



**Municipal Pensions
Oversight Board**

**City of Princeton
West Virginia
Firemen'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. Thomas Mould
Pension Board Secretary
City of Princeton
Firemen's Pension and Relief Fund

Re: City of Princeton Firemen'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 Firemen'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 a blended discount rate of 3.40%. The plan's expected gross rate of investment return of 4.50% 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.

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 Firemen'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	\$ 14,666,707
Plan fiduciary net position	(2,979,023)
Employer's net pension liability	<u>\$ 11,687,684</u>
Plan fiduciary net position as a percentage of the total pension liability	20.31%

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)	3.66%
Single discount rate (EOY)	3.40%
Investment rate of return (BOY)	4.50%, net of pension plan investment expense, including inflation
Investment rate of return (EOY)	4.50%, 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	2068
Year assets are expected to be depleted for a closed plan	2034

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 2.40%	Current Discount Rate 3.40%	1% Increase 4.40%
Employer's net pension liability	\$ 14,644,341	\$ 11,687,684	\$ 9,425,346

City of Princeton, West Virginia Firemen'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	\$ 13,632,548	\$ 2,993,335	\$ 10,639,213
Changes for the year:			
Service cost	388,853		388,853
Interest	491,383		491,383
Changes of benefit terms	-		-
Differences between expected and actual experience	(78,488)		(78,488)
Changes of assumptions	645,946		645,946
Contributions - employer (including Premium Tax Allocation)		269,025	(269,025)
Contributions - member		50,458	(50,458)
Net investment income		80,150	(80,150)
Benefit payments, including refunds of member contributions	(413,535)	(413,535)	-
Administrative expense		(410)	410
Other		-	-
Net Changes	<u>1,034,159</u>	<u>(14,312)</u>	<u>1,048,471</u>
Balances at 6/30/20	<u>\$ 14,666,707</u>	<u>\$ 2,979,023</u>	<u>\$ 11,687,684</u>
Return on Investments		2.7%	

City of Princeton, West Virginia Firemen's Pension and Relief Fund
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Components of Employer's Pension Expense for the Fiscal Year Ended June 30, 2020

Note	Description	Amount
A	Service cost	\$ 388,853
B	Interest on the total pension liability	491,383
A	Changes of benefit terms	-
C	Differences between expected and actual experience	(47,271)
C	Changes of assumptions	349,477
A	Employee contributions	(50,458)
D	Projected earnings on pension plan investments	(132,574)
C	Differences between expected and actual earnings on plan investments	19,157
A	Pension plan administrative expense	410
A	Other changes in fiduciary net position	-
Total Pension Expense		\$ 1,018,977

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	\$ 13,632,548	100%	3.66%	\$ 498,951
Service cost (End of Year)	388,853	0%	3.66%	-
Benefit payments, including refunds of employee contributions	(413,535)	50%	3.66%	(7,568)
Total interest on the total pension liability				\$ 491,383

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	\$ 2,993,335	100%	4.50%	\$ 134,700
Employer contributions	269,025	50%	4.50%	6,053
Employee contributions	50,458	50%	4.50%	1,135
Benefit payments, including refunds of employee contributions	(413,535)	50%	4.50%	(9,305)
Administrative expense and other	(410)	50%	4.50%	(9)
Total Projected Earnings				\$ 132,574

City of Princeton, West Virginia Firemen'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	\$ -	\$ 112,108
Changes of assumptions	508,593	166,981
Net difference between projected and actual earnings on pension plan investments	18,989	-
Total	\$ 527,582	\$ 279,089

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	\$ (62,415)
2022	146,430
2023	153,994
2024	10,484
2025	-
Thereafter	-

City of Princeton, West Virginia Firemen'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	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Service cost	\$ 388,853	\$ 393,333	\$ 368,822	\$ 460,837	\$ 276,283	\$ 227,150	\$ 220,861	\$ -	\$ -	\$ -
Interest	491,383	476,828	466,662	415,592	431,550	419,617	417,657	-	-	-
Changes of benefit terms	-	-	-	-	-	-	-	-	-	-
Differences between expected and actual experience	(78,488)	(60,333)	(15,053)	(167,705)	175,515	38,939	-	-	-	-
Changes of assumptions	645,946	29,231	41,136	(1,429,349)	3,010,507	433,405	411,315	-	-	-
Benefit payments, including refunds of member contributions	(413,535)	(380,467)	(325,034)	(347,120)	(350,586)	(356,745)	(346,980)	-	-	-
Net change in total pension liability	1,034,159	458,592	536,533	(1,067,745)	3,543,269	762,366	702,853	-	-	-
Total pension liability - beginning	13,632,548	13,173,956	12,637,423	13,705,168	10,161,899	9,399,533	8,696,680	-	-	-
Total pension liability - ending (a)	\$ 14,666,707	\$ 13,632,548	\$ 13,173,956	\$ 12,637,423	\$ 13,705,168	\$ 10,161,899	\$ 9,399,533	\$ -	\$ -	\$ -
Plan fiduciary net position	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Contributions - employer (including Premium Tax Allocation)	\$ 269,025	\$ 252,010	\$ 242,352	\$ 230,930	\$ 340,770	\$ 209,712	\$ 225,990	\$ -	\$ -	\$ -
Contributions - member	50,458	50,843	48,368	47,856	44,131	39,287	38,269	-	-	-
Net investment income	80,150	122,706	104,565	260,913	(40,190)	45,043	275,980	-	-	-
Benefit payments, including refunds of member contributions	(413,535)	(380,467)	(325,034)	(347,120)	(350,586)	(356,745)	(346,980)	-	-	-
Administrative expense	(410)	(354)	(629)	(429)	(259)	(253)	(377)	-	-	-
Other	-	(180)	-	-	2,930	-	55	-	-	-
Net change in plan fiduciary net position	\$ (14,312)	\$ 44,558	\$ 69,622	\$ 192,150	\$ (3,204)	\$ (62,956)	\$ 192,937	\$ -	\$ -	\$ -
Plan fiduciary net position - beginning	2,993,335	2,948,777	2,879,155	2,687,005	2,690,209	2,873,236	2,682,034	-	-	-
Plan fiduciary net position - ending (b)	\$ 2,979,023	\$ 2,993,335	\$ 2,948,777	\$ 2,879,155	\$ 2,687,005	\$ 2,810,280	\$ 2,874,971	\$ -	\$ -	\$ -
Employer's net pension liability - ending (a)-(b)	<u>\$ 11,687,684</u>	<u>\$ 10,639,213</u>	<u>\$ 10,225,179</u>	<u>\$ 9,758,268</u>	<u>\$ 11,018,163</u>	<u>\$ 7,351,619</u>	<u>\$ 6,524,562</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Plan fiduciary net position as a percentage of the total pension liability	20.31%	21.96%	22.38%	22.78%	19.61%	27.66%	30.59%	0.00%	0.00%	0.00%
Covered payroll	\$ 629,587	\$ 617,676	\$ 565,135	\$ 591,104	\$ 573,191	\$ 496,870	\$ 517,350	\$ -	\$ -	\$ -
Employer's net pension liability as a percentage of covered payroll	1856.40%	1722.46%	1809.34%	1650.86%	1922.25%	1479.59%	1261.15%	0.00%	0.00%	0.00%
Expected average remaining service years of all participants	4.00	4.00	3.90	4.53	4.77	4.76	-	-	-	-

Notes to Schedule:

Benefit changes: There were no changes for FY2020.

Changes of assumptions: The discount rate changed from 3.66% to 3.40%.

*The Plan Fiduciary Net Position as of July 1, 2015, excludes \$120,071, which was included in the Plan Fiduciary Net Position as of June 30, 2015.

*The Plan Fiduciary Net Position as of July 1, 2014, excludes \$1,735, which was included in the Plan Fiduciary Net Position as of June 30, 2014.

City of Princeton, West Virginia Firemen'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	\$ 759,255	\$ 795,311	\$ 705,873	\$ 624,931	\$ 586,190	\$ 417,992	\$ 412,384	\$ 396,419	\$ -	\$ -
Contributions in relation to the actuarially determined contribution										
Employer provided	123,371	115,300	107,700	100,645	94,060	87,905	82,154	126,780	-	-
State provided	145,654	136,710	134,652	130,285	124,903	121,807	143,836	126,113	-	-
Contribution deficiency (excess)	<u>\$ 490,230</u>	<u>\$ 543,301</u>	<u>\$ 463,521</u>	<u>\$ 394,001</u>	<u>\$ 367,227</u>	<u>\$ 208,280</u>	<u>\$ 186,394</u>	<u>\$ 143,526</u>	<u>\$ -</u>	<u>\$ -</u>
Covered payroll	\$ 629,587	\$ 617,676	\$ 565,135	\$ 591,104	\$ 573,191	\$ 496,870	\$ 517,350	\$ 512,726	\$ -	\$ -
Contributions as a percentage of covered employee payroll	42.73%	40.80%	42.88%	39.07%	38.20%	42.21%	43.68%	49.32%	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	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

City of Princeton, West Virginia Firemen's Pension and Relief Fund
 Actuarial Information to Include in the Financial Statements
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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	\$ 175,625	5	\$ 35,125	35,125	35,125	35,125	35,125				
2017	(141,545)	5		\$ (28,309)	(28,309)	(28,309)	(28,309)	(28,309)			
2018	1,051	5			\$ 210	210	210	210	211		
2019	8,230	5				\$ 1,646	1,646	1,646	1,646	1,646	
2020	52,424	5					\$ 10,485	10,485	10,485	10,485	10,484
Net increase (decrease) in pension expense							\$ 19,157	\$ (15,968)	\$ 12,342	\$ 12,131	\$ 10,484

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	\$ 175,625	\$ -	\$ 175,625	\$ -	\$ -
2017	-	141,545	113,236	-	28,309
2018	1,051	-	630	421	-
2019	8,230	-	3,292	4,938	-
2020	52,424	-	10,485	41,939	-
				\$ 47,298	\$ 28,309

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	38,939	4.763475						\$ 8,174	8,174	8,174	8,174	6,243							
2016	175,515	4.769554						\$ 36,799	36,799	36,799	36,799	28,319							
2017	(167,705)	4.529104							\$ (37,028)	(37,028)	(37,028)	(37,028)	(19,593)						
2018	(15,053)	3.903196								\$ (3,857)	(3,857)	(3,857)	(3,482)						
2019	(60,333)	4.000000									\$ (15,083)	(15,083)	(15,083)	(15,084)					
2020	(78,488)	4.000000										\$ (19,622)	(19,622)	(19,622)	(19,622)				
Net increase (decrease) in pension expense													\$ (47,271)	\$ (57,780)	\$ (34,706)	\$ (19,622)	\$ -	\$ -	\$ -

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	38,939	-	38,939	-	-
2016	175,515	-	175,515	-	-
2017	-	167,705	148,112	-	19,593
2018	-	15,053	11,571	-	3,482
2019	-	60,333	30,166	-	30,167
2020	-	78,488	19,622	-	58,866
				\$ -	\$ 112,108

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



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.

Year	Changes of Assumptions	Recognition Period (Years)	Increase (Decrease) in Pension Expense Arising from the Effects of Changes of Assumptions																		
			Prior	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Thereafter		
Prior	\$ -	-																			
2011	-	-																			
2012	-	-																			
2013	-	-																			
2014	-	-																			
2015	433,405	4.763475						\$ 90,985	90,985	90,985	90,985	69,465									
2016	3,010,507	4.769554						\$ 631,193	631,193	631,193	631,193	485,735									
2017	(1,429,349)	4.529104							\$ (315,592)	(315,592)	(315,592)	(315,592)	(166,981)								
2018	41,136	3.903196								\$ 10,539	10,539	10,539	9,519								
2019	29,231	4.000000									\$ 7,308	7,308	7,308	7,307							
2020	645,946	4.000000										\$ 161,487	161,487	161,487	161,485						
Net increase (decrease) in pension expense												\$ 349,477	\$ 11,333	\$ 168,794	\$ 161,485	\$ -	\$ -	\$ -			

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	433,405	-	433,405	-	-
2016	3,010,507	-	3,010,507	-	-
2017	-	1,429,349	1,262,368	-	166,981
2018	41,136	-	31,617	9,519	-
2019	29,231	-	14,616	14,615	-
2020	645,946	-	161,487	484,459	-
				\$ 508,593	\$ 166,981

City of Princeton, West Virginia Firemen'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	\$ 295,830	\$ -	\$ 295,830	\$ 50,213	\$ -	\$ 50,213	\$ 245,617	\$ -	\$ 245,617	\$ 2,791	\$ -	\$ 2,791	\$ 123,291	\$ -	\$ 123,291	\$ 145,654	\$ -	\$ 145,654
2021	\$ 293,741	\$ 15,652	\$ 309,393	\$ 49,910	\$ 2,891	\$ 52,801	\$ 243,831	\$ 12,761	\$ 256,592	\$ 2,868	\$ -	\$ 2,868	\$ 118,876	\$ 13,045	\$ 131,921	\$ 149,916	\$ -	\$ 149,916
2022	\$ 287,858	\$ 40,448	\$ 328,306	\$ 48,962	\$ 7,476	\$ 56,438	\$ 238,896	\$ 32,972	\$ 271,868	\$ 2,852	\$ 95	\$ 2,947	\$ 107,354	\$ 33,801	\$ 141,155	\$ 151,258	\$ -	\$ 151,258
2023	\$ 288,122	\$ 60,861	\$ 348,983	\$ 48,869	\$ 11,254	\$ 60,123	\$ 239,253	\$ 49,607	\$ 288,860	\$ 2,930	\$ 98	\$ 3,028	\$ 100,227	\$ 50,809	\$ 151,036	\$ 157,992	\$ -	\$ 157,992
2024	\$ 290,683	\$ 79,306	\$ 369,989	\$ 49,142	\$ 14,672	\$ 63,814	\$ 241,541	\$ 64,634	\$ 306,175	\$ 2,910	\$ 201	\$ 3,111	\$ 95,336	\$ 66,273	\$ 161,609	\$ 162,477	\$ -	\$ 162,477
2025	\$ 282,615	\$ 96,551	\$ 379,166	\$ 47,964	\$ 17,872	\$ 65,836	\$ 234,651	\$ 78,679	\$ 313,330	\$ 2,990	\$ 207	\$ 3,197	\$ 92,285	\$ 80,637	\$ 172,922	\$ 167,087	\$ -	\$ 167,087
2026	\$ 268,208	\$ 128,865	\$ 397,073	\$ 45,939	\$ 23,878	\$ 69,817	\$ 222,269	\$ 104,987	\$ 327,256	\$ 3,072	\$ 316	\$ 3,388	\$ 77,388	\$ 107,639	\$ 185,027	\$ 172,339	\$ -	\$ 172,339
2027	\$ 262,183	\$ 156,542	\$ 418,725	\$ 45,199	\$ 29,027	\$ 74,226	\$ 216,984	\$ 127,515	\$ 344,499	\$ 3,048	\$ 433	\$ 3,481	\$ 67,193	\$ 130,786	\$ 197,979	\$ 177,216	\$ -	\$ 177,216
2028	\$ 259,183	\$ 182,089	\$ 441,272	\$ 44,884	\$ 33,783	\$ 78,667	\$ 214,299	\$ 148,306	\$ 362,605	\$ 3,132	\$ 445	\$ 3,577	\$ 59,787	\$ 152,051	\$ 211,838	\$ 183,444	\$ -	\$ 183,444
2029	\$ 250,840	\$ 206,490	\$ 457,330	\$ 43,989	\$ 38,329	\$ 82,318	\$ 206,851	\$ 168,161	\$ 375,012	\$ 3,103	\$ 572	\$ 3,675	\$ 54,192	\$ 172,475	\$ 226,667	\$ 189,360	\$ -	\$ 189,360
2030	\$ 201,137	\$ 337,857	\$ 538,994	\$ 42,632	\$ 44,325	\$ 86,957	\$ 195,840	\$ 194,313	\$ 390,153	\$ 3,188	\$ 588	\$ 3,776	\$ 43,309	\$ 199,225	\$ 242,534	\$ 194,702	\$ -	\$ 194,702
2031	\$ 230,782	\$ 269,437	\$ 500,219	\$ 41,870	\$ 50,072	\$ 91,942	\$ 188,912	\$ 219,365	\$ 408,277	\$ 3,154	\$ 726	\$ 3,880	\$ 34,539	\$ 224,972	\$ 259,511	\$ 200,192	\$ -	\$ 200,192
2032	\$ 218,482	\$ 298,949	\$ 517,431	\$ 40,439	\$ 55,582	\$ 96,021	\$ 178,043	\$ 243,367	\$ 421,410	\$ 3,241	\$ 746	\$ 3,987	\$ 28,148	\$ 249,529	\$ 277,677	\$ 205,833	\$ -	\$ 205,833
2033	\$ 201,137	\$ 337,857	\$ 538,994	\$ 38,335	\$ 62,853	\$ 101,188	\$ 162,802	\$ 275,004	\$ 437,806	\$ 3,202	\$ 895	\$ 4,097	\$ 15,095	\$ 282,019	\$ 297,114	\$ 211,629	\$ -	\$ 211,629
2034	\$ 201,318	\$ 373,935	\$ 575,253	\$ 38,555	\$ 69,597	\$ 108,152	\$ 162,763	\$ 304,338	\$ 467,101	\$ 3,290	\$ 920	\$ 4,210	\$ 5,882	\$ 312,030	\$ 317,912	\$ 218,936	\$ -	\$ 218,936
2035	\$ 195,317	\$ 404,790	\$ 600,107	\$ 37,820	\$ 75,365	\$ 113,185	\$ 157,497	\$ 329,425	\$ 486,922	\$ 3,380	\$ 946	\$ 4,326	\$ 2,464	\$ 337,702	\$ 340,166	\$ 226,171	\$ -	\$ 226,171
2036	\$ 188,307	\$ 444,415	\$ 632,722	\$ 36,917	\$ 82,781	\$ 119,698	\$ 151,390	\$ 361,634	\$ 513,024	\$ 3,334	\$ 1,111	\$ 4,445	\$ -	\$ 363,978	\$ 363,978	\$ 230,502	\$ 6,814	\$ 237,316
2037	\$ 187,584	\$ 479,650	\$ 667,234	\$ 37,028	\$ 89,374	\$ 126,402	\$ 150,556	\$ 390,276	\$ 540,832	\$ 3,426	\$ 1,141	\$ 4,567	\$ -	\$ 389,456	\$ 389,456	\$ 233,919	\$ 10,646	\$ 244,565
2038	\$ 172,556	\$ 514,137	\$ 686,693	\$ 34,535	\$ 95,828	\$ 130,363	\$ 138,021	\$ 418,309	\$ 556,330	\$ 3,374	\$ 1,319	\$ 4,693	\$ -	\$ 416,718	\$ 416,718	\$ 239,199	\$ 12,218	\$ 251,417
2039	\$ 148,758	\$ 565,554	\$ 714,312	\$ 30,398	\$ 105,465	\$ 135,863	\$ 118,360	\$ 460,089	\$ 578,449	\$ 3,316	\$ 1,506	\$ 4,822	\$ -	\$ 445,888	\$ 445,888	\$ 232,513	\$ 25,945	\$ 258,458
2040	\$ 135,525	\$ 612,939	\$ 748,464	\$ 28,191	\$ 114,346	\$ 142,537	\$ 107,334	\$ 498,593	\$ 605,927	\$ 3,407	\$ 1,548	\$ 4,955	\$ -	\$ 477,100	\$ 477,100	\$ 231,556	\$ 34,136	\$ 265,692
2041	\$ 126,192	\$ 658,505	\$ 784,697	\$ 26,675	\$ 122,887	\$ 149,562	\$ 99,517	\$ 535,618	\$ 635,135	\$ 3,501	\$ 1,590	\$ 5,091	\$ -	\$ 510,497	\$ 510,497	\$ 241,286	\$ 38,630	\$ 279,916
2042	\$ 119,040	\$ 702,441	\$ 821,481	\$ 25,563	\$ 131,135	\$ 156,698	\$ 93,477	\$ 571,306	\$ 664,783	\$ 3,597	\$ 1,634	\$ 5,231	\$ -	\$ 546,232	\$ 546,232	\$ 248,323	\$ 39,421	\$ 287,744
2043	\$ 115,582	\$ 743,765	\$ 859,347	\$ 25,078	\$ 138,922	\$ 164,000	\$ 90,504	\$ 604,843	\$ 695,347	\$ 3,528	\$ 1,847	\$ 5,375	\$ -	\$ 584,468	\$ 584,468	\$ 264,188	\$ 35,681	\$ 299,869
2044	\$ 106,673	\$ 779,864	\$ 886,537	\$ 23,443	\$ 145,760	\$ 169,203	\$ 83,230	\$ 634,104	\$ 717,334	\$ 3,452	\$ 1,903	\$ 5,355	\$ -	\$ 625,381	\$ 625,381	\$ 288,453	\$ 24,736	\$ 313,189
2045	\$ 91,597	\$ 821,424	\$ 913,021	\$ 20,624	\$ 153,643	\$ 174,267	\$ 70,973	\$ 667,781	\$ 738,754	\$ 3,547	\$ 1,955	\$ 5,502	\$ -	\$ 669,158	\$ 669,158	\$ 309,030	\$ 15,438	\$ 324,468
2046	\$ 88,322	\$ 862,545	\$ 950,867	\$ 20,017	\$ 161,443	\$ 181,460	\$ 68,305	\$ 701,102	\$ 769,407	\$ 3,645	\$ 2,185	\$ 5,830	\$ -	\$ 715,999	\$ 715,999	\$ 333,782	\$ 2,889	\$ 336,671
2047	\$ 79,924	\$ 901,103	\$ 981,027	\$ 18,247	\$ 168,772	\$ 187,019	\$ 61,677	\$ 732,331	\$ 794,008	\$ 3,558	\$ 2,432	\$ 5,990	\$ 15,060	\$ 751,059	\$ 766,119	\$ 346,052	\$ -	\$ 346,052
2048	\$ 58,197	\$ 945,534	\$ 1,003,731	\$ 13,376	\$ 177,221	\$ 190,597	\$ 44,821	\$ 768,313	\$ 813,134	\$ 3,656	\$ 2,499	\$ 6,155	\$ 31,838	\$ 787,909	\$ 819,747	\$ 367,301	\$ -	\$ 367,301
2049	\$ 38,505	\$ 996,186	\$ 1,034,691	\$ 8,818	\$ 186,856	\$ 195,674	\$ 29,687	\$ 809,330	\$ 839,017	\$ 3,559	\$ 2,765	\$ 6,324	\$ 47,024	\$ 830,105	\$ 877,129	\$ 377,528	\$ -	\$ 377,528
2050	\$ 27,843	\$ 1,042,356	\$ 1,070,199	\$ 6,378	\$ 195,636	\$ 202,014	\$ 21,465	\$ 846,720	\$ 868,185	\$ 3,657	\$ 2,841	\$ 6,498	\$ 70,125	\$ 868,403	\$ 938,528	\$ 502,807	\$ -	\$ 502,807
2051	\$ 20,026	\$ 1,088,021	\$ 1,108,047	\$ 4,591	\$ 204,323	\$ 208,914	\$ 15,435	\$ 883,698	\$ 899,133	\$ 3,549	\$ 3,128	\$ 6,677	\$ 97,735	\$ 906,490	\$ 1,004,225	\$ 527,169	\$ -	\$ 527,169
2052	\$ 14,423	\$ 1,133,526	\$ 1,147,949	\$ 3,309	\$ 212,982	\$ 216,291	\$ 11,114	\$ 920,544	\$ 931,658	\$ 3,647	\$ 3,214	\$ 6,861	\$ 130,279	\$ 944,242	\$ 1,074,521	\$ 545,697	\$ -	\$ 545,697
2053	\$ 10,303	\$ 1,178,251	\$ 1,188,554	\$ 2,365	\$ 221,496	\$ 223,861	\$ 7,938	\$ 956,755	\$ 964,693	\$ 3,747	\$ 3,516	\$ 7,263	\$ 168,176	\$ 981,561	\$ 1,149,737	\$ 655,262	\$ -	\$ 655,262
2054	\$ 6,469	\$ 1,223,653	\$ 1,230,122	\$ 1,503	\$ 230,132	\$ 231,635	\$ 4,966	\$ 993,521	\$ 998,487	\$ 3,624	\$ 3,839	\$ 7,463	\$ 210,751	\$ 1,019,468	\$ 1,230,219	\$ 1,363,315	\$ -	\$ 1,363,315
2055	\$ 4,343	\$ 1,271,312	\$ 1,275,655	\$ 1,009	\$ 239,194	\$ 240,203	\$ 3,334	\$ 1,032,118	\$ 1,035,452	\$ 3,724	\$ 3,944	\$ 7,668	\$ 257,305	\$ 1,059,029	\$ 1,316,334	\$ 1,402,047	\$ -	\$ 1,402,047
2056	\$ 2,915	\$ 1,319,547	\$ 1,322,462	\$ 677	\$ 248,358	\$ 249,035	\$ 2,238	\$ 1,071,189	\$ 1,073,427	\$ 3,826	\$ 4,053	\$ 7,879	\$ 309,398	\$ 1,099,079	\$ 1,408,477	\$ 1,441,843	\$ -	\$ 1,441,843
2057	\$ 1,363	\$ 1,370,186	\$ 1,371,549	\$ 322	\$ 257,963	\$ 258,285	\$ 1,041	\$ 1,112,223	\$ 1,113,264	\$ 3,686	\$ 4,410	\$ 8,096	\$ 365,887	\$ 1,141,383	\$ 1,507,070	\$ 1,709,653	\$ -	\$ 1,709,653
2058	\$ -	\$ 1,425,014	\$ 1,425,014	\$ -	\$ 268,354	\$ 268,354	\$ -	\$ 1,156,660	\$ 1,156,660	\$ 3,787	\$ 4,532	\$ 8,319	\$ 425,635	\$ 1,186,930	\$ 1,612,565	\$ 1,828,247	\$ -	\$ 1,828,247
2059	\$ -	\$ 1,481,141	\$ 1,481,141	\$ -	\$ 278,985	\$ 278,985	\$ -	\$ 1,202,156	\$ 1,202,156	\$ 3,632	\$ 4,916	\$ 8,548	\$ 491,622	\$ 1,233,823	\$ 1,725,445	\$ 2,123,897	\$ -	\$ 2,123,897
2060	\$ -	\$ 1,539,741	\$ 1,539,741	\$ -	\$ 290,078	\$ 290,078	\$ -	\$ 1,249,663	\$ 1,249,663	\$ 3,732	\$ 5,051	\$ 8,783	\$ 563,704	\$ 1,282,522	\$ 1,846,226	\$ 2,184,278	\$ -	\$ 2,184,278

City of Princeton, West Virginia Firemen'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	\$ 11,791,410	\$ -	\$ 11,791,410	\$ 2,993,335	25.39%	\$ 51,330	\$ 268,945	\$ 430,075	\$ 2,791	\$ 132,195
2021	\$ 12,190,871	\$ -	\$ 12,190,871	\$ 3,012,939	24.71%	\$ 51,021	\$ 268,792	\$ 444,823	\$ 2,868	\$ 132,737
2022	\$ 12,591,698	\$ 16,241	\$ 12,607,939	\$ 3,017,798	23.97%	\$ 50,052	\$ 258,612	\$ 461,779	\$ 2,852	\$ 132,330
2023	\$ 12,987,081	\$ 58,764	\$ 13,045,845	\$ 2,994,161	23.05%	\$ 49,956	\$ 258,219	\$ 471,452	\$ 2,930	\$ 131,039
2024	\$ 13,390,644	\$ 123,940	\$ 13,514,584	\$ 2,958,993	22.10%	\$ 50,236	\$ 257,813	\$ 479,392	\$ 2,910	\$ 129,277
2025	\$ 13,806,927	\$ 210,564	\$ 14,017,491	\$ 2,914,017	21.11%	\$ 49,031	\$ 259,372	\$ 506,338	\$ 2,990	\$ 126,660
2026	\$ 14,205,966	\$ 318,176	\$ 14,524,142	\$ 2,839,752	19.99%	\$ 46,961	\$ 249,727	\$ 536,823	\$ 3,072	\$ 122,377
2027	\$ 14,576,743	\$ 463,205	\$ 15,039,948	\$ 2,718,922	18.65%	\$ 46,205	\$ 244,409	\$ 554,270	\$ 3,048	\$ 116,417
2028	\$ 14,940,074	\$ 642,206	\$ 15,582,280	\$ 2,568,636	17.19%	\$ 45,883	\$ 243,231	\$ 597,165	\$ 3,132	\$ 108,664
2029	\$ 15,272,770	\$ 854,346	\$ 16,127,116	\$ 2,366,116	15.49%	\$ 44,968	\$ 243,552	\$ 641,406	\$ 3,103	\$ 98,554
2030	\$ 15,566,494	\$ 1,099,905	\$ 16,666,399	\$ 2,108,682	13.55%	\$ 43,581	\$ 238,011	\$ 661,256	\$ 3,188	\$ 86,371
2031	\$ 15,840,219	\$ 1,388,414	\$ 17,228,633	\$ 1,812,201	11.44%	\$ 42,802	\$ 234,731	\$ 675,652	\$ 3,154	\$ 72,620
2032	\$ 16,103,509	\$ 1,720,318	\$ 17,823,827	\$ 1,483,547	9.21%	\$ 41,339	\$ 233,981	\$ 732,167	\$ 3,241	\$ 56,522
2033	\$ 16,308,021	\$ 2,095,922	\$ 18,403,943	\$ 1,079,982	6.62%	\$ 39,188	\$ 226,724	\$ 758,999	\$ 3,202	\$ 37,556
2034	\$ 16,476,182	\$ 2,526,662	\$ 19,002,844	\$ 621,249	3.77%	\$ 39,413	\$ 224,818	\$ 762,437	\$ 3,290	\$ 16,797
2035	\$ 16,648,584	\$ 3,011,745	\$ 19,660,329	\$ 136,550	0.82%	\$ 38,662	\$ 228,635	\$ 785,265	\$ 3,380	\$ -
2036	\$ 16,799,138	\$ 3,547,946	\$ 20,347,084	\$ -	0.00%	\$ 37,738	\$ 230,502	\$ 804,635	\$ 3,334	\$ -
2037	\$ 16,929,340	\$ 4,146,424	\$ 21,075,764	\$ -	0.00%	\$ 37,852	\$ 233,919	\$ 813,535	\$ 3,426	\$ -
2038	\$ 17,055,547	\$ 4,804,912	\$ 21,860,459	\$ -	0.00%	\$ 35,303	\$ 239,199	\$ 839,480	\$ 3,374	\$ -
2039	\$ 17,145,207	\$ 5,524,973	\$ 22,670,180	\$ -	0.00%	\$ 31,074	\$ 232,513	\$ 870,312	\$ 3,316	\$ -
2040	\$ 17,182,515	\$ 6,326,596	\$ 23,509,111	\$ -	0.00%	\$ 28,818	\$ 231,556	\$ 887,423	\$ 3,407	\$ -
2041	\$ 17,190,181	\$ 7,208,733	\$ 24,398,914	\$ -	0.00%	\$ 27,269	\$ 241,286	\$ 899,979	\$ 3,501	\$ -
2042	\$ 17,175,604	\$ 8,173,903	\$ 25,349,507	\$ -	0.00%	\$ 26,132	\$ 248,323	\$ 909,208	\$ 3,597	\$ -
2043	\$ 17,143,463	\$ 9,222,354	\$ 26,365,817	\$ -	0.00%	\$ 25,636	\$ 264,188	\$ 912,999	\$ 3,528	\$ -
2044	\$ 17,102,387	\$ 10,349,262	\$ 27,451,649	\$ -	0.00%	\$ 23,965	\$ 288,453	\$ 929,777	\$ 3,452	\$ -
2045	\$ 17,033,001	\$ 11,541,185	\$ 28,574,186	\$ -	0.00%	\$ 21,083	\$ 309,030	\$ 948,923	\$ 3,547	\$ -
2046	\$ 16,925,166	\$ 12,794,340	\$ 29,719,506	\$ -	0.00%	\$ 20,462	\$ 333,782	\$ 951,293	\$ 3,645	\$ -
2047	\$ 16,806,633	\$ 14,107,161	\$ 30,913,794	\$ -	0.00%	\$ 18,653	\$ 361,112	\$ 968,689	\$ 3,558	\$ -
2048	\$ 16,656,207	\$ 15,475,656	\$ 32,131,863	\$ -	0.00%	\$ 13,674	\$ 399,139	\$ 1,013,615	\$ 3,656	\$ -
2049	\$ 16,430,382	\$ 16,903,840	\$ 33,334,222	\$ -	0.00%	\$ 9,014	\$ 424,552	\$ 1,042,201	\$ 3,559	\$ -
2050	\$ 16,144,594	\$ 18,391,928	\$ 34,536,522	\$ -	0.00%	\$ 6,520	\$ 572,932	\$ 1,054,166	\$ 3,657	\$ -
2051	\$ 15,822,573	\$ 19,933,065	\$ 35,755,638	\$ -	0.00%	\$ 4,693	\$ 624,904	\$ 1,060,130	\$ 3,549	\$ -
2052	\$ 15,471,796	\$ 21,527,564	\$ 36,999,360	\$ -	0.00%	\$ 3,383	\$ 675,976	\$ 1,061,357	\$ 3,647	\$ -
2053	\$ 15,098,124	\$ 23,175,421	\$ 38,273,545	\$ -	0.00%	\$ 2,418	\$ 823,438	\$ 1,059,124	\$ 3,747	\$ -
2054	\$ 14,705,614	\$ 24,874,885	\$ 39,580,499	\$ -	0.00%	\$ 1,536	\$ 1,574,066	\$ 1,055,386	\$ 3,624	\$ 11,495
2055	\$ 14,295,256	\$ 26,624,686	\$ 40,919,942	\$ 528,087	3.69%	\$ 1,031	\$ 1,659,352	\$ 1,047,987	\$ 3,724	\$ 37,308
2056	\$ 13,871,774	\$ 28,427,551	\$ 42,299,325	\$ 1,174,067	8.46%	\$ 692	\$ 1,751,241	\$ 1,038,530	\$ 3,826	\$ 68,623
2057	\$ 13,437,410	\$ 30,283,922	\$ 43,721,332	\$ 1,952,267	14.53%	\$ 329	\$ 2,075,340	\$ 1,028,348	\$ 3,686	\$ 111,075
2058	\$ 12,992,287	\$ 32,196,030	\$ 45,188,317	\$ 3,106,977	23.91%	\$ -	\$ 2,253,882	\$ 1,016,885	\$ 3,787	\$ 167,256
2059	\$ 12,537,427	\$ 34,172,665	\$ 46,710,092	\$ 4,507,443	35.95%	\$ -	\$ 2,615,519	\$ 1,001,943	\$ 3,632	\$ 238,660
2060	\$ 12,077,373	\$ 36,217,802	\$ 48,295,175	\$ 6,356,047	52.63%	\$ -	\$ 2,747,982	\$ 985,829	\$ 3,732	\$ 325,151

City of Princeton, West Virginia Firemen'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	\$ 430,075	\$ -	\$ 420,713	\$ -	\$ 422,946			
2021	\$ 444,823	\$ -	\$ 416,402	\$ -	\$ 423,068			
2022	\$ 461,779	\$ -	\$ 413,660	\$ -	\$ 424,756			
2023	\$ 471,452	\$ -	\$ 404,139	\$ -	\$ 419,397			
2024	\$ 479,392	\$ -	\$ 393,249	\$ -	\$ 412,440			
2025	\$ 506,338	\$ -	\$ 397,467	\$ -	\$ 421,301			
2026	\$ 536,823	\$ -	\$ 403,251	\$ -	\$ 431,981			
2027	\$ 554,270	\$ -	\$ 398,427	\$ -	\$ 431,357			
2028	\$ 597,165	\$ -	\$ 410,777	\$ -	\$ 449,461			
2029	\$ 641,406	\$ -	\$ 422,210	\$ -	\$ 466,889			
2030	\$ 661,256	\$ -	\$ 416,532	\$ -	\$ 465,513			
2031	\$ 675,652	\$ -	\$ 407,273	\$ -	\$ 460,010			
2032	\$ 732,167	\$ -	\$ 422,334	\$ -	\$ 482,100			
2033	\$ 758,999	\$ -	\$ 418,959	\$ -	\$ 483,337			
2034	\$ -	\$ 762,437	\$ -	\$ 536,760	\$ 469,564			
2035	\$ -	\$ 785,265	\$ -	\$ 539,611	\$ 467,724			
2036	\$ -	\$ 804,635	\$ -	\$ 539,699	\$ 463,505			
2037	\$ -	\$ 813,535	\$ -	\$ 532,619	\$ 453,225			
2038	\$ -	\$ 839,480	\$ -	\$ 536,462	\$ 452,303			
2039	\$ -	\$ 870,312	\$ -	\$ 542,865	\$ 453,499			
2040	\$ -	\$ 887,423	\$ -	\$ 540,301	\$ 447,213			
2041	\$ -	\$ 899,979	\$ -	\$ 534,842	\$ 438,630			
2042	\$ -	\$ 909,208	\$ -	\$ 527,405	\$ 428,560			
2043	\$ -	\$ 912,999	\$ -	\$ 516,939	\$ 416,198			
2044	\$ -	\$ 929,777	\$ -	\$ 513,849	\$ 409,912			
2045	\$ -	\$ 948,923	\$ -	\$ 511,889	\$ 404,599			
2046	\$ -	\$ 951,293	\$ -	\$ 500,896	\$ 392,275			
2047	\$ -	\$ 968,689	\$ -	\$ 497,858	\$ 386,316			
2048	\$ -	\$ 1,013,615	\$ -	\$ 508,490	\$ 390,943			
2049	\$ -	\$ 1,042,201	\$ -	\$ 510,327	\$ 388,753			
2050	\$ -	\$ 1,054,166	\$ -	\$ 503,842	\$ 380,289			
2051	\$ -	\$ 1,060,130	\$ -	\$ 494,575	\$ 369,867			
2052	\$ -	\$ 1,061,357	\$ -	\$ 483,307	\$ 358,122			
2053	\$ -	\$ 1,059,124	\$ -	\$ 470,756	\$ 345,619			
2054	\$ -	\$ 1,055,386	\$ -	\$ 457,877	\$ 333,077			
2055	\$ -	\$ 1,047,987	\$ -	\$ 443,794	\$ 319,868			
2056	\$ 1,038,530	\$ -	\$ 208,293	\$ -	\$ 306,561			
2057	\$ 1,028,348	\$ -	\$ 197,369	\$ -	\$ 293,576			
2058	\$ 1,016,885	\$ -	\$ 186,765	\$ -	\$ 280,759			
2059	\$ 1,001,943	\$ -	\$ 176,096	\$ -	\$ 267,539			
2060	\$ 985,829	\$ -	\$ 165,803	\$ -	\$ 254,582			