



**nyhart**  
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# Central County Fire & Rescue Retirement Plan

Cost Statement of Proposed Plan Changes

February 3, 2021



# Certification

This report has been prepared for the primary purpose of summarizing financial information related to potential costs if Central County Fire & Rescue plan design changes effective January 1, 2021 retroactively to 1/1/2020. To the best of our knowledge, the information summarized herein present fair positions of the funded status of the plan in accordance with the Actuarial Standards of Practice as described by the American Academy of Actuaries, and are based on the plan provisions and assumptions summarized in the valuation report dated April 30, 2020. Data was provided as of January 1, 2020 by the plan sponsor.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such facts 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 other additional cost or contribution requirement based on the plan's funded status); and changes in plan provisions of applicable law. The scope of our assignment did not include an analysis of the potential range of future measurements.

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. To the extent that this report or any attachment concerns tax matters, it is not intended to be used and cannot be used by a taxpayer for the purpose of avoiding penalties that may be imposed by law.

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

Nyhart

Elizabeth A. Wiley, FSA, EA

February 3, 2021

Heath W. Merlak, FSA, FCA, EA, MAAA



# Missouri State Law

Chapter 105 of the Missouri Revised Statutes requires that, in order for a local public employee retirement system to increase benefits:

- (1) the Plan is at least 80% funded prior to adopting the change; and
- (2) the Plan is at least 75% funded after adopting the change



# Current Plan Provisions

Benefit Component	Description
Formula* (per year of Credited Service)	<p>2% of Average Annual Compensation per year of Credited Service</p> <p>Maximum 60% of Average Annual Compensation, achieved at 30 years of service</p> <p>Employee is given the greater of the formula shown above or the annuitized value of their account balance accumulated with interest.</p>
Vesting	100% vested after 10 years of service
Final Average Salary	<p>Highest consecutive 3 plan years out of last 5 plans years.</p> <p>Salary is defined as: Suppression Personnel: Hourly wage times 2,990 hours Others: Hourly wage times 2,080 hours Excludes irregular pay, such as overtime or bonuses</p>
Credited Service	Work over 1,000 hours in a calendar year
Normal Retirement Date (NRD)	Age 55 with 10 years of credited service or the attainment of age 60
Early Retirement Age	None
Death Benefits	Actuarial equivalent lump sum of accrued benefit. The lump sum is available immediately.



# Current Plan Provisions

Benefit Component	Description
Disability Benefits	None
Member Contributions	None
COLA	None
Bridge Benefit	None
Normal Payment Form	50% Joint and Survivor Annuity (10-Year Certain & Life Annuity for single participants)
Service Buyback	Participants may buy back years of service
Lump Sum Payment Form	Lump sum provided up to 25% of the benefit value and no less than the account balance at the time of change. Interest is credited at rate of 5.00%



# Proposed Plan Design

Category	Description
Proposed Design	<p data-bbox="660 391 1508 472">Benefit accrual is changed from 2.4% of pay per year of service up to 25 years of service (60% maximum)</p> <p data-bbox="660 525 1599 648">A bridge benefit up to 20% of pay for 25 years of service from payable from retirement to age 62, prorated for years of service up to 25 years of service</p> <p data-bbox="660 701 1551 823">The benefit enhancements noted above are applicable to participants that retired during 2020. Benefits for existing retirees are effective January 1, 2021.</p>



# Plan Design

	1/1/2020 Valuation	1/1/2020 Valuation with Plan Changes
Market Value of Assets	\$27,755,010	\$27,755,010
Accrued Liability	\$31,416,891	\$35,995,787
Actuarial Value of Assets	<u>27,755,010</u>	<u>27,755,010</u>
Unfunded Liability, 1/1/2020	\$3,661,881	\$8,240,777
Funded Ratio	88.3%	77.1%
Employer Normal Cost	\$1,156,432	\$1,365,934
<i>Employer Normal Cost, as a % of Payroll</i>	13.6%	16.0%
Amortization	251,780	566,611
<i>Amortization, as a % of Payroll</i>	3.0%	6.6%
Interest	<u>95,054</u>	<u>130,447</u>
Recommended Contribution	\$1,503,266	\$2,062,992
<i>Recommended Contribution, as a % of Payroll</i>	17.6%	24.2%
Active Members	85	85
Total Payroll	\$8,535,089	\$8,535,089



# Projection Assumptions

Assumption/Method	Description
Asset Return	6.75% unless specified otherwise
Contributions	Contributions are assumed to be made at the recommended rate
Asset Method	Asset gains and losses are smoothed over a 5 year period.
Inflation	2.00%
Growth in Maximum Benefit Limits	3.00%
Population Growth	The active population is assumed to remain flat.
New Entrants	New entrants are based on information for new hires during 2018.
All other assumptions	As described on preceding slides relating to the plan design modeled.





## Cost Projections Considerations

- The 10-year cost projections use the same actuarial assumptions as disclosed in the annual valuation report. Other assumptions are described in the preceding pages of this report.
- The 10-year projections assume the plan changes occur at January 1, 2020. This shows the sensitivity of results on the current population.
- We have assumed the County contributes the recommended contribution each year, with the exception of the contribution during the 2020 plan year.
- We have reflected actual contribution amounts during 2020. Annual asset returns are assumed to be 6.75%.
- All calculations shown in these results are based on Data and Assumptions from the January 1, 2020 Valuation. More information on the demographics of the population and the actuarial assumptions used can be found in the January 1, 2020 Valuation Report.



## Cost Projection Considerations

- The cost projections contained in this report are based on data as of January 1, 2020. Assumptions used in measuring the liabilities are consistent with the January 1, 2020 actuarial report dated April 30, 2020 unless stated otherwise. Reasonable actuarial techniques and assumptions were used to produce the cost projections. Data was provided by the County.
- The following pages show cost projections under one specific economic scenario and is meant to be used for illustration purposes only. Actual results will vary from projections shown in this report due to actual participant data, actual asset returns, and any assumption changes that may be warranted.
- These projections reflect numerous assumptions and one should focus on the general trend of the results rather than the absolute dollar amounts.



# Comments

The following projections are based upon 1/1/2020 asset information, with the exception of employer contributions made during 2020, and 1/1/2020 census data.

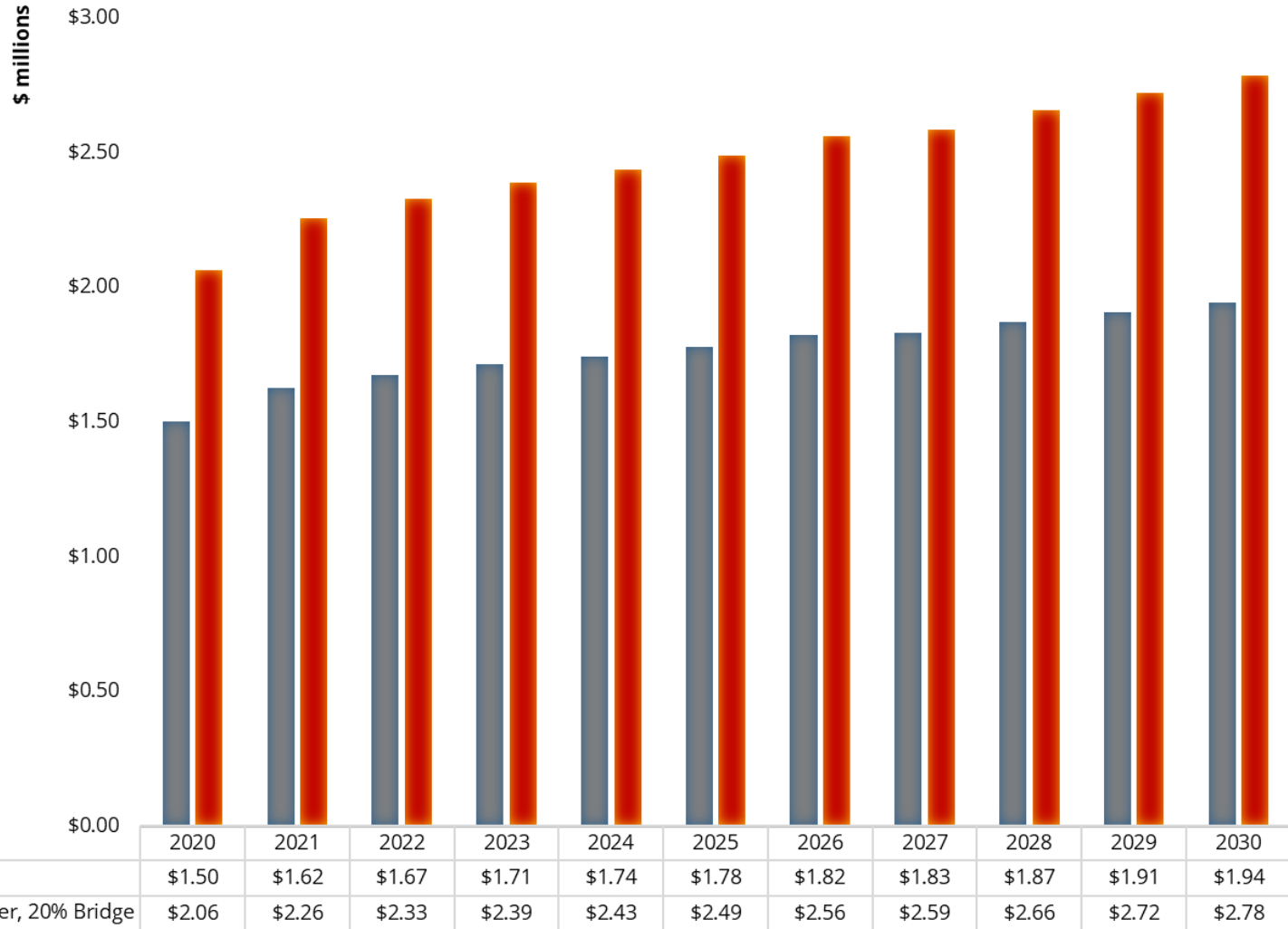
For the 2020 calendar year, contributions were \$0.8 million, falling below the recommended \$1.5 million recommended for the calendar year.

It's important to bear in mind that the projections reflect the assumption that contributions are made at the recommended rate, as shown on the following page.



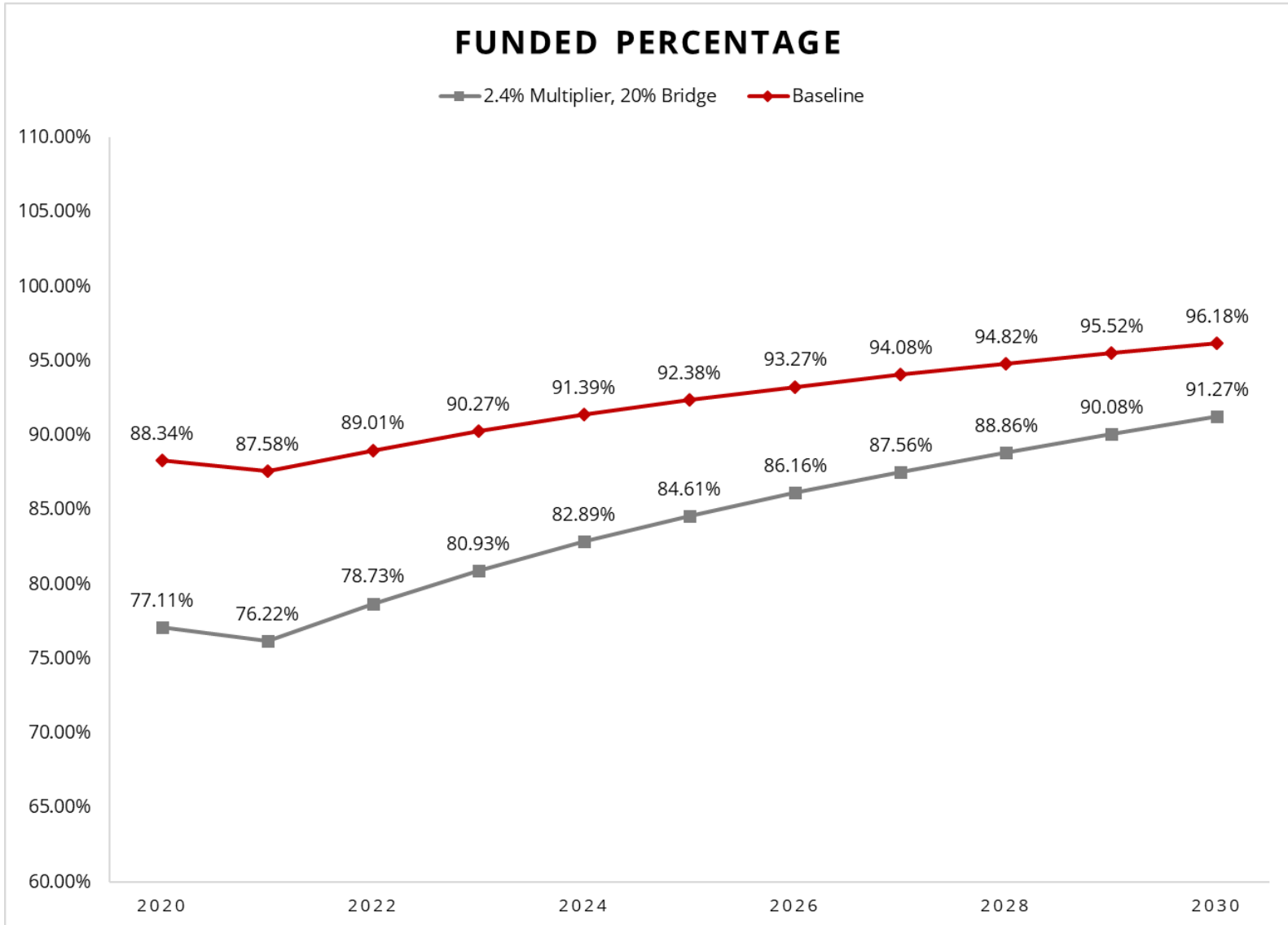
# Plan Design

## RECOMMENDED CONTRIBUTION





# Plan Design





# Projection Data

## Baseline

Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Funding Liability	31,416,891	34,498,874	37,645,430	40,848,922	44,083,761	47,281,132	50,411,073	53,406,378	56,229,490	58,931,282	61,576,279
Actuarial Value of Assets	27,755,010	30,215,760	33,509,955	36,875,882	40,288,756	43,679,612	47,020,498	50,246,181	53,317,337	56,288,291	59,224,001
Market Value of Assets	27,755,010	30,215,760	33,509,955	36,875,882	40,288,756	43,679,612	47,020,498	50,246,181	53,317,337	56,288,291	59,224,001
Funded %	88.34%	87.58%	89.01%	90.27%	91.39%	92.38%	93.27%	94.08%	94.82%	95.52%	96.18%
Unfunded Liability	3,661,881	4,283,114	4,135,475	3,973,040	3,795,005	3,601,520	3,390,575	3,160,197	2,912,153	2,642,991	2,352,278
Actuarial Recommended Contribution	1,503,266	1,624,831	1,674,425	1,714,250	1,742,638	1,776,937	1,823,372	1,829,730	1,871,810	1,907,880	1,944,255
as a % of Total Salary	17.61%	18.76%	18.95%	18.97%	18.89%	18.99%	19.25%	19.20%	19.50%	19.72%	19.80%
Total Salary	8,535,089	8,662,923	8,837,404	9,038,171	9,223,176	9,355,240	9,470,511	9,529,007	9,597,224	9,676,408	9,821,406

## Proposed Plan Design

Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Funding Liability	35,995,787	39,514,518	43,070,670	46,669,461	50,268,800	53,764,393	57,115,157	60,290,426	63,258,182	66,049,286	68,838,854
Actuarial Value of Assets	27,755,010	30,119,809	33,908,753	37,771,116	41,666,357	45,491,854	49,209,689	52,793,124	56,209,433	59,495,255	62,827,509
Market Value of Assets	27,755,010	30,119,809	33,908,753	37,771,116	41,666,357	45,491,854	49,209,689	52,793,124	56,209,433	59,495,255	62,827,509
Funded %	77.11%	76.22%	78.73%	80.93%	82.89%	84.61%	86.16%	87.56%	88.86%	90.08%	91.27%
Unfunded Liability	8,240,777	9,394,709	9,161,917	8,898,345	8,602,443	8,272,539	7,905,468	7,497,302	7,048,749	6,554,031	6,011,345
Actuarial Recommended Contribution	2,062,992	2,256,300	2,328,770	2,386,478	2,434,840	2,488,881	2,560,060	2,586,800	2,657,312	2,720,622	2,784,180
as a % of Total Salary	24.17%	26.05%	26.35%	26.40%	26.40%	26.60%	27.03%	27.15%	27.69%	28.12%	28.35%
Total Salary	8,535,089	8,662,923	8,837,404	9,038,171	9,223,176	9,355,240	9,470,511	9,529,007	9,597,224	9,676,408	9,821,406



# Final Comments

- The plan is over 80% funded before the implementation of plan changes, and at least 75% funded after the implementation of plan changes.
- The proposed change would not in any way impair the ability of the plan to meet the obligations in effect at this time.
- Additional contributions to the plan are not mandated for the 2021 plan year. Future contributions will be higher in future years comparing to the current plan design.
- The retirement plan was first effective January 1, 2020. Central County Fire & Rescue contributed \$803,797 compared to the recommended contribution of \$1,503,266. With the recent tax increase approved, Central County Fire & Rescue does not have any concerns with making the recommended contribution after plan changes shown in this report.
- The assumptions used for the valuation and related projections produced results which, in aggregate, are reasonable.