CHEIRON *Classic Values, Innovative Advice*

Golden Gate Transit – Amalgamated Retirement Plan

Actuarial Valuation Report as of January 1, 2025

Produced by Cheiron

September 2025

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Via Electronic Mail

September 5, 2025

Board of Trustees
Golden Gate Transit – Amalgamated Retirement Plan
Zenith American Solutions
1600 Harbor Bay Parkway, Suite 200
Alameda, California 94502

Dear Members of the Board:

At your request, we have conducted an actuarial valuation of the Golden Gate Transit – Amalgamated Retirement Plan as of January 1, 2025. The valuation is organized as follows:

- In Section I – **Board Summary,** we describe the purpose of an actuarial valuation and summarize the key results found in this valuation.

- In Section II – **Assessment and Disclosure of Risk,** we review the primary risks facing the Plan, and quantify these using various risk and maturity measures.

- The **Main Body** of the report presents details on the Plan's:

  - Section III – Assets
  - Section IV – Liabilities
  - Section V – Contributions

- In the **Appendices,** we conclude our report with detailed information describing the Plan's membership (Appendix A), actuarial assumptions and methods employed (Appendix B), a summary of pertinent plan provisions (Appendix C), and a glossary of key actuarial terms (Appendix D).

In preparing our report, we relied on information (some oral and some written) supplied by the Golden Gate Transit – Amalgamated Retirement Plan staff. This information includes, but is not limited to the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23, *Data Quality*.

Future results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the assumptions; changes in assumptions; and changes in plan provisions or applicable law.

Cheiron utilizes ProVal actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have a basic understanding of ProVal and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this valuation.

Deterministic and stochastic projections in this valuation report were developed using R-scan, a proprietary tool used to illustrate the impact of changes in assumptions, methods, plan provisions, or actual experience (particularly investment experience) on the future financial status of the Plan. R-scan uses standard roll-forward techniques that implicitly assume a stable active population. Because R-scan does not automatically capture how changes in one variable affect all other variables, some scenarios may not be consistent.

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice as set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

This report was prepared exclusively for the Golden Gate Transit – Amalgamated Retirement Plan for the purposes described herein and for the use by the plan auditor in completing an audit related to the matters herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

Sincerely,
Cheiron

Graham A. Schmidt, FSA, FCA, MAAA, EA
Principal Consulting Actuary

Patrick T. Nelson, FSA, EA, MAAA
Consulting Actuary

SECTION I – BOARD SUMMARY

The primary purpose of the actuarial valuation and this report is to measure, describe, and identify as of the valuation date:

- The Assets and Actuarial Liabilities of the Plan,
- Past and expected trends in the actuarial funding progress of the Plan,
- The employer's Actuarially Determined Contribution (ADC), and
- The primary risks facing the Plan.

In the balance of this Board Summary, we present the basis upon which this year's valuation was completed, and the key findings of this valuation including a summary of all key financial results.

A. Valuation Basis

This valuation determines the actuarially determined contributions for the Fiscal Year 2025-26. The last valuation was performed as of January 1, 2024.

There were no changes to the actuarial assumptions used in the valuation compared to the prior year. Details on the assumptions can be found in Appendix B.

A summary of the actuarial methods used in the current valuation is also shown in Appendix B. There were no changes in the actuarial methods since the prior valuation. At the January 22, 2020 Board meeting, the Board made a change to the funding policy, choosing to close the amortization period for the current unfunded liability at 20 years. Any future changes in the UAL will be amortized over new closed 20-year layers. Prior to this change, all UAL was being amortized over a rolling 20-year period as a level percentage of member payroll.

There were no changes to the plan provisions used in the valuation. Details on the plan provisions can be found in Appendix C.

Payroll has continued to increase after the large hours reductions due to COVID-19. Projected payroll for 2025 is based on annualized first half 2025 salaries and continue to be about 20% lower than pre-COVID levels.

SECTION I – BOARD SUMMARY

B. Key Findings of this Valuation

The key results of the January 1, 2025 actuarial valuation for the Golden Gate Transit – Amalgamated Retirement Plan are as follows:

- The total actuarial cost of the Plan – including the employer contribution and the employee contribution – increased from 67.96% of projected active member payroll as of January 1, 2024 to 68.33% of pay as of January 1, 2025.
- The actuarial cost is significantly higher than the current contributions to the Plan, based on the current negotiated rates being paid by the District (34.50% effective March 2022) and members. The current shortfall between the actuarial cost and the expected contributions (employer plus employee) is 26.65% of pay, or $5.2 million. If all assumptions are met and the contributions continue at their current negotiated rates, a continued decline in the funded status is expected.
- Non-PEPRA employees currently contribute 7.00% of pay, as specified in a Memorandum of Understanding (MOU) between the District and the Union.
- The employee contribution rate for PEPRA members is required to be 50% of the normal cost of their benefits (rounded to the nearest 0.25%), but the rate does not change unless the normal cost changes by at least 1% of pay. For the January 1, 2025 actuarial valuation, the normal cost for PEPRA employees is 14.38%, including an allocation of a portion of the administrative expenses. The contribution rate for PEPRA employees will remain at 7.50% of pay, unless otherwise negotiated, since the total normal cost rate decreased by less than 1% from when it was most recently set (14.99% in the January 1, 2024 actuarial valuation).
- The employer's Actuarially Determined Contribution rate (ADC) under the actuarial funding policy for the fiscal year beginning July 1, 2025 increased from 60.82% of pay to 61.15% of pay, primarily due to the investment loss on the actuarial value of assets and actual contributions being significantly less than last year's ADC. In dollar terms, the ADC increased from $10.7 million for FY 2024-2025 to $11.9 million for FY 2025-2026, due to the factors described above and increased payroll.
- The "Tread Water Rate" – or the rate of employer contributions expected to hold the unfunded liability at its current dollar amount, net of the member contributions and assuming all assumptions are met – is 51.48% of pay, or approximately $10.0 million for FY 2025-2026. The expected contributions based on the bargained rate of 34.50% are only $6.7 million. Since the actual contributions are lower than the trend water level, the UAL will continue to grow, even if all actuarial assumptions are met.
- The Unfunded Actuarial Liability (UAL), which is the excess of the Plan's Actuarial Liability over its Actuarial Value of Assets, increased from $105.2 million on January 1, 2024 to $114.3 million on January 1, 2025. The Plan's funded ratio, which is the Actuarial Value of Assets over the Actuarial Liability, decreased from 47.2% as of January 1, 2024 to 42.9% as of January 1, 2025. On a Market Value of Assets (fair value) basis, the funded ratio decreased from 45.3% as of January 1, 2024 to 43.5% as of January 1, 2025.

SECTION I – BOARD SUMMARY

- During the one-year period from January 1, 2024 to January 1, 2025, the Plan experienced a total loss of $10.9 million, as follows:
    - The Plan experienced a net loss on assets of approximately $9.1 million.
        - The Plan's assets gained 8.3% on a market value basis during 2024. However, as a result of the Plan's asset smoothing method, the return on an actuarial value basis was only 1.5% in 2024. Based on the assumed return of 6.75%, this produced an actuarial asset loss of $4.7 million. There are now $1.2 million in deferred asset gains which have not yet been recognized in the actuarial value of assets.
        - The contributions actually made to the Plan – based on a 34.50% rate by the employer and a 7.00% / 7.50% contribution rate by the employees (pre/post PEPRA) – were less than the actuarial cost of the Plan. The dollar amount of the shortfall in the contributions was $4.4 million, which increased the unfunded liability.
    - On the liability side, the Plan experienced a total loss of $1.7 million.
        - There was a combined $2.2 million loss due to new entrants, inactive mortality being lower than expected, and retirement experience. This was partially offset by members terminating sooner than expected.

SECTION I – BOARD SUMMARY

Table I-1 summarizes all the key results of the valuation with respect to the Plan's membership, assets and liabilities, and contributions. The results are presented and compared for both the current and prior valuation.

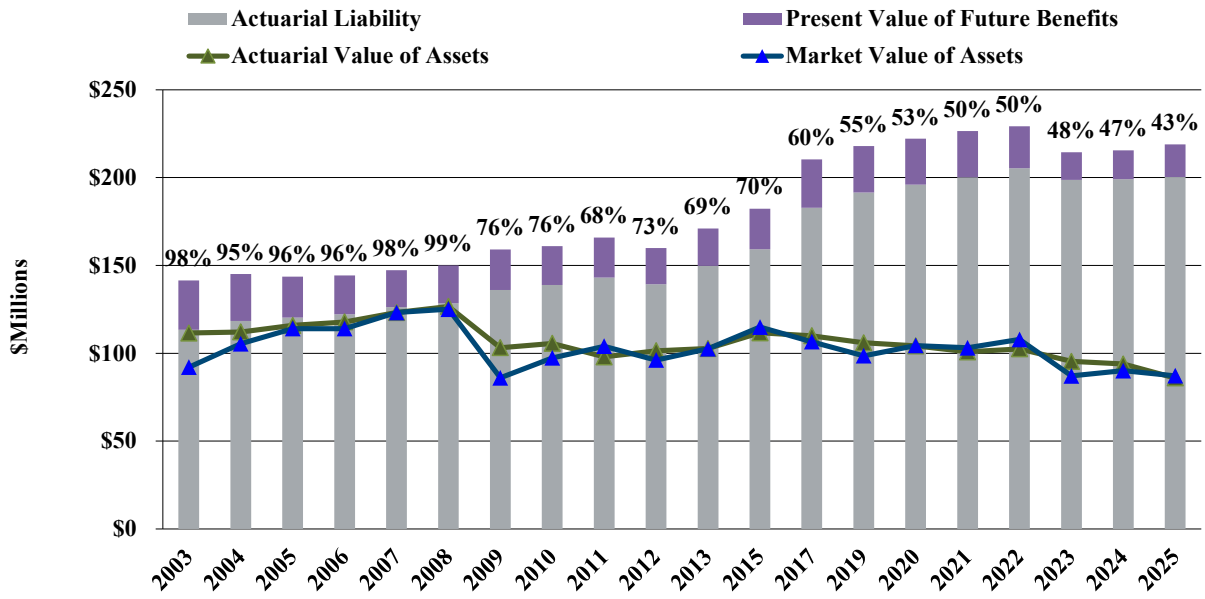
Table I-1
Golden Gate Transit - Amalgamated Retirement Plan
Summary of Principal Results

Valuation as of:	January 1, 2024	January 1, 2025	% change
Participant Counts			
Active Participants	156	161	3.2%
Terminated Vested Participants	15	14	(6.7%)
Participants Receiving Benefits	435	434	(0.2%)
Total Participants	606	609	0.5%
Active Payroll			
Valuation Payroll	$ 18,295,281	$ 19,930,766	8.9%
Average Pay	117,277	123,794	5.6%
Projected Payroll for the Fiscal Year	$ 17,638,070	$ 19,500,635	10.6%
Assets and Liabilities			
Market Value of Assets (MVA)	$ 90,079,559	$ 87,174,128	(3.2%)
Actuarial Value of Assets (AVA)	93,864,090	85,936,327	(8.4%)
Actuarial Liability (AL)	199,054,856	200,285,417	0.6%
Unfunded Actuarial Liability (UAL) = AL - AVA	$ 105,190,766	$ 114,349,090	8.7%
Actuarial Value Funded Ratio = AVA / AL	47.2%	42.9%	
Market Value Funded Ratio = MVA / AL	45.3%	43.5%	
Actuarially Determined Contribution (ADC)			
Total Contribution Rate	67.96%	68.33%	
Average Employee Contribution Rate	7.14%	7.18%	
ADC Rate (Total - Employee Rate)	60.82%	61.15%	
ADC for the Fiscal Year	10,728,315	11,924,204	11.1%
Total Expected Employer Rate	34.50%	34.50%	
Shortfall (ADC - Expected Employer Rate)	26.32%	26.65%	
Shortfall ($)	$ 4,643,181	$ 5,196,485	11.9%
Tread Water Rate (ER Normal Cost + Interest on UAL + Expense)	52.57%	51.48%	
Tread Water Shortfall (Tread Water Rate - Expected Employer Rate)	18.07%	16.98%	
Tread Water Shortfall ($)	$ 3,187,326	$ 3,312,005	3.9%

C. Historical Trends

Despite the fact that for most retirement plans, the greatest attention is given to the current valuation results and in particular the size of the current unfunded actuarial liability and the employer's contribution, it is important to remember that each valuation is merely a snapshot in the long-term progress of a pension fund. It is more important to judge a current year's valuation result relative to historical trends, as well as trends expected into the future.

Assets and Liabilities

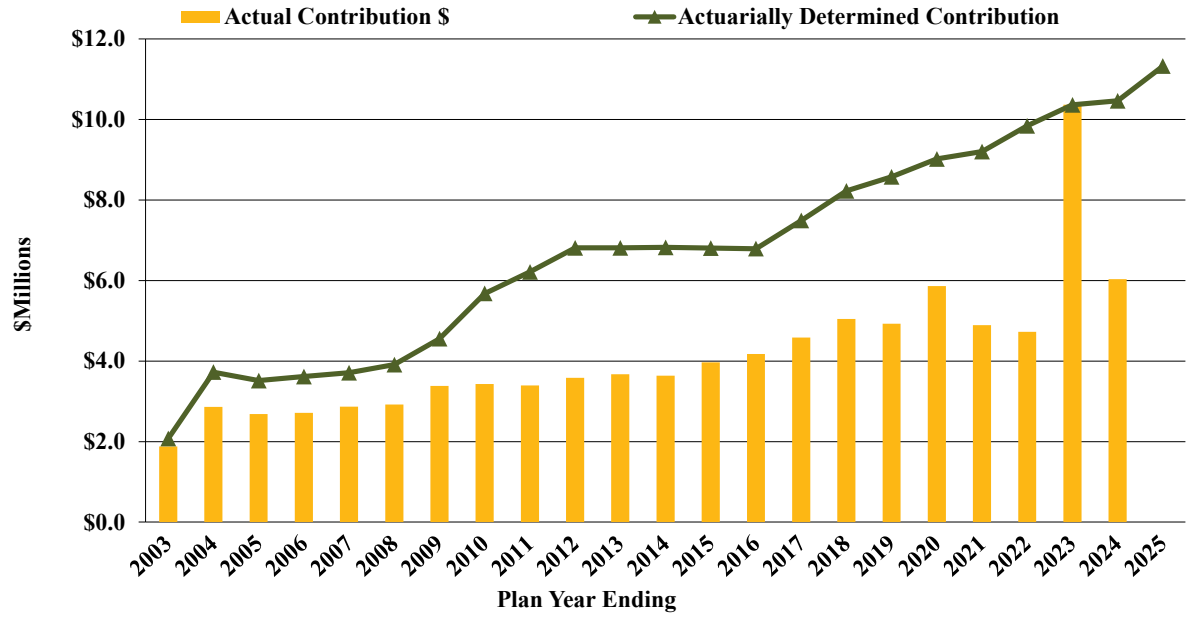


The above chart compares the Actuarial (smoothed) Value of Assets to the actuarial liabilities and shows the funded ratio (numbers above each bar), which is the ratio of assets to liabilities (represented by the gray bars). The very top of the bars represents the Present Value of Future Benefits (PVFB), which represents the total present value of all future benefits expected to be paid to current participants, including those expected to be earned based on future service.

This chart shows that the funded ratio has declined significantly since 2008, primarily due to investment losses, changes in the assumptions, and continued underfunding. In 2023, the District contributed the full ADC; continuing to do so would help preserve and increase the funded ratio and long-term health of the Plan.

SECTION I – BOARD SUMMARY

Contribution Rates



The yellow bars in this graph show the dollar amount of employer contributions made to the Plan since the Plan Year Ending 2003. The green line shows the Actuarially Determined Contribution (ADC) under the actuarial funding policy, based on the Entry Age Normal Actuarial Cost Method. Prior to January 1, 2020, the funding policy used a 20-year rolling amortization of the Unfunded Actuarial Liability (UAL) as a level percentage of pay. Effective with the January 1, 2020 valuation, the Board decided to close the amortization period for the current unfunded liability at 20 years. Any future changes in the UAL will be amortized over new closed 20-year layers as a level percentage of pay.

The ADC spiked noticeably following the 2008 market losses and again in 2017 after lowering the discount rate. The actual employer contribution amounts have increased less quickly, although they increased through 2020 as payroll grew and the negotiated rates were increased. Actual contributions decreased in 2021 and 2022 as payroll declined significantly. In 2023, the District contributed the full ADC, as a result of a lump sum contribution of $5.2 million, in addition to the scheduled contributions. However, in 2024 a large shortfall in the actual contributions versus the ADC returned.

D. Future Expected Financial Trends

The analysis of projected financial trends is perhaps the most important component of this valuation. In this Section, we present the implications of the January 1, 2025 valuation results in terms of (1) the projected contributions, and (2) projected Plan's funded status (ratio of assets over liabilities).

For the projections, we assume a baseline return of 6.75%. The projections also assume there will be no future gains or losses on the actuarial liabilities. If the Plan assets earn less than 6.75%, or other substantial losses occur, the projected funded ratios will be lower, and the contribution rates higher under the ADC. The opposite will be true if returns exceed 6.75%, or other gains occur.

The projections below reflect an assumption that as the current active members retire or otherwise terminate employment, they will be replaced by members hired under the PEPRA provisions. These provisions include a lower benefit amount for PEPRA members and a requirement that employees contribute an amount equal to at least 50% of the normal cost of their benefits.

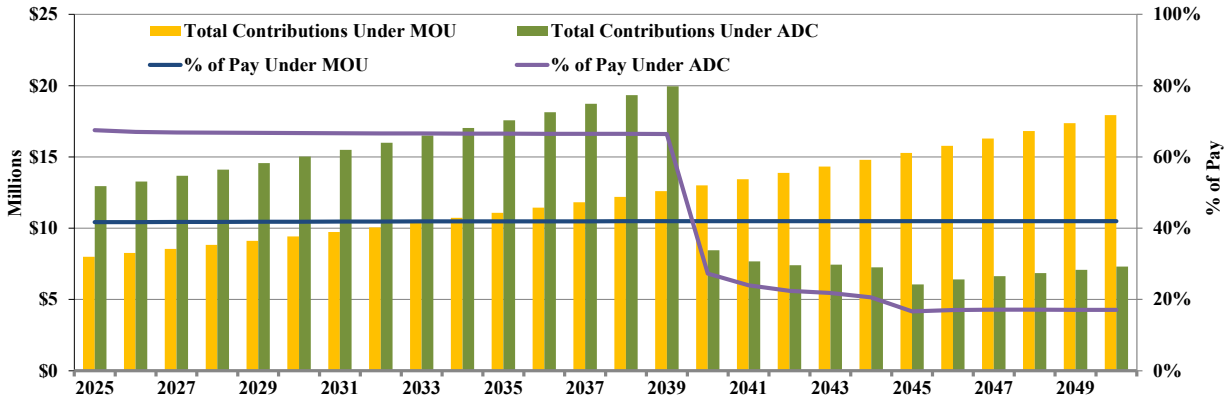
1. Contribution Projections: Actual vs. Actuarially Determined Contributions

The first chart shows a comparison of the Plan's projected total contributions (employer and employee) based on the funding policy required under the most recent MOU (34.5% by the employer, and 7.0% by the non-PEPRA employees; and 7.50% by the PEPRA employees, based on the updated PEPRA normal cost rates), compared to the total contributions assuming full actuarial funding policy contributions are made in all years beginning in 2025.

For these projections, we have used closed 20-year layered periods with level percentage of payroll amortization to determine the contributions, reflecting the current funding policy of the Plan.

The years shown in the charts are plan years beginning January 1, 2025. Projected contributions in dollar amounts are shown in the bars (yellow for those required under the current MOU, green for the ADC), while contributions as a percentage of payroll are shown in the lines (blue for those required under the current MOU, purple for the ADC).

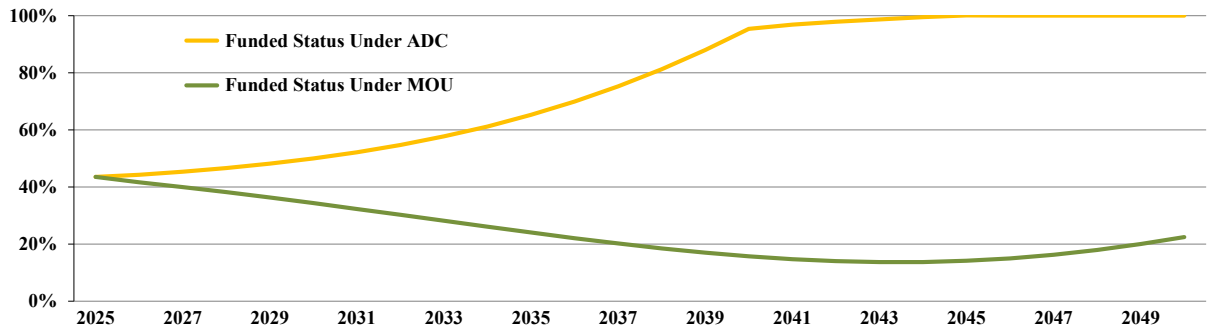
The contribution rate graphs show that the Plan's ADC rate is expected to remain relatively stable through 2039. The projections assume total payroll will increase 3.25% per year. A significant reduction in ADC rate and amount is projected in 2040 as the bulk of the current unfunded liability is expected to be fully amortized at that point. There is also a small decline in projected employer normal cost rates, primarily due to PEPRA numbers becoming a larger portion of the active population over time.



2. Funded Ratio Projections

This next projection chart compares the Plan's market funded ratio (ratio of Market Value of Assets to Actuarial Liability), projected using both the current actuarially-based contribution policy (yellow line), and the current MOU-based contribution policy (green line). The projections assume that the contributions are made each year as shown in the previous chart.

As can be seen, the expected impact of the current actual contribution policy, which is well below the actuarially-determined contribution rate, results in a funded ratio that is expected to continuously decline until it falls below 15% in 2041, even if all assumptions are met. These projections are based on the same assumptions as mentioned above regarding future payroll increases **and** that investments will return 6.75% annually, including in 2025.



SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Actuarial valuations are based on a set of assumptions about future economic and demographic experience. These assumptions represent a reasonable estimate of future experience, but actual future experience will undoubtedly be different and may be significantly different. This section of the report is intended to identify the primary risks to the plan, provide some background information about those risks, and provide an assessment of those risks.

Identification of Risks

The fundamental risk to a pension plan is that the contributions needed to pay the benefits become unaffordable. While there are a number of factors that could lead to contribution amounts becoming unaffordable, we believe the primary sources are:

- Contribution risk,
- Investment risk,
- Longevity and other demographic risks, and
- Assumption change risk.

Other risks that we have not identified may also turn out to be important.

Contribution risk is the potential for actual future contributions to deviate from expected future contributions. There are different sources of contribution risk ranging from the sponsor(s) choosing to not make contributions in accordance with the funding policy to material changes in the contribution base (e.g., covered employees, covered payroll, sponsor revenue) that affect the amount of contributions the Plan can collect.

The Plan's funding policy is to determine an Actuarially Determined Contribution (ADC) equal to the sum of the normal cost, amortization of the UAL, and the Plan's expected administrative expenses. The UAL is amortized as a level percent of pay over closed 20-year period layers effective with the January 1, 2020 actuarial valuation. Prior to that valuation, the UAL was amortized as a level percent of pay over a rolling 20-year period. This change in policy is expected to return the Plan to full funding if the contributions are close to the level of the ADC.

However, the Collective Bargaining Agreement (CBA), as amended by a Memorandum of Understanding (MOU) between the District and the Union has set the actual employer and employee contribution rates. Whenever this agreement results in a contribution rate significantly less than the ADC the projected funding status will decrease, and future actuarially determined contribution amounts will increase, potentially to levels that may become unaffordable.

In addition, the contributions are expected to be made as a fixed percentage of payroll. When payroll does not grow as assumed (currently at 3.25% per year), the Plan will not collect the full dollar amount necessary to pay off the UAL. A significant reduction in payroll below the assumed level will therefore widen the difference between the actuarially determined and negotiated contribution rates.

SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Investment Risk is the potential for investment returns to be different than expected. Lower investment returns than anticipated will increase the unfunded actuarial liability necessitating higher contributions in the future unless there are other gains that offset these investment losses. The potential volatility of future investment returns is determined by the Plan's asset allocation and the affordability of the investment risk is determined by the amount of assets invested relative to the size of the plan sponsor or other contribution base.

Longevity and other demographic risks are the potential for mortality or other demographic experience to be different than expected. Generally, longevity and other demographic risks emerge slowly over time and are often dwarfed by other changes, particularly those due to investment returns.

Assumption change risk is the potential for the environment to change such that future valuation assumptions are different than the current assumptions. For example, declines in interest rates over the last three decades (which have reversed the past few years) resulted in higher investment returns for fixed income investments, but lower expected future returns necessitating either a change in investment policy, a reduction in discount rate, or some combination of the two. Assumption change risk is an extension of the other risks identified, but rather than capturing the risk as it is experienced, it captures the cost of recognizing a change in environment when the current assumption is no longer reasonable.

Plan Maturity Measures

The future financial condition of a mature pension plan is more sensitive to each of the risks identified above than a less mature plan. Before assessing each of these risks, it is important to understand the maturity of the plan.

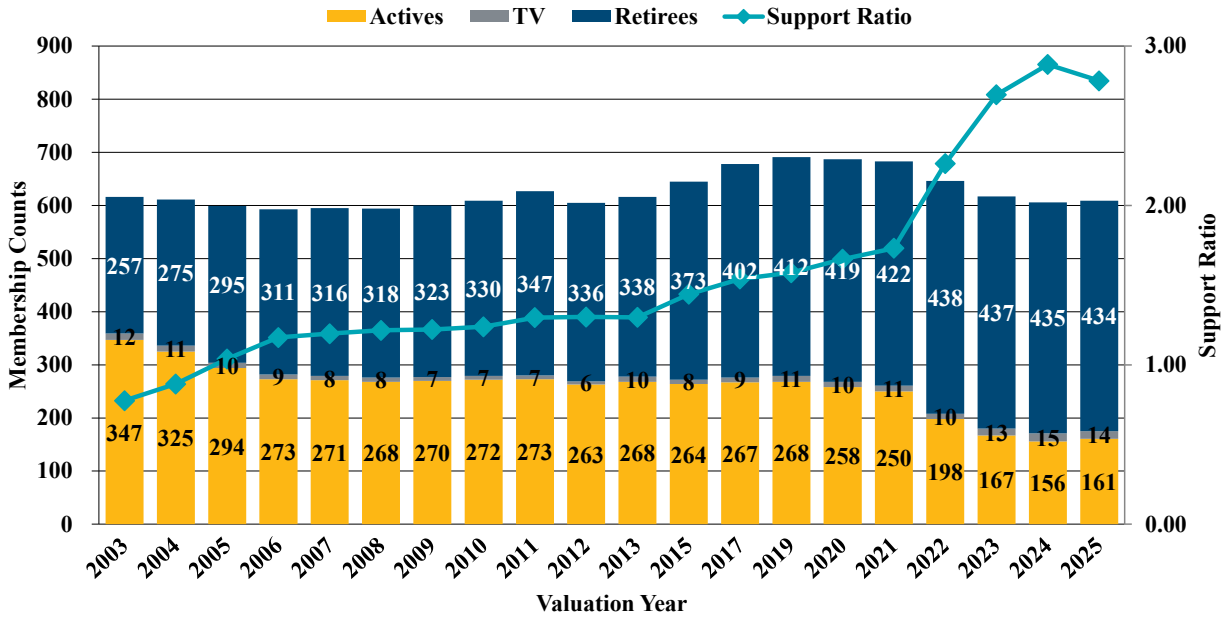
Plan maturity can be measured in a variety of ways, but they all get at one basic dynamic – the larger the plan is compared to the contribution or revenue base that supports it; the more sensitive the plan will be to risk. Maturity measures of the Plan show a dramatic increase in some maturity measures, while others fluctuated due to dramatic swings in the size of the assets.

Support Ratio (Inactives per Active)

One simple measure of plan maturity is the ratio of the number of inactive members (those receiving benefits or entitled to a deferred benefit) to the number of active members. The Support Ratio is expected to increase gradually as a Plan matures. The chart on the following page shows the large growth in the Support Ratio for the Plan over the past 20+ years, more than tripling during this time.

SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Support Ratio (Inactives per Active)



Leverage Ratios

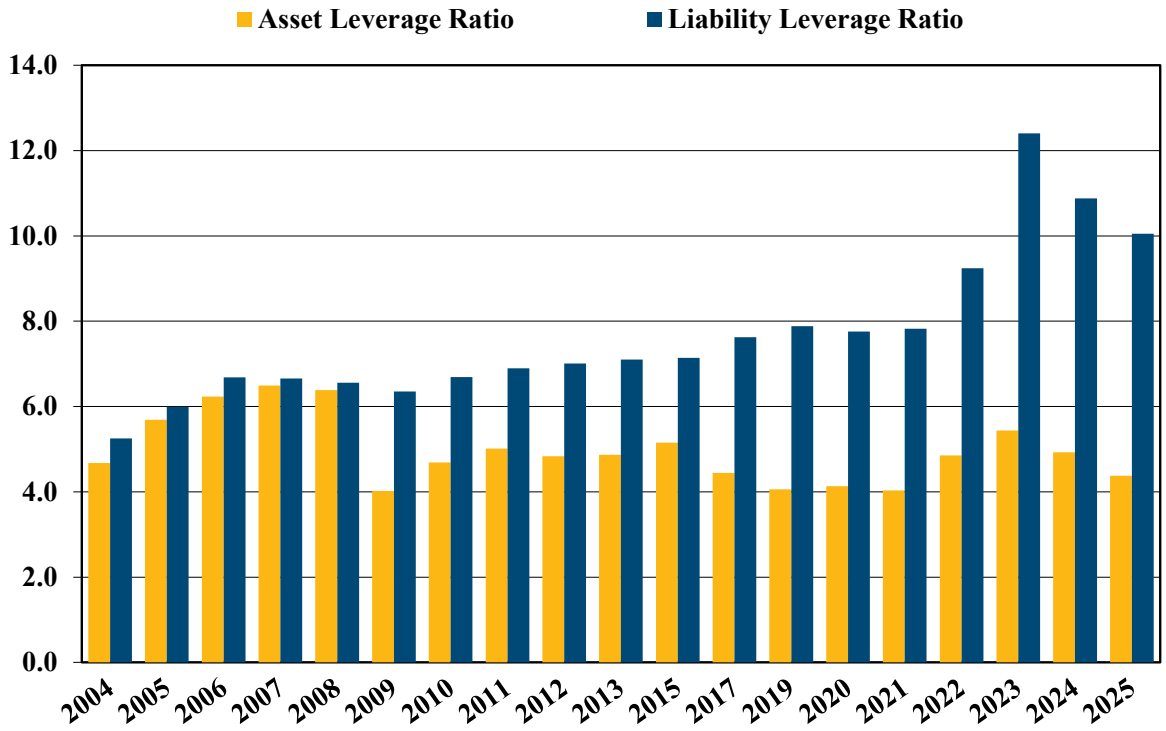
Leverage or volatility ratios measure the size of the plan compared to its revenue base more directly. For Golden Gate Transit, we have calculated the historical asset leverage ratio and actuarial liability leverage ratio as a multiple of the Plan's payroll. An asset leverage ratio of 5.0, for example, means that if the Plan experiences a 10% loss on assets compared to the expected return, the loss would be equivalent to 50% of the Plan's payroll. An additional payment of 3.5% of payroll would be required to amortize this asset loss over a 20-year period as a level percentage of pay. If the Plan were to become 100% funded, the asset leverage ratio would equal the Actuarial Liability (AL) leverage ratio.

The AL leverage ratio also indicates how sensitive the Plan is to experience gains and losses or assumption changes. For example, an assumption change that increases the AL by 5% would add a liability equivalent to about 60% of the Plan's payroll if the AL leverage ratio is 12.0. An additional payment of 8.4% of payroll would be required to amortize this liability loss over a 20-year period.

The chart on the next page shows the historical leverage ratios of the Plan. The liability leverage ratios have been steadily increasing, with a large jump in 2023 due to the lower than expected payroll, while the asset ratios have fluctuated due to changes in the size of the assets compared to payroll. The payroll used for 2021 and 2022 was adjusted payroll assuming a return to historic service levels while 2023 and later, use actual payroll, the same payroll used to calculate the ADC rate each year. This was also the payroll used to determine active liabilities.

SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Leverage Ratios
(Ratio to Payroll)



Assessing Costs and Risks

Assessing the fundamental risk to the Plan – i.e., the contributions needed to pay benefits becoming unaffordable – is complex because there is no bright line of what is unaffordable and the contribution amounts themselves are affected not just by the experience of the Plan, but also by the interaction of that experience and decisions by the Board related to assumptions, asset smoothing methods, and amortization periods, as well as the levels of contributions negotiated by the employer and employees.

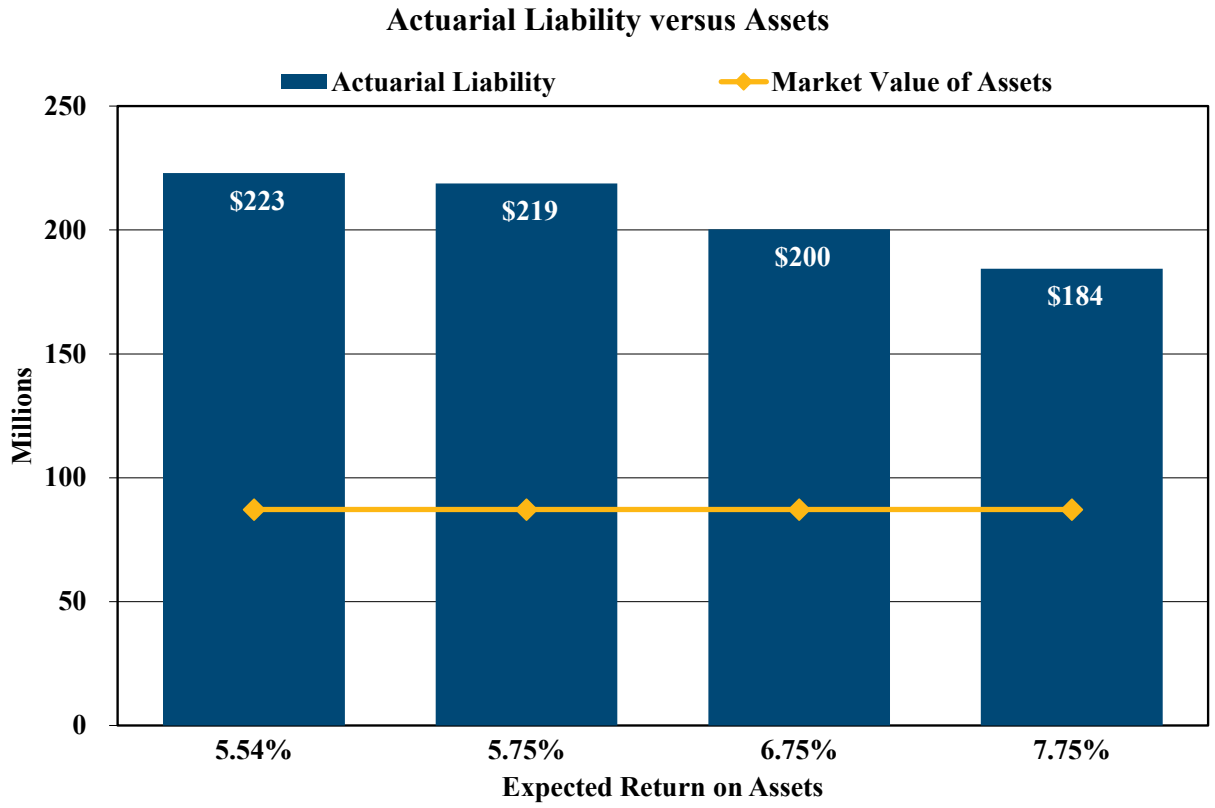
One of the primary risks to the Plan – the impact of negotiated contributions continuing to be less than the Actuarially Determined Contribution – has already been explored in the previous section on the projection of future trends. The projections in that section have shown that the current contribution level, which is less than ADC, is expected to result in a continued decline in the funded ratio for at least the next fifteen years, even if all assumptions are met.

In the sections that follow, we explore the impact of another primary risk – investment returns – on the Plan.

SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Sensitivity to Investment Returns

The chart below compares Market Value of Assets (line) to the Actuarial Liabilities (bars) discounted at the current expected rate of return and at investment return 100 basis points above and below the expected rate of return. In addition, we have included an additional measurement, the Low-Default Risk Obligation Measure (LDROM), which is the Actuarial Liability using a discount rate derived from low-default risk fixed income securities that approximately match the benefit payments of the plan.



If investments return 6.75% annually, the Plan would need approximately $200 million in assets today to pay benefits associated with service earned to date, compared to current assets of $87 million. If investment returns are only 5.75%, the Plan would need approximately $219 million in assets today, and if investment returns are 7.75%, the Plan would need approximately $184 million in assets today.

The Plan invests in a diversified portfolio to achieve the best possible returns at an acceptable level of risk. The low-risk portfolio for a pension plan would be comprised entirely of low-default-risk fixed income securities whose cash flows approximately match the benefit cash flows of the plan. However, such a portfolio would have a lower expected rate of return (5.54% as of December 31, 2024[1]) than the diversified portfolio (6.75%). The LDROM represents what

[1] Assumes a 5.54% discount rate, which is based on the December 31, 2024 FTSE Pension Liability Index and all other assumptions and methods as used to calculate the Actuarial Liability.

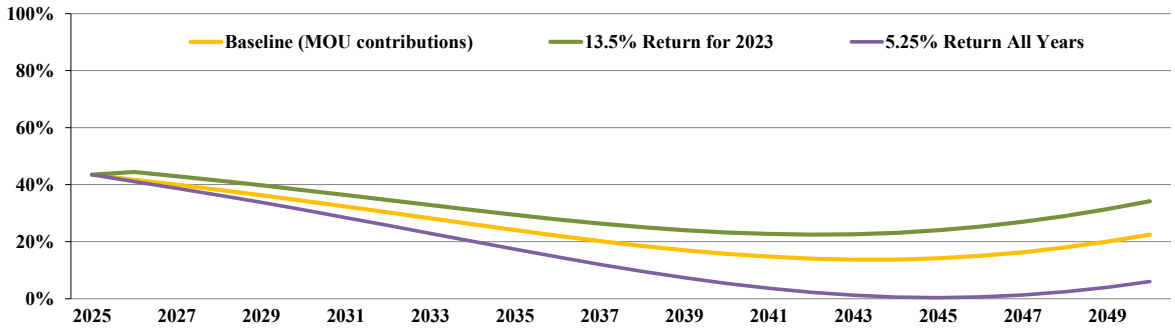
the Actuarial Liability would be if the Plan's assets were invested in such a portfolio. As of December 31, 2024, the LDROM is $223 million compared to the Actuarial Liability of $200 million for the Plan. The $23 million difference can be viewed as the expected savings from taking on the investment risk of the diversified portfolio. Alternatively, it can be viewed as the potential cost of minimizing the investment risk.

If the Plan were to invest in the LDROM portfolio and not a diversified portfolio, the funded status would be lower, and the expected contribution requirements would increase. The security of the Plan's pension benefits relies on current assets, future investment earnings, and the ability and willingness of the employer to make future contributions. If the Plan were to invest in the LDROM portfolio, it would not change the current asset value, but it could potentially reduce future investment earnings, potentially changing the level of reliance on future employer contributions. However, investing in an LDROM portfolio would generate more predictable future investment earnings and future contributions.

Deterministic Projections

Deterministic projections serve to show the expected outcome under a specified set of scenarios. In the chart below, we show the impact on the expected funded status of the Plan given three sets of investment return outlooks. In addition to the baseline scenario, we have also shown two alternative scenarios:

- Baseline scenario (yellow line, wherein the investment returns are 6.75% every year, and payroll is in line with the original estimates):
- A scenario (green line) in which the return for 2025 is 13.5% for the year (double the current assumption), significantly exceeding expectations, while all other assumptions are met, including 6.75% investment returns for all years after 2025, and
- A scenario (purple line) in which the return for all future years is 5.25%, 1.50% below the assumed return.



Under the optimistic scenario returning 13.5% for 2025, the funded ratio shows a one-year improvement (up to 44%), but then continuing to decline, dropping to a low of 22% funded in 2042, and then beginning to slowly recover. Under the pessimistic scenario of returns 1.5% below expectations ever year, the funded ratio is expected to decline precipitously in future years and reach a precarious position, including the Plan running out of assets in 2044. We strongly emphasize that additional actions are needed in order to stabilize the funding of the Plan.

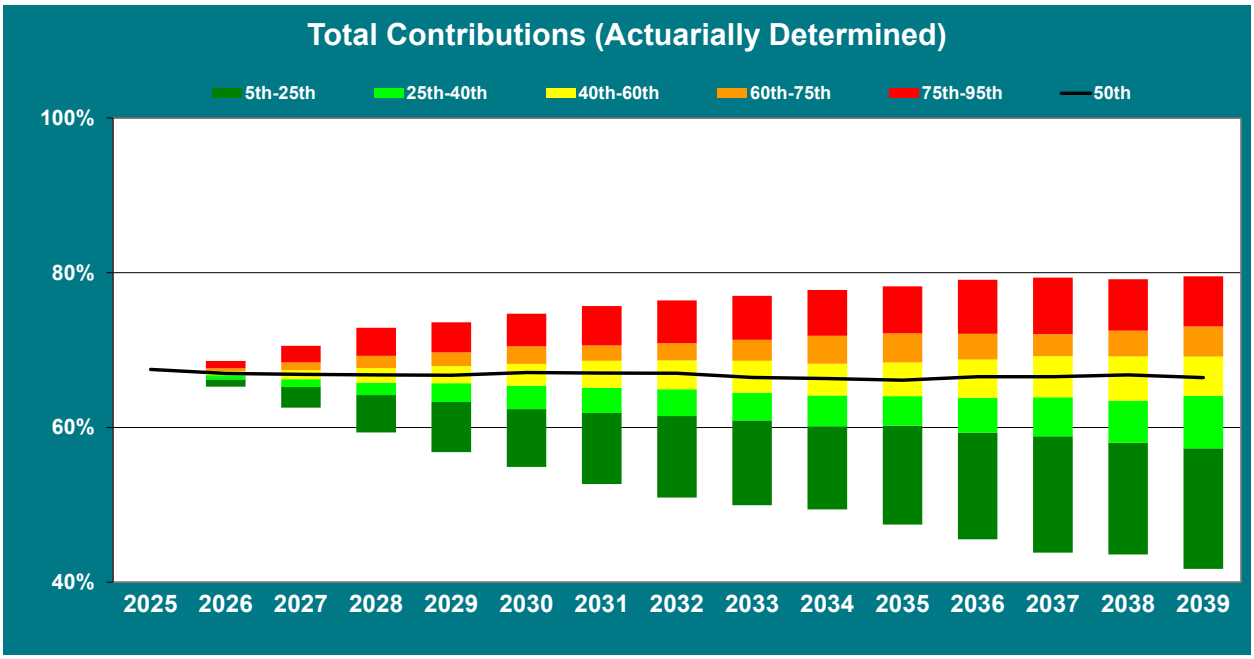
SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Stochastic Projections

Stochastic projections serve to show the *range* of probable outcomes of various measurements. The charts on the following pages show the projected range of the total contribution rate (employee plus employer) and of the funded ratio on a market value of assets basis. The range in both scenarios is driven by the expected return for the portfolio (using a 6.75% average compounded return expectation) and the volatility of investment returns (assuming a 10.7% standard deviation of annual returns, based on information provided by the Plan's investment consultant).

In these projections, we have assumed that contributions will be made at the level of the *actuarially determined cost*, based on the Plan's current funding policy (i.e., with a 20-year closed layers, level percentage of pay amortization policy).

Stochastic Projection of Total Contributions as a Percent of Pay

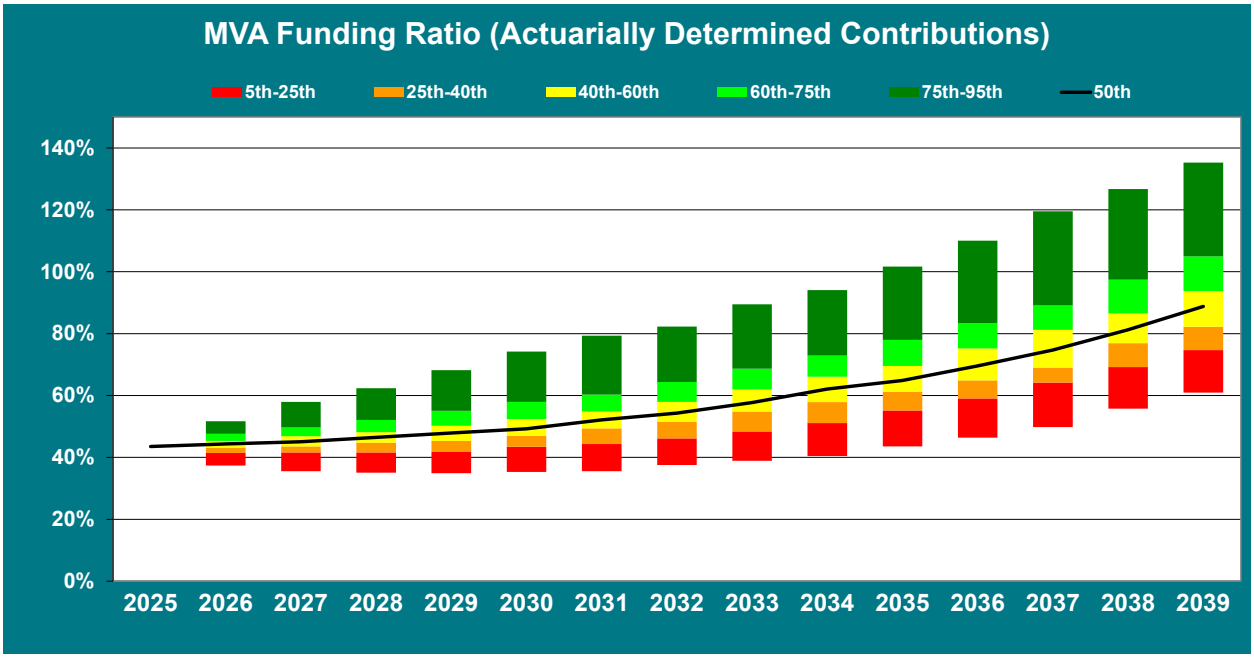


The stochastic projection of total contributions as a percent of pay shows the probable range of future contribution rates. The baseline contribution rate (black line), which is based on the median of the simulations using an average return of 6.75%, aligns closely with the projections discussed in subsection D. of the Board Summary of this report. In the most pessimistic scenario shown, the 95th percentile, the projected total contribution rate approaches 80% of pay. As a reminder, the total contribution rate to the Plan is currently under 42% of pay (approximately 7.2% for the employees, 34.5% for the employer).

SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

The chart below shows that while the baseline funded ratio (black line) is projected to be nearly 80% at the end of the 15-year period shown here, there is a wide range of potential outcomes. Good investment returns have only a small likelihood of bringing the Plan back to full funding within this time frame, even if contributions are increased significantly to the actuarially determined rate (no matter how high the level reaches). In scenarios with unfavorable investment returns the funded ratio is expected to drop as low as 35% funded on a market value of assets basis.

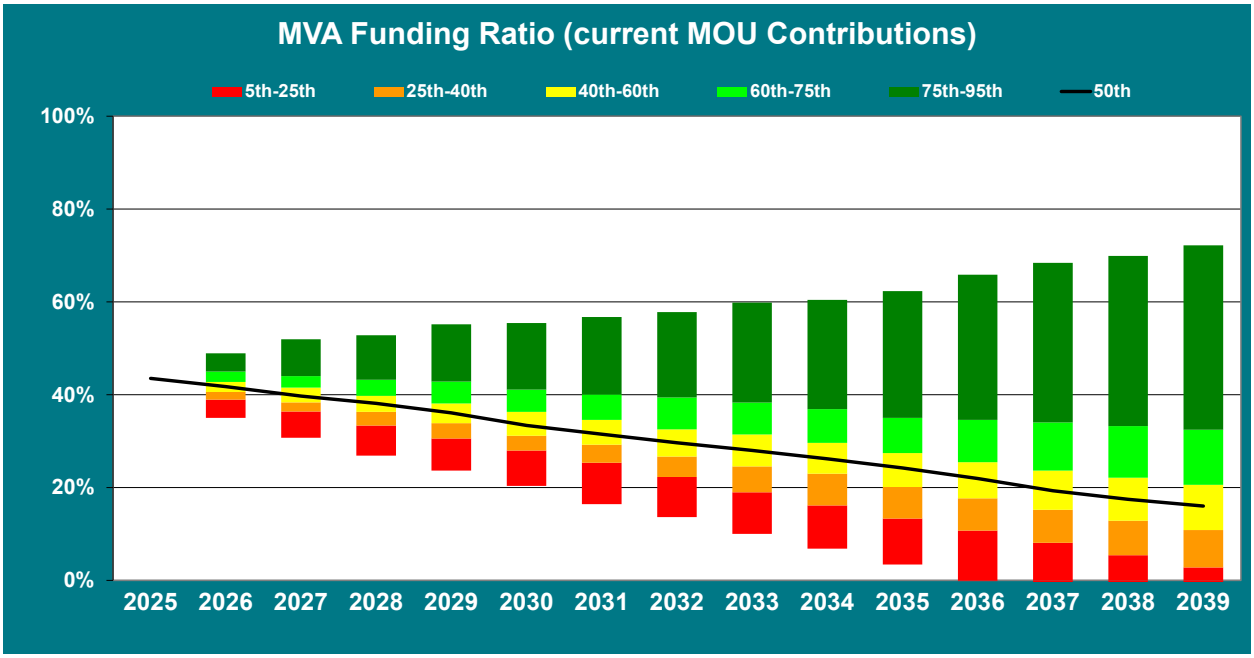
Stochastic Projection of Funded Ratio on a Market Value of Assets Basis



SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

However, if we remove the assumption that contributions will be made according to the actuarial funding policy, and instead assume that they will continue to be made at the current negotiated rates of pay, the Plan's funding is projected to drop below 20% in the baseline scenario, and become insolvent by 2036 in the most pessimistic scenarios shown (i.e., the 5th percentile). Nearly 25% of the modeled scenarios project the Plan to become insolvent by 2039. This projection assumes that payroll will grow from the current levels at 3.25% per year.

Stochastic Projection of Funded Ratio on a Market Value of Assets Basis



SECTION III – ASSETS

Plan assets play a key role in the financial operation of the Plan and in the decisions the Trustees may make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely impact benefit levels, contributions, and the ultimate security of participants' benefits.

In this section, we present detailed information on the Plan assets including:

- **Disclosure** of the Plan assets as of December 31, 2023 and December 31, 2024,
- Statement of the **changes** in market values during each year,
- Development of the **Actuarial Value of Assets**, and
- An estimate of **investment return**.

Disclosure

There are two types of asset values disclosed in this valuation, the market value of assets and the actuarial value of assets. The market value represents a "snapshot" or "cash out" value that provides the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the marketplace. As a result, market values are usually not as suitable for determining relatively stable contribution rates as are the actuarial value of assets that reflect smoothing of annual investment returns.

Table III-1 below discloses and compares each asset value as of December 31, 2023 and 2024.

Table III-1
Statement of Net Assets as of December 31,

	2023	2024	% change
Investments at Fair Value	$ 90,733,604	$ 84,224,134	(7.2%)
Cash and Short-Term Investments	2,810,130	1,944,001	(30.8%)
Receivables and Prepaid Expenses/Benefits	(116,286)	171,441	(247.4%)
Total Assets	93,427,448	86,339,577	(7.6%)
Total Liabilities	(3,347,889)	834,551	(124.9%)
Net Assets	$ 90,079,559	$ 87,174,128	(3.2%)

SECTION III – ASSETS

Changes in Market Value

Table III-2 below shows the components of change between the market value of assets as of December 31, 2023 and December 31, 2024.

Table III-2
Changes in Market Values

		2023		2024
Value of Assets - Beginning of Year	**$**	**87,079,579**	**$**	**90,079,559**
Additions				
Payments from Members	$	1,103,594	$	1,384,808
Employer Contributions		10,369,557		6,034,771
Interest and Dividends		1,194,609		1,112,411
Capital Gain/(Loss)		7,337,098		6,161,352
Total Additions	$	20,004,858	$	14,693,342
Deductions				
Adjustment	$	0	$	697,940
Investment Expenses		236,523		242,036
Benefit Payments		16,121,675		16,020,990
Administrative Expenses		646,680		637,808
Total Deductions	$	17,004,878	$	17,598,773
Value of Assets - End of Year	**$**	**90,079,559**	**$**	**87,174,128**

SECTION III – ASSETS

Actuarial Value of Assets

Table III-3 below shows how the actuarial value of assets is developed.

The actuarial value of assets represents a "smoothed" value developed by the actuary to reduce, or eliminate, volatile results which could develop from short-term fluctuations in the market value of assets. For this Plan, the actuarial value has been calculated by taking the market value of assets less two-thirds of the investment gain (loss) during the preceding year, less one-third of the investment gain (loss) during the second preceding year. If the Actuarial Value of Assets is less than 80% or more than 120% of the market value, an adjustment is made to the actuarial value to bring the value within this corridor.

Table III-3
Development of Actuarial Value of Assets

1. Market Value of Assets on January 1, 2025		$ 87,174,128
2. Development of 2023 Gain/(Loss)		
a. Market Value of Assets on January 1, 2023		$ 87,079,579
b. 2023 Employee Contributions		1,103,594
c. 2023 Employer Contributions		10,369,557
d. 2023 Benefit Payments		(16,121,675)
e. 2023 Administrative Expenses		(646,680)
f. 2023 Expected Earnings on 2a. - 2e. at 6.75% (full year on a., 1/2 year on b.-e.)		5,702,077
g. 2023 Actual Earnings		8,295,184
h. 2023 Gain/(Loss) [2g. - 2f.]		$ 2,593,107
3. Development of 2024 Gain/(Loss)		
a. Market Value of Assets on January 1, 2024		$ 90,079,559
b. 2024 Employee Contributions		1,384,808
c. 2024 Employer Contributions		6,034,771
d. 2024 Benefit Payments		(16,020,990)
e. 2024 Administrative Expenses		(637,808)
f. 2024 Expected Earnings on 3a. - 3e. at 6.75% (full year on a., 1/2 year on b.-e.)		5,773,638
g. 2024 Actual Earnings		6,333,787
h. 2024 Gain/(Loss) [3g. - 3f.]		$ 560,149
4. Unrecognized Gain/(Loss)	**Total Gain/(Loss)**	**Unrecognized Portion**
(2/3) of 2024 Gain/(Loss)	$ 560,149	$ 373,432
(1/3) of 2023 Gain/(Loss)	2,593,107	864,369
Total	$ 3,153,256	$ 1,237,802
5. Preliminary Actuarial Value of Assets (1) - (4)		$ 85,936,327
6. 80% of Market Value of Assets on January 1, 2025		69,739,302
7. 120% of Market Value of Assets on January 1, 2025		104,608,954
8. Actuarial Value of Assets on January 1, 2025 Lesser of (5) and (7), not less than (6)		$ 85,936,327
9. Actuarial Value as a Percentage of Market Value (8)/(1)		98.58%

SECTION III – ASSETS

Investment Performance

The Market Value of Assets (MVA) returned 8.3% during the plan year ending December 31, 2024, which is greater than the assumed 6.75% return. However, the return on the Actuarial Value of Assets (AVA) was 1.5%, resulting in an actuarial loss for 2024.

Below we show additional historical returns.

Table III-4
Historical Returns

	MVA	AVA
2003	20.3%	4.9%
2004	12.4%	7.2%
2005	4.6%	6.3%
2006	12.9%	8.4%
2007	6.1%	7.4%
2008	-27.6%	-14.6%
2009	19.2%	7.1%
2010	12.5%	-2.3%
2011	-2.0%	9.8%
2012	13.3%	7.3%
2013	17.4%	9.1%
2014	7.5%	12.9%
2015	-0.7%	7.9%
2016	7.1%	4.1%
2017	13.1%	5.5%
2018	-6.0%	4.8%
2019	14.8%	6.3%
2020	6.8%	4.7%
2021	15.3%	12.5%
2022	-9.4%	4.2%
2023	9.8%	4.1%
2024	8.3%	1.5%

SECTION IV – LIABILITIES

In this section, we present detailed information on the Plan liabilities including:

- **Disclosure** of the Plan liabilities as of January 1, 2024 and January 1, 2025, and
- Statement of **changes** in these liabilities between these dates.

Disclosure

Several types of measures of liability are calculated and presented in this report. Each type is distinguished by the purpose for which the measure is used. Note that these liabilities are not applicable for settlement purposes, including the purchase of annuities and the payment of lump sums.

- **Present Value of All Future Benefits:** This measure represents the amount of money needed today to fully pay for all benefits of the Plan both earned as of the valuation date and those expected to be earned in the future by current plan participants, under the current plan provisions if all assumptions are met.
- **Entry Age Normal Actuarial Liability:** Calculated as of valuation date as the present value of benefits allocated to service prior to that date.

Table IV-1 below discloses each of these measures of liability for the current and prior valuations.

Table IV-1
Liabilities

	January 1, 2024	January 1, 2025
Present Value of Future Benefits		
Active Participants	$ 61,659,011	$ 64,536,637
Vested Terminated Participants	1,848,439	1,863,073
Participants Receiving Benefits	151,940,627	152,572,140
Present Value of Future Benefits (PVB)	$ 215,448,077	$ 218,971,850
Entry Age Normal Actuarial Liabililty		
Active Participants	$ 45,265,790	$ 45,850,204
Vested Terminated Participants	1,848,439	1,863,073
Participants Receiving Benefits	151,940,627	152,572,140
Entry Age Normal Actuarial Liabililty (EAN AL)	$ 199,054,856	$ 200,285,417

SECTION IV – LIABILITIES

Changes in Entry Age Normal (EAN) Actuarial Liability

Each of the measures of liability disclosed in the prior table is expected to change at each valuation. The components of that change, depending upon which liability is analyzed, can include:

- New hires since the last valuation
- Benefits accrued since the last valuation
- Plan amendments increasing benefits
- Passage of time which adds interest to the prior liability
- Benefits paid to retirees since the last valuation
- Participants retiring, terminating, or dying at rates different than expected
- A change in actuarial or investment assumptions
- A change in the actuarial funding method

The Unfunded EAN actuarial liability will change because of all of the above, and also due to changes in plan assets resulting from:

- Employer contributions
- Investment earnings
- A change in the method used to measure plan assets

In each valuation, we report on those elements of change that are of particular significance, potentially affecting the long-term financial outlook of the Plan. Below, we present key changes in liabilities since the last valuation.

In the table below, we show the components of change in the actuarial liability between January 1, 2024 and January 1, 2025.

Table IV-2
Changes in Liabilities

Actuarial Liability as of January 1, 2024	199,054,856
Actuarial Liability as of January 1, 2025	200,285,417
Liability Increase (Decrease)	1,230,561
Change due to:	
Plan Amendments	0
Assumption Changes	0
Experience (Gain)/Loss	1,766,762
Benefits Accumulated and other sources	(536,201)

SECTION IV – LIABILITIES

Development of Actuarial Gain/(Loss)

The following table details the change in unfunded liabilities between January 1, 2024 and January 1, 2025.

Table IV-3
Development of Actuarial Gain / (Loss)

1. Unfunded Actuarial Liability at January 1, 2024 (not less than zero)	$	105,190,766
2. Employer Normal Cost plus Expenses at January 1, 2024		3,057,633
3. Expected Contributions January 1, 2024 through December 31, 2024		(11,648,527)
4. Interest to January 1, 2025		6,898,084
5. Change in Unfunded Actuarial Liability Due to Changes in Assumptions		0
6. Change in Unfunded Actuarial Liability Due to Changes in Plan Design		0
7. Expected Unfunded Actuarial Liability at End of Year [1. + 2. + 3. + 4. + 5. + 6.]	$	103,497,956
8. Actual Unfunded Actuarial Liability at End of Year (not less than zero)		114,349,090
9. Actuarial Gain / (Loss) [7. – 8.]	$	(10,851,134)
Actuarial (Loss) from Actuarial Asset return lower than expected		(4,717,639)
Actuarial (Loss) from Contributions lower than ADC		(4,369,343)
Actuarial (Loss) from Expenses higher than expected		(6,556)
Actuarial Gain from Other Asset Experience		9,167
Actuarial (Loss) from New Entrants		(789,359)
Actuarial (Loss) from Inactive Mortality		(750,477)
Actuarial Gain from Salaries lower than expected		6,892
Actuarial (Loss) from Retirements		(687,652)
Actuarial Gain from Terminations		342,227
Actuarial Gain from Other Liability Experience		111,607

SECTION V – CONTRIBUTIONS

In the process of evaluating the financial condition of any pension plan, the actuary analyzes the assets and liabilities to determine what level (if any) of contributions is needed to properly maintain the funding status of the Plan. Typically, the actuarial process will use a funding technique that will result in a pattern of contributions that are both stable and predictable.

For this Plan, the funding method employed is the **Entry Age Actuarial (EAN) Cost Method**.

Under EAN, there are two components to the total contribution: the normal cost and an amortization payment on the unfunded actuarial liability. The normal cost for an individual employee is the ratio of their present value of future benefits to present value of future salaries at entry age, multiplied by their current salary.

The EAN Actuarial Liability is the plan's total present value of future benefits minus the total present value of future normal costs. The difference between the EAN actuarial liability and the actuarial value of assets is the unfunded actuarial liability (UAL). The UAL Amortization rate is determined by computing the dollar contribution necessary to amortize the UAL over 20-year closed layers as a level percentage of payroll, and then dividing this amount by the projected payroll for the current year.

Table V-1 below presents and compares the employer's Actuarially Determined Contribution rates for the Plan for this valuation and the prior one, with the caveat that the prior year results have been recalculated to use the dollar amount of the Normal Cost based on the projected payroll estimate for the Fiscal Year.

Table V-1
Determination of the Actuarially Determined Contribution

	January 1, 2024	January 1, 2025
1. Unfunded Actuarial Liability (UAL)	$ 105,190,766	$ 114,349,090
2. Amortization of the Unfunded Actuarial Liability with Interest to Middle of Fiscal Year	8,793,186	9,859,436
3. Projected Payroll Beginning July 1[1]	17,638,070	19,500,635
4. UAL Amortization Rate	49.85%	50.56%
5. Normal Cost Rate	14.61%	14.27%
6. Administrative Expenses	3.50%	3.50%
7. Total Contribution Rate	67.96%	68.33%
8. Avg Employee Contribution Rate (July 1 - June 30 Fiscal Year)[1]	7.14%	7.18%
9. ADC Rate as a Percent of Estimated Payroll [(7) - (8)]	60.82%	61.15%
10. Actuarially Determined Contribution (ADC) for the Fiscal Year [(9) x (3)]	10,728,315	11,924,204
11. PEPRA Member Rate	7.50%	7.50%
12. Tread Water Rate (ER Normal Cost + Interest on UAL + Expense)	52.57%	51.48%

[1]Average for the Fiscal Year of the employee rate for members not covered by PEPRA (7.00%) and the PEPRA members (7.50%).

SECTION V – CONTRIBUTIONS

Table V-2 below presents the amortization schedule under the 20-year layered amortization method adopted by the Board in 2020.

Table V-2
Development of Amortization Payment for Fiscal Year 2022

Type of Base	Date Established	Initial Amount	Initial Amortization Years	1/1/2025 Outstanding Balance	Remaining Amortization Years	Middle of Year Amortization Amount
Remaining UAL	1/1/2020	91,822,572	20	87,287,803	15	7,514,425
2020 Experience (Gain)/Loss	1/1/2021	7,941,250	20	7,673,829	16	628,845
2021 Experience (Gain)/Loss	1/1/2022	(618,138)	20	(604,885)	17	(47,365)
2022 Assumption Change	1/1/2022	4,559,784	20	4,462,024	17	349,392
2022 Experience (Gain)/Loss	1/1/2023	2,346,227	20	2,319,276	18	174,120
2023 Assumption Change	1/1/2023	(898,944)	20	(888,618)	18	(66,713)
2023 Experience (Gain)/Loss	1/1/2024	6,201,931	20	6,174,484	19	445,775
2024 Assumption Change	1/1/2024	34,247	20	34,096	19	2,462
2024 Plan Change	1/1/2024	(2,973,209)	20	(2,960,051)	19	(213,705)
2024 Experience (Gain)/Loss	1/1/2025	10,851,134	20	10,851,134	20	755,395
Total Unfunded Actuarial Liability (UAL)				**$ 114,349,090**		**$** 9,542,631
Payment adjusted with interest to the middle of the Fiscal Year						**9,859,436**

The Plan's single equivalent amortization period is 15.6 years. In other words, if the Plan paid the same UAL payment (increasing annually at the payroll growth rate of 3.25%), it would take approximately 15.6 years to fully pay the existing UAL.

SECTION V – CONTRIBUTIONS

The following table shows the development of the Employee Contribution Rate for PEPRA members.

Table V-3
Development of PEPRA Employee Contribution Rate as of January 1, 2025

	Non-PEPRA	PEPRA	Total
Allocation of Administrative Expense			
1. Normal Cost Rate (Excluding Admin. Expenses)	14.67%	13.61%	14.27%
2. UAL Amortization Rate			50.56%
3. Avg Employee Contribution Rate (July 1 - June 30 Fiscal Year)			7.18%
4. Total Administrative Expense Rate			3.50%
5. Administrative Allocated to Normal Cost [(4) x (1) / (((1) + (2))]			0.77%
6. Administrative Allocated to UAL [(4) - (5)]			2.73%
PEPRA Employee Contribution Rate			
7. PEPRA Normal Cost Rate (with EE Share of Admin. Expenses) [(1) + (5)]		14.38%	
8. PEPRA Normal Cost Rate as of January 1, 2024[1]		14.99%	
9. Change in PEPRA Normal Cost Rate		-0.61%	
10. PEPRA Employee Contribution Rate as of January 1, 2024 valuation		7.50%	
11. PEPRA Employee Contribution Rate as of January 1, 2025 valuation[2]		7.50%	

[1]The PEPRA employee contribution rate as of the previous valuation was determined based on the January 1, 2024 normal cost.

[2]The PEPRA employee contribution rate only changes if the current PEPRA normal cost and the PEPRA normal cost used to set the previous rate differ by at least 1.00%. If so, the new rate will be 50% of PEPRA Normal Cost (with EE share of administrative expenses), rounded to the nearest 0.25%.

APPENDIX A – MEMBERSHIP INFORMATION

Statistics for Active Participants:

	Count	Active Average		
		Age	Service	Compensation[1]
Total as of January 1, 2025	161	52.2	10.3	$123,794
▪ Non-PEPRA	94	56.0	15.3	$134,754
▪ PEPRA	67	46.9	3.5	$108,417
Total as of January 1, 2024	156	52.4	11.0	$117,277
▪ Non-PEPRA	100	55.9	15.1	$133,470
▪ PEPRA	56	46.2	3.5	$88,362

[1]For the 2024 and 2025 valuations, we based the member's current compensation on annualized earnings provided as of that year.

Member contribution balances are calculated based on historical wage data provided, applicable member contribution rates and annual interest.

Statistics for Inactive Participants:

	Count	Total Monthly Benefits	Average Monthly Benefits
As of January 1, 2025			
Retirees and Beneficiaries	434	$1,302,259	$3,001
Terminated Vested Participants	14	$17,960	$1,283
Total Inactives	448	$1,320,219	$2,947
As of January 1, 2024			
Retirees and Beneficiaries	435	$1,283,014	$2,949
Terminated Vested Participants	15	$17,252	$1,150
Total Inactives	450	$1,300,265	$2,889

APPENDIX A – MEMBERSHIP INFORMATION

Active Counts and Salary by Age and Service

	Years of Service								
Age	**0 - 4**	**5 - 9**	**10 - 14**	**15 - 19**	**20 - 24**	**25-29**	**30 - 34**	**35 +**	**Total**
Under 20									0
20 - 24									2
									93,740
25 - 29	1								1
	103,771								103,771
30 - 34	8	2							10
	107,592	130,026							112,079
35 - 39	6	3	3						12
	82,838	104,977	160,816						107,867
40 - 44	9	6	5						21
	106,326	128,942	112,679						116,787
45 - 49	4	8	1	1	1				15
	105,944	122,141	123,092	126,204	166,981				121,145
50 - 54	9	5	7	2	6				30
	95,393	129,145	146,124	151,508	136,350				126,442
55 - 59	6	4	5	3	4	2			24
	75,335	121,355	134,656	179,140	170,690	160,209			131,304
60 - 64	2	4	8	2	5				23
	93,301	114,485	131,315	144,123	128,270				126,935
65 +	1	7	8	4				2	23
	90,721	140,797	137,761	126,064				131,420	128,065
Total	48	39	37	13	17	4	1	2	161
	96,200	125,652	135,613	147,515	144,367	152,718	149,409	262,839	123,794

APPENDIX A – MEMBERSHIP INFORMATION

	Changes in Plan Membership							
	Actives	Mgmt Transfers	Vested Terminations	Disabled	Retired	QDRO	Beneficiaries	Total Participants
January 1, 2024	156	12	3	34	306	13	82	606
New Entrants	22							22
Rehires	4		(2)					2
Disabilities								
Retirements	(8)				8			
Vested Terminations	(1)		1					
Died, With Beneficiaries' Benefit Payable, QDRO					(6)		6	
Transfers	(1)	1						
Died, Without Beneficiary, and Other Terminations	(11)				(4)	(1)		(16)
Transfer Retirement								
Beneficiary Deaths							(6)	(6)
Refund of Contributions			(1)					(1)
Benefits Ceased								
Data Corrections				1	1			2
January 1, 2025	161	13	1	35	305	12	82	609

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

A. Actuarial Assumptions

The assumptions used in this report - with the exception of the discount rate, the administrative expense rate, and the assumption regarding future service accruals - reflect the results of an experience study performed by Cheiron covering the period January 1, 2011 through December 31, 2016 and adopted by the Board. The discount rate was adopted by the Board as part of the 2022 actuarial valuation, based on information provided by the Plan's investment consultant. The administrative expense assumption was also adopted by the Board with the 2022 valuation, based on information and a recommendation provided by Cheiron at the August 24, 2022 Board meeting. The assumption regarding future accruals was adopted as part of the 2023 actuarial valuation, based on an analysis of active service accruals during 2022, as presented by Cheiron. The combined effect of the assumptions in aggregate is expected to have no significant bias.

1. Mortality Rates

Active Employee: Sex distinct RP-2014 Employee Table with Blue Collar adjustment and fully generational improvements from base year 2014 using Projection Scale MP-2016; see table of sample rates projected to 2025

Healthy Annuitant: Sex distinct RP-2014 Healthy Annuitant Table with Blue Collar adjustment and fully generational improvements from base year 2014 using Projection Scale MP-2016; see table of sample rates projected to 2025

Disabled: Sex distinct RP-2014 Disabled Retiree Table with fully generational improvements from base year 2014 using Projection Scale MP-2016; see table of sample rates projected to 2025

	Active Employee (%)		Healthy Annuitant (%)		Disabled Mortality (%)	
Age	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
20	0.04	0.02	0.04	0.02	0.57	0.19
30	0.05	0.02	0.05	0.02	0.70	0.28
40	0.08	0.04	0.08	0.04	1.04	0.53
50	0.19	0.11	0.19	0.11	1.78	1.08
60	0.56	0.26	0.56	0.26	2.45	1.61
70	1.60	0.63	1.60	0.63	3.72	2.55
80	3.99	1.76	3.99	1.76	6.79	5.44
90	13.20	10.23	13.20	10.23	15.59	12.13

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

2. Disability

Disability rates are assumed to be 20% of the rates developed by the Social Security Administration's Actuarial Study No. 114. These rates are used prior to eligibility for retirement. No disabilities are assumed after eligibility for retirement. It is assumed that all expected disabilities will not occur in the line of duty. See table of sample rates.

Disability (%)		
Age	**Male**	**Female**
30	0.10	0.10
35	0.15	0.15
40	0.26	0.24
45	0.35	0.28
50	0.42	0.28
55	0.42	0.28

3. Withdrawal Rates before Retirement

Years of Service	Withdrawal (%)
Less than 15	2.0
15 - 24	1.5
25+	0.0

4. Retirement Rates

Retirement (%)		
	Rule of 80[1]	
Age and Service	Eligible	Ineligible
Under Age 60, <20 Yrs of Service	20	10
Under Age 60, 20+ Yrs of Service	20	25
Age 60-69, <20 Yrs of Service	30	10
Age 60-69, 20+ Yrs of Service	30	25
Age 70+, All Years of Service	100	100

[1]Member qualifies for Rule of 80 if combined age and service is at least 80.

No members are assumed to retire before age 50, all non-PEPRA members are assumed to retire by age 70, and all PEPRA members with at least five years of service are assumed to retire by age 70. PEPRA members are not eligible to retire until age 52.

Terminated vested members, who are eligible for reciprocity with another public employer, are assumed to retire at age 60. Terminated vested members, who are not eligible for reciprocity with another public employer, are assumed to retire at age 65.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

5. Marriage

70% of non-retired male and 30% of non-retired female members are assumed married or have domestic partners. Spouses or domestic partners are assumed to be of the opposite sex. The male spouse is assumed to be three years older than the female.

6. Net Investment Return

6.75% compounded annually, net of investment expenses.

7. Form of Payment

Upon retirement, all members are assumed to elect a single life annuity. If a member terminates prior to retirement eligibility, they are assumed to take a deferred annuity payable at Normal Retirement Age or a return of member contributions with interest, based on the most valuable option at the date of termination.

All members with a SPP benefit are assumed to receive this benefit in a lump sum. However, the lump sums have been loaded by 4.0%, to account for that fact that a large percentage (80%) of members are actually receiving these benefits based on a multi-year fixed-payment plan, and the interest rate used to determine the installment payments (8.0%) exceeds the Plan's assumed earnings rate (6.75%), thereby increasing the expected value of the installment contract (by approximately 5% on average.)

8. Salary Inflation

Assumed pay increases for active Participants consist of increases due to cost of living adjustments and those due to merit/longevity. Based on an analysis of pay levels and service for the Participants, we assume that pay increases due to merit will be 7.5% per year for the first two years, 2.5% for the next two years, 1% for the following year, and 0% thereafter. Members are assumed to earn an additional 6% in the year prior to retirement, e.g., by working additional shifts.

In addition, annual adjustments in pay due to the cost of living will equal CPI, for an additional increase of 3.25%.

9. Total Wage Inflation

Total wage inflation used in amortization of the UAL is assumed to be 3.25% per year.

10. Administrative Expenses

3.50% of payroll.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

11. Future Service Accruals

Active members are assumed to earn 0.90 service credits per year in future years, based on an analysis of active service accruals during 2022.

12. Changes in Assumptions

None.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

B. Actuarial Methods

1. Contribution Allocation Procedure

The contribution allocation procedure primarily consists of an actuarial cost method, an asset valuation method, and an amortization method as described below. This contribution allocation procedure, combined with reasonable assumptions, produces a Reasonable Actuarially Determined Contribution as defined in Actuarial Standard of Practice No. 4. The contribution allocation procedure was selected to balance benefit security, intergenerational equity, and the stability of actuarially determined contributions. The selection also considered the demographics of plan members, the funding goals and objectives of the Board, and the need to accumulate assets to make benefit payments when due.

2. Actuarial Value of Assets

The market value of assets less unrecognized returns in each of the last two years. Initial unrecognized return is equal to the difference between the actual market return and expected return on the actuarial value of assets and is recognized over a three-year period. The actuarial value is further adjusted, if necessary, to be within 20% of the market value.

3. Actuarial Cost Method

The Entry Age Normal actuarial funding method is used for active employees, whereby the normal cost is computed as the level annual percentage of pay required to fund the retirement benefits between each member's date of hire and assumed retirement. The actuarial liability is the difference between the present value of future benefits and the present value of future normal cost. The unfunded actuarial liability (UAL) is the difference between the actuarial liability and the actuarial value of assets. For determining the Actuarially Determined Contribution, the UAL is calculated as a level percentage of active payroll and is based on a closed 20-year amortization of the UAL as of January 1, 2020, and 20-year amortization layers of any new sources of UAL starting with the January 1, 2021 valuation.

4. Changes in Actuarial Methods since Last Valuation

None.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

1. Participation

All full-time bus operators for Golden Gate Transit District who have completed their period of probationary status.

PEPRA: A New Member is a Member joining the Plan for the first time on or after January 1, 2016, or who was a member of the Plan previously but withdrew Plan contributions and did not redeposit them with interest upon reentry. Employees who transfer from and are eligible for reciprocity with another public employer will not be New Members if their service in the reciprocal plan was under a pre-PEPRA tier.

2. Service

Before July 31, 2020 Members earn one Service Credit for every 12 months of full-time employment, which do not need to be consecutive.

On or after July 31, 2020 Members earn Service Credits pursuant to the following schedule:

Days as a Full Time Employee during a Plan Year	Service Credit
Less than 54 days	0.00
54 to 107 days	0.25
108 to 161 days	0.50
162 to 214 days	0.75
215 days or more	1.00

Cashed out vacation and sick time does not count towards Service Credits.

3. Contributions

Non-PEPRA: 41.50% of salary, with 34.50% paid by the Transit District and 7.00% paid by employees.

PEPRA: New Members must contribute half of the normal cost of the Plan, rounded to the nearest 0.25%. Contributions for these Members will be based on the Normal Cost associated with their benefits, including a share of the expected administrative expenses of the Plan. As of the January 1, 2024 valuation, the PEPRA member rate is 7.50%, combined with 34.5% paid by the Transit District for a total of 42.00%.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

4. Average Final Earnings (AFE)

Greater of the average monthly earnings for the year before retirement and the average monthly earnings for the highest single calendar year. Accumulated vacation or sick leave are excluded.

PEPRA: For all New Members, AFE will be based on the highest thirty-six consecutive months. Only base compensation or normal monthly rate of pay, as defined, up to 100% of the PEPRA wage cap for members participating in Social Security ($151,446 for 2024 and $155,081 for 2025) and 120% of the PEPRA wage cap for members not participating in Social Security $181,734 for 2024and $186,096 for 2025) will count for computing Plan benefits and employee contributions and employer contributions. In addition, some sources of compensation, such as leave cash outs, allowances, and some types of special pays, will be excluded from benefit and contribution computations for New Members.

5. Normal Retirement Eligibility

Age 65.

PEPRA: Age 62 and 5 years of service.

6. Early Retirement Eligibility

Members are eligible for early retirement if one of the following below conditions is met:

- Age 50 with at least 25 years of service
- Age 55 with at least 15 years of service
- Rule of 80 with at least 20 years of service

PEPRA: New Members are eligible to retire upon attaining age 52 and completing five or more years of service. New Members must reach PEPRA-specified ages, regardless of their years of service, to retire for service.

7. Normal Retirement Benefit Form

The benefit is automatically paid in the form of a single life annuity.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

8. Retirement Benefit

For members at least age 65 and with at least 20 years of service, the greatest of the following, capped at 70% of Average Final Earnings (AFE):

- Percentage of AFE shown in Table C – 1 (page 35)
- 50% of AFE
- For members with 20 years of service, $1,200 per month

For members with at least 20 but less than 25 years of service and with less than 80 points (age + service), percentage of AFE less than 50%, as shown in table C-1.

For members with at least 15 but less than 20 years of service, the benefit percentage is reduced proportionately based on completed years of service.

PEPRA: For New Members, the benefit multiplier will be 1% at age 52, increasing by 0.1% for each year of age to 2.5% at 67. In between exact ages, the multiplier will increase by 0.025% for each quarter year increase in age. The Retirement Benefit is equal to the benefit multiplier times AFE for all years of service.

New Members are subject to PEPRA caps and other restrictions on pensionable compensation described in other parts of the valuation.

9. Vesting

Members terminating employment before retirement eligibility may choose to receive a return of member contributions, accumulated with 6% interest, in lieu of the benefits described below.

Members who terminate employment after accruing 15 years of service are fully vested. He or she will receive a monthly benefit equal to 1.5% of earnings for each year of service beginning at age 65.

If a member has less than 15 years of service but has at least one year of service, he or she will receive a lump sum benefit of 4% of earnings for each year of service, accumulated at 5% interest.

PEPRA: A New Member terminating employment before retirement eligibility may choose to receive a return of member contributions, accumulated with 6% interest, in lieu of the benefits described below.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

If a New Member terminates employment with less than five years of service but has at least one year of service, he or she will receive a lump sum benefit of 4% of earnings for each year of service, accumulated at 5% interest.

If a New Member terminates employment before age 52, with less than 15 years of service but has at least five years of service, he or she is entitled to the greater of:

- A lump sum benefit of 4% of earnings for each year of service, accumulated at 5% interest
- The PEPRA Retirement Benefit, which may be elected at age 52 (or later if the member defers retirement).

If a New Member terminates employment before age 52, with at least 15 years of service, he, or she is entitled to the greatest of:

- A lump sum benefit of 4% of earnings for each year of service, accumulated at 5% interest,
- A monthly benefit equal to 1.5% of earnings for each year of service beginning at age 65, and
- The PEPRA Retirement Benefit, which may be elected at age 52 (or later if the member defers retirement).

10. Death Benefit

Prior to Retirement

The surviving spouse is eligible to receive 50% of the retirement benefit the member would have received, adjusted by the appropriate J&S factor, if the member had retired the day before death, assuming one of the three conditions below was met:

- The member was eligible for normal retirement.
- The member was eligible for early retirement.
- The member died in the line of duty (spouse cannot remarry).

This benefit is reduced if the surviving spouse is more than 60 months younger than the member.

If the member was not eligible for early retirement, but had 15 years of service, the surviving spouse will receive a monthly benefit of 25% of AFE, adjusted by the appropriate J&S factor.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

If the member did not have 15 years of service, but had at least one year of service, or no other spouse benefit is payable, the beneficiary will receive a lump sum benefit of 4% of earnings for each year of service accumulated at 5% of interest.

If the member had less than one year of service, the beneficiary will receive a return of member contributions, accumulated with 6% interest.

PEPRA: If the New Member had less than one year of service, the beneficiary will receive a return of member contributions, accumulated with 6% interest.

If the New Member did not have five years of service, but had at least one year of service, or if the member was not married, then the beneficiary will receive a lump sum benefit of 4% of earnings for each year of service accumulated at 5% interest.

If the New Member did not have 15 years of service, but had at least five years of service, the surviving spouse is entitled to 50% of the New Member's PEPRA Retirement Benefit payable no earlier than the date the New Member would have attained age 52, adjusted by the appropriate J&S factor.

If the New Member had at least 15 years of service and died before age 52, then the surviving spouse is entitled to the greater of the following benefits, adjusted by the appropriate J&S factor:

- 50% of the New Member's PEPRA Retirement Benefit payable no earlier than the date the New Member would have attained age 52, and
- A monthly benefit of 25% of AFE payable immediately.

11. Disability Benefit

A disabled member with at least 10 years of service is entitled to a monthly benefit equal to 25% of AFE (last 12 calendar months) plus ½% for each year in excess of 10 to a maximum of 35% of AFE.

If the member is disabled in the line of duty, the benefit will be 50% of AFE subject to reduction by insurance, SSA, but not less than non-occupational disability.

PEPRA: A disabled member with less than five years of service, but at least one year of service, will receive a lump sum benefit of 4% of earnings for each year of service accumulated at 5% of interest.

A disabled member with less than 10 years of service, but at least five years of service, is entitled to receive the PEPRA Retirement Benefit, which may be elected at age 52 (or later if the member defers receipt).

APPENDIX C – SUMMARY OF PLAN PROVISIONS

A disabled member with at least 10 years of service and age 52 is entitled to the greater of:

- A monthly benefit equals to 25% of AFE plus ½% for each year in excess of 10 to a maximum of 35% of AFE payable immediately, and
- The PEPRA Retirement Benefit, which may be elected at age 52 (or later if the member defers receipt).

12. Optional Benefit Forms

Optional forms of payment are:

- 25%, 50%, 100% joint and survivor options
- 5, 10, 15, and 20 certain and continuous annuity options

13. Special Payment Plan

Effective January 1, 2000, the Plan was amended to provide a Special Payment Plan benefit, whereby each full-time employee is entitled to an allocation of $2,000 per year for the period between January 1, 1999 through December 31, 2004. Eligible employees are allocated one-twelfth of $2,000 at the end of each month during the term of the Special Payment Plan. The term for allocations was extended to February 28, 2005.

Due to the reinstatement of employer contributions, the annual payments to the Special Payment Plan (SPP) have been suspended. However, SPP accounts accrue interest at a rate of 8% per year.

This benefit is payable immediately on retirement, death, or disability. The participant may receive SPP benefits either as a lump sum or as a monthly annuity.

PEPRA: New Members are not eligible for the SPP benefits.

14. Changes Since Last Valuation

None, with the exception of the required updates to the PEPRA wage caps.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Table C - 1
Benefit Multipliers, Based on Age and Service at Retirement, non-PEPRA Members

Years of Service	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65+
20	N/A	N/A	N/A	N/A	N/A	36%	37%	38%	39%	40%	51%	51%	51%	51%	51%	51%
21	N/A	N/A	N/A	N/A	N/A	37%	38%	39%	40%	50%	51%	53%	53%	53%	53%	53%
22	N/A	N/A	N/A	N/A	N/A	38%	39%	40%	50%	50%	52%	53%	55%	55%	55%	55%
23	N/A	N/A	N/A	N/A	N/A	39%	40%	50%	50%	52%	52%	54%	55%	57%	57%	57%
24	N/A	N/A	N/A	N/A	N/A	41%	50%	50%	52%	52%	54%	54%	56%	57%	59%	59%
25	50%	50%	50%	50%	50%	50%	50%	52%	52%	54%	54%	54%	56%	58%	59%	61%
26	52%	52%	52%	52%	52%	52%	52%	52%	54%	54%	56%	56%	58%	58%	60%	61%
27	54%	54%	54%	54%	54%	54%	54%	54%	54%	56%	56%	58%	60%	60%	62%	62%
28	56%	56%	56%	56%	56%	56%	56%	56%	56%	56%	58%	58%	60%	60%	62%	62%
29	58%	58%	58%	58%	58%	58%	58%	58%	58%	58%	58%	60%	60%	62%	62%	64%
30	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	60%	62%	62%	64%	64%
31	N/A	62%	62%	62%	62%	62%	62%	62%	62%	62%	62%	62%	64%	64%	64%	66%
32	N/A	N/A	64%	64%	64%	64%	64%	64%	64%	64%	64%	64%	64%	64%	66%	66%
33	N/A	N/A	N/A	66%	66%	66%	66%	66%	66%	66%	66%	66%	66%	66%	66%	68%
34	N/A	N/A	N/A	N/A	68%	68%	68%	68%	68%	68%	68%	68%	68%	68%	68%	68%
35+	N/A	N/A	N/A	N/A	N/A	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%	70%

APPENDIX D – GLOSSARY

1. Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs such as mortality, withdrawal, disability, retirement, changes in compensation, and rates of investment return.

2. Actuarial Cost Method

A procedure for determining the Actuarial Present Value of pension plan benefits and expenses and for developing an allocation of such value to each year of service, usually in the form of a Normal Cost and an Actuarial Liability.

3. Actuarial Determined Contribution

A target or recommended contribution to a defined benefit pension plan for the reporting period, determined in conformity with Actuarial Standards of Practice. Under GASB accounting standards, the Actuarially Determined Contribution must be disclosed for employer or nonemployer contributing entities if such a rate is calculated and is net of any employee contributions.

4. Actuarial Gain (Loss)

The difference between actual experience and that expected based upon a set of Actuarial Assumptions during the period between two Actuarial Valuation dates, as determined in accordance with a particular Actuarial Cost Method.

5. Actuarial Liability

The portion of the Actuarial Present Value of Projected Benefits that will not be paid by future Normal Costs. It represents the value of the past Normal Costs with interest to the valuation date.

6. Actuarial Present Value (Present Value)

The value as of a given date of a future amount or series of payments. The Actuarial Present Value discounts the payments to the given date at the assumed investment return and includes the probability of the payment being made.

7. Actuarial Valuation

The determination, as of a specified date, of the Normal Cost, Actuarial Liability, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.

8. Actuarial Value of Assets

The value of cash, investments, and other property belonging to a pension plan as used by the actuary for the purpose of an Actuarial Valuation. The purpose of an Actuarial Value of Assets is to smooth out fluctuations in market values.

APPENDIX D – GLOSSARY

9. Actuarially Equivalent

Of equal Actuarial Present Value, determined as of a given date, with each value based on the same set of actuarial assumptions.

10. Amortization Payment

The portion of the pension plan contribution, which is designed to pay interest and principal on the Unfunded Actuarial Liability in order to pay for that liability in a given number of years.

11. Entry Age Normal Actuarial Cost Method

A method under which the Actuarial Present Value of the Projected Benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages.

12. Funded Ratio

The ratio of the Actuarial Value of Assets to the Actuarial Liabilities.

13. Normal Cost

That portion of the Actuarial Present Value of pension plan benefits and expenses that is allocated to a valuation year by the Actuarial Cost Method.

14. Projected Benefits

Those pension plan benefit amounts which are expected to be paid in the future under a particular set of Actuarial Assumptions, taking into account such items as increases in future compensation and service credits.

15. Unfunded Actuarial Liability

The excess of the Actuarial Liability over the Actuarial Value of Assets. The Unfunded Actuarial Liability is not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the Plan's benefit obligation in the event of a plan termination or other similar action. However, it is an appropriate measure for assessing the need for or the amount of future contributions.