



**Municipal Pensions
Oversight Board**

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

GASB 68 Actuarial Information for the
Measurement Period Ending
June 30, 2020

Bolton

Submitted by:

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November 4, 2020

Mr. Brian Blankenship
Finance Director
City of Princeton
100 Courthouse Road
Princeton, WV 24740

Lt. Tim Gray
Pension Board Secretary
City of Princeton
Policemen's Pension and Relief Fund

Re: City of Princeton Policemen's Pension and Relief Fund
GASB 68 Actuarial Information for the Measurement Period Ending June 30, 2020

Dear Brian,

The following report contains the GASB 67 and GASB 68 actuarial information for the City of Princeton Policemen's Pension and Relief Fund to be included in the City's financial statements for FY 2020. The GASB 67 information has been provided as of June 30, 2020 (the GASB 68 measurement date for FY 2020).

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, 2020 (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, 2019 actuarial valuation rolled forward to June 30, 2020. The methods, assumptions, and participant data used are detailed in the July 1, 2019 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, 2020 is contained in the July 1, 2018 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 the valuation discount rate of 5.00%. The plan's expected gross rate of investment return of 5.00% has been blended with the 2.45% 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, 2020. The development of the blended discount rate is included within this report. Since the plan assets are estimated to be sufficient to cover benefit payments throughout the projection period, the liability discount rate used for this June 30, 2020 measurement date is equal to the plan's expected rate of investment return.

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 fund's current funding ratio, liquidity ratio, equity exposure and expected funded status in 15 years.

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. These calculations are complex. Despite our best efforts, we may make a mistake. 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, 2019 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 Princeton, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2020 Measurement Date



Net Pension Liability of the Employer

The components of the net pension liability of the Employer at June 30, 2020, were as follows:

Total pension liability	\$ 14,162,611
Plan fiduciary net position	(4,584,765)
Employer's net pension liability	<u>\$ 9,577,846</u>
Plan fiduciary net position as a percentage of the total pension liability	32.37%

Actuarial assumptions. The total pension liability was determined by an actuarial valuation as of July 1, 2019 rolled forward to June 30, 2020 using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.75 percent
Salary increases	Rates vary by years of service
Single discount rate (BOY)	5.00%
Single discount rate (EOY)	5.00%
Investment rate of return (BOY)	5.00%, net of pension plan investment expense, including inflation
Investment rate of return (EOY)	5.00%, net of pension plan investment expense, including inflation
Long-term municipal bond rate (BOY)	3.13%
Long-term municipal bond rate (EOY)	2.45%
Mortality	RP-2014 Blue Collar Mortality Table with generational projection using Scale MP-2014
Year Fund is projected to be fully funded	2061
Year assets are expected to be depleted for a closed plan	N/A

The above is a summary of key actuarial assumptions. Full descriptions of the actuarial assumptions are available in the July 1, 2019 actuarial valuation report.

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

	1% Decrease 4.00%	Current Discount Rate 5.00%	1% Increase 6.00%
Employer's net pension liability	\$ 11,992,226	\$ 9,577,846	\$ 7,675,935

City of Princeton, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2020 Measurement Date



Changes in the Net Pension Liability

	Total Pension Liability (a)	Increase (Decrease) Plan Fiduciary Net Position (b)	Net Pension Liability (a) - (b)
Balances at 6/30/19	\$ 12,884,435	\$ 4,466,263	\$ 8,418,172
Changes for the year:			
Service cost	518,000		518,000
Interest	629,746		629,746
Changes of benefit terms	-		-
Differences between expected and actual experience	709,475		709,475
Changes of assumptions	-		-
Contributions - employer (including Premium Tax Allocation)		467,950	(467,950)
Contributions - member		108,018	(108,018)
Net investment income		121,759	(121,759)
Benefit payments, including refunds of member contributions	(579,045)	(579,045)	-
Administrative expense		(180)	180
Other		-	-
Net Changes	<u>1,278,176</u>	<u>118,502</u>	<u>1,159,674</u>
Balances at 6/30/20	<u>\$ 14,162,611</u>	<u>\$ 4,584,765</u>	<u>\$ 9,577,846</u>
Return on Investments		2.7%	

City of Princeton, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2020 Measurement Date



Components of Employer's Pension Expense for the Fiscal Year Ended June 30, 2020

Note	Description	Amount
A	Service cost	\$ 518,000
B	Interest on the total pension liability	629,746
A	Changes of benefit terms	-
C	Differences between expected and actual experience	(43,877)
C	Changes of assumptions	389,625
A	Employee contributions	(108,018)
D	Projected earnings on pension plan investments	(223,231)
C	Differences between expected and actual earnings on plan investments	78,924
A	Pension plan administrative expense	180
A	Other changes in fiduciary net position	-
Total Pension Expense		\$ 1,241,349

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	\$ 12,884,435	100%	5.00%	\$ 644,222
Service cost (End of Year)	518,000	0%	5.00%	-
Benefit payments, including refunds of employee contributions	(579,045)	50%	5.00%	(14,476)
Total interest on the total pension liability				\$ 629,746

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	\$ 4,466,263	100%	5.00%	\$ 223,313
Employer contributions	467,950	50%	5.00%	11,699
Employee contributions	108,018	50%	5.00%	2,700
Benefit payments, including refunds of employee contributions	(579,045)	50%	5.00%	(14,476)
Administrative expense and other	(180)	50%	5.00%	(5)
Total Projected Earnings				\$ 223,231

City of Princeton, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2020 Measurement Date



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

At June 30, 2020, 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	\$ 841,622	\$ 519,414
Changes of assumptions	1,400,978	1,202,764
Net difference between projected and actual earnings on pension plan investments	118,271	-
Total	\$ 2,360,871	\$ 1,722,178

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

Year ended June 30:	
2021	\$ 386,618
2022	(160,250)
2023	17,786
2024	276,294
2025	118,245
Thereafter	-

City of Princeton, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2020 Measurement Date



Changes in the Employer's Net Pension Liability and Related Ratios
 Last 10 Fiscal Years

Total pension liability	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Service cost	\$ 518,000	\$ 450,914	\$ 422,417	\$ 536,890	\$ 271,757	\$ 237,821	\$ 216,080	\$ -	\$ -	\$ -
Interest	629,746	598,080	570,241	512,106	572,905	550,980	551,456	-	-	-
Changes of benefit terms	-	-	-	-	-	-	-	-	-	-
Differences between expected and actual experience	709,475	360,077	(166,623)	(1,151,572)	54,627	(188,795)	-	-	-	-
Changes of assumptions	-	895,619	(797,790)	(2,073,963)	4,245,789	-	-	-	-	-
Benefit payments, including refunds of member contributions	(579,045)	(588,893)	(439,700)	(491,271)	(510,173)	(479,794)	(499,192)	-	-	-
Net change in total pension liability	1,278,176	1,715,797	(411,455)	(2,667,810)	4,634,905	120,212	268,344	-	-	-
Total pension liability - beginning	12,884,435	11,168,638	11,580,093	14,247,903	9,612,998	9,492,786	9,224,442	-	-	-
Total pension liability - ending (a)	\$ 14,162,611	\$ 12,884,435	\$ 11,168,638	\$ 11,580,093	\$ 14,247,903	\$ 9,612,998	\$ 9,492,786	\$ -	\$ -	\$ -
Plan fiduciary net position	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Contributions - employer (including Premium Tax Allocation)	\$ 467,950	\$ 429,816	\$ 414,154	\$ 380,690	\$ 550,085	\$ 173,527	\$ 367,187	\$ -	\$ -	\$ -
Contributions - member	108,018	102,763	88,524	80,332	76,114	71,592	68,439	-	-	-
Net investment income	121,759	155,350	126,728	358,532	(82,353)	92,071	412,241	-	-	-
Benefit payments, including refunds of member contributions	(579,045)	(588,893)	(439,700)	(491,271)	(510,173)	(479,794)	(499,192)	-	-	-
Administrative expense	(180)	(24)	(180)	(180)	(180)	(308)	(232)	-	-	-
Other	-	(180)	2	-	5,755	-	4	-	-	-
Net change in plan fiduciary net position	\$ 118,502	\$ 98,832	\$ 189,528	\$ 328,103	\$ 39,248	\$ (142,912)	\$ 348,447	\$ -	\$ -	\$ -
Plan fiduciary net position - beginning	4,466,263	4,367,431	4,177,903	3,849,800	3,810,552	3,947,819	3,605,017	-	-	-
Plan fiduciary net position - ending (b)	\$ 4,584,765	\$ 4,466,263	\$ 4,367,431	\$ 4,177,903	\$ 3,849,800	\$ 3,804,907	\$ 3,953,464	\$ -	\$ -	\$ -
Employer's net pension liability - ending (a)-(b)	<u>\$ 9,577,846</u>	<u>\$ 8,418,172</u>	<u>\$ 6,801,207</u>	<u>\$ 7,402,190</u>	<u>\$ 10,398,103</u>	<u>\$ 5,808,091</u>	<u>\$ 5,539,322</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Plan fiduciary net position as a percentage of the total pension liability	32.37%	34.66%	39.10%	36.08%	27.02%	39.58%	41.65%	0.00%	0.00%	0.00%
Covered payroll	\$ 1,233,179	\$ 1,034,188	\$ 933,350	\$ 901,229	\$ 927,966	\$ 781,090	\$ 730,141	\$ -	\$ -	\$ -
Employer's net pension liability as a percentage of covered payroll	776.68%	813.99%	728.69%	821.34%	1120.53%	743.59%	758.66%	0.00%	0.00%	0.00%
Expected average remaining service years of all participants	6.00	6.00	6.48	6.38	6.17	5.76	-	-	-	-

Notes to Schedule:

Benefit changes: There were no changes for FY2020.

Changes of assumptions: There were no changes for FY2020.

*The Plan Fiduciary Net Position as of July 1, 2015, includes \$5,645, which was excluded from the Plan Fiduciary Net Position as of June 30, 2015.

*The Plan Fiduciary Net Position as of July 1, 2014, excludes \$5,645, which was included in the Plan Fiduciary Net Position as of June 30, 2014.

City of Princeton, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2020 Measurement Date



Schedule of Employer Contributions
 Last 10 Fiscal Years

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Actuarially determined contribution	\$ 853,954	\$ 715,674	\$ 631,477	\$ 674,315	\$ 675,818	\$ 434,627	\$ 421,933	\$ 475,653	\$ -	\$ -
Contributions in relation to the actuarially determined contribution										
Employer provided	243,500	227,500	212,600	198,672	185,674	173,527	162,175	201,565	-	-
State provided	224,450	202,316	201,554	182,018	183,874	180,537	205,012	169,853	-	-
Contribution deficiency (excess)	<u>\$ 386,004</u>	<u>\$ 285,858</u>	<u>\$ 217,323</u>	<u>\$ 293,625</u>	<u>\$ 306,270</u>	<u>\$ 80,563</u>	<u>\$ 54,746</u>	<u>\$ 104,235</u>	<u>\$ -</u>	<u>\$ -</u>
Covered payroll	\$ 1,233,179	\$ 1,034,188	\$ 933,350	\$ 901,229	\$ 927,966	\$ 781,090	\$ 730,141	\$ 711,063	\$ -	\$ -
Contributions as a percentage of covered employee payroll	37.95%	41.56%	44.37%	42.24%	39.82%	45.33%	50.29%	52.23%	N/A	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	31.5 years
Asset valuation method	Market Value
Inflation	2.75 percent
Salary increases	Rates vary by years of service
Investment rate of return	5.00%, 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

City of Princeton, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2020 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)	2016	2017	2018	2019	2020	2021	2022	2023	2024
2016	\$ 314,634	5	\$ 62,927	62,927	62,927	62,927	62,926				
2017	(166,803)	5		\$ (33,361)	(33,361)	(33,361)	(33,361)	(33,359)			
2018	83,737	5			\$ 16,747	16,747	16,747	16,747	16,749		
2019	61,592	5				\$ 12,318	12,318	12,318	12,318	12,320	
2020	101,472	5					\$ 20,294	20,294	20,294	20,294	20,296
Net increase (decrease) in pension expense							\$ 78,924	\$ 16,000	\$ 49,361	\$ 32,614	\$ 20,296

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, 2020 (c)	Balances at June 30, 2020	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
2016	\$ 314,634	\$ -	\$ 314,634	\$ -	\$ -
2017	-	166,803	133,444	-	33,359
2018	83,737	-	50,241	33,496	-
2019	61,592	-	24,636	36,956	-
2020	101,472	-	20,294	81,178	-
				\$ 151,630	\$ 33,359

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	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Thereafter
Prior	-	-																	
2011	-	-																	
2012	-	-																	
2013	-	-																	
2014	-	-																	
2015	(188,795)	5.758612						\$ (32,785)	(32,785)	(32,785)	(32,785)	(32,785)	(24,870)						
2016	54,627	6.167813						\$ 8,857	8,857	8,857	8,857	8,857	8,857	8,857	1,485				
2017	(1,151,572)	6.383004							\$ (180,412)	(180,412)	(180,412)	(180,412)	(180,412)	(180,412)	(180,412)	(69,100)			
2018	(166,623)	6.480654								\$ (25,711)	(25,711)	(25,711)	(25,711)	(25,711)	(25,711)	(25,711)	(12,357)		
2019	360,077	6.000000									\$ 60,013	60,013	60,013	60,013	60,013	60,013	60,012		
2020	709,475	6.000000										\$ 118,246	118,246	118,246	118,246	118,246	118,246	118,245	-
Net increase (decrease) in pension expense													\$ (43,877)	\$ (19,007)	\$ (26,379)	\$ 83,448	\$ 165,901	\$ 118,245	\$ -

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, 2020 (c)	Balances at June 30, 2020	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$ -
2011	-	-	-	-	-
2012	-	-	-	-	-
2013	-	-	-	-	-
2014	-	-	-	-	-
2015	-	188,795	188,795	-	-
2016	54,627	-	-	44,285	10,342
2017	-	1,151,572	721,648	-	429,924
2018	-	166,623	77,133	-	89,490
2019	360,077	-	120,026	240,051	-
2020	709,475	-	118,246	591,229	-
				\$ 841,622	\$ 519,414

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	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Thereafter
Prior	\$ -	-																	
2011	-	-																	
2012	-	-																	
2013	-	-																	
2014	-	-																	
2015	-	5.758612																	
2016	4,245,789	6.167813							\$ 688,378	688,378	688,378	688,378	688,378	688,378	115,521				
2017	(2,073,963)	6.383004							\$ (324,920)	(324,920)	(324,920)	(324,920)	(324,920)	(324,920)	(324,920)	(124,443)			
2018	(797,790)	6.480654								\$ (123,103)	(123,103)	(123,103)	(123,103)	(123,103)	(123,103)	(123,103)	(59,172)		
2019	895,619	6.000000									\$ 149,270	149,270	149,270	149,270	149,270	149,270	149,269		
2020	-	6.000000																	
Net increase (decrease) in pension expense													\$ 389,625	\$ 389,625	\$ (183,232)	\$ (98,276)	\$ 90,097	\$ -	\$ -

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, 2020 (c)	Balances at June 30, 2020	
				Deferred Outflows of Resources (a) - (c)	Deferred Inflows of Resources (b) - (c)
Prior	\$ -	\$ -	\$ -	\$ -	\$ -
2011	-	-	-	-	-
2012	-	-	-	-	-
2013	-	-	-	-	-
2014	-	-	-	-	-
2015	-	-	-	-	-
2016	4,245,789	-	3,441,890	803,899	-
2017	-	2,073,963	1,299,680	-	774,283
2018	-	797,790	369,309	-	428,481
2019	895,619	-	298,540	597,079	-
2020	-	-	-	-	-
				\$ 1,400,978	\$ 1,202,764

City of Princeton, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2020 Measurement Date



Projection of Pension Plan's Fiduciary Net Position

Fiscal Year	Gross Normal Cost (BOY)			Employee Contributions (BOY)			Employer Normal Cost (BOY)			Expenses (BOY)			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
2020	\$ 493,333	\$ -	\$ 493,333	\$ 106,985	\$ -	\$ 106,985	\$ 386,348	\$ -	\$ 386,348	\$ 3,779	\$ -	\$ 3,779	\$ 243,382	\$ -	\$ 243,382	\$ 224,450	\$ -	\$ 224,450
2021	\$ 498,026	\$ 25,767	\$ 523,793	\$ 107,558	\$ 5,401	\$ 112,959	\$ 390,468	\$ 20,366	\$ 410,834	\$ 3,882	\$ -	\$ 3,882	\$ 239,550	\$ 20,869	\$ 260,419	\$ 235,555	\$ -	\$ 235,555
2022	\$ 496,671	\$ 54,720	\$ 551,391	\$ 107,215	\$ 11,477	\$ 118,692	\$ 389,456	\$ 43,243	\$ 432,699	\$ 3,803	\$ 186	\$ 3,989	\$ 234,151	\$ 44,497	\$ 278,648	\$ 237,474	\$ -	\$ 237,474
2023	\$ 492,476	\$ 88,755	\$ 581,231	\$ 106,658	\$ 18,628	\$ 125,286	\$ 385,818	\$ 70,127	\$ 455,945	\$ 3,812	\$ 287	\$ 4,099	\$ 226,007	\$ 72,146	\$ 298,153	\$ 247,506	\$ -	\$ 247,506
2024	\$ 491,799	\$ 121,264	\$ 613,063	\$ 106,763	\$ 25,466	\$ 132,229	\$ 385,036	\$ 95,798	\$ 480,834	\$ 3,819	\$ 393	\$ 4,212	\$ 220,467	\$ 98,557	\$ 319,024	\$ 253,918	\$ -	\$ 253,918
2025	\$ 493,927	\$ 152,923	\$ 646,850	\$ 107,392	\$ 32,134	\$ 139,526	\$ 386,535	\$ 120,789	\$ 507,324	\$ 3,823	\$ 505	\$ 4,328	\$ 217,079	\$ 124,277	\$ 341,356	\$ 260,506	\$ -	\$ 260,506
2026	\$ 499,674	\$ 182,984	\$ 682,658	\$ 108,699	\$ 38,472	\$ 147,171	\$ 390,975	\$ 144,512	\$ 535,487	\$ 3,825	\$ 622	\$ 4,447	\$ 216,548	\$ 148,703	\$ 365,251	\$ 268,104	\$ -	\$ 268,104
2027	\$ 507,983	\$ 212,009	\$ 719,992	\$ 110,492	\$ 44,599	\$ 155,091	\$ 397,491	\$ 167,410	\$ 564,901	\$ 3,930	\$ 639	\$ 4,569	\$ 218,636	\$ 172,183	\$ 390,819	\$ 275,076	\$ -	\$ 275,076
2028	\$ 514,424	\$ 240,962	\$ 755,386	\$ 112,130	\$ 50,715	\$ 162,845	\$ 402,294	\$ 190,247	\$ 592,541	\$ 3,929	\$ 766	\$ 4,695	\$ 222,465	\$ 195,711	\$ 418,176	\$ 284,143	\$ -	\$ 284,143
2029	\$ 520,499	\$ 271,443	\$ 791,942	\$ 113,711	\$ 57,159	\$ 170,870	\$ 406,788	\$ 214,284	\$ 621,072	\$ 3,925	\$ 899	\$ 4,824	\$ 226,973	\$ 220,475	\$ 447,448	\$ 292,698	\$ -	\$ 292,698
2030	\$ 525,225	\$ 309,421	\$ 834,646	\$ 115,179	\$ 65,193	\$ 180,372	\$ 410,046	\$ 244,228	\$ 654,274	\$ 4,033	\$ 924	\$ 4,957	\$ 227,586	\$ 251,183	\$ 478,769	\$ 300,335	\$ -	\$ 300,335
2031	\$ 536,299	\$ 344,060	\$ 880,359	\$ 117,753	\$ 72,525	\$ 190,278	\$ 418,546	\$ 271,535	\$ 690,081	\$ 4,026	\$ 1,067	\$ 5,093	\$ 232,975	\$ 279,308	\$ 512,283	\$ 308,182	\$ -	\$ 308,182
2032	\$ 540,415	\$ 378,108	\$ 918,523	\$ 119,358	\$ 79,734	\$ 199,092	\$ 421,057	\$ 298,374	\$ 719,431	\$ 4,137	\$ 1,096	\$ 5,233	\$ 241,305	\$ 306,838	\$ 548,143	\$ 316,245	\$ -	\$ 316,245
2033	\$ 534,620	\$ 420,846	\$ 955,466	\$ 119,194	\$ 88,793	\$ 207,987	\$ 415,426	\$ 332,053	\$ 747,479	\$ 4,126	\$ 1,373	\$ 5,499	\$ 244,887	\$ 341,626	\$ 586,513	\$ 324,530	\$ -	\$ 324,530
2034	\$ 530,711	\$ 467,004	\$ 997,715	\$ 119,130	\$ 98,583	\$ 217,713	\$ 411,581	\$ 368,421	\$ 780,002	\$ 4,368	\$ 1,282	\$ 5,650	\$ 248,768	\$ 378,801	\$ 627,569	\$ 335,127	\$ -	\$ 335,127
2035	\$ 515,555	\$ 512,703	\$ 1,028,258	\$ 117,011	\$ 108,278	\$ 225,289	\$ 398,544	\$ 404,425	\$ 802,969	\$ 4,356	\$ 1,449	\$ 5,805	\$ 255,638	\$ 415,861	\$ 671,499	\$ 345,568	\$ -	\$ 345,568
2036	\$ 463,218	\$ 575,145	\$ 1,038,363	\$ 107,941	\$ 121,542	\$ 229,483	\$ 355,277	\$ 453,603	\$ 808,880	\$ 4,340	\$ 1,757	\$ 6,097	\$ 251,942	\$ 466,562	\$ 718,504	\$ 362,056	\$ -	\$ 362,056
2037	\$ 462,906	\$ 643,937	\$ 1,106,843	\$ 108,546	\$ 136,163	\$ 244,709	\$ 354,360	\$ 507,774	\$ 862,134	\$ 4,459	\$ 1,806	\$ 6,265	\$ 246,679	\$ 522,120	\$ 768,799	\$ 372,490	\$ -	\$ 372,490
2038	\$ 444,044	\$ 698,526	\$ 1,142,570	\$ 105,406	\$ 147,760	\$ 253,166	\$ 338,638	\$ 550,766	\$ 889,404	\$ 4,582	\$ 1,855	\$ 6,437	\$ 256,393	\$ 566,222	\$ 822,615	\$ 382,284	\$ -	\$ 382,284
2039	\$ 399,217	\$ 776,049	\$ 1,175,266	\$ 96,502	\$ 164,253	\$ 260,755	\$ 302,715	\$ 611,796	\$ 914,511	\$ 4,561	\$ 2,197	\$ 6,758	\$ 251,097	\$ 629,101	\$ 880,198	\$ 392,347	\$ -	\$ 392,347
2040	\$ 361,714	\$ 859,576	\$ 1,221,290	\$ 88,765	\$ 182,029	\$ 270,794	\$ 272,949	\$ 677,547	\$ 950,496	\$ 4,686	\$ 2,406	\$ 7,092	\$ 245,127	\$ 696,685	\$ 941,812	\$ 402,687	\$ -	\$ 402,687
2041	\$ 331,024	\$ 934,493	\$ 1,265,517	\$ 82,005	\$ 197,973	\$ 279,978	\$ 249,019	\$ 736,520	\$ 985,539	\$ 4,660	\$ 2,627	\$ 7,287	\$ 250,404	\$ 757,335	\$ 1,007,739	\$ 423,580	\$ -	\$ 423,580
2042	\$ 293,092	\$ 1,018,588	\$ 1,311,680	\$ 73,376	\$ 215,907	\$ 289,283	\$ 219,716	\$ 802,681	\$ 1,022,397	\$ 4,629	\$ 2,858	\$ 7,487	\$ 252,920	\$ 825,361	\$ 1,078,281	\$ 434,770	\$ -	\$ 434,770
2043	\$ 263,770	\$ 1,099,590	\$ 1,363,360	\$ 66,760	\$ 233,226	\$ 299,986	\$ 197,010	\$ 866,364	\$ 1,063,374	\$ 4,756	\$ 3,097	\$ 7,853	\$ 262,905	\$ 890,856	\$ 1,153,761	\$ 452,486	\$ -	\$ 452,486
2044	\$ 233,189	\$ 1,173,995	\$ 1,407,184	\$ 59,797	\$ 249,200	\$ 308,997	\$ 173,392	\$ 924,795	\$ 1,098,187	\$ 4,718	\$ 3,351	\$ 8,069	\$ 283,540	\$ 950,984	\$ 1,234,524	\$ 471,964	\$ -	\$ 471,964
2045	\$ 188,450	\$ 1,247,511	\$ 1,435,961	\$ 48,896	\$ 265,007	\$ 313,903	\$ 139,554	\$ 982,504	\$ 1,122,058	\$ 4,848	\$ 3,443	\$ 8,291	\$ 310,731	\$ 1,010,210	\$ 1,320,941	\$ 488,283	\$ -	\$ 488,283
2046	\$ 139,934	\$ 1,334,593	\$ 1,474,527	\$ 36,461	\$ 283,734	\$ 320,195	\$ 103,473	\$ 1,050,859	\$ 1,154,332	\$ 4,803	\$ 3,890	\$ 8,693	\$ 332,707	\$ 1,080,700	\$ 1,413,407	\$ 505,970	\$ -	\$ 505,970
2047	\$ 106,938	\$ 1,417,205	\$ 1,524,143	\$ 28,084	\$ 301,509	\$ 329,593	\$ 78,854	\$ 1,115,696	\$ 1,194,550	\$ 4,752	\$ 4,359	\$ 9,111	\$ 364,738	\$ 1,147,607	\$ 1,512,345	\$ 519,379	\$ -	\$ 519,379
2048	\$ 83,410	\$ 1,494,619	\$ 1,578,029	\$ 22,249	\$ 318,173	\$ 340,422	\$ 61,161	\$ 1,176,446	\$ 1,237,607	\$ 4,883	\$ 4,479	\$ 9,362	\$ 408,232	\$ 1,209,977	\$ 1,618,209	\$ 550,567	\$ -	\$ 550,567
2049	\$ 62,992	\$ 1,571,303	\$ 1,634,295	\$ 16,979	\$ 334,679	\$ 351,658	\$ 46,013	\$ 1,236,624	\$ 1,282,637	\$ 4,824	\$ 4,795	\$ 9,619	\$ 459,526	\$ 1,271,958	\$ 1,731,484	\$ 565,185	\$ -	\$ 565,185
2050	\$ 44,582	\$ 1,651,781	\$ 1,696,363	\$ 12,017	\$ 351,996	\$ 364,013	\$ 32,565	\$ 1,299,785	\$ 1,332,350	\$ 4,957	\$ 4,927	\$ 9,884	\$ 515,878	\$ 1,336,810	\$ 1,852,688	\$ 751,401	\$ -	\$ 751,401
2051	\$ 29,276	\$ 1,733,746	\$ 1,763,022	\$ 7,914	\$ 369,634	\$ 377,548	\$ 21,362	\$ 1,364,112	\$ 1,385,474	\$ 4,890	\$ 5,465	\$ 10,355	\$ 579,112	\$ 1,403,264	\$ 1,982,376	\$ 786,656	\$ -	\$ 786,656
2052	\$ 20,013	\$ 1,814,993	\$ 1,835,006	\$ 5,442	\$ 387,121	\$ 392,563	\$ 14,571	\$ 1,427,872	\$ 1,442,443	\$ 4,815	\$ 5,825	\$ 10,640	\$ 652,184	\$ 1,468,958	\$ 2,121,142	\$ 813,286	\$ -	\$ 813,286
2053	\$ 13,367	\$ 1,896,152	\$ 1,909,519	\$ 3,656	\$ 404,585	\$ 408,241	\$ 9,711	\$ 1,491,567	\$ 1,501,278	\$ 4,947	\$ 5,986	\$ 10,933	\$ 735,235	\$ 1,534,387	\$ 2,269,622	\$ 975,232	\$ -	\$ 975,232
2054	\$ 8,540	\$ 1,979,259	\$ 1,987,799	\$ 2,373	\$ 422,456	\$ 424,829	\$ 6,167	\$ 1,556,803	\$ 1,562,970	\$ 4,862	\$ 6,372	\$ 11,234	\$ 826,876	\$ 1,601,620	\$ 2,428,496	\$ 2,020,364	\$ -	\$ 2,020,364
2055	\$ 4,243	\$ 2,065,406	\$ 2,069,649	\$ 1,190	\$ 440,983	\$ 442,173	\$ 3,053	\$ 1,624,423	\$ 1,627,476	\$ 4,769	\$ 6,774	\$ 11,543	\$ 927,179	\$ 1,671,312	\$ 2,598,491	\$ 2,075,727	\$ -	\$ 2,075,727
2056	\$ 2,271	\$ 2,153,181	\$ 2,155,452	\$ 649	\$ 459,859	\$ 460,508	\$ 1,622	\$ 1,693,322	\$ 1,694,944	\$ 4,900	\$ 6,960	\$ 11,860	\$ 1,038,286	\$ 1,742,099	\$ 2,780,385	\$ 2,132,612	\$ -	\$ 2,132,612
2057	\$ 1,525	\$ 2,241,894	\$ 2,243,419	\$ 436	\$ 478,938	\$ 479,374	\$ 1,089	\$ 1,762,956	\$ 1,764,045	\$ 4,795	\$ 7,391	\$ 12,186	\$ 1,161,129	\$ 1,813,883	\$ 2,975,012	\$ 2,525,766	\$ -	\$ 2,525,766
2058	\$ 1,023	\$ 2,332,334	\$ 2,333,357	\$ 293	\$ 498,398	\$ 498,691	\$ 730	\$ 1,833,936	\$ 1,834,666	\$ 4,927	\$ 7,594	\$ 12,521	\$ 1,296,444	\$ 1,886,819	\$ 3,183,263	\$ 2,697,823	\$ -	\$ 2,697,823
2059	\$ 344	\$ 2,423,454	\$ 2,423,798	\$ 98	\$ 518,003	\$ 518,101	\$ 246	\$ 1,905,451	\$ 1,905,697	\$ 4,809	\$ 8,056	\$ 12,865	\$ 1,445,529	\$ 1,960,562	\$ 3,406,091	\$ 3,129,808	\$ -	\$ 3,129,808
2060	\$ -	\$ 2,516,156	\$ 2,516,156	\$ -	\$ 537,934	\$ 537,934	\$ -	\$ 1,978,222	\$ 1,978,222	\$ 4,941	\$ 8,278	\$ 13,219	\$ 1,609,165	\$ 2,035,352	\$ 3,644,517	\$ 3,216,116	\$ -	\$ 3,216,116

City of Princeton, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2020 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
2020	\$ 13,560,126	\$ -	\$ 13,560,126	\$ 4,466,263	32.94%	\$ 109,627	\$ 467,832	\$ 650,547	\$ 3,779	\$ 221,415
2021	\$ 14,087,394	\$ -	\$ 14,087,394	\$ 4,610,811	32.73%	\$ 110,214	\$ 475,105	\$ 618,989	\$ 3,882	\$ 229,613
2022	\$ 14,680,416	\$ 26,839	\$ 14,707,255	\$ 4,802,872	32.72%	\$ 109,863	\$ 471,625	\$ 633,140	\$ 3,803	\$ 238,774
2023	\$ 15,287,166	\$ 84,843	\$ 15,372,009	\$ 4,986,191	32.62%	\$ 109,292	\$ 473,513	\$ 650,724	\$ 3,812	\$ 247,538
2024	\$ 15,901,830	\$ 180,524	\$ 16,082,354	\$ 5,161,998	32.46%	\$ 109,400	\$ 474,385	\$ 665,965	\$ 3,819	\$ 255,976
2025	\$ 16,530,899	\$ 313,811	\$ 16,844,710	\$ 5,331,976	32.25%	\$ 110,044	\$ 477,585	\$ 677,009	\$ 3,823	\$ 264,297
2026	\$ 17,182,340	\$ 485,316	\$ 17,667,656	\$ 5,503,070	32.03%	\$ 111,383	\$ 484,652	\$ 686,997	\$ 3,825	\$ 272,813
2027	\$ 17,862,152	\$ 694,983	\$ 18,557,135	\$ 5,681,096	31.81%	\$ 113,221	\$ 493,712	\$ 695,432	\$ 3,930	\$ 281,772
2028	\$ 18,576,036	\$ 943,326	\$ 19,519,362	\$ 5,870,439	31.60%	\$ 114,899	\$ 506,608	\$ 706,395	\$ 3,929	\$ 291,329
2029	\$ 19,321,144	\$ 1,232,114	\$ 20,553,258	\$ 6,072,951	31.43%	\$ 116,519	\$ 519,671	\$ 722,451	\$ 3,925	\$ 301,420
2030	\$ 20,093,433	\$ 1,564,944	\$ 21,658,377	\$ 6,284,185	31.27%	\$ 118,023	\$ 527,921	\$ 738,359	\$ 4,033	\$ 311,827
2031	\$ 20,892,998	\$ 1,951,915	\$ 22,844,913	\$ 6,499,564	31.11%	\$ 120,661	\$ 541,157	\$ 748,673	\$ 4,026	\$ 322,734
2032	\$ 21,733,600	\$ 2,392,200	\$ 24,125,800	\$ 6,731,417	30.97%	\$ 122,306	\$ 557,550	\$ 774,007	\$ 4,137	\$ 334,144
2033	\$ 22,594,595	\$ 2,887,499	\$ 25,482,094	\$ 6,967,273	30.84%	\$ 122,138	\$ 569,417	\$ 806,277	\$ 4,126	\$ 345,429
2034	\$ 23,459,488	\$ 3,449,236	\$ 26,908,724	\$ 7,193,854	30.67%	\$ 122,072	\$ 583,895	\$ 835,365	\$ 4,368	\$ 356,389
2035	\$ 24,333,715	\$ 4,083,703	\$ 28,417,418	\$ 7,416,476	30.48%	\$ 119,901	\$ 601,206	\$ 885,901	\$ 4,356	\$ 366,647
2036	\$ 25,183,955	\$ 4,793,470	\$ 29,977,425	\$ 7,613,973	30.23%	\$ 110,607	\$ 613,998	\$ 971,694	\$ 4,340	\$ 374,490
2037	\$ 25,933,842	\$ 5,599,156	\$ 31,532,998	\$ 7,737,034	29.83%	\$ 111,227	\$ 619,169	\$ 993,481	\$ 4,459	\$ 380,245
2038	\$ 26,698,570	\$ 6,511,422	\$ 33,209,992	\$ 7,849,736	29.40%	\$ 108,009	\$ 638,677	\$ 1,048,732	\$ 4,582	\$ 384,915
2039	\$ 27,425,114	\$ 7,519,988	\$ 34,945,102	\$ 7,928,023	28.91%	\$ 98,885	\$ 643,444	\$ 1,144,254	\$ 4,561	\$ 386,363
2040	\$ 28,043,036	\$ 8,652,940	\$ 36,695,976	\$ 7,907,899	28.20%	\$ 90,957	\$ 647,814	\$ 1,218,236	\$ 4,686	\$ 383,439
2041	\$ 28,576,667	\$ 9,921,767	\$ 38,498,434	\$ 7,807,187	27.32%	\$ 84,030	\$ 673,984	\$ 1,302,133	\$ 4,660	\$ 376,807
2042	\$ 29,018,786	\$ 11,325,728	\$ 40,344,514	\$ 7,635,215	26.31%	\$ 75,188	\$ 687,690	\$ 1,382,568	\$ 4,629	\$ 366,343
2043	\$ 29,360,761	\$ 12,876,775	\$ 42,237,536	\$ 7,377,239	25.13%	\$ 68,409	\$ 715,391	\$ 1,447,432	\$ 4,756	\$ 352,356
2044	\$ 29,622,581	\$ 14,571,059	\$ 44,193,640	\$ 7,061,207	23.84%	\$ 61,274	\$ 755,504	\$ 1,510,988	\$ 4,718	\$ 335,800
2045	\$ 29,800,257	\$ 16,389,031	\$ 46,189,288	\$ 6,698,079	22.48%	\$ 50,103	\$ 799,014	\$ 1,621,486	\$ 4,848	\$ 315,711
2046	\$ 29,826,614	\$ 18,317,214	\$ 48,143,828	\$ 6,236,573	20.91%	\$ 37,361	\$ 838,677	\$ 1,721,566	\$ 4,803	\$ 290,830
2047	\$ 29,700,795	\$ 20,363,288	\$ 50,064,083	\$ 5,677,072	19.11%	\$ 28,778	\$ 884,117	\$ 1,779,809	\$ 4,752	\$ 262,328
2048	\$ 29,474,358	\$ 22,520,018	\$ 51,994,376	\$ 5,067,733	17.19%	\$ 22,798	\$ 958,799	\$ 1,816,312	\$ 4,883	\$ 232,653
2049	\$ 29,174,490	\$ 24,782,862	\$ 53,957,352	\$ 4,460,788	15.29%	\$ 17,398	\$ 1,024,711	\$ 1,851,807	\$ 4,824	\$ 202,925
2050	\$ 28,801,819	\$ 27,153,847	\$ 55,955,666	\$ 3,849,192	13.36%	\$ 12,314	\$ 1,267,279	\$ 1,880,160	\$ 4,957	\$ 177,506
2051	\$ 28,362,130	\$ 29,640,887	\$ 58,003,017	\$ 3,421,173	12.06%	\$ 8,109	\$ 1,365,768	\$ 1,895,692	\$ 4,890	\$ 158,052
2052	\$ 27,868,470	\$ 32,247,907	\$ 60,116,377	\$ 3,052,520	10.95%	\$ 5,576	\$ 1,465,470	\$ 1,897,029	\$ 4,815	\$ 141,987
2053	\$ 27,339,031	\$ 34,976,387	\$ 62,315,418	\$ 2,763,709	10.11%	\$ 3,746	\$ 1,710,467	\$ 1,891,642	\$ 4,947	\$ 133,682
2054	\$ 26,781,662	\$ 37,828,164	\$ 64,609,826	\$ 2,715,015	10.14%	\$ 2,432	\$ 2,847,240	\$ 1,880,975	\$ 4,862	\$ 159,553
2055	\$ 26,202,286	\$ 40,808,041	\$ 67,010,327	\$ 3,838,402	14.65%	\$ 1,219	\$ 3,002,906	\$ 1,868,252	\$ 4,769	\$ 219,853
2056	\$ 25,602,467	\$ 43,924,358	\$ 69,526,825	\$ 5,189,359	20.27%	\$ 665	\$ 3,170,898	\$ 1,849,729	\$ 4,900	\$ 291,990
2057	\$ 24,989,567	\$ 47,181,334	\$ 72,170,901	\$ 6,798,283	27.20%	\$ 447	\$ 3,686,895	\$ 1,827,812	\$ 4,795	\$ 385,717
2058	\$ 24,367,697	\$ 50,578,918	\$ 74,946,615	\$ 9,038,735	37.09%	\$ 300	\$ 3,994,267	\$ 1,804,626	\$ 4,927	\$ 505,896
2059	\$ 23,737,965	\$ 54,116,172	\$ 77,854,137	\$ 11,729,645	49.41%	\$ 100	\$ 4,575,337	\$ 1,781,150	\$ 4,809	\$ 655,369
2060	\$ 23,100,089	\$ 57,791,020	\$ 80,891,109	\$ 15,174,492	65.69%	\$ -	\$ 4,825,281	\$ 1,756,411	\$ 4,941	\$ 834,389

City of Princeton, West Virginia Policemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
 for the June 30, 2020 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	
2020	\$ 650,547	\$ -	\$ 634,869	\$ -	\$ 634,869	
2021	\$ 618,989	\$ -	\$ 575,306	\$ -	\$ 575,306	
2022	\$ 633,140	\$ -	\$ 560,437	\$ -	\$ 560,437	
2023	\$ 650,724	\$ -	\$ 548,573	\$ -	\$ 548,573	
2024	\$ 665,965	\$ -	\$ 534,687	\$ -	\$ 534,687	
2025	\$ 677,009	\$ -	\$ 517,670	\$ -	\$ 517,670	
2026	\$ 686,997	\$ -	\$ 500,293	\$ -	\$ 500,293	
2027	\$ 695,432	\$ -	\$ 482,320	\$ -	\$ 482,320	
2028	\$ 706,395	\$ -	\$ 466,593	\$ -	\$ 466,593	
2029	\$ 722,451	\$ -	\$ 454,475	\$ -	\$ 454,475	
2030	\$ 738,359	\$ -	\$ 442,364	\$ -	\$ 442,364	
2031	\$ 748,673	\$ -	\$ 427,184	\$ -	\$ 427,184	
2032	\$ 774,007	\$ -	\$ 420,609	\$ -	\$ 420,609	
2033	\$ 806,277	\$ -	\$ 417,281	\$ -	\$ 417,281	
2034	\$ 835,365	\$ -	\$ 411,748	\$ -	\$ 411,748	
2035	\$ 885,901	\$ -	\$ 415,864	\$ -	\$ 415,864	
2036	\$ 971,694	\$ -	\$ 434,416	\$ -	\$ 434,416	
2037	\$ 993,481	\$ -	\$ 423,006	\$ -	\$ 423,006	
2038	\$ 1,048,732	\$ -	\$ 425,268	\$ -	\$ 425,268	
2039	\$ 1,144,254	\$ -	\$ 441,907	\$ -	\$ 441,907	
2040	\$ 1,218,236	\$ -	\$ 448,075	\$ -	\$ 448,075	
2041	\$ 1,302,133	\$ -	\$ 456,127	\$ -	\$ 456,127	
2042	\$ 1,382,568	\$ -	\$ 461,240	\$ -	\$ 461,240	
2043	\$ 1,447,432	\$ -	\$ 459,885	\$ -	\$ 459,885	
2044	\$ 1,510,988	\$ -	\$ 457,218	\$ -	\$ 457,218	
2045	\$ 1,621,486	\$ -	\$ 467,290	\$ -	\$ 467,290	
2046	\$ 1,721,566	\$ -	\$ 472,506	\$ -	\$ 472,506	
2047	\$ 1,779,809	\$ -	\$ 465,230	\$ -	\$ 465,230	
2048	\$ 1,816,312	\$ -	\$ 452,163	\$ -	\$ 452,163	
2049	\$ 1,851,807	\$ -	\$ 439,047	\$ -	\$ 439,047	
2050	\$ 1,880,160	\$ -	\$ 424,543	\$ -	\$ 424,543	
2051	\$ 1,895,692	\$ -	\$ 407,666	\$ -	\$ 407,666	
2052	\$ 1,897,029	\$ -	\$ 388,527	\$ -	\$ 388,527	
2053	\$ 1,891,642	\$ -	\$ 368,975	\$ -	\$ 368,975	
2054	\$ 1,880,975	\$ -	\$ 349,424	\$ -	\$ 349,424	
2055	\$ 1,868,252	\$ -	\$ 330,533	\$ -	\$ 330,533	
2056	\$ 1,849,729	\$ -	\$ 311,673	\$ -	\$ 311,673	
2057	\$ 1,827,812	\$ -	\$ 293,314	\$ -	\$ 293,314	
2058	\$ 1,804,626	\$ -	\$ 275,803	\$ -	\$ 275,803	
2059	\$ 1,781,150	\$ -	\$ 259,253	\$ -	\$ 259,253	
2060	\$ 1,756,411	\$ -	\$ 243,478	\$ -	\$ 243,478	