



**Municipal Pensions  
Oversight Board**

**City of Martinsburg  
West Virginia  
Policemen's Pension and Relief Fund**

GASB 68 Actuarial Information for the  
Measurement Period Ending  
June 30, 2021

**Bolton**

Submitted by:

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December 3, 2021

Mr. Mark Spickler  
Finance Director  
City of Martinsburg  
125 W. Race Street  
Martinsburg, WV 25401

Patrolman First Class Paul Lehman  
Pension Board Secretary  
City of Martinsburg  
Policemen's Pension and Relief Fund

Re: City of Martinsburg Policemen's Pension and Relief Fund  
GASB 68 Actuarial Information for the Measurement Period Ending June 30, 2021

Dear Mark,

The following report contains the GASB 67 and GASB 68 actuarial information for the City of Martinsburg Policemen's Pension and Relief Fund to be included in the City's financial statements for FY 2021. The GASB 67 information has been provided as of June 30, 2021 (the GASB 68 measurement date for FY 2021).

### Methodology, Reliance and Certification

This report is prepared for the City. The report contains the actuarial information to be included with the City's financial statements for the year ending June 30, 2021 (the City's fiscal year end date) as required by GASB 68. This information has been prepared for use in the financial statements of the City. This information is not intended for, nor should it be used for, any additional purposes.

The total pension liability is based on the July 1, 2020 actuarial valuation rolled forward to June 30, 2021. The methods, assumptions, and participant data used are detailed in the July 1, 2020 actuarial valuation report with the exception of the actuarial cost method. These calculations are based on the Entry Age Normal cost method as required by GASB 67. The calculation of the Actuarially Determined Contribution (ADC) for the fiscal year ending June 30, 2021 is contained in the July 1, 2019 actuarial valuation report. The discount rate assumption may have changed if a blended rate was used for GASB purposes.

The included calculations are based on a blended discount rate of 3.36%. The plan's expected gross rate of investment return of 4.25% has been blended with the 1.92% yield corresponding to the 20-year maturity on a municipal general obligation AA bond yield curve published on Fidelity's Fixed Income Market Data webpage as of June 30, 2021. The development of the blended discount rate is included within this report.

The long-term nominal expected rate of return on pension plan investments was determined using a methodology approved by the Municipal Pensions Oversight Board (MPOB) and is based on the funded status (current and projected), equity exposure, and funding policy.

The included calculations assume that the members and the City will continue to make all required contributions in accordance with the City's funding policy.

### Methodology, Reliance and Certification (cont.)

These calculations and comparisons with assets are applicable for the valuation date only. The future is uncertain, and the plan may become better funded or more poorly funded in the future. This valuation does not provide any guarantee that the plan will be able to provide the promised benefits in the future.

This is a deterministic valuation in that it is based on a single set of assumptions. This set of assumptions is one possible basis for our calculations. Other assumptions may be equally valid. The future is uncertain and the plan's actual experience will differ from the assumptions; the differences may be significant or material because the results are very sensitive to the assumptions made and, in some cases, to the interaction between the assumptions. We may consider that some factors are not material to the valuation of the plan and may not provide a specific assumption for those factors. We may have used other assumptions in the past. We will likely consider changes in assumptions at a future date.

The City is responsible for selecting the plan's funding policy based on four methods allowed for under state law. The actuarial valuation methods are chosen by the actuary in accordance with actuarial standards of practice promulgated by the Actuarial Standards Board of the American Academy of Actuaries and as required by GASB 67 & 68. The MPOB selects the asset valuation methods and assumptions; these selections are reviewed by a qualified actuary no less than every five years. The actuary shall provide a report to the Board with recommendations on any changes to the actuarial process. The policies, methods and assumptions used in this valuation are those that have been so prescribed and are described in this report. The City and MPOB are solely responsible for communicating to Bolton Partners, Inc. any changes required thereto.

The City could reasonably ask how the valuation would change if we used a different assumption set or if plan experience exhibited variations from our assumptions. This report does not contain such an analysis. That type of analysis would be a separate assignment.

The cost of this plan is determined by the benefits promised by the plan, the plan's participant population, the investment experience of the plan and many other factors. An actuarial valuation is a budgeting tool for the City or, in this case, a measure of accounting expense. It does not affect the cost of the plan. As the experience of the plan evolves, it is normal for the level of contributions and expense of the plan to change.

We make every effort to ensure that our calculations are accurately performed. We reserve the right to correct any potential errors by amending the results of this report or by including the corrections in a future valuation report.

Because modeling all aspects of a situation is not possible or practical, we may use summary information, estimates, or simplifications of calculations to facilitate the modeling of future events in an efficient and cost-effective manner. We may also exclude factors or data that are immaterial in our judgment. Use of such simplifying techniques does not, in our judgment, affect the reasonableness of valuation results for the plan.

The valuation was completed using both proprietary and third-party models (including software and tools). We have tested these models to ensure they are used for their intended purposes, within their known limitations, and without any known material inconsistencies unless otherwise stated.



Methodology, Reliance and Certification (cont.)

This report is based on plan provisions, census data, and asset data submitted by the City. We have relied on this information for purposes of preparing this report, but have not performed an audit. The accuracy of the results presented in this report is dependent upon the accuracy and completeness of the underlying information. The plan sponsor is solely responsible for the validity and completeness of this information.

The City is solely responsible for selecting the plan's investment policies, asset allocations and individual investments. Bolton Partners, Inc.'s actuaries have not provided any investment advice to the City.

The information in this report was prepared for the internal use of the City, the plan and their auditors in connection with our actuarial valuations of the pension plan as required by GASB 68. This report may not be used for any other purpose; Bolton Partners, Inc. is not responsible for the consequences of any unauthorized use or the reliance on this information by any other party.

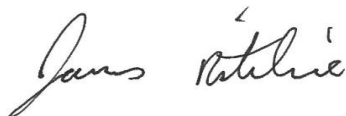
The calculation of actuarial liabilities for valuation purposes is based on a current estimate of future benefit payments. The calculation includes a computation of the "present value" of those estimated future benefit payments using an assumed discount rate; the higher the discount rate assumption, the lower the estimated liability will be. For purposes of estimating the liabilities (future and accrued) in this report, an assumption based on the expected long-term rate of return on plan investments is used. If the plan is expected to become insolvent, the return assumption is blended with a long-term municipal bond rate. Using a lower discount rate assumption, such as a rate solely based on long-term bond yields, could substantially increase the estimated present value of future and accrued liabilities.

This report provides certain financial calculations for use by the auditor. These values have been computed in accordance with our understanding of generally accepted actuarial principles and practices and fairly reflect the actuarial position of the plan. The various actuarial assumptions and methods which have been used are, in our opinion, appropriate for the purposes of this report.

The report is conditioned on the assumption of an ongoing plan and is not meant to present the actuarial position of the plan in the case of plan termination. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status), and changes in plan provisions or applicable law.

The undersigned enrolled actuaries meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The July 1, 2020 actuarial valuation report contains information that is integral to the results contained herein and a copy may be provided upon request.

Sincerely,



James Ritchie, ASA, EA, FCA, MAAA



Jordan McClane, FSA, EA, FCA, MAAA



City of Martinsburg, West Virginia Policemen's Pension and Relief Fund  
 Actuarial Information to Include in the Financial Statements  
 for the June 30, 2021 Measurement Date



Net Pension Liability of the Employer

The components of the net pension liability of the Employer at June 30, 2021, were as follows:

Total pension liability	\$ 49,951,723
Plan fiduciary net position	(11,242,071)
Employer's net pension liability	<u>\$ 38,709,652</u>
Plan fiduciary net position as a percentage of the total pension liability	22.51%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of July 1, 2020 rolled forward to June 30, 2021 using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.50 percent
Salary increases	Rates vary by years of service
Single discount rate (BOY)	3.41%
Single discount rate (EOY)	3.36%
Investment rate of return (BOY)	4.50%, net of pension plan investment expense, including inflation
Investment rate of return (EOY)	4.25%, net of pension plan investment expense, including inflation
Long-term municipal bond rate (BOY)	2.45%
Long-term municipal bond rate (EOY)	1.92%
Mortality	SOA PubS-2010(B) with generational projection using Scale MP-2019
Year Fund is projected to be fully funded	2059
Year assets are expected to be depleted for a closed plan	2039

The above is a summary of key actuarial assumptions. Full descriptions of the actuarial assumptions are available in the July 1, 2020 actuarial valuation report.

Sensitivity of the net pension liability to changes in the discount rate

	1% Decrease 2.36%	Current Discount Rate 3.36%	1% Increase 4.36%
Employer's net pension liability	\$ 48,159,132	\$ 38,709,652	\$ 31,352,918

City of Martinsburg, West Virginia Policemen's Pension and Relief Fund  
 Actuarial Information to Include in the Financial Statements  
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Changes in the Net Pension Liability

	Total Pension Liability (a)	Increase (Decrease) Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
<b>Balances at 6/30/20</b>	\$ 51,513,624	\$ 9,658,746	\$ 41,854,878
<b>Changes for the year:</b>			
Service cost	1,870,191		1,870,191
Interest	1,729,602		1,729,602
Changes of benefit terms	-		-
Differences between expected and actual experience	(671,278)		(671,278)
Changes of assumptions	(2,906,093)		(2,906,093)
Contributions - employer (including Premium Tax Allocation)		1,277,706	(1,277,706)
Contributions - member		250,527	(250,527)
Net investment income		1,641,915	(1,641,915)
Benefit payments, including refunds of member contributions	(1,584,323)	(1,584,323)	-
Administrative expense		(2,500)	2,500
Other		-	-
<b>Net Changes</b>	<u>(1,561,901)</u>	<u>1,583,325</u>	<u>(3,145,226)</u>
<b>Balances at 6/30/21</b>	<u>\$ 49,951,723</u>	<u>\$ 11,242,071</u>	<u>\$ 38,709,652</u>
Return on Investments		17.1%	

City of Martinsburg, West Virginia Policemen's Pension and Relief Fund  
 Actuarial Information to Include in the Financial Statements  
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Components of Employer's Pension Expense for the Fiscal Year Ended June 30, 2021

Note	Description	Amount
A	Service cost	\$ 1,870,191
B	Interest on the total pension liability	1,729,602
A	Changes of benefit terms	-
C	Differences between expected and actual experience	(319,059)
C	Changes of assumptions	832,608
A	Employee contributions	(250,527)
D	Projected earnings on pension plan investments	(433,326)
C	Differences between expected and actual earnings on plan investments	(338,868)
A	Pension plan administrative expense	2,500
A	Other changes in fiduciary net position	-
<b>Total Pension Expense</b>		<b>\$ 3,093,121</b>

Notes:

A Provided in the Changes in Net Pension Liability exhibit.

B Based on the following calculation:

	Amount for Period (a)	Portion of Period (b)	Interest Rate (c)	Projected Earnings (a) x (b) x (c)
Beginning total pension liability	\$ 51,513,624	100%	3.41%	\$ 1,756,615
Service cost (End of Year)	1,870,191	0%	3.41%	-
Benefit payments, including refunds of employee contributions	(1,584,323)	50%	3.41%	(27,013)
<b>Total interest on the total pension liability</b>				<b>\$ 1,729,602</b>

C Provided in the Schedules of Deferrals.

D Based on the following calculation:

	Amount for Period (a)	Portion of Period (b)	Projected Rate of Return (c)	Projected Earnings (a) x (b) x (c)
Beginning plan fiduciary net position	\$ 9,658,746	100%	4.50%	\$ 434,644
Employer contributions	1,277,706	50%	4.50%	28,748
Employee contributions	250,527	50%	4.50%	5,637
Benefit payments, including refunds of employee contributions	(1,584,323)	50%	4.50%	(35,647)
Administrative expense and other	(2,500)	50%	4.50%	(56)
<b>Total Projected Earnings</b>				<b>\$ 433,326</b>

City of Martinsburg, West Virginia Policemen’s Pension and Relief Fund  
 Actuarial Information to Include in the Financial Statements  
 for the June 30, 2021 Measurement Date



Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

At June 30, 2021, the Employer reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 222,262	\$ 1,124,612
Changes of assumptions	3,201,048	3,418,680
Net difference between projected and actual earnings on pension plan investments	-	1,101,960
<b>Total</b>	<b>\$ 3,423,310</b>	<b>\$ 5,645,252</b>

Amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows:

<b>Year ended June 30:</b>	
2022	\$ (509,392)
2023	(763,587)
2024	(399,747)
2025	(549,216)
2026	-
Thereafter	-



City of Martinsburg, West Virginia Policemen's Pension and Relief Fund  
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Changes in the Employer's Net Pension Liability and Related Ratios  
 Last 10 Fiscal Years

Total pension liability	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Service cost	\$ 1,870,191	\$ 1,819,683	\$ 1,758,585	\$ 1,675,674	\$ 1,898,374	\$ 1,201,064	\$ 1,117,074	\$ 992,237	\$ -	\$ -
Interest	1,729,602	1,739,035	1,660,158	1,607,500	1,447,198	1,485,142	1,443,177	1,451,417	-	-
Changes of benefit terms	-	-	-	-	-	-	-	-	-	-
Differences between expected and actual experience	(671,278)	(501,719)	416,152	(425,421)	(563,097)	162,741	(606,090)	-	-	-
Changes of assumptions	(2,906,093)	2,949,541	649,336	(451,376)	(4,799,012)	10,437,630	1,287,932	1,133,520	-	-
Benefit payments, including refunds of member contributions	(1,584,323)	(1,487,710)	(1,355,473)	(1,365,055)	(1,369,658)	(1,325,710)	(1,127,250)	(1,115,431)	-	-
Net change in total pension liability	(1,561,901)	4,518,830	3,128,758	1,041,322	(3,386,195)	11,960,867	2,114,843	2,461,743	-	-
Total pension liability - beginning	51,513,624	46,994,794	43,866,036	42,824,714	46,210,909	34,250,042	32,135,199	29,673,456	-	-
<b>Total pension liability - ending (a)</b>	<b>\$ 49,951,723</b>	<b>\$ 51,513,624</b>	<b>\$ 46,994,794</b>	<b>\$ 43,866,036</b>	<b>\$ 42,824,714</b>	<b>\$ 46,210,909</b>	<b>\$ 34,250,042</b>	<b>\$ 32,135,199</b>	<b>\$ -</b>	<b>\$ -</b>
<b>Plan fiduciary net position</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
Contributions - employer (including Premium Tax Allocation)	\$ 1,277,706	\$ 1,220,164	\$ 1,137,192	\$ 1,087,981	\$ 1,058,896	\$ 1,021,021	\$ 1,042,081	\$ 968,837	\$ -	\$ -
Contributions - member	250,527	239,236	240,725	225,734	219,978	222,731	229,110	212,040	-	-
Net investment income	1,641,915	540,663	531,442	312,293	565,680	161,081	44,150	643,125	-	-
Benefit payments, including refunds of member contributions	(1,584,323)	(1,487,710)	(1,355,473)	(1,365,055)	(1,369,658)	(1,325,710)	(1,127,250)	(1,115,431)	-	-
Administrative expense	(2,500)	(2,500)	(2,500)	(2,500)	(5,000)	-	(2,523)	(2,500)	-	-
Other	-	-	-	-	-	-	-	-	-	-
Net change in plan fiduciary net position	\$ 1,583,325	\$ 509,853	\$ 551,386	\$ 258,453	\$ 469,896	\$ 79,123	\$ 185,568	\$ 706,071	\$ -	\$ -
Plan fiduciary net position - beginning	9,658,746	9,148,893	8,597,507	8,339,054	7,869,158	7,791,543	7,605,975	6,899,904	-	-
<b>Plan fiduciary net position - ending (b)</b>	<b>\$ 11,242,071</b>	<b>\$ 9,658,746</b>	<b>\$ 9,148,893</b>	<b>\$ 8,597,507</b>	<b>\$ 8,339,054</b>	<b>\$ 7,870,666</b>	<b>\$ 7,791,543</b>	<b>\$ 7,605,975</b>	<b>\$ -</b>	<b>\$ -</b>
Employer's net pension liability - ending (a)-(b)	\$ 38,709,652	\$ 41,854,878	\$ 37,845,901	\$ 35,268,529	\$ 34,485,660	\$ 38,340,243	\$ 26,458,499	\$ 24,529,224	\$ -	\$ -
Plan fiduciary net position as a percentage of the total pension liability	22.51%	18.75%	19.47%	19.60%	19.47%	17.03%	22.75%	23.67%	0.00%	0.00%
Covered payroll	\$ 2,689,434	\$ 2,915,347	\$ 2,798,681	\$ 2,643,190	\$ 2,543,082	\$ 2,592,596	\$ 2,613,097	\$ 2,435,214	N/A	N/A
Employer's net pension liability as a percentage of covered payroll	1439.32%	1435.67%	1352.28%	1334.32%	1356.06%	1478.84%	1012.53%	1007.27%	0.00%	0.00%
Expected average remaining service years of all participants	5.00	6.00	6.00	6.01	6.22	6.57	6.36	-	-	-

**Notes to Schedule:**

Benefit changes: There were no changes for FY2021.

Changes of assumptions: The discount rate changed from 3.41% to 3.36%. Changes were made to salary scale assumptions, pay spiking assumptions, inflation, cost-of-living increases, mortality rates, retirement rates, termination rates, disability rates, marital status, and non-spouse beneficiary loads.

\*The Plan Fiduciary Net Position as of June 30, 2021 provided to Bolton by the City was adjusted to remove the payables for non-vested terminated members who did not request a refund of contributions. The liability associated with those refunds is instead included in the Total Pension Liability as of June 30, 2021.

\*Market value of assets as of July 1, 2016, excludes \$1,508, included in the market value of assets as of June 30, 2016, used for the actuarial valuation report for the fiscal year end June 30, 2016.

City of Martinsburg, West Virginia Policemen's Pension and Relief Fund  
 Actuarial Information to Include in the Financial Statements  
 for the June 30, 2021 Measurement Date



Schedule of Employer Contributions  
 Last 10 Fiscal Years

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Actuarially determined contribution	\$ 3,142,929	\$ 3,026,760	\$ 2,877,145	\$ 2,557,453	\$ 2,410,168	\$ 2,330,817	\$ 1,749,309	\$ 1,674,526	\$ 1,665,492	\$ -
Contributions in relation to the actuarially determined contribution										
Employer provided	792,530	745,588	701,718	660,718	622,400	586,589	621,160	550,918	488,619	-
State provided	485,176	474,576	435,474	427,263	436,496	434,432	420,921	417,919	785,336	-
Contribution deficiency (excess)	<u>\$ 1,865,223</u>	<u>\$ 1,806,596</u>	<u>\$ 1,739,953</u>	<u>\$ 1,469,472</u>	<u>\$ 1,351,272</u>	<u>\$ 1,309,796</u>	<u>\$ 707,228</u>	<u>\$ 705,689</u>	<u>\$ 391,537</u>	<u>\$ -</u>
Covered payroll	\$ 2,689,434	\$ 2,915,347	\$ 2,798,681	\$ 2,643,190	\$ 2,543,082	\$ 2,592,596	\$ 2,613,097	\$ 2,435,214	\$ 2,653,005	N/A
Contributions as a percentage of covered employee payroll	47.51%	41.85%	40.63%	41.16%	41.64%	39.38%	39.88%	39.78%	48.02%	N/A

Notes to Schedule

Valuation date:

Actuarially determined contribution amounts are calculated as of the beginning of the fiscal year (July 1) for the year immediately following the fiscal year. Actuarial valuations are performed every year.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry Age Normal
Amortization method	Level Dollar
Remaining amortization period	30.5 years
Asset valuation method	Market Value
Inflation	2.75 percent
Salary increases	Rates vary by years of service
Investment rate of return	4.50%, net of pension plan investment expense, including inflation
Retirement age	Rates vary by age
Mortality	RP-2014 Blue Collar Mortality Table with generational projection using Scale MP-2014

Actuarial Information to Include in the Financial Statements  
for the June 30, 2021 Measurement Date



Schedule of Differences between Projected and Actual Earnings on Pension Plan Investments

In conformity with paragraph 33b of Statement 68, the effects of differences between projected and actual earnings on pension plan investments are recognized in pension expense using a systematic and rational method over a closed five-year period, beginning in the current reporting period. The following table illustrates the application of this requirement.

Increase (Decrease) in Pension Expense Arising from the Recognition of Differences between Projected and Actual Earnings on Plan Investments											
Year	Differences between Projected and Actual Earnings on Pension Plan Investments	Recognition Period (Years)	2017	2018	2019	2020	2021	2022	2023	2024	2025
2017	\$ (213,723)	5	\$ (42,745)	(42,745)	(42,745)	(42,745)	(42,743)				
2018	1,726	5		\$ 345	345	345	345	346			
2019	(144,105)	5			\$ (28,821)	(28,821)	(28,821)	(28,821)	(28,821)		
2020	(129,655)	5				\$ (25,931)	(25,931)	(25,931)	(25,931)	(25,931)	
2021	(1,208,589)	5					\$ (241,718)	(241,718)	(241,718)	(241,718)	(241,717)
Net increase (decrease) in pension expense							\$ (338,868)	\$ (296,124)	\$ (296,470)	\$ (267,649)	\$ (241,717)

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Differences between Projected and Actual Earnings on Pension Plan Investments

Year	Investment Earnings Less than Projected (a)	Investment Earnings Greater Than Projected (b)	Amounts Recognized in Pension Expense Through June 30, 2021 (c)	Balances at June 30, 2021	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2017	\$ -	\$ 213,723	\$ 213,723	\$ -	\$ -
2018	1,726	-	1,380	346	-
2019	-	144,105	86,463	-	57,642
2020	-	129,655	51,862	-	77,793
2021	-	1,208,589	241,718	-	966,871
				\$ 346	\$ 1,102,306

Schedule of Differences between Expected and Actual Experience

In conformity with paragraph 33a of Statement 68, the effects of differences between expected and actual experience are recognized in pension expense, beginning in the current reporting period, using a systematic and rational method over a closed period equal to the average of the remaining service lives of all employees that are provided with pensions through the pension plan (active and inactive employees), determined as of the beginning of the measurement period. The following table illustrates the application of this requirement.

Increase (Decrease) in Pension Expense Arising from the Recognition of Differences between Expected and Actual Experience																			
Year	Differences between Expected and Actual Experience	Recognition Period (Years)	Prior	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Thereafter
Prior	-	-																	
2012	-	-																	
2013	-	-																	
2014	-	-																	
2015	(606,090)	6.357407					\$ (95,336)	(95,336)	(95,336)	(95,336)	(95,336)	(95,336)	(34,074)						
2016	162,741	6.573082						\$ 24,759	24,759	24,759	24,759	24,759	24,759	14,187					
2017	(563,097)	6.222126							\$ (90,499)	(90,499)	(90,499)	(90,499)	(90,499)	(90,499)	(20,103)				
2018	(425,421)	6.014899								\$ (70,728)	(70,728)	(70,728)	(70,728)	(70,728)	(70,728)	(1,053)			
2019	416,152	6.000000									\$ 69,359	69,359	69,359	69,359	69,359	69,357			
2020	(501,719)	6.000000										\$ (83,620)	(83,620)	(83,620)	(83,620)	(83,620)	(83,619)		
2021	(671,278)	5.000000											\$ (134,256)	(134,256)	(134,256)	(134,256)	(134,254)		
Net increase (decrease) in pension expense													\$ (319,059)	\$ (295,557)	\$ (239,348)	\$ (149,572)	\$ (217,873)	\$ -	\$ -

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Differences between Expected and Actual Experience

Year	Experience Losses (a)	Experience Gains (b)	Amounts Recognized in Pension Expense Through June 30, 2021 (c)	Balances at June 30, 2021	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$ -
2012	-	-	-	-	-
2013	-	-	-	-	-
2014	-	-	-	-	-
2015	-	606,090	606,090	-	-
2016	162,741	-	148,554	14,187	-
2017	-	563,097	452,495	-	110,602
2018	-	425,421	282,912	-	142,509
2019	416,152	-	208,077	208,075	-
2020	-	501,719	167,240	-	334,479
2021	-	671,278	134,256	-	537,022
				\$ 222,262	\$ 1,124,612



Schedule of Changes of Assumptions

In conformity with paragraph 33a of Statement 68, the effects of changes of assumptions should be recognized in pension expense, beginning in the current reporting period, using a systematic and rational method over a closed period equal to the average of the remaining service lives of all employees that are provided with pensions through the pension plan (active and inactive employees), determined as of the beginning of the measurement period. The following table illustrates the application of this requirement.

Increase (Decrease) in Pension Expense Arising from the Effects of Changes of Assumptions																			
Year	Changes of Assumptions	Recognition Period (Years)	Prior	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Thereafter
Prior	\$ -	-																	
2012	-	-																	
2013	-	-																	
2014	-	-																	
2015	1,287,932	6.357407					\$ 202,588	202,588	202,588	202,588	202,588	202,588	72,404						
2016	10,437,630	6.573082						\$ 1,587,935	1,587,935	1,587,935	1,587,935	1,587,935	1,587,935	910,020					
2017	(4,799,012)	6.222126							\$ (771,282)	(771,282)	(771,282)	(771,282)	(771,282)	(771,282)	(171,320)				
2018	(451,376)	6.014899								\$ (75,043)	(75,043)	(75,043)	(75,043)	(75,043)	(75,043)	(1,118)			
2019	649,336	6.000000									\$ 108,223	108,223	108,223	108,223	108,223	108,221			
2020	2,949,541	6.000000										\$ 491,590	491,590	491,590	491,590	491,590	491,591		
2021	(2,906,093)	5.000000											\$ (581,219)	(581,219)	(581,219)	(581,219)	(581,217)		
Net increase (decrease) in pension expense													\$ 832,608	\$ 82,289	\$ (227,769)	\$ 17,474	\$ (89,626)	\$ -	\$ -

Deferred Outflows of Resources and Deferred Inflows of Resources Arising from Changes of Assumptions

Year	Increases in the Total Pension Liability (a)	Decreases in the Total Pension Liability (b)	Amounts Recognized in Pension Expense Through June 30, 2021 (c)	Balances at June 30, 2021	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$ -
2012	-	-	-	-	-
2013	-	-	-	-	-
2014	-	-	-	-	-
2015	1,287,932	-	-	1,287,932	-
2016	10,437,630	-	-	9,527,610	-
2017	-	4,799,012	-	3,856,410	942,602
2018	-	451,376	-	300,172	151,204
2019	649,336	-	-	324,669	-
2020	2,949,541	-	-	983,180	1,966,361
2021	-	2,906,093	-	581,219	2,324,874
				\$ 3,201,048	\$ 3,418,680

City of Martinsburg, West Virginia Policemen's Pension and Relief Fund  
 Actuarial Information to Include in the Financial Statements  
 for the June 30, 2021 Measurement Date



Projection of Pension Plan's Fiduciary Net Position

Fiscal Year	Gross Normal Cost (BOY)			Employee Contributions (BOY)			Employer Normal Cost (BOY)			Expenses (MOY)			Employer Contributions (MOY)			Premium Tax Allocation (MOY)		
	Current Members	Future Members	Total	Current Members	Future Members	Total	Current Members	Future Members	Total	Current Members	Future Members	Total	Current Members	Future Members	Total	Current Members	Future Members	Total
2021	\$ 1,176,743	\$ -	\$ 1,176,743	\$ 226,018	\$ -	\$ 226,018	\$ 950,725	\$ -	\$ 950,725	\$ 2,563	\$ -	\$ 2,563	\$ 717,529	\$ -	\$ 717,529	\$ 485,176	\$ -	\$ 485,176
2022	\$ 1,144,933	\$ 79,112	\$ 1,224,045	\$ 217,642	\$ 17,469	\$ 235,111	\$ 927,291	\$ 61,643	\$ 988,934	\$ 2,448	\$ 179	\$ 2,627	\$ 704,638	\$ 63,118	\$ 767,756	\$ 446,995	\$ -	\$ 446,995
2023	\$ 1,107,647	\$ 161,620	\$ 1,269,267	\$ 208,453	\$ 35,747	\$ 244,200	\$ 899,194	\$ 125,873	\$ 1,025,067	\$ 2,356	\$ 273	\$ 2,629	\$ 692,706	\$ 128,793	\$ 821,499	\$ 450,297	\$ -	\$ 450,297
2024	\$ 1,050,184	\$ 249,613	\$ 1,299,797	\$ 196,464	\$ 55,170	\$ 251,634	\$ 853,720	\$ 194,443	\$ 1,048,163	\$ 2,384	\$ 344	\$ 2,728	\$ 680,128	\$ 198,876	\$ 879,004	\$ 469,474	\$ -	\$ 469,474
2025	\$ 974,767	\$ 351,603	\$ 1,326,370	\$ 181,722	\$ 77,245	\$ 258,967	\$ 793,045	\$ 274,358	\$ 1,067,403	\$ 2,379	\$ 451	\$ 2,830	\$ 659,956	\$ 280,578	\$ 940,534	\$ 480,415	\$ -	\$ 480,415
2026	\$ 907,598	\$ 458,194	\$ 1,365,792	\$ 168,478	\$ 100,088	\$ 268,566	\$ 739,120	\$ 358,106	\$ 1,097,226	\$ 2,373	\$ 562	\$ 2,935	\$ 640,172	\$ 366,199	\$ 1,006,371	\$ 491,630	\$ -	\$ 491,630
2027	\$ 844,568	\$ 555,822	\$ 1,400,390	\$ 156,736	\$ 120,985	\$ 277,721	\$ 687,832	\$ 434,837	\$ 1,122,669	\$ 2,399	\$ 645	\$ 3,044	\$ 632,191	\$ 444,626	\$ 1,076,817	\$ 504,106	\$ -	\$ 504,106
2028	\$ 799,061	\$ 655,692	\$ 1,454,753	\$ 147,599	\$ 142,525	\$ 290,124	\$ 651,462	\$ 513,167	\$ 1,164,629	\$ 2,424	\$ 732	\$ 3,156	\$ 627,504	\$ 524,690	\$ 1,152,194	\$ 519,241	\$ -	\$ 519,241
2029	\$ 753,242	\$ 749,897	\$ 1,503,139	\$ 138,152	\$ 162,727	\$ 300,879	\$ 615,090	\$ 587,170	\$ 1,202,260	\$ 2,414	\$ 821	\$ 3,235	\$ 632,509	\$ 600,339	\$ 1,232,848	\$ 533,481	\$ -	\$ 533,481
2030	\$ 689,597	\$ 840,876	\$ 1,530,473	\$ 125,500	\$ 181,892	\$ 307,392	\$ 564,097	\$ 658,984	\$ 1,223,081	\$ 2,438	\$ 916	\$ 3,354	\$ 645,389	\$ 673,758	\$ 1,319,147	\$ 549,660	\$ -	\$ 549,660
2031	\$ 590,735	\$ 949,012	\$ 1,539,747	\$ 107,202	\$ 203,753	\$ 310,955	\$ 483,533	\$ 745,259	\$ 1,228,792	\$ 2,462	\$ 1,054	\$ 3,516	\$ 649,502	\$ 761,985	\$ 1,411,487	\$ 562,563	\$ -	\$ 562,563
2032	\$ 489,595	\$ 1,091,193	\$ 1,580,788	\$ 88,658	\$ 231,982	\$ 320,640	\$ 400,937	\$ 859,211	\$ 1,260,148	\$ 2,447	\$ 1,277	\$ 3,724	\$ 631,735	\$ 878,556	\$ 1,510,291	\$ 575,788	\$ -	\$ 575,788
2033	\$ 412,547	\$ 1,219,859	\$ 1,632,406	\$ 74,504	\$ 257,430	\$ 331,934	\$ 338,043	\$ 962,429	\$ 1,300,472	\$ 2,508	\$ 1,391	\$ 3,899	\$ 631,952	\$ 984,059	\$ 1,616,011	\$ 590,893	\$ -	\$ 590,893
2034	\$ 342,265	\$ 1,339,151	\$ 1,681,416	\$ 62,279	\$ 280,851	\$ 343,130	\$ 279,986	\$ 1,058,300	\$ 1,338,286	\$ 2,531	\$ 1,508	\$ 4,039	\$ 647,069	\$ 1,082,063	\$ 1,729,132	\$ 608,950	\$ -	\$ 608,950
2035	\$ 295,853	\$ 1,454,282	\$ 1,750,135	\$ 53,872	\$ 303,508	\$ 357,380	\$ 241,981	\$ 1,150,774	\$ 1,392,755	\$ 2,553	\$ 1,630	\$ 4,183	\$ 673,567	\$ 1,176,604	\$ 1,850,171	\$ 625,812	\$ -	\$ 625,812
2036	\$ 261,401	\$ 1,571,580	\$ 1,832,981	\$ 47,490	\$ 326,506	\$ 373,996	\$ 213,911	\$ 1,245,074	\$ 1,458,985	\$ 2,575	\$ 1,757	\$ 4,332	\$ 706,669	\$ 1,273,014	\$ 1,979,683	\$ 660,653	\$ -	\$ 660,653
2037	\$ 246,099	\$ 1,675,786	\$ 1,921,885	\$ 44,313	\$ 347,267	\$ 391,580	\$ 201,786	\$ 1,328,519	\$ 1,530,305	\$ 2,596	\$ 1,844	\$ 4,440	\$ 759,961	\$ 1,358,300	\$ 2,118,261	\$ 683,502	\$ -	\$ 683,502
2038	\$ 227,316	\$ 1,770,090	\$ 1,997,406	\$ 40,565	\$ 366,023	\$ 406,588	\$ 186,751	\$ 1,404,067	\$ 1,590,818	\$ 2,572	\$ 1,979	\$ 4,551	\$ 830,967	\$ 1,435,572	\$ 2,266,539	\$ 699,661	\$ -	\$ 699,661
2039	\$ 160,415	\$ 1,851,737	\$ 2,012,152	\$ 29,657	\$ 381,427	\$ 411,084	\$ 130,758	\$ 1,470,310	\$ 1,601,068	\$ 2,636	\$ 2,029	\$ 4,665	\$ 921,939	\$ 1,503,258	\$ 2,425,197	\$ 733,364	\$ -	\$ 733,364
2040	\$ 123,350	\$ 1,989,432	\$ 2,112,782	\$ 22,765	\$ 407,921	\$ 430,686	\$ 100,585	\$ 1,581,511	\$ 1,682,096	\$ 2,655	\$ 2,175	\$ 4,830	\$ 978,018	\$ 1,616,943	\$ 2,594,961	\$ 750,729	\$ -	\$ 750,729
2041	\$ 92,501	\$ 2,109,540	\$ 2,202,041	\$ 17,141	\$ 430,757	\$ 447,898	\$ 75,360	\$ 1,678,783	\$ 1,754,143	\$ 2,674	\$ 2,327	\$ 5,001	\$ 1,060,195	\$ 1,716,413	\$ 2,776,608	\$ 768,528	\$ -	\$ 768,528
2042	\$ 72,432	\$ 2,225,674	\$ 2,298,106	\$ 13,500	\$ 453,278	\$ 466,778	\$ 58,932	\$ 1,772,396	\$ 1,831,328	\$ 2,692	\$ 2,434	\$ 5,126	\$ 1,158,869	\$ 1,812,102	\$ 2,970,971	\$ 786,772	\$ -	\$ 786,772
2043	\$ 55,804	\$ 2,326,975	\$ 2,382,779	\$ 10,487	\$ 473,013	\$ 483,500	\$ 45,317	\$ 1,853,962	\$ 1,899,279	\$ 2,709	\$ 2,545	\$ 5,254	\$ 1,283,445	\$ 1,895,494	\$ 3,178,939	\$ 827,703	\$ -	\$ 827,703
2044	\$ 39,147	\$ 2,427,049	\$ 2,466,196	\$ 7,492	\$ 492,885	\$ 500,377	\$ 31,655	\$ 1,934,164	\$ 1,965,819	\$ 2,725	\$ 2,660	\$ 5,385	\$ 1,423,968	\$ 1,977,497	\$ 3,401,465	\$ 847,399	\$ -	\$ 847,399
2045	\$ 30,464	\$ 2,531,670	\$ 2,562,134	\$ 5,905	\$ 514,197	\$ 520,102	\$ 24,559	\$ 2,017,473	\$ 2,042,032	\$ 2,740	\$ 2,780	\$ 5,520	\$ 1,576,890	\$ 2,062,678	\$ 3,639,568	\$ 876,181	\$ -	\$ 876,181
2046	\$ 23,996	\$ 2,626,110	\$ 2,650,106	\$ 4,648	\$ 533,595	\$ 538,243	\$ 19,348	\$ 2,092,515	\$ 2,111,863	\$ 2,754	\$ 2,961	\$ 5,715	\$ 1,754,859	\$ 2,139,479	\$ 3,894,338	\$ 933,857	\$ -	\$ 933,857
2047	\$ 16,806	\$ 2,723,023	\$ 2,739,829	\$ 3,215	\$ 553,414	\$ 556,629	\$ 13,591	\$ 2,169,609	\$ 2,183,200	\$ 2,768	\$ 3,090	\$ 5,858	\$ 1,948,619	\$ 2,218,323	\$ 4,166,942	\$ 969,852	\$ -	\$ 969,852
2048	\$ 10,098	\$ 2,824,019	\$ 2,834,117	\$ 1,885	\$ 574,000	\$ 575,885	\$ 8,213	\$ 2,250,019	\$ 2,258,232	\$ 2,724	\$ 3,340	\$ 6,064	\$ 2,157,954	\$ 2,300,674	\$ 4,458,628	\$ 1,026,724	\$ -	\$ 1,026,724
2049	\$ 5,330	\$ 2,931,901	\$ 2,937,231	\$ 960	\$ 596,020	\$ 596,980	\$ 4,370	\$ 2,335,881	\$ 2,340,251	\$ 2,792	\$ 3,424	\$ 6,216	\$ 2,382,306	\$ 2,388,426	\$ 4,770,732	\$ 1,055,825	\$ -	\$ 1,055,825
2050	\$ 3,110	\$ 3,037,688	\$ 3,040,798	\$ 547	\$ 617,746	\$ 618,293	\$ 2,563	\$ 2,419,942	\$ 2,422,505	\$ 2,743	\$ 3,628	\$ 6,371	\$ 2,630,224	\$ 2,474,459	\$ 5,104,683	\$ 1,429,605	\$ -	\$ 1,429,605
2051	\$ 1,793	\$ 3,143,154	\$ 3,144,947	\$ 309	\$ 639,459	\$ 639,768	\$ 1,484	\$ 2,503,695	\$ 2,505,179	\$ 2,750	\$ 3,844	\$ 6,594	\$ 2,901,822	\$ 2,560,189	\$ 5,462,011	\$ 1,473,760	\$ -	\$ 1,473,760
2052	\$ 1,051	\$ 3,241,945	\$ 3,242,996	\$ 175	\$ 660,221	\$ 660,396	\$ 876	\$ 2,581,724	\$ 2,582,600	\$ 2,756	\$ 4,003	\$ 6,759	\$ 3,204,334	\$ 2,640,018	\$ 5,844,352	\$ 1,541,204	\$ -	\$ 1,541,204
2053	\$ 532	\$ 3,338,989	\$ 3,339,521	\$ 87	\$ 681,040	\$ 681,127	\$ 445	\$ 2,657,949	\$ 2,658,394	\$ 2,761	\$ 4,234	\$ 6,995	\$ 3,535,380	\$ 2,718,077	\$ 6,253,457	\$ 1,589,801	\$ -	\$ 1,589,801
2054	\$ 269	\$ 3,438,913	\$ 3,439,182	\$ 43	\$ 702,592	\$ 702,635	\$ 226	\$ 2,736,321	\$ 2,736,547	\$ 2,764	\$ 4,406	\$ 7,170	\$ 3,892,930	\$ 2,798,269	\$ 6,691,199	\$ 3,598,107	\$ -	\$ 3,598,107
2055	\$ 157	\$ 3,552,234	\$ 3,552,391	\$ 24	\$ 726,533	\$ 726,557	\$ 133	\$ 2,825,701	\$ 2,825,834	\$ 2,766	\$ 4,654	\$ 7,420	\$ 4,269,807	\$ 2,889,776	\$ 7,159,583	\$ 4,101,853	\$ -	\$ 4,101,853
2056	\$ 76	\$ 3,668,438	\$ 3,668,514	\$ 11	\$ 750,788	\$ 750,799	\$ 65	\$ 2,917,650	\$ 2,917,715	\$ 2,766	\$ 4,840	\$ 7,606	\$ 4,676,909	\$ 2,983,845	\$ 7,660,754	\$ 4,204,009	\$ -	\$ 4,204,009
2057	\$ 29	\$ 3,796,067	\$ 3,796,096	\$ 4	\$ 777,072	\$ 777,076	\$ 25	\$ 3,018,995	\$ 3,019,020	\$ 2,764	\$ 5,106	\$ 7,870	\$ 5,109,420	\$ 3,087,587	\$ 8,197,007	\$ 5,064,489	\$ -	\$ 5,064,489
2058	\$ -	\$ 3,932,069	\$ 3,932,069	\$ -	\$ 804,809	\$ 804,809	\$ -	\$ 3,127,260	\$ 3,127,260	\$ 2,688	\$ 5,379	\$ 8,067	\$ 5,572,395	\$ 3,198,402	\$ 8,770,797	\$ 5,440,252	\$ -	\$ 5,440,252
2059	\$ -	\$ 4,075,630	\$ 4,075,630	\$ -	\$ 833,764	\$ 833,764	\$ -	\$ 3,241,866	\$ 3,241,866	\$ 2,681	\$ 5,666	\$ 8,347	\$ 346,890	\$ 3,315,705	\$ 3,662,595	\$ -	\$ -	
2060	\$ -	\$ 4,215,073	\$ 4,215,073	\$ -	\$ 861,858	\$ 861,858	\$ -	\$ 3,353,215	\$ 3,353,215	\$ 2,672	\$ 5,884	\$ 8,556	\$ 2,672	\$ 3,429,613	\$ 3,432,285	\$ -	\$ -	
2061	\$ -	\$ 4,360,710	\$ 4,360,710	\$ -	\$ 891,376	\$ 891,376	\$ -	\$ 3,469,334	\$ 3,469,334	\$ 2,661	\$ 6,109	\$ 8,770	\$ 2,661	\$ 3,548,399	\$ 3,551,060	\$ -	\$ -	

City of Martinsburg, West Virginia Policemen's Pension and Relief Fund  
 Actuarial Information to Include in the Financial Statements  
 for the June 30, 2021 Measurement Date



Projection of Pension Plan's Fiduciary Net Position

Fiscal Year	Actuarial Accrued Liability (BOY)			Closed Group Asset Projection						
	Current Members	Future Members	Total	Fiduciary Net Position (BOY)	Funded Ratio (BOY)	Projected EEC Contributions (MOY)	Projected ER Contrib + Premium Tax (MOY)	Projected BP (MOY)	Projected Admin Expenses (MOY)	Projected Investment Earnings
2021	\$ 41,929,493	\$ -	\$ 41,929,493	\$ 9,658,746	23.04%	\$ 230,771	\$ 1,202,705	\$ 1,610,974	\$ 2,563	\$ 406,710
2022	\$ 43,293,400	\$ -	\$ 43,293,400	\$ 9,885,395	22.83%	\$ 222,219	\$ 1,151,633	\$ 1,584,215	\$ 2,448	\$ 415,654
2023	\$ 44,709,433	\$ 81,599	\$ 44,791,032	\$ 10,088,238	22.56%	\$ 212,837	\$ 1,143,003	\$ 1,595,685	\$ 2,356	\$ 423,657
2024	\$ 46,135,065	\$ 250,017	\$ 46,385,082	\$ 10,269,694	22.26%	\$ 200,595	\$ 1,149,602	\$ 1,638,573	\$ 2,384	\$ 430,348
2025	\$ 47,517,592	\$ 511,562	\$ 48,029,154	\$ 10,409,282	21.91%	\$ 185,543	\$ 1,140,371	\$ 1,717,917	\$ 2,379	\$ 434,101
2026	\$ 48,799,241	\$ 879,366	\$ 49,678,607	\$ 10,449,000	21.41%	\$ 172,021	\$ 1,131,802	\$ 1,789,206	\$ 2,373	\$ 433,826
2027	\$ 49,992,549	\$ 1,359,380	\$ 51,351,929	\$ 10,395,071	20.79%	\$ 160,032	\$ 1,136,297	\$ 1,850,170	\$ 2,399	\$ 430,093
2028	\$ 51,108,617	\$ 1,944,342	\$ 53,052,959	\$ 10,268,924	20.09%	\$ 150,703	\$ 1,146,745	\$ 1,888,822	\$ 2,424	\$ 423,942
2029	\$ 52,185,212	\$ 2,640,763	\$ 54,825,975	\$ 10,099,067	19.35%	\$ 141,057	\$ 1,165,990	\$ 1,947,520	\$ 2,414	\$ 415,691
2030	\$ 53,199,864	\$ 3,441,225	\$ 56,641,089	\$ 9,871,872	18.56%	\$ 128,139	\$ 1,195,049	\$ 2,060,668	\$ 2,438	\$ 403,995
2031	\$ 54,075,762	\$ 4,331,147	\$ 58,406,909	\$ 9,535,949	17.63%	\$ 109,456	\$ 1,212,065	\$ 2,229,999	\$ 2,462	\$ 386,122
2032	\$ 54,712,930	\$ 5,305,668	\$ 60,018,598	\$ 9,011,131	16.47%	\$ 90,522	\$ 1,207,523	\$ 2,390,357	\$ 2,447	\$ 359,951
2033	\$ 55,108,009	\$ 6,396,709	\$ 61,504,718	\$ 8,276,323	15.02%	\$ 76,071	\$ 1,222,845	\$ 2,497,850	\$ 2,508	\$ 326,479
2034	\$ 55,329,803	\$ 7,604,192	\$ 62,933,995	\$ 7,401,360	13.38%	\$ 63,589	\$ 1,256,019	\$ 2,576,441	\$ 2,531	\$ 288,075
2035	\$ 55,407,510	\$ 8,928,528	\$ 64,336,038	\$ 6,430,071	11.61%	\$ 55,005	\$ 1,299,379	\$ 2,637,915	\$ 2,553	\$ 246,233
2036	\$ 55,377,368	\$ 10,373,890	\$ 65,751,258	\$ 5,390,221	9.73%	\$ 48,489	\$ 1,367,322	\$ 2,673,916	\$ 2,575	\$ 202,574
2037	\$ 55,273,271	\$ 11,956,106	\$ 67,229,377	\$ 4,332,115	7.84%	\$ 45,245	\$ 1,443,463	\$ 2,681,629	\$ 2,596	\$ 158,974
2038	\$ 55,140,923	\$ 13,680,807	\$ 68,821,730	\$ 3,295,572	5.98%	\$ 41,418	\$ 1,530,628	\$ 2,687,099	\$ 2,572	\$ 116,559
2039	\$ 54,977,783	\$ 15,539,539	\$ 70,517,322	\$ 2,294,506	4.17%	\$ 30,281	\$ 1,655,303	\$ 2,747,979	\$ 2,636	\$ 75,120
2040	\$ 54,675,805	\$ 17,481,809	\$ 72,157,614	\$ 1,304,595	2.39%	\$ 23,244	\$ 1,728,747	\$ 2,778,945	\$ 2,655	\$ 33,794
2041	\$ 54,290,736	\$ 19,586,418	\$ 73,877,154	\$ 308,779	0.57%	\$ 17,501	\$ 1,828,723	\$ 2,796,698	\$ 2,674	\$ -
2042	\$ 53,839,015	\$ 21,847,409	\$ 75,686,424	\$ -	0.00%	\$ 13,784	\$ 1,945,641	\$ 2,796,511	\$ 2,692	\$ -
2043	\$ 53,347,365	\$ 24,270,270	\$ 77,617,635	\$ -	0.00%	\$ 10,708	\$ 2,111,148	\$ 2,793,378	\$ 2,709	\$ -
2044	\$ 52,820,684	\$ 26,829,008	\$ 79,649,692	\$ -	0.00%	\$ 7,650	\$ 2,271,367	\$ 2,785,469	\$ 2,725	\$ -
2045	\$ 52,262,329	\$ 29,509,078	\$ 81,771,407	\$ -	0.00%	\$ 6,029	\$ 2,453,071	\$ 2,763,604	\$ 2,740	\$ -
2046	\$ 51,693,517	\$ 32,323,437	\$ 84,016,954	\$ -	0.00%	\$ 4,746	\$ 2,688,716	\$ 2,739,551	\$ 2,754	\$ -
2047	\$ 51,118,347	\$ 35,247,102	\$ 86,365,449	\$ -	0.00%	\$ 3,283	\$ 2,918,471	\$ 2,713,832	\$ 2,768	\$ 4,314
2048	\$ 50,537,496	\$ 38,267,495	\$ 88,804,991	\$ 209,468	0.41%	\$ 1,925	\$ 3,184,678	\$ 2,684,587	\$ 2,724	\$ 19,402
2049	\$ 49,954,826	\$ 41,384,629	\$ 91,339,455	\$ 728,161	1.46%	\$ 980	\$ 3,438,131	\$ 2,647,154	\$ 2,792	\$ 47,542
2050	\$ 49,380,642	\$ 44,609,580	\$ 93,990,222	\$ 1,564,868	3.17%	\$ 559	\$ 4,059,829	\$ 2,602,934	\$ 2,743	\$ 97,098
2051	\$ 48,824,891	\$ 47,935,485	\$ 96,760,376	\$ 3,116,677	6.38%	\$ 315	\$ 4,375,582	\$ 2,554,692	\$ 2,750	\$ 170,699
2052	\$ 48,293,404	\$ 51,353,168	\$ 99,646,572	\$ 5,105,831	10.57%	\$ 179	\$ 4,745,538	\$ 2,503,225	\$ 2,756	\$ 264,097
2053	\$ 47,791,104	\$ 54,837,193	\$ 102,628,297	\$ 7,609,665	15.92%	\$ 89	\$ 5,125,181	\$ 2,449,277	\$ 2,761	\$ 379,626
2054	\$ 47,321,998	\$ 58,362,565	\$ 105,684,563	\$ 10,662,523	22.53%	\$ 44	\$ 7,491,037	\$ 2,393,083	\$ 2,764	\$ 560,304
2055	\$ 46,890,056	\$ 61,921,692	\$ 108,811,748	\$ 16,318,061	34.80%	\$ 25	\$ 8,371,660	\$ 2,334,962	\$ 2,766	\$ 820,405
2056	\$ 46,498,983	\$ 65,530,167	\$ 112,029,150	\$ 23,172,423	49.83%	\$ 11	\$ 8,880,918	\$ 2,275,230	\$ 2,766	\$ 1,123,680
2057	\$ 46,152,193	\$ 69,183,430	\$ 115,335,623	\$ 30,899,036	66.95%	\$ 4	\$ 10,173,909	\$ 2,213,956	\$ 2,764	\$ 1,480,540
2058	\$ 45,853,178	\$ 72,894,494	\$ 118,747,672	\$ 40,336,769	87.97%	\$ -	\$ 11,012,647	\$ 2,151,334	\$ 2,688	\$ 1,900,600
2059	\$ 45,605,364	\$ 76,680,732	\$ 122,286,096	\$ 51,095,994	112.04%	\$ -	\$ 346,890	\$ 2,087,432	\$ 2,681	\$ 2,134,922
2060	\$ 45,412,264	\$ 80,554,741	\$ 125,967,005	\$ 51,487,693	113.38%	\$ -	\$ 2,672	\$ 2,022,407	\$ 2,672	\$ 2,145,698
2061	\$ 45,277,349	\$ 84,497,664	\$ 129,775,013	\$ 51,610,984	113.99%	\$ -	\$ 2,661	\$ 1,956,346	\$ 2,661	\$ 2,152,327

City of Martinsburg, West Virginia Policemen's Pension and Relief Fund  
 Actuarial Information to Include in the Financial Statements  
 for the June 30, 2021 Measurement Date



Projection of Pension Plan's Fiduciary Net Position

Calculation of Single Equivalent Rate					
Fiscal Year	"Funded" Portion of BP	"Unfunded" Portion of BP	PV of "Funded" BP	PV of "Unfunded" BP	PV of BP Using a Single DR
2021	\$ 1,610,974	\$ -	\$ 1,577,795	\$ -	\$ 1,584,587
2022	\$ 1,584,215	\$ -	\$ 1,488,333	\$ -	\$ 1,507,637
2023	\$ 1,595,685	\$ -	\$ 1,437,994	\$ -	\$ 1,469,213
2024	\$ 1,638,573	\$ -	\$ 1,416,445	\$ -	\$ 1,459,683
2025	\$ 1,717,917	\$ -	\$ 1,424,492	\$ -	\$ 1,480,642
2026	\$ 1,789,206	\$ -	\$ 1,423,122	\$ -	\$ 1,491,981
2027	\$ 1,850,170	\$ -	\$ 1,411,618	\$ -	\$ 1,492,690
2028	\$ 1,888,822	\$ -	\$ 1,382,358	\$ -	\$ 1,474,362
2029	\$ 1,947,520	\$ -	\$ 1,367,211	\$ -	\$ 1,470,788
2030	\$ 2,060,668	\$ -	\$ 1,387,668	\$ -	\$ 1,505,675
2031	\$ 2,229,999	\$ -	\$ 1,440,476	\$ -	\$ 1,576,460
2032	\$ 2,390,357	\$ -	\$ 1,481,112	\$ -	\$ 1,634,919
2033	\$ 2,497,850	\$ -	\$ 1,484,621	\$ -	\$ 1,652,931
2034	\$ 2,576,441	\$ -	\$ 1,468,904	\$ -	\$ 1,649,543
2035	\$ 2,637,915	\$ -	\$ 1,442,640	\$ -	\$ 1,634,028
2036	\$ 2,673,916	\$ -	\$ 1,402,713	\$ -	\$ 1,602,512
2037	\$ 2,681,629	\$ -	\$ 1,349,409	\$ -	\$ 1,554,918
2038	\$ 2,687,099	\$ -	\$ 1,297,038	\$ -	\$ 1,507,466
2039	\$ -	\$ 2,747,979	\$ -	\$ 1,932,922	\$ 1,491,531
2040	\$ -	\$ 2,778,945	\$ -	\$ 1,917,880	\$ 1,459,331
2041	\$ -	\$ 2,796,698	\$ -	\$ 1,893,771	\$ 1,420,936
2042	\$ -	\$ 2,796,511	\$ -	\$ 1,857,972	\$ 1,374,677
2043	\$ -	\$ 2,793,378	\$ -	\$ 1,820,928	\$ 1,328,522
2044	\$ -	\$ 2,785,469	\$ -	\$ 1,781,567	\$ 1,281,718
2045	\$ -	\$ 2,763,604	\$ -	\$ 1,734,284	\$ 1,230,340
2046	\$ -	\$ 2,739,551	\$ -	\$ 1,686,803	\$ 1,180,005
2047	\$ -	\$ 2,713,832	\$ -	\$ 1,639,489	\$ 1,130,947
2048	\$ -	\$ 2,684,587	\$ -	\$ 1,591,269	\$ 1,082,411
2049	\$ -	\$ 2,647,154	\$ -	\$ 1,539,522	\$ 1,032,640
2050	\$ -	\$ 2,602,934	\$ -	\$ 1,485,287	\$ 982,399
2051	\$ 2,554,692	\$ -	\$ 717,825	\$ -	\$ 932,864
2052	\$ 2,503,225	\$ -	\$ 674,689	\$ -	\$ 884,371
2053	\$ 2,449,277	\$ -	\$ 633,236	\$ -	\$ 837,197
2054	\$ 2,393,083	\$ -	\$ 593,485	\$ -	\$ 791,412
2055	\$ 2,334,962	\$ -	\$ 555,464	\$ -	\$ 747,102
2056	\$ 2,275,230	\$ -	\$ 519,188	\$ -	\$ 704,337
2057	\$ 2,213,956	\$ -	\$ 484,610	\$ -	\$ 663,100
2058	\$ 2,151,334	\$ -	\$ 451,706	\$ -	\$ 623,409
2059	\$ 2,087,432	\$ -	\$ 420,421	\$ -	\$ 585,238
2060	\$ 2,022,407	\$ -	\$ 390,719	\$ -	\$ 548,585
2061	\$ 1,956,346	\$ -	\$ 362,548	\$ -	\$ 513,424