

PC-202C
 Commonwealth of Pennsylvania
 Public Employee Retirement Commission
 P.O. Box 1429
 Harrisburg, PA 17105 - 1429

County: ALL Class : 2 2C

Mun : PITTSBURGH

Muncd : 02-261-2

PIntyp: F

2001
ACT 205 ACTUARIAL VALUATION REPORT:
FIRE PENSION PLAN
WITH DEFINED BENEFITS

FILING DEADLINE: March 29, 2002

RECEIPT

PERC MAR 29 2002

FRMTYP	REVIEW	CODE	INPUT	EDP	LOG
C	DA 7/18/02	C	B	B	B

Section I - Identification of Municipality

INSTRUCTIONS: Print or type requested information in the space provided.

Note: In Part A, home rule municipalities should check the box and enter the number of their previous municipal classification.

A. Type of Municipality 2 (1)
 (Check appropriate box below and enter corresponding number.)

- | | |
|----------------------------------------------|--------------------------------------------------|
| <input checked="" type="checkbox"/> City (2) | <input type="checkbox"/> Township (1st) (4) |
| <input type="checkbox"/> Borough (3) | <input type="checkbox"/> Township (2nd) (5) |
| <input type="checkbox"/> Town (3) | <input type="checkbox"/> Authority (6) |
| | <input type="checkbox"/> COG/Regional Entity (7) |

B. Name of Municipality CITY OF PITTSBURGH (2)

C. Name of County ALLEGHENY (3)

Section II - Identification of Pension Plan and Specification of Valuation Date

INSTRUCTIONS: Print or type requested information in space provided.

A. Name of Pension Plan CITY OF PITTSBURGH FIREMEN'S RELIEF AND PENSION FUND (4)

B. Date on which pension plan was established 05 / 25 / 1933 (5)
 Mo. Da. Yr.

C. Valuation date for demographic, financial and actuarial data 01 / 01 / 2001 (6)
 (Use 1/1/2001 unless otherwise specified in plan document prior to 12/31/1982.) Mo. Da. Yr.

Section III - General Information

INSTRUCTIONS: Respond to each question by entering "yes" or "no" in the space provided.

- A. Is Social Security coverage provided for the active members of the pension plan identified in Section II? ... NO (8)
B. Do any active members of the pension plan identified in Section II participate in any other pension plan or plans that receive funding from the municipality? ... NO (9)
C. Do any of the active members of the pension plan identified in Section II work on average less than 35 hours per week? ... NO (10)
D. Does the pension plan identified in Section II include active members who are not employees of the municipality identified in Section I? ... NO (11)
E. Do retired members of the pension plan identified in Section II receive any benefit, such as insurance coverage, that is provided wholly or partially by the municipality and not funded through the pension plan identified in Section II? ... YES (12)

Section IV - Demographic Data as of JANUARY 1, 2001 (Valuation Date)

INSTRUCTIONS: Enter valuation date specified in Section II, Part C, in the space provided above and on each page of Schedule A. Print or type information requested in Part A in the space provided. Enter zero, if applicable. Do not leave blanks or refer to the schedules or exhibits. Complete Schedule A. Then complete the certification in Part B below.

A. Summary of Demographic Data

- 1. Number of active members on valuation date ... 889 (13)
2. Total annual payroll of active members as of above valuation date ... \$ 50,170,222 (14)
3. Number of members terminated with vested or deferred benefit on valuation date ... 0 (15)
4. As of valuation date, number of persons receiving:
a. Retirement benefits ... 424 (16)
b. Disability benefits ... 212 (17)
c. Surviving spouse benefits ... 366 (18)
d. Surviving child benefits ... 3 (19)
e. Total (a + b + c + d) ... 1,005 (20)
5. As of valuation date, total annual benefits payable as:
a. Retirement benefits ... \$ 7,874,935 (21)
b. Disability benefits ... \$ 3,354,784 (22)
c. Surviving spouse benefits ... \$ 2,064,994 (23)
d. Surviving child benefits ... \$ 16,977 (24)
e. Total (a + b + c + d) ... \$ 13,311,690 (25)

B. Certification of Demographic Data

I hereby certify that I have prepared and reviewed the demographic data entered in Part A of this section and in Schedule A; and I further certify that the information provided is to the best of my knowledge true and accurate.

Signature: Eileen M. McLean

(Signature)

Date: 3-18-02

(Date)

Name: EILEEN M. McLEAN

(Name)

Title: DIRECTOR, FINANCE

(Title)

Telephone: 414 255-7582

(Telephone)

Section V - Financial Data as of JANUARY 1, 2001 (Valuation Date)

INSTRUCTIONS: Enter valuation date specified in Section II, Part C, in the space provided above and on each page of Schedule B. Print or type the data requested in Part A, rounded to the nearest dollar, in the space provided. Enter zero, if applicable. Do not leave blanks or refer to exhibits. Complete Schedule B. Then complete the certification in Part B below.

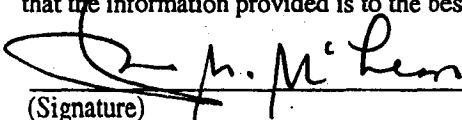
Note: The asset values provided in Part A of this section and in Schedule B must include all the assets of the pension plan regardless of custodial arrangements involving administrative agencies.

A. Summary of Financial Data

1. MARKET VALUE OF ASSETS, <i>excluding the cash surrender values of individual insurance and annuity contracts</i> , on the above valuation date	\$	<u>147,291,033</u>	(26)
2. CASH SURRENDER VALUE of individual insurance and annuity contracts on the above valuation date or nearest anniversary date	\$	<u>0</u>	(27)
3. TOTAL FUND ASSETS (1 + 2) on the above valuation date	\$	<u>147,291,033</u>	(28)
4. INVESTMENT INCOME, <i>excluding individual insurance and annuity contract dividends</i> , for the year ended on the above valuation date	\$	<u>8,565,898</u>	(29)
5. REALIZED CAPITAL GAINS/LOSSES for the year ended on the above valuation date (+ or -)	\$	<u>0</u>	(30)
6. DIVIDENDS ON INSURANCE/ANNUITY CONTRACTS for the year ended on the above valuation date	\$	<u>0</u>	(31)
7. MEMBER CONTRIBUTIONS to plan for the year ended on the above valuation date (Include employee contributions treated as employer contributions pursuant to Section 414(h) of the Internal Revenue Code.)	\$	<u>3,180,675</u>	(32)
8. MUNICIPAL CONTRIBUTIONS to plan, <i>excluding Supplemental State Assistance monies allocated under Act 205 Recovery Program</i> , for the year ended on valuation date (8a + 8b)	\$	<u>5,729,525</u>	(33)
a. State Aid Portion \$ <u>4,205,550</u> b. Local Portion \$ <u>1,523,975</u>			
9. ACTUAL MUNICIPAL DEPOSIT for the year ended on the valuation date (Item 33 + 9a - 9b)	\$	<u>5,729,525</u>	(34)
a. Contributions Receivable at beginning of year \$ <u>0</u> b. Contributions Receivable at end of year \$ <u>0</u>			
10. TOTAL MONTHLY BENEFIT PAYMENTS for the year ended on the above valuation date	\$	<u>13,877,297</u>	(35)
11. ANNUAL INSURANCE OR ANNUITY PREMIUM PAYMENTS, <i>excluding single premium annuity purchases</i> , for the year ended on the above valuation date	\$	<u>0</u>	(36)
12. ADMINISTRATIVE EXPENSES paid from the assets of the pension plan for the year ended on the above valuation date	\$	<u>781,117</u>	(37)
13. MINIMUM MUNICIPAL OBLIGATION to the pension plan for the year ended on the valuation date (Enter amount reported in item 34 or item 41 on page 12.)	\$	<u>5,729,525</u>	(38)

B. Certification of Financial Data

I hereby certify that I have prepared and reviewed the financial data entered in Part A of this section and in Schedule B; and I further certify that the information provided is to the best of my knowledge true and accurate.


(Signature)

3-18-02
(Date)

ELLEN M. MCLEAN
(Name)

DIRECTOR, FINANCE
(Title)

(414) 455-4584
(Telephone)

Section VI - Actuarial Data as of JANUARY 1, 2001 (Valuation Date)

INSTRUCTIONS: Enter valuation date specified in Section II, Part C, in the space provided above and on each page of Schedule C. Complete Part A and Part B below in accordance with the instructions provided. Complete Schedule C. Then complete the certification in Part C below.

Note: The asset values provided in Part A of this section must include all the assets of the pension plan regardless of custodial arrangements involving administrative agencies.

A. Summary of Actuarial Data

INSTRUCTIONS: Print or type the data requested, rounded to the nearest dollar, in the space provided. Enter zero or negative values, if applicable. Do not leave blanks or refer to exhibits.

1. ACTUARIAL PRESENT VALUE OF FUTURE BENEFITS as of valuation date	\$	<u>266,654,741</u>	(40)
2. ACTUARIAL PRESENT VALUE OF FUTURE NORMAL COST as of valuation date	\$	<u>44,614,125</u>	(41)
3. ACTUARIAL ACCRUED LIABILITY as of valuation date	\$	<u>222,040,616</u>	(42)
4. ACTUARIAL VALUE OF ASSETS, including aggregate insurance/annuity cash surrender value, as of valuation date	\$	<u>147,291,033</u>	(43)
5. UNFUNDED ACTUARIAL ACCRUED LIABILITY as of valuation date (+ or -)	\$	<u>74,749,583</u>	(44)
6. NORMAL COST (employer & employee), <i>excluding administrative expenses</i> , payable as of valuation date for the plan year beginning on valuation date:			
a. As a dollar amount	\$	<u>5,111,703</u>	(45)
b. As a percentage of total annual payroll		<u>10.189%</u>	(46)
7. AVERAGE ADMINISTRATIVE EXPENSES payable from the assets of the pension plan in the prior plan year and the plan year beginning on valuation date ¹	\$	<u>752,553</u>	(47)
8. ANNUAL COVERED PAYROLL of active members as of valuation date	\$	<u>50,170,222</u>	(48)
9. AMORTIZATION CONTRIBUTIONS			
a. For amortization of initial unfunded actuarial accrued liability established 1/1/85. ²			
1) Amortization period remaining (years)		<u>37</u>	(49)
2) Amortization contribution calculated as a level dollar amount for the plan year beginning on valuation date	\$	<u>4,333,255</u>	(50)
3) Amortization contribution calculated as a level percentage of payroll for the plan year beginning on valuation date ³	\$	<u>N/A</u>	(51)
b. For amortization of all increases or decreases in unfunded actuarial accrued liability occurring after 1/1/85 or the initial UAL's establishment. ²			
1) Aggregated amortization period (years)		<u>11</u>	(52)
2) Aggregated amortization contribution calculated as a level dollar amount for the plan year beginning on valuation date	\$	<u>(556,207)</u>	(53)
c. Modified Total Amortization Requirement ⁴	\$	<u>N/A</u>	(54)
d. Total Amortization Requirement (Item 50 + 53 or Item 51 + 53 or Item 54, whichever is applicable)	\$	<u>3,777,048</u>	(55)
10. ACTUAL OR ESTIMATED MEMBER CONTRIBUTIONS to the pension plan for the year beginning on the valuation date	\$	<u>3,020,881</u>	(56)

Section VI - Actuarial Data (Cont'd)

INSTRUCTIONS: If insurance/annuity contracts are maintained pre-retirement to fund a portion of the benefits provided by the pension plan at retirement, enter the information requested in items 11-20 below. Otherwise, do not complete items 11-20.

Note: For item 20, include "side fund" amortization contribution for the initial UAL established 1/1/85 and the aggregated "side fund" amortization contribution for increases and decreases in the UAL occurring after 1/1/85. Attach a facsimile of Schedule C, Section II, to support the entry for item 20.

A. Summary of Actuarial Data (Cont'd)

11. ACTUARIAL PRESENT VALUE OF INSURANCE/ANNUITY CONTRACT CASH VALUES AT RETIREMENT as of valuation date	\$ _____	(57)
12. ADJUSTED ACTUARIAL PRESENT VALUE OF FUTURE BENEFITS as of valuation date (1 - 11)	\$ _____	(58)
13. ADJUSTED ACTUARIAL PRESENT VALUE OF FUTURE NORMAL COST as of valuation date	\$ _____	(59)
14. ADJUSTED ACTUARIAL ACCRUED LIABILITY as of valuation date	\$ _____	(60)
15. ACTUARIAL VALUE OF ASSETS, excluding aggregate insurance/annuity cash surrender value, as of valuation date	\$ _____	(61)
16. ADJUSTED UNFUNDED ACTUARIAL ACCRUED LIABILITY as of valuation date (+ or -)	\$ _____	(62)
17. ADJUSTED NORMAL COST, excluding administrative expenses, payable as of valuation date for the plan year beginning on valuation date	\$ _____	(63)
18. ANNUAL INSURANCE/ANNUITY PREMIUM PAYMENTS for the plan year beginning on valuation date	\$ _____	(64)
19. GROSS ADJUSTED NORMAL COST for the plan year beginning on valuation date (17 + 18):		
a. As a dollar amount	\$ _____	(65)
b. As a percentage of payroll	_____ %	(66)
20. ADJUSTED AMORTIZATION CONTRIBUTION calculated as a level dollar amount for the plan year beginning on valuation date	\$ _____	(67)

¹ The average of the prior year's administrative expenses and the estimated administrative expenses for the current year. If the amount entered exceeds the prior year's expenses (Section V, Part A, Item 12) by more than 10%, attach an exhibit detailing the administrative expenses for the year beginning on the valuation date.

² Initial unfunded actuarial accrued liability may be established later than 1/1/1985 if coincidental with the establishment of the pension plan or with the initiation of a new amortization schedule authorized by Act 82 of 1998.

³ Enter N/A unless municipality has been certified to use level percentage of payroll amortization pursuant to Section 607 of Act 205.

⁴ If the municipality has formally elected to apply the limit on the amortization contribution under section 202(b)(4), enter the modified total amortization requirement calculated as the amount required to amortize the unfunded actuarial accrued liability over ten years. Otherwise, enter N/A.

Section VI - Actuarial Data - (Cont'd)

B. Additional Information

INSTRUCTIONS: Print or type the information requested in the space provided. Enter "N/A", if applicable. Do not leave blanks or refer to exhibits.

1. MAJOR ECONOMIC ACTUARIAL ASSUMPTIONS

- a. Interest or investment earnings rate 9.00 %(68)
- b. Salary projection 6.00 %(69)

2. ADMINISTRATIVE ARRANGEMENT (Enter corresponding number. ↵) 1 (70)

- | | | | |
|----------------------------|------------------------------------------------|----------------------------|----------------------------------------------|
| <input type="checkbox"/> 1 | - Self administered fund | <input type="checkbox"/> 4 | - Insured deposit administration contract |
| <input type="checkbox"/> 2 | - Bank or other trust fund | <input type="checkbox"/> 5 | - Immediate participation guarantee contract |
| <input type="checkbox"/> 3 | - Split-funded plan - Insurance plus side fund | <input type="checkbox"/> 6 | - Pennsylvania Municipal Retirement System |
| <input type="checkbox"/> 7 | - Other (Describe) _____ | | |

3. COST FOR ACTUARIAL SERVICES to be billed or charged for completing this reporting form and for preparing the associated actuarial valuation report\$ 9,667 (71)

C. Certification of Actuarial Data

I hereby certify that I have prepared and reviewed the actuarial data and information entered in Part A and Part B of this section and in Schedule C and that the data and information provided is to the best of my knowledge true and accurate.

I further certify that I have five years of actuarial experience with public pension plans and that I am (Initial appropriate box.)

a member of the American Academy of Actuaries enrolled in _____

an enrolled actuary pursuant to the Employee Retirement Income Security Act of 1974, No. 02-3925

Kevin P. Counihan
(Signature)

03-27-02
(Date)

KEVIN P. COUNIHAN
(Name)

(412) 394-9660 (72)
(Telephone)

MOCKENHAUPT BENEFITS GROUP
(Name of Firm)

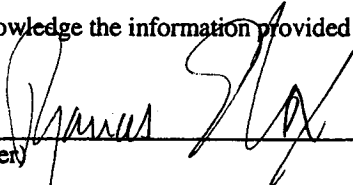
(73)

Section VII - Certification of Report by the Chief Administrative Officer of the Municipality

INSTRUCTIONS: Ensure that Schedule A, Schedule B and Schedule C are completed and attached to the reporting form. Review the information entered in each section of the reporting form and the information provided in the schedules. Then complete the certification below and return the original reporting form to the Commission. *Retain a copy of the completed reporting form for audit compliance purposes.*

Note: To be completed by the person officially designated as the Chief Administrative Officer of the municipality under Act 205 of 1984.

I hereby certify that to the best of my knowledge the information provided in this report is complete, true and accurate.

(Signature of Chief Administrative Officer)  3/28/02
(Date)

Thomas Cox
(Name of Chief Administrative Officer) (Print or type) (412) 255-2694
(Telephone)

Inquiries regarding completion or submission of the reporting form may be directed to:

**Commonwealth of Pennsylvania
Public Employee Retirement Commission**

Mailing Address
P.O. Box 1429
Harrisburg, PA 17105-1429

Phone: (717) 783-6100
Fax (717) 787-9531
E-mail perc@state.pa.us

SCHEDULE A - Demographic Data as of JANUARY 1, **2001** CITY OF PITTSBURGH ALLEGHENY
 Page 1 of 2 (Valuation Date) (Municipality) (County)

INSTRUCTIONS: Print or type the requested information in the space provided. For totals, enter zero if applicable. Refer to attachments or exhibits only to explain or support data entered on the schedule.

PART I - DEMOGRAPHIC DATA FOR RETIRED MEMBERS		
AGE	NUMBER	ANNUAL PENSION PAYABLE
Under 30	3	16,977
30-34		
35-39		
40-44	5	55,752
45-49	19	306,157
50-54	59	1,178,319
55-59	49	910,140
60-64	93	1,681,876
65-69	143	2,515,525
70-74	254	3,494,604
75-79	172	1,759,713
80-84	115	872,297
Over 84	93	520,330
TOTALS	1,005	13,311,690

PART II - DEMOGRAPHIC DATA FOR MEMBERS TERMINATED WITH VESTING		
AGE	NUMBER	ANNUAL PROJECTED PENSION
Under 25		
25-29		
30-34		
35-39		
40-44		
45-49		
50-54		
55-59		
60-64		
65-69		
Over 69		
TOTALS		

SCHEDULE A - Demographic Data as of JANUARY 1, 2001 CITY OF PITTSBURGH ALLEGHENY
 Page 2 of 2 (Valuation Date) (Municipality) (County)

Part III - Distribution of Active Members by Age and Service

AGE		YEARS OF SERVICE									
		1	2	3	4-5	6-10	11-15	16-20	21-25	26-30	30+
Under 20	No. of Members										
	Payroll (\$000)										
20-24	No. of Members	1									
	Payroll (\$000)	35									
25-29	No. of Members	29		8	2	3					
	Payroll (\$000)	971		378	117	169					
30-34	No. of Members	32		20	12	17					
	Payroll (\$000)	1127		940	636	851					
35-39	No. of Members	19		20	5	32	20				
	Payroll (\$000)	626		927	258	1676	1107				
40-44	No. of Members	11		8	2	17	62	41	5		
	Payroll (\$000)	349		384	109	866	3382	2447	248		
45-49	No. of Members	1		3		11	50	43	67	20	
	Payroll (\$000)	37		140		565	2707	2468	3790	1319	
50-54	No. of Members			2		11	41	17	54	88	2
	Payroll (\$000)			96		568	2217	862	3027	5397	134
55-59	No. of Members						10	5	11	28	16
	Payroll (\$000)						521	255	636	1824	1061
60-64	No. of Members					1	3	1	1	9	28
	Payroll (\$000)					51	147	50	52	626	1823
65 & Over	No. of Members										
	Payroll (\$000)										
TOTAL MEMBERS		93		61	21	92	186	107	138	145	46
TOTAL ANNUAL PAYROLL		3145		2864	1120	4746	10081	6081	7754	9166	3018

* SEE ATTACHMENT

YEARS OF SERVICE TABLE (PAGE 9) - ATTACHMENT

The total annual payroll listed in the Years of Service Table (page 9) is the 2000 W-2 pay. The total annual payroll used for cost purposes throughout the report is higher because base pay is used for those participants who have W-2 pay that is less than their base pay. ✓

SCHEDULE B - Financial Data as of JANUARY 1, **2001** CITY OF PITTSBURGH ALLEGHENY
 Page 1 of 3 (Valuation Date) (Municipality) (County)

INSTRUCTIONS: Print or type the requested information in the space provided. Round to the nearest dollar. Enter zero, if applicable. Refer to attachments or exhibits only to explain or support data entered on the schedule.

Section I - Statement of Net Assets Available for Benefits as of the Valuation Date

	Item No.
A. Assets:	
1. Cash	\$ 0 (1)
2. Accrued Interest and Dividends Receivable	\$ 0 (2)
3. Other Receivables (Specify)	
_____	\$ 0 (3)
_____	\$ 0 (4)
_____	\$ 0 (5)
4. Investments at Market Value (Specify)	
<u>PARTICIPATION IN AGGREGATE TRUST</u>	\$ 147,291,033 (6)
_____	\$ 0 (7)
_____	\$ 0 (8)
_____	\$ 0 (9)
_____	\$ 0 (10)
5. Insurance/Annuity Cash Surrender Value (Individual Policies)	\$ 0 (11)
6. Other Assets (Specify)	
_____	\$ 0 (12)
_____	\$ 0 (13)
_____	\$ 0 (14)
Total Assets	\$ 147,291,033 (15)
B. Current Liabilities:	
1. Accounts Payable and Accrued Administrative Expenses	\$ 0 (16)
2. Other Current Liabilities (Specify)	
_____	\$ 0 (17)
_____	\$ 0 (18)
_____	\$ 0 (19)
Total Current Liabilities	\$ 0 (20)
C. Net Assets Available for Benefits (Market Value) as of valuation date	\$ 147,291,033 (21)

Section II - Statement of Revenues, Expenses and Change in Fund Assets for the year ended on the Valuation Date

	Item No.
A. Net Assets at Beginning of Year (Market Value)	\$ <u>158,092,788</u> (1)
B. Revenues:	
Member Contributions	\$ <u>3,180,675</u> (2)
Total Municipal Contributions	\$ <u>5,729,525</u> (3)
a. State Aid Portion \$ <u>4,205,550</u> b. Local Portion \$ <u>1,523,975</u>	
Supplemental State Assistance Grant	\$ <u>0</u> (4)
Interest Earnings ALLOCATED INVESTMENT EARNINGS AND MISC. INCOME	\$ <u>8,565,898</u> (5)
Dividend Income	\$ <u>0</u> (6)
Realized Capital Gains	\$ <u>0</u> (7)
Other Revenues or Credits (Specify)	
<u>PASS THROUGH CONTRIBUTIONS</u>	\$ <u>685,219</u> (8)
.....	\$ <u>0</u> (9)
Total Revenues	\$ <u>18,161,317</u> (10)
C. Expenses:	
Total Benefit Payments (Lump Sum)	\$ <u>0</u> (11)
Total Benefit Payments (Monthly)	\$ <u>13,192,078</u> (12)
Annuity Purchases (Lump Sum)	\$ <u>0</u> (13)
Insurance Premiums	\$ <u>0</u> (14)
Refund of Member Contributions	\$ <u>49,251</u> (15)
Administrative Expenses	\$ <u>781,117</u> (16)
Realized Capital Losses	\$ <u>0</u> (17)
Other Expenses or Debits (Specify)	
<u>PASS THROUGH PAYMENTS</u>	\$ <u>685,219</u> (18)
.....	\$ <u>0</u> (19)
Total Expenses	\$ <u>14,707,665</u> (20)
D. Net Change in Market Value of Assets (Unrealized Capital Gains or Losses)	\$ <u>(14,255,407)</u> (21)
E. Net Assets at End of Year (Market Value)	\$ <u>147,291,033</u> (22)

Section III - Presentation of the Determination of the Minimum Municipal Obligation (MMO) for Year Ended on Valuation Date

INSTRUCTIONS: Enter data reflecting the minimum municipal obligation developed in the fall of 1999 for the plan year beginning in 2000. [Section 302(C) of Act 205 of 1984.]

Table with columns for Item No., Description, Amount, and Percentage. Includes sections A (Actuarial Valuation Report), B (Development of Minimum Municipal Obligation), and C (Development of Pre-authorized Adjustment to Minimum Municipal Obligation).

1 If the amount entered differs from the amount reported in the actuarial valuation report identified in item 23 above due to the scheduled termination of one or more amortization bases established pursuant to Chapter 2 of Act 205, attach an exhibit reconciling the difference.
2 Funding adjustment is applicable where assets exceed actuarial accrued liability and is equal to 10% of the amount of the excess.
3 Complete Part C only if municipality was certified under the Act 205 Distressed Municipal Pension System Recovery Program.

SCHEDULE C - Actuarial Data as of JANUARY 1, **2001** CITY OF PITTSBURGH ALLEGHENY
 Page 1 of 4 (Valuation Date) (Municipality) (County)

INSTRUCTIONS: Complete all items using the entry age normal actuarial cost method. Enter zero, if applicable, and round to the nearest dollar. Refer to attachments or exhibits only to explain or support data entered on the schedule.

Section I - Presentation of Actuarial Present Value of Future Benefits as of the Valuation Date

	Item No.
A. Actuarial Present Values for Active Members	
(Enter values for ancillary benefits only if valued using EAN.)	
1. Retirement Benefits	\$ <u>132,725,964</u> (1)
2. Disability Benefits	\$ <u>25,398,959</u> (2)
3. Survivor Benefits	\$ <u>0</u> (3)
4. Liability for the Refund of Member Contributions	\$ <u>1,035,998</u> (4)
5. Others (Specify) <u>VESTING; PRERETIREMENT & POSTRETIREMENT DEATH BENEFIT</u>	\$ <u>4,986,374</u> (5)
Subtotal for Active Members	\$ <u>164,147,295</u> (6)
B. Actuarial Present Values for Non-Active Members and Benefit Recipients	
1. Deferred Vested Benefits	\$ <u>0</u> (7)
2. Retirement Benefits	\$ <u>61,797,350</u> (8)
3. Disability Benefits	\$ <u>25,530,034</u> (9)
4. Survivor Benefits	\$ <u>15,180,062</u> (10)
5. Others (Specify) _____	\$ <u>0</u> (11)
Subtotal for Non-Active Members and Benefit Recipients	\$ <u>102,507,446</u> (12)
C. Total Actuarial Present Value of Future Benefits (Without adjustments)	\$ <u>266,654,741</u> (13)
D. Total Adjustments for Ancillary Benefits Valued through Approximation Techniques ¹	\$ <u>0</u> (14)
E. Total Actuarial Present Value of Future Benefits (Item 13 + Item 14)	\$ <u>266,654,741</u> (15)

¹ A signed statement and accompanying documentation, as specified in Section 203.5 of the Act 205 regulations, must be attached if adjustments are made.

Section II - Unfunded Actuarial Accrued Liability and Amortization Contributions as of Valuation Date

Part A - Initial Unfunded Actuarial Accrued Liability.

Amount of Initial Liability	Date Established	Target Date	Original Amortization Period	Remaining Balance	Level Dollar Amortization Contribution ¹
\$ 73,627,561	1998	2037	40	\$ 78,917,872	\$ 4,333,255 (16)

Part B - Changes in Unfunded Actuarial Accrued Liability since the last actuarial valuation report prepared and submitted under Act 205.

Source	Amount of Liability	Date Established	Target Date	Amortization Period	Amortization Contribution
Benefit Plan Modification	N/A	N/A	N/A	N/A	N/A
Actuarial Assumption Modification	N/A	N/A	N/A	N/A	N/A
Actuarial Losses (+) or Gains (-)	14,852,702 ²	2001	2015	15	1,690,468
Post-Retirement Adjustments	N/A	N/A	N/A	N/A	N/A
Total	\$ 14,852,702	XXXXXX	XXXXXX	XXXXXX	\$ 1,690,468 (17)

Part C - Aggregation of Changes in Unfunded Actuarial Accrued Liability Since Initially Established in 1985.

Description	Remaining Balance of Aggregated Liability	Date of Aggregation	Aggregated Target Date	Agg. Amortization Period	Aggregated Amortization Contribution
Aggregation of all prior changes (exclude changes in Section B)	\$ (19,020,991)	2001	2014	14	\$ (2,246,674) (18)
Aggregation of all changes (include changes in Section B)	\$ (4,168,289)	Current Valuation Date	2011	11	\$ (556,207) (19)

¹ Level percentage of future payroll amortization contribution should be entered where the municipality has previously implemented that amortization approach pursuant to Section 607 of Act 205.

² Attach exhibit of the actuarial valuation report showing development of expected unfunded actuarial accrued liability.

Section III - Presentation of Actuarial Assumptions and Methods

A. Actuarial Assumptions

1. Interest Rate - 9.0 percent per annum.

2. Salary Projection - 6.0 percent per annum.
Merit Increase: 2.5 percent increase per annum.
Inflation: 3.5 percent increase per annum.

3. Disability Rates - See Appendix.

4. Termination Rates - See Appendix.

5. Mortality - Healthy: UP-1984 Table, with female ages set back five years.
Disabled: UP-1984 Table, with male ages set forward five years.

6. Retirement Age - Active members are assumed to retire one year after the average age of:
(a) age 50 with 20 years of service, or attained age, if later and
(b) age 62 with 20 years of service. Members who have attained age 64 with 20 years of service are assumed to retire immediately.

7. Other (Specify) - _____

8. Other (Specify) - _____

9. Other (Specify) - _____

B. Actuarial Cost Method (Specify) Entry age normal cost as specified by Act 205 of 1984.

Section IV - Presentation of Benefit Plan Provisions

A. Eligibility Requirements

Normal Retirement If hired before 1976: the completion of 20 years of service. (continued)

Early Retirement None.

Vesting If member completed 20 years of service, may collect normal retirement benefit based on average compensation at termination (providing the terminated member

(continued)

B. Retirement Benefit (Describe fully including Social Security offsets, service increments, etc. and include period over which final average salary is determined if benefit salary related.)

A monthly benefit equal to 50 percent of average compensation (compensation averaged over the 36 month period prior to retirement), plus \$20 for each completed year of service in excess of 20 years, excluding years of service after age 65.

C. Survivor Benefit (Describe fully including indication of whether benefit is automatic or provided at the election of individual members.)

Pre-Retirement: If so elected, a spouse paid benefit equal to 50 percent of the pension the member would have received at date of death. If no election, accumulated contributions without interest paid to the beneficiary or estate.

(continued)

D. Disability Benefit (Describe fully including offset provisions, service requirements, extent of disability, etc.)

Service Related For total and permanent disablement a monthly benefit equal to 50 percent of the participant's earnings in the year prior to disablement.

Non-service Related For total and permanent disablement after the completion of 10 years of service, a monthly benefit equal to 50 percent of the participant's earnings in the year prior to disablement.

E. Post Retirement Adjustments (Describe fully including frequency of adjustment, basis for adjustment, minimum/maximum adjustments etc.)

F. Other Benefit (Specify and describe.)

Vesting Benefit: If eligible, the accrued benefit at termination payable at age 50.

G. Other Benefit (Specify and describe.)

H. Member Contributions

Amount or Rate 6.0 percent of Compensation, plus \$1 per month.

Interest Rate Credited to Member Contributions 0 %

Section IV - Presentation of Benefit Plan Provisions

A. Eligibility Requirements

Normal Retirement (cont.): If hired after 1975: Age 50 and the completion of 20 years of service.

Vesting (cont.): continues contributions at the rate in effect at termination).

C. Survivor Benefit

After Retirement: If so elected, a spouse paid benefit equal to 50 percent of the pension the member was receiving. Upon the spouse's death or remarriage, the member's dependent children are entitled to receive a benefit equal to 25 percent of payments to the spouse until age 18.

Attachment to Schedule C, Section III

Actuarial Basis of Valuation

Actuarial Assumptions: January 1, 2001

Economic

- Interest Rate 9.0 percent increase per annum
- Salary Projection 6.0 percent increase per annum
Merit Increase: 2.5 percent increase per annum
Inflation: 3.5 percent increase per annum

Employee Characteristics

- Mortality Healthy: UP-1984 Table, with female ages set back five years
Disabled: UP-1984 Table, with male ages set forward five years
- Withdrawal Sample rates:

Age	Rate
20	0.68%
25	0.66%
30	0.63%
35	0.59%
40	0.44%
45	0.22%
50	0.05%
55	0.00%

- Disablement

Sample rates:

Age	Male	Female
30	0.16%	0.20%
40	0.37%	0.72%
50	1.13%	1.44%
60	3.38%	2.59%

Attachment to Schedule C, Section III - Continued

- Retirement Age
Active members are assumed to retire one year after the average age of (a) age 50 with 20 years of service, or attained age, if later and (b) age 62 with 20 years of service. Members who have attained age 64 with 20 years of service are assumed to retire immediately.
- Duty Related Mortality
Twenty percent of deaths in active service are assumed to be duty related.
- Percentage Married
Eighty percent of male participants and 65 percent of female participants
- Spouse Age
Female spouse assumed to be two years younger than male spouse.

Attachment to Schedule C, Section IV

Summary of Plan Provisions

- Plan Year** Twelve-month period beginning January 1 and ending December 31
- Plan Established** May 25, 1933
- Principal Definitions**
- Employee* Any uniformed employee of the City of Pittsburgh Bureau of Fire
- Retirement Benefit Commencement Date* Assumed to be the first day of the month coincident with or next following eligibility for and election to retire
- Service Increment* Additional monthly benefit of \$20 for each completed year of service in excess of 20 years, excluding years of service after age 65
- Service* Completed years of service calculated from date of hire through date of retirement or severance, plus periods of service purchased
- Normal Form of Payment* Monthly pension benefit payable for life
- Participation Requirements**
- Entry date* Date of hire
- Compensation**
- Average Compensation* Total W-2 wages, excluding longevity pay
 Compensation averaged over the 36-month period prior to retirement or severance
- Normal Retirement**
- Eligibility* Later of age 50 *or*
 Completion of 20 years of service
- Members hired before January 1, 1976* Completion of 20 years of service
- Monthly Benefit* Equal to 50% of average compensation plus service increment, if any

Attachment to Schedule C, Section IV - Continued

Late Retirement

Eligibility

Amount of Benefit

- Employment beyond normal retirement
- Normal retirement benefit based upon average compensation as calculated at actual retirement

Disability

Eligibility

Benefit Amount

Benefit Commencement Date

- Permanent disablement in line of duty *or*
- Permanent disablement (not in line of duty) after completing 10 years of service

- 50% of earnings in year prior to disablement

- First day of calendar month following determination of disablement *and*
- Continuing for the duration of disability prior to normal retirement date and life thereafter

Vesting

- If member completed 20 years of service, may collect normal retirement benefit based on average compensation at termination (providing terminated member continues contributions at rate in effect at termination)
- Benefit deferred to age 50

Death Benefits

Accidental Death

- Benefit plus return of member's accumulated contributions
- Benefit plus workers' compensation or other payments is equal to 50% of member's wages at death
- Payable for 500 weeks or until surviving spouse dies or remarries
- If no surviving spouse or unmarried children, dependent parents receive payments

Attachment to Schedule C, Section IV - Continued

- *Children Benefits*

(No surviving spouse/or discontinued payment to surviving spouse)

- Unmarried child under age 18 receives payments equal to 25% of payments to spouse
- Total payments to one family may not exceed 50% of member's wages at time of death
- \$60 minimum monthly payment if only one child
- If maximum amount payable, divide equally among entitled children
- Payments terminate when child reaches age 18, dies, marries
- Payments may continue indefinitely to incompetent child

Death Prior to Retirement

Active service/not accidental

- If so elected, spouse paid benefit equal to 50% of pension member would have received if retired on date of death
- No election, accumulated contributions without interest paid to beneficiary or estate
- If so elected, spouse paid benefit equal to 50% of pension member was receiving
- No surviving spouse, benefit may be paid to surviving children or dependent parents

Death After Retirement

- Lump sum of \$1,200 to beneficiary of any deceased member

Lump Sum Benefit

Employee Contributions

- 6% percent of compensation plus \$1 per month
- \$1 per month ceases at age 65
- If surviving spouse benefit elected, add 1/2 percent of compensation

Exhibit I

Actuarial Data as of JANUARY 1, 2001. For: FIREMEN'S of CITY OF PITTSBURGH in ALLEGHENY
 Page 1 of 6 (Valuation Date) (Pension Plan) (Municipality) (County)

GENERAL INSTRUCTIONS: This exhibit is to be completed only if the municipality is reporting the issuance of bonds (or notes, if applicable) to fund unfunded actuarial accrued liabilities under section 404 of Act 205 of 1984. The bond issue proceeds contributed to the pension plan are amortization contributions allocated under section 202(b)(4) of Act 205. **The data requested in this exhibit is modified to reflect the funded status of the pension plan that would exist had the bond issue proceeds not been contributed to the pension plan.** Print or type the data requested, rounded to the nearest dollar, in the space provided. Enter zero or negative values, if applicable. Do not leave blanks or refer to exhibits.

NOTE: Earnings on bond issue proceeds contributed to the pension fund are to be calculated proportionately, based on the ratio of borrowed assets to total assets at market value as of the valuation date occurring on or immediately following the date on which the borrowed assets were contributed.

A. Summary of Modified Actuarial Data

1. ACTUARIAL ACCRUED LIABILITY as of valuation date	\$	222,040,616	(E1)
(Enter amount reported in item 42 on page 4 of the reporting form.)			
2. TOTAL FUND ASSETS			
a. Market Value of Assets ¹	\$	71,748,923	(E2)
b. Actuarial Value of Assets reported in Item 2a above	\$	71,748,923	(E3)
3. UNFUNDED ACTUARIAL ACCRUED LIABILITY as of valuation date (+ or -)	\$	150,291,693	(E4)
(Item 1 minus Item 2b)			
4. AMORTIZATION CONTRIBUTIONS			
a. For amortization of initial unfunded actuarial accrued liability established 1/1/85. ²			
1) Amortization period remaining (years)		7	(E5)
2) Amortization contribution calculated as a level dollar amount for the plan year beginning on valuation date	\$	8,869,108	(E6)
3) Amortization contribution calculated as a level percentage of payroll for the plan year beginning on valuation date ³	\$	N/A	(E7)
b. For amortization of all increases or decreases in unfunded actuarial accrued liability occurring after 1/1/85 or the initial UAL's establishment. ²			
1) Aggregated amortization period (years)		13	(E8)
2) Aggregated amortization contribution calculated as a level dollar amount for the plan year beginning on valuation date	\$	(1,356,197)	(E9)
c. Modified Total Amortization Requirement ⁴	\$	N/A	(E10)
d. Total Amortization Requirement (Item E6 + E9 or Item E7 + E9 or Item E10, whichever is applicable)	\$	7,512,911	(E11)

¹The value must equal the Total Fund Assets that would have existed had the bond issue proceeds not been contributed to the pension fund, as developed in Schedule II of this exhibit.

²Initial unfunded actuarial accrued liability may be established later than 1/1/85 if coincidental with the establishment of the pension plan or with the initiation of a new amortization schedule authorized by Act 82 of 1998.

³Enter N/A unless municipality has been certified to use level percentage of payroll amortization pursuant to Section 607 of Act 205.

⁴If the municipality has formally elected to apply the limit on the amortization contribution under section 202(b)(4), enter the modified total amortization requirement calculated as the amount required to amortize the unfunded actuarial accrued liability over ten years. Otherwise, enter N/A.

Exhibit I

Actuarial Data as of JANUARY 1, 2001. For: FIREMEN'S of CITY OF PITTSBURGH in ALLEGHENY
 Page 2 of 6 (Valuation Date) (Pension Plan) (Municipality) (County)

INSTRUCTIONS: A modified aggregated amortization period must be developed for each contribution to the pension fund comprised of bond issue proceeds. The modified aggregated amortization period will not change once it is calculated and reported in this exhibit. The modified aggregated amortization period is not used for funding purposes.

B. Development of Modified Aggregated Amortization Period

	Contribution Comprised of Bond Issue Proceeds ¹	Date of Contribution	Modified Aggregated Amortization Contribution Target Date ² (MO/DA/YR)	Modified Aggregated Amortization Period Initially Established ² (Years)	Modified Aggregated Amortization Period Remaining (Years)
1.	\$ 77,069,691	03/10/98	03/10/37	40	38
2.	\$				
3.	\$				
4.	\$				
5.	\$				
6.	\$				
7.	\$				
8.	\$				
9.	\$				
10.	\$				

¹ Contributions to the pension plan shall consist of original bond issue proceeds used to fund unfunded actuarial accrued liability and shall not include refinancing of an amount previously borrowed.

² Determined under section 404 of Act 205 using the unfunded accrued liability and total amortization requirement shown in Part A of this exhibit and the plan's assumed rate of investment earnings. In the event that the period calculated is indeterminate or is in excess of 30 years, the amortization period initially established shall not exceed 30 years.

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Total \$	5,340,666 T

Exhibit I

Actuarial Data as of JANUARY 1, 2001. For: FIREMEN'S of CITY OF PITTSBURGH in ALLEGHENY
 Page 3 of 6 (Valuation Date) (Pension Plan) (Municipality) (County)

INSTRUCTIONS: Provide unfunded actuarial accrued liability and amortization contributions as of valuation date developed under section 404 of Act 205. Bond issue proceeds used to fund unfunded actuarial accrued liabilities are not reflected in the data provided. Submission of the exhibits prepared in compliance with section 202(b)(3) of Act 205 may be required.

Part C - Modified Unfunded Actuarial Accrued Liability and Amortization Contributions

Initial Unfunded Actuarial Accrued Liability					
Amount of Initial Liability	Date Established	Target Date	Original Amortization Period	Remaining Balance	Level Dollar Amortization Contribution ¹
\$ 150,697,522	1998	2037	40	\$ 161,525,489	\$ 8,869,108 (E11)

Changes in Unfunded Actuarial Accrued Liability Since the Last Actuarial Valuation Report Prepared and Submitted Under Act 205						
Source	Amount of Liability	Date Established	Target Date	Amortization Period	Amortization Contribution	
Benefit Plan Modification	N/A	N/A	N/A	N/A	N/A	
Actuarial Assumption Modification	N/A	N/A	N/A	N/A	N/A	
Actuarial Losses (+) or Gains (-)	5,187,425	2001	2015	15	590,409	
Post-Retirement Adjustments	N/A	N/A	N/A	N/A	N/A	
Total	\$ 5,187,425	XXXXXX	XXXXXX	XXXXXX	\$ 590,409	(E12)

Aggregation of Changes in Unfunded Actuarial Accrued Liability Since Initially Established in 1985					
Description	Remaining Balance of Aggregated Liability	Date of Aggregation	Aggregated Target Date	Agg. Amortization Period	Aggregated Amortization Contribution
Aggregation of all prior changes (exclude changes in Section B)	\$ (16,421,221)	2001	2014	14	(1,946,606) (E13)
Aggregation of all changes (include changes in Section B)	\$ (11,233,796) ²	Current Valuation Date	2013	13	\$ (1,356,197) (E14)

¹ Level percentage of future payroll amortization contribution should be entered where the municipality has previously implemented that amortization approach pursuant to Section 607 of Act 205.

² The sum of this item (aggregated balance of all changes in UAL) and the remaining balance of the initial liability must equal the amount in Exhibit I, Part A, Item E4.

Exhibit I

Actuarial Data as of JANUARY 1, 2001. For: FIREMEN'S of CITY OF PITTSBURGH in ALLEGHENY
 Page 4 of 6 (Valuation Date) (Pension Plan) (Municipality) (County)

INSTRUCTIONS: A separate Part D for debt service requirements is required for each instance where bond issue proceeds are contributed to the pension plan. If more than one Part D is required, please submit color coded copies or request additional originals from the Commission's office.

- NOTES:** 1) If the bond issue proceeds contributed to an individual pension plan were less than 100% of the total bond issue proceeds contributed, the total debt service requirements must be proportionately allocated among the individual pension plans based on the ratio of the bond issue proceeds contributed to each individual pension plan to the total bond issue proceeds contributed.
- 2) Debt service requirements determined and reported on this exhibit are not modified if refinancing occurs.

D. Identification and Allocation of Total Debt Service Requirements for Debt Issued to Finance Pension Plan Contributions

Date of Original Borrowing	Total Principal Amount Borrowed and Contributed to Pension Plans	Amount of Total Principal Contributed to this Pension Plan	Percentage of Total Debt Service Allocated to this Pension Plan	Date of Refinancing
<u>03/10/98</u>	\$ <u>255,865,000.00</u> (A)	\$ <u>77,782,960.48</u> (B)	<u>30.1</u> % (B÷A)	<u>N/A</u>

Plan Year	Required Principal Payment	Required Interest Payment	Premium or Discount Amortized	Principal Balance at Valuation Date
1. 1997	\$ -	\$ -	\$ -	\$ -
2. 1998	-	2,531,176.79	-	77,782,960.48
3. 1999	304,000.00	5,053,765.57	-	77,782,960.48
4. 2000	304,000.00	5,036,665.57	-	77,478,960.48
5. 2001	304,000.00	5,019,474.37	-	77,174,960.48
6. 2002	304,000.00	5,001,963.97	-	76,870,960.48
7. 2003	304,000.00	4,984,316.77	-	76,566,960.48
8. 2004	304,000.00	4,966,487.17	-	76,262,960.48
9. 2005	761,520.00	4,934,627.98	-	75,958,960.48
10. 2006	705,208.00	4,890,447.65	-	75,197,440.48
11. 2007	747,840.00	4,846,303.81	-	74,492,160.48
12. 2008	779,760.00	4,799,614.54	-	73,744,320.48
13. 2009	842,080.01	4,746,261.58	-	72,964,560.48
14. 2010	915,040.01	4,688,193.78	-	72,122,480.47
15. 2011	981,920.01	4,628,913.78	-	71,207,440.46
16. 2012	2,398,560.01	4,522,674.15	-	70,225,520.45
17. 2013	3,339,440.02	4,341,092.29	-	67,826,960.44
18. 2014	3,553,760.02	4,119,567.87	-	64,487,520.42
19. 2015	3,865,360.02	3,878,446.47	-	60,933,760.40
20. 2016	4,122,240.03	3,618,849.46	-	57,068,400.38

(Continue on additional pages, if necessary.)

(CONTINUED FROM PAGE 4 OF 6)

	Plan Year	Required Principal Payment	Required Interest Payment	Premium or Discount Amortized	Principal Balance at Valuation Date
1.	2017	\$ 5,546,480.03	\$ 3,304,616.06	\$ -	\$ 52,946,160.35
2.	2018	4,023,440.02	2,993,593.66	-	47,399,680.32
3.	2019	6,089,120.04	2,661,890.89	-	43,376,240.30
4.	2020	6,505,600.04	2,246,265.13	-	37,287,120.26
5.	2021	6,949,440.04	1,802,248.81	-	30,781,520.22
6.	2022	7,425,200.06	1,327,885.67	-	23,832,080.18
7.	2023	7,932,880.06	821,069.03	-	16,406,880.12
8.	2024	8,474,000.06	279,641.99	-	8,474,000.06
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