

LABORERS' AND RETIREMENT BOARD  
EMPLOYEES' ANNUITY AND BENEFIT  
FUND OF CHICAGO

ACTUARIAL STATEMENT

DECEMBER 31, 1977

DONALD F. CAMPBELL  
CONSULTING ACTUARIES

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November 14, 1978

The Retirement Board of the  
Laborers' and Retirement Board  
Employees' Annuity and Benefit  
Fund of Chicago,  
Chicago, Illinois

Gentlemen:

This is to certify that the annual statement as of December 31, 1977 of the Laborers' and Retirement Board Employees' Annuity and Benefit Fund of Chicago is, to the best of our knowledge and belief, a true and correct statement of the affairs and conditions of said Fund for the calendar year 1977. This statement has been prepared from the books of the Fund as substantiated by our letters of recommendation to the Retirement Board.

The accounting procedure is outlined in Article 11 of the Illinois Pension Code.

The method of valuation, or method of financing the system, and the actuarial assumptions and methods used in the valuation are shown in a separate Exhibit. The attempt is made to give effect to realistic valuation factors affecting costs.

ACTUARIAL ASSUMPTIONS:

Actuarial assumptions required by ERISA must take into consideration anticipated future experience as well as past experience. As a guide to our thinking, we have attempted to learn what interest and salary scale assumptions are being used to anticipate the future in other public and private pension fund valuations.

A comprehensive study made in 1976 indicated that 53% of the funds surveyed used an interest assumption of 6% or greater and that 33% used a salary scale of 5% or greater. Based on these studies, it is our opinion that for the Laborers' Fund the past experience of investment earnings and giving effect to locked in interest rates and to generally expected future interest earnings, that a 6% future interest assumption would be a reasonable rate for valuation purposes and that a 5% per year salary scale is reasonable taking into consideration the generally accepted views on future salary increases for our national economy. These two assumptions could be characterized as being middle of the road.

The liabilities and costs in this 1977 report were based in part on a 6% per year interest assumption and a 5% per year salary scale assumption. These and all other assumptions are the same as those used for the 1976 report.

In our opinion, these actuarial assumptions are in the aggregate reasonable taking into account fund experience and future expectations and represent the best estimate of anticipated experience.

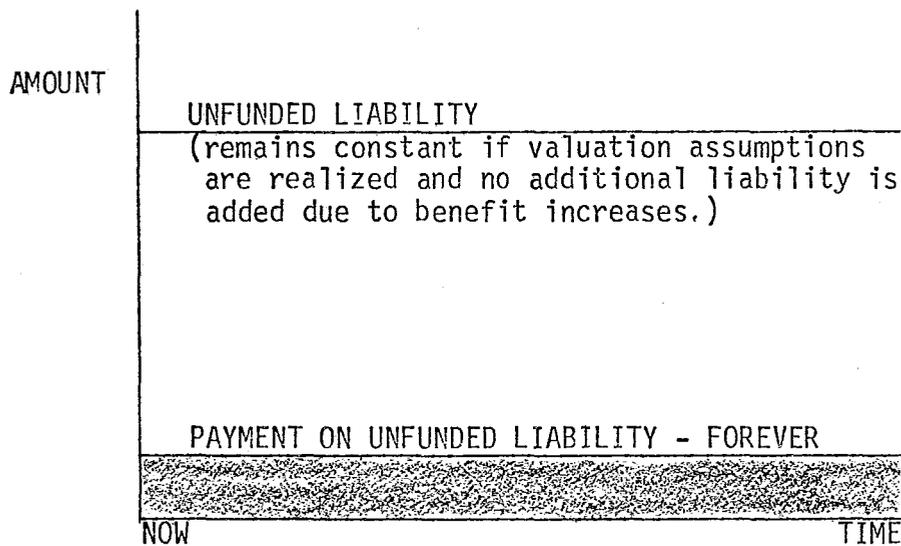
ALTERNATIVE VALUATIONS:

We plan on making alternative valuations in the future giving effect to different rates of salary increases and investment earnings as a guide to the Retirement Board and ourselves in estimating the effects on costs of possible variations in future experience from the assumptions used.

THREE METHODS OF FINANCING THE UNFUNDED LIABILITY:

1.) The method of valuation used for this 1977 report, is the same as for the 1976 report. It is known as a Normal Cost-plus-Interest Basis and is intended to continue the current provisions of the Article governing the fund in full force and effect on a permanent basis - explained in detail under Actuarial Assumptions and Methods, Exhibit N. The method is also referred to as a middle-of-the-road method of funding since the unfunded liability is recognized but not amortized.

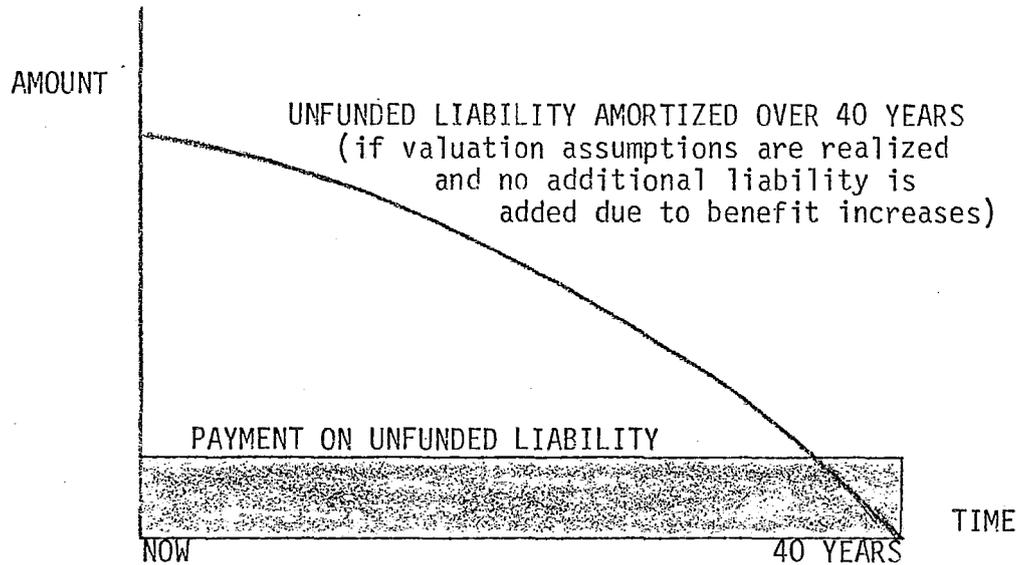
The normal cost plus interest only method of funding is that recommended by the Illinois Public Employees Pension Laws Commission. It was also the minimum required for private pension plans for IRS qualification before ERISA.



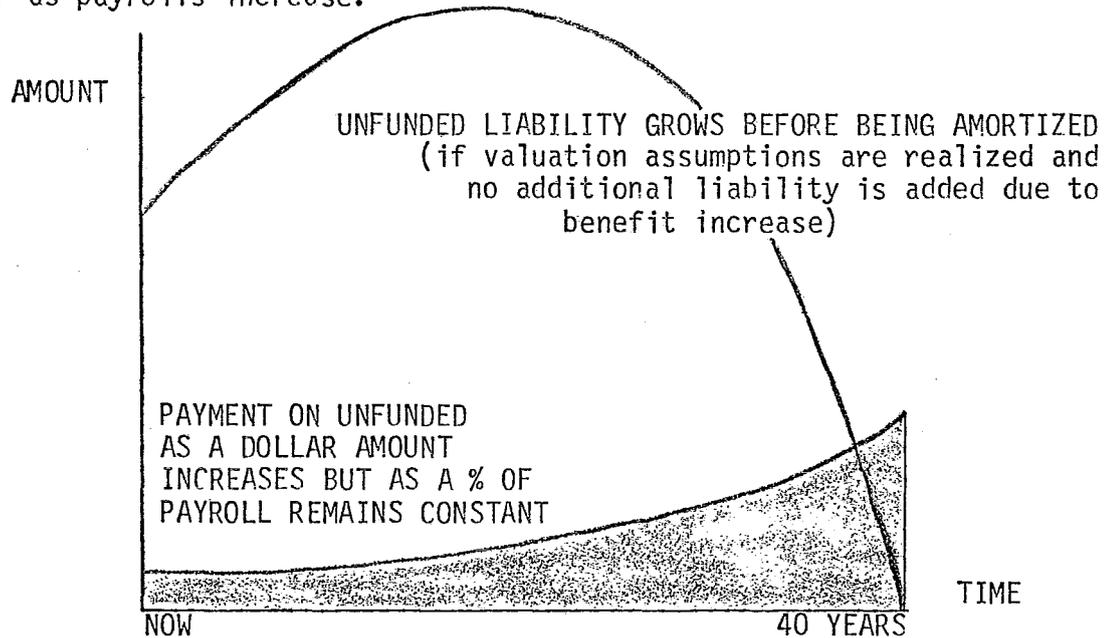
2) ERISA now requires that initial unfunded liability be amortized over a forty year period.

The normal cost plus interest method and the Normal Cost Plus 40 Year Amortization method both express the past service costs as a level annual dollar amount. Consequently, as the total payroll increases in the future, the level annual amount becomes a decreasing percent of the total payroll.

Under both methods, level dollar amounts represent a greater percent of payroll initially and a decreasing percent of payrolls as future payrolls increase.



3.) An alternative method for funding that is receiving increased attention for public employee pension plans is a method which sets the funding standard cost objective as a Level Annual Percent Of Payroll rather than as a level annual amount. This method will result in increasingly greater dollar amounts each year as payrolls increase.



This constant percent of payroll method is not an acceptable funding method under ERISA. It may be more acceptable in view of the presumably permanent nature of public retirement systems, and the desire to place a relatively constant tax burden (as percentage of salary) on future generations of taxpayers.

For the Retirement Boards guidance, we have estimated the financial effects of different funding methods. The results are given in the following table:

|   | Required<br>1978<br>Tax Levy | Ultimate<br>Required<br>Multiple | Unfunded<br>Liability<br>Will                                 | Portion<br>Required For<br>Amortization<br>Of Unfunded<br>Liability* |
|---|------------------------------|----------------------------------|---|--|
| 1) Normal Cost + Interest Only  | \$11,583,557                 | 1.53                             | Remain constant at \$90,683,205                               | \$5,440,992  |
| 2) ERISA:<br>Normal Cost + 40 Year Amortization                                   | \$12,253,218                 | 1.62                             | Decrease to \$0   | \$6,026,945  |
| 3) Normal Cost + 40 Yr. Level % of Payroll Increasing 3½% a Year (Inflation Only) | \$ 9,339,272                 | 1.24                             | Increase to \$111,869,970 in 18 years and decrease thereafter | \$3,685,877 in 1978 increases to \$14,099,849 in 2118                |
| 4) Present Law  | \$10,600,000                 | 1.37                             |   |  |

\* Assuming all valuation assumptions are realized and no future benefit liberalization.

The preceding comparative table indicates the need to take into consideration in the funding policy future annual costs expressed both as a level annual dollar amount and as a level annual percent of payroll.

The level annual percent of payroll method results in substantially increasing costs and contributions in future years, especially at the end of a funding period.

In determining funding policy it is essential to provide a margin of safety for unfavorable operating experience such as salaries over anticipated salaries, decreasing age of retirement, increasing longevity, declining fund membership.

REQUIRED ACTUARIAL CONTRIBUTION:

Based on the Normal Cost-Plus-Interest-Method of funding we find that the City tax levy for 1978 should be \$11,583,557 which amount includes a 12½% reserve for loss on collection. This amount is based on an annual payroll as of December 31, 1977 of \$98,029,296 and an active membership of 6,752 persons. The detail is as follows:

Detail of annual City Contribution:

|  | <u>Amount</u> | <u>Percent of Salary</u> | <u>Dollar Per Active</u> |
|--|---------------|--------------------------|--------------------------|
| 1. Normal Cost - For Current Service   | \$13,027,110  | 13.29%                   | \$1,929                  |
| 2. 6% Interest on Unfunded Liability   | \$ 5,440,992  | 5.55%                    | \$ 806                   |
| 3. Total Actuarial Requirement (1)+(2)   | \$18,468,102  | 18.84%                   | \$2,735                  |
| 4. Employee Contributions  | \$ 8,332,490  | 8.50%                    | \$1,234                  |
| 5. Employer Requirement (3)-(4)  | \$10,135,612  | 10.34%                   | \$1,501                  |
| 6. Expected Net Employer Contribution from 1978 Tax Levy of \$10,600,000 after a 12½% loss | \$ 9,275,000  | 9.46%                    | \$1,374                  |
| 7. Expected Net Annual Deficiency  | \$ 860,613    | .88%                     | \$ 127                   |
| 8. Tax Levy Required (assume 12½% loss)  | \$11,583,557  |                          |                          |
| 9. Increase in Tax Levy Required   | \$ 983,557    |                          |                          |
| 10. Required Ultimate Multiple   | 1.53          |                          |                          |
| 11. Present Authorized Ultimate Multiple   | 1.37          |                          |                          |
| 12. Increase in Ultimate Multiple Needed   | 0.16          |                          |                          |

The Illinois Public Employees Pension Laws Commission Impact Statement - appended to this report - illustrates both the present financial position and the direction of the financial condition.

The above table indicates the need for additional contributions to maintain the fund on an actuarial basis.

Detail of Normal Cost (given above)

|                                     | <u>% Salary</u> | <u>\$ Per Active</u> |
|-------------------------------------|-----------------|----------------------|
| Retirement Annuity                  | 7.60%           | \$1,104              |
| Retirement Annuity Increase         | 1.10            | 159                  |
| Post-Retirement Spouse Annuity      | .43             | 62                   |
| Spouse Annuity for Death in Service | .50             | 73                   |
| Child's Annuity                     | .10             | 15                   |
| Ordinary Disability                 | 1.05            | 152                  |
| Duty Disability                     | .35             | 50                   |
| Refunds                             | 1.84            | 266                  |
| Widows Compensation                 | .00             | 1                    |
| Expense of Administration           | .32             | 47                   |
|                                     | <u>13.29%</u>   | <u>\$1,929</u>       |

CHANGE IN THE UNFUNDED LIABILITY:

The total unfunded liability as of December 31, 1977 is \$90,683,205. As of December 31, 1976, it was \$84,190,707.

Detail of Change in Unfunded Liability:

|  |                  |                 |
|--|------------------|-----------------|
| 1. Increase in Salaries over 5% Assumed  | \$6,438,469      | Increase        |
| 2. Investment Yield over 6% Assumed  | ( 1,713,276)     | Decrease        |
| 3. Deficiency in Annual Contribution:  |                  |                 |
| 1977 Total Actuarial Requirement.....  | \$17,063,327     |                 |
| Less Employer Net to Fund 1977   |                  |                 |
| Tax Levy .....   | 8,470,000        |                 |
| Less Employee Contributions for 1977..   | <u>8,568,248</u> | 25,079 Increase |
| 4. Miscellaneous Actuarial Changes - Gain From Retirement, Turnover, and Death | <u>1,742,226</u> | Increase        |
| Net Change in Unfunded Liability   | \$6,492,498      | Increase        |

FUNDED RATIO:

The ratio of assets to liabilities is 67.28% as of December 31, 1977 - and was 66.64% as of December 31, 1976. This ratio represents the extent to which present and future benefit promises are secured by present assets. The funded ratio increased slightly because assets increased 10.82% while the liabilities increased 9.79%.

RATIO OF ACTIVE EMPLOYEES TO ANNUITANTS & BENEFICIARIES:

The ratio of active employees to annuitants and beneficiaries is 1.94 as of December 31, 1977 and was 2.01 as of December 31, 1976. This ratio illustrates the relationship between the contributors and the beneficiaries.

TERMINATION LIABILITY:

A measure of Fund funding is to compare the assets to liabilities for present retirees on pension and amount of contributions of active and inactive employees. This amount would be a minimum measure of what it would cost to terminate the Fund as of December 31, 1977.

|  |                    |
|--|--------------------|
| Liability for retired annuitants, widows, spouses of annuitants... | \$ 67,977,467      |
| Salary Deductions Contributed by Active Fund Members (incl. ½%)... | <u>69,348,602</u>  |
| Total.....   | \$137,326,069      |
| Assets.....  | <u>186,428,466</u> |
| Excess Assets Upon Termination.....                                | \$ 49,102,397      |

In other words....if the pension fund was terminated on December 31, 1977, an excess amount of \$49,102,397 would be exist after providing lifetime pensions to those now retired and to return all active members' contributions.

Or the assets on hand amounting to \$186,428,466 would be sufficient to provide for the future lifetimes for all retired annuitants, widows and spouses of annuitants, for whom the total liability is \$67,977,467, the difference between the total assets and such reserve liability or \$118,450,999 could be paid to active employees.

As there were 6,752 active employees on December 31, 1977, the average amount that could be paid to each such member would be \$17,543. The average amount contributed is \$10,271 so that 171% of what was contributed could be returned to each active employee. This measure does not provide for any retirement benefit which may be accrued and may have a greater value.

#### THE FUTURE

As in the past - a continuous review of the Fund's operating experience is needed. The rates of salary increases, rates of retirement and investment earnings are of critical importance in cost estimates. Costs will need to be adjusted as these factors vary.

For example, for every \$1.00 in salary increase over the 5% increases assumed in the salary scale the unfunded liability will be increased by about \$2.13. This will be in addition to the additional current annual service cost for every dollar in salary over the 5% salary scale assumed.

These additional costs will be reduced to some extent by the annual amount of investment income earned over the assumed 5% used for valuation purposes. The extent of the reduction will depend on the relative amounts of these two items.

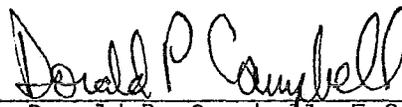
The alternative funding methods indicate the imperative need to monitor Fund income if future Fund obligations are to be met.

The disadvantage of funding methods that use the level percent of payroll funding of past service is that the unfunded liability will continually increase if salaries continue at the predicted rates. Subject, however, to projections of contributions and disbursements for potential cost flow problems the level percent of payroll method would appear to provide a long range level funding method on a minimum funding basis whether for interest only or over 40 year period.

Respectfully submitted,



Donald F. Campbell, F.C.A., M.A.A.A.  
Enrolled Actuary # 1248



Donald P. Campbell, F.S.A.  
Enrolled Actuary #1498

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

INDEX

| <u>Statements:</u>           |  | <u>Pages</u> |
|------------------------------|--|--------------|
| Exhibit A -                  | Actuarial Balance Sheet,<br>Assets and Liabilities | 8 - 9        |
| B -                          | Income & Expenditures                              | 10 - 11      |
| C -                          | Comparative Analysis,<br>Assets & Liabilities      | 12 - 13      |
| D -                          | Taxes Receivable                                   | 14           |
| <br><u>Statistical Data:</u> |  |              |
| E -                          | Membership Statistics                              | 15           |
| F -                          | Salary & Age Statistics                            | 16 - 17      |
| G -                          | Age & Service Distribution                         | 18           |
| H -                          | Annuitants Classified by Age                       | 19           |
| I -                          | New Annuities as of 12-31-77                       | 20           |
| <br><u>Historical Data:</u>  |  |              |
| J -                          | History of Salaries                                | 21           |
| K -                          | History of Total Annuities                         | 22           |
| L -                          | History of Investment Yields                       | 23           |
| M -                          | History of Financial Information                   | 24           |
| N -                          | Actuarial Methods & Assumptions                    | 25 - 27      |
| O -                          | Service Table Functions                            | 28 - 29      |
| P -                          | Impact Statement                                   | 30           |
| Q -                          | Plan Summary                                       | 31 - 34      |

LABORERS' AND RETIREMENT BOARD  
EMPLOYEES' ANNUITY AND BENEFIT  
FUND OF CHICAGO

ACTUARIAL BALANCE SHEET

AS OF

DECEMBER 31, 1977

ASSETS

AND

LIABILITIES

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

ASSETS

ACTUARIAL BALANCE SHEET AS OF DECEMBER 31, 1977

|  |                     |                         |
|--|---------------------|-------------------------|
| CASH:  |                     |                         |
| On Deposit   |                     | \$( 1,297,873.69)       |
| INVESTMENTS:                                       |                     |                         |
| Bonds - Par Value                                  | \$138,420,000.00    |                         |
| Bond Premiums & Discounts                          | ( 1,156,772.72)     |                         |
| Common Stocks - Cost                               | 36,284,887.56       |                         |
| Accrued Bond Interest                              | 2,608,398.46        |                         |
| Due from Broker                                    | <u>2,146,020.60</u> |                         |
| Total Investments                                  |                     | 178,302,533.90          |
| ACCOUNTS RECEIVABLE - TAXES<br>(See Exhibit "D")   |                     |                         |
| Tax Extension                                      | \$ 17,070,194.43    |                         |
| Less: Estimates for Loss<br>on Collection          | <u>7,537,833.53</u> |                         |
| Net Taxes Receivable                               |                     | 9,532,360.90            |
| OTHER ACCOUNTS RECEIVABLE:                         |                     |                         |
| Salary Deductions Accrued                          | \$ 911,647.81       |                         |
| Miscellaneous Employee Accounts                    | <u>88,303.73</u>    |                         |
| Total Other Acctounts Receivable                   |                     | <u>999,951.54</u>       |
| GROSS LEDGER ASSETS                                |                     | \$187,536,972.65        |
| LESS: ACCOUNTS PAYABLE:                            |                     |                         |
| Miscellaneous Employee Accounts                    | \$ 1,106,949.11     |                         |
| Military Service Deductions<br>Excess from Refunds | <u>1,557.71</u>     |                         |
| Total Acctounts Payable                            |                     | <u>\$ 1,108,506.82</u>  |
| NET LEDGER ASSETS DECEMBER 31, 1977                |                     | <u>\$186,428,465.83</u> |

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

LIABILITIES AND FUND BALANCES

ACTUARIAL BALANCE SHEET AS OF DECEMBER 31, 1977

|  |                      |                          |
|--|----------------------|--------------------------|
| ANNUITY PAYMENT FUND ACCOUNT:                              |                      |                          |
| (Based on 4% Amer. Exp. & 3% Comb.)                        |                      |                          |
| Employee Annuitants  | \$23,748,239.09      |                          |
| Employee Annuities Fixed                                   | 6,859,175.28         |                          |
| Spouse Annuitants  | 9,831,570.24         |                          |
| Spouses' Annuities Fixed                                   | <u>5,186,318.83</u>  |                          |
| Total Annuity Payment Fund                                 |                      | \$ 45,625,303.44         |
| SALARY DEDUCTION FUND ACCOUNT:                             |                      |                          |
| Employees  | \$53,751,405.81      |                          |
| Spouses of Employees                                       | <u>11,190,887.53</u> |                          |
| Total Salary Deduction Fund                                |                      | 64,942,293.34            |
| CITY CONTRIBUTION FUND ACCOUNT:                            |                      |                          |
| Employees  | \$52,017,479.24      |                          |
| Spouses of Employees                                       | 16,310,023.28        |                          |
| Supplemental Annuities                                     | <u>12,960.60</u>     |                          |
| Total City Contribution Fund                               |                      | 68,340,463.12            |
| OTHER RESERVES:  |                      |                          |
| Supplementary Payment Reserve                              | \$ 110,204.35        |                          |
| Annuity Payment Fund Account                               | <u>6,843,795.51</u>  |                          |
| Total Other Reserves                                       |                      | 6,953,999.86             |
| PRIOR SERVICE FUND ACCOUNT:                                |                      |                          |
| (Based on 4% Amer. Exp. & 3% Comb.)                        |                      |                          |
| Employee Annuitants  | \$27,542,840.98      |                          |
| Employee Annuities Fixed                                   | 14,361.48            |                          |
| Spouse Annuitants  | 1,275,482.32         |                          |
| Spouses' Annuities Fixed                                   | 1,631,118.49         |                          |
| Salary Deductions 2% Annuity                               | 3,843,260.85         |                          |
| Estimated Excess Liability (Note 1)                        | <u>56,942,547.24</u> |                          |
| Total Prior Service Account                                |                      | <u>91,249,611.36</u>     |
| TOTAL LIABILITIES  |                      | \$277,111,671.12         |
| Obligations of Fund for Prior Service Liabilities (Note 1) |                      | ( <u>90,683,205.29</u> ) |
| TOTAL NET LIABILITIES AND FUND BALANCES DECEMBER 31, 1977  |                      | <u>\$186,428,465.83</u>  |

Note 1 - The letter of transmittal attached hereto sets forth the manner in which this liability was determined.

LABORERS' AND RETIREMENT BOARD  
EMPLOYEES' ANNUITY AND BENEFIT  
FUND OF CHICAGO

INCOME

YEAR 1977

INCOME

AND

EXPENDITURES

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

INCOME FOR YEAR OF 1977

SALARY DEDUCTIONS:

|                                    |                     |                   |
|------------------------------------|---------------------|-------------------|
| Total Contributions by Employee    |                     |                   |
| Employee                           | \$ 6,291,107.75     |                   |
| Spouse                             | 1,373,242.79        |                   |
| Automatic Increase                 | 484,130.78          |                   |
| Ordinary Disability - Ded. in Lieu | 173,186.82          |                   |
| Received From Municipal Fund       | 76,220.28           |                   |
| Temporary Service Payments         | 46,919.56           |                   |
| Total Contributed by Employee      | <u>8,444,807.98</u> | \$ 8,444,807.98   |
| Total Contributed by City          |                     |                   |
| Duty Disability - Ded. in Lieu     | 123,440.40          |                   |
| Total Contributed By City          | <u>123,440.40</u>   | <u>123,440.40</u> |
| Total Salary Deductions            |                     | \$ 8,568,248.38   |

CITY CONTRIBUTIONS:

|  |                        |              |
|--|------------------------|--------------|
| (1977 Taxes of \$9,650,000 (City) plus \$30,000 (Park) Less 12½% for Loss of Collection \$1,210,000) |                        |              |
| Employees  | \$ 5,795,619.63        |              |
| Spouses of Employees   | 1,928,953.11           |              |
| Ordinary Disability Fund   | 1,022,171.73           |              |
| Duty Disability Fund   | 346,251.76             |              |
| Child's Annuity Payment Fund   | 101,766.00             |              |
| Expense Fund   | 316,159.75             |              |
| Interest on Income   | 136,554.39             |              |
| Prior Service Annuity Fund   | <u>( 1,177,476.37)</u> |              |
| Total City Contributions   |                        | 8,470,000.00 |

INVESTMENT INCOME:

|                               |                      |                      |
|-------------------------------|----------------------|----------------------|
| Interest on Bonds             | \$10,968,968.43      |                      |
| Dividends                     | 1,034,023.50         |                      |
| Gain (Loss) on Sale of Bonds  | 157,923.66           |                      |
| Gain (Loss) on Sale of Stocks | <u>( 167,715.69)</u> |                      |
| Total Investment Income       |                      | <u>11,993,199.90</u> |

TOTAL INCOME FORWARDED \$29,031,448.28

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

EXPENDITURES FOR YEAR 1977

|  |                    |                        |
|--|--------------------|------------------------|
| TOTAL INCOME FORWARDED   |                    | \$29,031,448.28        |
| ANNUITIES AND BENEFITS PAID:   |                    |                        |
| Employees' Annuities   | \$5,969,942.22     |                        |
| Spouses Annuities  | 1,187,669.75       |                        |
| Compensation Annuities   | 4,433.88           |                        |
| Children's Annuities   | 101,766.00         |                        |
| Ordinary Disability  | 1,026,123.83       |                        |
| Duty Disability  | 340,568.97         |                        |
| Supplementary Payments   | <u>82,204.44</u>   |                        |
| Total Benefits Paid  | \$8,712,709.09     |                        |
| Reciprocal Act Reimbursements  | <u>( 7,737.60)</u> |                        |
| Net Benefits Paid  |                    | \$8,704,971.49         |
| EXPENSE OF ADMINISTRATION:   |                    |                        |
| Salaries:  |                    |                        |
| Regular Employees  | \$ 92,859.04       |                        |
| Blue Cross & Blue Shield   | 3,432.00           |                        |
| Services:  |                    |                        |
| Actuarial  | 124,229.32         |                        |
| Auditing   | 10,900.00          |                        |
| Investment   | 41,000.00          |                        |
| Office Supplies and Equipment  | 3,671.87           |                        |
| Printing and Stationery  | 8,165.91           |                        |
| Postage  | 7,000.00           |                        |
| Rent & Electricity   | 21,374.11          |                        |
| Telephone & Telegraph  | 988.38             |                        |
| Miscellaneous  | <u>2,539.12</u>    |                        |
| Total Expenses   |                    | 316,159.75             |
| REFUNDS  |                    | <u>1,798,049.03</u>    |
| TOTAL EXPENDITURES   |                    | <u>\$10,819,180.27</u> |
| EXCESS INCOME OVER EXPENDITURES  |                    | \$18,212,268.01        |
| Net Change in Reserve for Loss on Collection<br>and Taxes Receivable for Prior Years |                    | <u>( 3,784.64)</u>     |
| INCREASE IN NET ASSETS FOR YEAR 1977   |                    | <u>\$18,208,483.37</u> |

LABORERS' AND RETIREMENT BOARD  
EMPLOYEES' ANNUITY AND BENEFIT  
FUND OF CHICAGO

COMPARATIVE ANALYSIS

YEAR 1977

ASSETS

AND

LIABILITIES

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

COMPARATIVE ANALYSIS

ASSETS

|                             | <u>1/1/1977</u>      | <u>12/31/1977</u>    | Increase<br>(Decrease) |
|-----------------------------|----------------------|----------------------|------------------------|
| CASH:                       |                      |                      |                        |
| On Deposit                  | \$( 3,470)           | \$( 1,297,874)       | \$( 1,294,404)         |
| INVESTMENTS:                |                      |                      |                        |
| Bonds (Par Value)           | \$137,202,702        | \$138,420,000        | \$ 1,217,298           |
| Bond Premiums & Discounts   | ( 2,543,093)         | ( 1,156,773)         | 1,386,320              |
| Common Stocks - Cost        | 22,924,465           | 36,284,888           | 13,360,423             |
| Accrued Bond Interest       | 2,560,371            | 2,608,398            | 48,027                 |
| Due From Broker             | <u>2,146,021</u>     | <u>2,146,021</u>     | <u>2,146,021</u>       |
| Total Investments           | \$160,144,445        | \$178,302,534        | \$ 18,158,089          |
| ACCOUNTS RECEIVABLE - TAXES |                      |                      |                        |
| Tax Extension               | \$ 14,770,270        | \$ 17,070,194        | \$ 2,299,924           |
| Less: Estimates for L/C     | <u>6,827,388</u>     | <u>7,537,833</u>     | <u>710,445</u>         |
| Net Taxes Receivable        | \$ 7,942,882         | \$ 9,532,361         | \$ 1,589,479           |
| TAXES IN TRANSIT            | \$ 370,978           |                      | \$( 370,978)           |
| OTHER ACCOUNTS RECEIVABLE:  |                      |                      |                        |
| Salary Deductions Accrued   | \$ 849,344           | \$ 911,648           | \$ 62,304              |
| Misc. Employee Accounts     | <u>86,441</u>        | <u>88,303</u>        | <u>1,862</u>           |
| Total Other Accts. Rec.     | \$ 935,785           | \$ 999,951           | \$ 64,166              |
| GROSS LEDGER ASSETS         | \$169,390,620        | \$187,536,972        | \$ 18,146,352          |
| LESS: ACCOUNTS PAYABLE:     |                      |                      |                        |
| Misc. Employee Accts.       | \$ 1,169,080         | \$ 1,106,949         | \$( 62,131)            |
| Military Service Deds.      | <u>1,558</u>         | <u>1,558</u>         | <u>0</u>               |
| Total Accts. Payable        | \$ 1,170,638         | \$ 1,108,507         | \$( 62,131)            |
| NET LEDGER ASSETS           | <u>\$168,219,982</u> | <u>\$186,428,465</u> | <u>\$ 18,208,483</u>   |

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

COMPARATIVE ANALYSIS

LIABILITIES AND FUND BALANCES

|                                | <u>1/1/1977</u>      | <u>12/31/1977</u>    | Increase<br>(Decrease) |
|--------------------------------|----------------------|----------------------|------------------------|
| LIABILITY RESERVES:            |                      |                      |                        |
| ANNUITY PAYMENT FUND:          |                      |                      |                        |
| Employee Annuitants            | \$ 19,445,437        | \$ 23,748,239        | \$ 4,302,802           |
| Emp. Annuities Fixed           | 6,153,442            | 6,859,175            | 705,733                |
| Spouse Annuitants              | 8,828,203            | 9,831,570            | 1,003,367              |
| Spouses' Annuities Fixed       | <u>4,626,794</u>     | <u>5,186,319</u>     | <u>559,525</u>         |
| Total                          | \$ 39,053,876        | \$ 45,625,303        | \$ 6,571,427           |
| SALARY DEDUCTION FUND ACCOUNT: |                      |                      |                        |
| Employees                      | \$ 50,193,860        | \$ 53,751,406        | \$ 3,557,546           |
| Spouses of Employees           | <u>10,274,722</u>    | <u>11,190,887</u>    | <u>916,165</u>         |
| Total                          | \$ 60,468,582        | \$ 64,942,293        | \$ 4,473,711           |
| CITY CONT. FUND ACCOUNT:       |                      |                      |                        |
| Employees                      | \$ 48,883,381        | \$ 52,017,479        | \$ 3,134,098           |
| Spouses of Employees           | 15,173,580           | 16,310,023           | 1,136,443              |
| Supplemental Annuities         | <u>14,832</u>        | <u>12,961</u>        | <u>( 1,871)</u>        |
| Total                          | \$ 64,071,793        | \$ 68,340,463        | \$ 4,268,670           |
| OTHER RESERVES:                |                      |                      |                        |
| Supplemental Pymt. Res.        | \$ 92,409            | \$ 110,204           | \$ 17,795              |
| Annuity Fund Account           | <u>5,858,081</u>     | <u>6,843,796</u>     | <u>985,715</u>         |
| Total                          | \$ 5,950,490         | \$ 6,954,000         | \$ 1,003,510           |
| PRIOR SERVICE FUND ACCOUNT:    |                      |                      |                        |
| Employee Annuitants            | \$ 24,174,402        | \$ 27,542,841        | \$ 3,368,439           |
| Emp. Annuities Fixed           | 17,723               | 14,361               | ( 3,362)               |
| Spouse Annuitants              | 1,153,341            | 1,275,482            | 122,141                |
| Spouses' Annuities Fixed       | 1,460,421            | 1,631,119            | 170,698                |
| Sal. Ded. 2% Annuity           | 3,446,614            | 3,843,261            | 396,647                |
| Estimated Excess Liability     | <u>52,613,447</u>    | <u>56,942,547</u>    | <u>4,329,100</u>       |
| Total                          | \$ 82,865,948        | \$ 91,249,611        | \$ 8,383,663           |
| TOTAL LIABILITIES              | \$252,410,689        | \$277,111,670        | \$ 24,700,981          |
| UNFUNDED OBLIGATIONS           | <u>( 84,190,707)</u> | <u>( 90,683,205)</u> | <u>( 6,492,498)</u>    |
| TOTAL NET LIABILITIES          | <u>\$168,219,982</u> | <u>\$186,428,465</u> | <u>\$ 18,208,483</u>   |

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

TAXES RECEIVABLE

DECEMBER 31, 1977

| Year  | Uncollected<br>Taxes<br>12-31-77 | Estimate<br>for Loss<br>12-31-76 | Additional<br>Est. Setup<br>12-31-77 | Total Est.<br>for loss<br>12-31-77 | Taxes<br>Collectible<br>12-31-77 |
|-------|----------------------------------|----------------------------------|--------------------------------------|------------------------------------|----------------------------------|
| CITY: |                                  |                                  |                                      |                                    |                                  |
| 1968  | \$ 443,813.45                    | \$ 441,673.00                    | \$                                   | \$ 441,673.00                      | \$ 2,140.45                      |
| 1969  | 507,308.85                       | 501,343.00                       |                                      | 501,343.00                         | 5,965.85                         |
| 1970  | 512,943.00                       | 506,795.00                       |                                      | 506,795.00                         | 6,148.00                         |
| 1971  | 595,296.49                       | 587,494.00                       |                                      | 587,494.00                         | 7,802.49                         |
| 1972  | 694,198.11                       | 656,574.00                       |                                      | 656,574.00                         | 37,624.11                        |
| 1973  | 915,137.38                       | 753,068.00                       |                                      | 753,068.00                         | 162,069.38                       |
| 1974  | 1,030,942.56                     | 868,686.00                       |                                      | 868,686.00                         | 162,256.56                       |
| 1975  | 1,102,921.30                     | 953,625.00                       |                                      | 953,625.00                         | 149,296.30                       |
| 1976  | 1,557,577.96                     | 1,037,500.00                     | 5.00                                 | 1,037,505.00                       | 520,072.96                       |
| 1977  | 9,650,000.00                     |                                  | 1,206,250.00                         | 1,206,250.00                       | 8,443,750.00                     |
|       | <u>\$17,010,139.10</u>           | <u>\$6,306,758.00</u>            | <u>\$1,206,255.00</u>                | <u>\$7,513,013.00</u>              | <u>\$9,497,126.10</u>            |

PARK DISTRICT:

|      |                     |                     |                    |                     |                     |
|------|---------------------|---------------------|--------------------|---------------------|---------------------|
| 1968 | \$ 645.53           | \$ 658.02           | \$( 12.49)         | \$ 645.53           | \$ 0                |
| 1969 | 2,908.68            | 2,200.00            |                    | 2,200.00            | 708.68              |
| 1970 | 2,245.42            | 2,000.00            |                    | 2,000.00            | 245.42              |
| 1971 | 2,594.66            | 2,025.00            |                    | 2,025.00            | 569.66              |
| 1972 | 3,811.18            | 2,125.00            |                    | 2,125.00            | 1,686.18            |
| 1973 | 3,196.64            | 2,200.00            |                    | 2,200.00            | 996.64              |
| 1974 | 5,543.84            | 3,125.00            |                    | 3,125.00            | 2,418.84            |
| 1975 | 3,609.69            | 3,250.00            |                    | 3,250.00            | 359.69              |
| 1976 | 5,499.69            | 3,500.00            |                    | 3,500.00            | 1,999.69            |
| 1977 | 30,000.00           |                     | 3,750.00           | 3,750.00            | 26,250.00           |
|      | <u>\$ 60,055.33</u> | <u>\$ 21,083.02</u> | <u>\$ 3,737.51</u> | <u>\$ 24,820.53</u> | <u>\$ 35,234.80</u> |

TOTAL:

|                        |                       |                       |                       |                       |
|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <u>\$17,070,194.43</u> | <u>\$6,327,841.02</u> | <u>\$1,209,992.51</u> | <u>\$7,537,833.53</u> | <u>\$9,532,360.90</u> |
|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

MEMBERSHIP STATISTICS

YEAR 1977

|   | <u>Number at<br/>Beginning<br/>of Year</u> | <u>Increases</u> | <u>Decreases</u> | <u>Number<br/>At End<br/>of Year</u> |
|---|--|------------------|------------------|--------------------------------------|
| A. Changes in Active Participants                                 |  |                  |                  |                                      |
| Male  | 5,835                                      | 965              | 938              | 5,862                                |
| Female  | <u>976</u>                                 | <u>9</u>         | <u>95</u>        | <u>890</u>                           |
| Total   | <u>6,811</u>                               | <u>974</u>       | <u>1,033</u>     | <u>6,752</u>                         |
| B. Changes In Annuityants & Beneficiaries                         |  |                  |                  |                                      |
| Employee Annuityants  | 1,985                                      | 212              | 141              | 2,056                                |
| Spouse Annuityants  | 1,040                                      | 79               | 61               | 1,058                                |
| Children's Annuities  | 179  | 26               | 35               | 170                                  |
| Ordinary Disability Benefits                                      | 122  | 172              | 167              | 127                                  |
| Duty Disability Benefits  | 38   | 685              | 682              | 41                                   |
| Reversionary  | 1  |                  |                  | 1                                    |
| Reciprocal  | 24   | 8                | 1                | 31                                   |
| Widow Compensation Annuities                                      | <u>2</u>                                   | <u>      </u>    | <u>      </u>    | <u>2</u>                             |
| Total   | <u>3,391</u>                               | <u>1,182</u>     | <u>1,087</u>     | <u>3,486</u>                         |
| C. Ratio of Active Participants to<br>Annuityants & Beneficiaries |  |                  |                  |                                      |
|   | <u>2.01</u>                                |                  |                  | <u>1.94</u>                          |

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

SALARY AND AGE STATISTICS

YEAR 1977

Ages and Salaries as of December 31, 1977

Male

| <u>Ages</u>    | <u>Number</u> | <u>Annual Salaries</u> | <u>Average Annual Salaries</u> |
|----------------|---------------|------------------------|--------------------------------|
| Under 20       | 61            | \$ 866,952             | \$14,212                       |
| 20 - 24        | 598           | 8,695,632              | 14,541                         |
| 25 - 29        | 623           | 9,405,696              | 15,097                         |
| 30 - 34        | 460           | 7,139,640              | 15,521                         |
| 35 - 39        | 535           | 8,550,528              | 15,982                         |
| 40 - 44        | 485           | 7,691,112              | 15,858                         |
| 45 - 49        | 614           | 9,925,344              | 16,165                         |
| 50 - 54        | 765           | 12,320,400             | 16,105                         |
| 55 - 59        | 777           | 12,310,320             | 15,843                         |
| 60 - 64        | 535           | 8,363,136              | 15,632                         |
| 65 - 69        | 215           | 3,349,080              | 15,577                         |
| 70 & Over      | 79            | 1,234,440              | 15,626                         |
| Without Record | 115           | 1,652,424              | 14,369                         |
| <b>Total</b>   | <b>5862</b>   | <b>\$91,504,704</b>    | <b>\$15,610</b>                |

Female

|              |            |                     |                 |
|--------------|------------|---------------------|-----------------|
| Under 20     | 2          | \$ 14,760           | \$ 7,380        |
| 20 - 24      | 2          | 18,240              | 9,120           |
| 25 - 29      |            |                     |                 |
| 30 - 34      | 2          | 8,664               | 4,332           |
| 35 - 39      | 10         | 74,976              | 7,498           |
| 40 - 44      | 33         | 264,624             | 8,019           |
| 45 - 49      | 72         | 554,640             | 7,703           |
| 50 - 54      | 143        | 1,041,504           | 7,283           |
| 55 - 59      | 254        | 1,862,952           | 7,334           |
| 60 - 64      | 271        | 2,026,464           | 7,478           |
| 65 - 69      | 84         | 523,104             | 6,227           |
| 70 & Over    | 17         | 134,664             | 7,921           |
| <b>Total</b> | <b>890</b> | <b>\$ 6,524,592</b> | <b>\$ 7,331</b> |

TOTAL MALE AND FEMALE

6752

\$98,029,296

\$14,519

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

SALARY AND AGE STATISTICS

YEAR 1977

Ages at Entrance

MALE

FEMALE

|               | <u>Number</u> | <u>Annual Salaries</u> | <u>Number</u> | <u>Annual Salaries</u> |
|---------------|---------------|------------------------|---------------|------------------------|
| Under 25      | 1,718         | \$26,874,552           | 12            | \$ 145,584             |
| 25 - 29       | 1,012         | 16,038,168             | 44            | 386,904                |
| 30 - 34       | 806           | 12,761,112             | 82            | 690,264                |
| 35 - 39       | 693           | 10,891,248             | 175           | 1,352,016              |
| 40 - 44       | 637           | 9,881,760              | 235           | 1,752,720              |
| 45 - 49       | 417           | 6,444,864              | 236           | 1,575,888              |
| 50 - 54       | 272           | 4,103,544              | 74            | 419,040                |
| 55 - 59       | 147           | 2,218,344              | 28            | 169,944                |
| 60 & Over     | 45            | 638,688                | 4             | 32,232                 |
| W/O record    | 115           | 1,652,424              |               |                        |
| <b>Totals</b> | <u>5,862</u>  | <u>\$91,504,704</u>    | <u>890</u>    | <u>\$6,524,592</u>     |

|                         |          |         |
|-------------------------|----------|---------|
| Average Annual Salary   | \$15,610 | \$7,331 |
| Average Attained Age    | 43.9     | 57.1    |
| Average Service         | 11.4     | 15.2    |
| Average Age at Entrance | 32.5     | 41.9    |



LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

ANNUITANTS CLASSIFIED BY AGE AS OF 12/31/1977

Retirement Annuities

| Ages    | Male<br>Number | Annual<br>Payments | Average<br>Annual<br>Payments | Female<br>Number | Annual<br>Payments | Average<br>Annual<br>Payments |
|---------|----------------|--------------------|-------------------------------|------------------|--------------------|-------------------------------|
| 25 - 29 | 1              | \$ 600             | \$ 600                        |                  | \$                 | \$                            |
| 30 - 34 |                |                    |                               |                  |                    |                               |
| 35 - 39 |                |                    |                               |                  |                    |                               |
| 40 - 44 | 1              | 541                | 541                           | 1                | 1,200              | 1,200                         |
| 45 - 49 |                |                    |                               |                  |                    |                               |
| 50 - 54 | 8              | 10,325             | 1,291                         |                  |                    |                               |
| 55 - 59 | 40             | 182,466            | 4,562                         | 12               | 22,861             | 1,905                         |
| 60 - 64 | 151            | 783,060            | 5,186                         | 71               | 128,653            | 1,812                         |
| 65 - 69 | 315            | 1,487,629          | 4,723                         | 219              | 345,892            | 1,579                         |
| 70 - 74 | 292            | 1,148,472          | 3,933                         | 228              | 349,207            | 1,532                         |
| 75 - 79 | 220            | 694,580            | 3,157                         | 177              | 276,037            | 1,560                         |
| 80 - 84 | 130            | 417,733            | 3,213                         | 97               | 144,123            | 1,486                         |
| 85 - 89 | 65             | 203,001            | 3,123                         | 40               | 53,489             | 1,337                         |
| 90 - 94 | 13             | 28,836             | 2,218                         | 4                | 5,812              | 1,453                         |
| 95 - 99 |                |                    |                               | 2                | 2,793              | 1,396                         |
| Totals  | <u>1236</u>    | <u>\$4,957,243</u> | <u>\$4,011</u>                | <u>851</u>       | <u>\$1,330,067</u> | <u>\$1,563</u>                |

Average Age

72

73

Widows' Annuities (Not Including Compensation)

| Age     | Number      | Annual<br>Payments | Average<br>Annual<br>Payments |
|---------|-------------|--------------------|-------------------------------|
| 20 - 24 | 1           | \$ 1,200           | \$1,200                       |
| 25 - 29 | 2           | 2,400              | 1,200                         |
| 30 - 34 | 2           | 1,500              | 750                           |
| 35 - 39 | 15          | 12,416             | 828                           |
| 40 - 44 | 16          | 16,890             | 1,056                         |
| 45 - 49 | 34          | 38,714             | 1,139                         |
| 50 - 54 | 71          | 102,005            | 1,437                         |
| 55 - 59 | 118         | 164,306            | 1,392                         |
| 60 - 64 | 180         | 257,568            | 1,431                         |
| 65 - 69 | 184         | 250,289            | 1,360                         |
| 70 - 74 | 151         | 163,966            | 1,086                         |
| 75 - 79 | 134         | 142,018            | 1,060                         |
| 80 - 84 | 84          | 70,062             | 834                           |
| 85 - 89 | 50          | 33,835             | 677                           |
| 90 - 94 | 16          | 9,370              | 586                           |
| 95 - 99 | 1           | 655                | 655                           |
| Total   | <u>1059</u> | <u>\$1,267,194</u> | <u>\$1,197</u>                |

Average Age

67

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

NEW ANNUITIES GRANTED

AS OF DECEMBER 31, 1977

|  | <u>Male</u><br><u>Annuitants</u> | <u>Female</u><br><u>Annuitants</u> | <u>Widows of</u><br><u>Deceased</u><br><u>Employees</u> | <u>Widows of</u><br><u>Deceased</u><br><u>Annuitants</u> |
|--|----------------------------------|------------------------------------|---|--|
| Number Retired                         | 133                              | 87                                 | 43  | 36   |
| Average Attained Age                   | 65.6                             | 65.4                               | 52.4  | 70.2   |
| Average Length of<br>Service           | 22.7                             | 16.7                               | N/A   | N/A  |
| Average Annual Salary<br>(4 out of 10) | \$ 11,532                        | \$ 3,387                           | N/A   | N/A  |
| Average Annual Final<br>Salary         | \$ 14,502                        | \$ 6,315                           | N/A   | N/A  |
| Total Annual Annuity                   | \$ 731,652                       | \$ 169,687                         | \$ 102,993  | \$ 71,248  |
| Average Annual Annuity                 | \$ 5,501                         | \$ 1,950                           | \$ 2,395  | \$ 1,979   |
| Total Liability<br>(6% 1951 G.A.)      | \$8,013,871                      | \$2,157,565                        | \$1,142,456   | \$547,850  |
| Average Liability                      | \$ 60,255                        | \$ 24,800                          | \$ 26,569   | \$ 15,218  |
| Total Cost<br>For Income Tax Purposes  | \$1,660,767                      | \$ 343,365                         | N/A   | N/A  |
| Average Cost                           | \$ 12,487                        | \$ 3,947                           | N/A   | N/A  |
| Expected Future Lifetime               | 14.21                            | 17.72                              | 28.16   | 14.21  |

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

HISTORY 1964 to 1977

AVERAGE ANNUAL SALARIES ENTIRE FUND

|   | Total<br>Members<br>In Ser-<br>vice(1) | Percentage<br>Increase Of<br>Preceding<br>Year | Total<br>Salaries | Percentage<br>Increase Of<br>Preceding<br>Year | Average<br>Annual<br>Salaries | Percentage<br>Increase Of<br>Preceding<br>Year |
|---|--|--|-------------------|--|-------------------------------|--|
| 1964  | 7,868                                  |  | \$44,441,712      |  | \$ 5,648                      |  |
| 1965  | 7,936                                  | 0.9%   | 45,872,832        | 3.2%   | 5,780                         | 2.3%   |
| 1966  | 7,995                                  | 0.7  | 47,598,552        | 3.8  | 5,954                         | 3.0  |
| 1967  | 8,102                                  | 1.3  | 52,268,304        | 9.8  | 6,451                         | 8.3  |
| 1968  | 7,891                                  | (2.6)  | 56,165,136        | 7.5  | 7,118                         | 10.3   |
| 1969  | 7,777                                  | (1.4)  | 60,523,296        | 7.8  | 7,782                         | 9.3  |
| 1970  | 7,220                                  | (7.2)  | 62,916,768        | 4.0  | 8,714                         | 12.0   |
| 1971  | 6,864                                  | (4.9)  | 66,142,320        | 5.1  | 9,636                         | 10.6   |
| 1972  | 6,971                                  | 1.6  | 69,950,692        | 5.8  | 10,035                        | 4.1  |
| 1973  | 6,752                                  | (3.1)  | 73,108,848        | 4.5  | 10,828                        | 7.9  |
| 1974  | 6,638                                  | (1.7)  | 78,526,728        | 7.4  | 11,830                        | 9.3  |
| 1975  | 7,032                                  | 5.9  | 89,276,280        | 13.7   | 12,696                        | 7.3  |
| 1976  | 6,811                                  | (3.1)  | 90,487,008        | 1.4  | 13,285                        | 4.6  |
| 1977  | 6,752                                  | (0.9)  | 98,029,296        | 8.3  | 14,519                        | 9.3  |
| Average Increase<br>for the last 5<br>years |  | <u>(0.6)%</u>                                  |                   | <u>7.1%</u>                                    |                               | <u>7.7%</u>                                    |

(1) Includes those members who were on disability

(2) Average annual increase in salary 1964 - 1977 about 7.53% compounded.

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

HISTORY OF TOTAL ANNUITIES 1968 - 1977

Employee Annuitants (Male & Female)

|      | <u>Number Of<br/>Annuitants</u> | <u>Total<br/>Annuities</u> | <u>Average<br/>Annuities</u> |
|------|---------------------------------|----------------------------|------------------------------|
| 1968 | 1,572                           | \$2,389,710                | \$1,520                      |
| 1969 | 1,593                           | 2,495,396                  | 1,566                        |
| 1970 | 1,651                           | 2,779,061                  | 1,683                        |
| 1971 | 1,675                           | 2,927,594                  | 1,748                        |
| 1972 | 1,724                           | 3,373,308                  | 1,957                        |
| 1973 | 1,777                           | 3,781,854                  | 2,128                        |
| 1974 | 1,831                           | 4,331,609                  | 2,366                        |
| 1975 | 1,907                           | 4,887,747                  | 2,563                        |
| 1976 | 2,009                           | 5,633,971                  | 2,804                        |
| 1977 | 2,087                           | 6,287,310                  | 3,013                        |

Widow Annuitants  
(Not Including Compensation)

|      |       |            |        |
|------|-------|------------|--------|
| 1968 | 875   | \$ 580,690 | \$ 664 |
| 1969 | 909   | 640,079    | 704    |
| 1970 | 928   | 673,352    | 726    |
| 1971 | 921   | 711,618    | 773    |
| 1972 | 932   | 775,469    | 832    |
| 1973 | 967   | 860,410    | 890    |
| 1974 | 997   | 959,632    | 963    |
| 1975 | 1,022 | 1,053,816  | 1,031  |
| 1976 | 1,041 | 1,142,064  | 1,097  |
| 1977 | 1,059 | 1,267,194  | 1,197  |

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

HISTORY OF INVESTMENT YIELDS

Nonrecurring Gains and Losses are Excluded from Income

| <u>Year</u>             | <u>Investment Yield<br/>on Total Assets</u> | <u>Investment Yield<br/>on<br/>Invested Assets</u> |
|-------------------------|---|--|
| December 31, 1971       | 4.75%                                       | 4.99%  |
| December 31, 1972       | 5.47  | 5.70   |
| December 31, 1973       | 5.76  | 6.03   |
| December 31, 1974       | 6.58  | 6.98   |
| December 31, 1975       | 7.25  | 7.73   |
| December 31, 1976       | 7.23  | 7.65   |
| December 31, 1977       | 7.01  | 7.35   |
| Average of Last 5 Years | 6.77%                                       | 7.15%  |

Nonrecurring Gains and Losses are Included in Income

| <u>Year</u>             | <u>Investment Yield<br/>on Total Assets</u> | <u>Investment Yield<br/>on<br/>Invested Assets</u> |
|-------------------------|---|--|
| December 31, 1971       | 3.95%                                       | 4.14%  |
| December 31, 1972       | 4.79  | 5.00   |
| December 31, 1973       | 3.60  | 3.77   |
| December 31, 1974       | 3.55  | 3.76   |
| December 31, 1975       | 6.17  | 6.58   |
| December 31, 1976       | 6.98  | 7.39   |
| December 31, 1977       | 7.00  | 7.35   |
| Average of Last 5 Years | 5.46%                                       | 5.77%  |

Notes:

$$\text{Yield} = \frac{\text{Investment Income}}{\text{Mean Assets}}$$

Bonds valued at amortized value, stocks at cost.  
Market values are not considered.

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

HISTORY OF FINANCIAL INFORMATION\*

| <u>Year End</u> | <u>Employee Contributions(1)</u> | <u>Employer Contributions(2)</u> | <u>Investment Income (3)</u> | <u>Total Income</u> |
|-----------------|----------------------------------|----------------------------------|------------------------------|---------------------|
| 12-31-71        | \$5,254,928                      | \$4,241,819                      | \$ 4,145,156                 | \$13,641,903        |
| 12-31-72        | 5,928,386                        | 4,793,135                        | 5,391,547                    | 16,113,068          |
| 12-31-73        | 6,269,104                        | 5,463,149                        | 4,394,426                    | 16,126,679          |
| 12-31-74        | 6,597,012                        | 6,103,125                        | 4,646,080                    | 17,346,217          |
| 12-31-75        | 7,375,222                        | 6,699,000                        | 8,665,212                    | 22,739,434          |
| 12-31-76        | 7,887,179                        | 7,287,000                        | 10,785,585                   | 25,959,764          |
| 12-31-77        | 8,568,248                        | 8,470,000                        | 11,993,200                   | 29,031,448          |

| <u>Year End</u> | <u>Pay Outs(4)</u> | <u>Income Less Pay Outs(5)</u> | <u>Total Assets Stocks At Cost Bonds Amortized</u> | <u>Unfunded Liability</u> |
|-----------------|--------------------|--------------------------------|--|---------------------------|
| 12-31-71        | \$ 6,829,674       | \$ 6,812,229                   | \$110,423,040                                      | \$48,392,529              |
| 12-31-72        | 6,425,129          | 9,687,939                      | 120,072,655  | 52,088,002                |
| 12-31-73        | 7,125,454          | 9,001,225                      | 128,624,035  | 69,158,015                |
| 12-31-74        | 7,999,287          | 9,346,930                      | 137,709,821  | 77,926,272                |
| 12-31-75        | 8,690,763          | 14,048,671                     | 151,749,085  | 90,467,774                |
| 12-31-76        | 9,482,736          | 16,477,028                     | 168,219,982  | 84,190,707                |
| 12-31-77        | 10,819,180         | 18,212,268                     | 186,428,465  | 90,683,205                |

| <u>Year End</u> | <u>Funded Ratio</u> | <u>Pay Outs To Assets</u> | <u>Income To Assets</u> | <u>Pay Outs To Income</u> |
|-----------------|---------------------|---------------------------|-------------------------|---------------------------|
| 12-31-71        | 69.5%               | 6.2%                      | 12.4%                   | 50.1%                     |
| 12-31-72        | 69.7                | 5.4                       | 13.4                    | 39.9                      |
| 12-31-73        | 65.0                | 5.5                       | 12.5                    | 44.2                      |
| 12-31-74        | 63.9                | 5.8                       | 12.6                    | 46.1                      |
| 12-31-75        | 62.7                | 5.7                       | 15.0                    | 38.2                      |
| 12-31-76        | 66.6                | 5.6                       | 15.4                    | 36.5                      |
| 12-31-77        | 67.2                | 5.8                       | 15.6                    | 37.3                      |

\*Statistical material suggested by the Municipal Finance Officers Association in the disclosure guidelines for security offerings by the State and Local Government.

- (1) Includes Deductions In Lieu for Disability.
- (2) Net Tax Levy and Miscellaneous Income.
- (3) Includes Realized Net Loss on Sale and Exchange of Bonds.
- (4) Includes Pensions, Benefits, Refunds and Administrative Expenses.
- (5) Does Not Include Prior Year Adjustments.

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Method: The actuarial funding method used is the ENTRY AGE NORMAL METHOD.

This cost method assigns to each year of employment a constant percentage of an employees salary, called the CURRENT SERVICE COST (sometimes referred to as NORMAL COST), sufficient to accumulate the necessary funds to provide for the full prospective costs of the employee's projected retirement pension. The amount of pension must be estimated using various assumptions as to future compensation levels, employee turnover, mortality and pension fund earnings, since the actual pension can only be known at the time of retirement. These are called actuarial assumptions.

It should be emphasized that the actuarial assumptions do not directly affect the cost of the pension plan. Benefits are fixed by statute and will become payable as various members and their dependents satisfy the contingencies covered. The actual cost of the plan can only be determined after all benefits have been paid, and is equal to the total benefits paid, plus total administrative expenses minus total investment income.

The ACCRUED LIABILITY of the fund at any point in time is the accumulated value of all CURRENT SERVICE COSTS which should have been paid to that time for active employees plus the full prospective cost of pensions for all retired employees. The extent that the actual plan ASSETS are less than the ACCRUED LIABILITY is called the UNFUNDED LIABILITY.

An amount of money is required each year to keep the UNFUNDED LIABILITY from increasing if all assumptions are realized. This amount is called INTEREST ONLY on the UNFUNDED LIABILITY.

The total actuarial contribution required to the fund is equal to the CURRENT SERVICE COSTS plus INTEREST ONLY on the UNFUNDED LIABILITY. This is the funding policy. This minimum method of funding, often referred to as middle-of-the-road method, is the method the fund has tried to follow in the past. It has evolved over the years and seeks to give effect to all interested groups including opinions often expressed by the Civic Federation. No funds are provided for amortization of the UNFUNDED LIABILITY.

Reserves for employee retirement annuities, spouses retirement annuities and death benefit annuities are valued on the entry age normal method. Grouped ages of entry, 22, 27, 32, 37, 42, 47, 52, 57, 62 and over, are used.

The costs for the following items are valued on an annual cost basis. No reserves are set up as these items tend to stabilize on a cash basis.

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

- 1) Duty Disability Benefits
- 2) Ordinary Disability Benefits
- 3) Children's Annuities
- 4) Refunds - including refunds for no wife
- 5) Expense of administration

Reserves are set up for duty, and ordinary disability recipients as if they were in active service.

Actuarial Assumptions:

Mortality:

Active Members, Present and Future Retired Members and Spouses: 1951 GROUP ANNUITY MORTALITY TABLE, male and female. Past experience indicates this table's adequacy.

Interest: 6% a year, compounded annually. An exhibit details the investment yields the Fund actually realized over the past few years.

Interest earnings over the assumed rate can be used to reduce losses which may result from variations in other cost factors - such as increased costs resulting from salary increases greater than the assumed rate.

It must be realized that the interest assumption is a long range assumption - it must cover a period as long as perhaps 50 years - which would be the period of time, say, that the youngest employee in the fund will work, then retire on pension for the rest of his life. There is no guarantee that the current high interest rates will continue over this period.

Salary Increase: 5% a year, compounded annually. An exhibit details the annual increase in the average salary over the past years which averages greater than 5%.

It should be remembered that pensions are based directly upon salary. If it is believed that the recent pattern will continue in the long range future, the salary scale assumption will need to be increased.

Increased costs would necessarily result with the extent of the increase in cost depending on the extent of the increase in salary over the assumed long range .

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS

Rate of Retirement: The rates of retirement used in this valuation are shown in Exhibit "0" for each age of entrance group into the service and are based on 1973, 1974 and 1975 experience of the Fund.

These rates reflect the changing pattern of retirement.

Rate of Termination: These rates are shown in Exhibit "0" and are based on the experience of the Fund for the years 1973, 1974 and 1975.

Proportion Married: The scale is shown in Exhibit "0".

Active Membership: It is assumed that the future active membership of the Fund will approximate its present membership, which as of December 31, 1977 was made up of 5,862 males and 890 females.

Age of Spouse: Of a male employee - the spouse is assumed four year younger; of a female employee - the spouse is assumed four years older.

Asset Value: Bonds are amortized value; stocks are at cost.



LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

SERVICE TABLE FUNCTIONS

Rates of Termination

Male

| Attained Age | Age at Entrance |      |      |      |      |      |      |      |      |
|--------------|-----------------|------|------|------|------|------|------|------|------|
|              | 22              | 27   | 32   | 37   | 42   | 47   | 52   | 57   | 62   |
| 22           | .223            |      |      |      |      |      |      |      |      |
| 27           | .116            | .262 |      |      |      |      |      |      |      |
| 32           | .050            | .100 | .219 |      |      |      |      |      |      |
| 37           | .021            | .046 | .098 | .221 |      |      |      |      |      |
| 42           | .012            | .025 | .022 | .088 | .176 |      |      |      |      |
| 47           | .005            | .012 | .010 | .034 | .080 | .142 |      |      |      |
| 52           |                 | .005 | .005 | .017 | .028 | .076 | .120 |      |      |
| 57           |                 |      | .002 | .006 | .013 | .026 | .046 | .112 |      |
| 62           |                 |      |      |      |      |      | .014 | .042 | .148 |
| 67           |                 |      |      |      |      |      |      |      | .049 |
| 72           |                 |      |      |      |      |      |      |      |      |

Female

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 22 | .140 |      |      |      |      |      |      |      |      |
| 27 | .108 | .174 |      |      |      |      |      |      |      |
| 32 | .052 | .085 | .108 |      |      |      |      |      |      |
| 37 | .022 | .038 | .062 | .074 |      |      |      |      |      |
| 42 | .008 | .022 | .033 | .051 | .054 |      |      |      |      |
| 47 |      | .013 | .017 | .028 | .033 | .063 |      |      |      |
| 52 |      | .005 | .009 | .015 | .020 | .033 | .054 |      |      |
| 57 |      |      | .004 | .006 | .010 | .020 | .036 | .056 |      |
| 62 |      |      |      |      |      | .008 | .012 | .034 | .027 |
| 67 |      |      |      |      |      |      |      | .010 | .026 |
| 72 |      |      |      |      |      |      |      |      | .022 |

| Attained Age | Male Death Rate<br>1951 GA<br>Per 1,000 | Female Death Rate<br>1951 GA<br>Per 1,000 | Proportion<br>Married<br>% |
|--------------|---|---|----------------------------|
| 22           | .6                                      | .4  | 81                         |
| 27           | .8                                      | .5  | 81                         |
| 32           | 1.1                                     | .7  | 81                         |
| 37           | 1.5                                     | 1.0                                       | 80                         |
| 42           | 2.4                                     | 1.5                                       | 83                         |
| 47           | 4.5                                     | 2.3                                       | 83                         |
| 52           | 7.9                                     | 3.5                                       | 84                         |
| 57           | 12.2                                    | 5.6                                       | 82                         |
| 62           | 18.3                                    | 9.8                                       | 80                         |
| 67           | 30.1                                    | 16.5                                      | 78                         |
| 70           | 39.3                                    | 23.1                                      | 74                         |
| 75           | 62.4                                    | 44.3                                      | 74                         |

## ILLINOIS PUBLIC EMPLOYEES PENSION LAWS COMMISSION IMPACT STATEMENT

Name of Retirement System: LABORERS' & RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

Total Annual Payroll: \$98,029,296

Bill No. \_\_\_\_\_

Total Number of Active Employees: 6,752

**PRESENT FINANCIAL CONDITION AS OF VALUATION DATE** I

| Valuation Date                   | PRESENT PLAN     |
|----------------------------------|------------------|
| 12-31-77                         |                  |
| (1) Accrued Pension Liability    | \$277,111,671.12 |
| (2) Present Assets               | \$186,428,465.83 |
| (3) Unfunded Liability = (1)-(2) | \$ 90,683,205.29 |
| (4) Funded Ratio = (2) ÷ (1)     | 67.28%           |

II

| PROPOSED LEGISLATION |
|----------------------|
|                      |
|                      |
|                      |
|                      |

III

| PLAN IF PROPOSED LEGISLATION ENACTED |
|--------------------------------------|
|                                      |
|                                      |
|                                      |
|                                      |

**DIRECTION OF FINANCIAL CONDITION: FOR YEAR BEGINNING ON VALUATION DATE**

|   | PRESENT PLAN | PER ACTIVE | % OF SALARY |
|---|--------------|------------|-------------|
| (5) Minimum Recommended Annual Contribution   | \$18,468,103 | 2735       | 18.84       |
| <sup>178</sup> Tax Levy \$10,600,000 after 12½%<br>(6) Estimated Annual Employer Contribution | \$ 9,275,000 | 1374       | 9.46        |
| (7) Estimated Annual Employee Contribution  | \$ 8,332,490 | 1234       | 8.50        |
| (8) Deficiency in Annual Contributions = (5)-(6)-(7)  | \$ 860,613   | 127        | 0.88        |

| PROPOSED LEGISLATION | PER ACTIVE | % OF SALARY |
|----------------------|------------|-------------|
|                      |            |             |
|                      |            |             |
|                      |            |             |
|                      |            |             |

| PLAN IF PROPOSED LEGISLATION ENACTED | PER ACTIVE | % OF SALARY |
|--------------------------------------|------------|-------------|
|                                      |            |             |
|                                      |            |             |
|                                      |            |             |
|                                      |            |             |

(9) Source of Funding Revenues:

◀ IS THE ANNUAL COST FOR PROPOSED LEGISLATION

(10) Remarks

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

PLAN SUMMARY

PARTICIPANT:

Person employed by the City in a position classified by the Civil Service Commission of the employer as labor service of the employer; any person employed by the Board; any person employed by the Retirement Board of any other Annuity and Benefit Fund which is in operation for the employer.

SERVICE:

For all purposes except formula minimum annuity and ordinary disability credit, service in four months in any calendar year constitutes one year of service credit. No more than one year of service is allowed during any calendar year.

RETIREMENT ANNUITY:

Accumulation Annuity: Age 55, 10 years service (entire sum accumulated from deductions plus 1/10 City contributions for each year after 10). Full City contributions are added for age 60 and over regardless of service. This annuity is known as the money purchase plan and does not increase after age 70 nor does it apply after age 65 if participant has 20 years service.

Formula Minimum Annuity: Age 55, 20 years service; 1.67% for the first 10 years, 1.90% for the second 10 years, 2.1% for the third 10 years. 2.3% for all service over 30 years times the final average salary (highest 4 consecutive years within the last 10 years). Under age 60 the annuity is reduced by a percentage equal to 1/2 of 1% for each month and fraction thereof that the employee is under age 60. Maximum annuity is 75% of highest average monthly salary.

Age 65, 15 years service; 1% of final average salary for each year of service plus the sum of \$25.00 per year for each year of service.

Service during 6 or more months in any year constitutes a year of service credit and service of less than 6 months and at least 1 month in any year constitutes a half a year of service credit for formula minimum annuity.

Automatic Increase In Annuity: Retirement at age 60--2% of annuity starting January of the year following the year in which the first anniversary of retirement occurs. If retirement is before age 60, increases begin with January of the year immediately following the year in which he attains the age of 60 years. Increases apply only to life annuities.

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

PLAN SUMMARY

SPOUSE'S ANNUITY:

Payable until remarriage or termination of temporary annuity.

Death In Service (Non-Duty): Money Purchase based on total salary deductions and City contributions for both employee and spouse, limited to amount payable at employee's age 65 if deceased employee has less than 20 years service and is under age 60. Maximum \$400.00 per month.

Formula Minimum Annuity if deceased employee is age 60 or over and has at least 20 years service. Widow's annuity is 1/2 of annuity that would have been payable to employee discounted 1/2 of 1% for each month spouse is under age 60. Maximum \$400.00 per month.

Death After Retirement: Fixed at date of retirement. Annuity is determined to be based on money purchase plan or formula minimum annuity depending on rules in effect at the date participant retires.

CHILDREN'S ANNUITY:

Payable upon the death of City employee, either active or retired.

Child must be unmarried, under age 18, born before participant is age 65 and before his separation from City service or legally adopted at least one year before child's annuity becomes payable and prior to the attainment of age 55 by the adopting parent. Annuity is \$80.00 per month while a surviving parent is alive and \$120.00 per month if neither parent is alive. Except for duty death deceased employee must have had 4 years of service and at least 2 years from latest re-entrance if he had previously resigned from service.

FAMILY MAXIMUM:

Non-duty death: 60% of final monthly salary: Duty death: 70% of final monthly salary.

DISABILITIES:

Duty Disability Benefits: Any employee under age 65, who becomes disabled as the result of injury incurred in the performance of any act of duty, shall

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

PLAN SUMMARY

have a right to receive duty disability benefit in the amount of 75% of salary at date of injury plus \$10.00 a month for each unmarried child (the issue of the employee) less than age 18. Child's duty disability benefit is limited to 15% of the employee's salary as of date of injury.

If the disability has resulted from any mental disorder, physical defect or disease which existed at the time such injury was sustained, the duty disability benefit shall be 50% of salary at date of injury. Disablement because of heart attacks, strokes, or any disablement due to heart disease shall not be considered to be the result of an accident suffered in the performance of duty.

Duty disability is payable to age 65 and the City contributes salary deductions for annuity purposes.

Ordinary Disability Benefit: Disability other than in performance of an act of duty and other than as a result of childbirth or pregnancy...50% of salary less the sum ordinarily deducted from salary for annuity purposes, as of last day worked payable until age 65 and limited to a maximum of 1/4 service or 5 years, whichever is less. The City contributes the deductions for pension purposes. Service for this ordinary disability is actual service -- one day of service is given for each day paid, exclusive of any overtime payments and any previous ordinary disability periods.

REFUNDS:

To Employee: Upon separation from service -- deductions plus interest if employee is under age 55. If over age 55 employee is eligible for refund if he has less than 10 years of service or would be eligible for temporary rather than life annuity. Employee forfeits all rights.

Spouse's annuity deductions -- payable to employee if not married when he retires or at age 65.

To Spouse: In lieu of annuity if annuity would be temporary rather than life and spouse so chooses.

Remaining Amounts: Excess over total annuity payments may be paid to designated beneficiary or children, estate or heirs.

LABORERS' AND RETIREMENT BOARD EMPLOYEES' ANNUITY AND BENEFIT FUND OF CHICAGO

PLAN SUMMARY

DEDUCTIONS AND CONTRIBUTIONS:

|                  | <u>Deductions</u> | <u>Contributions</u> * |
|------------------|-------------------|------------------------|
| Employee         | 6-1/2%            | 6%                     |
| Spouse           | 1-1/2% **         | 2% **                  |
| Annuity Increase | 1/2%              | -                      |
| Total:           | <u>8-1/2%</u>     | <u>8%</u>              |

\*\* Only to employee age 65.

FINANCING: \*

The City shall levy a tax annually equal to the total amount of contributions in the 2 years prior multiplied by 1.280 for 1976, 1.325 for 1977 and 1.370 for 1978 and each year thereafter.