



**CITY OF BATTLE CREEK**  
**POLICEMEN AND FIREMEN RETIREMENT**  
**SYSTEM**



**ANNUAL REPORT AS OF JUNE 30, 2018**

The name of the retirement system is ‘City of Battle Creek Policemen and Firemen Retirement System’ and is often referred to as Police and Fire Pension Fund/System in other publications. Further reference within this document shall be “P&F Pension Fund.”

**Board of Trustees**

Joseph Newman, Chair	Commission appointee	term to expire 6/30/2019
Stanley Chubinski, Vice Chair	Commission appointee	term to expire 6/30/2021
Gail Budrow-Bradstreet, Treasurer	per Public Act 345	Ex-Officio – no expiration
Lt. Jake Martin, Trustee	Fire Representative	term to expire 6/30/2020
Lt. Doug Bagwell, Trustee	Police Representative	term to expire 6/30/2018

The five-members of the Retirement Board are either elected or appointed in accordance with Public Act 345 of 1937 (“the Act). Two members shall be appointed by the legislative body of the city (the Commission) upon completing an application to serve. One member is an active member of the retirement system and elected by a majority vote of the active members of the police department. One member is an active member of the retirement system and elected by a majority vote of the active members of the fire department. The treasurer of the city is a member per the Act. All terms are four years.

**Investment Fiduciaries**

Comerica Bank – Custodial Bank	Earnest Partners Intermediate Duration
Harding Loevner International ADR Equity	Lazard International Equity w/EM ADR
Loomis Sayles Fixed Income	Richmond Capital 1-10 Year TIPS
Robeco Boston Partners Large Cap Value	Boston Partners Small Cap Value Equity
The Boston Company Large Cap Growth	Westfield Mid Cap Growth Equity
World Asset Management 500 Index	

**Actuary & Investment Consultant**

Gabriel Roeder Smith & Company – Actuary  
 Plante Moran Financial Advisors – Financial/Investment Consultant

**Legal Counsel**

Michael VanOverbeke  
 VanOverbeke, Michaud and Timmony, PC

**COMPARATIVE SUMMARY RESULTS**  
**of the June 30, 2018, June 30, 2017 and June 30, 2016**  
**Actuarial Valuation Reports**

The objective of the P&F Pension Fund is to establish and receive contributions, expressed as percents of active member payroll, which will remain approximately level from year-to-year and will not have to be increased for future generations of citizens. This objective meets the requirements of Act No. 345 of the Public Acts of 1937, as amended, and the Michigan constitution.

To determine an appropriate Employer contribution level for the ensuing year and to gauge how the P&F Pension Fund's funding is meeting this fundamental objective, an independent firm of actuaries, Gabriel Roeder Smith & Company, conducts annual actuarial valuations.

These valuations are based on the P&F Pension Fund's past experience, information about current members, financial markets and assumptions concerning the future demographic and economic activity. There are no closed divisions within the P&F Pension Fund. The results of the June 30, 2018 valuation, June 30, 2017 valuation, and June 30, 2016 valuation based on the established funding objective, are summarized below:

**EMPLOYER CONTRIBUTION RATES**  
**As a Percentage of Active Member Payroll**

<b>Contributions to Provide Benefits</b>	<b>July 1, 2019</b>	<b>July 1, 2018</b>	<b>July 1, 2017</b>
Normal Cost: Total	27.49%	27.51%	26.10%
Amortization Payment - Initial Unfunded	17.02%	15.69%	13.45%
<b>Total Contribution Requirement</b>	<b>44.51%</b>	<b>43.20%</b>	<b>39.55%</b>
Member Contribution - Average	9.90%	9.84%	8.54%
<b>Computed Employer Rate</b>	<b>34.61%</b>	<b>33.36%</b>	<b>31.01%</b>

**COMPUTED AND ACTUAL CITY CONTRIBUTIONS**  
**Comparative Statement**

<b>Fiscal Year</b>	<b>Valuation Date</b>	<b>Budgeted/*Actual</b>	<b>Valuation Payroll</b>	<b>City's Computed % of Payroll Contributions</b>
	<b>June 30</b>	<b>Dollar Contribution</b>		
2019/20	2018	\$5,870,021	\$14,324,168	34.61%
2018/19	2017	\$5,544,034	\$14,216,474	33.36%
2017/18	2016	*\$5,180,487	\$13,470,636	31.01%

## FUNDED STATUS

	June 30, 2018	June 30, 2017	June 30, 2016
Actuarial Accrued Liability	192,915,000	184,652,000	171,939,000
Actuarial Value of Assets	145,749,000	140,243,000	135,408,000
Funded Ratio	75.60%	76.00%	78.80%

## SUMMARY OF CURRENT ASSET INFORMATION

### *Revenues & Expenses*

	2017-18	2016-17	2015-16
Market Value - July 1	\$ 138,509,337	\$ 132,048,993	\$ 133,850,434
Revenues:			
Member Contributions	\$ 1,478,257	\$ 1,215,059	\$ 1,077,632
Employer Contributions	\$ 5,180,487	\$ 4,746,323	\$ 4,664,957
Interest & Dividends	\$ 2,793,846	\$ 2,818,157	\$ 2,841,493
Realized and Unrealized Gain (Loss)	\$ 7,911,067	\$ 9,253,630	\$ 221,390
Total Revenues	\$ 17,363,657	\$ 18,033,169	\$ 8,805,472
Expenditures:			
Refunds of Member Contributions	\$ 68,887	\$ 20,019	\$ 3,067
Retirement Benefits Paid Out	\$ 9,997,796	\$ 10,355,887	\$ 9,441,511
Administrative Expenses	\$ 214,905	\$ 219,010	\$ 216,729
Health Insurance Premiums	\$ 500,000	\$ 500,000	\$ 500,000
Investment Expense	\$ 502,942	\$ 477,910	\$ 445,606
Total Expenses	\$ 11,284,530	\$ 11,572,826	\$ 10,606,913
Market Value - June 30	\$ 144,588,464	\$ 138,509,336	\$ 132,048,993

## BATTLE CREEK P&F ASSET CLASS RETURN ASSUMPTIONS

Asset Class	Projected Real Returns (2019-2028)
Domestic Large Cap equity	4.75%
Domestic Small/Mid Cap Equity	5.00%
International equity	5.00%
Broad Fixed income	1.50%
Cash	0.25%
Assumed Inflation	2.25%

## ANNUAL BENEFITS

	<u>Age &amp; Service Retirees</u>	<u>Disability Retirees</u>	<u>Survivor Beneficiaries</u>
<b>2018</b>			
Number of retirees	212	9	35
Total benefits paid	\$9,311,473	\$253,386	\$650,699
Average	\$43,922	\$28,154	\$18,591
<b>2017</b>			
Number of retirees	207	6	36
Total benefits paid	\$8,737,832	\$134,573	\$659,443
Average	\$42,212	\$22,429	\$18,318
<b>2016</b>			
Number of retirees	210	6	34
Total benefits paid	\$8,693,339	\$134,573	\$618,276
Average	\$41,397	\$22,429	\$18,185

## MEMBER AND RETIREE DATA

<b>ACTIVE MEMBERS</b>	<u>2018</u>	<u>2017</u>	<u>2016</u>
Police:			
Lieutenants	4	5	4
Sergeants (POLC)	17	15	16
Non-Supervisory (POLC)	81	83	80
Non-Represented	5	6	6
Fire:			
Chiefs (OSP)	3	4	4
Firefighters (IAFF)	70	74	77
Firefighters (IAFF) (DROP)	4	1	0
Non-Represented	1	1	1
<b>RETIREES</b>	<u>2018</u>	<u>2017</u>	<u>2016</u>
Age & Service Benefits:			
Straight Life benefit-terminates @ death	40	43	47
Straight Life benefit-60% survivor benefit	171	163	163
Option 2 benefit-50% joint & survivor	1	1	1
Survivor benefit (retiree deceased)	31	32	30
Casualty Benefits <i>(includes survivor beneficiaries)</i>			
Duty Disability benefits	5	4	4
Non-duty Disability benefits	4	2	1
Duty Death benefits	1	1	1
Non-duty Death benefits	3	3	3

## ANNUAL BUDGET VERSUS ACTUAL

7/1/2017 - 6/30/2018

	<u>Budget</u> <u>2017/2018</u>	<u>Actual</u> <u>2017/2018</u>
<b>REVENUE</b>		
Member Contributions	\$1,110,000	\$1,478,257
Employer Contributions	\$5,170,355	\$5,180,487
Investment Income		
Interest & Dividends	\$2,725,000	\$2,793,846
Realized & Unrealized Gains (Loss)	\$2,045,000	\$7,806,720
Other		
Securities Lending	\$25,000	\$104,347
Health Contribution	\$500,000	\$500,000
<b>TOTAL REVENUES</b>	<u><u>\$11,575,355</u></u>	<u><u>\$17,863,657</u></u>
<b>EXPENDITURES</b>		
Benefit Payments	\$9,560,000	\$9,997,796
Health Insurance	\$500,000	\$500,000
Refunds of Member Contributions	\$0	\$68,887
Administrative Expense:		
Investment Settlement (SIGMA)	\$0	\$10,937
Counseling Fees	\$96,000	\$1,800
Investment Management Fees	\$478,000	\$502,942
Financial Consultant Fees	\$95,000	\$95,000
Custody Fees	\$65,000	\$69,948
Audit & Actuary	\$26,000	\$29,200
Administrative Services	\$0	\$8,040
Legal Fees	\$2,000	\$4,515
Memberships	\$125	\$100
Conference Expense	\$4,000	\$0
<b>TOTAL EXPENSES</b>	<u><u>\$10,826,125</u></u>	<u><u>\$11,289,165</u></u>

**INVESTMENT PERFORMANCE**  
**Plante Moran Financial Advisors**  
**PORTFOLIO ACTIVITY REPORT**  
**City of Battle Creek Police and Fire Retirement System**  
**Performance Account(s)**

	12/31/2016 To 12/31/2017	12/31/2014 To 12/31/2017	12/31/2012 To 12/31/2017	12/31/2010 To 12/31/2017
Beginning Portfolio Value w/ Acc. Int.	132,878,552	133,418,791	117,222,583	112,185,667
Net Contributions/Withdrawals	-4,057,226	-12,801,789	-21,476,283	-28,387,085
Realized Gains	1,249,578	-429,958	9,917,924	14,818,590
Unrealized Gains	13,579,195	18,670,249	28,921,855	31,772,529
Interest and Dividends	2,404,066	8,234,461	13,530,207	18,981,394
Management Fees	-511,823	-1,449,933	-2,485,737	-3,645,688
Portfolio Fees	-70,659	-168,812	-274,150	-369,998
Portfolio value with Accrued Interest	<u>145,471,682</u>	<u>145,471,682</u>	<u>145,471,682</u>	<u>145,471,682</u>
Total Fees	-582,482	-1,618,745	-2,759,887	-4,015,686
Total Gain After Fees	16,650,358	24,856,007	49,610,100	61,556,826
Time Weighted Return	12.77%	20.12%	46.27%	62.42%
Annualized Return	12.77%	6.29%	7.90%	7.17%
Evaluation Benchmark	13.01%	20.76%	46.63%	66.35%
Annualized Benchmark	13.01%	6.48%	7.95%	7.54%
<b>Cumulative Market Indices</b>				
Bloomberg Barclays U.S. Aggregate Bond Index	3.54%	6.87%	10.95%	24.70%
S&P 500 Index	21.83%	38.29%	108.14%	146.55%
MSCI EAFE (USD) Index	25.03%	25.26%	46.25%	50.74%

**SCHEDULE OF AMORTIZATIONS**  
**For Development of Employer Contribution Rates**  
**Attributable to Actuarial Gains and Losses and Changes**

Year Established	Initial Years	Years Remaining	Initial Amount	Previous Amount	Current Amount	Amortization Factor	Payment	Previous Payment	Percent of Payroll
<b><u>Initial Unfunded</u></b>									
2018		26			\$25,759,166	19.0234	\$1,354,081		9.09%
<b><u>Benefit Changes</u></b>									
2007	30	19	\$4,422,379	\$5,086,588	\$5,105,134	14.9752	\$340,906	\$326,226	2.28%
2008	30	20	\$390,603	\$446,534	\$449,264	15.5922	\$28,813	\$27,573	0.19%
2009	30	21	\$121,354	\$137,581	\$138,731	16.1948	\$8,566	\$8,197	0.06%
2014	30	26	-\$135,876	-\$143,806	-\$146,253	19.0032	-\$7,696	-\$7,365	-0.05%
2016	30	28	\$954,398	\$971,927	\$988,646	20.0466	\$49,318	\$47,307	0.33%
2017	30	29	\$1,322,624	\$1,322,624	\$1,343,715	20.5547	\$65,373	\$62,858	0.44%
2018	30	30	-\$111,600	\$0	-\$111,600	21.0413	-\$5,304	\$0	-0.04%
<b><u>Actuarial Cost Methods/Assumptions</u></b>									
2009	30	21	\$1,503,821	\$1,704,894	\$1,719,139	16.1948	\$106,154	\$101,582	0.71%
2015	30	27	\$6,841,876	\$7,087,389	\$7,200,438	19.5360	\$368,572	\$353,547	2.47%
2017	30	29	\$4,645,879	\$4,645,879	\$4,719,963	20.5547	\$229,630	\$220,798	1.54%

**ACTUARIAL ASSUMPTIONS**

Valuation date:	June 30, 2018
Actuarial cost method:	Entry-age actuarial cost method
Amortization method:	Level percent-of-payroll
Remaining amortization period:	30-year closed for benefit improvements and assumption changes 26-year closed for all other liabilities
Asset valuation method:	5-year smoothed market with 20% corridor
Investment rate of return:	6.50%
Projected salary increases:	4.00% - 16.00%
Assumed rate of payroll growth:	4.00%
Assumed rate of membership growth	0%
Cost-of-living adjustments:	N/A

**Amortization Method:** The current method for amortizing Unfunded Actuarial Accrued Liability (UAAL) is a level percent of pay approach over a closed period of 30 years beginning July 1, 2015 and ending June 30, 2045 (26 years remaining as of the June 30, 2018 valuation, which determines

the fiscal year 2020 contribution). Benefit changes and assumption changes are separately amortized over 30 years as they occur. Absent actuarial gains or losses, a closed amortization period is expected to result in UAAL amortization payments that remain level as a percentage of payroll.

**Benefit Changes:** The following new benefit provisions were reported for this valuation:

- Police Lieutenants: Deferred Retirement Option Plan (DROP) adopted and effective 7/1/16

These provisions are reflected for the first time in the June 30, 2018 valuation.

## **ACTUARIAL COST METHODS USED FOR THE VALUATION**

**Age and Service Benefits.** Normal cost and the allocation of actuarial present values between service rendered before and after the valuation date were determined using an individual entry-age actuarial cost method having the following characteristics:

(i) the annual normal costs for each individual active member (usually expressed as a percent-of-payroll), payable from the member's date of hire to the member's projected date of retirement, are sufficient to accumulate the actuarial present value of the member's projected benefit at the time of retirement;

(ii) the actuarial accrued liability under this method is equal to the assets which would have been accumulated had the normal cost contribution been made from the date of entry to the date of the valuation and had all actuarial assumptions been realized.

**Casualty Benefits.** Normal cost contributions were determined using a one-year term cost method. This method produces contributions sufficient to fund the value of (i) disability benefits likely to be incurred during the year (net of the member's accrued age and service benefits), and (ii) survivor benefits likely to be incurred during the year because of a member's death while employed.

**Funding Value of Assets.** The funding value of assets is derived as follows: prior year valuation assets are increased by contributions and expected investment income and reduced by refunds and benefit payments. To this amount is added 20% of the difference between expected and actual investment income for each of the previous five years. Funding value of assets may not be less than 80% nor more than 120% of market value.

**Amortization of Unfunded Actuarial Accrued Liabilities.** Unfunded actuarial accrued liabilities were amortized by level percent-of-payroll contributions (principal and interest combined) over periods described on page C-6 of the Actuarial Valuation Report. Active member payroll was assumed to increase 4.00% per year for the purpose of determining the level percent contributions. Characteristics of this method of amortization are illustrated on page C-6 of the Actuarial Valuation Report.