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Pattonville Fire Protection District Defined Benefit Pension Plan

Cost Statement of Proposed Plan Change

Effective 1/1/2027

October 23, 2026

Statement Outline

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- Proposed Change
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Certification

This cost statement was prepared for the Pattonville Fire Protection District to document impacts of implementing proposed pension plan changes under current consideration. The information contained in this document was prepared in order to meet the requirements of Missouri Statute 105.665 and 105.684.

Except where indicated otherwise, the results included in this cost statement are based on the same data, assumptions, methods, and provisions as the 1/1/2026 valuation. This cost statement has been prepared in accordance with generally accepted actuarial principles and practice using methods and assumptions we believe to be reasonable.

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); and
- Changes in plan provisions or applicable law.

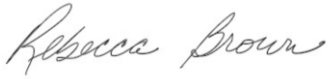
We did not perform an analysis of the potential range of future measurements due to the limited scope of our engagement.

Neither Nyhart nor any of its employees have any relationship with the plan or its sponsor which could impair or appear to impair the objectivity of this report.

The consultants indicated below are compliant with the continuing education requirements of the Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States.



Jen Turk, FSA, EA, MAAA



Rebecca Brown, FSA, EA, MAAA

October 23, 2026

Proposed Change

Current Structure
Full benefit formula[1]: 80% of Average Compensation

Proposed Structure – for terminations after 12/31/2026
Full benefit formula[1]: 90% of Average Compensation

All other plan provisions are the same as those used for the 1/1/2026 valuation and are summarized in the appendix to this study.

[1]*For participants with 25 years of service (20 if hired prior to 11/26/2007).*

2026 Actuarial Determined Contribution

Based on the January 1, 2026, valuation for the plan:

- The level percent of pay normal cost of plan benefits currently in effect is $1,490,834 or 16.7% of expected payroll. This amount includes $0 in expected administrative expenses to be paid from the trust and $390,623 expected from employee contributions during 2026.

- The contribution for unfunded accrued liabilities currently payable by the plan is $0 or 0.0% of expected payroll.

- The total contribution rate for 2026 is $1,100,211. With interest to the end of the year, the total actuarial determined contribution is $1,179,976 or 13.2% of payroll.

Reasons and Requirements

Reasons for the Statement

- Required by law (Missouri statute 105.665)
- Document various impacts of making changes to plan benefits
- Uniform information for every legislative body/committee before approving and implementing plan changes

Requirements of the Statement

- Immediate impacts to liabilities, normal costs, contributions and funded levels
- Must use the methods of the most recent valuation
- 10-year projections of similar information
- Assumptions and methods used to calculate the impacts
- Specific statements about the plan's ability to make necessary contributions before and after the proposed changes
- The cost statement must be available as public information for 45 days prior to implementing the changes
- The cost statement must be kept on file by the legislative body/ committee and filed with the joint committee on public employee retirement

Summary of Projection Assumptions

Assumption/Method	Description
Funding Interest Rate	7.25%
Asset Performance	7.25% per year
Asset Method	5-year Phase-in Actuarial Value
District Contributions	Actuarial Determined Contribution each year
Population	The working population is projected to remain flat
New Entrants	Based on new hire demographic data in 2022 - 2024
Total Payroll Growth	20% until 2 years of service, then 3% thereafter
All other assumptions and methods	Same as January 1, 2026 valuation summarized later in this report

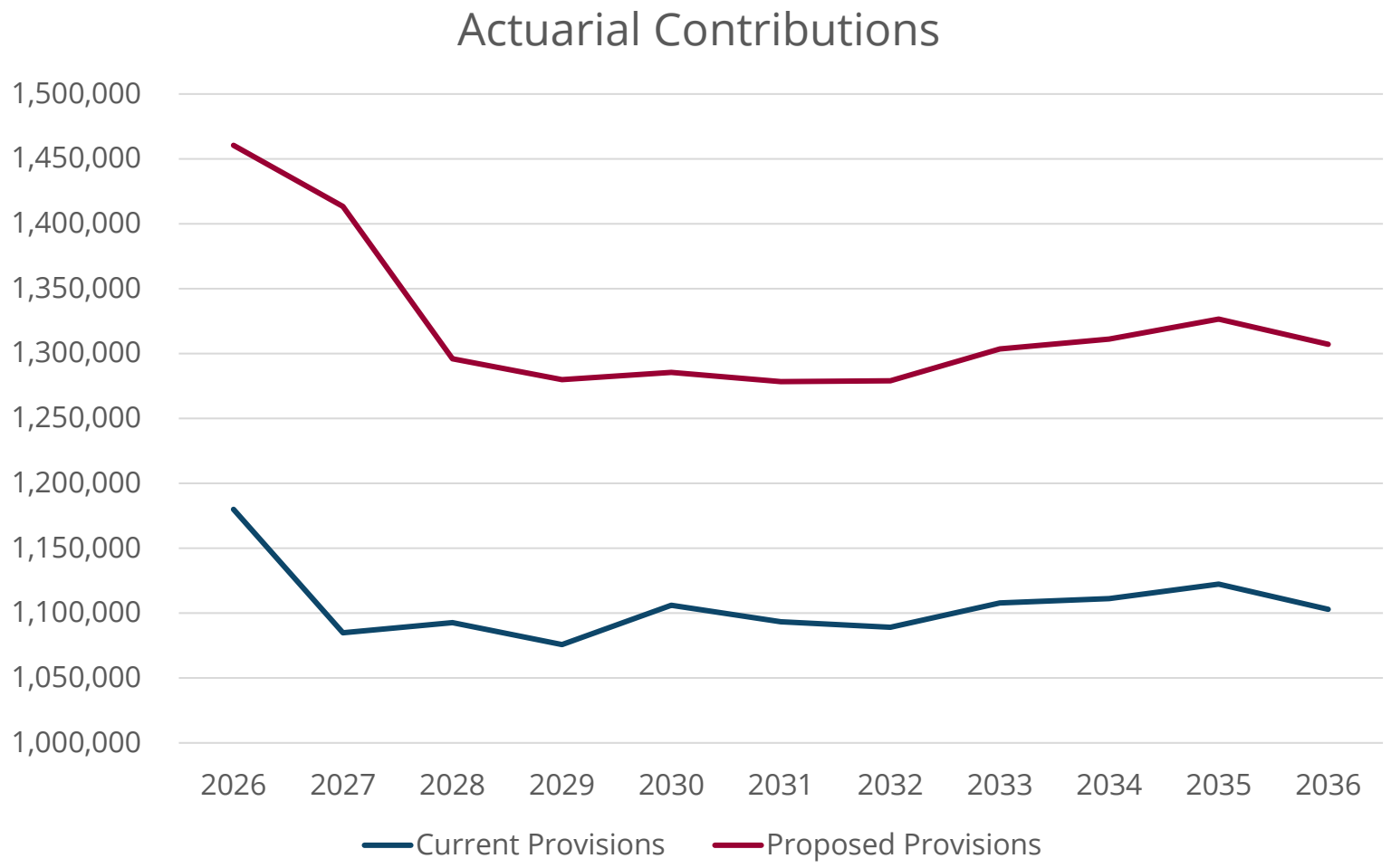
The cost projections contained in this report are based on the January 1, 2026 valuation results. Census data and asset information were provided by the plan sponsor and asset advisor and are summarized in the January 1, 2026 actuarial valuation report. Reasonable actuarial techniques and assumptions were used to produce the cost projections.

The following page shows 10-year projected valuation results under the current plan provisions compared to projected valuation results with the updated benefit formula in all years.

Financial Impacts: 7.25% return all years

Current Provisions	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Accrued Liability	61,214,367	64,544,642	67,434,143	70,411,122	73,256,802	76,245,708	79,023,163	81,703,568	84,463,165	87,201,677	89,919,709
Actuarial Value of Assets	64,309,378	67,230,861	71,658,687	74,981,161	78,480,623	81,854,998	85,044,690	88,166,701	91,402,302	94,651,789	97,920,099
Unfunded Accrued Liability	(3,095,011)	(2,686,219)	(4,224,544)	(4,570,039)	(5,223,821)	(5,609,290)	(6,021,527)	(6,463,133)	(6,939,137)	(7,450,112)	(8,000,390)
Funded Percentage	105.06%	104.16%	106.26%	106.49%	107.13%	107.36%	107.62%	107.91%	108.22%	108.54%	108.90%
Market Value of Assets	65,159,222	68,775,320	71,963,815	75,272,846	78,480,623	81,854,998	85,044,690	88,166,701	91,402,302	94,651,789	97,920,099
Market Funded Percentage	106.44%	106.55%	106.72%	106.90%	107.13%	107.36%	107.62%	107.91%	108.22%	108.54%	108.90%
Employer Normal Cost	1,100,211	1,011,499	1,018,712	1,003,054	1,031,391	1,019,384	1,015,471	1,033,059	1,036,034	1,046,513	1,028,401
Administrative Expenses	-	-	-	-	-	-	-	-	-	-	-
Amortization of UAL	-	-	-	-	-	-	-	-	-	-	-
Actuarial Contribution BOY	1,100,211	1,011,499	1,018,712	1,003,054	1,031,391	1,019,384	1,015,471	1,033,059	1,036,034	1,046,513	1,028,401
Actuarial Contribution EOY	1,179,976	1,084,833	1,092,569	1,075,775	1,106,167	1,093,289	1,089,093	1,107,956	1,111,146	1,122,385	1,102,960
EOY as % of Payroll	13.2%	12.1%	12.2%	11.7%	11.7%	11.2%	11.1%	11.1%	10.8%	10.6%	10.2%
Expected Disbursements	2,613,774	3,178,198	3,318,439	3,641,153	3,763,045	4,167,723	4,463,830	4,614,039	4,847,858	5,085,883	5,413,516
Proposed Provisions											
Accrued Liability	65,374,892	69,166,774	72,481,456	75,909,782	79,175,697	82,635,918	85,871,649	88,972,984	92,170,910	95,345,871	98,510,383
Actuarial Value of Assets	64,309,378	67,473,326	72,142,598	75,580,589	79,161,674	82,583,795	85,781,559	88,874,454	92,063,672	95,238,975	98,401,260
Unfunded Accrued Liability	1,065,514	1,693,448	338,858	329,193	14,023	52,123	90,090	98,530	107,238	106,896	109,123
Funded Percentage	98.37%	97.55%	99.53%	99.57%	99.98%	99.94%	99.90%	99.89%	99.88%	99.89%	99.89%
Market Value of Assets	65,159,222	69,017,785	72,447,726	75,872,274	79,161,674	82,583,795	85,781,559	88,874,454	92,063,672	95,238,975	98,401,260
Market Funded Percentage	99.67%	99.78%	99.95%	99.95%	99.98%	99.94%	99.90%	99.89%	99.88%	99.89%	99.89%
Employer Normal Cost	1,266,134	1,163,646	1,171,928	1,156,375	1,188,453	1,177,603	1,173,719	1,194,647	1,199,573	1,212,526	1,192,495
Administrative Expenses	-	-	-	-	-	-	-	-	-	-	-
Amortization of UAL	95,608	154,221	36,499	36,940	10,074	14,371	18,821	20,804	22,947	24,427	26,282
Actuarial Contribution BOY	1,361,742	1,317,867	1,208,427	1,193,315	1,198,527	1,191,974	1,192,540	1,215,451	1,222,520	1,236,953	1,218,777
Actuarial Contribution EOY	1,460,468	1,413,412	1,296,038	1,279,830	1,285,420	1,278,392	1,278,999	1,303,571	1,311,153	1,326,632	1,307,138
EOY as % of Payroll	16.4%	15.7%	14.5%	13.9%	13.6%	13.2%	13.0%	13.0%	12.7%	12.5%	12.0%
Expected Disbursements	2,650,493	3,279,309	3,437,244	3,801,338	3,937,707	4,389,687	4,726,905	4,897,262	5,158,920	5,426,591	5,798,556
Change in Contribution											
Contribution EOY	280,492	328,579	203,469	204,055	179,253	185,103	189,906	195,615	200,007	204,247	204,178
% of Payroll	3.1%	3.7%	2.3%	2.2%	1.9%	1.9%	1.9%	2.0%	1.9%	1.9%	1.9%
Interest Rate	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%	7.25%
Increase in Payroll	20%/3%	20%/3%	20%/3%	20%/3%	20%/3%	20%/3%	20%/3%	20%/3%	20%/3%	20%/3%	20%/3%
Payroll	8,930,940	8,977,184	8,938,584	9,227,653	9,424,798	9,718,640	9,831,672	10,007,745	10,329,109	10,590,019	10,850,144

Comparisons of Contributions: 7.25% return all years



Additional Comments on Projections

- Missouri Statute 105.684 requirements for a local public retirement system to increase benefits are met:
  - The Plan is at least 80% funded prior to adopting the change; and
  - The Plan is at least 75% funded after adopting the change.

- 10-year projections shows the proposed changes starting January 1, 2026 even though the change is expected to be effective January 1, 2027. This shows the sensitivity of the results on the current population. Additional information on the demographics of the population can be found in the January 1, 2026 Valuation Report.

- These projections reflect numerous assumptions, and one should focus on the general trend of the results rather than the absolute dollar amounts.

- The cost projections assume current demographic and economic assumptions are met. Actual results will vary from projections shown in this report, perhaps significantly, due to changes in the assumptions, plan provisions, participant demographics, interest rate movement, actual asset performance, and other actual experience of the plan. Depending on the use of this information, additional cost projections may be necessary to quantify the sensitivity of results.

Valuation Assumptions

The following assumptions all match the January 1, 2026 valuation report as required, except where stated otherwise:

- Investment Return: 7.25%

  This assumption has set by the plan sponsor in conjunction with their asset advisor. We believe this assumption is reasonable based on an application of the JP Morgan capital market assumptions by class to the plan's asset allocation.

- Retirement Rates: 100% at age 62 for non-uniformed employees; 100% at age 57 for uniformed employees

- Withdrawal: Sample rates as shown below

Age	Rate
25	4.9%
30	3.7%
35	2.3%
40	1.1%
45	0.3%

- Disability: Sample rates as shown below

Age	Rate
25	0.03%
30	0.03%
35	0.03%
40	0.04%
45	0.09%

Valuation Assumptions (continued)

- Mortality Rates:
  - Healthy: Pub-2016 Public Safety Mortality Table with generational improvements from Scale MP 2021
  - Survivors: PubS-2016 Public Safety Contingent Survivors Mortality Table with generational improvements based on the MP-2021 scale
  - Disabled: PubS-2016 Public Safety Disabled Mortality Table with generational improvements based on the MP-2021 scale

- Annual Pay Increases: 20% until 2 years of service, then 3% thereafter

All assumptions and methods were reviewed and updated where appropriate based on a 2025 review of actuarial plan experience and future experience.

As the plan is not large enough to have credible experience, mortality and disability rates are determined based on the results of board population studies.

Required Statements

- Current Contributions
  - The plan sponsor has made and plans to continue to make contributions exceeding the contributions as calculated and recommended under current plan provisions.

- Proposed Contributions
  - To our knowledge, the additional contributions described as part of the proposed benefit changes will be met based on recent contributions levels.
  - Our understanding, based on the current Collective Bargaining Agreement, is that the District shall deposit with the Pension Board of Trustees from the revenues designated for the District's pension plan from the tax levied on taxable tangible property within the District. The District shall also deposit with the Pension Board of Trustees out of general revenues an amount equal to the excess of the actuarial recommended contribution for the Plan Year over the deposit from the tax levied on taxable tangible property within the District deposited during said Plan Year. The District may also supplement such amounts out of general revenues at the election of the Board from time to time in its sole discretion.
  - The projected improvement of the funding ratio of the plan under the proposed changes over the next 10 years demonstrates this outcome.

- Assumptions
  - The actuarial assumptions and methods used for the valuation were chosen by the employer. In our opinion, all actuarial assumptions and methods used in both the valuation and projections are individually reasonable, and in aggregate produce results which are reasonable.

Actuarial Funding Method

- The actuarial cost method used in the 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 is determined by spreading the present value at the current age of the projected benefit at the assumed retirement age in such a way that produces a level annual cost over expected earnings for the individual between entry age and assumed retirement age. For a non-active participant, the normal cost is zero.

- The actuarial accrued liability is the sum of the individual accrued liabilities for all plan participants. For an active participant, the individual accrued liability is the accumulation of past normal costs up to the valuation date. For non-active participants, the individual accrued liability is the present value at the current age of future benefits. The unfunded actuarial accrued liability equals the actuarial accrued liability less the actuarial value of assets.

- The total annual contribution of the plan is calculated as the normal cost plus an amount to amortize the unfunded actuarial accrued liability. The unfunded liability is recognized using a 20-year layered level dollar amortization schedule. Each year, new sources of gains and losses will be amortized in a separate amortization base over 20 years. All amortizations are considered fully funded when the plan reaches 100% funded.

Summary of Plan Provisions as of 1/1/2026

Provisions	Description
Eligibility	Age 21 and 1 year of service
Average Compensation	Highest 3 of last 5 years
Accrued Benefit	80% of Average Compensation pro-rated for years of service less than 20 (25 years for employees hired on or after 11/26/2007) *Prior to 1/1/2021 this provision provided 50% of compensation.*
Normal Retirement Age	Age 57 for uniformed employees and age 62 for non-uniformed employees with 5 years of service (Age 55 for uniformed employees hired prior to 1/1/2013 and born before 1/1/1963)
Early Retirement	Uniformed at age 55 and 5 years of service for uniformed employees and 10 years of service for non-uniform employees, with the accrued benefit reduced 5% for each year prior to Normal Retirement Age
Bridge Benefit	None *Prior to 1/1/2021 participants were given a bridge between age 55 and 62 equal to 20% of Average Compensation*
Cost-of-Living-Adjustment	None *Prior to 1/1/2021 participants were given a 1.0% COLA*
Employee Contributions	4.0% of pay *Prior to 1/1/2021 employee contributions were 2.0% of pay*

Summary of Plan Provisions as of 1/1/2026 (continued)

Benefits vest according to the following schedule:

Whole Years of Service	Vested %
Less than 5	0%
5	50%
6	60%
7	70%
8	80%
9	90%
10	100%

But in no case less than the percentage vested on September 1, 2003 on this prior schedule:

Whole Years of Service	Vested %
Less than 2	0%
2	20%
3	40%
4	60%
5	80%
6 or more	100%