

ANNUAL REPORT OF THE ENGINEERING AND PUBLIC WORKS DEPARTMENT

1975



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TO HIS WORSHIP THE MAYOR & COUNCILLORS
OF THE CITY OF FREDERICTON

Madam and Gentlemen:

I submit herewith this report which is a statement of work done in the various City Departments under the direct Supervision of the City Engineer.

This report covers the period January 1, 1975 to December 31, 1975 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 works:

Concrete Curb and Gutter	8.65	Miles
Concrete Sidewalk	2.04	Miles
New Street Construction	2.19	Miles
New Pavement	3.05	Miles
Recap (1/2" Minus)	1.36	Miles
Sealing City Streets (3/8" Minus)	4.18	Miles
Slurry Sealed City Streets	1.44	Miles
Armour Coated City Streets	1.27	Miles
Chip Sealed City Streets	7.29	Miles
4"-6"-8"-12"-14" Force Main - Domestic Sewer ...	1.70	Miles
8"-10"-12"-16"-18" Etc. Gravity -		
Domestic Sewer ...	5.96	Miles
10"-12"-15"-18"-24"-30"-36"-42" Storm Sewer	6.80	Miles
4"-6"-8"-10"-12"-14"-16" Water Mains	8.50	Miles
8"-12" Perforated Drainage Pipe	0.44	Miles
Street Re-Construction	0.10	Miles

ALSO 320 Water Services Installed
 323 Domestic Sewer Services Installed
 8 Sprinklers Installed
 21 Services Relayed (Water)
 0 Services Relayed (Domestic Sewer)
 777 Water Meters Installed
 4 Extension of Existing Services

Contractors under contract with the Public Works Department of the City of Fredericton in 1975 constructed, completed construction or began construction on the following projects:

- | | |
|------------------------------|--|
| Seaboard Services Ltd. | - To construction of curb and gutter and sidewalk on Fulton Avenue, Maple Street and Douglas Avenue. |
| Wilson Builders Ltd. | - To construction of curb and gutter on Fairview Drive and Mooers Drive. |
| Gorman Construction Co. Ltd. | - To supply and placement of asphalt. |
| John Kilburn & Sons Ltd. | - To installation of services on Burnham Court. |

- John Kilburn & Sons Ltd. - To installation of services on Matthews Court.
- E. J. Ludford Line Const. Ltd. - To installation of services on Longwood Drive and Linden Crescent.
- John Kilburn & Sons Ltd. - To installation of services on Hollybrook Street and Hallett Street.
- Frecon Limited - To installation of services on Kimble Road.
- Frecon Limited - To installation of services on Regent Street South of Trans Canada Highway.
- John Kilburn & Sons Ltd. - To installation of services on Jewett Street and Kent Street in Manor Place Subdivision.
- Multi-Ventures Ltd. - To installation of services on Foster Street and Miller Street in Topmar-Lapointe Subdivision.
- E. J. Ludford Line Const. Ltd. - To installation of services on Greenfields Drive and Prospect Street.
- M. E. Phillips & Son Ltd. - To installation of services on Lincoln Road.
- Fredericton Housing & Construction Co. Ltd. - To installation of services on Lincoln Road.
- E. J. Ludford Line Const. Ltd. - To installation of services on Lincoln Road.
- John Kilburn & Sons Ltd. - To installation of services on Lincoln Road.
- Callaghan Contracting Ltd. - To installation of services on Lincoln Road.
- Frecon Limited - To installation of services on Lincoln Road.
- John Kilburn & Sons Ltd. - To installation of services on Barker Street.
- M. E. Phillips & Son Ltd. - To installation of Lagoon Structures at Lincoln Sewage Lagoon.
- Simpson Construction Ltd. - To construction of a service depot on Killarney Road.
(Incomplete in 1975).
- Frecon Limited - To installation of services on Hummingbird Street, Birchcroft Drive, Robin Drive and Westwood Drive in Silverwood.

- Canada Gunite Co. Ltd. - To construction of Killarney Road Reservoir.
- John Kilburn & Sons Ltd. - To installation of services on Killarney Road.
- Frecon Limited - To the installation of package lift stations, construction of pumping station building, piping and related appurtenances on Lincoln Road.
- The Canadian Salt Company Ltd. - To the supply and delivery of Highway Coarse Bulk Salt.
- S. S. Baird & Sons Ltd. - To the supply and delivery of Winter Sand.
- Elmtree Concrete Ltd. - To supply and delivery of Concrete.
- Petrofina Canada Ltd. - To supply and delivery of Furnace Oil.
- M. E. Phillips & Son Ltd. - To installation of services on Killarney Road.
- Diamond Construction (1961) Ltd. - To construction of Smythe Street Reservoir Extension.
- Eastland Construction Ltd. - To installation of storm sewer services on MacDonald Avenue, Park Street, Longwood Drive, Lilac Crescent, and Lawrence Crescent and upgrade watermain on MacDonald Avenue and Park Street.
- Cummings Construction Ltd. - To installation of storm sewer services on Brookside Drive, Wallace Avenue, Alder Avenue and storm sewer outfalls, and watermain upgrading on MacFarlane Street, Cedar Avenue, Cherry Avenue, and Brawn Court.
- Wendell Thomas & Sons Ltd. - To supply and delivery of Pipe Bedding Sand.
- Dunham's Contracting Ltd. - To supply and delivery of Class "A" and Class "C" Gravel.
- Forbes & Sloat Ltd. - To supply and delivery of Crushed Rock.
- Diamond Construction (1961) Ltd. - To supply and delivery of Crushed Rock.
- Harry C. Smith - To supply and delivery of Topsoil.
- Petrofina Canada Ltd. - To supply and delivery of Gasoline and Diesel Fuel.

- Canada Gunite Co. Ltd. - To construction of Marysville Reservoir.
- Flintkote Company of Canada Ltd. - To supply and placement of Chip Seal, Armour Coat, and Slurry Seal.
- C. W. Guthrie & Sons Ltd. - To supply and delivery of Cover Material to Sanitary Landfill.

The current expenditures for the twelve-month period January 1, 1975 to December 31, 1975 appear as follows:

	Appropriation	Net Expenditures	Debit	Credit
✓ Common Services	\$ 432,450.	\$ 560,517.58	\$128,067.58	\$ -
✓ Road Transport (Adm)	13,450.	9,712.41	-	3,737.59
✓ Roads & Streets	383,900.	377,713.89	-	6,186.11
✓ Sidewalk Repairs	13,940.	6,538.99	-	7,401.01
✓ Ditches & Culverts	49,400.	45,434.10	-	3,965.90
✓ Storm Sewer	30,850.	20,213.90	-	10,636.10
✓ Street Cleaning	153,000.	160,758.42	7,758.42	-
✓ Snow & Ice Removal	403,500.	466,971.89	63,471.89	-
✓ Street Lighting	177,150.	155,261.89	-	21,888.11
✓ Traffic Services	6,355	14,153.55	7,798.55	-
✓ Off-Street Parking	1,070.	828.42	-	241.58
✓ Garbage Collection	177,760.	199,879.50	22,119.50	-
✓ Sanitary Landfill	94,180.	115,046.22	20,866.22	-
✓ Old Burial Ground	4,980.	5,268.84	288.84	-
✓ Loyalist Burial Grd.	207.	133.52	-	73.48
✓ Environmental				
Devel. Services	10,000.	-	-	10,000.00
✓ Wilmot Park	12,932.	13,040.35	108.35	-
✓ Odell Park	17,035.	16,023.04	-	1,011.96
✓ Carleton Park	8,452.	5,878.97	-	2,573.03
✓ Development of Park Areas	2,740.	5,571.60	2,831.60	-
✓ Other Parks	5,150.	983.15	-	4,166.85
✓ Public Works	66,900.	90,334.69	23,434.69	-
TOTALS	\$2,065,401.00	\$2,270,264.92	\$276,745.64	\$71,881.72

Therefore, an Overall Debit of \$204,863.92.

On July 9, 1973, amalgamation took place between the former City of Fredericton and surrounding areas. The amalgamated City occupies a total of some 51 square miles with a population of 44,311, as determined during the 1971 Census.

Following is a table giving total mileages of municipal roads and streets, provincial routes, and by-passes divided with respect to the types of surface on the various streets.

LOCATION	MUNICIPAL ROADS & STREETS				DESIGNATED ROUTES			T.C.H. & BY- PASSES
	Asphalt	Gravel	Chip Seal	Total	Asphalt	Gravel	Total	
F'ton South	50.785	4.594	2.151	57.530	12.737	1.605	14.342	8.895
F'ton North	10.149	1.282	0.246	11.677	2.836	-	2.836	-
Nashwaaksis	2.584	5.003	17.639	25.226	5.077	-	5.077	-
Marysville	8.276	1.227	2.771	12.274	5.105	-	5.105	2.150
Barker's Pt.	0.366	0.390	3.561	4.317	2.751	-	2.751	-
Silverwood	1.245	0.646	0.911	2.802	-	-	-	1.713
Garden Creek	2.990	1.505	4.581	9.076	3.911	-	3.911	5.450
Douglas	-	0.580	2.428	3.008	1.587	-	1.587	-
Lincoln	-	0.234	1.809	2.043	-	-	-	0.836
Lr. St. Marys	-	0.750	0.607	1.357	-	-	-	-
Killarney Rd.	0.206	-	-	0.206	2.629	-	2.629	-
TOTALS	76.601	16.211	36.704	129.516	36.633	1.605	38.238	19.044

TOTAL MILEAGE (MUNICIPAL AND DESIGNATED ROUTES) = 167.754

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 may be found by referring to the index.

Respectfully submitted,

W. L. BARRETT
CITY ENGINEER

TOTAL YEARLY EXPENDITURE

The total yearly net expenditure under the direct supervision of the City Engineer in 1975 amounted to \$8,908,134.69. *< Other Breakdown
Current Capital - etc.*

A graphic comparison of expenditures for labour, labour and hired machinery and total expenditure (including labour and hired machinery) are shown on the following graph.

The locations of new construction completed or commenced in 1975 are shown on maps inserted after Page 6 of this report.

Following the maps is a graph showing the distribution of the City of Fredericton Tax Dollar in 1975.

TRANSPORTATION SERVICES

The expenditure under this heading is subdivided under two main headings:

- (1) Common Services
- (2) Road Transport

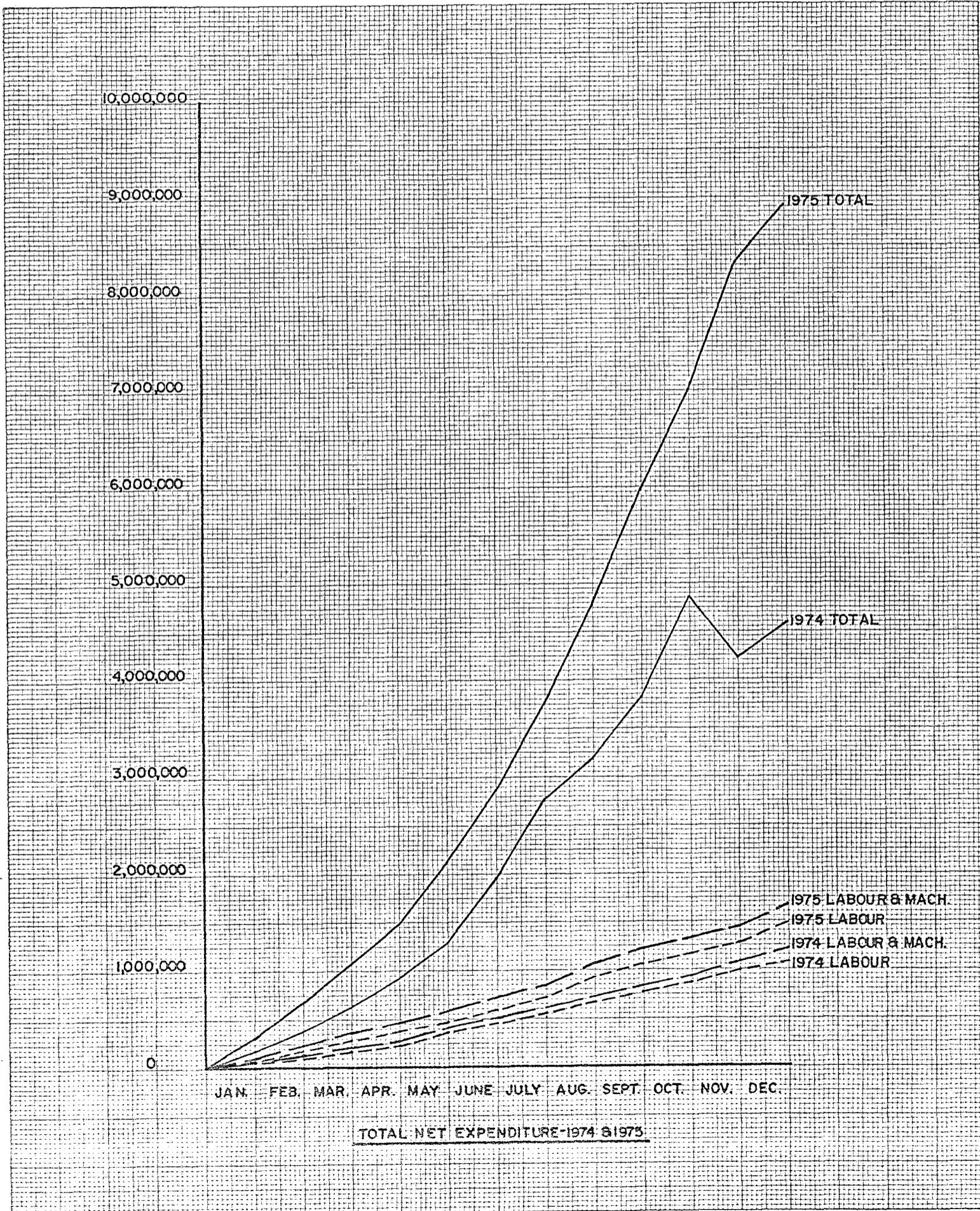
(1) COMMON SERVICES: The total net expenditure under this heading was \$560,517.58 and is made up as follows:

GROSS EXPENDITURE:

Administration	\$ 19,272.31
Engineering Services	95,499.53
Workshops, Yards & Buildings	48,930.30
General Equipment	267,360.00
Research, Planning & Design	1,521.42
Other (Pensions, U.I.C., Workmen's Compensation, Etc.)	<u>238,681.03</u>
TOTAL	\$ 671,264.59

LESS CREDITS:

Administration	\$ 8.10
Journal Vouchers (Payrolls-Eng. Services) ...	5,317.72
Fuels & Lubricants	29,594.11
Maintenance & Repairs	69.26
Expendable Accessories	140.08
City Yard (Space Rental)	12,300.00
Maintenance Depot (Materials)	16.72
Marysville Depot (N.B. Tel)	7.34
City Pension (Journal Vouchers - Inter. Dept. Charges)	39,788.06
Canada Pension (Journal Vouchers - Inter. Dept. Charges)	15,528.43
Fringe Benefits - Workmen's Compensation Board	5,023.65
Miscellaneous	<u>2,953.54</u>
TOTAL	<u>110,747.01</u>
NET EXPENDITURE	\$ <u>560,517.58</u>



DISTRIBUTION OF THE 1975 TAX DOLLAR FOR THE CITY

GENERAL GOVERNMENT SERVICES

PROTECTIVE SERVICES

TRANSPORTATION SERVICES

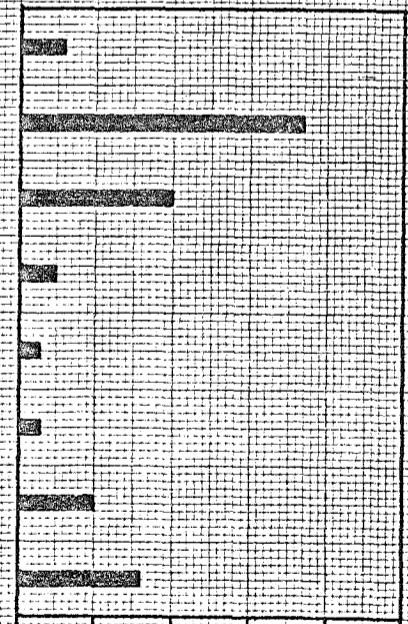
PUBLIC TRANSIT

ENVIRONMENTAL HEALTH SERVICES

ENVIRONMENTAL DEVELOPMENT SERVICES

RECREATION AND CULTURAL SERVICES

FISCAL SERVICES

PERCENTAGE

(2) ROAD TRANSPORT:

ADMINISTRATION: The total net expenditure under this heading was \$9,712.41 for administration costs.

ROADS & STREETS:

GROSS EXPENDITURE	\$ 992,271.54
LESS CREDITS	<u>47,505.35</u>
NET EXPENDITURE	\$ <u>944,766.19</u>

The above credit of \$47,505.35 is made up of labour and materials charged to private parties, materials such as gas, oil, etc., used by other City Departments, and materials such as sand, salt, etc. to other City Departments.

The GROSS EXPENDITURE is divided as follows:

Roadway Surfaces (Maintenance)	\$ 277,678.22
Sidewalk Repairs	7,038.99
Culverts, Ditches	51,509.53
Storm Sewer	23,219.70
Street Cleaning and Flushing	164,723.42
Snow and Ice Removal	283,913.38
Sanding and Salting	<u>184,188.30</u>
TOTAL	\$ <u>992,271.54</u>

The NET EXPENDITURE of \$944,766.19 is divided into the following items. These items give an account of the amount and kind of work done by the Roads and Streets Department.

- (a) Roadway Surfaces (Maintenance)
- (b) Sidewalks (Maintenance)
- (c) Drainage Ditches, Culverts, Etc.
- (d) Storm Sewers
- (e) Street Cleaning and Flushing
- (f) Snow and Ice Removal

(a) ROADWAY SURFACES (MAINTENANCE)

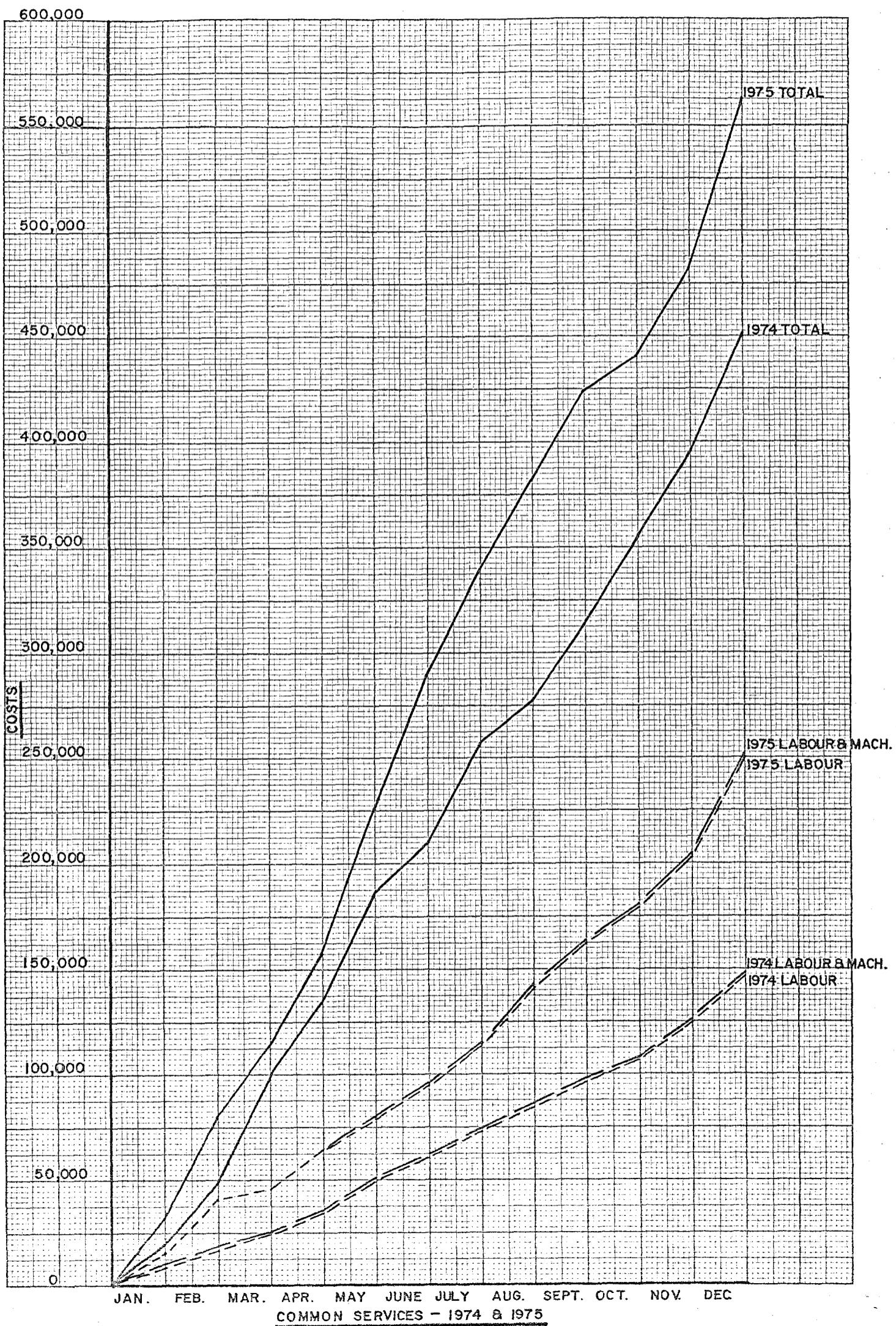
(1) Gravel Roads, Slurry Seal, Chip Seal and Armour Coat

City Motor Grader: Road Patrol

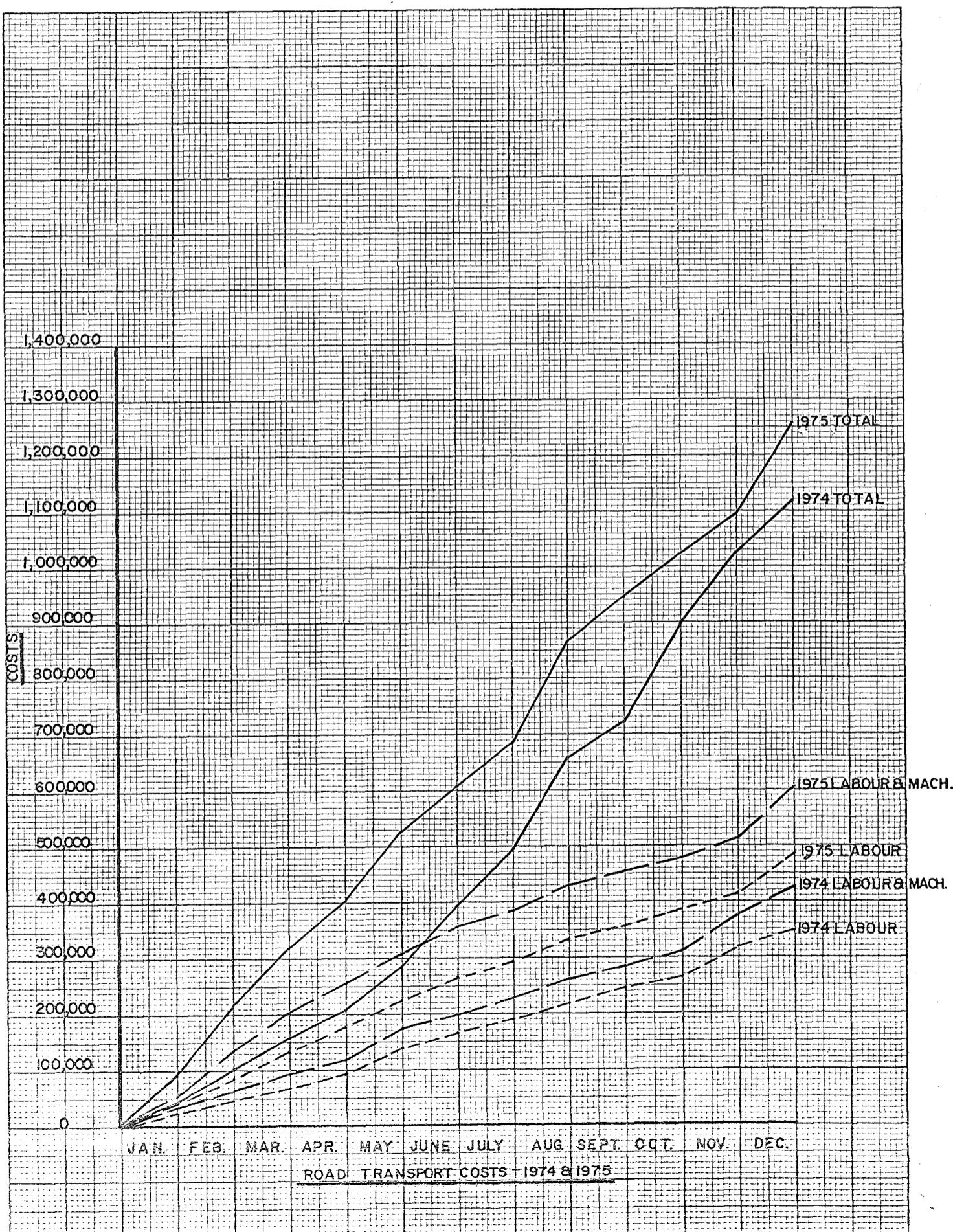
Labour	\$ 3,377.94
City Machinery Charges	<u>4,465.00</u>
TOTAL	\$ <u>7,842.94</u>

Grading and Gravelling: Grading and application of Gravel on City Roads and Streets.

Labour	\$ 2,436.99
Hired Trucks and Machinery	109.50
City Machinery Charges	2,516.00
Materials	<u>18,899.00</u>
TOTAL	\$ <u>23,961.49</u>



HUGHES OWENS 404G



11,159.85 Tons of Class "A" Crushed Rock was used in the maintenance and repairs to Gravel Roads under Roadway Surfaces.

The Crushed Rock was purchased from Forbes & Sloat Limited and Diamond Construction (1961) Limited.

432.95 Tons of Dust was purchased from Diamond Construction (1961) Limited.

Slurry Seal, Chip Seal, & Armour Coat

In 1975, Flintkote Company of Canada Limited was contracted to Slurry Seal, Chip Seal and Armour Coat various City Streets.

The above heading includes the following:

- (1) Slurry Seal
- (2) Chip Seal - 3/8" Chips
- (3) Armour Coat - 3/4"-1/2"-3/8" Chips

(1) Slurry Seal

The following Roads and Streets were Slurry Sealed in 1975.

<u>LOCATION</u>	<u>LINEAL FEET</u>
Saunders St. - Rookwood Ave. to Northumberland St.	2,200
Waggoner's Lane - Rookwood Ave. to Smythe St.	1,200
Westmorland St. - Connaught St. to Dundonald St.	400
Westmorland St. - Queen St. to King St.	400
Edinburgh St. - Smythe St. to York St.	2,200
Kings College Rd. - Regent St. to Windsor St.	1,200
TOTAL	<u>7,600</u>

7,600 Lineal Feet = 1.44 Miles

(2) Chip Seal - 3/8" Chips

The following Roads and Streets were resurfaced with 3/8" Chips in 1975.

<u>LOCATION</u>	<u>LINEAL FEET</u>
Hillcourt Drive	500
*Lilac Crescent	600
*Longwood Drive	1,960
*MacDonald Avenue	935
*Park Street	591
Hanson St. - Albert St. to Kings College Rd.	2,500
Reid St. - Albert St. to Kings College Rd.	2,500
Graham Ave. - Albert St. to Kings College Rd.	2,500
Windsor St. - Albert St. to Kings College Rd.	2,500
Beckwith St. & Kitchen St.	2,500
Springhill Rd.	5,000
Montieth Dr.	2,000
Mayflower St.	400
Tulip St.	600

Lily St.	600
Wilsey Rd. - Doak Rd. to Vanier Hwy.	1,500
Anderson St.	1,100
Marigold St.	700
Day St.	700
Garden St.	1,300
Glengarry Place	2,000
Gilbert St.	3,000
Burpee St.	1,700
Oakland Ave.	800
TOTAL	<u>38,486</u>

* Expenditures charged to C.S.D.P. Storm Sewer

38,486 Lineal Feet = 7.29 Miles

(3) Armour Coat - 3/4"-1/2"-3/8" Chips

The following Roads and Streets were resurfaced with 3/4"-1/2"-3/8" Chips in 1975.

<u>LOCATION</u>	<u>LINEAL FEET</u>
Arlington St.	300
Riverview Dr.	700
St. Roch St.	1,000
Greer St.	500
MacKenzie Rd.	700
Emerald St.	300
McGregor St.	1,000
Gesner Lane	400
Carman Ave.	1,800
TOTAL	<u>6,700</u>

6,700 Lineal Feet = 1.27 Miles

Materials Used:

363.80 Tons 3/4" Chips @ \$8.80/Ton	\$ 3,201.44
923.25 Tons 1/2" Chips @ \$9.75/Ton	9,001.69
1,154.65 Tons 3/8" Chips @ \$10.30/Ton	11,892.90
50,450 Gallons Colas @ \$0.61/Gal.	<u>30,774.50</u>
TOTAL	<u>\$ 54,870.53</u>

The street preparatory work, other than the laying in place was done by regular City Crews at an expenditure of \$4,005.57 and was made up as follows:

City Labour	\$ 2,852.57
Hired Machinery	-
City Machinery	<u>1,148.00</u>
TOTAL	<u>\$ 4,000.57</u>

TOTAL NET EXPENDITURE FOR SLURRY SEAL, CHIP SEAL,
AND ARMOUR COAT \$83,395.18

(2) PAVED STREETS

Patching and repairing pavement, applying seal coat, light tar or asphalt to pavement.

Labour	\$ 79,409.31
Hired Trucks and Machinery	-
City Machinery	28,106.00
Materials	<u>100,554.41</u>
TOTAL ...	<u>\$ 208,069.72</u>

Patching material, when available, was obtained from Gorman Construction Limited, Diamond Construction (1961) Limited and Flintkote Co. of Canada Limited.

The total net expenditure for Pavement Repairs for 1975 including Workmen's Compensation, Pension Fund, Holiday and Sick Leave amounted to \$208,069.72 and was computed as follows:

Asphalt: Stock From 1974

720 Gallons RS1	\$ 391.68
1125 Gallons RC-800	<u>492.75</u>
	\$ 884.43

Plus Stock Purchased in 1975

5400 Gallons of RS1	<u>3,875.56</u>
	4,759.99

Less Stock for 1975

225 Gallons of Emulsion	\$ 168.99
360 Gallons R-800 (RC3)	<u>157.68</u>
NET COST OF LIQUID	<u>\$ 4,433.32</u>

Expenditures:

Cost of Hot Mix Asphalt	\$ 96,751.41
Liquid Asphalt (Including Winter Asphalt)	10,749.42
Crushed Rock & Crusher Dust	1,780.28
Repairs to Plant Equipment	-
City Labour (Payroll, Pensions, Etc.).	79,409.31
Hired Trucks and Machinery	-
City Machinery	28,106.00
Miscellaneous	<u>3,286.51</u>
GROSS EXPENDITURE	\$ 220,082.93

Less Credits:

Work done and materials used for private parties	\$ 1,409.40
Journal Vouchers	<u>10,603.81</u>
NET EXPENDITURE	<u>\$ 208,069.72</u>

(3) Asphalt Sealing Program

NET EXPENDITURE \$ 43,032.44

Under this heading the following streets were surface sealed with 3/8" Minus Asphalt by Gorman Construction Co. Ltd. @ \$18.00/Ton in Place.

<u>LOCATION</u>	<u>LINEAL FEET</u>
McKeen St. - Union St. towards St. John River	500
Miles St. - Union St. to Barker St.	818
Elmcroft Place	750
Acacia Ct.	770
Avondale Ct.	580
Beaverbrook St. - Regent St. to Tweedsmuir St.	650
Dundonald St. - York St. to Northumberland St.	1,330
Northumberland St. - Saunders St. to Charlotte St.	370
Westmorland St. - Saunders St. to Charlotte St.	370
St. John St. - George St. to Brunswick St.	370
Scully St.	729
King St. - York St. to Carleton St.	630
Regent St. - Brunswick St. to King St.	370
Smythe St. - Saunders St. to C.N.R. Tracks	1,040
Parkhurst Dr. - Inglewood Dr. to Brookmount St.	1,850
Rookwood Ave. - Woodfield Cres. to Woodstock Rd.	<u>1,300</u>
TOTAL	<u>12,427</u>

12,427 Lineal Feet = 2.35 Miles

Following is the expenditure for materials and labour for the surface sealing of the above streets:

Labour	\$ 6,709.49
Hired Machinery	-
City Machinery	1,923.00
Materials	<u>36,322.95</u>
TOTAL	<u>\$ 44,955.44</u>

Street preparatory work for Surface Seal was done by City Crews.

(4) Curb and Gutter Repair

EXPENDITURE \$ 5,611.51

The total expenditure under this heading was made up as follows:

Labour, Hired Trucks & Machinery	\$ 4,092.99
City Machinery Charges	801.00
Materials	<u>1,617.52</u>
TOTAL	6,511.51
Less Credit:	<u>900.00</u>
NET EXPENDITURE	<u>\$ 5,611.51</u>

The above credit of \$900.00 was for material and labour charged to private individuals for Curb Repair.

(5) Driveway Entrances (Maintenance)

EXPENDITURE \$ 13,059.79

The total expenditure was made up as follows:

Labour, Hired Trucks & Machinery ...	\$ 6,992.96
City Machinery Charges	2,073.00
Materials	<u>3,993.83</u>
TOTAL EXPENDITURE	\$ <u>13,059.79</u>

(6) Rights-of-Way, Guard Posts, Etc.

Item	Labour Hired Trucks & Machinery	City Machinery Charges	Materials	Credits	Totals
Clearing Rt.-of-Ways	\$ 8,420.92	\$ 425.00	\$ 187.45	\$ 43.02	\$ 8,990.35
Sodding & Seeding	3,844.78	1,004.50	882.80	16.73	5,715.35
Rip Rapping	1,419.96	328.00	-	-	1,747.96
Cutting Grass	6,040.18	1,340.50	-	-	7,380.68
Guard Posts	2,655.21	1,121.00	718.47	3.06	4,491.62
TOTALS	\$22,381.05	\$4,219.00	\$1,788.72	\$62.81	\$28,325.96

(b) SIDEWALKS (MAINTENANCE)

The expenditure under this heading amounted to \$7,365.99 and was made up as follows:

Labour and Hired Machinery	\$ 4,268.93
City Machinery Charges	827.00
Materials	<u>2,770.06</u>
GROSS EXPENDITURE	\$ 7,865.99
LESS CREDITS	\$ <u>500.00</u>
NET EXPENDITURE	\$ <u>7,365.99</u>

The credits were for the following:

Work done and materials used for private parties	\$ 220.00
Journal Vouchers	<u>280.00</u>
	\$ <u>500.00</u>

(c) STREETS (GENERAL MAINTENANCE)

The expenditure under this heading is for ditching and installation of culverts.

The total net expenditure under this heading was \$63,541.10 and is made up as follows:

Labour and Hired Machinery	\$ 23,308.22
Journal Vouchers (Pensions)	869.38
City Machinery Charges	18,107.00
Workmen's Compensation Board	600.00
Materials	<u>26,731.93</u>
GROSS EXPENDITURE	\$ 69,616.53
LESS CREDITS	<u>\$ 6,075.43</u>
NET EXPENDITURE	<u>\$ 63,541.10</u>

The above credits were for installation of culverts for newly subdivided lots on ditched streets.

(d) STORM SEWER

GROSS EXPENDITURE	\$ 29,717.20
LESS CREDITS	<u>\$ 3,005.80</u>
NET EXPENDITURE	<u>\$ 26,711.40</u>

The above credits were for Journal Vouchers and work done and materials used for private parties.

The storm 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 breaks that occurred, amounting to \$26,711.40 made up as follows:

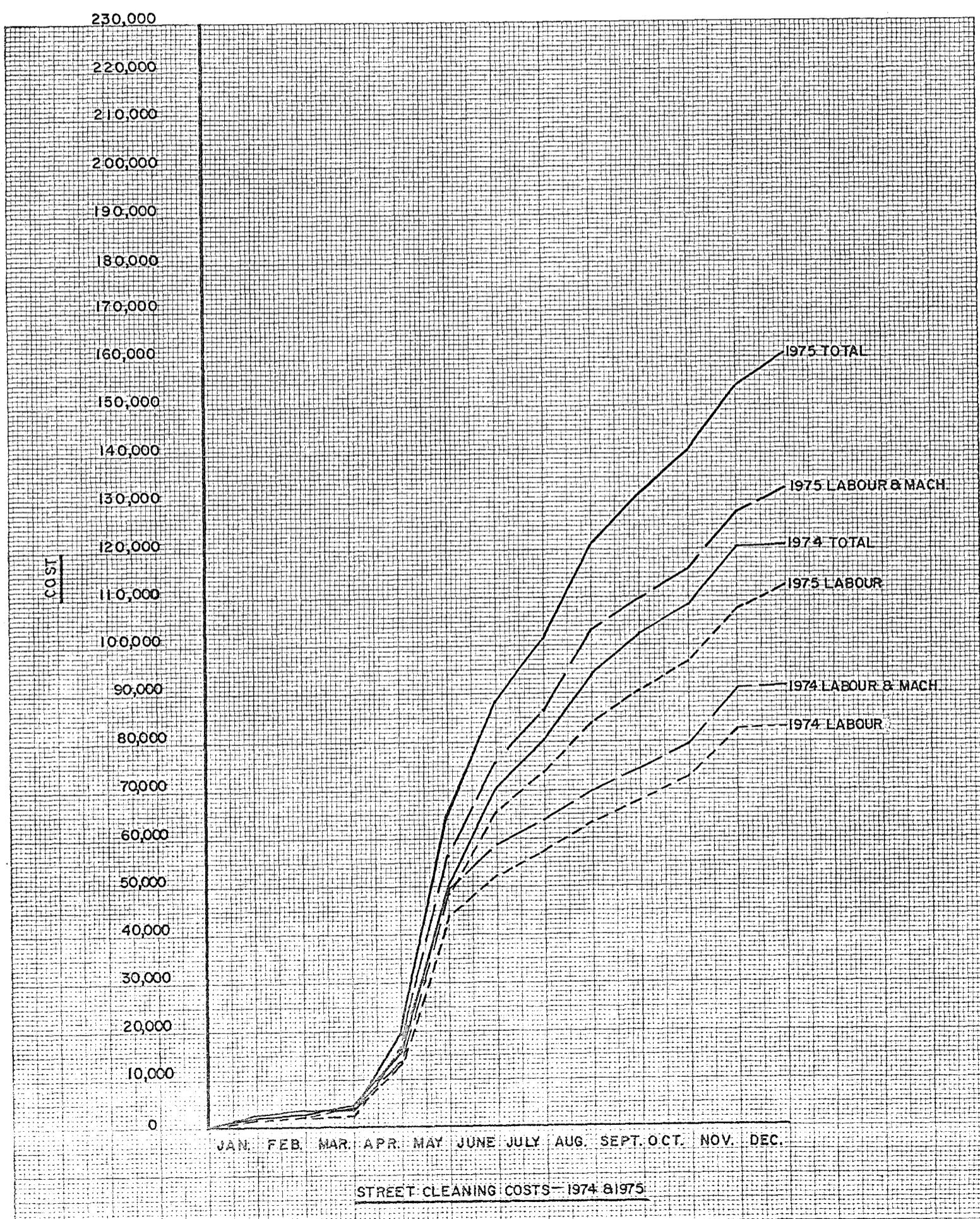
Labour	\$ 14,797.79
Hired Machinery	-
City Machinery	6,497.50
Materials Less Credits	<u>5,416.11</u>
TOTAL ..	<u>\$ 26,711.40</u>

(e) STREET CLEANING AND FLUSHING

GROSS EXPENDITURE	\$ 180,822.42
LESS CREDITS	<u>3,965.00</u>
NET EXPENDITURE	<u>\$ 176,857.42</u>

The GROSS EXPENDITURE is made up as follows:

Hired Machinery	\$ 20,458.00
Personnel - Labour & Compensation	97,666.96
General Services - Trucking and Repairs	14,063.75
Gas, Oil, Grease	1,705.96
Brooms - Main & Gutter	7,901.34
Brooms - Hand	761.19
Anti-Litter Cans	5,688.91
Dust Control	7,394.24
Miscellaneous	4,784.05
City Machinery	16,099.00



Pensions	\$ 4,299.02
TOTAL ..	<u>\$ 180,822.42</u>

Two Wayne Sweepers, #50 and #52, and a Vacuum-Sweep, #53, carried out the cleaning of City Streets. These machines worked a total of 1,862 hours from April 9, 1975 to November 24, 1975.

A Sicard Master Flusher, #51, carried out the flushing of City Streets. The flusher worked 525 hours from May 2, 1975 to November 2, 1975.

The following is a list of machinery used in street cleaning and dust control (gravelled roads) together with their repair costs for 1974 and 1975, including tires and tubes:

Name of Machine	Year Purchased	1974 Repairs	1975 Repairs
Wayne Sweeper #50	1975	-	\$ 149.59
Sicard Flusher #51	1955	\$ 2,124.41	3,693.71
Wayne Sweeper #52	1968	7,056.50	7,864.26
Vacuum-Sweep #53	--	--	88.65
		<u>TOTALS</u>	<u>\$ 9,339.75</u>
			<u>\$ 11,796.21</u>

(f) SNOW AND ICE REMOVAL

(1) Salting and Sanding Streets & Sanding Sidewalks

Storing sand and salt in Winter Storage Piles and spreading same on slippery streets and sidewalks.

Streets:

Labour	\$ 44,438.82
Hired Trucks & Machinery	90.00
Machinery Repair	14,308.09
City Machinery Charges	21,712.50
Materials	<u>108,989.99</u>
TOTAL EXPENDITURE	<u>\$ 189,539.40</u>

Sidewalks:

Labour	\$ 11,526.55
Hired Trucks & Machinery	-
City Machinery Charges	3,318.00
Materials	<u>4,834.85</u>
TOTAL EXPENDITURE	\$ 19,679.40
LESS CREDITS	<u>\$ 1,084.48</u>
TOTAL NET EXPENDITURE	<u>\$ 208,134.32</u>

The credit of \$1,084.48 was for work done and materials supplied to private parties and for Journal Vouchers to other departments.

12,914 Cubic Yards of sand was purchased during the Fall of 1975. The sand was supplied by S. S. Baird & Sons Ltd. at a price of \$1.50/Cubic Yard, delivered to the City Stock Pile at several locations.

In 1975, 4,822.09 tons of salt was used for ice control. The cost and distribution charges are included under the above heading. The City purchased 4,779.09 tons of salt in 1975. In stock as of December 31, 1975 --- 137. tons.

(2) SNOW CONTROL

STREETS: 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.

The total cost of Snow Control (Streets) amounted to \$350,764.19 and was made up as follows:

Personnel (Labour,)	\$ 113,700.27	4-2 438.31
General Services (Repairs & Maintenance		113,700.27
Hired Trucks & Machinery Etc.) ...	93,386.33	158,139.09
City Machinery Charges	92,257.00	
Expendable Materials	16,671.27	
Miscellaneous (Materials, Pensions, Compensation, Etc.)	<u>34,749.32</u>	
TOTAL	<u>\$ 350,764.19</u>	

The following table shows comparative labour (including hired trucks & machinery) costs of snow control for the year 1973 to 1975 inclusive:

	1973	1974	1975
Snow Plowing Roads & Streets	\$ 50,036.91	\$ 65,871.65	\$122,970.26
Blowing, Hauling & Shovelling	44,878.99	13,333.30	56,253.11
Catch Basins	11,907.57	16,329.30	23,998.42
Snow Fences	770.90	2,215.80	1,104.62
Plowing Parking Lots	353.45	640.12	665.02
Repairs (Labour-Equipment)	2,789.06	1,516.72	2,991.17
TOTALS	\$110,736.88	\$ 99,906.89	\$207,982.60

The City of Fredericton was responsible for plowing, sanding and salting 167.754 miles of Roads and Streets during 1975.

The overall cost for plowing, salting and sanding City Roads and Streets was \$540,303.59 and was made up as follows:

Labour	\$ 158,139.09
Hired Trucks & Machinery	88,372.33
City Machinery Charges	113,969.50
Materials (Sand & Salt)	108,989.99
Equipment Repair	19,412.09
Expendable Materials	16,671.27
Miscellaneous Costs	<u>34,749.32</u>
TOTAL	<u>\$ 540,303.59 (1)</u>

Therefore, the unit cost of plowing, sanding, and salting one mile of road (street) was \$3,220.81.

Sidewalks:

75.50 Miles of sidewalk were plowed during the winter months of 1975.

The total expenditure for plowing amounted to \$29,053.19 and was made up as follows:

Labour	\$ 16,631.19
Hired Machinery	8,775.00
City Machinery	<u>3,647.00</u>
TOTAL ...	<u>\$ 29,053.19</u>

The unit cost per mile for plowing and sanding sidewalks was \$645.46 and was made up as follows:

Labour	\$ 28,157.75
Hired Trucks & Machinery	8,775.00
City Machinery Charges	6,965.00
Materials (Sand)	<u>4,834.85</u>
TOTAL ...	<u>\$ 48,732.59 (2)</u>

Unit Cost per Mile \$48,732.59 = \$645.46
 75.50

GROSS COST OF SNOW CONTROL --

Add (1) and (2)..... \$ 589,036.18
LESS CREDITS 1,129.79

NET COST (Including City Machinery). \$ 587,906.39

NET COST OF SNOW CONTROL
(Less City Machinery Charges
\$120,934.50) \$ 466,971.89

Snowfall in Fredericton for the last five years was as follows:

1971	107.6 Inches
1972	163.0 Inches
1973	62.0 Inches
1974	84.2 Inches
1975	128.4 Inches

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

Name of Vehicle	Ins. No.	Year Purchased	1974 Repairs	1975 Repairs
International 3 Ton	20	1968	\$ -	\$ 1,560.81
Dodge 3 Ton	60	1967	1,107.50	3,050.89
Ford 3 Ton	61	1960	1,967.03	1,792.58
International 3 Ton	62	1951	1,370.29	167.72
Chevrolet 3 Ton	63	1971	389.97	257.15
Chevrolet 3 Ton	64	1974	-	1,553.38

Sicard Snow Blower	86	1949	157.81	1,434.33
1955 Sicard Snow Blower	87	1961	305.40	1,275.93
Sicard Snow Blower	88	1963	640.48	1,010.25
Snow Blower	89	1974	-	386.36
Chev. 5 Ton Plow & Sander	101	1974	83.47	2,009.65
Ford 5 Ton Plow & Sander	102	1974	-	1,674.03
G.M.C. 5 Ton Plow & Sander	103	1975	-	1,035.49
G.M.C. 5 Ton Plow & Sander	104	1975	-	868.06
G.M.C. 5 Ton Plow & Sander	105	1975	-	148.68
Ford 3/4 Ton	120	1974	-	170.31
Bombardier	132	1974	-	61.89
Bombardier	133	1974	-	70.37
Bombardier	134	1968	480.51	2,009.27
Dodge 3 Ton	215	1966	1,678.44	1,501.76
Oil - Fired Boiler	63-A	-	38.95	-
TOTALS			\$ 8,219.85	\$ 22,038.91

(4) STREET LIGHTING

The Multiple Lighting System for the City of Fredericton as of December 31, 1975 consisted of:

10 - 125 Watt M.V. Wood @ \$52.40 per light per year
 87 - 125 Watt Ref. M.V. @ \$38.00 per light per year
 2 - 175 Watt M.V. Conc. @ \$73.00 per light per year
 199 - 175 Watt M.V. Wood @ \$60.40 per light per year
 383 - 175 Watt Ref. M.V. @ \$46.00 per light per year
 14 - 250 Watt M.V. Conc. @ \$92.50 per light per year
 9 - 250 Watt M.V. Wood @ \$79.90 per light per year
 1331 - 250 Watt Ref. M.V. @ \$65.50 per light per year
 487 - 400 Watt Ref. M.V. @ \$88.00 per light per year
 1 - 500 Watt Ref. Inc. @ \$65.40 per light per year
 2 - 400 Watt Flood Light @ \$0.26 per Watt per year

The total street lighting costs for 1975 are as follows:

GROSS EXPENDITURE	\$ 155,261.89
LESS CREDITS	-
NET EXPENDITURE	\$ <u>155,261.89</u>

The above expenditure is made up as follows:

N.B.E.P.C. - (Marysville)	\$ 5,003.69
N.B.E.P.C. - (Silverwood)	947.20
N.B.E.P.C. - (Barker's Pt.)	1,624.48
N.B.E.P.C. - (Fredericton)	140,464.69
N.B.E.P.C. - (Nashwaaksis)	6,499.31
Labour - Repairs	436.60
N.B.E.P.C. -(Fredericton Cenotaph)	257.02
Light Bulbs	28.90
TOTAL	\$ <u>155,261.89</u>

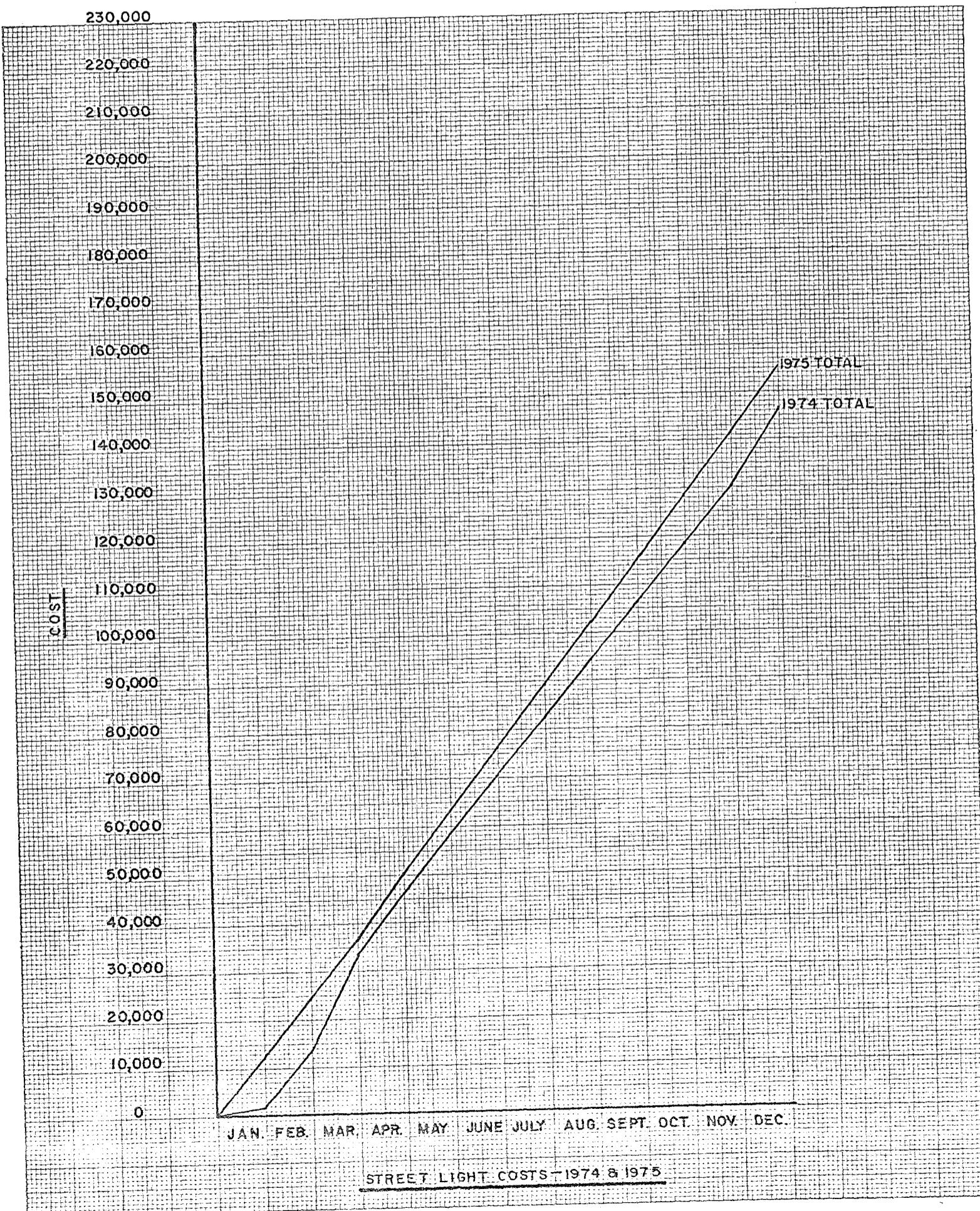


TABLE SHOWING COMPARATIVE YEARLY COST IN STREET LIGHTING

Year	Total Yearly Cost	Yearly Appropriation
1970	\$ 78,928.31	\$ 78,000.00
1971	\$ 87,714.60	\$ 89,400.00
1972	\$ 107,018.55	\$ 105,000.00
1973	\$ 104,877.03	\$ 110,000.00
1974	\$ 146,664.89	\$ 180,000.00
1975	\$ 155,261.89	\$ 177,150.00

(5) TRAFFIC SERVICES

The expenditure under this heading is made up as follows:

- (1) Street Signs
- (2) Off-Street Parking

(1) Street Signs:

Purchasing, repairing and installing Street Signs on City Streets.

The expenditure under this heading amounted to \$14,153.55 and was made up as follows:

Personnel (Labour, Pensions, Workmen's Compensation, Etc.)	\$ 3,499.45
Repairs and Maintenance	3,374.77
Materials	<u>7,534.63</u>
	\$14,408.85
LESS CREDITS	<u>\$ 255.30</u>
NET EXPENDITURE	<u>\$ 14,153.55</u>

The above credit of \$255.30 was for Journal Vouchers regarding Decals and credits regarding damages to signs.

(2) Off-Street Parking:

The expenditure under this heading amounted to \$828.42 and was made up as follows:

Personnel (Labour, Pensions, Workmen's Compensation, Etc.)	\$ 451.14
Repairs and Maintenance	<u>377.28</u>
TOTAL	<u>\$ 828.42</u>

The above costs are for maintenance and snow removal for the Public Parking Area west of the Canadian Legion Building, Queen Street.

The following is a list of vehicles and machinery used in
COMMON SERVICES, together with the repair costs for 1974 and 1975,
including tires and tubes:

Name Name	Ins. No.	Year	1974 Repairs	1975 Repairs
Ford Custom	1	1972	\$ 305.49	242.48
Dodge 1/2 Ton (Traded)	3	1970	396.69	82.30 CR.
Dodge 1/2 Ton	3	1975	-	88.68
G.M.C. Panel	4	1974	494.41	111.88
Dodge 1/2 Ton	6	1971	566.50	1,272.60
Chev. 1/2 Ton	8	1972	126.23	241.96
Ford 1/2 Ton Van	10	1964	1,657.84	409.05
G.M.C. 1/2 Ton	15	1974	122.44	75.30
G.M.C. 3 Ton Dump	16	1973	113.07	271.94
Dodge 3 Ton Dump	17	1969	1,482.52	1,104.45
Chev. 3 Ton Dump	18	1971	-	1,807.24
Ford 3 Ton Dump	19	1970	605.37	973.98
International 3 Ton Dump	20	1968	519.49	490.00
Ford 3 Ton Dump	21	1972	238.43	520.99
International 3 Ton Dump	22	1973	1,230.69	1,555.26
Dodge 3 Ton Dump	23	1974	161.47	319.76
G.M.C. 3 Ton Dump	24	1975	-	964.03
G.M.C. 3 Ton Dump	25	1975	-	737.84
Ford 3 Ton Dump	26	1975	-	-
Galion Grader 118	36	1966	4,558.31	8,009.72
Austin Western 300 Pacer	37	1962	5,043.82	1,526.86
Galion Grader T-400	38	1972	3,996.86	3,977.57
Caterpillar 120 Grader	39	1974	-	1,757.09
Caterpillar 120 Grader	40	1974	-	2,223.68
Caterpillar 120 Grader	41	1974	-	665.17
Caterpillar 120 Grader	42	1974	-	1,376.05
Dodge Vacall	54	1971	1,717.06	1,097.66
Hy-Hoe Backhoe	55	1964	1,612.73	7,062.81
Unit Backhoe	56	1957	-	2,958.85
Hopto Backhoe	57	1973	6,786.67	120.72
Ingersol Rand Compressor	58	1969	153.11	227.58
Hy-Hoe Backhoe	59	1974	841.83	2,362.48
International 3 Ton	62	1951	-	889.69
Ingersol Rand Compressor	67	1957	237.44	534.61
Atlas Copco Compressor	68	1964	299.40	130.43
Atlas Copco Compressor	70	1974	14.18	396.50
Littleford Roller	71	1974	-	41.39
Essick Roller	72	1970	251.53	417.37
Essick Roller	73	1971	89.11	480.71
Vibras Compactor	74	1969	124.11	106.46
Essick Roller	75	1974	70.26	68.19
Ford Tractor	82	1974	69.75	-
Ford 1/2 Ton Crew Cab	111	1974	58.33	669.51
Ford 1/2 Ton Crew Cab	112	1974	75.87	284.30
Ford 3/4 Ton	120	1974	-	12.23
International Scout II	121	1975	-	34.15
International Scout II	122	1975	-	-
Kaiser Jeep	126	1970	824.36	539.66
Kaiser Jeep	127	1971	559.16	780.58
Ford Bronco	128	1969	798.44	357.54
International Scout	129	1972	458.44	770.12
International Scout	130	1973	319.09	470.18
International Scout	131	1974	100.11	252.41
Michigan 55A Loader	135	1974	25.75	787.29
Michigan 55A Loader	136	1974	26.49	566.92
Michigan 55A Loader	137	1974	42.51	768.02

Name	Ins. No.	Year	1974 Repairs	1975 Repairs
Michigan 55A Loader	138	1974	60.91	440.08
Case W-9 Loader (Traded)	141	1967	4,195.33	949.08
John Deere Loader	141	1975	-	123.82
Allis Chalmers Loader	142	1970	9,339.23	4,097.08
Case W-18 Loader	143	1974	117.06	2,335.29
Caterpillar D5 Bulldozer	146	1969	5,035.61	1,653.41
International TD8C Bulldozer	147	1971	504.94	4,387.27
Case 850 Bulldozer	148	1968	191.03	181.90
Case 750 Bulldozer	149	1965	3,021.25	78.78
Dodge 1/2 Ton	201	1973	306.72	818.47
Chevrolet 3 Ton Dump	202	1974	641.96	805.66
Dodge 3 Ton Dump	203	1969	1,610.93	1,657.70
Ford 1 Ton	204	1969	1,061.18	2,290.65
Dodge 3 Ton Dump	205	1972	2,555.85	1,910.63
Case 680 Backhoe-Loader	207	1971	3,028.58	2,624.71
Case 310 Bulldozer	208	1968	1,793.39	369.61
Gorman Rupp Pump	209	1966	-	2.24
Case 680 Backhoe-Loader	253	1972	1,775.80	3,750.27
Case 450 Bulldozer	254	1973	68.47	141.83
Gardner Denver Compressor	255	1968	52.28	59.68
TOTAL	\$ 72,535.88	\$ 82,507.80

The following items of machinery were purchased in 1975 and charged to TRANSPORTATION SERVICES:

1 - Atlas Copco Drill

Cost	\$ 1,036.00
Less Trade-in of Ingersol Rand .	<u>236.00</u>
Sub Total	800.00
Plus 8% S.S.&E. Tax	<u>82.88</u>
TOTAL COST	<u>\$ 882.88</u>

1 - Hy-Hoe Model 1500 Excavator Mounted on Canadian Crane Carrier -- ASSET NO. 59 (Rental-Purchase 1974-75)

Cash delivered price	\$ 65,000.00
Plus 8% S.S.&E. Tax	<u>5,200.00</u>
Sub Total	70,200.00
Less Previous Payments	<u>37,200.00</u>
TOTAL COST	<u>\$ 33,000.00</u>

2 - Bombardier Model SW-48 Sidewalk Plows - ASSET NO.'S 132 & 133 (Rental Purchase)

Total Selling Price	\$ 19,000.00
Plus 8% S.S.&E. Tax	<u>1,520.00</u>
Sub Total	20,520.00
Less Previous Payments	<u>6,912.00</u>
TOTAL COST	<u>\$ 13,608.00</u>

1 - Dodge Fargo 1/2 Ton - ASSET NO. 3

Cost	\$ 5,505.35
Less Trade-in of 1970 Dodge 1/2 Ton (#3)	<u>920.00</u>
Sub Total	4,585.35
Plus 8% S.S.&E. Tax	<u>366.83</u>
TOTAL COST	<u>\$ 4,952.18</u>

1 - Ford 3 Ton Truck -- ASSET NO. 26

Cost	\$ 8,124.30
Plus 8% S.S.&E. Tax	<u>649.94</u>
TOTAL COST	<u>\$ 8,774.24</u>

1 - John Deere Articulated Front-End Loader - ASSET NO. 141

Cost	\$ 40,187.08
Less Trade-in on 1967 W-9 Case Loader	<u>12,000.00</u>
Sub-Total	28,187.08
Plus 8% S.S.&E. Tax	<u>2,254.96</u>
TOTAL COST ... \$	<u>30,442.04</u>

1 - Wayne Street Sweeper - ASSET NO. 50

Cost	\$ 25,838.00
Less Trade-in on 1968 Wayne Sweeper	<u>3,000.00</u>
Sub Total	22,838.00
Plus 8% S.S.&E. Tax	<u>1,827.04</u>
TOTAL COST ... \$	<u>24,665.04</u>

CAPITAL ACCOUNT CURB & GUTTER

The net expenditure under this heading amounted to \$375,615.24.

For the above expenditure, concrete curb and gutter was constructed at the following locations:

<u>Location</u>	<u>Lineal Feet</u>
Tilley Dr. - One Side	130
Flemming Rd. - Existing to Tilley - Both Sides	2,301
Beaconsfield St. - Bristol to Nottingham - Both Sides	3,507
Priestman St. - Existing to College Hill Rd.-Both Sides	2,261
Meadow Green Ct. - Both Sides	1,524
Parkside Dr. - Existing to Greenfields Dr. - Both Sides	1,108
Greenfields Ct. & Dr. - Both Sides	1,341
Hollybrook St. - Both Sides	1,451
Cowperthwaite St. - Both Sides	519
Tower Rd. - Built-Up Area - Both Sides	986
Daulphin St. - Both Sides	1,285
Manzer St. - Both Sides	1,871
Clayton St. - Both Sides	1,472
Miller St. - One Side	115
LaPointe Ct. - Both Sides	1,695
Grant St. - Both Sides	990
McPherson - Both Sides	275
Leslie St. - Both Sides	282
Perley Ave. - Both Sides	1,450
Prospect St. - One Side	304
*Fulton Ave. - Maple to End of Street - Both Sides	3,900
*Maple St. - Fulton to Douglas Ave. - Both Sides	6,760
*Douglas Ave. - Near St. John River to Maple -Both Sides	3,546
**Fairview Dr. - Both Sides	4,400
** Mooers Dr. - Both Sides	2,203
TOTAL 45,676	

45,676 Lineal Feet = 8.65 Miles

* Constructed by Seaboard Services Ltd.

** Constructed by Wilson Builders Ltd.

All the above Curb and Gutter was constructed by City Crews except those denoted by Asterisks.

All the concrete poured by City Crews was purchased ready-mix from Elmtree Concrete Ltd. at a price of \$27.30 per cubic yard. Seaboard Services Ltd. and Wilson Builders Ltd. were responsible for obtaining their own concrete.

The unit cost of one lineal foot of curb and gutter placed by City Crews, found by dividing the total length laid, which equalled 24,867 lineal feet into the total cost of \$161,853.24 was \$6.51 per lineal foot.

The unit cost of one lineal foot of curbing placed by Seaboard Services Ltd., found by dividing the total length laid, which equalled 14,206 lineal feet into the total cost of \$153,059.09 was \$10.77 per lineal foot.

The unit cost of one lineal foot of curbing placed by Wilson Builders Ltd., found by dividing the total length laid, which equalled 6,603 lineal feet into the total cost of \$65,552.19 was \$9.93 per lineal foot.

The topsoiling of boulevards is included in the above costs as well as design and supervision costs.

Topsoiling Costs:

Seaboard Services topsoiled all boulevards on streets which they constructed curb and gutter. All other boulevards were topsoiled by City Crews (including all streets on which Wilson Builders Ltd. constructed curb and gutter).

Seaboard Services:

Total Cost of Topsoiling, Fertilizer, Etc.....	\$ 33,165.00
Lineal Feet of Curb Constructed	14,206.00
Cost/Foot (Topsoiling)	\$ <u>2.33</u>
Therefore, Cost/Foot of Curbing Only .	\$ <u>8.33</u>

City Crews:

Labour	\$ 3,844.78
Hired Trucks & Machinery	-
City Machinery Charges	1,004.50
Materials	<u>14,387.80</u>
TOTAL	\$ <u>19,237.08</u>

Total Cost of Curbing, including Topsoiling	\$ 161,853.24
Cost of Topsoiling	<u>19,237.08</u>
TOTAL COST OF CURBING	\$ <u>142,616.16</u>

$$\text{Cost/Lin.Ft. in Place} = \frac{\$142,616.16}{24,867} = \$5.74$$

$$\text{Cost/Lin.Ft. of Topsoiling} = \frac{\$19,237.08}{27,067} = \$0.71$$

Labour cost of constructing 1 Lineal Foot of Curb and Gutter, minus Topsoiling was \\$77,473.83 = \$3.12
24,867

CAPITAL ACCOUNT PAVING

In 1975, Gorman Construction Co. Ltd. was awarded a contract to lay pavement and resurface a number of City Streets.

The material cost amounted to \$226,353.52 and was made up as follows:

Gorman Construction Co. Ltd.

1,901.80 Tons 1/2" Dense Mix Asphalt @ \$14.00 per ton ...	\$ 26,625.20
6,665.50 Tons 3/4" Dense Mix Asphalt @ \$15.00 per ton ...	99,982.50
1,716.45 Tons 3/8" Minus Asphalt @ \$18.00 per ton	30,896.10
2,892.85 Tons 1/2" Dense Mix Asphalt @ \$16.00 per ton ...	46,285.60
4,475 Gallons of RS1 Tack Coat @ \$0.50 per gallon	2,237.50
23,400 Gallons of N.B. Primer @ \$0.50 per gallon	11,700.00
30 Tons 1/2" Dense Mix Asphalt @ \$15.00 per ton	450.00

Diamond Construction (1961) Ltd.

129 Tons 3/4" Dense Mix Asphalt @ \$13.50 per ton	1,741.50
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A.D.I. Limited (Asphalt Testing Services)	3,580.64
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Miscellaneous---Journal Vouchers (Paint, Sand, Salaries, Pensions, Etc.)	2,854.48
TOTAL	\$ 226,353.52

The street preparatory work, other than the laying in place of the pre-mixed material, was done by regular City Crews at an expenditure of \$37,291.84 made up as follows:

City Labour	\$ 23,917.34
Hired Trucks & Machinery	-
City Machinery	<u>13,374.50</u>
TOTAL ...	\$ <u>37,291.84</u>

The total expenditure under this heading amounted to \$263,645.36 and was made up as follows:

62 8272	
City Labour	\$ 23,917.34
Hired Trucks & Machinery	-
City Machinery Charges	13,374.50
Gorman Construction Co. Ltd.	218,176.90
Diamond Construction (1961) Ltd. ...	1,741.50
A.D.I. Limited	3,580.64
Miscellaneous	<u>2,854.48</u>
NET EXPENDITURE	\$ <u>263,645.36</u>

29 000
Misc

The paving program required the supply and placement of the following grades of materials:

- 1) New pavement 3/4" Dense Mix @ \$15.00/Ton in Place
- 2) Recap 1/2" Minus @ \$16.00/Ton in Place
- 3) Surface Seal 3/8" Minus @ \$18.00/Ton in Place

- 1) New Pavement

The following streets were paved with 3/4" Dense Mix by Gorman Construction Co. Ltd.

<u>Location</u>	<u>Paving</u>	<u>Lineal Feet</u>
Beaconsfield St.		1,700
Priestman St. - Existing to College Hill Rd.		1,400
Parkside Dr. - Existing to Greenfields Dr.		900
Greenfields Dr. & Ct.		600
Meadow Green Ct.		800
Clayton St.		900
Manzer St.		900
Tilley Dr.		57
Daulphin St.		600
Hollybrook St.		700
Tower Rd.		300
Cowperthwaite St.		300
Lapointe St.		1,600
Miller St.		200
Grant St.		400
Leslie St.		140
McPherson St.		200
Perley Ave.		725
Fulton Ave. - Maple St. to End of Street		1,700
Flemming Rd. - Existing to Near Ayres St.		900
TOTAL		<u>15,022</u>

15,022 Lineal Feet = 2.85 Miles

7022

For the above, the following materials were used:

23,400 Gallons N.B. Prime @ \$0.50 per Gallon	\$ 11,700.00
6,695.50 Tons 3/4" Hot Mix Asphalt @ \$15.00 per Ton	<u>100,432.50</u>
TOTAL	<u>\$ 112,132.50</u>

The street grading and preparatory work was done by regular City Crews.

2) Recap 1/2" Minus

The following streets were recapped by Gorman Construction Co. Ltd. in 1975:

<u>Location</u>	<u>Lineal Feet</u>
Douglas Ave. - River end to Maple St.	1,490
Maple St. - Fulton Ave. to Douglas Ave.	3,500
Fairview Dr.	2,196
*Mooers Dr.	<u>1,040</u>
TOTAL	<u>8,226</u>

* Base-First Paving

8,226 Lineal Feet = 1.56 Miles

The following material was used for the above streets:

2,845.95 Tons 1/2" Minus Asphalt @ \$16.00 per Ton	\$ <u>45,535.20</u>
	<u>46 000</u>

3) Surface Seal -- 3/8" Minus

The following City Streets were surfaced sealed by Gorman Construction Co. Ltd. under "Capital Account" with 3/8" Minus Hot Mix:

<u>Location</u>	<u>Lineal Feet</u>
Riverside Dr. -- Hamilton Ct. to Near Watters Dr.	2,600 → <i>Joint</i>
McLeod Ave. -- Regent St. to Church St.	1,462
Prospect St. -- Smythe St. to Regent St.	3,220
Dufferin St. -- York St. to End of Existing	950
Tims Ct.	259
Chippin Ct.	259
Rankine St.	892
TOTAL	<u>9,642</u>

9,642 Lineal Feet = 1.83 Miles

For the above streets, the following materials were used:

1,716.45 Tons 3/8" Minus Asphalt @ \$18.00 per Ton	\$ 30,896.10
*4,475 Gallons Tack Coat @ \$0.50 per Gallon	<u>2,237.50</u>
TOTAL	<u>\$ 33,133.60</u>

* Portions were used in the Maintenance Paving Program.

CAPITAL ACCOUNT DOMESTIC SEWER

GROSS EXPENDITURE	\$ 328,997.97
LESS CREDIT	<u>272,825.83</u>
NET EXPENDITURE	<u>\$ 56,172.14</u>

Included in the Gross Expenditure of \$328,997.97 is the amount of holdback from jobs completed in 1975 and showing in 1976 accounts.

The above credit is made up as follows:

Journal Vouchers (Materials paid for by Capital Account Domestic Sewer & Charged to other City Departments)	\$ 85,017.03 ←
Work done and materials sold to Private Parties	3,494.30 ←
Parkside Development Ltd.)	9,373.59
Hill Brothers Realty Ltd.) Local	5,126.67
Hill Brothers Realty Ltd.) Improve-	5,518.09
Topmar Housing & Const. Ltd.) ment	15,633.17
D & R Cowperthwaite Housing) Charges	10,195.82
Chippins Ltd.)	50,641.70
Chippins Ltd.)	2,638.90

Metro Home Builders) Local	12,920.79
Bishop of Fredericton) Improve-	1,695.40
United Church of Canada	ment	1,058.70
Regent Shopping Malls Ltd.)	Charges	65,783.69
Credits re Invoices		<u>3,727.98</u> ←
TOTAL CREDITS.....		\$ <u>272,825.83</u>

Domestic Sewer Mains were constructed at the following locations:

Location	LINEAL					FEET				
	6" A.C.	8" A.C.	10" A.C.	12" A.C.	18" A.C.	24" A.C.	4" F.M.	6" F.M.	12" F.M.	14" F.M.
Wilsey Rd. -										
Topmar Apt.	250									
Burnham Ct.		282								
Matthews Ct.		410								
Longwood Dr. -										
Linden Cres.		2384								
Hollybrook St. -										
Hallett St.		724								
Kimble Rd.		598								
*** Regent St. South of T.C.H.		1190						1900		
Manor Place Subd. (Jewett & Kent)		1183								
*** Lapointe Ct. Area (Foster & Miller)		781								
Parkside Dev. -										
Greenfields Dr.		321								
Hillcourt Dr.		442								
Prospect St.								936		
* Lincoln Rd. #1		380					388			
* Lincoln Rd. #2		2783					1039			
* Lincoln Rd. #3		2680					1275			
* Lincoln Rd. #4		55								
* Lincoln Rd. #5		395				1923				
* Lincoln Rd. #6		50				832	47			
* Lincoln Rd. #8		845								
* Maple St. -										
Preston Dr.		13								
* Killarney Rd.		4561								
Brawnco Apt. Complex		404								
** Shadowood Estates		4000	1203	1698						
* Lincoln Rd. #7								615		
TOTALS	250	24097	1537	1698	1154	2755	2749	2836	2538	835

* See Capital Service Development Projects for Costs.

** Includes 1974 and 1975 totals for Shadowood Estates. Also, the 8" A.C. total includes 220 feet of 8" D.I. and the 12" A.C. total includes 195 feet of 12" D.I.

*** Incomplete in 1975.

TOTAL LINEAL FEET OF MAIN INSTALLED IN 1975 = 40,449 = 7.66 Miles

The actual cost of installing the above listed Domestic Sewer Mains excluding the Capital Service Development Projects (C.S.D.P.) was as follows:

Location	Payment to Contractors Including Reserve For Holdback	City Labour & Machinery	Materials	Total
Burnham Ct.	\$ 3,384.50	\$ 248.01	\$ 1,494.16	\$ 5,126.67
Matthews Ct.	3,515.00	198.63	1,804.46	5,518.09
Longwood Dr. - Linden Cres.	38,455.00	2,001.89	10,184.81	50,641.70
Hollybrook St. - Hallett St.	6,366.25	658.18	3,171.39	10,195.82
Kimble Rd.	7,380.00	775.58	2,630.42	10,786.00
Regent St. - South of T.C.H. (Incomplete)	35,200.00	2,313.37	33,070.09	70,583.46
Manor Place Subd.	9,281.00	633.92	5,401.72	15,316.64
Lapointe Ct. Area	10,348.00	861.05	4,424.12	15,633.17
Parkside Dev. - Greenfields Dr.	5,967.50	889.49	1,819.78	8,676.77
Prospect St.	10,282.00	272.53	9,547.45	20,101.98
TOTALS	\$130,179.25	\$ 8,852.65	\$73,548.40	\$212,580.30

The above costs include any holdback payments, thus showing the actual cost of construction.

The following is the cost of laying various sizes of pipe including manholes by Contractors and City Workmen and Machinery:

Location	C O S T P E R L I N E A L F O O T		
	8" A.C.	10" A.C.	6" Duct F.M.
Burnham Ct.	\$ 18.18		
Matthews Ct.	\$ 13.46		
Longwood Dr. - Linden Cres.	\$ 21.24		
Hollybrook St. - Hallett St.	\$ 14.08		
Kimble Rd.	\$ 18.04		
Regent St. - South of T.C.H.	\$ 21.18		\$ 24.14
Manor Place Subd.	\$ 12.95		
Lapointe Ct. Area	\$ 20.02		
Parkside Dev. - Greenfields Dr.		\$ 26.27	
Prospect St.			\$ 21.48
Hillcourt Dr.	\$ 30.38		

All the above Domestic Sewer Mains were laid in a common trench with the water main.

Materials in stock as of December 31, 1975:

925 Lin.Ft. of 8" A.C. @ \$2.82 per Foot	\$ 2,608.50
1352 Lin.Ft. of 10" A.C. @ \$2.33 per Foot	3,150.16
91 Lin.Ft. of 12" A.C. @ \$2.47 per Foot	224.77
70 Special "B" Sections @ \$104.51 each	7,315.70

6 Special "B" Sections c/w Spigots @ \$126.45 each	758.70
33 "A" Sections @ \$45.17 each	1,490.61
24 "B" Sections @ \$70.01 each	1,680.24
8 "C" Sections @ \$116.38 each	931.04
94 "D" Sections @ \$24.45 each	2,298.30
50 Flat Top "DX" Sections @ \$28.50 each	1,425.00
45 Manhole Frames & Covers @ \$132.89 each	<u>5,980.05</u>
TOTALS	\$ <u>27,863.07</u>

CAPITAL ACCOUNT SURFACE SEWER

GROSS EXPENDITURE	\$ 622,594.03
LESS CREDIT	<u>597.057.38</u>
NET EXPENDITURE	\$ <u>25,536.65</u>

The above credit is made up as follows:

Journal Vouchers (Materials paid for by Capital Account Surface Sewer & Charged to other City Departments)	\$ 145,991.99
Work done & materials sold to Private Parties	1,112.37
Parkside Devel. Ltd.)	14,933.98
Hill Bros. Realty Ltd.) Local	25,389.04
Hill Bros. Realty Ltd.) Improve-	9,842.23
D.&R.Cowperthwaite Housing) ment	20,088.97
Chippins Ltd.)	69,505.43
Metro Home Builders) Charges	28,878.61
Topmar Housing & Const.Ltd.)	23,180.09
Province of New Brunswick	
Claims Re Lincoln Road	254,498.34
Credits Re Invoices	<u>3,636.33</u>
TOTAL CREDITS	\$ <u>597,057.38</u>

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

Location	L I N E A L F E E T - CONCRETE PIPE									
	10"	12"	15"	18"	21"	24"	30"	36"	42"	48"
Wilsey Rd. - Topmar Apt.	<u>184</u>									
Burnham Ct.	<u>203</u>	<u>340</u>	<u>490</u>							
Matthews Ct.	<u>124</u>	<u>300</u>								
Longwood - Linden	<u>188</u>	<u>1264</u>	<u>820</u>	<u>310</u>						
Barker St.	<u>24</u>									
Hollybrook - Hallett	<u>56</u>	<u>738</u>								
Kimble Rd.	<u>33</u>	<u>241</u>	<u>383</u>							
Manor Place Subd.	<u>102</u>	<u>454</u>		<u>705</u>						
Lapointe Ct. Area - Foster St.	<u>136</u>	<u>426</u>	<u>353</u>							
Offtake - 747 Irvine	<u>16</u>									

Location	10"	12"	15"	18"	21"	24"	30"	36"	42"	48"
Lapointe Ct.	28									
Offtake - Ashfield near Gibson	24									
Offtake - Lot 101A- Tilley Dr.	28									
Offtake - Tilley Dr.	12									
Parkside Dev. - Greenfields Dr.	62									
Beaconsfield St.	24									
Pugh St. Ext.										
* Silverwood	253	2177	241	112						
* Nashwaaksis 128-10	567	3096	679	850						
* Nashwaaksis 128-11	524	1327	143	556						
* Lincoln Rd. #7				282						
* Marysville Reservoir	176		136		1564					
* Canada St.					422					
* Maple - Preston	12				80					
* Lincoln Rd. #1						433				
* Lincoln Rd. #2							641			
* Lincoln Rd. #4	306	1150	1108	738						
* Lincoln Rd. #5	232		1430	274		273				
* Lincoln Rd. #8		396				662				
** Shadowood Estates	307	1715	688	702	600	242				
Brawnco Apt. Complex		80					857			
* Killarney Reservoir		200						862	540	135
TOTALS	3621	14041	6383	4529	600	3243	1290	1503	540	135

* See Capital Service Development Projects for Costs.

** Includes 1974 and 1975 Totals for Shadowood Estates.

NOTE: 767 feet of 8 inch and 692 feet of 12 inch Perforated Drainage Pipe was also installed in Lincoln Rd. #5 Contract and 869 feet of 8 inch Perforated Drainage Pipe was installed in Lincoln Rd. #8 Contract.

Therefore, TOTAL LINEAL FEET OF MAIN INSTALLED IN 1975 = 35,885
and, TOTAL LINEAL FEET OF PERFORATED DRAINAGE PIPE INSTALLED IN 1975 = 2,328

An itemized account was kept for the installing of the above Surface Sewers at the following locations (excluding the C.S.D.P. - Capital Service Development Projects):

Location	Payment To Contractors Including Reserve For Holdbacks	City Labour & Machinery	Material	Total
Burnham Ct.	\$ 16,012.00	\$ 697.14	\$ 8,679.90	\$ 25,389.04
Matthews Ct..	6,603.00	224.19	3,015.04	9,842.23
Longwood Dr. - Linden Cresc.	47,137.00	1,638.79	20,729.64	69,505.43

Hollybrook St. -				
Hallett St.	12,443.00	1,355.98	6,289.99	20,088.97
Kimble Rd.	13,658.00	653.48	4,658.85	18,970.33
Manor Place Subd.	17,882.00	476.94	10,996.61	29,355.55
Lapointe Ct. Area -				
Foster St.	13,745.00	1,407.44	8,027.65	23,180.09
Parkside Devel. -				
Greenfields Dr.	3,849.92	35.10	1,166.28	5,051.30
TOTALS	\$ 131,329.92	\$ 6,489.06	\$ 63,563.96	\$201,382.94

Following is the cost of laying various sizes of pipe including Catch Basins and Manholes in place:

Location	C O S T	P E R	L I N E A L	F O O T
	10"	12"	15"	18"
Burnham Ct.	\$ 22.13	\$ 24.43	\$ 25.70	
Matthews Ct.	\$ 21.89	\$ 23.76		
Longwood Dr. - Linden Cresc.	\$ 24.57	\$ 26.44	\$ 27.71	\$ 28.18
Hollybrook St. -				
Hallett St.	\$ 23.56	\$ 25.43		
Kimble Rd.	\$ 26.39	\$ 28.26	\$ 29.53	
Manor Place Subd.	\$ 20.59	\$ 22.46		\$ 24.20
Lapointe Ct. Area	\$ 23.25	\$ 25.12	\$ 26.39	
Parkside Devel. -				
Greenfields Dr.	\$ 26.06	\$ 26.65	\$ 29.05	

Stock on hand December 31, 1975:

1084 Lin.Ft. of 10" Concrete @ \$2.12 per Foot	\$ 2,298.08
1712 Lin.Ft. of 12" Concrete @ \$3.87 per Foot	6,625.44
592 Lin.Ft. of 15" Concrete @ \$5.07 per Foot	3,001.44
960 Lin.Ft. of 18" Concrete @ \$5.53 per Foot	5,308.80
1216 Lin.Ft. of 24" Concrete @ \$10.10 per Foot	12,281.60
288 Lin.Ft. of 30" Concrete @ \$13.83 per Foot	3,983.04
232 Lin.Ft. of 36" Concrete @ \$18.37 per Foot	4,261.84
8 C.B. Frames & Covers @ \$167.72 each	1,341.76
50 C.B. Frames & Covers @ \$139.37 each	6,968.50
TOTALS	\$ 46,070.50

CAPITAL ACCOUNT WATER

GROSS EXPENDITURE	\$ 964,084.20
LESS CREDITS	<u>327,731.00</u>
NET EXPENDITURE	<u>\$ 636,353.20</u>

The above credit is made up as follows:

Journal Vouchers (Materials paid for by Capital Account Water & Charged to other City Departments \$ 73,076.99
 Work done & materials sold to

Private Parties	13,947.44
Parksides Devel. Ltd.)	20,586.94
Hill Bros. Realty Ltd.)	4,345.88
Hill Bros. Realty Ltd.)	5,246.56
D.&R. Cowperthwaite Housing) Local	21,460.98
Chippins Ltd.) Improve-	54,953.63
Chippins Ltd.) ment	4,117.85
Metro Home Builders) Charges	19,433.80
Topmar Housing Ltd.)	23,342.88
Bishop of Fredericton)	2,645.56
United Church of Canada)	1,652.04
Regent Shopping Malls Ltd.)	60,983.91
Credits Re Invoices	17,216.65
Credits on Materials	<u>4,119.89</u>
TOTAL CREDITS	<u>\$ 327,731.00</u>

Water Main Installations were made at the following locations in 1975:

Location	LINEAL FEET						
	4"	6"	8"	10"	12"	14"	16"
* Burnham Ct.		245					
* Matthews Ct.	402						
* Longwood Dr. - Linden Cresc.		51	1738				
✓ Barker St.	9	49			961		
* Hollybrook - Hallett St.		35	785				
Kimble Rd.		685					
✓ *** Regent St. -							
30% South of T.C.H.		50	120	35	1900		
* Manor Place Subd.		528	695				
* *** Lapointe Ct. Area - Foster St.		1102					
* Parkside Devel. -		34		689			
Greenfields Dr.		1367					
* Nashwaaksis 128-10		1453					
* Nashwaaksis 128-11		20	55		3702		
* Lincoln Rd. #1		128			2655		
* Lincoln Rd. #2		96			2751		
* Lincoln Rd. #3		721			855		
* Lincoln Rd. #5		32			850		
* Lincoln Rd. #8		8	8	8	56		
* Marysville Reservoir		380		50	1460	2615	8044
* Killarney Rd.		472					
Brawnco Apt. Complex ✓		3536	3249				
* * Shadowood Estates		192	/				
✓ Wilsey Rd. - Topmar Apt.	TOTALS	411	11184	6650	782	15190	2615
							8044

TOTAL LINEAL FEET OF MAIN INSTALLED IN 1975 = 44,876

- * See Capital Service Development Projects for Costs.
- ** Includes 1974 and 1975 Totals for Shadowood Estates.
- *** Incomplete in 1975.

An itemized account was kept for the installing of Water Mains at the following locations and expenditures were made up as follows (does not include the Capital Service Development Projects -- C.S.D.P.):

Location	Payments to Contractors Including Reserve for Holdbacks	City Labour & Machinery	Materials	Total
Burnham Ct.	\$ 2,796.50	\$ 165.61	\$ 1,383.77	\$ 4,345.88
Matthews Ct.	3,529.50	169.17	1,547.89	5,246.56
Longwood Dr. - Linden Cres.	29,951.00	1,782.71	23,219.92	54,953.63
Barker St.	19,351.25	3,288.36	24,816.43	47,456.04
Hollybrook St. - Hallett St.	9,349.25	623.52	11,488.21	21,460.98
Kimble Rd.	8,750.00	757.26	7,323.63	16,830.89
Regent St. - South of T.C.H.	21,752.00	3,519.61	38,975.10	64,246.71
Manor Place Subd.	9,861.00	326.29	12,222.86	22,410.15
Lapointe Ct. Area	12,351.50	790.09	10,201.29	23,342.88
Parkside Devel. - Greenfields Dr.	8,290.40	1,010.39	10,150.55	19,451.34
TOTALS	\$125,982.40	\$12,433.01	\$141,329.65	\$279,745.06

The following shows the cost per foot for laying various sizes of pipe at locations shown:

Location	C O S T P E R L I N E A L F O O T				
	4"	6"	8"	10"	12"
Burnham Ct.		\$ 18.18			
Matthews Ct.	\$ 13.00				
Longwood Dr. - Linden Cres.		\$ 30.22	\$ 32.45		
Barker St.	\$ 38.67	\$ 40.12			\$ 46.97
Hollybrook St. - Hallett St.		\$ 23.71	\$ 26.28		
Kimble Rd.		\$ 23.77			
Regent St. - South of T.C.H.		\$ 22.64	\$ 24.87	\$ 27.16	\$ 31.34
Manor Place Subd.		\$ 17.06	\$ 19.29		
Lapointe Ct. Area		\$ 21.38			
Parkside Devel. - Greenfields Dr.		\$ 22.29	\$ 24.52	\$ 26.81	

Total Inventory Value as of December 31, 1975 \$111,662.04

Cost of Well Water Supply Todate (South Side)

Total Cost to December 31, 1974 \$ 427,007.38

Plus: Expenditures for 1975 518,626.70

TOTAL COST TO DEC. 31/75 \$ 945,634.08

The expenditures for 1975 were for the following:

Water Exploration (Fredericton South)	\$ 26,231.57
Water Exploration (Silverwood)	12,900.00
Montgomery St. Storage Reservoir	442.20
Smythe St. Reservoir Extension	478,299.80
Western Suburbs Reservoir	<u>753.13</u>
TOTAL	<u>\$ 518,626.70</u>

Fredericton North Water Supply Including Wells, Reservoirs, Etc.

Total Cost to Dec. 31/1974	\$ 563,532.17
Plus: Expenditure for 1975	<u>412,028.45</u>
TOTAL COST TO DEC. 31/75	<u>\$ 975,560.62</u>

The expenditures for 1975 were for the following:

Barker's Point Well #1	\$ 6,500.00
Nashwaaksis Well #1	25,718.21
✓ Marysville Reservoir	89,605.51
Water Exploration (Future Supply ~ North Side)	70,681.09
✓ Killarney Road Reservoir	<u>219,523.64</u>
TOTAL	<u>\$ 412,028.45</u>

CAPITAL SERVICE DEVELOPMENT PROJECTS

In 1974, projects were begun to upgrade and extend services in the newly amalgamated areas. Further projects were undertaken in 1975. These projects are known as Capital Service Development Projects -- C.S.D.P.

Each of the projects, whether commenced or completed, will be dealt with individually.

NOTE: Expenditures will be dealt with only. For any projects which involved pipe laying, the length and size of pipe laid will be found in tables either under "Capital Water", "Capital Domestic Sewer", or "Capital Storm Sewer".

✓ (1) C.S.D.P. -- Marysville Reservoir:

In 1974, work commenced on a new 625,000 I.G. Reservoir to increase the storage capacity for the Marysville Area. This work continued into 1975.

GROSS EXPENDITURE	\$ 90,684.63
LESS CREDITS	<u>1,079.12</u>
1975 NET EXPENDITURE	89,605.51
1974 NET EXPENDITURE	<u>148,419.45</u>
TOTAL NET EXPENDITURE FOR PROJECT TODATE	<u>\$ 238,024.96</u>

(2) C.S.D.P. -- Fredericton North ~ Water Supply:

In 1974, Canadian British Consultants undertook an exploration program for a future water supply at the second level in North Fredericton. In 1974-75, 11 test holes were drilled, which resulted in the developing of locations for the two wells in the Killarney Rd. System.

GROSS EXPENDITURE	\$ 73,216.89
LESS CREDITS	<u>-</u>
1975 NET EXPENDITURE	73,216.89
1974 NET EXPENDITURE	<u>32,023.99</u>
TOTAL NET EXPENDITURE FOR PROJECT TODATE	\$ <u>105,240.88</u>

(3) C.S.D.P. -- MacDonald Avenue & Park Street:

This project included the complete upgrading of the water mains on MacDonald Avenue and Park Street including the connection of house services to the new mains.

GROSS EXPENDITURE	\$ 90,063.58
LESS CREDITS	<u>1,670.07</u>
NET EXPENDITURE	\$ <u>88,393.51</u>

(4) C.S.D.P. -- MacFarlane St., Cedar Ave., Cherry Ave. & Brawn Ct.

This project included the upgrading of water mains on Brawn Ct. MacFarlane St. -- From Cherry Ave. to Fulton Ave., Cedar Ave. -- From Teak Dr. to Fulton Ave., and the connection of house services to the above new mains as well as on Cherry Ave.

GROSS EXPENDITURE	\$ 115,478.81
LESS CREDITS	<u>361.76</u>
NET EXPENDITURE	\$ <u>115,117.05</u>

(5) C.S.D.P. -- Lincoln Rd.:

The installation of water mains and water services on Lincoln Road from the Research Station to Glasier Rd. was begun in 1975. In 1976 this project will be continued.

GROSS EXPENDITURE	\$ 376,114.92
LESS CREDITS	<u>4,037.02</u>
1975 NET EXPENDITURE	372,077.90
1974 NET EXPENDITURE	<u>191,390.23</u>
TOTAL NET EXPENDITURE FOR PROJECT TODATE	\$ <u>563,468.13</u>

(6) C.S.D.P. -- Marysville -- Supply Line Interconnection

1975 EXPENDITURE	\$ 2,230.05
1974 EXPENDITURE	<u>129.93</u>
NET EXPENDITURE FOR PROJECT	\$ <u>2,359.98</u>

(7) C.S.D.P. -- Silverwood -- Water

This project included the drilling and test pumping for a new well in Silverwood, the clearing and grubbing of the road to a proposed well site and the construction of manholes around gate valves, formerly protected by standpipe, on various Silverwood streets.

GROSS EXPENDITURE	\$ 43,106.82
LESS CREDITS	<u>1,023.64</u>
1975 NET EXPENDITURE	42,083.18
PREVIOUS EXPENDITURES	<u>47,381.30</u>
TOTAL EXPENDITURE TODATE	\$ <u>89,464.48</u>

(8) C.S.D.P. -- Water -- Woodstock Rd. - Garden Creek Area

This project involved the design of water mains and services and a reservoir to service the Woodstock Rd. - Garden Creek Area from the existing services on the Woodstock Rd. to Montieth Drive off the Trans Canada Highway.

GROSS EXPENDITURE	\$ 8,142.17
LESS CREDITS	<u>127.96</u>
1975 NET EXPENDITURE	\$ <u>8,014.21</u>

(9) C.S.D.P. -- Domestic Sewer -- Woodstock Rd. -- Garden Creek Area

This project involved the design of domestic sewer mains and services, lift stations, treatment plant and outfall for the Woodstock Rd. - Garden Creek Area from the existing services on the Woodstock Rd. to Montieth Drive off the Trans Canada Highway.

GROSS EXPENDITURE	\$ 96,303.18
LESS CREDITS	<u>179.75</u>
1975 NET EXPENDITURE	96,123.43
PREVIOUS EXPENDITURES (1974)	<u>21,924.39</u>
TOTAL EXPENDITURE TODATE	\$ <u>118,047.82</u>

(10) C.S.D.P. -- Fulton Ave. - Douglas Ave.

This project included holdbacks and the finishing of work which commenced in 1974 on water main upgrading, storm sewer and service laterals.

1975 EXPENDITURE	\$ 16,752.32
1974 EXPENDITURE	<u>400,432.23</u>
NET EXPENDITURE OF PROJECT TODATE	\$ <u>417,184.55</u>

(11) C.S.D.P. -- Maple St. - Preston Dr.

This project included holdbacks and the finishing of work which commenced in 1974 on water main upgrading, domestic sewer upgrading, and storm sewer construction.

1975 EXPENDITURE	\$ 21,595.47
1974 EXPENDITURE	<u>281,238.76</u>
NET EXPENDITURE OF PROJECT	\$ <u>302,834.23</u>

(12) C.S.D.P. -- Lincoln Rd. -- Domestic Sewer

In 1975, work commenced to provide Lincoln Rd. from near Draco Rd. to Glasier Rd. with domestic sewer service including mains, services, and lift stations. This work will be completed in 1976.

GROSS EXPENDITURE	\$ 720,821.09
LESS CREDITS	<u>3,262.42</u>
1975 NET EXPENDITURE	717,558.67
1974 NET EXPENDITURE	<u>45,591.47</u>
TOTAL NET EXPENDITURE FOR PROJECT TODATE	\$ <u>763,150.14</u>

(13) C.S.D.P. -- Aerated Lagoon -- Lincoln:

In 1974, construction began on an aerated lagoon to service the Lincoln Rd. and Lincoln Area. This work continued into 1975.

GROSS EXPENDITURE	\$ 112,953.70
LESS CREDITS	<u>732.10</u>
1975 NET EXPENDITURE	112,221.60
1974 NET EXPENDITURE	<u>31,643.52</u>
TOTAL NET EXPENDITURE FOR PROJECT TODATE	\$ <u>143,865.12</u>

The above expenditure includes those for Lagoon Structures.

(14) C.S.D.P. -- Barker's Point

The purpose of this project was to replace three lift stations on Riverside Drive. The only expenditures incurred for this project in 1975 were for professional services by Canadian British Consultants Ltd.

EXPENDITURE \$ 826.03 ✓

(15) C.S.D.P. -- Water -- Killarney Lake Reservoir

In 1975, construction began on a new reservoir near Killarney Lake to service Killarney Road and the second level supply system, North Fredericton. Construction will continue in 1976.

1975 EXPENDITURE \$ 219,523.64 ✓

(16) C.S.D.P. -- Water -- Killarney Road

In 1975, construction began on the installation of water mains from the former City of Fredericton line to the new reservoir near Killarney Lake. Construction will continue in 1976.

~~173,468.38
+ 39,21.09
517,489.47~~ 1975 EXPENDITURE \$ 516,738.60 ✓

(17) C.S.D.P. -- Domestic Sewer -- Killarney Road

This project involved the installation of domestic sewer mains from existing to the end of gravity grade on Killarney Road.

~~KILLARNEY
GR. WATER
517,489.47~~ 1975 EXPENDITURE \$ 110,984.04 ✓

(18) C.S.D.P. - Storm Sewer ~ MacDonald Ave., Park St., Longwood Dr., Lilac Cres., & Lawrence Cres. 12220

This project involved the installation of storm sewer mains and connection of storm sewer house laterals for the above streets.

GROSS EXPENDITURE \$ 446,655.64 ✓ ✓

LESS CREDITS 1,976.94

NET EXPENDITURE \$ 444,678.70

(19) C.S.D.P. - Storm Sewer - Brookside Dr., Wallace Ave., Alder Ave. & Outfalls

This project involved the installation of storm sewer mains and storm sewer house laterals for the above streets and the installation of storm sewer outfalls on Wallace Ave., Lynn St., Pugh St., and Carson Ave.

GROSS EXPENDITURE \$ 223,463.87 ✓ ✓

LESS CREDITS 795.67

NET EXPENDITURE \$ 222,668.20

(20) C.S.D.P. -- Storm Sewer -- Silverwood:

The scope of this project was the installation of storm sewer mains on Hummingbird St., Birchcroft Dr., Westwood Dr., and Robin Dr. including the connection of any existing storm sewer house drains.

EXPENDITURE \$ 76,811.88



(21) C.S.D.P. -- Service Depot -- North Fredericton:

In 1975, construction began on a new service depot on Killarney Road for North Fredericton. Construction will continue into 1976.

GROSS EXPENDITURE \$ 366,636.81

LESS CREDITS _____

1975 NET EXPENDITURE 366,636.81

1974 NET EXPENDITURE 13,873.23

TOTAL NET EXPENDITURE OF PROJECT TODATE \$ 380,510.04

The above expenditures were for design, supervision and construction costs.

(22) C.S.D.P. --- Equipment Acquisition:

In 1975, the City purchased a Vacuum Type Street Sweeper for North Fredericton and a Wayne Sweeper for South Fredericton. Other equipment purchased included spreaders, sanders, plows and wing assemblies, ice control units, trucks, etc. (See List of Machinery purchased and charged to Capital Service Development Equipment).

1975 EXPENDITURE \$ 165,149.47

PREVIOUS EXPENDITURES 101,148.32

TOTAL EXPENDITURE TODATE \$ 266,297.79

(23) C.S.D.P. - Solid Waste Disposal Site:

Expenditures incurred for this project in 1975 were for MacLaren Atlantic Ltd. regarding the study for a proposed site.

1975 EXPENDITURE \$ 8,725.42

PREVIOUS EXPENDITURES 3,153.34

TOTAL TODATE \$ 11,878.76

(24) C.S.D.P. -- Water -- Well #1 -- Nashwaaksis



This project began in 1974 and involved the construction of a new well house and obtaining new pumps to reactivate the well. The 1975 expenditure was for further construction costs and professional services.

1975 EXPENDITURE	\$ 25,718.21
1974 EXPENDITURE	<u>28,567.08</u>
NET COST OF PROJECT TODATE	\$ <u>54,285.29</u>

(25) C.S.D.P. -- Storm Sewer -- Canada Street

The purpose of this project was to alleviate a drainage problem in the area of the Gulf Service Station and the N.B.E.P.C. Service Centre on Canada Street.

EXPENDITURE	\$ <u>2,454.74</u>
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(26) C.S.D.P. -- Storm Sewer --- Nashwaaksis - 128-8

EXPENDITURE	\$ <u>4,184.55</u>
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The above expenditure was for professional services regarding a preliminary survey of 1975 Capital Works Projects.

(27) C.S.D.P. -- Storm Sewer - Nashwaaksis - 128-12

EXPENDITURE	\$ <u>571.50</u>
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The above expenditure was for professional services regarding 1976 Storm Sewer Construction.

(28) C.S.D.P. -- Nashwaaksis Stream -- Syphon D.S.

EXPENDITURE	\$ <u>3,700.77</u>
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The above expenditure was for consulting services by Canadian British Consultants Ltd.

(29) C.S.D.P. -- Water -- Power Line Right-of-Way

EXPENDITURE	\$ <u>4,936.75</u>
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The above expenditure was for professional services and surveying services regarding extending water mains from Killarney Road to service the new Fredericton North High School and the Nashwaaksis Second Level Water System.

The following items of machinery were purchased in 1975 and charged to Capital Service Development Equipment:

2 - G.M.C. Trucks with Ice Control Units - ASSET NO.'S 103 & 104	
Cost	\$ 30,430.00
Plus 8% S.S.&E. Tax	<u>2,434.40</u>
TOTAL COST	\$ <u>32,864.40</u>

2 - Oneway Plows and Wing Assemblies mounted on Frink Sander Units for ASSET NO.'S 103 & 104

Cost	\$ 13,180.00
Plus 8% S.S.&E. Tax	<u>1,054.40</u>
TOTAL COST	\$ <u>14,234.40</u>

1 - G.M.C. Truck and Ice Control Unit -- ASSET NO. 105

Cost	\$ 15,215.00
Plus 8% S.S.&E. Tax	<u>1,217.20</u>
TOTAL COST	\$ <u>16,432.20</u>

2 - "Good Roads" E2 Spreaders for ASSET NO.'S 101 & 102

Cost	\$ 8,500.00
Plus 8% S.S.&E. Tax	<u>680.00</u>
TOTAL COST	\$ <u>9,180.00</u>

2 - E2 Good Roads 10 Foot Sanders

Cost	\$ 8,900.00
Plus 8% S.S.&E. Tax	<u>712.00</u>
TOTAL COST	\$ <u>9,612.00</u>

2 - International Scout II, with Meyers Electrolift Snowplows -- ASSET NO.'S 121 & 122

Serial #'s EGD20769 & EGD20773

Cost	\$ 11,948.96
Plus 8% S.S.&E. Tax	955.92
Plus Licenses	<u>12.00</u>
TOTAL COST	\$ <u>12,916.88</u>

1 - G.M.C. 3 Ton -- ASSET. NO. 24

Serial #TCS615V580506

Selling Price	\$ 9,451.00
Plus 8% S.S.&E. Tax	668.08
Plus License	<u>6.00</u>
Total Cash Price	10,125.08
Less Discount	<u>1,100.00</u>
TOTAL COST	\$ <u>9,025.08</u>

1 - G.M.C. 3 Ton -- ASSET. NO. 25

Serial #TCS615V580748

Selling Price	\$ 9,451.00
Plus 8% S.S.&E. Tax	668.08
Plus License	<u>6.00</u>
Total Cash Price	10,125.08
Less Discount	<u>1,100.00</u>
TOTAL COST	\$ <u>9,025.08</u>

1 - Ford 5 Ton Truck -- ASSET NO. 203

Serial # F75FVX-27145

Cost	\$ 13,377.60
Less Trade-In of 1969 Dodge (#203)	<u>2,645.60</u>
	10,732.00
Plus 8% S.S.&E. Tax	857.56
Plus License	<u>6.00</u>
TOTAL COST	\$ <u>11,595.56</u>

1 - Vacuum Type Street Sweeper -- ASSET NO. 53

Cost	\$ 29,894.00
Plus 8% S. S. & E. Tax	<u>2,391.52</u>
TOTAL COST	\$ <u>32,285.52</u>

CAPITAL ACCOUNT GRAVEL ROADS

GROSS EXPENDITURE	\$ 196,731.64
LESS CREDITS	<u>131,219.61</u>
NET EXPENDITURE	\$ <u>65,512.03</u>
The above credits are made up as follows:	<u>43 000</u>
Journal Vouchers	\$ 7,436.43
New Brunswick Housing Corp.) Local	27,245.10
Parkside Development Ltd.) Improvement	14,478.74
Hill Bros. Realty Ltd.) Charges	17,141.77
Hill Bros. Realty Ltd.)	4,301.94

D.&R. Cowperthwaite Housing)	Local	10,047.07
Chippins Ltd.) Improvement	33,011.56
Metro Home Builders)	17,278.12
Topmar Housing Ltd.) Charges	248.64
Credit Re Invoices		<u>30.24</u>
	TOTAL	\$ <u>131,219.61</u>

Included in the above expenditures are:

- (1) Grading and Gravelling Curbed Streets
- (2) Gravel Road Construction

1). Grading and Gravelling Curbed Streets

The list of streets under this heading will be found under "Capital Curb & Gutter" which is found in the body of this report on Page 23. The expenditure for gravelling curbed streets amounted to \$43,169.17. *36 00 0*

2). Gravel Road Construction

The cost of constructing and gravelling the following streets under this heading was as follows:

Location	Lineal Feet	Expenditure
Burnham Ct. (Includes part of Colonial Heights)	968	\$ 17,141.77
Hollybrook St. - Hallett St.	723	10,047.07
Longwood Dr. - Linden Cres.	2,249	33,011.56
Matthews Ct.	412	4,301.94
Parkside Dev. - Greenfields Dr.	760	12,326.59
Pugh St. Extension	401	9,089.02
Manor Place Subd.	1,325	17,700.26
Shadowood Estates	4,699	-
TOTALS	11,537	\$ 103,618.21

The total mileage for new street construction under Capital Account Gravel Roads for 1975 = 2.19 Miles

CAPITAL MAINTENANCE DEPOT

EXPENDITURE	\$ <u>3,536.40</u>
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The above expenditure was for the following:

Gorman Construction Ltd. (Asphalt)	\$ 1,760.40
Dobbelssteyn Electric Ltd. (Installing Frost Plugs)	<u>1,776.00</u>
TOTAL	\$ <u>3,536.40</u>

CAPITAL ACCOUNT CITY HALL

EXPENDITURE \$ 887.07

The above expenditure was for Journal Vouchers regarding payroll, city pension and city machinery.

CAPITAL ACCOUNT WADING POOLS

EXPENDITURE \$ 375.46

The above expenditure was for Journal Vouchers regarding payroll, City Pension, Canada Pension, and Service to Wading Pools.

LOCAL IMPROVEMENT - 1975

The following summary of Local Improvement Projects undertaken or continued from 1975, shows the actual cost of construction (including holdback payments) which was paid for by the subdivider.

Location	Service	Cost	No. of Lots
✓ Parkside Development (Greenfields Dr.)	Water Domestic Sewer Storm Sewer Gravel Road Sidewalk	\$ 22,113.08 11,163.50 19,113.14 14,478.74 <u>3,905.00</u>	Subdivision Pending
	TOTAL	<u>\$ 70,773.46</u>	
N.B. Housing Corp. (Wetmore Rd. Chandler Dr. Bliss St. Colebrook Ct.)	Water Domestic Sewer Storm Sewer Gravel Road Sidewalk	\$ 81,131.74 47,888.44 78,727.81 72,933.73 <u>14,105.00</u>	71 Single 1 Multiple
	TOTAL	<u>\$ 294,786.72</u>	
✓ Hill Brothers (Burnham Ct.)	Water Domestic Sewer Storm Sewer Gravel Road Sidewalk	\$ 4,345.88 5,126.67 25,389.04 17,141.77 <u>2,986.00</u>	19 Single
	TOTAL	<u>\$ 54,989.36</u>	
✓ Hill Brothers (Matthews Ct.)	Water Domestic Sewer Storm Sewer Gravel Road	\$ 5,246.56 5,518.09 9,842.23 <u>4,301.94</u>	12 Single
	TOTAL	<u>\$ 24,908.82</u>	

✓ Chippins Ltd. (Linden Crescent, Longwood Dr.)	Water Domestic Sewer Storm Sewer Gravel Road Sidewalk	\$ 54,953.63 50,641.70 69,505.43 33,011.56 <u>4,005.00</u>	
	TOTAL	<u>\$212,117.32</u>	49 Single
✓ D.&R. Cowperthwaite (Hollybrook St. Hallett St.)	Water Domestic Sewer Storm Sewer Gravel Road	\$ 21,460.98 10,195.82 20,088.97 <u>10,047.07</u>	13 Single
	TOTAL	<u>\$ 61,792.84</u>	
✓ Metro Home Builders * Kent St. & Jewett St. (Manor Place)	Water Domestic Sewer Storm Sewer Gravel Road	\$ 19,433.80 12,920.79 28,878.61 <u>17,278.12</u>	27 Single
	TOTAL	<u>\$ 78,511.32</u>	

* Engineering Costs and 12% of Water & Sewer Costs to City of Fredericton by Prior Agreement with Village of Nashwaaksis.

✓ Topmar - Lapointe Foster St. (Incomplete)	Water Domestic Sewer Storm Sewer Gravel Road	\$ 23,342.88 15,633.17 23,180.09 <u>248.64</u>	12 Single 2 Duplex
✓ Kimble Road **	Water Domestic Sewer Storm Sewer Gravel Road	\$ 16,830.89 10,786.00 18,970.33 <u>15,162.86</u>	Subdivision Pending

** 50% of Water & Sewer Costs billed to Abutting Owners by Resolution of City Council.

	Water	Dom. Sewer	Totals
Chippins Ltd. Bishop of Fredericton United Church of Canada	\$ 2,638.90 1,695.40 1,058.70	\$ 4,117.85 2,645.56 1,652.04	\$ 6,756.75 4,340.96 2,710.74
TOTAL	<u>\$ 5,393.00</u>	<u>\$ 8,415.45</u>	<u>\$13,808.45</u>
✓ Regent St. - South of T.C.H. *** Ira Young & Assoc. Shopping Mall (Incomplete)	Water Domestic Sewer	\$ 60,983.91 <u>65,783.69</u>	Servicing Mall & Motel
	TOTAL	<u>\$126,767.60</u>	

*** 90% of Water & Sewer Costs Billed to Applicant by Agreement with City.

SUMMARY OF COSTS TO DEVELOPERS - 1975

Water	\$ 309,843.35
Domestic Sewer	235,657.87
Storm Sewer	293,695.65
Gravel Road	184,604.43
Sidewalk	<u>25,001.00</u>
. TOTAL	<u>\$ 1,048,802.30</u>

Number of Lots Developed ----- 203 Single
 2 Duplex
 1 Multiple

ENVIRONMENTAL HEALTH SERVICES

GROSS EXPENDITURE	\$ 319,503.06
LESS CREDITS	<u>4,577.34</u>
NET EXPENDITURE	<u>\$ 314,925.72</u>

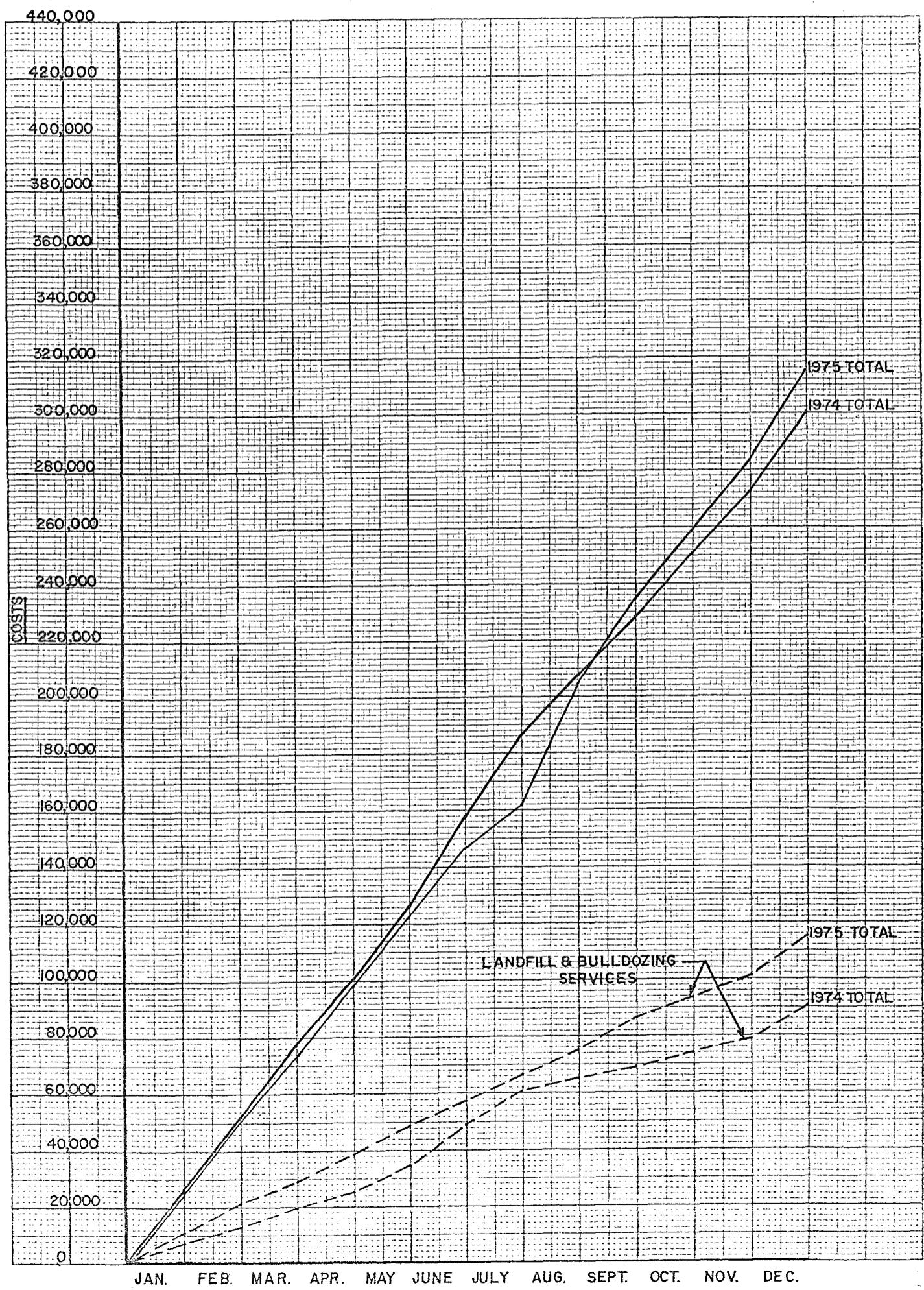
Under the above heading, the following items are included:

- (1) Garbage & Waste Collection
- (2) Sanitary Landfill --- Disposal
- (1) Garbage & Waste Collection:

Up until July, 1975, Garbage and Waste Collection was operated by Graymoor Holdings Ltd. Their contract was then terminated by the City for default of contract and new tenders were called. Maritime S & S Ltd. were awarded the new contract.

The amount paid for the above operation was \$199,879.50 and is made up as follows:

Graymoor Holdings Ltd. - Collection Contract.....	\$ 85,673.14
Maritime S. & S. Ltd. - Truck Rentals	18,400.00
Maritime S. & S. Ltd. - Collection Contract	57,872.74
City of Fredericton - Performance Bonds Re Contracts	12,000.00
Thomas McCarty - Collection	492.68
City Labour, Hired Machinery, City Machinery, Pensions & Compensation during Default of Contractor	24,468.92
The Daily Gleaner - Advertisement	313.96
Miscellaneous - Coveralls, Safety Vests, Gloves, Etc.	<u>658.06</u>
TOTAL COLLECTION COSTS \$	<u>199,879.50</u>



(2) Sanitary Landfill - Disposal:

The expenditure under this section was for the following:

Bulldozing Services (Contract)	\$ 38,840.00
Gravel & Cover Material	51,319.02
Bemrose & Kilburn (Use of D8 Tractor)	5,600.00
City Labour, Hired Machinery, City Machinery, Pensions and Compensation	19,347.80
Miscellaneous - Paint, Wire, Keys, Etc.	<u>138.55</u>
GROSS EXPENDITURE	115,245.37
<u>LESS CREDIT:</u> James Edwards - Paper Salvage	<u>199.15</u>
NET EXPENDITURE	\$ 115,046.22

PUBLIC HEALTH SERVICES - CEMETARIES

Under this heading are included:

- (1) The Old Burial Ground
(2) The Loyalist Burial Ground

(1) The Old Burial Ground

GROSS EXPENDITURE	\$ 5,524.34
LESS CREDITS	<u>255.50</u>
NET EXPENDITURE	\$ <u>5,268.84</u>

The above expenditure was made up as follows:

Personnel (Labour, Pensions, Compensation)	\$ 4,378.81
General Services (Machinery, Lighting, Etc.)	520.98
Goods (Materials, Tools, Etc.)	<u>624.55</u>
GROSS EXPENDITURE	\$ 5,524.34

<u>LESS CREDIT:</u> Central & Nova Scotia Trust (Trust Fund) ...	<u>255.50</u>
NET EXPENDITURE	\$ <u>5,268.84</u>

(2) The Loyalist Burial Ground

GROSS EXPENDITURE	\$ 133.52
LESS CREDITS	<u>-</u>
NET EXPENDITURE	\$ <u>133.52</u>

The above expenditure was made up as follows:

Personnel (Labour, Pensions, Compensation)	\$ <u>133.52</u>
TOTAL	\$ <u>133.52</u>

CULTURAL SERVICES

(a) WILMOT PARK

Expenditure \$ 13,040.35

The above expenditure is made up as follows:

Personnel (Labour, Pensions, Compensation)	\$ 9,900.57
General Services (Repairs & Maintenance, Lighting, Machinery)	2,231.80
City Government Services (Water & Sewer Rates) ...	80.28
Goods (Materials, Supplies, Gas & Oil)	<u>1,209.20</u>
GROSS EXPENDITURE	13,421.85

LESS CREDIT: Central & Nova Scotia Trust (Trust
Fund) .. 381.50

NET EXPENDITURE \$ 13,040.35

(b) ODELL PARK

GROSS EXPENDITURE \$ 16,096.11

LESS CREDITS 73.07

NET EXPENDITURE \$ 16,023.04

The above expenditure is made up as follows:

Personnel (Labour, Pensions, Compensation)	\$ 13,598.89
General Services (Telephone, Repairs & Maintenance, Machinery)	1,555.16
Goods (Materials, Supplies, Diesel Fuel, Gas, Etc.)	<u>942.06</u>
GROSS EXPENDITURE	16,096.11

LESS CREDITS:

John Doherty - Payment on L.D. Calls...\$ 17.07	
Journal Voucher - Inter-Dept. Use of M.F. Tractor	<u>56.00</u>
	<u>73.07</u>

NET EXPENDITURE \$ 16,023.04

(c) CARLETON PARK

Expenditure \$ 5,878.97

The above expenditure was made up as follows:

Personnel (Labour, Pensions, Compensation)	\$ 4,118.82
General Services (Repairs, Maintenance, Machinery, Land Rental)	1,571.00
Goods (Materials, Supplies, Gas & Oil)	<u>189.15</u>
TOTAL	\$ <u>5,878.97</u>

(d) DEVELOPMENT OF PARK AREAS

GROSS EXPENDITURE	\$ 6,223.56
LESS CREDITS	<u>651.96</u>
NET EXPENDITURE	\$ <u>5,571.60</u>

The above expenditure is made up as follows:

Personnel (Labour, Pensions, Compensation)	\$ 2,896.43
General Services (Repairs, Maintenance, Machinery) ..	375.00
Goods (Materials, Supplies, Gas, Etc.)	<u>2,952.13</u>
GROSS EXPENDITURE	6,223.56
<u>LESS CREDITS: Journal Vouchers (Cedar Posts)</u>	<u>651.96</u>
NET EXPENDITURE	\$ <u>5,571.60</u>

(e) OTHER PARKS

GROSS EXPENDITURE	\$ 983.15
LESS CREDITS	<u>-</u>
NET EXPENDITURE	\$ <u>983.15</u>

The above expenditure is made up as follows:

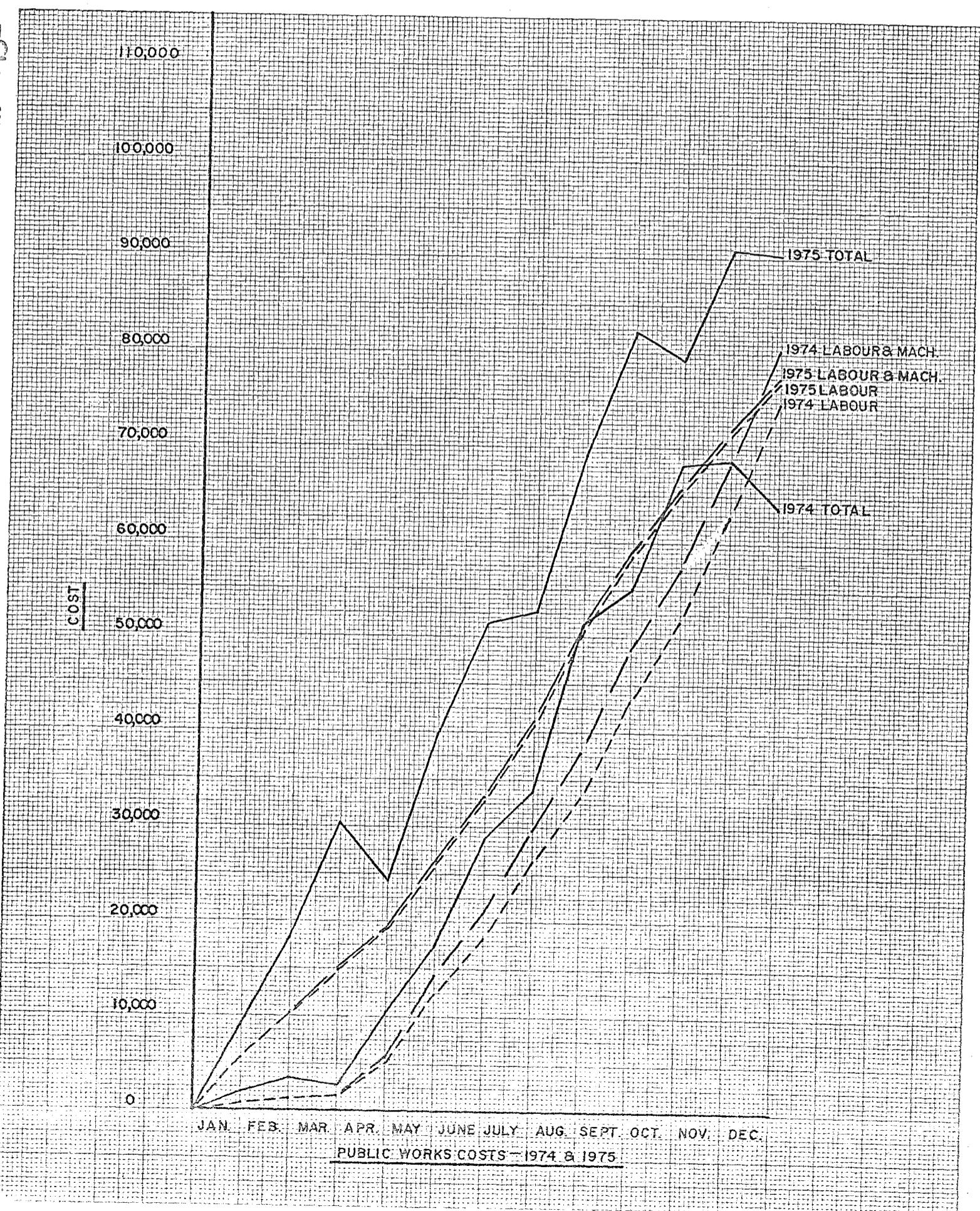
Personnel (Labour, Pensions, Compensation)	\$ 725.89
General Services (Repairs, Maintenance, Machinery) ..	117.26
Goods (materials, Supplies, Etc.)	<u>140.00</u>
TOTAL	\$ <u>983.15</u>

(f) PUBLIC WORKS

GROSS EXPENDITURE	\$ 163,404.38
LESS CREDITS	<u>73,069.69</u>
NET EXPENDITURE	\$ <u>90,334.69</u>

The above total credits of \$73,069.69 were made up as follows:

Journal Vouchers (Mobile Radio)	\$ 5,732.26
✓Valley Forest Products (Purchase of Elmwood)	9,164.51
Payments Regarding Tree Damages	45.00
N.B.E.P.C. -- Tree Stumps Removed	83.40
Province of New Brunswick - Tree Removal Costs ..	54,532.99
Wendell Thomas - Purchase of Wood	535.80
Credits Regarding Tree Spraying	649.58
Journal Vouchers (Inter-Dept. Use of Tractor) ...	1,071.00
Seminar Expenses	18.76
Dr. Orser - Removing Tree Stumps	13.59
Gov't. of Canada (Agriculture) - Removing Stumps.	244.50
Gov't. of Canada - 1975 Gasoline Rebate	40.00
Journal Vouchers (Gasoline, Oil, Fertilizer, Etc.)	922.42
Petrofina Canada	<u>15.88</u>
TOTAL	\$ <u>73,069.69</u>



The hired trucks, labour and City Machinery charged under Public Works Expenditure were incurred as follows:

Item	Labour & Supervision	Hired Trucks	City Machinery
Trees	\$ 67,500.50	\$ 477.50	\$ 34,522.00
Back Drain Diversion	-	-	-
Back Drain	779.69	-	88.00
Surface Sewer	-	-	-
Unforeseen	8,684.80	-	768.00
Casuals' Vacation Pay	21,662.16	-	-
TOTALS	\$ 98,627.15	\$ 477.50	\$ 35,378.00

The above net expenditure was made up as follows:

Personnel (Labour, Pensions, Unemployment Insurance, Compensation, Honorarium)	\$ 27,094.08
General Services (Repairs & Maintenance, Care of Trees, Machinery & Trucking, Etc.) ...	50,205.75
Goods (Materials & Supplies, Gas & Oil, Trees & Seeds)	10,071.62
Miscellaneous	2,963.24
TOTAL	\$ 90,334.69

The Provincial Government allocated a maximum of \$40,000.00 in their fiscal year from April 1, 1975 to March 31, 1976 as their share towards removal of diseased elm trees in the amalgamated area.

In 1975, 1,182 trees were removed upon the recommendation of the Fredericton Tree Commission. The condemned trees were either in a decadent condition, a menace to public safety or possible breeding places for the Elm Bark Beetle.

Following is a list of trees removed in 1975:

<u>Species</u>	<u>Number Removed</u>
Elm	1,167
Maple	11
Poplar	1
Birch	2
Spruce	1
TOTAL	<u>1,182</u>

The procedure followed at 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 of the City Engineer.

Trees on private property which are condemned as possible breeding places for the Dutch Elm Disease, are also removed by City Crews.

In 1975, 75 trees were removed with Dutch Elm Disease at various locations within the Pre-Amalgamated Fredericton Area.

Following is a list of trees (Elm) removed from 1964 to 1975 with Dutch Elm Disease in the Pre-Amalgamation Area of Fredericton.

Year	No. Lost to Dutch Elm Disease	% Lost to Dutch Elm Disease	Other Causes	Total
1964	14	29%	34	48
1965	8	24%	25	33
1966	12	21%	44	56
1967	18	20%	73	91
1968	33	16%	174	207
1969	30	21%	108	138
1970	49	39%	78	127
1971	57	42%	77	134
1972	61	42%	84	145
1973	92	46%	108	200
1974	132	33%	266	398
1975	75	19.6%	307	382
TOTALS	581		1,378	1,959

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

Trees were planted at the following locations in 1975:

<u>Location</u>	<u>Number of Trees</u>
Ashfield St.	45
Bristol St.	33
Limerick Rd.	7
Flemming Rd.	17
Wetmore Rd.	25
Hazen Ct.	17
Parkside Dr.	34
Mayland Ct.	10
Simpson Ct.	7
Oxford St.	7
Oxford Ct.	1
Smythe St. (Prospect - T.C.H.)	34
Regent Reservoir	13
Westmorland (Aberdeen-Argyle)	6
Westmorland (Aberdeen-George)	13
Northumberland St.	2
Argyle St.	2
Parkhurst Dr.	1
Graham Ave.	1
Canada St.	26
Studholm St.	1
2 Heather Terrace	2
779 King St.	1
Simpson Ct.	8
Regent St.	7
Valleyview	8
Turnbull Ct.	3
Charlotte St. (York-Carleton)	9
Charlotte St. School	2
Odell Ave.	4
Prospect St.	32
Priestman St.	5
Queen St. Greens	1

Elizabeth St.	2
Medley St.	2
Smythe Across from K-Mart	2
York Manor	5
TOTAL	<u>395</u>

100 trees were planted at various locations to replace losses due to dry weather and vandalism.

Under the above heading, the following trees were purchased in 1975 from Lansdowne Nursery, Fredericton, N.B. and John Connell Nurseries Ltd., Waterdown, Ontario:

John Connell Nurseries Ltd.:

75 Acer platanoides 8'-10' @ \$7.90 each	\$ 592.50
40 Acer Crimson King 6'-8' @ \$9.20 each	368.00
40 Acer Schwedleri 6'-8' @ \$8.90 each	356.00
25 Acer Rubrum 8'-10' @ \$11.40 each	285.00
50 Acer saccharum 8'-10' @ \$11.40 each	570.00
125 Tilia cordata 8'-10' @ \$7.90 each	987.50
50 Tilia cordata DeGroot 8'-10' @ \$7.20 each	360.00
60 Populus thevestina 8'-10' @ \$3.25 each	<u>195.00</u>
	3,714.00
Freight & Loading	<u>280.00</u>
TOTAL	<u>\$ 3,994.00</u>

Lansdowne Nursery:

10 Schwedler Maple 8'-12' @ \$10.50 each	\$ 105.00
1 Sugar Maple 10'-12' @ \$12.00 each	12.00
8 Norway Maple 10'-12' @ \$9.50 each	76.00
2 Tilia Cordata 8'-10' @ \$8.50 each	17.00
20 Tilia Cordata 6'-8' @ \$7.40 each	148.00
2 Red Oak 8'-10' @ \$9.00 each	18.00
2 Shubert Cherry @ \$9.75 each	19.50
1 Toba Hawthorne @ \$8.00 each	<u>8.00</u>
	403.50
Credit for Trees Returned	
13 Lombardy Poplar @ \$3.85 each	\$ 50.05
23 Schwedler Maple @ \$8.90 each	<u>218.50</u>
	<u>268.55</u>
TOTAL COST	\$ 134.95

A number of trees were also trimmed in 1975. The number and class of trees are as follows:

- (a) Large Trees (45' and Over)
 - Approximately 127 mixed species
- (b) Medium Trees (20'-45')
 - Approximately 600 mixed species
- (c) Small Trees (6'-20')
 - Approximately 2,000 mixed species

A number of stumps were also removed along City Streets.

Stumps Removed and Topsoiled 173

CONCRETE SIDEWALK CONSTRUCTION

GROSS EXPENDITURE	\$ 84,016.19
LESS CREDITS	<u>6,991.00</u>
NET EXPENDITURE	\$ <u>77,025.19</u>

For the above expenditure, Concrete Sidewalks were constructed at the following Locations:

<u>Location</u>	<u>Lineal Feet</u>
Tilley Dr.	818
Flemming Rd. - Existing to Tilley	1,109
Beaconsfield St.	1,842
Parkside Dr. - Existing to Greenfields Dr.	286
Greenfields Dr.	506
Fulton Ave. - Maple to End of Street	1,800
Maple St. - Fulton to Douglas Ave.	3,400
Douglas Ave. - R.R. Tracks to Maple	1,001
TOTAL	<u>10,762</u>

10,762 Lineal Feet = 2.04 Miles

The above expenditure is made up as follows:

J.E. Brooks & Assoc. (Design Fees)	\$ 3,400.00
Seaboard Services Ltd. (Nashwaaksis Sidewalks).	54,941.91
Journal Vouchers (Payroll, Pensions, Machinery, Fuel, Materials)	13,121.00
Elmtree Concrete Ltd. (Concrete)	9,063.60
Materials (Sand, Edgers, Stakes, Etc.)	2,181.92
Purchase of Rt.-of-Way Land	1,069.00
Miscellaneous	<u>238.76</u>
GROSS EXPENDITURE	84,016.19

LESS CREDITS:

Local Improvement Charges	<u>6,991.00</u>
NET EXPENDITURE	\$ <u>77,025.19</u>

The City of Fredericton bears the entire cost of sidewalk installation, except, where Local Improvement Agreements are in effect with a Developer on new streets.

The concrete for the above construction of sidewalks was obtained from Elmtree Concrete Ltd. at \$27.30 per cubic yard.

The actual cost for laying one lineal foot of sidewalk was \$7.81 which includes Compensation, Pension and Holiday Fund.

RECREATION

EXPENDITURE	\$ <u>4,426.02</u>
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The above expenditure does not include all playground expenditures, but only those which appear on departmental 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 expenditure is made up as follows:

Journal Vouchers (Payroll)	\$ 639.86
Journal Vouchers (Pensions)	29.72
Journal Vouchers (Machinery)	101.00
Journal Vouchers (Gasoline, Oil, Varsol)	3,196.65
Journal Vouchers (Materials)	458.79
TOTAL	<u>\$ 4,426.02</u>

CITY HALL

EXPENDITURE \$ 605.01

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

The above expenditure is made up as follows:

Journal Vouchers (Payrolls)	\$ 430.25
Journal Vouchers (Pensions)	13.76
Journal Vouchers (Machinery)	161.00
TOTAL	<u>\$ 605.01</u>

FIRE DEPARTMENT

NET EXPENDITURE \$ 325,100.15

The above expenditure was made up as follows:

Journal Vouchers (Hydrant & Water Costs)	\$ 324,000.00
Journal Vouchers (Gasoline & Diesel Fuel)	2,781.75
Journal Vouchers (Payroll, Pensions, Machinery Etc.)	<u>2,487.95</u>
	329,269.70

LESS CREDITS:

Journal Vouchers (Gasoline from Nashwaaksis Station)	\$ 3,589.55
Gov't. of Canada - 1975 Gasoline Rebate	<u>580.00</u> <u>4,169.55</u>
NET EXPENDITURE	<u>\$ 325,100.15</u>

YORK ARENA

EXPENDITURE \$ 1,127.39

The above expenditure was made up as follows:

Journal Voucher (Brick & Cement)	\$ 33.87
Journal Voucher (Materials - Water Line Installation)	1,082.00
Journal Voucher (Cedar Posts)	8.20
Journal Voucher (Varsol)	<u>3.32</u>
TOTAL	\$ 1,127.39

MUNICIPAL PARKING LOTS - CAMPBELL STREET

In 1966, the City Council authorized the changing of the free Parking Area at the rear of City Hall in order to give better parking facilities to the shopping public. In 1973 the system was changed to attendant-type control from the original gate-type control.

In 1975, the expenditure for snow control and fence repairs for the above amounted to \$1,818.05 and was made up as follows:

Journal Vouchers (Payroll)	\$ 636.15
Journal Vouchers (Pensions)	30.25
Journal Vouchers (Machinery)	1,138.50
Journal Vouchers (Materials)	<u>13.15</u>
TOTAL	\$ 1,818.05

In addition, a new Parking Area on Campbell Street, east of Westmorland Street was constructed in 1970.

The 1975 expenditure for snow control & posts amounted to \$1,354.85 and was made up as follows:

Journal Vouchers (Payroll)	\$ 411.14
Journal Vouchers (Pensions)	20.21
Journal Vouchers (Machinery)	882.50
Journal Vouchers (Materials)	<u>41.00</u>
TOTAL	\$ 1,354.85

BEAVERBROOK RINK

The expenditure under this heading was \$45.06 and is made up as follows:

Journal Vouchers (Gasoline)	\$ 42.06
Journal Voucher (Copper)	<u>3.00</u>
TOTAL	\$ 45.06

TOURIST AND INDUSTRIAL PROMOTION

NET EXPENDITURE	\$ 306.19
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The above expenditure is made up as follows:

Journal Vouchers (Payrolls)	\$ 779.37
Journal Vouchers (Pensions)	32.76
Journal Vouchers (Machinery)	<u>152.00</u>
	964.13

LESS CREDITS:

Journal Vouchers (To Correct Payrolls, Pensions, & Machinery)	<u>657.94</u>
NET EXPENDITURE	\$ <u>306.19</u>

ADMINISTRATION OF JUSTICE

EXPENDITURE \$ 697.18

The above expenditure was for Journal Vouchers regarding payrolls, machinery, and materials.

PUBLIC TRANSIT

NET EXPENDITURE \$ 4,810.75

The above expenditure was made up as follows:

Journal Vouchers (Payroll)	\$ 29.44
Journal Vouchers (Gasoline)	5,304.51
Journal Vouchers (Machinery)	6.00
Journal Vouchers (Materials)	<u>6.80</u>
	5,346.75

LESS CREDITS:

Gov't. of Canada - 1975 Gasoline Rebate	<u>536.00</u>
NET EXPENDITURE	\$ <u>4,810.75</u>

N.I.P. -- NEIGHBOURHOOD IMPROVEMENT PROGRAM

EXPENDITURE \$ 105.34

The above expenditure was for the preparation of a plan for Grieves Creek Area.

L.I.P. #1499 - KILLARNEY LAKE

EXPENDITURE \$ 75.71

The above expenditure was for Journal Vouchers regarding payrolls, pensions, machinery and gasoline.

LAND ACCOUNT - ASSEMBLY PROGRAM IND. PARK

EXPENDITURE \$ 11,053.75

The above expenditure was made up as follows:

Seaboard Surveys (Surveys - Lincoln Area)	\$ 677.15
Seaboard Surveys (Surveys - Industrial Park)	896.60
Seaboard Surveys (Surveys - Whiting Rd.)	865.20
Seaboard Surveys (Survey Work)	<u>8,641.80</u>
TOTAL	\$ <u>11,053.75</u>

LAND ACCOUNT - INDUSTRIAL PARK

EXPENDITURE \$ 7,651.68

The above expenditure is made up as follows:

Journal Vouchers (Payrolls, Pensions, Machinery, Materials)	\$ 3,706.58
Seaboard Surveys Ltd. (Printing)	21.60
Fredericton Housing Ltd. (Holdback - Gravel Roads). .	164.40
Fredericton Housing Ltd. (Holdback - Water)	1,977.60
Fredericton Housing Ltd. (Holdback - Domestic Sewer)	<u>1,781.50</u>
TOTAL	\$ <u>7,651.68</u>

DOMESTIC SEWER

GROSS EXPENDITURE \$ 767,086.39

LESS CREDITS 81,355.98

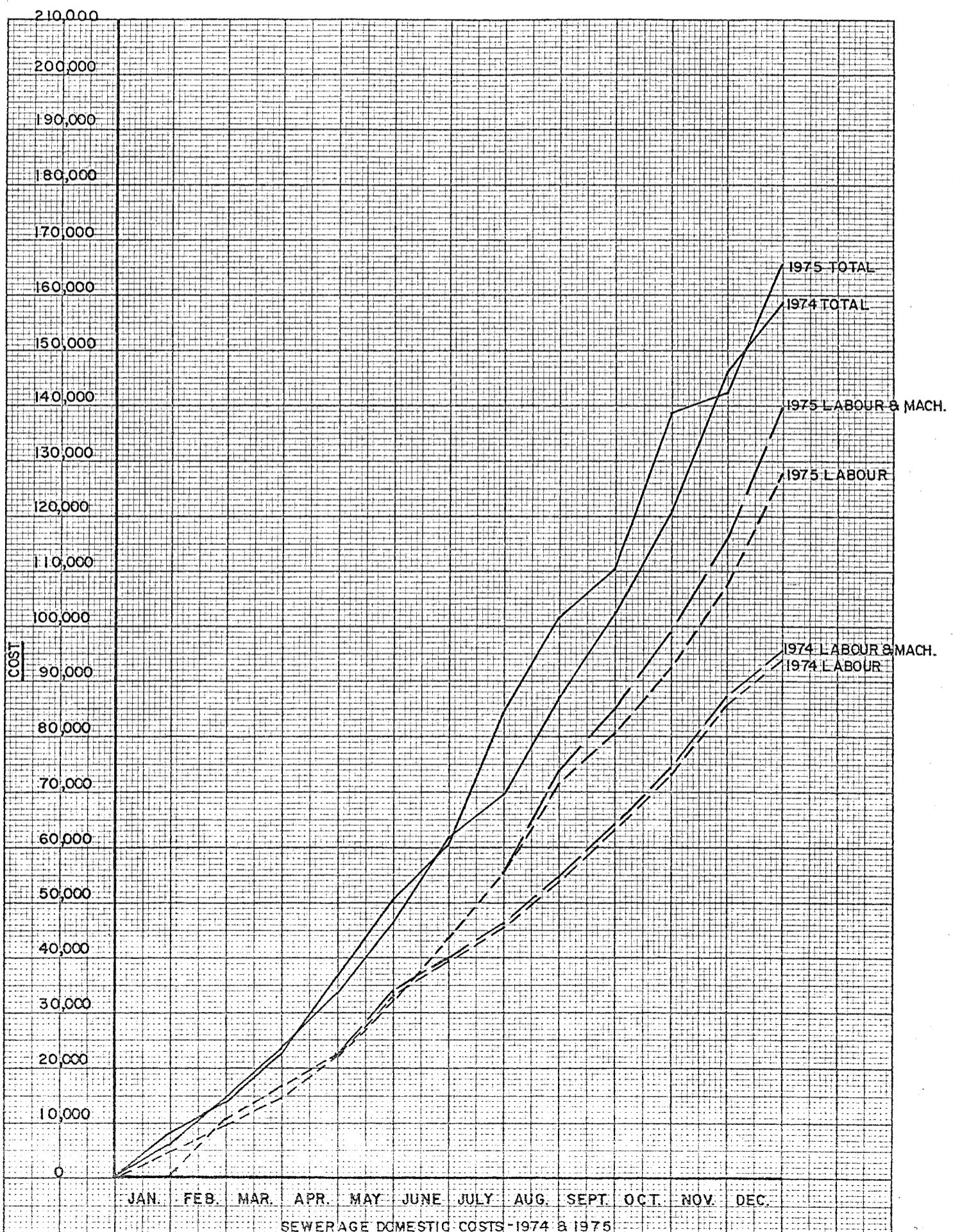
NET EXPENDITURE \$ 685,730.41

The above expenditure is made up as follows:

Labour	\$ 127,816.32
Hired Trucks & Machinery	11,962.00
City Machinery Costs	38,809.25
Material Costs	68,281.52
F.A.P.C. Sewerage Treatment	315,017.30
Principal & Interest Charges	<u>205,200.00</u>
TOTAL	\$ <u>767,086.39</u>

The credit of \$81,355.98 was made up as follows:

Materials, Labour & Supplies for Service	
Installations	\$ 75,191.63
Journal Vouchers (Material Out, Corrections, Etc.)	4,396.30
Province of New Brunswick (Fisheries & Environment)	<u>1,768.05</u>
TOTAL	\$ <u>81,355.98</u>



New Customers connected to the City Sewer System in 1975 - 323.

All Dead End Sewer Mains were cleaned and flushed in 1975.

The Fredericton Area Pollution Control Commission (F.A.P.C.) was formed in 1968 and work commenced on Pollution Control of Sewerage for the Fredericton Area, including Nashwaaksis, Marysville, Fredericton and Barker's Point. This system was put into operation on October 10, 1970.

The Fredericton Domestic Sewer System consists of approximately 124.436 miles of Sewer Mains and is made up as follows:

LENGTH OF MAINS IN MILES

Size	Silverwood	Nashwaaksis	Marysville	Barker's Point	Fredericton	Totals
4"	-	0.098	-	-	-	0.098
4" F.M.	-	-	-	-	0.512	0.512
6"	-	0.874	0.195	-	0.067	1.136
6" F.M.	-	-	0.335	-	1.467	1.802
8"	2.743	16.624	9.247	4.458	59.724	92.796
8" F.M.	-	-	0.195	-	0.040	0.235
10"	0.090	1.791	0.377	0.176	4.510	6.944
12"	-	1.903	0.625	1.078	7.559	11.165
12" F.M.	-	-	-	-	0.459	0.459
14"	-	0.426	-	-	-	0.426
14" F.M.	-	-	0.328	-	0.158	0.486
15"	-	1.331	0.311	0.108	1.630	3.380
16"	-	0.038	-	-	0.120	0.158
18"	-	0.019	0.839	-	1.829	2.687
24"	-	-	-	-	1.062	1.062
30"	-	-	-	-	0.200	0.200
36"	-	-	-	-	0.890	0.890
TOTALS	2.833	23.104	12.452	5.820	80.227	124.436

NOTE: (1) Mileages for Silverwood, Nashwaaksis, Barker's Point and Marysville are approximate only, due to measurement from plans.

(2) Fredericton includes a portion of former Lincoln.

The above mileages do not include sewer mains at the Exhibition Grounds, University of New Brunswick, and St. Anne's Point on the Woodstock Road.

The Fredericton Area Pollution Control Commission Collector Sewer System constructed in 1969 and 1970 is not included in the above mileages. The approximate number of miles of this system is 7.1 and is made up of the following:

LENGTH - MILES

Size	*Fredericton North	Fredericton South	Total
8"	-	0.073	0.073
10"	-	0.210	0.210
10" Plastic F.M.	0.114	-	0.114
10" F.M.	-	0.189	0.189
12"	-	0.168	0.168
15"	-	0.288	0.288

16"	Hyprescon F.M.	0.761	-	0.761
18"		-	0.323	0.323
18"	F.M.	0.057	-	0.057
20"		0.691	-	0.691
20"	Polyethylene Series 80	-	0.404	0.404
21"		0.721	0.204	0.925
22"	Polyethylene Series 60	-	0.164	0.164
24"		1.311	-	1.311
30"		0.589	-	0.589
36"		0.108	0.432	0.540
42"		0.257	-	0.257
48"		0.040	-	0.040
TOTALS		4.649	2.455	7.104

* Fredericton North includes former Nashwaaksis, Devon, Marysville and Barker's Point.

The following item of machinery was purchased in 1975 and charged to "Domestic Sewer".

1 -- Bean Model 3510 Sewer Cleaner - ASSET NO. 83
Rental Purchase

Cost	\$ 15,000.00
Plus 8% S.S.&E. Tax	<u>1,200.00</u>
TOTAL COST	<u>\$ 16,200.00</u>

The repair charges for the Sewer Cleaner in 1975 were \$89.90.

WATER

There are at present 24 wells in the City of Fredericton Water System. (20 active wells, 2 test wells, and 2 to be activated in 1976)

ACTIVE WELLS - NORTH SIDE OF ST. JOHN RIVER:

WELL	LOCATION
Maple Street Well	110 yards west of intersection of St. Marys St. and Maple St.
Cliffe Street Well	10 yards east of intersection of Dedham St. and Cliffe St. This well is a standby service only due to marginal Chemical Characteristics.
Carleton Well 1963	200 yards north of former City Line and 400 yards easterly from Highland Avenue.
Killarney Well	10 yards west of Killarney Rd. and 900 yards north of Maple St. and St. Marys St. intersection.
Nashwaaksis #1	50 yards west of the intersection of Fulton Avenue and Maple Street.
Nashwaaksis #2	50 yards west of intersection of Maple Street and Oak Avenue on Maple St.

Nashwaaksis #3	35 yards west of the intersection of Maple St. and Douglas Ave. on Maple St.
Sunset Drive Well	50 yards southwest of the intersection of Sunset Dr. and McNeil Ave. on Sunset Dr.
Marysville #1	450 yards northwest of the intersection of Tower Rd. and Cowperthwaite St. on Tower Rd.
Marysville #2	170 yards northwest of the intersection of Tower Rd. and Cowperthwaite St. on Tower Rd.
Marysville #3	50 yards west of the southerly intersection of Minue Terrace and McGloin St. on Minue Terrace
Barker's Point #1	250 yards east of intersection of Greenwood Dr. and Victory Ave. on Greenwood Dr.
Barker's Point #2	100 yards east of intersection of Greenwood Dr. and Dewitt Acres on Greenwood Dr.

ACTIVE WELLS - SOUTH SIDE OF ST. JOHN RIVER:

WELL	LOCATION
Fredericton Well #1	gravel-wall well located in Wilmot Park, 60 yards southeast of Rookwood Ave. and Woodstock Road intersection.
Fredericton Well #3	gravel-wall well located in Wilmot Park, 100 yards southwest of Odell Ave. and Woodstock Rd. intersection.
Fredericton Well #4	gravel-wall well located in Wilmot Park, 233 yards southeast of Rookwood Ave. and Woodstock Rd. intersection and 260 yards southwest of Odell Ave. and Woodstock Rd. intersection.
Fredericton Well #5	gravel-wall well located on Woodstock Rd. on the south bank of the St. John River, west of the R.C.M.P. "J" Division Headquarters, 190 yards northwest of Rookwood Ave. and Woodstock Rd. intersection.
Hanwell Rd. Well	rock-wall well located on the south-easterly side of Cameron Ct., 187 yards south of the Cameron Ct. and Hanwell Rd. intersection. This supplies approximately three quarters of the residences on Hanwell Rd.
Silverwood #1	30 yards north of intersection of the T.C.H. and Orchard Dr. on the T.C.H.
Silverwood #2	50 yards south of intersection of Mountain Dr. and Fairview Dr.

TEST WELLS ONLY:

WELL	LOCATION
Nashwaaksis #4	50 yards east of the intersection of Teak Dr. and Bird Ave. on Teak Dr.
Silverwood #4	Southeast of intersection of T.C.H. and MacIntosh Brook, 300 yards south of T.C.H. and 100 yards east of MacIntosh Brook.

WELLS TO BE ACTIVATED IN 1976:

WELL	LOCATION
Killarney Rd. #1	2790 yards north of Maple St. and St. Marys St. intersection on the west side of Killarney Rd.
Killarney Rd. #2	3013 yards north of Maple St. and St. Marys St. intersection on the west side of Killarney Rd.

The Water Account includes all expenditures other than Capital Expenditure for Water.

The Water Costs for the City of Fredericton are divided as follows:

1) Water Administration (Salaries of Office Staff, Office Equipment, Billing & Collecting)	\$ 112,729.21
2) Water Ordinary	481,399.89
3) Water Pumping Station & Well Production Costs	171,570.75
4) Amortization Costs (Principal)	151,200.00
5) Interest Charges	<u>223,500.00</u>
GROSS EXPENDITURE	\$ 1,140,399.85
* LESS CREDITS	<u>89,122.92</u>
NET EXPENDITURE	<u>\$ 1,051,276.93</u>

* Credits will be found under individual headings.

(1). WATER ADMINISTRATION:

GROSS EXPENDITURE	\$ 112,729.21
LESS CREDITS	<u>11,000.00</u>
NET EXPENDITURE	<u>\$ 101,729.21</u>

The above credit is made up as follows:

Journal Voucher - Portion of Salary (L.P. MacNeill)	\$ 5,000.00
Journal Voucher - Portion of Salary (E.L. Coy) ..	<u>6,000.00</u>
TOTAL	<u>\$ 11,000.00</u>

The expenditure for Billing and Collecting was \$80,609.28 and is made up as follows:

Salaries	\$ 56,352.55
Rental of Office Space	3,828.00
Equipment & Supplies	16,657.23
Telephones	480.00
Postage	<u>3,291.50</u>
TOTAL	\$ <u>80,609.28</u>

METERS:

On December 31, 1975 there were 7,357 water services on meter and 2,405 on Flat Rate, making a total of 9,762.

The labour cost per meter for installing, reading, etc. was \$5.58 for 1975.

777 meters were installed in 1975, 398 regular meters changed to TRT, and 14 ARB meters changed to TRT.

In 1975, 24 discontinued services were excavated and shut off at the main, 84 stopped meters replaced and 15 frozen meters replaced.

In 1975, all meters were read quarterly and billed quarterly during the year.

METERS IN STOCK DECEMBER 31, 1975

Size	ARB	Regular	TRT	To Be Repaired				Total
				ARB	Regular	TRT		
1/2"	2	7	36	-	3	-	-	48
5/8"	11	16	139	-	28	22	-	216
3/4"	1	4	1	-	8	-	-	14
1"	-	2	5	-	4	2	-	13
1 1/4"	-	1	-	1	1	-	-	3
1 1/2"	-	-	8	2	3	-	-	13
2"	-	2	-	-	3	-	-	5
3"		1 (Crest)						1
TOTALS	14	33	189	3	50	24	-	313

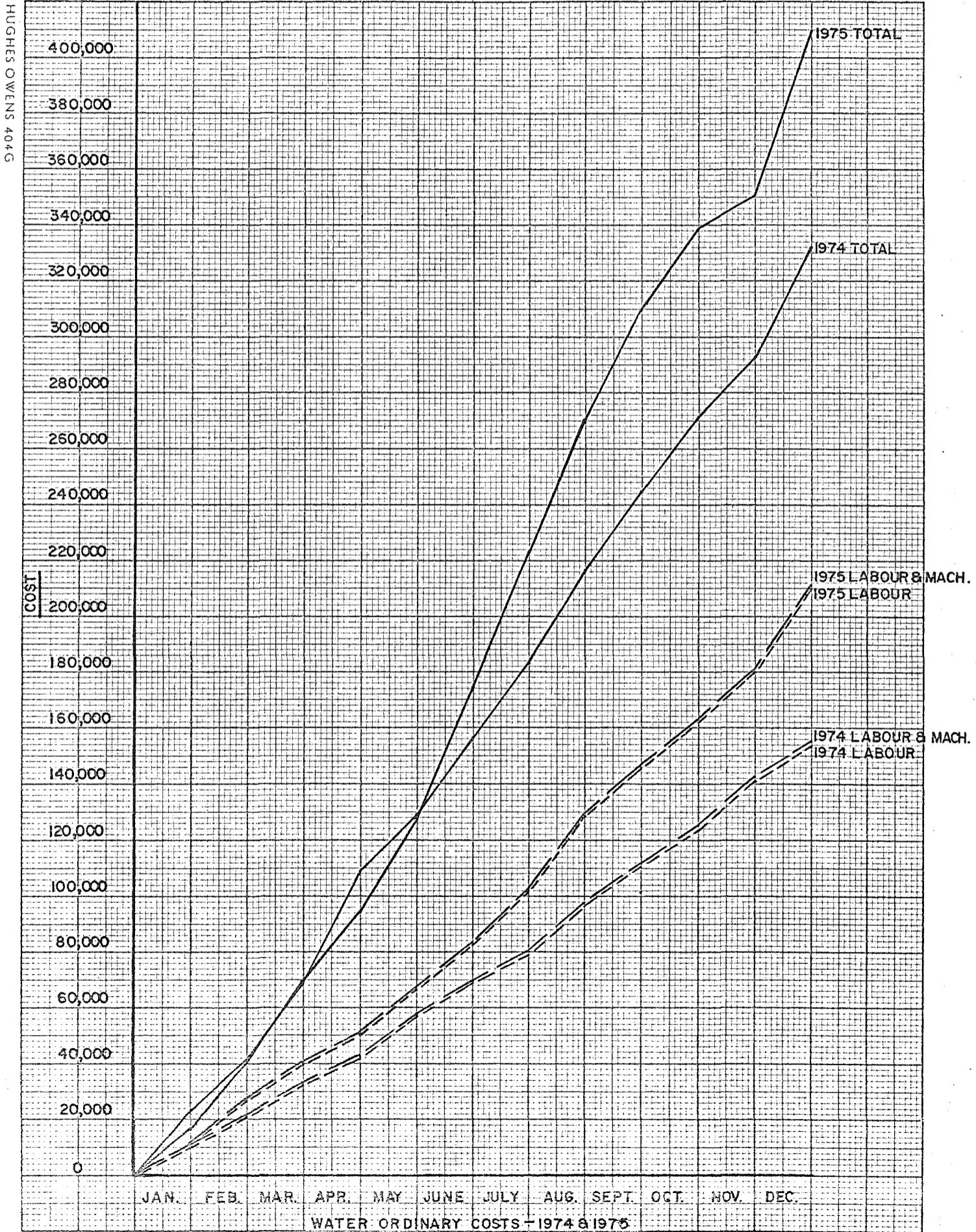
(2.) WATER ORDINARY:

The expenditure under this heading was as follows:

GROSS EXPENDITURE	\$ 481,399.89
LESS CREDITS	<u>76,030.51</u>
NET EXPENDITURE	\$ <u>405,369.38</u>

The above credits are made up as follows:

Journal Vouchers (Corrections, Materials)	\$ 10,278.18
Service Installations	61,615.33
Repairs to Water Services, Hook-up Charges, Thawing Services, Etc.	380.67



Relying Water Services	289.64
Hydrants - Maintenance - Installation	368.29
Meter Repairs	477.87
Canadian General Electric (Re Overcharges)	65.30
Neptune Meters Ltd. (Invoice Correction)	1,495.79
Workmen's Compensation Board	714.59
Gov't. of Canada - 1975 Gasoline Rebate	70.00
Crane Supply Ltd. (Discounts & Corrections)	<u>274.85</u>
TOTAL	\$ <u>76,030.51</u>

The Gross Expenditure is made up as follows:

City Payrolls for Hydrants (Labour)	\$ 24,845.18
City Payrolls for Hydrants (Maintenance)	8,300.40
City Payrolls for Meters (Repairs)	8,130.72
City Payrolls for Meters (Reading)	11,297.60
City Payrolls for Meters (Installation)	21,638.33
City Payrolls for Water (Installation)	39,370.85
City Payrolls for Water (Maintenance)	84,582.84
City Payrolls for Lincoln Rd. Pumping Station ..	1,910.01
City Payrolls for Smythe St. (Booster Station) ..	2,073.90
City Payrolls for Montgomery St. (Booster Station) ..	1,867.04
City Payrolls for Forest Hill (Booster Station) ..	1,965.81
City Payrolls for Nashwaaksis (Booster Station) ..	<u>3,570.85</u>
TOTAL PAYROLLS	209,553.53
Hired Machinery Charges	180.00
Vehicle Repair (Excluding Shop Labour)	10,298.19
City Machinery Charges	38,090.50
Materials	124,841.41
Hydrants (Maintenance & Installation Materials) ..	24,317.74
Meters (Maintenance & Installation Materials) ..	<u>74,118.52</u>
GROSS EXPENDITURE	\$ 481,399.89

The following Sprinklers were installed in 1975:

- (1) ADECO Securities - Le Siesta - Main St.
- (2) Keddy Motor Inns - Eden Rock Motel - Forest Hill Rd.
- (3) Sumner Tire - McLeod Ave.
- (4) Applied Magnetics Ltd. - 230 Hilton Rd.
- (5) Bird Holdings Ltd. - 125 Whiting Rd.
- (6) Horsnell Machine & Iron Works Ltd. - 339 King St.
- (7) Karnes Kitchen Ltd. - 40 Hubbard Rd.
- (8) Eastern Automotive Ltd. - 50 Whiting Rd.

There are at present (December 31, 1975) 115 Sprinkler Systems in the City.

There are in the City as of December 31, 1975, 1,055 Hydrants, broken down in the following areas:

Fredericton North	-	126
Fredericton South	-	527
Nashwaaksis	-	205
Marysville	-	113
Barker's Point	-	62
Silverwood	-	<u>22</u>
		<u>1,055</u>

Hydrants were installed at the following locations in 1975:

<u>Location</u>	<u>Number</u>
Linden Crescent	3
Barker Street	1
Hollybrook Street	1
Kimble Road	1
Regent Street Extension	2
Jewett Street	1
Kent Street	1
Foster Street	2
Greenfields Drive	1
Killarney Road	12
Lincoln Road	19
MacDonald Avenue	2
Longwood Drive	1
Cedar Avenue	1
MacFarlane Street	1
Brown Court	1
Wallace Avenue	1
Maple Street	1
York Arena	1
Shadowood Estates	4
City Hall	1
Tower Road	1
River Street	1
	<u>60</u>

Distribution System:

New Services Installed in 1975	320
Old Services Relayed in 1975	21
Frozen Services that had to be Thawed	36

The Fredericton Distribution System consists of 132.138 miles of Water Main, made up as follows:

LENGTH OF MAINS - MILES

Size	Marysville	Nashwaaksis	Barker's Point	Silverwood	Fredericton	Total
1"	0.989	-	-	-	-	0.989
1 1/4"	-	0.095	-	-	-	0.095
1 1/2"	0.076	0.045	-	-	-	0.121
2"	-	-	-	0.096	-	0.096
3"	-	-	-	-	0.270	0.270
4"	0.468	1.482 +.106	-	1.301	6.456	9.707
6"	7.058	12.052 +.392	2.379	2.031	33.395 +.490	56.915
8"	2.375	8.607 +.001	0.530	+.586 0.187	18.847 +.394	30.546
10"	1.360	3.038	3.208	-	9.981 +.018	17.587
12"	0.383	0.170 +.062	0.019	-	11.757 +.375	12.329
14"	-	-	-	-	0.825 +.055	0.825
16"	-	-	-	-	1.523 +.065	1.523
18"	-	-	-	-	0.980	0.980
Unknown	0.155	-	-	-	-	0.155
TOTALS	12.864	25.489	6.136	3.615	84.034	132.138

Mileages for Marysville, Nashwaaksis, Barker's Point & Silverwood are approximate only due to measurement from maps.

This does not include the water mains installed by the National Defence at the Exhibition Grounds; University of New Brunswick; St. Anne's Point Barracks on the Woodstock Rd. and the low rental housing development in Fredericton North.

The supply system consists of 0.36 miles of 14" Cast Iron Pipe, extending from the Well Site at Wilmot Park to the Pumping Station; 0.16 miles of 12" Cast Iron Pipe extending from the Well on the South bank of the St. John River on Woodstock Road to the Well Site of #1 Well at Wilmot Park; and 0.10 miles of 15" Steel Pipe extending from the Intake Pier in the St. John River to the Pumping Station. This latter supply had not been used for Domestic Consumption from 1957, until 1974 when power failures caused by the Queen St. fire in March, required use of the emergency supply.

Following is a list of vehicles used and charged to "Water Ordinary" showing a comparison of repair charges for 1974 and 1975, including tires and tubes:

Name of Vehicle	Year Purchased	1974 Repairs	1975 Repairs
Chev. 1/2 Ton #2	1969	\$ 723.26	\$ 477.36
G.M.C. 1/2 Ton #2	1975	-	248.79 ✓
✓ Ford 1/2 Ton Van #5	1971	1,894.82	2,574.90
G.M.C. 1/2 Ton #7	1972	179.26	379.57 ✓
G.M.C. 1/2 Ton Van #9	1971	446.47	1,139.97
Dodge 1/2 Ton #12	1974	355.73	1,239.60
Mercury 1/2 Ton #14	1972	519.98	107.83
Ford 1/2 Ton #32	1966	396.14	36.35
G.M.C. Van #35	1971	242.38	-
Ford 1/2 Ton Crew Cab #114	1974	41.04	534.14
Chev. Crew Cab #115	1975	-	234.21
✓ Fargo 1/2 Ton #116	1975	-	72.89
Ford 1/2 Ton #251	1974	415.85	1,271.48
✓ Ford 3/4 Ton #252, ↳ Now 10-73	1974	407.64	2,025.01
Dodge 1/2 Ton #301	1974	182.75	227.58
Fargo Tanker #302	1953	-	151.29
TOTALS		\$ 5,805.32	\$ 10,720.97

* SEE LIST OF VEHICLES TO BE CHARGED TO DOM. SEWER.

The following items of machinery were purchased in 1975 and charged to "Water Ordinary":

1 - G.M.C. 1/2 Ton Pick-Up -- ASSET NO. 2

Serial # TCQ1451528989

Cost \$ 4,800.00

Less Trade-In on a 1969 Chev.
1/2 Ton Truck 825.00

3,975.00

Plus 8% S.S.&E. Tax 318.00

Plus License and Title 6.00

TOTAL COST \$ 4,299.00

1 - Chevrolet 6-Man Crew Cab -- ASSET NO. 115

Serial # CCT245B144784

Cost	\$ 7,215.50
Less Trade-In on 1968 1/2 Ton Mercury	<u>1,100.00</u>
	6,115.50
Plus 8% S.S.&E. Tax	489.24
Plus License & Registration	<u>6.00</u>
TOTAL COST	<u>\$ 6,610.74</u>

1 - Dodge Fargo 1/2 Ton -- ASSET NO. 116

Serial # D14AB5S108091

Cost	\$ 5,505.35
Less Trade-In on 1966 1/2 Ton Ford.	<u>920.00</u>
	4,585.35
Plus 8% S.S.&E. Tax	<u>366.83</u>
TOTAL COST	<u>\$ 4,952.18</u>

(3) WATER PUMPING STATION:

GROSS EXPENDITURE	\$ 171,570.75
LESS CREDITS	<u>2,092.41</u>
NET EXPENDITURE	<u>\$ 169,478.34</u>

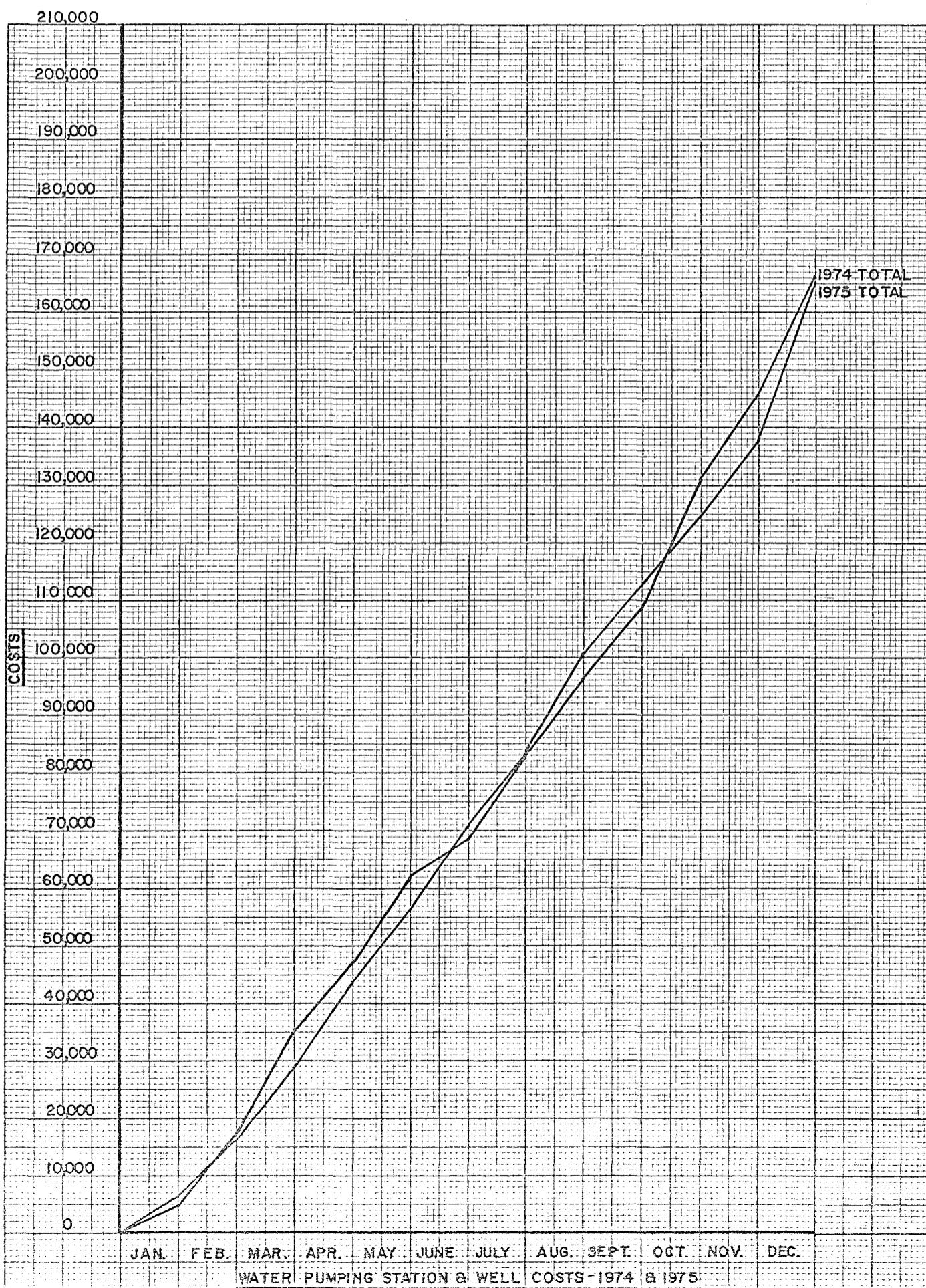
The above expenditure is made up as follows:

City Payrolls for employees at F'ton Pumping Station (Includes Carleton Pumps)	\$ 56,098.47
Labour charged to City Wells	21,102.89
Labour - Well Repairs	4,159.00
City Labour for Plant Maintenance	427.58
Material Charges	87,419.48
Insurance
Taxes	<u>2,363.33</u>
GROSS EXPENDITURE	171,570.75

LESS CREDITS:

Canadian Industries Ltd. (Chlorine Cylinders Returned)	\$ 2,050.00
Wallace & Tiernan (Return of 1 - #UXC21673 Valve)	<u>42.41</u>
NET EXPENDITURE	<u>\$ 169,478.34</u>

HUGHES OWENS 4046



The material cost of \$87,419.48 is made up as follows:

N.B.E.P.C. (Power at Wells)	\$ 47,679.96
N.B.E.P.C. (Power at Plant)	16,567.47
Materials (Wells)	8,594.53
Heating (Plant)	2,132.89
Supplies (Plant)	1,040.81
Diesel and Lubricants (Plant)	678.09
Workmen's Compensation Assessment (Plant)	1,000.00
Miscellaneous (Plant)	1,016.68
Materials Used in Maintenance of Equipment (Plant)	1,290.50
Chlorine for Purification and Treatment	2,670.73
Chlorinator Parts	712.49
H.T.H. Crystals and Tablets	337.95
Other Chemicals for Purification and Treatment ..	3,697.38
TOTAL	<u>\$ 87,419.48</u>

Heating:

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

Year	Gallons of Furnace Oil	Cost
1966	5,583.1	\$ 769.80
1967	3,961.7	539.84
1968	6,121.5	837.63
1969	6,032.6	869.90
1970	5,829.6	840.79
1971	5,125.0	810.45
1972	5,547.0	913.02
1973	4,895.0	961.12
1974	5,774.0	1,836.79
1975	6,076.4	2,132.89

COMPARISON OF WATER PUMPED AND COSTS FOR FREDERICTON SOUTH (FORMER BOUNDARY) FOR THE LAST TEN YEARS

Year	Imp. Gallons Produced	Production Expenditure	Production Cost Per 1,000 Gallons
1966	634,501,000	\$ 50,519.49	8.0 cents
1967	688,514,000	52,749.40	7.9 cents
1968	735,296,000	64,617.14	8.8 cents
1969	730,089,200	69,831.20	9.5 cents
1970	796,421,300	72,282.38	9.1 cents
1971	841,712,300	76,827.46	9.1 cents
1972	921,309,300	81,585.18	8.9 cents
1973	941,502,100	81,478.87	8.66 cents
1974	962,420,800	105,320.82	10.94 cents
* 1975	1,406,595,940	165,319.34	11.75 cents

* Production Costs for the Entire Amalgamated Area.

The columns in the preceding comparison, showing Imperial Gallons produced, does not include water used from wells in the other sections of the City, prior to 1975.

The total amount of water pumped from January 1, 1975 to December 31, 1975 for the entire City was 1,406,595.940 Imperial Gallons divided as follows:

Fredericton South	959,748,500
Fredericton North	114,615,630
Nashwaaksis	173,880,200
* Marysville	105,120,000
Barker's Point	39,467,280
Silverwood	13,764,330
TOTAL ...	<u>1,406,595,940</u>

* No Metering System for Marysville. (Estimated at 200 I.G./Min./Day)

The total net water expenditure (operating) for the City from January 1, 1975 to December 31, 1975 was determined from the following:

Source of Supply	\$ 77,377.38
Power & Pumping	78,534.41
Maintenance of Equipment	1,718.08
Purification & Treatment	5,326.14
Transmission & Distribution (Operation)	28,903.01
Transmission & Distribution (Maintenance)	264,483.68
Other (Taxes and Insurance)	5,358.81
TOTAL	<u>\$ 461,701.51</u>

Therefore, the net operating cost to pump and deliver to the customer 1,000 Imperial Gallons of Water from January 1, 1975 to December 31, 1975 was:

$$\frac{\$461,701.51}{1,406,595.94} = 33 \text{ cents}$$

All the preceding costs shown under "Water Pumping Station" and "Water Ordinary" do not include bond payments or sinking fund charges.

The cost of 1,000 gallons of water delivered including principal and interest is as follows:

Total Net Administration & Operating Costs ...	\$ 676,576.93
Principal and Interest	<u>374,700.00</u>
TOTAL COSTS	<u>\$ 1,051,276.93</u>

Total Cost of Water per Thousand Gallons:

$$\frac{\$1,051,276.93}{1,406,595.94} = 75 \text{ cents}$$

Principal and Interest Costs:

$$\frac{\$ 374,700.00}{1,406,595.94} = 27 \text{ cents}$$

Administration and Operating Costs:

$$\frac{\$ 676,576.93}{1,406,595.94} = 48 \text{ cents}$$

Following is a table showing a comparison of net operating costs, administration and operating costs, principal and interest costs, and total costs per 1,000 Gallons from 1966 to 1975:

COSTS PER 1,000 GALLONS IN CENTS

Year	Net Operating	Administration & Operating	Principal & Interest	*Total Cost
1966	15.8	19.1	25.8	44.9
1967	18.3	22.3	25.5	47.8
1968	18.9	24.1	24.8	48.9
1969	29.3	36.4	17.7	54.1
1970	19.6	26.2	19.1	45.3
1971	21.2	27.8	22.3	50.1
1972	24.0	30.6	18.3	48.9
1973	18.8	29.3	18.2	47.5
** 1974	29.0	42.0	23.0	65.0
** 1975	33.0	48.0	27.0	75.0

* Total Cost = Administration & Operating + Principal & Interest.

** Values from 1966 to 1973 are for pre-amalgamated City only while values for 1974 and 1975 are for the amalgamated City.

The Water Pumping Station is under the supervision of Plant Superintendent, Mr. George Parker.

(4) HYDRANT REVENUE:

Hydrant Rental for Fire Protection amounted to \$324,000.00 in 1975.

WATER AND SEWER REVENUE - 1975

WATER:

	Net Expenditure	Revenue
Water Pumping Station	\$ 167,115.01	\$ -
Water Ordinary	232,520.83	615,905.96
Hydrants	56,706.86	324,000.00
Meters	113,146.21	34,353.65
Water Office Administration	80,609.28	-
Salaries	21,119.93	-
Principal & Interest	374,700.00	-
Taxes & Insurance	5,358.81	-
TOTALS	\$ 1,051,276.93	\$ 974,259.61

Deficit of \$77,017.32.

DOMESTIC SEWER:

	Net Expenditure	Revenue
Sewerage Domestic F.A.P.C.C. Sewage Treatment Principal & Interest	\$ 165,513.11 315,017.30 205,200.00	\$ 472,215.07 - -
TOTALS	\$ 685,730.41	\$ 472,215.07

Deficit of \$213,515.34.

Accompanying this Report is the Report of Mr. E. W. Hagerman, City Analyst, on the Fredericton Water Supply from January 1, 1975 to December 31, 1975.

Respectfully submitted,



W. L. Barrett
City Engineer

FREDERICTON WATER SUPPLY
1975

The Saint John River, flowing approximately from West to East, divides greater Fredericton into North and South areas.

For this report it is convenient to divide the north area into four subdivisions as (1) Carleton (originally North and South Devon) (2) Nashwaaksis (3) Barker's Point (4) Marysville.

FREDERICTON NORTH AREA

Carleton:

The water supply for Carleton is pumped from four (4) wells, Killarney, Carleton, Cliffe and Maple. They have a total capacity of 400 I.G.P.M. These wells, working in various combinations, deliver water to the pipe system and to a 1,000,000 Gallon high level reservoir.

Continuous chlorination at the Killarney pump, produces a residual of 0.1 to 0.15 p.p.m. of chlorine in the effluent of the Carleton system.

The Cliffe Street well is used primarily for emergency use.

Nashwaaksis:

The water for this system is pumped from three wells, all situated on Maple Street. Their combined capacity is 520 I.G.P.M. This water is pumped into two high level reservoirs of 300,000 and 320,000 gallon capacities.

Continuous chlorination is provided at #1 Well at the intersection of Maple St. and Fulton Ave. A residual of 0.15 to 0.2 p.p.m. of chlorine is maintained at the pump discharge.

A fourth well on Sunset Drive is available for emergency use. The quality of its water is inferior to the other wells, but it is maintained in workable order.

Barker's Point:

There are two wells in this system, having a total capacity of 300 I.G.P.M. They pump into a pipe grid and to a high level 250,000 gallon reservoir.

Continuous chlorination is not practised but a gas chlorinator is available for emergency use. Chlorine is added during the spring freshet, when the high water from the Saint John River sometimes finds its way into the wells.

Marysville:

There are three working wells in this system. Their total capacity is 600 I.G.P.M. Water is pumped into the pipe grid and into two high level reservoirs, one old of wood stave construction and a new one of concrete with a 625,000 gallon capacity (between elevations 220 and 240 the concrete reservoir has a capacity of 250,000 gallons).

The old wood stave reservoir will be removed in 1976.

Chlorine is not normally used, but a chlorinator is connected for emergency use.

FREDERICTON SOUTH AREA

The area south of the Saint John River includes the original City of Fredericton and the urban sprawl around it, including Silverwood.

Water for Fredericton South is pumped from four gravel wall wells, three in Wilmot Park and one on the nearby river bank. The fourth is Hanwell Well (a rock well) on Hanwell Road.

The gravel wells were developed as follows: No. 1 in 1955; No. 3 in 1960; No. 4 in 1961; and No. 5 in 1969. Hanwell Well was drilled in 1967.

Number 4 well has decreased in production but no changes are apparent in the others to date.

The demand from these wells vary up to 2.9 million gallons per day. They are worked single or in multiple depending on the variations in the system demand.

None of the raw waters from Wells 1, 3, 4 or 5 have shown positive results in coliform tests but as a safeguard, chlorine is added to the raw influent from the wells as it flows into the 400,000 gallon holding reservoir at the Queen Street pumping station.

Sufficient chlorine is added to produce a residual of from 0.1 to 0.15 p.p.m. of free chlorine in the water going to the consumer.

Hanwell Well is a rock well in Cameron Court near its junction with Hanwell Road. It pumps to a high level reservoir of 100,000 gallon capacity.

The water from this well is satisfactory, chemically, but occasionally shows coliform and mould growth in unchlorinated samples.

Continuous chlorination is practised at this pump and chlorine residuals vary from 0.1 to 0.15 p.p.m.

Silverwood situated 7± miles up river from Fredericton (former) has two rock wells. Their capacities are 3 and 40 I.G.P.M. They deliver water to a reservoir of 50,000 gallon capacity. A third well exists 100 yds.± above the Reservoir. Its capacity is 8± I.G.P.M. Normally, chlorination is not practised in Silverwood but a portable chlorinator (liquid) is on hand.

Exploratory drilling for new wells proceeded throughout 1975. Test wells were bored throughout the Killarney area which is north of the Saint John River.

Several trials were made in the Lincoln area on the South-eastern edge of the original Fredericton and near the St. John River.

The results of the chemical tests on water samples from both areas, are recorded in the tabulated Chemical Analysis attached to this report.

Some 57 samples of water were tested for the coliform group of bacteria and with the exception of samples from Shibu Court (F5 CITY MAP NASHWAAKSIS AREA), the coliform tests were negative throughout the City.

Positives were found at No. 4 Shibu Court on October 16 and at No. 12 Shibu Court on October 17. H₂S gas was present (smell) at No. 4 Shibu Court on October 10 but the test was negative. After flushing and chlorinating the water main of this court, tests on October 22, 24 and 30 and November 4 gave negative results. SEE LISTS OF TESTS ATTACHED.

The mains were laid in this area by developers before amalgamation and it seems possible that a dead pocket, without circulation may exist here. Chlorine residuals are low or nil at this distance (over 1.5 miles) from the point of chlorination at #1 Maple St. Pump House. The city has installed a blow off line to the water main in Shibu Court and it is now possible to run water to waste, so flushing the main.

Attached are lists of chemical tests made on water samples submitted during the 1975 water exploration drilling. Also attached are results of bacteriological tests on water samples for the presence of the coliform group.

(Sgd.) E. W. Hagerman
CITY ANALYST

Extracts from United States Treasury Standards

Applicable to Fredericton Water Supply

- (1). A minimum sample of 100 milliliters is collected.
- (2). Five 10 milliliter portions of the 100 milliliter sample are tested.
- (3). Primary plantings are made in Lactose Broth.
- (4). Portions forming gas in Lactose Broth are confirmed in 2% Brilliant Green Bile.

APPLICATION OF TEST

- (1). Of all the 10 milliliter portions examined per month, not more than 10% shall show positive. (ie. make gas).
 - (2). When less than 20 samples per month are examined, one sample may show three positive portions.
 - (3). Using a standard sample of five 10 milliliter portions, provides for an estimation of the MOST PROBABLE NUMBER (M.P.N.) of Coliform bacteria per 100 milliliter of sample as shown in the table below.
-

Negative Positive When five 10 milliliter portions are tested.

5	0	Less than 2.2 organisms per 100 is the MPN.
4	1	2.2 organisms per 100 is the MPN.
3	2	5.1 organisms per 100 is the MPN.
2	3	9.2 organisms per 100 is the MPN.
1	4	16 organisms per 100 is the MPN.
0	5	More than 16 organisms per 100 is the MPN.

(1).

FREDERICTON 1975 WATER SUPPLY
TEST FOR COLIFORM BACTERIA

The test divides the 5 portions into Plus or Minus results. Using these results with the table, as shown above, gives the M.P.N. (Most Probable Number) of Coliform organisms per 100 Milliliter sample.

FREDERICTON SOUTH

DATE OF SAMPLE	ORIGIN OF SAMPLE	NUMBER OF		M.P.N. PER 100 ml.	N.B. (-) Sign Means * Less Than 2.2 Organisms per 100 ml. of Sample
		-	+		
1975 January 3 3	341 Hanwell Rd. Raw Hanwell Well	5	0	No Test *-2.2	Chlorine Present Mould Shows All 5 Tubes
16 20	15 Primrose St. F'ton Pony Club C.F.N.B. 125 Hanwell	5	0	-2.2	
		5	0	-2.2	
		5	0	-2.2	Chlorine Residual = .01 P.P.M.
February 5 12 13	Hanwell Raw #5 Well Raw #571 Windsor St.	5	0	-2.2	Mould in One Tube
		5	0	-2.2	
		5	0	-2.2	
March 25 25	240 Prospect St. (J. Clark & Sons) 57 Foley Court	5	0	-2.2	
		5	0	-2.2	
April 2	185 Bessborough	5	0	-2.2	
June 13 16 20	#3 Well @ Pump #4 Well @ Pump #5 Well @ Pump	5	0	-2.2	
		5	0	-2.2	
		5	0	-2.2	Mould Caps on 5 Tubes @ 48 Hrs.
24 26 27	#1 Well @ Pump Hanwell Well Target Test Well 47° F. Temp.	5	0	-2.2	
		5	0	-2.2	
		5	0	-2.2	12 In. Dia.; 191 Ft.; 1030 U.S.G.M.
October 8	#3 Well @ Pump	5	0	-2.2	

CARLETON

July 14	Highland Ave. (Carleton) Well	4	1	2.2	From Air Breaker Valve
16	Highland Ave. (Carleton) Well	4	1	2.2	From Air Breaker Valve
17	Highland Ave. (Carleton) Well	5	0	-2.2	From Valve on Pump
17	#465 Highland Ave.	5	0	-2.2	Residence Faucet
25	Highland Ave.	5	0	-2.2	From Valve on Pump
25	Highland Ave.	5	0	-2.2	From Air Breaker Valve

NASHWAAKSIS

Feb. 26	#3 Well (Maple St.)	5	0	-2.2	
Mar. 4	#1 Well (Maple St.)	5	0	-2.2	
Mar. 8	#2 Well (Maple St.)	5	0	-2.2	
Mar. 8	#16 Robinson Drive	5	0	-2.2	
Apr. 4	#1 Well (Maple & Fulton)	2	3	9.2	
Apr. 9	Brewers Fashion	5	0	-2.2	

Apr. 14	#1 Well Maple & Fulton	5	0	-2.2	
Apr. 15	A-Z Rentals	5	0	-2.2	
Apr. 21	92 Vineland(Smell)?	5	0	-2.2	
July 11	#2 Well	5	0	-2.2	
July 14	#1 Well	5	0	-2.2	
Oct. 10	#4 Shibu Ct.	Neg.	5	0	-2.2
Oct. 16	#4 Shibu Ct.	Pos.	3	2	5.1
Oct. 17	#12 Shibu Ct.	Pos.	2	3	9.2
					{ Strong Smell of H ₂ S Customer Boiling Water Continuous Bleed to Waste Installed
Oct. 17	#90 Main St.	5	0	-2.2	
Oct. 17	#344 Cherry Ave.	5	0	-2.2	
Oct. 21	#7 Lilac Crescent	5	0	-2.2	
Oct. 22	#4 Shibu Ct.	Neg.	5	0	-2.2
Oct. 24	12 Shibu Ct.	Neg.	5	0	-2.2
Oct. 30	#4 Shibu Ct.	Neg.	5	0	-2.2
Nov. 4	4 Shibu Ct.	Neg.	5	0	-2.2
Nov. 5	206 Fulton Ave.		5	0	-2.2
Nov. 28	104 Bird Ave.		5	0	-2.2

BARKER'S POINT

July 1	#1 Well	5	0	-2.2	
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MARYSVILLE

Oct. 27	New Reservoir	5	0	-2.2	
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SILVERWOOD

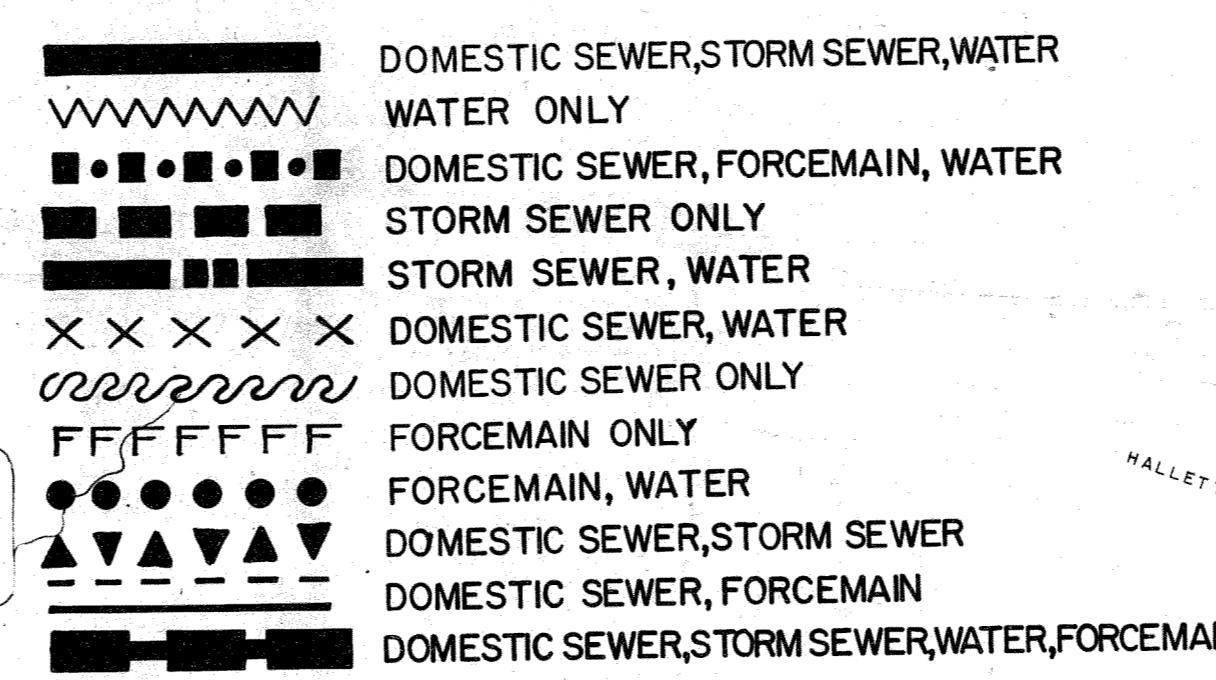
Feb. 12	104 Mooer's Dr.	5	0	-2.2	
Apr. 22	Silverwood Res.	5	0	-2.2	
May 31	25 Westwood	5	0	-2.2	
June 2	Silverwood #1 Well	5	0	-2.2	
June 23	Silverwood #1 Well	5	0	-2.2	
June 24	Silverwood Test Hole	5	0	-2.2	
Oct. 4	Silverwood #3	5	0	-2.2	
Dec. 5	#10 Birchcroft Dr.	5	0	-2.2	

CHEMICAL
ANALYSIS FREDERICTON WATERS

TIME	LOCATION	DATE	PH.	ALK.	HARD	FE.	MN.	CL.	REMARKS
2 PM	Wilson 341 Hanwell	1/3/75	7.2	97	59	NIL	0.15	21	
2 PM	#2 Well Killarney Test 1	1/8/75	7.5	122	86	NIL	0.15	9.0	Q = 100 IGM
2 PM	#2 Well Killarney Test 2	1/9/75	7.4	120	84	NIL	0.2	8.5	Q = 100 IGM
2 PM	#2 Well Killarney Test 3	1/10/75	7.5	116	84	TR	0.2	9.5	Q = 100 IGM
	#1 Well Nash'sis	2/26/75	7.6	88	120	.02	NIL	39.7	SO ₄ = 35
	#1 Well Nash'sis	3/4/75	7.6	90	125	.04	NIL	41.0	SO ₄ = 35
	16 Robinson Dr.	3/10/75	7.6	91	128	NIL	NIL	28.0	SO ₄ = 70
	Well #2 Maple Na'sis	3/7/75	7.5	94	133	NIL	NIL	39.0	SO ₄ = 45
	Well #4 Sunset Dr.	3/7/75	7.8	120	150	.10	0.5	40	SO ₄ = 75
	Killarney TW	4/16/75	8.05	68	62	.01	0.1	2.0	Depth = Muddy
	Killarney Well 10	4/16/75	8.1	71	67	TR	0.17	2.0	Depth = 200'
	Killarney Well 10	4/16/75	8.0	72	68	TR	0.07	2.0	Depth = 260'
	Killarney Well 10	4/17/75	8.1	74	66	TR	0.075	4.0	Depth = 410'
11 PM	Killarney TW 10	4/30/75	7.9	73	66	.06	0.1	1.0	Q = 180 US
5 PM	Killarney TW 10	5/1/75	7.9	71	67	.06	0.1	1.5	Q = 180 US
11 PM	Killarney Road	5/1/75	7.9	71	65	.05	0.05	2.0	
11 PM	Killarney TW 10	4/30/75	7.9	73	66	.06	0.10	1.0	Q = 180 US
5 PM	Killarney TW 10	5/1/75	7.9	71	67	.06	0.10	1.5	Q = 180 Depth = 450'
11 PM	Killarney Rd.	5/1/75	7.9	71.5	65	.05	0.05	1.5	
6 AM	Killarney Rd.	5/2/75	7.9	72	65	.05	0.05	2.0	
1:30 PM	Pump Well #10	5/3/75	7.8	72	64	.05	.07	2.0	
6 PM	Killarney Rd.	5/4/75	7.9	71.5	64	.03	.05	2.0	
8 AM	Well #10	5/5/75	7.9	71.5	64	.03	.05	2.0	
	Louis Young TW	5/28/75	7.6	58	70	.30	.075	17.5	SO ₄ = 1/2" Hole Q = 5 USG
	Louis Young Hole 4	5/29/75	7.6	117	96	.00	.35	3.0	Depth = 142'
11 AM	Target, Lincoln Rd.	6/26/75	7.9	83	86	.01	.075	14.0	SO ₄ = 8.3° C Q = 1030 US Depth = 191'
12 Noon	12 In. Well, Lincoln Rd.	6/28/75	7.9	86	98	.02	.15	20.0	
12 Noon	12 In. Well, Lincoln Rd.	6/29/75	8.0	88	95	.03	.15	21.0	
12 Noon	12 In. Well, Lincoln Rd.	6/30/75	8.0	86	102	.01	.10	25.0	
12 Noon	12 In. Well, Lincoln Rd.	7/1/75	8.0	89	105	.01	.10	26.0	
12 Noon	Lincoln Road Well	7/15/75	7.9	89	100	.01	.10	26.0	
12 Noon	Lincoln Road Well	7/16/75	7.9	93	100	.01	.10	28	
12 Noon	Lincoln Road Well	7/17/75	7.9	92	105	.01	.20	31.5	
12 Noon	Lincoln Road Well	7/18/75	7.9	93	114	.01	.20	33.5	
12 PM	Lincoln Road Well	7/19/75	7.2	92	112	.015	0.2	35.5	Q = 1500 U.S.G.M.

12 PM	Lincoln Road Well	7/20/75	8.0	95	114	NIL	0.15	41	Q = 1500 U.S.G.M.
12 PM	Lincoln Road Well	7/22/75	8.1	96	112	NIL	0.15	37	Q = 1500 U.S.G.M.
12 PM	Lincoln Road Well	7/24/75	8.05	96	112	NIL	0.15	40	
12 PM	Lincoln Road Well	7/25/75	8.0	96	113	NIL	0.2	42	Q = 1500 U.S.G.M.
6 AM	Lincoln road Well	7/26/75	8.0	97	114	NIL	0.2	42	
6 AM	Lincoln Road Well	7/27/75	8.0	99	115	NIL	0.2	42	
6 AM	Lincoln Road Well	7/28/75	7.9	98	117	NIL	0.2	42	
6 AM	Lincoln Road Well	7/29/75	7.9	98	116	NIL	0.25	43	
6 AM	Lincoln Road Well	7/30/75	7.8	98	116	NIL	0.25	43	
6 AM	Lincoln Road Well	7/31/75	7.9	99	118	Trace	0.275	45	
6 AM	Lincoln Road Well	8/1/75	7.9	100	120	TR	0.2	44	
6 AM	Lincoln Road Well	8/2/75	8.0	101	126	TR	0.2	44	
6 AM	Lincoln Road Well	8/3/75	8.0	98.5	126	TR	0.2	45	
6 AM	Lincoln Road Well	8/4/75	8.05	101.5	126	TR	0.2	45	
6 AM	Lincoln Road Well	8/5/75	8.0	100	127	TR	0.225	45	
6 AM	Lincoln Road Well	8/6/75	8.0	126	TR	0.225		44	
6 AM	Lincoln Road Well	8/7/75	8.0	101	126	TR	0.225	45	
6 AM	Lincoln Road Well	8/8/75	8.0					45	
Silverwood #4 Shibu Ct., Na'sis		10/8/75	8.02	115	118	.06	NIL	0.71	
#12 Shibu Ct., Na'sis		10/16/75	7.8	93	122	0.5	TR	35	SO ₄ = 85 H ₂ S Present
		10/17/75	7.8	93	124	0.5	0.01	35.5	SO ₄ = 90 H ₂ S Present

INSTALLATION OF SERVICES-1975



NOTE: (1) SEE EITHER "CAPITAL WATER", "CAPITAL DOMESTIC SEWER", OR "CAPITAL STORM SEWER" FOR INDIVIDUAL FOOTAGES.
 (2) FOOTAGES FOR OFFTAKES (NOT SHOWN ON PLAN) CAN ALSO BE FOUND IN THE ABOVE MENTIONED ACCOUNTS.

FEET 1300

