

**DUDA ACTUARIAL CONSULTING**



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**Pittston Township  
Police Pension Plan  
Actuarial Valuation  
as of January 1, 2021**

**YOUR PENSION, YOUR FUTURE**

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October 21, 2021

Mr. John Bonita  
Financial Administrator  
Pittston Township  
421 Broad Street  
Pittston, PA 18640

Dear John:

We are pleased to present this report which contains the results of our biennial Actuarial Valuation of the PITTSTON TOWNSHIP POLICE PENSION PLAN as of January 1, 2021.

This report develops the expected 2022 Minimum Municipal Obligation necessary to support the pension plan on a sound actuarial basis. It also provides the funding status of the plan as well as supporting exhibits, a summary of plan provisions and the actuarial cost method and assumptions.

The results presented herein are based upon:

1. Financial information provided to us as of the valuation date.
2. Employee data furnished to us as of the valuation date.
3. Provisions of the plan as summarized herein.
4. Actuarial method and assumptions presented in this report.

The valuation was based upon generally accepted actuarial methods and assumptions. We performed such tests as necessary to help assure the accuracy of the results presented herein. In our opinion, the results of this valuation have been appropriately determined based upon the actuarial cost method and assumptions and within the framework of state law and regulations.

It should be noted that due to the reinstatement of the disability retirement of officer Hawk, the plan's Unfunded Actuarial Accrued Liability increased to \$346,321 as of January 1, 2021. As a result, we expect the Township's estimated 2022 Minimum Municipal Obligation to be \$76,715.

We would be pleased to answer any questions with respect to this report or provide further details if requested.

Sincerely,  
DUDA ACTUARIAL CONSULTING, INC.

Joseph W. Duda, FSA, FCA, EA, MAAA  
Enrolled Actuary No. 20 4616

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## SECTION I

### VALUATION RESULTS

#### Normal Cost

1. Retirement benefits	\$	42,303
2. Death benefits		209
3. Disability benefits		9,025
4. Withdrawal benefits		0
5. Killed in service premium		0
6. Total (1+2+3+4+5)	\$	51,537
6a. Normal Cost Percentage		15.06%
7. Administrative expenses	\$	8,000

#### Unfunded Actuarial Accrued Liability

8. Present Value of Future Benefits	\$	1,642,286
9. Accrued liability on account of:		
a. Active participants attributable to:		
i. Retirement benefits	\$	206,180
ii. Death benefits		645
iii. Disability benefits		29,077
iv. Withdrawal benefits		0
v. Total (i+ii+iii+iv)	\$	235,902
b. Inactive participants entitled to, but not yet receiving benefits		0
c. Retirees and beneficiaries receiving benefits		603,181
d. Nonvested inactive participants		0
e. Total actuarial accrued liability (a.v+b+c+d)	\$	839,083
10. Actuarial value of assets		492,762
11. Unfunded actuarial accrued liability (9.e-10)	\$	346,321

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## SECTION II

### ESTIMATED MINIMUM MUNICIPAL OBLIGATION FOR 2022

1. Normal cost	\$	51,537
2. Administrative expenses		8,000
3. Amortization requirement		34,292
4. Financial requirements for 2022 (1+2+3)		93,829
5. Estimated officers' contributions		17,114
6. Funding adjustment		0
7. Estimated 2018 Minimum Municipal Obligation (4-5-6, but not less than zero)		76,715
8. Estimated state aid (based on 2020 unit value)		59,086
9. Township's estimated 2022 contribution	\$	17,629

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## SECTION III

### ASSET RECONCILIATION AND NET RETURN FOR 2019

#### Beginning of Year

1. Market value of assets	\$	334,174
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#### Income

2. Employer contributions including receivables	\$	26,726
3. Employee contributions including receivables		7,792
4. State contributions		52,619
5. Interest		0
6. Dividends		12,261
7. Rents		0
8. Realized gains and losses		0
9. Unrealized gains and losses (Net appreciation)		64,595
10. Other income		0
11. Transfers in		0
12. Total income (3+4+5+6+7+8+9+10+11+12)		163,993

#### Expenses

13. Benefit payments	\$	46,959
14. Refund of contributions		0
15. Killed in service premiums		0
16. Investment expenses		6,921
17. Administrative payments		0
18. Miscellaneous		0
19. Total expenses (13+14+15+16+17+18)	\$	53,880

#### End of Year

20. Market value of assets (1+12-19)	\$	444,287
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#### Rates of Return

21. Rate of return on market value of assets		21.91%
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NOTE: The rates of return are computed using the formula  $2I/(A+B-I)$  where A is the asset value at the beginning of the year, B is the asset value at the end of the year, and I is the investment income for the year.

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## SECTION IV

### ASSET RECONCILIATION AND NET RETURN FOR 2020

#### Beginning of Year

1. Market value of assets	\$	444,287
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#### Income

2. Employer contributions including receivables	\$	11,800
3. Employee contributions including receivables		14,164
4. State contributions		58,685
5. Interest		0
6. Dividends		13,908
7. Rents		0
8. Realized gains and losses		0
9. Unrealized gains and losses (net appreciation)		5,883
10. Other income		0
11. Transfers in		0
12. Total income (2+3+4+5+6+7+8+9+10+11)	\$	104,440

#### Expenses

13. Benefit payments	\$	48,503
14. Refund of contributions		0
15. Killed in service premiums		0
16. Investment expenses		7,462
17. Administrative payments		0
18. Foreign taxes		0
19. Total expenses (13+14+15+16+17+18)	\$	55,965

#### End of Year

20. Market value of assets (1+12-19)	\$	492,762
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#### Rates of Return

21. Rate of return on market value of assets	4.32%
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NOTE: The rates of return are computed using the formula  $2I/(A+B-I)$  where A is the asset value at the beginning of the year, B is the asset value at the end of the year, and I is the investment income for the year.

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## SECTION V

### SUMMARY OF PLAN ASSET HOLDINGS AS OF 1/1/21

	<u>Market value</u>	<u>% of total</u>
1. Cash	\$ 68,041	13.81%
2. Employer Contributions Receivable	0	0.00%
3. Employee Contributions Receivable	0	0.00%
4. Other Receivables	0	0.00%
5. Money Market and Certificates of Deposits	0	0.00%
6. U.S. Government Securities	0	0.00%
7. Preferred Corporate Bonds	0	0.00%
8. Fixed Income	0	0.00%
9. Preferred Stock	0	0.00%
10. Common Stock	237,547	48.21%
11. Partnership Joint Ventures	0	0.00%
12. Real Estate	0	0.00%
13. American Depository Receipts	0	0.00%
14. Foreign Obligations	0	0.00%
15. Asset Backed Obligations	0	0.00%
16. Pooled Separate Accounts	0	0.00%
17. Mutual Funds	181,299	36.79%
18. Section 103-12 Investment Entities	0	0.00%
19. Investments	0	0.00%
20. Unallocated Insurance Contracts	0	0.00%
21. Other Investments	5,875	1.19%
22. Employer Securities	0	0.00%
23. Employer Real Property	0	0.00%
24. Plan's Building and/or Property	0	0.00%
25. Benefits Payable	0	0.00%
26. Operating Payables	0	0.00%
27. Acquisition Indebtedness	0	0.00%
28. Other Liabilities	0	0.00%
29. Total Assets (1 thru 24 less 25 thru 28)	\$ 492,762	100.00%

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## SECTION VI

### EXPECTED BENEFIT PAYMENTS IN FUTURE

<u>For plan year beginning in:</u>		<u>Payments</u>
2021	\$	63,086
2022		62,028
2023		60,916
2024		59,752
2025		58,538
2026		57,309
2027		56,073
2028		54,829
2029		53,631
2030		52,507
2031		51,466
2032		50,565
2033		49,849
2034		49,369
2035		49,147

Note: The amounts shown above are the present values at the valuation date, and its anniversaries, of the benefits expected to be paid during the plan year.

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SECTION VII

ACTUARIAL COST METHOD

**Entry Age Normal (Level Percent of Salary)**

The actuarial cost method used in this valuation was the entry age normal cost method.

Under this method, the normal cost is the sum of the individual normal costs for all participants. For an active participant, the individual normal cost equals the present value of future benefits determined as of the participant's entry age multiplied by the ratio of compensation divided by the present value of future compensation computed at the participant's entry age. For inactive participants, the normal cost is zero.

The actuarial accrued liability is the sum of the individual accrued liabilities for all participants. The individual accrued liability is equal to the present value of future benefits less the present value of the individual normal costs payable in the future (where present values are at the participant's attained age). The unfunded actuarial accrued liability equals the actuarial accrued liability less the actuarial value of assets.

Under this method, an initial unfunded actuarial accrued liability is determined at the effective date of the plan. This amount represents the difference between the actuarial accrued liability and the actuarial value of assets at that date. Each year, the expected unfunded actuarial accrued liability is the prior year's unfunded actuarial accrued liability increased by the normal cost and interest and reduced by employer contributions with interest, without an adjustment for changes in actuarial assumptions or plan amendments.

An actuarial gain is the excess of expected unfunded actuarial accrued liability over the actual unfunded actuarial accrued liability as of the current valuation date, before any changes in actuarial assumptions or plan amendments. An actuarial loss is the excess of the actual unfunded actuarial accrued liability over the expected unfunded actuarial accrued liability. Actuarial gains or losses become new amortization bases for the minimum funding standard account and the maximum deductible contribution.

If the actuarial assumptions are changed in any subsequent year, the unfunded actuarial accrued liability is adjusted by an amount equal to the change in the actuarial accrued liability resulting from using the new assumptions instead of the old assumptions. If the plan is amended in any subsequent year, the unfunded actuarial accrued liability is adjusted by an amount equal to the change in the actuarial accrued liability resulting from using the new plan provisions instead of the old plan provisions. These changes become new amortization bases for the minimum funding standard account and the maximum deductible contribution.

The total annual cost of the plan is the normal cost plus an amount to amortize the initial unfunded actuarial liability and any subsequent changes in the unfunded actuarial liability.

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## SECTION VIII

### ACTUARIAL ASSUMPTIONS

A summary of the actuarial assumptions used in the valuation is presented below:

Actuarial Value of Assets - Market Value.

Investment Return - The assumed rates of return on plan investments net of investment expenses, compounded annually, are as follows:

1. Pre-retirement	7.000%
2. Post-retirement	7.000%

Salary Scale - A constant increase of 4.00% was assumed. Shown below are the salaries at age 65 expressed as a percent of the salary at sample ages as follows:

<u>Age</u>	<u>Males</u>	<u>Females</u>
20	584%	584%
25	480%	480%
30	395%	395%
35	324%	324%
40	267%	267%
45	219%	219%
50	180%	180%
55	148%	148%
60	122%	122%

Taxable Wage Base Increase Assumption - Increases to the taxable wage base were not assumed.

Retirement Rates - Employees were assumed to retire at normal retirement age.

Termination - Termination rates were not assumed in the valuation.

Pre-retirement Mortality - The RP-2000 Mortality Table (Blue Collar) with generational improvement using Scale AA was utilized.

Post-retirement Mortality - The RP-2000 Mortality Table (Blue Collar) with generational improvement using Scale AA was utilized.

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## SECTION VIII (Cont.)

Rates of Disablement - 64 OASDI DIS (MALE) - Rates of disablement were assumed. Sample rates are as follows:

<u>Age</u>	<u>Males</u>	<u>Females</u>
20	0.0006	0.0006
25	0.0009	0.0009
30	0.0011	0.0011
35	0.0015	0.0015
40	0.0022	0.0022
45	0.0036	0.0036
50	0.0061	0.0061
55	0.0101	0.0101
60	0.0163	0.0163

Post-Disablement Mortality - Post-retirement mortality with a ten year set forward was assumed in the valuation.

Administrative Expenses - \$8,000 was assumed.

Percent Married - 100% of males and 100% of females were assumed to be married.

Age of Spouse - The female spouse is assumed to be the same age as the male spouse

SECTION IX

SUMMARY OF PLAN PROVISIONS

A summary of the major plan provisions used in the valuation is presented below:

Eligibility requirements: Date of hire.

Normal retirement eligibility: Age 55 and 25 years of service.

Normal retirement benefit: 50.00% of average monthly salary based on last 60 months.

Early retirement: None.

Survivor Benefit: If a member is retired or eligible for retirement, the benefit is 50% of pension.

Disability Benefit:

Service Related: 50% of monthly salary reduced by Social Security disability benefits payable for the same injury.

Non-Service Related: None.

Vesting: None.

Post Retirement Adjustments: None.

Member Contributions: 5% of salary.