Fredericton Housing Ltd.	227 Noble Street	5/8" Copper
88.	Aug. 26	Carleton Realty	9 Bailey Drive	5/8" Copper
89.	Aug. 26	Fredericton Housing Ltd.	139 Cambridge Crescent	5/8" Copper
90.	Aug. 29	Pond Construction Co.	779 Irvine Street	5/8" Copper
91.	Aug. 30	Miss Marion Ryan	151 Ryan Court	5/8" Copper
92.	Sep't. 4	Lloyd Cronkite	131 Beechwood Crescent	5/8" Copper
93.	Sep't. 4	Hill Bros. Ltd.	127 Beechwood Crescent	5/8" Copper
94.	Sep't. 5	Glenwood Kitchen	1048 Smythe Street	5/8" Copper
95.	Sep't. 9	Robert Warrell Est.	552 Smythe Street	5/8" Copper
96.	Sep't. 10	Mitton Enterprises Ltd.	523 Union Street	3/4" Copper
97.	Sep't. 13	Mary A. Waite	502 Forest Hill	1" Copper
98.	Sep't. 16	W. B. Lingley	225 Turnbull Court	5/8" Copper
99.	Sep't. 24	Fredericton Housing Ltd.	703 Valleyview Street	5/8" Copper
100.	Sep't. 28	Mrs. Frank Duff	226 Turnbull Court	5/8" Copper
101.	Oct. 1	D. C. Blue	860 Regent Street	5/8" copper
102.	Oct. 3	Ferris Housing Ltd.	91 Beechwood Crescent	5/8" Copper
103.	Oct. 6	Brunswick Builders	Union Street	1" Copper
104.	Oct. 7	Leonard Wallis	98 Beechwood Crescent	5/8" Copper
105.	Oct. 9	Hill Bros. Ltd.	27 Beechwood Crescent	5/8" Copper
106.	Oct. 10	Eldon Dunphy	440 Pedersen Crescent	5/8" copper
107.	Oct. 11	Eldon Dunphy	793 Jones Street	5/8" Copper
108.	Oct. 11	James W. Burns	779 Jones Street	5/8" Copper
109.	Oct. 16	Dale Horncastle	273 Gibson Street	5/8" Copper
110.	Oct. 17	Eldon Dunphy	765 Irvine Street	5/8" Copper
111.	Oct. 17	Mauder & McPhee Ltd.	774 Irvine Street	5/8" Copper
112.	Oct. 18	Carleton Realty Ltd.	197 Noble Street	5/8" Copper
113.	Oct. 22	Ralph MacNaughton	203 St. Marys Street	5/8" Copper
114.	Oct. 24	John M. Paul	40 Colter Court	5/8" Copper
115.	Oct. 25	E. H. Morrison	144 Pembroke Crescent	5/8" Copper
116.	Oct. 29	Eldon Dunphy	378 Kings College Road	5/8" Copper
117.	Oct. 31	Suburban Con. Co.	99 Pembroke Crescent	5/8" Copper
118.	Nov. 1	Suburban Con. Co.	345 Montgomery Street	5/8" Copper
119.	Nov. 4	Weyman Construction Co.	272 Hughes Street	5/8" Copper
120.	Nov. 5	Cummings Housing Co.	106 Beechwood Crescent	5/8" Copper

121.	Nov. 6	Hill Bros. Ltd.	142 Beechwood Crescent	5/8" Copper
122.	Nov. 7	Hill Bros. Ltd.	43 Beechwood Crescent	5/8" Copper
123.	Nov. 8	Charles Llewellyn	15 Waggoners Lane	1" Copper
124.	Nov. 12	Suburban Con. Co.	340-342 Inglewood Drive	3/4" Copper
125.	Nov. 12	Suburban Con. Co.	368-370 Inglewood Drive	3/4" Copper
126.	Nov. 13	Suburban Con. Co.	382-384 Inglewood Drive	3/4" Copper
127.	Nov. 13	Suburban Con. Co.	242-244 Inglewood Drive	3/4" Copper
128.	Nov. 13	Suburban Con. Co.	396-398 Inglewood Drive	3/4" Copper
129.	Nov. 13	Suburban Con. Co.	256-258 Inglewood Drive	3/4" Copper
130.	Nov. 14	Suburban Con. Co.	354-356 Inglewood Drive	3/4" Copper
131.	Nov. 17	Maurice McArthur	Dunn Road	5/8" Copper
132.	Nov. 18	Hill Bros. Ltd.	161 Beechwood Crescent	5/8" Copper
133.	Nov. 18	Hill Bros. Ltd.	135 Beechwood Crescent	5/8# Copper
134.	Nov. 19	Ferris Housing Ltd.	82 Beechwood Crescent	5/8" Copper
135.	Nov. 19	Chilson McArthur	Dunn Road	5/8" Cop per
136.	Nov. 21	Paul Jacques	74 Beechwood Crescent	5/8" Copper
137.	Nov. 21	Ferris Housing Ltd.	30 Colter Court	5/8" Copper
138.	Nov. 19	Estate Thomas Cass	Dunn Road	5/8" Copper
139.	Nov. 20	Estate Thomas Cass	Dunn Road	5/8" Copper
140.	Nov. 22	Kenneth Crowley	Dunn Road	5/8" Copper
141.	Nov. 23	Kenneth Mofford	Dunn Road	5/8" Copper
142.	Nov. 23	Mrs. Kathleen Blizzard	Dunn Road	5/8" Copper
143.	Nov. 25	John F. Blizzard	Dunn Road	5/8" Copper
144.	Nov. 27	Mrs. Jasper Gordon	Dunn Road	5/8" Copper
145.	Nov. 28	H. Lionel Cook	39 Pembroke Crescent	5/8" Copper
146.	Nov. 29	K. H. Fraser	34 26 Perley Court	5/8" Copper
147.	Nov. 29	Eldon Dymphny	792 Jones Street	5/8" Copper
148.	Nov. 29	Elmtree Concrete Ltd.	Dunn Road	1" Copper
149.	Nov.	Fredericton Housing Ltd.	69 Coventry Crescent	5/8" Copper
150.	Nov.	Fredericton Housing Ltd.	196 Coventry Crescent	5/8" Copper
151.	Nov.	Fredericton Housing Ltd.	186 Coventry Crescent	5/8" Copper
152.	Nov.	Fredericton Housing Ltd.	176 Coventry Crescent	5/8" copper
153.	Nov.	Fredericton Housing Ltd.	156 Coventry Crescent	5/8# Copper
154.	Nov.	Fredericton Housing Ltd.	146 Coventry Crescent	5/8" Copper
155.	Nov.	Fredericton Housing Ltd.	106 Coventry Crescent	5/8" Copper
156.	Nov.	Fredericton Housing Ltd.	66 Coventry Crescent	5/8" Copper
157.	Nov.	Fredericton Housing Ltd.	175 Cambridge Crescent	5/8" Copper
158.	Nov.	Fredericton Housing Ltd.	215 Cambridge Crescent	5/8" Copper
159.	Nov.	Fredericton Housing Ltd.	225 Cambridge Crescent	5/8" Copper
160.	Nov.	Fredericton Housing Ltd.	235 Cambridge Crescent	5/8" Copper
161.	Dec. 11	Hill Bros. Ltd.	1006 Smythe Street	5/8" Copper
162.	Dec. 11	Mack Maritime Ltd.	20 Mack Road	1" Copper
163.	Dec. 14	R. M. Whitehead	731 Montgomery Street	5/8" Copper
164.	Dec. 16	Hill Bros. Ltd.	1014 Smythe Street	5/8" Copper
165.	Dec. 19	E. P. Wickens	928 Smythe Street	5/8" Copper
166.	Dec.	Fredericton Housing Ltd.	341 Cambridge Crescent	5/8" Copper
167.	Dec.	Fredericton Housing Ltd.	59 Cambridge Crescent	5/8" Copper
168.	Dec.	Fredericton Housing Ltd.	92 Coventry Crescent	5/8" Copper
169.	Dec.	Fredericton Housing Ltd.	136 Coventry Crescent	5/8" Copper
170.	Dec.	Fredericton Housing Ltd.	129 Coventry Crescent	5/8" Copper
171.	Sep't. 6	David Kileel	309 Queen Street	6" C. I. Sprinkler
172.	Nov. 7	Buzzell's Cleaners	276 Queen Street	6" C. I. Sprinkler

DOMESTIC SEWER INSTALLATIONS 1963.

L.	Apr. 17	Suburban Con. Co.	105 Harewood Crescent	4" Transite
2.	Apr. 18	Suburban Con. Co.	270-272 Inglewood Drive	4" Transite
3.	Apr. 19	A. W. Cowan	284-286 Inglewood Drive	4" Transite
4.	Apr. 19	Suburban Con. Co.	706 Valleyview Street	4" Transite
5.	May 6	Albert Belcher	46 Wilsey Road	4" Transite
6.	May 6	Carleton Realty	758 Devon Ave	4" Tramsite
7.	May 7	A. R. Clark	21 Forest Acres Court	4" Transite
8.	May 8	A. R. Clark	5 Forest Acres Court	4" Transite
9.	May 9	A. R. Clark	31 Forest Acres Court	4" Transite
10.	May 10	Hill Bros. Ltd.	114 Beechwood Crescent	4" Transite
11.	May 11	Fredericton Housing Ltd.	23 Essex Street	4" Transite
12.	May 13	Hill Bros. Ltd.	114 Beechwood Crescent	4" Transite
13.	May 14	Hill Bros. Ltd.	922 Smythe Street	4" transite
14.	May 14	Mauder & McPhee	415 Pedersen Crescent	4" Transite
15.	May 21	James Langley	122 Wilsey Road	4" Transite
16.	May 30	Texaco Oil Co. Ltd.	612 King Street	4" Transite
17.	May 31	Eldon Dunphy	727 Valleyview Street	4" Transite
18.	June 3	Monteith Bros.	158 Queen Street	4" Transite
19.	June 17	Ferris Housing Ltd.	58 Beechwood Crescent	4" Transite
20.	June 18	Hill Bros. Ltd.	26 Beechwood Crescent	4" Transite
21.	June 20	Fredericton Housing Ltd.	28 Essex Street	4" Transite
22.	June 23	Hill Bros. Ltd.	1003 Smythe Street	4" Transite
23.	June 24	Hill Bros. Ltd.	1011 Smythe Street	4" Transite
24.	June 24	Fredericton Housing Ltd.	18 Essex Street	4" Transite
25.	June 25	Fredericton Housing Ltd.	18128 Essex Street Canterbury Drive	4" Transite
26.	June 26	Fredericton Housing Ltd.	284 Canterbury Drive	4" Transite
27.	June 26	Everett Porter	167 Noble Street	4" Transite
28.	June 26	Carleton Realty Ltd.	177 Noble Street	4" Transite
29.	June 28	Donald McLaggan	217 Noble Street	4" Transite
30.	June 28	Brunswick B. Allen	633 Hillcrest Drive	4" Transite
31.	July 2	Malcolm Cumming	159 Forest Hill	4" Transite
32.	July 4	Valley Construction Co.	261 Montgomery Street	4" Transite
33.	July 5	Vallay Construction Co.	241 Montgomery Street	4" Transite
34.	July 8	Diamond Construction Co.	306 University Avenue	6" Concrete
35.	July 9	ROY D. Kitchen	160 Noble Street	4" Transite
36.	July 9	Robert D. Chase	140 Noble Street	4" Transite
37.	July 11	R. B. Walton	149 Noble Street	4" Transite
38.	July 16	John T. Clark	9 Forest Acres Court	4" Transite
39.	July 18	G. G. Duclos	15 Forest Acres Court	4" Transite
40.	July 18	Fredericton Housing Ltd.	328 Canterbury Drive	4" Transite
41.	July 19	Fredericton Housing Ltd.	294 Canterbury Drive	4" Transite
42.	July 22	Fredericton Housing Ltd.	308 Canterbury Drive	4" Transite
43.	July 22	Fredericton Housing Ltd.	348 Canterbury Drive	4" Transite
44.	July 23	Eldon Dunphy	790 Windsor Street	4" Transite
45.	July 23	Fredericton Housing Ltd.	318 Canterbury Drive	4" Transite
46.	July 24	Fredericton Housing Ltd.	713 Vallayview Street	4" Transite
47.	July 24	Suburban Con. Co.	312-314 Inglewood Drive	4" Transite
48.	July 24	Fredericton Housing Ltd.	291 Canterbury Drive	4" Transite
49.	July 25	Fredericton Housing Ltd.	131 Canterbury Drive	4" Transite
50.	July 25	Fredericton Housing Ltd.	165 Canterbury Drive	4" Transite
51.	July 26	Fredericton Housing Ltd.	145 Canterbury Drive	4" Transite
52.	July 26	Fredericton Housing Ltd.	134 Cambridge Crescent	4" Transite
53.	July 26	Paul Lynch	298-300 Inglewood Drive	4" Transite
54.	July 26	Norman Webb	99 Beechwood Crescent	4" Transite
55.	July 27	Fredericton Housing Ltd.	338 Canterbury Drive	4" Transite
56.	July 29	Hill Bros. Ltd.	715 Montgomery Street	4" Transite
57.	July 30	Fredericton Housing Ltd.	109 Cambridge Crescent	4" Transite
58.	July 30	Fredericton Housing Ltd.	99 Cambridge Crescent	4" Transite
59.	July 31	Fredericton Housing Ltd.	146 Cambridge Crescent	4" Transite
60.	July 31	Fredericton Housing Ltd.	160 Cambridge Crescent	4" Transite

61.	July 30	John L. Simms Ltd.	608 George Street	4" Transite
62.	Aug. 1	Fredericton Housing Ltd.	301 Canterbury Drive	4" Transite
63.	Aug. 1	Fredericton Housing Ltd.	201 Canterbury Drive	4" Transite
64.	Aug. 2	G. F. Boone	197 Forest Acres Court	4" Transite
65.	Aug. 2	C. B. Morrison	51 Forest Acres Court	4" Transite
66.	Aug. 2	Fredericton Housing Ltd.	120 Cambridge Crescent	4" Transite
67.	Aug. 2	Fredericton Housing Ltd.	125 Cambridge Crescent	4" Transite
68.	Aug. 9	Church of Later Day Saints	990 Smythe Street	4" Transite
69.	Aug. 12	Hill Bros. Ltd.	35 Beechwood Crescent	4" Transite
70.	Aug. 14	F. L. Newson	469 Mansfield Court	4" Transite
71.	Aug. 15	H. D. Nelson	248 Albert Street	4" Transite
72.	Aug. 16	Fredericton Housing Ltd.	326-328 Inglewood Drive	4" Transite
73.	Aug. 19	Fredericton Housing Ltd.	79 Coventry Crescent	4" Transite
74.	Aug. 19	Fredericton Housing Ltd.	59 Coventry Crescent	4" Transite
75.	Aug. 20	Fredericton Housing Ltd.	49 Coventry Crescent	4" Transite
76.	Aug. 20	Fredericton Housing Ltd.	119 Coventry Crescent	4" Transite
77.	Aug. 20	Fredericton Housing Ltd.	116 Coventry Crescent	4" Transite
78.	Aug. 21	Fredericton Housing Ltd.	88 Cambridge Crescent	4" Transite
79.	Aug. 21	Fredericton Housing Ltd.	98 Cambridge Crescent	4" Transite
80.	Aug. 22	Fredericton Housing Ltd.	117 Cambridge Crescent	4" Transite
81.	Aug. 22	Fredericton Housing Ltd.	205 Cambridge Crescent	4" Transite
82.	Aug. 22	Eldon Dunphy	489 Pedersen Crescent	4" Transite
83.	Aug. 22	Fredericton Transit Ltd	Exhibition Grounds	5" T. C.
84.	Aug. 23	Eldon Dunphy	944 York Street	4" Transite
85.	Aug. 23	Fredericton Housing Ltd.	185 Cambridge Crescent	4" Transite
86.	Aug. 23	Fredericton Housing Ltd.	195 Cambridge Crescent	4" Transite
87.	Aug. 23	Fredericton Housing Ltd.	155 Cambridge Crescent	4" Transite
88.	Aug. 22	N. B. Live Stock Breeders	Exhibition Grounds	5" T. C.
89.	Aug. 24	Fredericton Housing Ltd.	227 Noble Street	4" Transite
90.	Aug. 26	Carleton Realty	9 Bailey Drive	4" Transite
91.	Aug. 26	Fredericton Housing Ltd.	139 Cambridge Crescent	4" Transite
92.	Aug. 29	Pond Construction Co.	779 Irvine Street	4" Transite
93.	Aug. 30	Miss Marion Ryan	151 Ryan Court	4" Transite
94.	Sep't. 4	Lloyd Cronkite	131 Beechwood Crescent	4" Transite
95.	Sep't. 4	Hill Bros. Ltd.	127 Beechwood Crescent	4" Transite
96.	Sep't. 10	Nitton Enterprises Ltd.	523 Union Street	4" Transite
97.	Sep't. 13	Mary A. Waite	502 Forest Hill	4" Transite
98.	Sep't. 16	W. B. Lingley	225 Turnbull Court	4" Transite
99.	Sep't. 19	Fredericton Curling Club	547 Brunswick Street	5" T. C.
100.	Sep't. 24	Fredericton Housing Ltd.	703 Valleyview Street	4" Transite
101.	Sep't. 28	Mrs. Frank Duff	226 Turnbull Court	4" Transite
102.	Oct. 3	Ferris Housing Ltd.	91 Beechwood Crescent	4" Transite
103.	Oct. 6	Brunswick Builders Ltd.	528-60 Union Street	4" Transite
104.	Oct. 7	Leonard Vallis	98 Beechwood Crescent	4" Transite
105.	Oct. 9	Hill Bros. Ltd.	27 Beechwood Crescent	4" Transite
106.	Oct. 10	Eldon Dunphy	440 Pedersen Crescent	4" Transite
107.	Oct. 11	Eldon Dunphy	793 Jones Street	4" Transite
108.	Oct. 11	James W. Burns	779 Jones Street	4" Transite
109.	Oct. 16	Dale Horncastle	273 Gibson Street	4" Transite
110.	Oct. 17	Eldon Dunphy	765 Irvine Street	4" Transite
111.	Oct. 17	Maunder & McPhee Ltd.	774 Irvine Street	4" Transite
112.	Oct. 18	Carleton Realty	197 Noble Street	4" Transite
113.	Oct. 22	Ralph MacNaughton	203 St. Marys Street	4" Transite
114.	Oct. 24	JOHN M. Paul	40 Colter Court	4" Transite
115.	Oct. 25	E. H. Morrison	144 Pembroke Crescent	4" Transite
116.	Oct. 29	Eldon Dunphy	378 Kings College Road	4" Transite
117.	Oc. 31	Suburban Con. Co.	99 Pembroke Crescent	4" Transite
118.	Nov. 1	Suburban Con. Co.	345 Montgomery Street	4" Transite
119.	Nov. 4	Weyman Construction Co.	272 Hughes Street	4" Transite
120.	Nov. 5	Cummings Housing Co.	106 Beechwood Crescent	4" Transite

121.	Nov. 6	Hill Bros. Ltd.	142 Beechwood Crescent	4" Transite
122.	Nov. 7	Hill Bros. Ltd.	43 Beechwood Crescent	4" Transite
123.	Nov. 8	Charles Llewellyn	15 Waggoners Lane	6" Concrete
124.	Nov. 12	Suburban Con. Co.	340-342 Inglewood Drive	4" Transite
125.	Nov. 12	Suburban Con. Co.	368-370 Inglewood Drive	4" Transite
126.	Nov. 13	Suburban Con. Co.	382-384 Inglewood Drive	4" Transite
127.	Nov. 13	Suburban Con. Co.	242-244 Inglewood Drive	4" Transite
128.	Nov. 13	Suburban Con. Co.	396-398 Inglewood Drive	4" Transite
129.	Nov. 13	Suburban Con. Co.	256-258 Inglewood Drive	4" Transite
130.	Nov. 14	Suburban Con. Co.	354-356 Inglewood Drive	4" Transite
131.	Nov. 17	Maurice McArthur	Dunn Road	4" Transite
132.	Nov. 18	Hill Bros Ltd.	161 Beechwood Crescent	4" Transite
133.	Nov. 18	Hill Bros. Ltd.	135 Beechwood Crescent	4" Transite
134.	Nov. 19	Ferris Housing Ltd.	82 Beechwood Crescent	4" Transite
135.	Nov. 19	Chilson McArthur	Dunn Road	4" Transite
136.	Nov. 21	Paul Jacques	74 Beechwood Crescent	4" Transite
137.	Nov. 21	Ferris Housing Ltd.	30 Colter Court	4" Transite
138.	Nov. 19	Estate Thomas Cass	Dunn Road	4" Transite
139.	Nov. 20	Estate Thomas Cass	Dunn Road	4" Transite
140.	Nov. 22	Kenneth Crowley	Dunn Road	4" Transite
141.	Nov. 23	Kenneth Mofford	Dunn Road	4" Transite
142.	Nov. 23	Mrs. Kathleen Blizzard	Dunn Road	4" Transite
143.	Nov. 25	John F. Blizzard	Dunn Road	4" Transite
144.	Nov. 27	Mrs. Jasper Gordon	Dunn Road	4" Transite
145.	Nov. 28	H. Lionel Cook	39 Pembroke Crescent	4" Transite
146.	Nov. 29	K. H. Fraser	34 26 Perley Court	4" Transite
147.	Nov. 29	Eldon Dunphy	792 Jones Street	4" Transite
148.	Nov.	Fredericton Housing Ltd.	69 Coventry Crescent	4" Transite
149.	Nov.	Fredericton Housing Ltd.	196 Coventry Crescent	4" Transite
150.	Nov.	Fredericton Housing Ltd.	186 Coventry Crescent	4" Transite
151.	Nov.	Fredericton Housing Ltd.	176 Coventry Crescent	4" Transite
152.	Nov.	Fredericton Housing Ltd.	156 Coventry Crescent	4" Transite
153.	Nov.	Fredericton Housing Ltd.	146 Coventry Crescent	4" Transite
154.	Nov.	Fredericton Housing Ltd.	106 Coventry Crescent	4" Transite
155.	Nov.	Fredericton Housing Ltd.	66 Coventry Crescent	4" Transite
156.	Nov.	Fredeicton Housing Ltd.	175 Cambridge Crescent	4" Transite
157.	Nov.	Fredericton Housing Ltd.	215 Cambridge Crescent	4" Transite
158.	Nov.	Fredericton Housing Ltd.	225 Cambridge Crescent	4" Transite
159.	Nov.	Fredericton Housing Ltd.	235 Cambridge Crescent	4" Transite
160.	Dec. 11	Hill Bros. Ltd.	1006 Smythe Street	4" Transite
161.	Dec. 14	R. M. Whitehead	731 Montgomery Street	4" Transite
162.	Dec. 16	Hill Bros. Ltd.	1014 Smythe Street	4" Transite
163.	Dec. 19	E. P. Wickens	928 Smythe Street	4" Transite
164.	Dec.	Fredericton Housing Ltd.	341 Cambridge Crescent	4" Transite
165.	Dec.	Fredericton Housing Ltd.	59 Cambridge Crescent	4" Transite
166.	Dec.	Fredericton Housing Ltd.	92 Coventry Crescent	4" Transite
167.	Dec.	Fredericton Housing Ltd.	136 Coventry Crescent	4" Transite
168.	Dec.	Fredericton Housing Ltd.	129 Coventry Crescent	4" Transite

WATER SERVICE RELAYS 1963

1.	Feb. 15	Mrs. Edith Currie	92 Babbitt Street	5/8"	C.	Box to House
2.	Feb. 5	Dave Graser	422 Northumberland Street	5/8"	C.	Main to Box
3.	April 18	Rosary Hall	621 Churchill Row	1"	C.	Main to House
4.	May 3	N. J. Smith	603 Windsor Street	3/4"	C.	Main to House
5.	April 30	Karl Gough	508 Regent Street	5/8"	C.	Main to House
6.	April 25	E. E. Burden	700 Kings College Road	5/8"	C.	Main to House
7.	May 29	Mrs. Annie Montieth	87 St. Marys Street	5/8"	C.	Main to House
8.	June 7	Mrs. Merrill Fraser	911 Union Street	5/8"	C.	Main to House
9.	May 31	Est. G. A. Good	874 Charlette Street	5/8"	C.	Main to House
10.	June 5	Fredericton Housing Ltd.	172 George Street	3/4"	C.	Main to House
11.	June 14	Evelyn Saulnier	527 York Street	3/4"	C.	Main to House
12.	June 17	L. M. Greene	717-719 Churchill Row	3/4"	C.	Main to House
13.	June 21	Mrs. Sylvia Chrisman	415-417 Union Street	3/4"	C.	Main to House
14.	July 4	Reformed Baptist Parsonage	233 Aberdeen Street	5/8"	C.	Main to House
15.	July 4	George G. Baxter	281 Dundonald Street	5/8"	C.	Main to House
16.	July 17	Mrs. H. J. Flemming	252 Waterloo Row	3/4"	C.	Main to House
17.	July 30	Miss Agnes Voye	87 Hayes Street	5/8"	C.	Main to House
18.	July 23	W. R. Britton	853 George Street	3/4"	C.	Main to House
19.	July 31	C. E. Weyman	59 Lansdowne Street	3/4"	C.	Main to House
20.	July 26	C. H. Bowlen	75 St. Marys Street	3/4"	C.	Main to House
21.	Aug. 13	Ella. M. Crocker	485 Water Street	3/4"	C.	Main to House
22.	Aug. 24	Mrs. Harry O'Leary	848 Brunswick Street	3/4"	C.	Main to House
23.		Knights of Columbus	120 Regent Street	5/8"	C.	Main to House
24.	Aug. 30	Paul Lebott	363 University Avenue	5/8"	C.	Main to House
25.	Sep't. 13	Mrs. Sadie McLaughlin	575 Windsor Street	5/8"	C.	Main to House
26.	Sep't. 23	Clement Toner	135 Westmorland Street	5/8"	C.	Main to House
27.	Sep't. 18	Helen Gorman	340 Victoria Street	5/8"	C.	Main to House
28,	Sep't. 21	L. R. Wilson	707 Charlotte Street	5/8"	C.	Main to House
29.	Oct. 2	Gerald Urquhart	310 Union Street	5/8"	C.	Main to House
30.	Sep't. 27	G. H. Fletcher	539 Union Street	5/8"	C.	Main to House
31.	Sep't. 27	Mrs. John R. Bird	210 Victoria Street	5/8"	C.	Main to House
32.	Oct. 11	Mrs. Glenna Bates	125 Miles Street	5/8"	C.	Main to House
33.	Oct. 23	Toronto Dominion Bank	21 Grey Street	5/8"	C.	Main to House
34.	Oct. 30	D. D. Pringle	277 Gibson Street	3/4"	C.	Main to House
35.	Oct. 3	Greer & Lawson	377 Gibson Street	1"	C.	Main to House
36.	Oct. 29	Richard Sullivan Est.	800 Albert Street	5/8"	Copper	Main to House
37.	Nov. 19	Ken Jamieson	26 Waterloo Row	3/4"	C.	Main to House
38.	Nov. 22	H. B. Durost	404 University Avenue	3/4"	C.	Main to House
39.	Nov. 14	Mrs. K. McLaggan	385 Union Street	5/8"	C.	Main to House
40.	Dec. 4	Mrs. Ethel E. Boone	1380 140 McKeen Street	3/4"	C.	Main to House

NEW METERS 1963.

W. C. Barker  
Suburban Construction Co.  
Fredericton Housing Ltd.  
Fredericton Housing Ltd.  
Fredericton Housing Ltd.  
Coleen Wotton  
Hill Bros. Ltd.  
Fredericton Housing Ltd.  
Fredericton Housing Ltd.  
Peter Kelly  
Mrs. Dora White  
Gorham Beverages Ltd.  
Howe  
R. Millett Ap'ts.  
Fredericton Housing Ltd.  
Fredericton Housing Ltd.  
Fredericton Housing Ltd.  
Mrs. Jane Grant  
Hill Bros. Ltd.  
Maunder & McPhee  
Maunder & McPhee  
Hill Bros. Ltd.  
Levines Ltd.  
Fredericton Housing Ltd.  
Fredericton Housing Ltd.  
Norman Young  
Gordon Garvie  
Eldon Dunphy  
Fredericton Housing Ltd.  
Fredericton Housing Ltd.  
Don Taylor  
D. Rouse  
Mrs. Chase  
~~Roxie Chase~~  
Roy Taylor  
Carl Mooers  
Suburban Construction Co.  
M. Budovitch E<sub>s</sub>t.  
Mrs. Jacqueline Brewer  
Texaco Canada Ltd.  
Fredericton Housing Ltd.  
Albert Belcher  
Suburban Construction Co.  
A. W. Cowan  
Mrs. Ethel Grant Est.  
Western Tire Ltd.  
Evald Larsen  
James E. Langley Sr.  
L. Tufts  
Fredericton Exhibition Ltd.  
Mrs. Woodbridge  
Monteith Bros. Ltd.  
Carl Stevenson  
Fredericton Housing Ltd.  
Orie Scott  
M. W. Flemming  
Richard Sullivan E<sub>s</sub>t.  
Fredericton Housing Ltd.  
B. Ryan  
Fredericton Housing Ltd.  
B. B. Allen  
R. E. McLaggin  
A. Baird  
Mrs. Robert N. Stevenson  
Earl Nash  
H. W. Wilson

85 Harewood Crescent  
65 Harewood Court  
19 Coventry Crescent  
35 Cambridge Crescent  
79 Manchester Court  
447 Pedersen Crescent  
228-230 Inglewood Drive  
29 Coventry Crescent  
68 Manchester Court  
61 Forest Acres Court  
30 Wilsey Road  
361 Victoria Street  
889 Smythe Street  
11 Birch Court  
69 Manchester Court  
18 Manchester Court  
39 Coventry Crescent  
246 Gibson Street  
305 Inglewood Drive  
459 Pedersen Crescent  
471 Pedersen Crescent  
66 Beechwood Crescent  
81 Westmorland Street  
48 Manchester Court  
59 Manchester Court  
330 Edinburgh Street  
359-361 Charlotte Street  
452 Pedersen Crescent  
825-831 Union Street  
28 Manchester Court  
177 Neill Street  
11 Forest Acres Court  
167 Neill Street  
~~167 Neill Street~~  
178 Neill Street  
270-272 Inglewood Drive  
105 Harewood Crescent  
78-80 York Street  
358 King Street  
623 Union Street  
229 Canterbury Drive  
46 Wilsey Road  
706 Valleyview Street  
284-286 Inglewood Drive  
739 Union Street  
552 King Street  
530 Lincoln Road  
122 Wilsey Road  
758 Devon Avenue  
Pari-Mutuel Bldg.  
580 Forest Hill Road  
142 Queen Street  
751 Dobie Street  
836 Churchill Row  
748 Maclaren Avenue  
631 Maclaren Avenue  
800 Albert Street  
234 Canterbury Drive  
224 Canterbury Drive  
269 Canterbury Drive  
274 Canterbury Drive  
254 Canterbury Drive  
244 Canterbury Drive  
58 Manchester Court  
633 Hillcrest Drive  
217 Noble Street  
580 Regent Street  
434 Westmorland Street  
260 Highland Avenue  
306 University Avenue

C. O. Chaisson  
J. Lawrence  
ROY D. Kitchen  
Fredericton Housing Ltd.  
Mrs. Beatrice Coy  
Fredericton Housing Ltd.  
Fredericton Housing Ltd.  
Fredericton Housing Ltd.  
Fredericton Housing Ltd.  
~~ROY WOOD~~ Roy Wood  
Cummings Housing  
Omar Bird  
C. A. Voye  
Mrs. Leonard Rogers  
Hill Bros. Ltd.  
Thomas L. Hall  
George Boone  
D. Walton  
E. Chase  
Everett Porter  
Hill Bros. Ltd.  
Hill Bros. Ltd.  
R. Richards  
Charles W. Turner  
L. Preston MacNeill  
Fredericton Housing Ltd.  
Fredericton Housing Ltd.  
Fredericton Housing Ltd.  
Wade  
Canadian National Railways  
Mrs. P. Raymond  
C. B. Morrison  
H. D. Nelson  
John Doak  
Francis Atkinson  
Valley Construction Co. Ltd.  
Fredericton Housing Ltd.  
Suburban Construction Co.  
John T. Clark  
j. Cameron  
Carleton Realty Ltd.  
Carleton Realty Ltd.  
Lemont's Ltd.  
W. W. Fenety (Meter # 1)  
W. W. Fenety (Meter # 2)  
Fredericton Housing Ltd.  
Valley Construction Co.  
Paul Lynch  
Robert Warrell Est.  
G. G. Duclos  
Guy D. Scovil  
Ralph Dingee  
Mrs. Sadie McLaughlin  
K. Murchland  
Texaco of Canada  
Frank Newson  
R. E. Burridge  
Douglas Savage  
Wills  
William Lingley  
Hill Bros. Ltd.  
Fredericton Housing Ltd.  
Hill Bros. Ltd.  
Fredericton Housing Ltd.

603 McLaren Avenue  
428 Pedersen Crescent  
160 Noble Street  
38 Manchester Court  
572 McLaren Avenue  
264 Canterbury Drive  
23 Essex Street  
18 Essex Street  
28 Essex Street  
83 Hayes Street  
159 Forest Hill Road  
737 Dobie Street  
87 Hayes Street  
36 Shore Street  
922 Smythe Street  
727 Valleyview Street  
197 Forest Acres Court  
147 Noble Street  
140 Noble Street  
167 Noble Street  
99 Beechwood Crescent  
150 Beechwood Crescent  
897 York Street  
415 Pedersen Crescent  
58 Beechwood Crescent  
328 Canterbury Drive  
294 Canterbury Drive  
284 Canterbury Drive  
630 McLaren Avenue  
159 University Avenue  
734 Athlone Street  
51 Forest Acres Court  
248 Albert Street  
750 McLaren Avenue  
Regent Street  
261 Montgomery Street  
131 Cambridge Crescent  
312-314 Inglewood Drive  
9 Forest Acres Court  
63 Hanwell Road  
177 Noble Street  
9 Bailey Drive  
620 Queen Street  
536 Queen Street  
536 Queen Street  
134 Cambridge Crescent  
99 Cambridge Crescent  
79 Coventry Crescent  
49 Coventry Crescent  
59 Coventry Crescent  
241 Montgomery Street  
298-300 Inglewood Drive  
552 Smythe Street  
15 Forest Acres Court  
703 Brunswick Street  
118 Carleton Street  
575 Windsor Street  
1048 Smythe Street  
519 York Street  
459 Mansfield Crescent  
790 Windsor Street  
138 Victoria Street  
464 Pedersen Crescent  
225 Turnbull Court  
114 Beechwood Crescent  
326-328 Inglewood Drive  
715 Montgomery Street  
312-314 Inglewood Drive

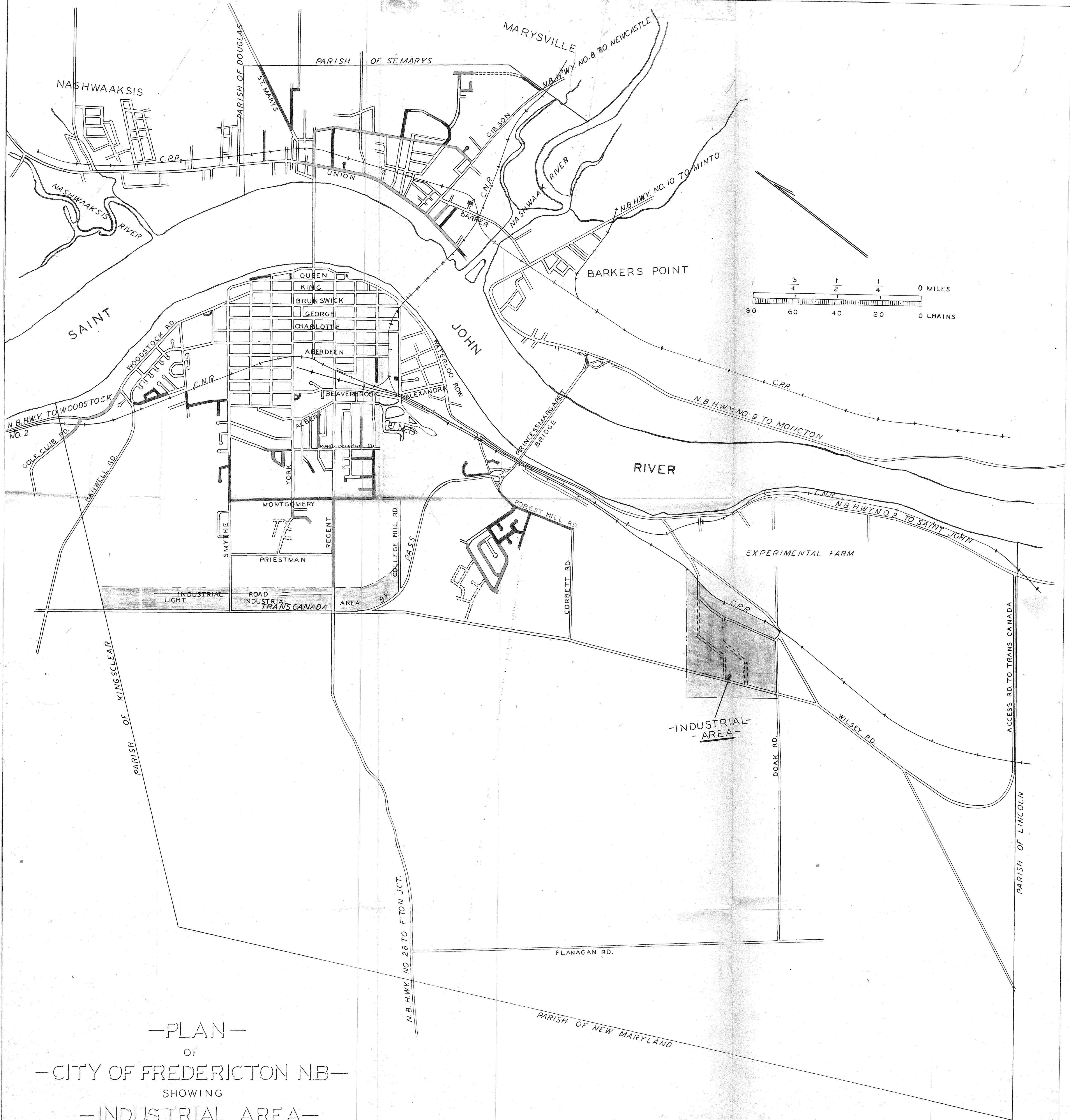
J. Gorman  
Eldon Dunphy  
Eldon Dunphy  
A. Shanks  
Fredericton Housing Ltd.  
Fredericton Housing Ltd.  
Fredericton Housing Ltd.  
J. Wilby  
C. Mogard  
A. E. Crowley  
Farris Housing  
Church of Later Day Saints  
D. C. Blue  
Hill Bros. Ltd.  
Texaco of Canada Ltd.  
Queen Dairy  
Mrs. Sophia M. Fillmore  
H. Ryan  
D. D. Pringle  
Ralph MacNaughton  
Norman Stewart  
Horsnell Ltd.  
Elmer Morrison  
Fredericton Housing Ltd.  
Fredericton Housing Ltd.  
Fredericton Housing Ltd.  
W. Fern  
Fredericton Housing Ltd.  
Lloyd Cronkite  
Frank Duff  
Waite (Motel)  
Eldon Dunphy  
Mrs. Eaton  
Oris Jones  
Mrs. Marion C. Hughes  
Canadian Pacific Railway (Round House)  
Dale Hornastle  
Hill Bros. Ltd.  
Elm Tree Concrete Ltd.  
Chilson McArthur  
Kenneth Mofford  
Mrs. Kathleen Blizzard  
John M. Paul  
Hill Bros. Ltd.  
Hill Bros. Ltd.  
Mrs Thomas Cass  
Hill Bros. Ltd.  
Fredericton Housing Ltd.  
Carleton Realty Ltd.  
Fredericton Housing Ltd.  
Fredericton Housing Ltd.  
Fredericton Housing Ltd.  
Ivan Ward  
Fredericton Housing Ltd.  
713 Valleyview Street  
489 Pedersen Crescent  
944 York Street  
1011 Smythe Street  
98 Cambridge Crescent  
125 Cambridge Crescent  
281 Canterbury Drive  
526 Queen Street  
735 Athlone Street  
750 Athlone Street  
91 Beechwood Crescent  
996 Smythe Street  
860 Regent Street  
50 Beechwood Crescent  
612 King Street  
523 Union Street  
635 McLaren Avenue  
151 Ryan Court  
277 Gibson Street  
203 St. Marys Street  
748 Athlone Street  
138 Gibson Street  
144 Pembroke Crescent  
318 Canterbury Drive  
301 Canterbury Drive  
291 Canterbury Drive  
123 Beechwood Crescent  
109 Cambridge Crescent  
116 Coventry Crescent  
119 Coventry Crescent  
120 Cambridge Crescent  
139 Cambridge Crescent  
145 Cambridge Crescent  
155 Cambridge Crescent  
160 Cambridge Crescent  
165 Cambridge Crescent  
131 Beechwood Crescent  
226 Turnbull Court  
502 Forest Hill Road  
793 Jones Street  
356 Gibson Street  
757 Athlone Street  
272 Hughes Street  
273 Gibson Street  
1003 Smythe Street  
Dunn Road  
Dunn Road  
Dunn Road  
Dunn Road  
40 Colter Court  
127 Beechwood Crescent  
135 Beechwood Crescent  
Dunn Road  
161 Beechwood Crescent  
117 Cambridge Crescent  
197 Noble Street  
88 Cambridge Crescent  
146 Cambridge Crescent  
185 Cambridge Crescent  
Dunn Road  
195 Cambridge Crescent  
205 Cambridge Crescent  
215 Cambridge Crescent  
175 Cambridge Crescent  
66 Coventry Crescent

Fredericton Hou sing Ltd  
Fredericton Housing Ltd.  
Fredériction Housing Ltd.  
Hill Bros. Ltd.  
Mariner McConnell  
Cummings Housing Ltd.  
**H**ing  
Robert Chase  
Mack Maritime Ltd.  
Jasper Gordon  
Fredericton Housing Ltd.  
Fredericton Housing Ltd.  
Fredericton Housing Ltd.  
Fredericton Housing Ltd.  
Hill Bros. Ltd.  
Ralph Whitehead  
Maurice McArthur  
Leonard Vallis

69 Coventry Crescent  
106 Coventry Crescent  
136 Coventry Crescent  
27 Beechwood Crescent  
774 Irvine Street  
106 Beechwood Crescent  
765 Irvine Street  
779 Irvine Street  
Mack Road  
Dunn Road  
176 Coventry Crescent  
129 Coventry Crescent  
156 Coventry Crescent  
338 Canterbury Drive  
43 Beechwood Crescent  
731 Montgomery Street  
Dunn Road  
98 Beechwood Crescent

STOPPED METERS 1963

1.	T. E. Sutherland	358 Queen Street
2.	Oswald Merrithew	158 George Street
3.	Mrs. E. W. Griffiths	704 George Street
4.	E. Dryden Est.	298 Aberdeen Street
5.	O. D. Coates	276 Saunders Street
6.	Budovitch Bros.	273 King Street
7.	Mrs. M. Long	514-516 King Street
8.	F. Little	109 Kings College Read
9.	N. B. Dep't. of Agriculture	Montgomery Street
10.	John King	577 Graham Avenue
11.	Central Mortgage & Housing Ltd.	695 Palmer Street
12.	Shell Oil Co. Ltd.	Union Street
13.	Sussex Ginger Ale Ltd.	Clark Street
14.	Miss Hazel Richards	356 Saunders Street
15.	Hill Bros. Ltd.	16 Beechwood Crescent
16.	Eldon Dunphy	795 Smythe Street
17.	C. Ritchie	831 Smythe Street
18.	D. J. Sullivan	571 Albert Street
19.	D. L. Myles	563 Windsor Street
20.	M. Albright	451 Charlotte Street
21.	O. V. B. Miller	240 University Avenue
22.	Fred Neville	University Avenue
23.	Fredericton Housing Ltd.	615 Forest Hill
24.	A. A. Colter	215 Turnbull Court
25.	Mrs. H. J. Flemming	252 Waterloo Row
26.	Mrs. L. Chippin	442 Charlotte Street
27.	W. Himmelman	15 Ashland Court
28.	T. Thompson	8 Hermitage Court
29.	Dr. A. M. Eddington	6 Manor Court
30.	G. A. Richards	385 Parkhurst Drive
31.	O. D. Gorman	255 Woodstock Road
32.	Mrs. L. W. Brown	280 Woodstock Road
33.	D. E. Cameron	35 Ashland Court
34.	Mrs. G. McCoomb	791 Devon Avenue
35.	Thistle Dairy Restaurant	480 Union Street
36.	C. W. Cavanaugh	376 University Avenue
37.	C. Bitchie	831 Smythe Street
38.	H. Dawkins.	573 Windsor Street
39.	Dr. A. F. VanWart	141 York Street
40.	L.E. Shaw Ltd.	524 Woodstock Road
41.	Mrs. A. McCormack	712 Churchill Row
42.	U.N.B. President's Residence	University of N. B.
43.	Henry Brodie	164 Saunders Street
44.	Mrs. J. Lakeman	248 Saunders Street
45.	Charlotte Street School	Charlotte Street
46.	Mrs. H. MacDonald	245 George Street
47.	A. A. Christie	262 George Street
48.	Dr. A. W. G. Good	732 Brunswick Street
49.	Misses Sterling	767 Brunswick Street
50.	R.L. Bunker	169 King Street
51.	T? E. Sutherland	358 Queen Street
52.	U. N. B.	530 Windsor Street
53.	V. A. Ellis	642 Valleyview Street
54.	G. Howes Est.	318 Edinburgh Street
55.	Dep't. of Agriculture	Montgomery Street
56.	Edgecombe Est.	90 York Street
57.	J. March	530 Gibson Street
58.	E. Haining	107 Argyle Street
59.	E. J. Grant	258 Montgomery Street
60.	M. Porter	161 Gill Street
61.	Harold Forbes	639 Hillcrest Drive
62.	Mrs. James Monteith	83-85-87 St. Marys Street
63.	J. B. Harris	49 Coventry Crescent



CONSTRUCTION - 1963

— NEW PAVEMENT —	6.52 MILES.
— RECAP —	.81 MILES.
— SEAL —	2.37 MILES.
— DITCHING —	.50 MILES.
— PAVED PARKING AREAS —	
— NEW STREETS (GRAVEL ROAD CONSTRUCTION) —	1.60 MILES.



