

**CITY OF CHESTER  
PAID FIREMEN'S PENSION FUND**

**ACTUARIAL INFORMATION  
AS OF  
JANUARY 1, 2021**



**FOSTER & FOSTER**  
ACTUARIES AND CONSULTANTS

1136 Hamilton Street, Suite 103  
Allentown, PA 18101

Dated: January 28, 2022

January 28, 2022

City of Chester  
c/o Mr. James Kennedy, President  
Thomas J. Anderson & Associates, Inc.  
115 Westtown Road  
Suite 101  
West Chester, PA 19382

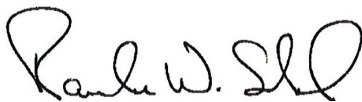
Re: City of Chester (Paid Firemen's Pension Fund)

In accordance with Act 205, we have prepared the January 1, 2021 Actuarial Valuation of the Plan. This valuation determines the amount of money (Minimum Municipal Obligation - MMO) that the municipality will have to contribute to the Plan for at least the following two years.

Act 205 requires that the assets used for the determination of State Aid and for funding purposes include the value of contributions that have not yet been made for prior plan years. Because the City has multiple years of contributions receivable, we have added an exhibit on page 1 that compares the funding of the plan with and without receivables. In the event that the City cannot pay past years receivables, this provides a more realistic funding status.

If you have any questions regarding the nature of this letter, please do not hesitate to contact our office.

Sincerely,



Randee W. Sekol, EA, MAAA, MSEA, FCA  
Consulting Actuary

RWS/kdc

**CITY OF CHESTER PAID FIREMEN'S PENSION FUND**  
**IMPACT OF CONTRIBUTIONS RECEIVABLE**  
**AS OF 1/1/2021**

	<b>Act 205 Funding Including <u>Receivable</u></b>	<b>Actual Funding Does Not Include <u>Receivable</u></b>
<b>Pension Plan Assets</b>		
Market Value of Invested Assets	\$ 31,912,899	\$ 31,912,899
Contributions Receivable	<u>2,134,220</u>	<u>0</u>
Assets for Valuation Purposes	\$ 34,047,119	\$ 31,912,899
<b>Unfunded Actuarial Accrued Liability</b>		
Actuarial Accrued Liability	\$ 47,775,979	\$ 47,775,979
Assets for Valuation Purposes	<u>34,047,119</u>	<u>31,912,899</u>
Unfunded Actuarial Accrued Liability	\$ 13,728,860	\$ 15,863,080
Funded Percentage	71.3%	66.8%

**Analysis**

Pennsylvania Act 205 requires the City to include the value of any contributions that were due for a prior plan year with interest for funding purposes. The rationale for this inclusion is so that the City is not eligible for State Aid in the current year that it already received in past years.

As of January 1, 2021 the City has not yet paid certain contributions for the past 2 plan years which, when accumulated with interest, totals \$2,134,220. The funded percentage decreases from 71.3% to 66.8% if receivables are not included.

202(B)(1)  
202(B)(5)

**CITY OF CHESTER PAID FIREMEN'S PENSION FUND**

**NORMAL COST AND ADMINISTRATIVE EXPENSES  
AS OF 1/1/2021**

<b>A. NORMAL COST</b>	
1. NORMAL COST OF PLAN BENEFITS	962,462
2. VALUATION COVERED PAYROLL	4,204,534
3. NORMAL COST AS A PERCENTAGE OF PAYROLL	22.89%
<b>B. ADMINISTRATIVE EXPENSES</b>	
1. TOTAL ADMINISTRATIVE COSTS FOR THE PRIOR YEAR	11,000
2. ESTIMATED ADMINISTRATIVE EXPENSES TO BE PAID FROM THE PLAN ASSETS FOR THE CURRENT PLAN YEAR	20,200
<b>C. ESTIMATED ANNUAL BENEFIT PAYMENTS</b>	
1. ACTUAL FOR THE PRIOR PLAN YEAR	2,902,517
2. ESTIMATED FOR THE CURRENT PLAN YEAR	3,237,444

## CITY OF CHESTER PAID FIREMEN'S PENSION FUND

## ACTUARIAL LIABILITY AS OF 1/1/2021

<b>A.</b>	<b>ACTUARIAL PRESENT VALUE OF ALL PROJECTED BENEFITS</b>		
1.	ACTIVE MEMBERS*		
	RETIREMENT BENEFITS	20,792,293	
	DISABILITY BENEFITS	1,361,613	
	SURVIVOR BENEFITS	76,469	
	REFUND OF MEMBER CONTRIBUTIONS WITH INTEREST	86,445	
	VESTED BENEFITS	396,691	
	OTHER:	0	
	SUB-TOTAL	22,713,511	
2.	INACTIVE MEMBERS		
	FORMER MEMBERS WITH VESTED DEFERRED BENEFITS	0	
	SERVICE RETIREMENT BENEFITS	25,163,070	
	DISABILITY RETIREMENT BENEFITS	8,406,084	
	SURVIVING SPOUSE BENEFITS	3,185,099	
	SURVIVING CHILDREN BENEFITS	0	
	TOTAL MONIES ACCUMULATED IN DROP ACCOUNTS	0	
	OTHER:	0	
	SUB-TOTAL	36,754,253	
3.	TOTAL		59,467,764
<b>B.</b>	<b>ACTUARIAL PRESENT VALUE OF ALL FUTURE NORMAL COSTS</b>		11,691,785
<b>C.</b>	<b>ACTUARIAL LIABILITY =(A - B)</b>		47,775,979

\* THE AMOUNT OF ACCUMULATED MEMBER CONTRIBUTIONS WITHOUT ACCRUED INTEREST IS \$1,704,850 FOR ALL ACTIVE MEMBERS.

## CITY OF CHESTER PAID FIREMEN'S PENSION FUND

UNFUNDED ACTUARIAL LIABILITY AT 1/1/2021  
AND ACTUARIAL GAIN(LOSS) FOR YEAR ENDED 12/31/2020

<b>A. DETERMINATION OF ACTUAL UNFUNDED ACTUARIAL LIABILITY</b>				
1.	ACTUARIAL LIABILITY		47,775,979	
2.	ACTUARIAL VALUE OF ASSETS		34,047,119	
3.	ACTUAL UNFUNDED ACTUARIAL LIABILITY = (1 - 2)		13,728,860	
<b>B. DETERMINATION OF EXPECTED UNFUNDED ACTUARIAL LIABILITY</b>				
		<u>AMOUNT</u>	<u>INTEREST</u>	<u>TOTAL</u>
1.	UNFUNDED LIABILITY FROM PREVIOUS VALUATION	6,615,950	990,974	7,606,924
2.	NORMAL COST SINCE THE LAST VALUATION	1,318,462	98,885	1,417,347
3.	TOTAL CONTRIBUTIONS SINCE THE LAST VALUATION	2,326,068	87,228	2,413,296
4.	SUB-TOTAL = (1 + 2 - 3)			6,610,975
5.	INCREASE (DECREASE) FOR ASSUMPTION CHANGE			6,659,865
6.	INCREASE (DECREASE) FOR PLAN AMENDMENT			0
7.	CONTRIBUTION ABOVE OR BELOW TOTAL FINANCIAL REQUIREMENT			(461,105)
8.	TOTAL EXPECTED UNFUNDED ACTUARIAL LIABILITY ( 4 + 5 + 6 + 7)			12,809,735
<b>C. ACTUARIAL GAIN (LOSS) = ( B - A )</b>				
				(919,125)

**CITY OF CHESTER PAID FIREMEN'S PENSION FUND**

**ANALYSIS OF INCREASE (OR DECREASE) IN  
UNFUNDED ACTUARIAL LIABILITY**

	UNFUNDED ACTUARIAL LIABILITY
<b>A. ACTUAL UNFUNDED FROM PRIOR VALUATION</b>	6,615,950
<b>B. COMPONENTS OF INCREASE ( OR DECREASE) DURING YEAR</b>	
1. INCREASE FOR INTEREST	990,974
2. APPLICATION OF ACTUAL CONTRIBUTIONS	
A. NORMAL COST PLUS INTEREST	1,417,347
B. CONTRIBUTIONS PAID PLUS INTEREST	2,413,296 *
C. SUB-TOTAL (2.B - 2.A)	995,949
3. INCREASE (DECREASE) FOR ASSUMPTION CHANGE	6,659,865
4. INCREASE (DECREASE) FOR PLAN AMENDMENT	0
5. NET ACTUARIAL GAIN (LOSS) FOR YEAR	(919,125)
6. CONTRIBUTION ABOVE OR BELOW TOTAL FINANCIAL REQUIREMENT	(461,105)
7. CHANGE DURING YEAR (1 - 2 + 3 + 4 - 5 + 6)	7,112,910
<b>C. ACTUAL UNFUNDED FOR CURRENT PLAN YEAR (A +B.7)</b>	13,728,860

\* TOTAL CONTRIBUTIONS SINCE THE LAST VALUATION WERE \$2,326,068.  
PLUS ASSUMED INTEREST EARNED THEREOF OF \$87,228.

202(B)(3)  
202(B)(4)

**CITY OF CHESTER PAID FIREMEN'S PENSION FUND**

**SCHEDULE OF AMORTIZATION BASES FOR MINIMUM CONTRIBUTIONS  
AS OF 1/1/2021**

<u>ESTABLISHED</u>	<u>SOURCE OF BASE</u>	<u>ORIGINAL AMOUNT</u>	<u>CURRENT UNAMORTIZED BALANCE</u>	<u>CURRENT AMORTIZ. YEARS</u>	<u>AMORTIZ. CONTRIB.</u>	<u>DATE FULLY AMORTIZED</u>
1/1/2015	PLAN AMENDMENT	450,201	219,676	4	60,210	12/31/2024
1/1/2015	ASSUMPTION CHANGE	544,932	393,791	9	55,552	12/31/2029
1/1/2015	ACTUARIAL LOSS	261,141	217,456	14	22,652	12/31/2034
1/1/2017	PLAN AMENDMENT	(44,070)	(30,138)	6	(5,846)	12/31/2026
1/1/2017	ASSUMPTION CHANGE	76,172	63,128	11	7,709	12/31/2031
1/1/2017	ACTUARIAL LOSS	3,691,281	3,310,011	16	318,189	12/31/2036
1/1/2019	ACTUARIAL LOSS	2,075,392	1,975,946	18	177,844	12/31/2038
1/1/2021	ASSUMPTION CHANGE	6,659,865	6,659,865	15	665,066	12/31/2035
1/1/2021	ACTUARIAL LOSS	919,125	919,125	20	78,325	12/31/2040
TOTAL			13,728,860		1,379,701	



**CITY OF CHESTER  
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**ACTUARIAL METHODS AND ASSUMPTIONS**

**A. ACTUARIAL METHODS**

1. Liabilities - All plan benefits are valued using the entry age normal cost valuation method.
2. Assets - Plan assets are valued using market value of assets.

**B. ACTUARIAL ASSUMPTIONS**

1. Economic Assumptions
  - A. Investment Return – 6.5% per annum, net of investment expenses.
  - B. Salary Increases – 5.0% compounded annually.
  - C. Average Compensation at retirement is increased by 10.0% to reflect anticipated overtime.

2. Demographic Assumptions

A. Mortality –

Pre-Retirement Mortality: PubS-2010 Employee Mortality projected 5 years past the valuation date using Scale MP-2020.

Post-Retirement Mortality: PubS-2010 Healthy Retiree Mortality projected 5 years past the valuation date using Scale MP-2020.

Beneficiaries Mortality: PubS-2010 Contingent Survivor Mortality projected 5 years past the valuation date using Scale MP-2020.

Disabled Mortality: PubS-2010 Disabled Mortality projected 5 years past the valuation date using Scale MP-2020.

B. Termination – Table D-1: Rates of withdrawal at selected ages:

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
20	5.50%	35	2.50%	50	0.00%
25	5.00%	40	1.00%	55	0.00%
30	4.00%	45	0.50%	60	0.00%

C. Disability – 1985 Pen Dis Table Class 1.

**CITY OF CHESTER  
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**ACTUARIAL METHODS AND ASSUMPTIONS (Continued)**

- D. Retirement Age – For members hired prior to 12/12/2011, it is assumed that members enter the Deferred Retirement Option Plan (DROP) upon the later of attainment of age 52 and completion of 20 years of service. For members hired on or after 12/12/2011, it is assumed that members enter the Deferred Retirement Option Plan (DROP) upon the later of attainment of age 50 and completion of 25 years of service.
- E. Marital Status – 100% of active members are assumed to be married. Female spouse is assumed to be the same age as male spouse.
- F. Form of Annuity – Joint & 100% survivor.