

## Village of Arlington Heights Regular

GASB Statement No. 68 Employer Reporting Accounting Schedules December 31, 2023



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March 29, 2024

Village of Arlington Heights
Illinois Municipal Retirement Fund

Ladies and Gentlemen:

The accounting schedules submitted in this report are required under the Governmental Accounting Standards Board (GASB) Statement No. 68 "Accounting and Financial Reporting for Pensions."

Our calculations for this report were prepared for the purpose of complying with the requirements of GASB Statement No. 68. These calculations have been made on a basis that is consistent with our understanding of these accounting standards. These results are subject to review by the fund's auditor and may be revised.

Our calculation of the liability associated with the benefits described in this report was performed for the purpose of satisfying the requirements of GASB Statement No. 68. The Net Pension Liability is not an appropriate measure for measuring the sufficiency of plan assets to cover the estimated cost of settling the employer's benefit obligation. The Net Pension Liability is not an appropriate measure for assessing the need for or amount of future employer contributions. A calculation of the plan's liability for purposes other than satisfying the requirements of GASB Statement No. 68 may produce significantly different results. This report may be provided to parties other than Village of Arlington Heights only in its entirety and only with the permission of Village of Arlington Heights. GRS is not responsible for unauthorized use of this report.

This report is based upon information, furnished to us by the Illinois Municipal Retirement Fund (IMRF), concerning retirement and ancillary benefits, active members, deferred vested members, retirees and beneficiaries, and financial data. If your understanding of this information is different than ours, please let us know and do not use or distribute this report until those differences have been resolved to your satisfaction. This information was checked for internal consistency, but it was not audited.

This report complements the actuarial valuation report that was provided to the IMRF and should be considered in conjunction with that report. Please see the actuarial valuation report as of December 31, 2023 for additional discussions of the nature of actuarial calculations and more information related to participant data, economic and demographic assumptions, and benefit provisions.



Village of Arlington Heights Illinois Municipal Retirement Fund March 29, 2024 Page 2

To the best of our knowledge, the information contained in this report is accurate, and fairly represents the GASB Statement No. 68 information related to Village of Arlington Heights. All calculations have been made in conformity with generally accepted actuarial principles and practices as well as with the Actuarial Standards of Practice issued by the Actuarial Standards Board. If you have reason to believe that the information provided in this report is inaccurate, or is in any way incomplete, or if you need further information in order to make an informed decision on the subject matter of this report, please contact the IMRF.

This report was prepared using our proprietary valuation model and related software which, in our professional judgment, has the capability to provide results that are consistent with the purposes of the valuation and has no material limitations or known weaknesses. We performed tests to ensure that the model reasonably represents that which is intended to be modeled.

Mark Buis, Francois Pieterse and Bonita J. Wurst are Members of the American Academy of Actuaries (MAAA) and meet the Qualification Standards of the Academy of Actuaries to render the actuarial opinions contained herein.

The signing actuaries are independent of the plan sponsor.

Respectfully submitted, Gabriel, Roeder, Smith & Company

Mark Buis, FSA, EA, FCA, MAAA

Francois Pieterse, ASA, FCA, MAAA

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### **SECTION A**

**EXECUTIVE SUMMARY** 



#### FOR3S00-0001BBO

## **Executive Summary** as of December 31, 2023

| Actuarial Valuation Date   | Dec | ember 31, 2023 |
|--|-----|----------------|
| Measurement Date of the Net Pension Liability                            | Dec | ember 31, 2023 |
| Fiscal Year End  | Α   | pril 30, 2024  |
|  |     |                |
| Membership   |     |                |
| Number of  |     |                |
| - Retirees and Beneficiaries   |     | 541            |
| - Inactive, Non-Retired Members  |     | 259            |
| - Active Members   |     | 384            |
| - Total  |     | 1,184          |
| Covered Valuation Payroll <sup>1</sup>                                   | \$  | 29,526,123     |
| Net Pension Liability  |     |                |
| Total Pension Liability/(Asset)  | \$  | 222,326,404    |
| Plan Fiduciary Net Position  |     | 209,878,014    |
| Net Pension Liability/(Asset)  | \$  | 12,448,390     |
| Plan Fiduciary Net Position as a Percentage                              |     |                |
| of Total Pension Liability   |     | 94.40%         |
| Net Pension Liability as a Percentage                                    |     |                |
| of Covered Valuation Payroll   |     | 42.16%         |
| Development of the Single Discount Rate as of December 31, 2023          |     |                |
| Long-Term Expected Rate of Investment Return                             |     | 7.25%          |
| Long-Term Municipal Bond Rate <sup>2</sup>                               |     | 3.77%          |
| Last year ending December 31 in the 2024 to 2123 projection period       |     |                |
| for which projected benefit payments are fully funded                    |     | 2123           |
| Resulting Single Discount Rate based on the above development            |     | 7.25%          |
| Single Discount Rate calculated using December 31, 2022 Measurement Date |     | 7.25%          |
| Total Pension Expense/(Income)   | \$  | (3,464,353)    |

#### Deferred Outflows and Deferred Inflows of Resources by Source to be Recognized in Future Pension Expenses

|  | Deferred Outflows |             | Deferred Inflows |              |
|--|-------------------|-------------|------------------|--------------|
|  |                   | f Resources | (                | of Resources |
| Difference between expected and actual experience    | \$                | 2,874,958   | \$               | 35,828       |
| Changes in assumptions                               |                   | 0           |                  | 101,659      |
| Net difference between projected and actual earnings |                   |             |                  |              |
| on pension plan investments                          |                   | 27,211,392  |                  | 16,523,027   |
| Total  | \$                | 30,086,350  | \$               | 16,660,514   |

 $<sup>^{1}</sup>$  Does not necessarily represent Covered-Employee Payroll as defined in GASB Statement No. 68.

<sup>&</sup>lt;sup>2</sup> Source: Fixed-income municipal bonds with 20 years to maturity that include only federally tax-exempt municipal bonds as reported in Fidelity Index's "20-Year Municipal GO AA Index" as of December 29, 2023. In describing this index, Fidelity notes that the municipal curves are constructed using option-adjusted analytics of a diverse population of over 10,000 tax exempt securities.



#### **Discussion**



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#### **Accounting Standard**

For state and local government employers (as well as certain non-employers) that contribute to a Defined Benefit (DB) pension plan administered through a trust or equivalent arrangement, Governmental Accounting Standards Board (GASB) Statement No. 68 establishes standards for pension accounting and financial reporting. Under GASB Statement No. 68, the employer must account for and disclose the net pension liability, pension expense, and other information associated with providing retirement benefits to their employees (and former employees) on their basic financial statements.

The following discussion provides a summary of the information that is required to be disclosed under these accounting standards. A number of these disclosure items are provided in this report. However, certain information is not included in this report if it is not actuarial in nature, such as the notes to the financial statements regarding accounting policies and investments. As a result, the retirement fund and/or plan sponsor is responsible for preparing and disclosing the non-actuarial information needed to comply with these accounting standards.

#### **Financial Statements**

GASB Statement No. 68 requires state and local government employers that contribute to DB pension plans to recognize the net pension liability and the pension expense on their financial statements, along with the related deferred outflows of resources and deferred inflows of resources. The net pension liability is the difference between the total pension liability and the plan's fiduciary net position. In traditional actuarial terms, this is analogous to the accrued liability less the market value of assets (not the smoothed actuarial value of assets that is often encountered in actuarial valuations performed to determine the employer's contribution requirement).

Paragraph 57 of GASB Statement No. 68 says, "Contributions to the pension plan from the employer subsequent to the measurement date of the collective net pension liability and before the end of the employer's reporting period should be reported as a deferred outflow of resources related to pensions." The information contained in this report does not incorporate any contributions made to the IMRF subsequent to the measurement date of December 31, 2023.

The pension expense recognized each fiscal year is equal to the change in the net pension liability from the beginning of the year to the end of the year, adjusted for deferred recognition of the certain changes in the liability and investment experience.



#### **Notes to Financial Statements**



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GASB Statement No. 68 requires the notes of the employer's financial statements to disclose the total pension expense, the pension plan's liabilities and assets, and deferred outflows of resources and inflows of resources related to pensions.

In addition, GASB Statement No. 68 requires the notes of the financial statements for the employers to include certain additional information, including (page numbers refer to page numbers from this report unless specified otherwise):

- A description of the types of benefits provided by the plan, as well as automatic or ad hoc COLAs (please see pages B-1 to B-5 of the December 31, 2023 Annual Actuarial Valuation report dated March 8, 2024);
- The number and classes of employees covered by the benefit terms (page 1);
- For the current year, sources of changes in the net pension liability (page 11);
- Significant assumptions and methods used to calculate the total pension liability (page 16);
- Inputs to the single discount rate (page 17);
- Certain information about mortality assumptions and the dates of experience studies (pages 14 and 16);
- The date of the valuation used to determine the total pension liability (page 1);
- Information about changes of assumptions or other inputs and benefit terms (pages 14 and 16);
- The basis for determining contributions to the plan, including a description of the plan's funding policy, as well as member and employer contribution requirements (please see page A-3, B-5 and Section D of the December 31, 2023 Annual Actuarial Valuation report dated March 8, 2024, as well as page 14);
- The total pension liability, fiduciary net position, net pension liability, and the pension plan's fiduciary net position as a percentage of the total pension liability (page 11);
- The net pension liability using a discount rate that is 1% higher and 1% lower than used to calculate the total pension liability and net pension liability for financial reporting purposes (page 11); and
- A description of the fund that administers the pension plan (to be provided by the IMRF).

#### **Required Supplementary Information**

The financial statements of employers also include required supplementary information showing the 10-year fiscal history of:

- Sources of changes in the net pension liability (page 12);
- Information about the components of the net pension liability and related ratios, including the pension plan's fiduciary net position as a percentage of the total pension liability, and the net pension liability as a percent of covered-employee payroll (page 12); and
- Comparison of actual employer contributions to the actuarially determined contributions based on the plan's funding policy (page 13).

These tables may be built prospectively as the information becomes available.







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An actuarial valuation to determine the total pension liability is required to be performed at least every two years. For the employer's financial reporting purposes, the net pension liability and pension expense should be measured as of the employer's "measurement date" which may not be earlier than the fiscal year-end date, consistently applied from period to period. If the actuarial valuation used to determine the total pension liability is not calculated as of the measurement date, the total pension liability is required to be rolled forward from the actuarial valuation date to the measurement date.

The total pension liability shown in this report is based on an actuarial valuation performed as of December 31, 2023 and a measurement date of December 31, 2023.

#### **Single Discount Rate**

Projected benefit payments are required to be discounted to their actuarial present values using a single discount rate that reflects: (1) a long-term expected rate of return on pension plan investments (to the extent that the plan's fiduciary net position is projected to be sufficient to pay benefits); and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the plan's projected fiduciary net position is not sufficient to pay benefits).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.25%, the municipal bond rate is 3.77% (based on the daily rate closest to but not later than the measurement date of the "20-Year Municipal GO AA Index" described on page 1), and the resulting Single Discount Rate is 7.25%.







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## General Implications of Contribution Allocation Procedure or Funding Policy on Future Expected Plan Contributions and Funded Status

Given the plan's contribution allocation procedure, if all actuarial assumptions are met (including the assumption of the plan earning 7.25% on the actuarial value of assets), it is expected that:

- (1) The employer normal cost as a percentage of pay will decrease to the level of Tier 2 normal cost as time passes, as the majority of the active population will consist of Tier 2 members.
- (2) The unfunded liability will increase in dollar amount for several years before it begins to decrease.
- (3) The funded status of the plan will increase gradually towards a 100% funded ratio.

This funding policy results in a crossover date in 2123 and a discount rate of 7.25%. The projections in this report are strictly for the purposes of determining the GASB discount rate and are different from a funding projection for the ongoing plan.

#### Limitations of Assets as a Percent of Total Pension Liability Measurements

This report includes a measure of the plan fiduciary net position as a percent of total pension liability. Unless otherwise indicated, with regard to any such measurements presented in this report:

- (1) The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.
- (2) The measurement is inappropriate for assessing the need for or amount of future employer contributions.

#### **Limitations of Funded Status Measurements**

Unless otherwise indicated, a funded ratio measurement presented in this report is based upon the actuarial accrued liability and the market value of assets. Unless otherwise indicated, with regard to any funded status measurements presented in this report:

- (1) The measurement is inappropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations; in other words, if transferring the obligations to an unrelated third party in an arm's length market value type transaction.
- (2) The measurement is dependent upon the actuarial cost method which, in combination with the plan's amortization policy, affects the timing and amounts of future contributions. The amount of future contributions will most certainly differ from those assumed in this report due to future actual experience differing from assumed experience based upon actuarial assumptions. A funded ratio measurement in this report of 100% is not synonymous with no required future contributions. If the funded ratio were 100%, the plan would still require future normal cost contributions (i.e., contributions to cover the cost of the active membership accruing an additional year of service credit).







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Actuarial standards do not require the actuary to evaluate the ability of the plan sponsor or other contributing entity to make required contributions to the plan when due. Such an evaluation was not within the scope of this project and is not within the actuary's domain of expertise. Consequently, the actuary performed no such evaluation.





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### **SECTION B**

FINANCIAL STATEMENTS



## Pension Expense/(Income) under GASB State Calendar Year Ended December 31, 2023

#### FOR3S00-0001BBO

#### A. Expense/(Income)

| 7. Recognition of Outflow (Inflow) of Resources due to Liabilities 8. Recognition of Outflow (Inflow) of Resources due to Assets | 1,517,041<br>(2,717,210) |
|--|--------------------------|
| 6. Other Changes in Plan Fiduciary Net Position  | (5,012,311)              |
| 5. Projected Earnings on Plan Investments (made negative for addition here)  | (13,801,170)             |
| 4. Employee Contributions (made negative for addition here)  | (1,330,042)              |
| 3. Current-Period Benefit Changes  | 0                        |
| 2. Interest on the Total Pension Liability   | 15,211,828               |
| 1. Service Cost  | \$<br>2,667,511          |

#### **Recognition of Deferred Outflows and Inflows of Resources**

Differences between expected and actual experience and changes in assumptions are recognized in the pension expense using a systematic and rational method over a closed period equal to the average of the expected remaining service lives of all employees that are provided with a retirement benefit through the pension plan (active employees and inactive employees) determined as of the beginning of the measurement period.

At the beginning of the current measurement period, the expected remaining service lives of all active employees in the plan was approximately 3,788 years. Additionally, the total plan membership (active employees and inactive employees) was 1,150. As a result, the average of the expected remaining service lives for purposes of recognizing the applicable deferred outflows and inflows of resources established in the current measurement period is 3.2939 years.

Additionally, differences between projected and actual earnings on pension plan investments should be recognized in the pension expense using a systematic and rational method over a closed five-year period. For this purpose, the deferred outflows and inflows of resources are recognized in the pension expense as a level dollar amount over the closed period identified above.





### **Statement of Outflows and Inflows Aris Current Reporting Period**

### Calendar Year Ended December 31, 2023

| Difference between expected and actual experience     of the Total Pension Liability (gains) or losses     \$ 2,58 | 9,513<br>5,976) |
|--|-----------------|
| of the Total Pension Liability (gains) or losses \$ 2,58   |                 |
|  | 5,976)          |
| 2. Assumption Changes (gains) or losses \$ (14   |                 |
| 3. Recognition period for Liabilities: Average of the  |                 |
| expected remaining service lives of all employees {in years}   | .2939           |
| 4. Outflow (Inflow) of Resources to be recognized in the current pension expense for the                           |                 |
| difference between expected and actual experience  |                 |
| of the Total Pension Liability \$ 78   | 6,154           |
| 5. Outflow (Inflow) of Resources to be recognized in the current pension expense for                               |                 |
| Assumption Changes \$ (4   | 4,317)          |
| 6. Outflow (Inflow) of Resources to be recognized in the current pension expense                                   |                 |
| due to Liabilities \$ 74   | 1,837           |
| 7. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for the                      |                 |
| difference between expected and actual experience  |                 |
| of the Total Pension Liability \$ 1,80   | 3,359           |
| 8. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses for                          |                 |
| Assumption Changes \$ (10  | 1,659)          |
| 9. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses                              |                 |
| due to Liabilities \$ 1,70   | 1,700           |
| B. Outflows (Inflows) of Resources Due to Assets   |                 |
| 1. Net difference between projected and actual earnings on   |                 |
| pension plan investments (gains) or losses \$ (7,39  | 9,316)          |
| 2. Recognition period for Assets {in years}  | .0000           |
| 3. Outflow (Inflow) of Resources to be recognized in the current pension expense                                   |                 |
| due to Assets \$ (1,47   | 9,863)          |
| 4. Deferred Outflow (Inflow) of Resources to be recognized in future pension expenses                              |                 |
| due to Assets \$ (5,91   | 9,453)          |

Please note that employer contributions made after the measurement date have not been reported as deferred outflows of resources. These employer contributions must be separately accounted for by the employer.





### **Statement of Outflows and Inflows Arisi Current and Prior Reporting Periods** Calendar Year Ended December 31, 2023

A. Outflows and Inflows of Resources due to Liabilities and Assets to be Recognized in Current Pension Expense

|                       | Outflows         |    | Inflows     | N  | et Outflows |
|-----------------------|------------------|----|-------------|----|-------------|
|                       | of Resources     | 0  | f Resources | О  | f Resources |
| 1. Due to Liabilities | \$<br>1,909,582  | \$ | 392,541     | \$ | 1,517,041   |
| 2. Due to Assets      | <br>9,070,464    |    | 11,787,674  |    | (2,717,210) |
| 3. Total              | \$<br>10,980,046 | \$ | 12,180,215  | \$ | (1,200,169) |

#### B. Outflows and Inflows of Resources by Source to be Recognized in Current Pension Expense

|   |    | Outflows   |    | Inflows     | N  | et Outflows |
|---|----|------------|----|-------------|----|-------------|
|   | of | Resources  | 0  | f Resources | 0  | f Resources |
| 1. Differences between expected and actual experience | \$ | 1,909,582  | \$ | 100,470     | \$ | 1,809,112   |
| 2. Assumption changes                                 |    | 0          |    | 292,071     | \$ | (292,071)   |
| 3. Net difference between projected and actual        |    |            |    |             |    |             |
| earnings on pension plan investments                  |    | 9,070,464  |    | 11,787,674  |    | (2,717,210) |
| 4. Total  | \$ | 10,980,046 | \$ | 12,180,215  | \$ | (1,200,169) |

#### C. Deferred Outflows and Deferred Inflows of Resources by Source to be Recognized in Future Pension Expenses

|   | Defe | rred Outflows | Def | erred Inflows | Net De | ferred Outflows |
|---|------|---------------|-----|---------------|--------|-----------------|
|   | of   | Resources     | of  | f Resources   | of     | Resources       |
| 1. Differences between expected and actual experience | \$   | 2,874,958     | \$  | 35,828        | \$     | 2,839,130       |
| 2. Assumption changes                                 |      | 0             |     | 101,659       | \$     | (101,659)       |
| 3. Net difference between projected and actual        |      |               |     |               |        |                 |
| earnings on pension plan investments                  |      | 27,211,392    |     | 16,523,027    |        | 10,688,365      |
| 4. Total  | \$   | 30,086,350    | \$  | 16,660,514    | \$     | 13,425,836      |

#### D. Deferred Outflows and Deferred Inflows of Resources by Year to be Recognized in Future Pension Expenses

| Year Ending<br>December 31 | Net Deferred Outflows of Resources |             |  |
|----------------------------|------------------------------------|-------------|--|
| 2024                       | \$                                 | 2,488,079   |  |
| 2025                       |                                    | 4,608,994   |  |
| 2026                       |                                    | 7,808,627   |  |
| 2027                       |                                    | (1,479,864) |  |
| 2028                       |                                    | 0           |  |
| Thereafter                 |                                    | 0           |  |
| Total                      | Ś                                  | 13.425.836  |  |





## Recognition of Deferred Outflows and Inflows Reporting Date - December 31, 2023

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|                         |                      | Initial<br>Recognition | Current Year        | Remaining          | Remaining<br>Recognition |
|-------------------------|----------------------|------------------------|---------------------|--------------------|--------------------------|
| Year Established        | Initial Amount       | Period                 | Recognition         | Recognition        | Period                   |
|                         |                      |                        |                     |                    |                          |
|                         | (Inflow) Due to Diff | erences betwe          | en Expected and Act | tual Experience on | Liabilities              |
| 2014                    | \$ 0                 | 1.0000                 | \$ 0                | \$ 0               | 0.0000                   |
| 2015                    | (648,919)            | 3.7204                 | 0                   | 0                  | 0.0000                   |
| 2016                    | 1,640,544            | 3.6877                 | 0                   | 0                  | 0.0000                   |
| 2017                    | (92,058)             | 3.7101                 | 0                   | 0                  | 0.0000                   |
| 2018                    | 1,256,791            | 3.4816                 | 0                   | 0                  | 0.0000                   |
| 2019                    | 2,419,520            | 3.4927                 | 0                   | 0                  | 0.0000                   |
| 2020                    | 2,412,173            | 3.4864                 | 336,530             | 0                  | 0.0000                   |
| 2021                    | (337,238)            | 3.3566                 | (100,470)           | (35,828)           | 0.3566                   |
| 2022                    | 2,645,395            | 3.3618                 | 786,898             | 1,071,599          | 1.3618                   |
| 2023                    | 2,589,513            | 3.2939                 | 786,154             | 1,803,359          | 2.2939                   |
| Total                   |                      |                        | \$ 1,809,112        | \$ 2,839,130       |                          |
|                         |                      |                        |                     |                    |                          |
| <b>Deferred Outflow</b> | (Inflow) Due to Ass  | umption Chang          | es                  |                    |                          |
| 2014                    | \$ 0                 | 1.0000                 | \$ 0                | \$ 0               | 0.0000                   |
| 2015                    | 395,156              | 3.7204                 | 0                   | 0                  | 0.0000                   |
| 2016                    | (611,951)            | 3.6877                 | 0                   | 0                  | 0.0000                   |
| 2017                    | (5,760,640)          | 3.7101                 | 0                   | 0                  | 0.0000                   |
| 2018                    | 5,048,651            | 3.4816                 | 0                   | 0                  | 0.0000                   |
| 2019                    | 0                    | 3.4927                 | 0                   | 0                  | 0.0000                   |
| 2020                    | (1,775,843)          | 3.4864                 | (247,754)           | 0                  | 0.0000                   |
| 2021                    | 0                    | 3.3566                 | 0                   | 0                  | 0.3566                   |
| 2022                    | 0                    | 3.3618                 | 0                   | 0                  | 1.3618                   |
| 2023                    | (145,976)            | 3.2939                 | (44,317)            | (101,659)          | 2.2939                   |
| Total                   |                      | •                      | \$ (292,071)        | \$ (101,659)       |                          |
|                         |                      |                        |                     |                    |                          |
| <b>Deferred Outflow</b> | (Inflow) Due to Diff | erences betwe          | en Projected and Ac | tual Earnings on P | lan Investments          |
| 2019                    | \$ (18,561,896)      | 5.0000                 | \$ (3,712,380)      | \$ 0               | 0.0000                   |
| 2020                    | (12,936,438)         | 5.0000                 | (2,587,288)         | (2,587,286)        | 1.0000                   |
| 2021                    | (20,040,717)         | 5.0000                 | (4,008,143)         | (8,016,288)        | 2.0000                   |
| 2022                    | 45,352,320           | 5.0000                 | 9,070,464           | 27,211,392         | 3.0000                   |
| 2023                    | (7,399,316)          | 5.0000                 | (1,479,863)         | (5,919,453)        | 4.0000                   |
| Total                   |                      | •                      | \$ (2,717,210)      | \$ 10,688,365      |                          |





# Schedule of Changes in Net Pension Liab Related Ratios Current Period Calendar Year Ended December 31, 2023

| A. Total pension liability                           |                   |
|--|-------------------|
| 1. Service Cost                                      | \$<br>2,667,511   |
| 2. Interest on the Total Pension Liability           | 15,211,828        |
| 3. Changes of benefit terms                          | 0                 |
| 4. Difference between expected and actual experience |                   |
| of the Total Pension Liability                       | 2,589,513         |
| 5. Changes of assumptions                            | (145,976)         |
| 6. Benefit payments, including refunds               |                   |
| of employee contributions                            | <br>(12,962,064)  |
| 7. Net change in Total Pension Liability             | \$<br>7,360,812   |
| 8. Total Pension Liability – beginning               | <br>214,965,592   |
| 9. Total Pension Liability – ending                  | \$<br>222,326,404 |
| B. Plan fiduciary net position                       |                   |
| 1. Contributions – employer                          | \$<br>3,252,836   |
| 2. Contributions – employee                          | 1,330,042         |
| 3. Net investment income                             | 21,200,486        |
| 4. Benefit payments, including refunds               |                   |
| of employee contributions                            | (12,962,064)      |
| 5. Other (Net Transfer)                              | <br>5,012,311     |
| 6. Net change in Plan Fiduciary Net Position         | \$<br>17,833,611  |
| 7. Plan Fiduciary Net Position – beginning           | <br>192,044,403   |
| 8. Plan Fiduciary Net Position – ending              | \$<br>209,878,014 |
| C. Net pension liability/(asset)                     | \$<br>12,448,390  |
| D. Plan Fiduciary Net Position as a percentage       |                   |
| of the Total Pension Liability                       | 94.40%            |
| E. Covered Valuation payroll <sup>1</sup>            | \$<br>29,526,123  |
| F. Net Pension Liability as a percentage             |                   |
| of covered valuation payroll                         | 42.16%            |

<sup>&</sup>lt;sup>1</sup> Does not necessarily represent Covered-Employee Payroll as defined in GASB Statement No. 68.

## Sensitivity of Net Pension Liability/(Asset) to the Single Discount Rate Assumption

|                               | Current Single Discount |             |       |               |       |             |
|-------------------------------|-------------------------|-------------|-------|---------------|-------|-------------|
|                               |                         | 1% Decrease | Ra    | te Assumption |       | 1% Increase |
|                               | 6.25%                   |             | 7.25% |               | 8.25% |             |
| Total Pension Liability       | \$                      | 246,507,829 | \$    | 222,326,404   | \$    | 202,740,566 |
| Plan Fiduciary Net Position   |                         | 209,878,014 |       | 209,878,014   |       | 209,878,014 |
| Net Pension Liability/(Asset) | \$                      | 36,629,815  | \$    | 12,448,390    | \$    | (7,137,448) |



## Schedules of Required Supplementary Information Multiyear Schedule of Changes in Net Pension Liability and Related Ratios

#### Last 10 Calendar Years

(schedule to be built prospectively from 2015)

| Calendar year ending December 31,                 | <br>2023          | 2022                 |     | 2021         | 2020              | 2019              | 2018              | 2017              | 2016              | 2015              | 2 | 014 |
|---|-------------------|----------------------|-----|--------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---|-----|
| Total Pension Liability                           |                   |                      |     |              |                   |                   |                   |                   |                   |                   |   |     |
| Service Cost                                      | \$<br>2,667,511   | \$<br>2,607,779 \$   | ;   | 2,598,026    | \$<br>2,768,600   | \$<br>2,695,223   | \$<br>2,526,777   | \$<br>2,700,511   | \$<br>2,639,543   | \$<br>2,640,660   |   |     |
| Interest on the Total Pension Liability           | 15,211,828        | 14,674,957           |     | 14,331,584   | 13,898,960        | 13,316,051        | 12,874,610        | 12,858,220        | 12,281,628        | 11,869,028        |   |     |
| Benefit Changes                                   | 0                 | 0                    |     | 0            | 0                 | 0                 | 0                 | 0                 | 0                 | 0                 |   |     |
| Difference between Expected and Actual Experience | 2,589,513         | 2,645,395            |     | (337,238)    | 2,412,173         | 2,419,520         | 1,256,791         | (92,058)          | 1,640,544         | (648,919)         |   |     |
| Assumption Changes                                | (145,976)         | 0                    |     | 0            | (1,775,843)       | 0                 | 5,048,651         | (5,760,640)       | (611,951)         | 395,156           |   |     |
| Benefit Payments and Refunds                      | (12,962,064)      | (12,143,697)         | (   | (11,578,443) | (10,924,301)      | (9,930,417)       | (9,635,282)       | (9,165,978)       | (8,734,040)       | (7,881,295)       |   |     |
| Net Change in Total Pension Liability             | 7,360,812         | 7,784,434            |     | 5,013,929    | 6,379,589         | 8,500,377         | 12,071,547        | 540,055           | 7,215,724         | 6,374,630         |   |     |
| Total Pension Liability - Beginning               | 214,965,592       | 207,181,158          | 2   | 202,167,229  | 195,787,640       | 187,287,263       | 175,215,716       | 174,675,661       | 167,459,937       | 161,085,307       |   |     |
| Total Pension Liability - Ending (a)              | \$<br>222,326,404 | \$<br>214,965,592 \$ | 5 2 | 207,181,158  | \$<br>202,167,229 | \$<br>195,787,640 | \$<br>187,287,263 | \$<br>175,215,716 | \$<br>174,675,661 | \$<br>167,459,937 |   |     |
| Plan Fiduciary Net Position                       |                   |                      |     |              |                   |                   |                   |                   |                   |                   |   |     |
| Employer Contributions                            | \$<br>3,252,836   | \$<br>3,574,965 \$   | ;   | 3,428,023    | \$<br>3,502,858   | \$<br>2,718,454   | \$<br>3,355,360   | \$<br>3,170,250   | \$<br>3,257,572   | \$<br>3,168,474   |   |     |
| Employee Contributions                            | 1,330,042         | 1,281,587            |     | 1,230,154    | 1,314,647         | 1,290,982         | 1,222,046         | 1,158,454         | 1,145,096         | 1,182,657         |   |     |
| Pension Plan Net Investment Income                | 21,200,486        | (29,082,543)         |     | 34,374,924   | 25,886,710        | 29,736,794        | (9,519,120)       | 26,872,858        | 9,933,011         | 723,795           |   |     |
| Benefit Payments and Refunds                      | (12,962,064)      | (12,143,697)         | (   | (11,578,443) | (10,924,301)      | (9,930,417)       | (9,635,282)       | (9,165,978)       | (8,734,040)       | (7,881,295)       |   |     |
| Other   | <br>5,012,311     | 719,599              |     | (1,866,986)  | 1,298,122         | 231,905           | 1,425,713         | (2,743,611)       | 555,713           | 965,300           |   |     |
| Net Change in Plan Fiduciary Net Position         | 17,833,611        | (35,650,089)         |     | 25,587,672   | 21,078,036        | 24,047,718        | (13,151,283)      | 19,291,973        | 6,157,352         | (1,841,069)       |   |     |
| Plan Fiduciary Net Position - Beginning           | <br>192,044,403   | 227,694,492          | 2   | 202,106,820  | 181,028,784       | 156,981,066       | 170,132,349       | 150,840,376       | 144,683,024       | 146,524,093       |   |     |
| Plan Fiduciary Net Position - Ending (b)          | \$<br>209,878,014 | \$<br>192,044,403 \$ | 2   | 227,694,492  | \$<br>202,106,820 | \$<br>181,028,784 | \$<br>156,981,066 | \$<br>170,132,349 | \$<br>150,840,376 | \$<br>144,683,024 |   |     |
| Net Pension Liability/(Asset) - Ending (a) - (b)  | 12,448,390        | 22,921,189           | (   | (20,513,334) | 60,409            | 14,758,856        | 30,306,197        | 5,083,367         | 23,835,285        | 22,776,913        |   |     |
| Plan Fiduciary Net Position as a Percentage       |                   |                      |     |              |                   |                   |                   |                   |                   |                   |   |     |
| of Total Pension Liability                        | 94.40%            | 89.34%               |     | 109.90%      | 99.97%            | 92.46%            | 83.82%            | 97.10%            | 86.35%            | 86.40%            |   |     |
| Covered Valuation Payroll <sup>1</sup>            | \$<br>29,526,123  | \$<br>28,465,522 \$  | ;   | 27,336,705   | \$<br>27,713,351  | \$<br>27,157,382  | \$<br>26,335,298  | \$<br>25,690,842  | \$<br>24,924,034  | \$<br>24,380,386  |   |     |
| Net Pension Liability as a Percentage             |                   |                      |     |              |                   |                   |                   |                   |                   |                   |   |     |
| of Covered Valuation Payroll                      | 42.16%            | 80.52%               |     | (75.04)%     | 0.22%             | 54.35%            | 115.08%           | 19.79%            | 95.63%            | 93.42%            |   |     |

<sup>&</sup>lt;sup>1</sup> Does not necessarily represent Covered-Employee Payroll as defined in GASB Statement No. 68.







#### **Last 10 Calendar Years**

| Calendar Year Ending December 31, | Actuarially Determined Contribution | Actual<br>Contribution | Contribution Deficiency (Excess) | Covered<br>Valuation<br>Payroll | Actual Contribution as a % of Covered Valuation Payroll |
|-----------------------------------|-------------------------------------|------------------------|----------------------------------|---------------------------------|---|
| 2015                              | \$ 3,159,698                        | \$ 3,168,474           | \$ (8,776)                       | \$ 24,380,386                   | 13.00%  |
| 2016                              | 3,257,571                           | 3,257,572              | (1)                              | 24,924,034                      | 13.07%  |
| 2017                              | 3,170,250                           | 3,170,250              | (0)                              | 25,690,842                      | 12.34%  |
| 2018                              | 3,349,850                           | 3,355,360              | (5,510)                          | 26,335,298                      | 12.74%  |
| 2019                              | 2,718,454                           | 2,718,454              | 0                                | 27,157,382                      | 10.01%  |
| 2020                              | 3,502,968                           | 3,502,858              | 110                              | 27,713,351                      | 12.64%  |
| 2021                              | 3,428,023                           | 3,428,023              | 0                                | 27,336,705                      | 12.54%  |
| 2022                              | 2,960,414                           | 3,574,965              | (614,551)                        | 28,465,522                      | 12.56%  |
| 2023                              | 2,297,132 *                         | 3,252,836              | (955,704)                        | 29,526,123                      | 11.02%  |

<sup>\*</sup> Estimated based on contribution rate of 7.78% and covered valuation payroll of \$29,526,123.

This number should be verified by the auditor.



#### **Notes to Schedule of Contribution**

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## Summary of Actuarial Methods and Assumptions Used in the Calculation of the 2023 Contribution Rate<sup>1</sup>

Valuation Date:

Notes Actuarially determined contribution rates are calculated as of December 31

each year, which is 12 months prior to the beginning of the calendar year in

which contributions are reported.

Methods and Assumptions Used to Determine 2023 Contribution Rates:

Actuarial Cost Method Aggregate Entry Age Normal

Amortization Method Level Percentage of Payroll, Closed

Remaining Amortization Period Non-Taxing bodies: 10-year rolling period.

Taxing bodies (Regular, SLEP and ECO groups): 20-year closed period.

Early Retirement Incentive Plan liabilities: a period up to 10 years selected by

the Employer upon adoption of ERI.

SLEP supplemental liabilities attributable to Public Act 94-712 were financed over 15 years for most employers (five employers were financed over 16 years; one employer was financed over 17 years; two employers were financed over 18 years; one employer was financed over 21 years; three employers were financed over 24 years; four employers were financed over 25 years and one employer

was financed over 26 years).

Asset Valuation Method 5-Year smoothed market; 20% corridor

Wage growth 2.75% Price Inflation 2.25%

Salary Increases 2.75% to 13.75% including inflation

Investment Rate of Return 7.25%

Retirement Age Experience-based table of rates that are specific to the type of eligibility

condition. Last updated for the 2020 valuation pursuant to an experience study

of the period 2017-2019.

Mortality For non-disabled retirees, the Pub-2010, Amount-Weighted, below-median

income, General, Retiree, Male (adjusted 106%) and Female (adjusted 105%) tables, and future mortality improvements projected using scale MP-2020. For disabled retirees, the Pub-2010, Amount-Weighted, below-median income, General, Disabled Retiree, Male and Female (both unadjusted) tables, and future mortality improvements projected using scale MP-2020. For active members, the Pub-2010, Amount-Weighted, below-median income, General, Employee, Male and Female (both unadjusted) tables, and future mortality improvements

projected using scale MP-2020.

Other Information:

Notes There were no benefit changes during the year.



Based on Valuation Assumptions used in the December 31, 2021 actuarial valuation.





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#### Market Value of Assets as of December 31, 2023

**Total Contributions** 

| 5. Net Market Value                                     | \$<br>209,878,014 |
|---|-------------------|
| 4. Miscellaneous Adjustment <sup>1</sup>                | <br>3,797,608     |
| 3. Annuitant Reserve                                    | 138,462,565       |
| 2. Employer Contribution Reserve (EAF assets from IMRF) | 38,842,459        |
| 1. Employee Contribution Reserve (MDF Assets from IMRF) | \$<br>28,775,382  |

Includes an adjustment factor of 0.018427797 on Items 1 through 3 to ensure that Market Value of Assets for all employers balance to the total Market Value of the IMRF. Miscellaneous adjustments are due to various items such as suspended annuity reserve, disability benefit reserve, death benefit reserve, supplemental benefit reserve, employers with no assets, etc.

#### **Schedule of Contributions**

| 1. Employer  |                 |
|--|-----------------|
| a.) Wage Reporting   | \$<br>2,297,132 |
| b.) Accelerated Payments and Reserve Payments                        | 955,704         |
| Total Employer Contributions (a+b)                                   | \$<br>3,252,836 |
| 2. Member  |                 |
| a.) Wage Reporting   | \$<br>1,328,677 |
| b.) Member Payments (i.e., ERI, Pension Payments)                    | 1,365           |
| Sub-total (Amount used for valuation on Schedule of Changes Page 11) | \$<br>1,330,042 |
| c.) Voluntary Additional Plan  | \$<br>421,136   |
| Total Member Contributions (a+b+c)                                   | \$<br>1,751,178 |
| Total Employer and Member Contributions (1+2)                        | \$<br>5,004,014 |





## Summary of Actuarial Methods and Assu FOR3SO Used in the Calculation of the Total Pension Liability

FOR3S00-0001BBO

#### Methods and Assumptions Used to Determine Total Pension Liability:

Actuarial Cost Method Entry Age Normal
Asset Valuation Method Market Value of Assets

Price Inflation 2.25%

Salary Increases 2.85% to 13.75%

Investment Rate of Return<sup>1</sup> 7.25%

Retirement Age Experience-based table of rates that are specific to the type of eligibility

condition. Last updated for the 2023 valuation pursuant to an experience study

of the period 2020-2022.

Mortality For non-disabled retirees, the Pub-2010, Amount-Weighted, below-median

income, General, Retiree, Male (adjusted 108.0%) and Female (adjusted 106.4%) tables, and future mortality improvements projected using scale MP-2021. For disabled retirees, the Pub-2010, Amount-Weighted, below-median income, General, Disabled Retiree, Male and Female (both unadjusted) tables, and future mortality improvements projected using scale MP-2021. For active members, the Pub-2010, Amount-Weighted, below-median income, General, Employee, Male and Female (both unadjusted) tables, and future mortality improvements

projected using scale MP-2021.

Other Information:

Notes There were no benefit changes during the year.

A detailed description of the actuarial assumptions and methods can be found in the December 31, 2023 IMRF annual actuarial valuation report.



<sup>&</sup>lt;sup>1</sup> There were no changes in the discount rate used to calculate the Total Pension Liability (TPL), since the December 31, 2022 valuation. Mortality and other demographic assumptions used to determine the TPL were updated after the December 31, 2022 valuation, based on the experience study results published in the January 4, 2024 experience study report for IMRF.



### **SECTION C**

**CALCULATION OF THE SINGLE DISCOUNT RATE** 

#### **Calculation of the Single Discount R**



FOR3S00-0001BBO

GASB Statement No. 68 includes a specific requirement for the discount rate that is used for the purpose of the measurement of the Total Pension Liability. This rate considers the ability of the fund to meet benefit obligations in the future. To make this determination, employer contributions, employee contributions, benefit payments, expenses and investment returns are projected into the future. The Plan Net Position (assets) in future years can then be determined and compared to its obligation to make benefit payments in those years. As long as assets are projected to be on hand in a future year, the assumed valuation discount rate is used. In years where assets are not projected to be sufficient to meet benefit payments, the use of a "risk-free" rate is required, as described in the following paragraph.

The Single Discount Rate (SDR) is equivalent to applying these two rates to the benefits that are projected to be paid during the different time periods. The SDR reflects: (1) the long-term expected rate of return on pension plan investments (during the period in which the fiduciary net position is projected to be sufficient to pay benefits); and (2) tax-exempt municipal bond rate based on an index of 20-year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate of return are not met).

For the purpose of this valuation, the expected rate of return on pension plan investments is 7.25%; the municipal bond rate is 3.77%; and the resulting SDR is 7.25%.

The tables in this section provide background for the development of the SDR.

The **Projection of Contributions** table shows the development of expected contributions in future years. Normal Cost contributions for future hires are not included (nor are their liabilities).

Expected Contributions are developed based on the following:

- Member Contributions for current members
- Normal Cost contributions for current members
- Unfunded Liability contributions for current members

The **Projection of Plan Fiduciary Net Position** table shows the development of expected asset levels in future years.

The **Present Values of Projected Benefit Payments** table shows the development of the SDR. It breaks down the benefit payments into present values for funded and unfunded portions and shows the equivalent total at the SDR.





## **Single Discount Rate Developmer Projection of Contributions**

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|   |      | •             | Contributions from | Normal Cost            | UAL                  | Table of the Con-   |
|---|------|---------------|--------------------|------------------------|----------------------|---------------------|
| - | Year | Employees     | Current Employees  | Contributions          | Contributions        | Total Contributions |
|   | 2023 | \$ 29,526,123 |                    |                        |                      |                     |
|   | 2024 | 28,638,172    | \$ 1,288,718       | \$ 1,535,521           | \$ 667,615           | \$ 3,491,854        |
|   | 2025 | 26,781,433    | 1,205,164          | 1,340,408              | 825,040              | 3,370,612           |
|   | 2025 | 25,160,243    | 1,132,211          | 1,244,305              | 1,002,367            | 3,378,883           |
|   | 2020 | 23,698,095    | 1,132,211          | 1,169,646              | 1,202,482            | 3,438,542           |
|   | 2027 |               |                    |                        |                      |                     |
|   | 2028 | 22,354,016    | 1,005,931          | 1,098,876<br>1,033,298 | 988,241<br>1,012,947 | 3,093,048           |
|   |      | 21,062,451    | 947,810            |                        |                      | 2,994,055           |
|   | 2030 | 19,866,550    | 893,995            | 970,690                | 1,038,271            | 2,902,956           |
|   | 2031 | 18,721,487    | 842,467            | 909,175                | 1,064,228            | 2,815,870           |
|   | 2032 | 17,604,119    | 792,185            | 849,678                | 1,090,833            | 2,732,696           |
|   | 2033 | 16,576,123    | 745,926            | 795,132                | 1,118,104            | 2,659,162           |
|   | 2034 | 15,576,009    | 700,920            | 742,527                | 1,146,057            | 2,589,504           |
|   | 2035 | 14,544,964    | 654,524            | 687,609                | 1,174,708            | 2,516,841           |
|   | 2036 | 13,507,089    | 607,819            | 633,189                | 1,204,076            | 2,445,084           |
|   | 2037 | 12,492,436    | 562,160            | 579,433                | 1,234,178            | 2,375,770           |
|   | 2038 | 11,555,182    | 519,983            | 529,089                | 1,265,032            | 2,314,104           |
|   | 2039 | 10,688,890    | 481,000            | 484,126                | 1,296,658            | 2,261,784           |
|   | 2040 | 9,866,722     | 444,002            | 441,020                | 1,329,075            | 2,214,098           |
|   | 2041 | 9,077,731     | 408,498            | 400,356                | 1,362,301            | 2,171,155           |
|   | 2042 | 8,337,526     | 375,189            | 362,752                | 1,396,359            | 2,134,300           |
|   | 2043 | 7,640,419     | 343,819            | 327,879                | 0                    | 671,698             |
|   | 2044 | 6,964,303     | 313,394            | 294,032                | 0                    | 607,426             |
|   | 2045 | 6,333,486     | 285,007            | 263,005                | 0                    | 548,012             |
|   | 2046 | 5,719,785     | 257,390            | 233,552                | 0                    | 490,943             |
|   | 2047 | 5,109,978     | 229,949            | 205,107                | 0                    | 435,056             |
|   | 2048 | 4,512,984     | 203,084            | 178,461                | 0                    | 381,545             |
|   | 2049 | 3,931,648     | 176,924            | 152,745                | 0                    | 329,669             |
|   | 2050 | 3,421,686     | 153,976            | 131,237                | 0                    | 285,213             |
|   | 2051 | 2,953,039     | 132,887            | 111,799                | 0                    | 244,686             |
|   | 2052 | 2,460,479     | 110,722            | 91,932                 | 0                    | 202,653             |
|   | 2053 | 1,971,479     | 88,717             | 73,075                 | 0                    | 161,791             |
|   | 2054 | 1,523,354     | 68,551             | 56,163                 | 0                    | 124,714             |
|   | 2055 | 1,148,876     | 51,699             | 42,357                 | 0                    | 94,056              |
|   | 2056 | 880,242       | 39,611             | 32,365                 | 0                    | 71,976              |
|   | 2057 | 677,323       | 30,480             | 24,837                 | 0                    | 55,317              |
|   | 2058 | 518,470       | 23,331             | 19,012                 | 0                    | 42,343              |
|   | 2059 | 390,718       | 17,582             | 14,289                 | 0                    | 31,871              |
|   | 2060 | 282,437       | 12,710             | 10,301                 | 0                    | 23,010              |
|   | 2061 | 213,162       | 9,592              | 7,774                  | 0                    | 17,367              |
|   | 2062 | 146,209       | 6,579              | 5,303                  | 0                    | 11,883              |
|   | 2063 | 69,870        | 3,144              | 2,527                  | 0                    | 5,672               |
|   | 2064 | 25,287        | 1,138              | 940                    | 0                    | 2,078               |
|   | 2065 | 11,081        | 499                | 447                    | 0                    | 946                 |
|   | 2066 | 4,429         | 199                | 194                    | 0                    | 393                 |
|   | 2067 | 2,111         | 95                 | 104                    | 0                    | 199                 |
|   | 2068 | 1,159         | 52                 | 63                     | 0                    | 115                 |
|   | 2069 | 336           | 15                 | 19                     | 0                    | 34                  |
|   | 2070 | 6             | 0                  | 0                      | 0                    | 1                   |
|   | 2071 | 2             | 0                  | 0                      | 0                    | 0                   |
|   | 2072 | 0             | 0                  | 0                      | 0                    | 0                   |
|   | 2073 | 0             | 0                  | 0                      | 0                    | 0                   |
|   |      |               |                    |                        |                      |                     |





## Single Discount Rate Developmer Projection of Contributions (Concluded)

| FO | D3CNN | .0001BBC | 1 |
|----|-------|----------|---|

|     | Payroll for Current | Contributions from       | Normal Cost   | UAL           |                     |  |
|-----|---------------------|--------------------------|---------------|---------------|---------------------|--|
| Yea | ar Employees        | <b>Current Employees</b> | Contributions | Contributions | Total Contributions |  |
|     |                     |                          |               |               |                     |  |
| 207 |                     | \$ 0                     | \$ 0          | \$ 0          | \$ 0                |  |
| 207 |                     | 0                        | 0             | 0             | 0                   |  |
| 207 |                     | 0                        | 0             | 0             | 0                   |  |
| 207 |                     | 0                        | 0             | 0             | 0                   |  |
| 207 |                     | 0                        | 0             | 0             | 0                   |  |
| 207 |                     | 0                        | 0             | 0             | 0                   |  |
| 208 |                     | 0                        | 0             | 0             | 0                   |  |
| 208 |                     | 0                        | 0             | 0             | 0                   |  |
| 208 |                     | 0                        | 0             | 0             | 0                   |  |
| 208 |                     | 0                        | 0             | 0             | 0                   |  |
| 208 |                     | 0                        | 0             | 0             | 0                   |  |
| 208 |                     | 0                        | 0             | 0             | 0                   |  |
| 208 |                     | 0                        | 0             | 0             | 0                   |  |
| 208 |                     | 0                        | 0             | 0             | 0                   |  |
| 208 |                     | 0                        | 0             | 0             | 0                   |  |
| 208 |                     | 0                        | 0             | 0             | 0                   |  |
| 209 |                     | 0                        | 0             | 0             | 0                   |  |
| 209 |                     | 0                        | 0             | 0             | 0                   |  |
| 209 |                     | 0                        | 0             | 0             | 0                   |  |
| 209 |                     | 0                        | 0             | 0             | 0                   |  |
| 209 | 0                   | 0                        | 0             | 0             | 0                   |  |
| 209 |                     | 0                        | 0             | 0             | 0                   |  |
| 209 | 06 0                | 0                        | 0             | 0             | 0                   |  |
| 209 |                     | 0                        | 0             | 0             | 0                   |  |
| 209 |                     | 0                        | 0             | 0             | 0                   |  |
| 209 | 9 0                 | 0                        | 0             | 0             | 0                   |  |
| 210 | 0 0                 | 0                        | 0             | 0             | 0                   |  |
| 210 | 0 0                 | 0                        | 0             | 0             | 0                   |  |
| 210 | 0                   | 0                        | 0             | 0             | 0                   |  |
| 210 | 0                   | 0                        | 0             | 0             | 0                   |  |
| 210 | 0                   | 0                        | 0             | 0             | 0                   |  |
| 210 |                     | 0                        | 0             | 0             | 0                   |  |
| 210 | 06 0                | 0                        | 0             | 0             | 0                   |  |
| 210 | 0                   | 0                        | 0             | 0             | 0                   |  |
| 210 | 0 8                 | 0                        | 0             | 0             | 0                   |  |
| 210 | 0                   | 0                        | 0             | 0             | 0                   |  |
| 211 |                     | 0                        | 0             | 0             | 0                   |  |
| 211 | .1 0                | 0                        | 0             | 0             | 0                   |  |
| 211 |                     | 0                        | 0             | 0             | 0                   |  |
| 211 | .3 0                | 0                        | 0             | 0             | 0                   |  |
| 211 | .4 0                | 0                        | 0             | 0             | 0                   |  |
| 211 |                     | 0                        | 0             | 0             | 0                   |  |
| 211 |                     | 0                        | 0             | 0             | 0                   |  |
| 211 |                     | 0                        | 0             | 0             | 0                   |  |
| 211 | .8 0                | 0                        | 0             | 0             | 0                   |  |
| 211 | .9 0                | 0                        | 0             | 0             | 0                   |  |
| 212 |                     | 0                        | 0             | 0             | 0                   |  |
| 212 | 21 0                | 0                        | 0             | 0             | 0                   |  |
| 212 | 2 0                 | 0                        | 0             | 0             | 0                   |  |
| 212 | .3 0                | 0                        | 0             | 0             | 0                   |  |
|     |                     |                          |               |               |                     |  |





## Single Discount Rate Developmer Projection of Plan Fiduciary Net Position

Projected **Projected Beginning Projected Total Projected Benefit Projected Ending Plan** Investment **Plan Net Position** Earnings at 7.25% **Net Position** Year Contributions **Payments** (e)=(a)+(b)-(c)+(d) (c) 2024 Ś 209,878,014 3,491,854 Ś 13,765,390 \$ 14,850,256 214,454,734 2025 214.454.734 3,370,613 14.276.216 15.159.557 218,708,688 2026 218,708,688 3,378,884 14,799,334 15,449,632 222,737,870 2027 222,737,870 3,438,542 15,311,222 15,725,641 226,590,830 2028 226,590,830 3,093,048 15,826,703 15,974,316 229,831,491 2029 229.831.491 2.994.055 16.347.019 16.187.207 232.665.734 2030 232,665,734 2,902,956 16,801,612 16,373,255 235,140,332 2031 235,140,332 2,815,870 237,226,421 17,262,913 16,533,132 2032 237,226,421 2,732,697 17,713,803 16,665,352 238,910,667 2033 238.910.667 240.230.871 2,659,162 18.109.699 16,770,741 2034 240,230,871 2,589,504 18,542,259 16,848,569 241.126.684 2035 241,126,684 18,986,950 241,551,665 2.516.841 16.895.089 2036 241,551,665 2,445,084 19,387,424 16,909,081 241,518,406 2037 241.518.406 2.375.770 19.765.021 16.890.753 241.019.908 2038 241,019,908 2,314,104 20,004,552 16,843,885 240,173,344 2039 240,173,344 2.261.784 20.223.816 16.772.836 238.984.149 2040 238,984,149 2,214,097 20,410,410 16,678,275 237,466,112 2041 237.466.112 2.171.155 20,539,699 16,562,083 235,659,651 2042 235,659,651 2,134,300 20,612,718 16,427,202 233,608,435 2043 233,608,435 671,698 20,615,859 16,226,285 229,890,559 2044 229,890,559 607,426 20.573.268 15.955.967 225.880.684 2045 548.012 225,880,684 20,483,384 15,666,336 221,611,649 2046 221,611,649 490,943 20,397,143 15,357,870 217,063,319 2047 217,063,319 435.056 20,273,970 15,030,513 212,254,917 2048 212.254.917 381.545 207.226.157 20.096.620 14,686,314 2049 207,226,157 329,669 19,925,770 14,325,966 201,956,022 2050 201,956,022 285,213 19,751,539 13,948,504 196,438,200 2051 196,438,200 244,686 19,569,818 13,553,490 190,666,559 2052 190.666.559 202.653 13,137,827 19.449.721 184.557.318 2053 184,557,318 161,791 19,270,462 12,699,836 178,148,483 2054 178,148,483 124,714 19,048,770 12,241,770 171,466,197 2055 171,466,197 94,056 18,790,646 11,765,406 164,535,012 2056 164,535,012 71.976 18.390.203 11,276,371 157.493.157 2057 157,493,157 55,317 17,924,640 10,781,824 150,405,657 2058 150,405,657 42,343 17.417.159 10,285,593 143,316,435 2059 143,316,435 31,871 16,921,658 9,788,899 136,215,547 2060 136.215.547 23.010 16.393.713 9.292.572 129.137.417 2061 129,137,417 17,367 15,797,403 8,800,445 122,157,825 2062 122,157,825 11.883 15.254.865 8,313,552 115,228,395 2063 115.228.395 5,672 14.755.038 7.828.749 108.307.777 2064 108,307,777 2.078 101,495,272 14,162,561 7,347,978 2065 101,495,272 946 13,513,256 6,877,156 94,860,117 2066 94,860,117 393 12,863,304 6,419,236 88,416,442 2067 88.416.442 199 12.211.247 5.975.286 82.180.681 115 2068 82,180,681 11,566,870 5,546,141 76,160,067 2069 76,160,067 34 10,929,124 5,132,357 70,363,334 2070 70,363,334 1 10,297,640 4,734,584 64,800,279 2071 64.800.279 0 9.674.516 4.353.455 59.479.217 0 54,407,424 2072 59,479,217 9,061,312 3,989,518 2073 54,407,424 0 8,459,750 3,643,238 49,590,912





## Single Discount Rate Developmer

#### FOR3S00-0001BBO

### **Projection of Plan Fiduciary Net Position (Concluded)**

|      |                     |               |    |           |    | Projected        |                       |                     |  |
|------|---------------------|---------------|----|-----------|----|------------------|-----------------------|---------------------|--|
|      | Projected Beginning |               |    |           |    | Investment       | Projected Ending Plan |                     |  |
| Year | Plan Net Position   | Contributions |    | Payments  | E  | arnings at 7.25% |                       | Net Position        |  |
|      | (a)                 | (b)           |    | (c)       |    | (d)              |                       | (e)=(a)+(b)-(c)+(d) |  |
| 2074 | \$ 49,590,912       | \$ 0          | \$ | 7,871,764 | \$ | 3,314,982        | \$                    | 45,034,130          |  |
| 2075 | 45,034,130          | 0             |    | 7,299,274 |    | 3,005,005        |                       | 40,739,861          |  |
| 2076 | 40,739,861          | 0             |    | 6,744,291 |    | 2,713,437        |                       | 36,709,007          |  |
| 2077 | 36,709,007          | 0             |    | 6,208,681 |    | 2,440,276        |                       | 32,940,602          |  |
| 2078 | 32,940,602          | 0             |    | 5,694,047 |    | 2,185,396        |                       | 29,431,951          |  |
| 2079 | 29,431,951          | 0             |    | 5,201,760 |    | 1,948,552        |                       | 26,178,743          |  |
| 2080 | 26,178,743          | 0             |    | 4,732,879 |    | 1,729,394        |                       | 23,175,258          |  |
| 2081 | 23,175,258          | 0             |    | 4,288,246 |    | 1,527,477        |                       | 20,414,489          |  |
| 2082 | 20,414,489          | 0             |    | 3,868,422 |    | 1,342,274        |                       | 17,888,340          |  |
| 2083 | 17,888,340          | 0             |    | 3,473,648 |    | 1,173,188        |                       | 15,587,880          |  |
| 2084 | 15,587,880          | 0             |    | 3,103,979 |    | 1,019,571        |                       | 13,503,472          |  |
| 2085 | 13,503,472          | 0             |    | 2,759,286 |    | 880,728          |                       | 11,624,914          |  |
| 2086 | 11,624,914          | 0             |    | 2,439,287 |    | 755,929          |                       | 9,941,555           |  |
| 2087 | 9,941,555           | 0             |    | 2,143,625 |    | 644,416          |                       | 8,442,346           |  |
| 2088 | 8,442,346           | 0             |    | 1,871,834 |    | 545,403          |                       | 7,115,916           |  |
| 2089 | 7,115,916           | 0             |    | 1,623,412 |    | 458,085          |                       | 5,950,588           |  |
| 2090 | 5,950,588           | 0             |    | 1,397,790 |    | 381,634          |                       | 4,934,433           |  |
| 2091 | 4,934,433           | 0             |    | 1,194,219 |    | 315,213          |                       | 4,055,427           |  |
| 2092 | 4,055,427           | 0             |    | 1,011,871 |    | 257,980          |                       | 3,301,536           |  |
| 2093 | 3,301,536           | 0             |    | 849,803   |    | 209,095          |                       | 2,660,828           |  |
| 2094 | 2,660,828           | 0             |    | 706,935   |    | 167,732          |                       | 2,121,625           |  |
| 2095 | 2,121,625           | 0             |    | 582,130   |    | 133,085          |                       | 1,672,580           |  |
| 2096 | 1,672,580           | 0             |    | 474,161   |    | 104,374          |                       | 1,302,793           |  |
| 2097 | 1,302,793           | 0             |    | 381,752   |    | 80,856           |                       | 1,001,897           |  |
| 2098 | 1,001,897           | 0             |    | 303,600   |    | 61,825           |                       | 760,121             |  |
| 2099 | 760,121             | 0             |    | 238,315   |    | 46,621           |                       | 568,427             |  |
| 2100 | 568,427             | 0             |    | 184,486   |    | 34,640           |                       | 418,581             |  |
| 2101 | 418,581             | 0             |    | 140,725   |    | 25,335           |                       | 303,191             |  |
| 2102 | 303,191             | 0             |    | 105,659   |    | 18,218           |                       | 215,751             |  |
| 2103 | 215,751             | 0             |    | 77,984    |    | 12,864           |                       | 150,631             |  |
| 2104 | 150,631             | 0             |    | 56,501    |    | 8,908            |                       | 103,039             |  |
| 2105 | 103,039             | 0             |    | 40,121    |    | 6,041            |                       | 68,959              |  |
| 2106 | 68,959              | 0             |    | 27,879    |    | 4,007            |                       | 45,086              |  |
| 2107 | 45,086              | 0             |    | 18,926    |    | 2,595            |                       | 28,755              |  |
| 2108 | 28,755              | 0             |    | 12,531    |    | 1,638            |                       | 17,863              |  |
| 2109 | 17,863              | 0             |    | 8,078     |    | 1,007            |                       | 10,792              |  |
| 2110 | 10,792              | 0             |    | 5,062     |    | 602              |                       | 6,332               |  |
| 2111 | 6,332               | 0             |    | 3,078     |    | 349              |                       | 3,604               |  |
| 2112 | 3,604               | 0             |    | 1,813     |    | 197              |                       | 1,987               |  |
| 2113 | 1,987               | 0             |    | 1,033     |    | 107              |                       | 1,061               |  |
| 2114 | 1,061               | 0             |    | 569       |    | 57               |                       | 549                 |  |
| 2115 | 549                 | 0             |    | 302       |    | 29               |                       | 276                 |  |
| 2116 | 276                 | 0             |    | 155       |    | 15               |                       | 136                 |  |
| 2117 | 136                 | 0             |    | 77        |    | 7                |                       | 66                  |  |
| 2118 | 66                  | 0             |    | 38        |    | 3                |                       | 32                  |  |
| 2119 | 32                  | 0             |    | 18        |    | 2                |                       | 16                  |  |
| 2120 | 16                  | 0             |    | 8         |    | 1                |                       | 8                   |  |
| 2121 | 8                   | 0             |    | 4         |    | 0                |                       | 5                   |  |
| 2122 | 5                   | 0             |    | 2         |    | 0                |                       | 4                   |  |
| 2123 | 4                   | 0             |    | 1         |    | 0                |                       | 3                   |  |





## Single Discount Rate Developmer Present Values of Projected Benefits

FOR3S00-0001BBO

| Year | Beş | Projected<br>ginning Plan Net<br>Position | Pr | ojected Benefit<br>Payments | unded Portion of<br>enefit Payments | Uı | nfunded Portion<br>of Benefit<br>Payments | ı  | Present Value of<br>Funded Benefit<br>Payments using<br>Expected Return<br>Rate (v) | Present Value of<br>Unfunded Benefit<br>Payments using<br>Municipal Bond<br>Rate (vf) | Present Value of<br>Benefit<br>Payments using<br>Single Discount<br>Rate (sdr) |
|------|-----|---|----|-----------------------------|-------------------------------------|----|---|----|---|---|--|
| (a)  |     | (b)                                       |    | (c)                         | (d)                                 |    | (e)                                       | (  | (f)=(d)*v^((a)5)  | (g)=(e)*vf ^((a)5)  | (h)=(c)/(1+sdr)^(a5)   |
| 2024 | \$  | 209,878,014                               | \$ | 13,765,390                  | \$<br>13,765,390                    | \$ | 0   | \$ |   | \$ 0  | \$ 13,291,985  |
| 2025 |     | 214,454,734                               |    | 14,276,216                  | 14,276,216                          |    | 0   |    | 12,853,375  | 0   | 12,853,375   |
| 2026 |     | 218,708,688                               |    | 14,799,334                  | 14,799,334                          |    | 0   |    | 12,423,642  | 0   | 12,423,642   |
| 2027 |     | 222,737,870                               |    | 15,311,222                  | 15,311,222                          |    | 0   |    | 11,984,483  | 0   | 11,984,483   |
| 2028 |     | 226,590,830                               |    | 15,826,703                  | 15,826,703                          |    | 0   |    | 11,550,549  | 0   | 11,550,549   |
| 2029 |     | 229,831,491                               |    | 16,347,019                  | 16,347,019                          |    | 0   |    | 11,123,806  | 0   | 11,123,806   |
| 2030 |     | 232,665,734                               |    | 16,801,612                  | 16,801,612                          |    | 0   |    | 10,660,277  | 0   | 10,660,277   |
| 2031 |     | 235,140,332                               |    | 17,262,913                  | 17,262,913                          |    | 0   |    | 10,212,553  | 0   | 10,212,553   |
| 2032 |     | 237,226,421                               |    | 17,713,803                  | 17,713,803                          |    | 0   |    | 9,770,904   | 0   | 9,770,904  |
| 2033 |     | 238,910,667                               |    | 18,109,699                  | 18,109,699                          |    | 0   |    | 9,314,014   | 0   | 9,314,014  |
| 2034 |     | 240,230,871                               |    | 18,542,259                  | 18,542,259                          |    | 0   |    | 8,891,827   | 0   | 8,891,827  |
| 2035 |     | 241,126,684                               |    | 18,986,950                  | 18,986,950                          |    | 0   |    | 8,489,581   | 0   | 8,489,581  |
| 2036 |     | 241,551,665                               |    | 19,387,424                  | 19,387,424                          |    | 0   |    | 8,082,652   | 0   | 8,082,652  |
| 2037 |     | 241,518,406                               |    | 19,765,021                  | 19,765,021                          |    | 0   |    | 7,683,051   | 0   | 7,683,051  |
| 2038 |     | 241,019,908                               |    | 20,004,552                  | 20,004,552                          |    | 0   |    | 7,250,500   | 0   | 7,250,500  |
| 2039 |     | 240,173,344                               |    | 20,223,816                  | 20,223,816                          |    | 0   |    | 6,834,471   | 0   | 6,834,471  |
| 2040 |     | 238,984,149                               |    | 20,410,410                  | 20,410,410                          |    | 0   |    | 6,431,263   | 0   | 6,431,263  |
| 2041 |     | 237,466,112                               |    | 20,539,699                  | 20,539,699                          |    | 0   |    | 6,034,500   | 0   | 6,034,500  |
| 2042 |     | 235,659,651                               |    | 20,612,718                  | 20,612,718                          |    | 0   |    | 5,646,576   | 0   | 5,646,576  |
| 2043 |     | 233,608,435                               |    | 20,615,859                  | 20,615,859                          |    | 0   |    | 5,265,675   | 0   | 5,265,675  |
| 2044 |     | 229,890,559                               |    | 20,573,268                  | 20,573,268                          |    | 0   |    | 4,899,577   | 0   | 4,899,577  |
| 2045 |     | 225,880,684                               |    | 20,483,384                  | 20,483,384                          |    | 0   |    | 4,548,411   | 0   | 4,548,411  |
| 2046 |     | 221,611,649                               |    | 20,397,143                  | 20,397,143                          |    | 0   |    | 4,223,087   | 0   | 4,223,087  |
| 2047 |     | 217,063,319                               |    | 20,273,970                  | 20,273,970                          |    | 0   |    | 3,913,832   | 0   | 3,913,832  |
| 2048 |     | 212,254,917                               |    | 20,096,620                  | 20,096,620                          |    | 0   |    | 3,617,338   | 0   | 3,617,338  |
| 2049 |     | 207,226,157                               |    | 19,925,770                  | 19,925,770                          |    | 0   |    | 3,344,136   | 0   | 3,344,136  |
| 2050 |     | 201,956,022                               |    | 19,751,539                  | 19,751,539                          |    | 0   |    | 3,090,811   | 0   | 3,090,811  |
| 2051 |     | 196,438,200                               |    | 19,569,818                  | 19,569,818                          |    | 0   |    | 2,855,361   | 0   | 2,855,361  |
| 2052 |     | 190,666,559                               |    | 19,449,721                  | 19,449,721                          |    | 0   |    | 2,646,003   | 0   | 2,646,003  |
| 2053 |     | 184,557,318                               |    | 19,270,462                  | 19,270,462                          |    | 0   |    | 2,444,397   | 0   | 2,444,397  |
| 2054 |     | 178,148,483                               |    | 19,048,770                  | 19,048,770                          |    | 0   |    | 2,252,938   | 0   | 2,252,938  |
| 2055 |     | 171,466,197                               |    | 18,790,646                  | 18,790,646                          |    | 0   |    | 2,072,176   | 0   | 2,072,176  |
| 2056 |     | 164,535,012                               |    | 18,390,203                  | 18,390,203                          |    | 0   |    | 1,890,925   | 0   | 1,890,925  |
| 2057 |     | 157,493,157                               |    | 17,924,640                  | 17,924,640                          |    | 0   |    | 1,718,466   | 0   | 1,718,466  |
| 2058 |     | 150,405,657                               |    | 17,417,159                  | 17,417,159                          |    | 0   |    | 1,556,935   | 0   | 1,556,935  |
| 2059 |     | 143,316,435                               |    | 16,921,658                  | 16,921,658                          |    | 0   |    | 1,410,388   | 0   | 1,410,388  |
| 2060 |     | 136,215,547                               |    | 16,393,713                  | 16,393,713                          |    | 0   |    | 1,274,019   | 0   | 1,274,019  |
| 2061 |     | 129,137,417                               |    | 15,797,403                  | 15,797,403                          |    | 0   |    | 1,144,687   | 0   | 1,144,687  |
| 2062 |     | 122,157,825                               |    | 15,254,865                  | 15,254,865                          |    | 0   |    | 1,030,653   | 0   | 1,030,653  |
| 2063 |     | 115,228,395                               |    | 14,755,038                  | 14,755,038                          |    | 0   |    | 929,495   | 0   | 929,495  |
| 2064 |     | 108,307,777                               |    | 14,162,561                  | 14,162,561                          |    | 0   |    | 831,862   | 0   | 831,862  |
| 2065 |     | 101,495,272                               |    | 13,513,256                  | 13,513,256                          |    | 0   |    | 740,069   | 0   | 740,069  |
| 2066 |     | 94,860,117                                |    | 12,863,304                  | 12,863,304                          |    | 0   |    | 656,852   | 0   | 656,852  |
| 2067 |     | 88,416,442                                |    | 12,211,247                  | 12,211,247                          |    | 0   |    | 581,403   | 0   | 581,403  |
| 2068 |     | 82,180,681                                |    | 11,566,870                  | 11,566,870                          |    | 0   |    | 513,495   | 0   | 513,495  |
| 2069 |     | 76,160,067                                |    | 10,929,124                  | 10,929,124                          |    | 0   |    | 452,385   | 0   | 452,385  |
| 2070 |     | 70,363,334                                |    | 10,297,640                  | 10,297,640                          |    | 0   |    | 397,432   | 0   | 397,432  |
| 2071 |     | 64,800,279                                |    | 9,674,516                   | 9,674,516                           |    | 0   |    | 348,143   | 0   | 348,143  |
| 2072 |     | 59,479,217                                |    | 9,061,312                   | 9,061,312                           |    | 0   |    | 304,034   | 0   | 304,034  |
| 2073 |     | 54,407,424                                |    | 8,459,750                   | 8,459,750                           |    | 0   |    | 264,662   | 0   | 264,662  |
|      |     |   |    |                             |                                     |    |   |    |   |   |  |





## Single Discount Rate Developmer Present Values of Projected Renefits (Con

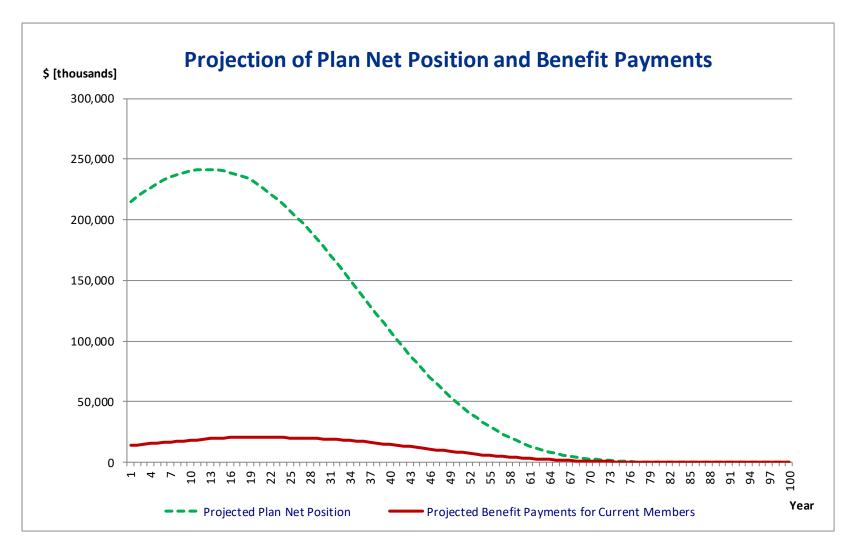
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Present Value of

Present Value of Present Value of

| Year | Projected<br>Beginning Plan Net<br>Position | Projected Benefit Payments | Funded Portion of<br>Benefit Payments | Unfunded Portion<br>of Benefit<br>Payments | Present Value of<br>Funded Benefit<br>Payments using<br>Expected Return<br>Rate (v) | Present Value of<br>Unfunded Benefit<br>Payments using<br>Municipal Bond<br>Rate (vf) | Present Value of Benefit Payments using Single Discount Rate (sdr) |
|------|---|----------------------------|---------------------------------------|--|---|---|--|
| (a)  | (b)   | (c)                        | (d)                                   | (e)  | (f)=(d)*v^((a)5)  | (g)=(e)*vf ^((a)5)  | (h)=(c)/(1+s dr)^(a5)  |
| 2074 | \$ 49,590,912                               | \$ 7,871,764               | \$ 7,871,764                          | \$ 0                                       | \$ 229,619  | \$ 0  | \$ 229,619   |
| 2075 | 45,034,130                                  | 7,299,274                  | 7,299,274                             | 0  | 198,527   | 0   | 198,527  |
| 2076 | 40,739,861                                  | 6,744,291                  | 6,744,291                             | 0  | 171,032   | 0   | 171,032  |
| 2077 | 36,709,007                                  | 6,208,681                  | 6,208,681                             | 0  | 146,806   | 0   | 146,806  |
| 2078 | 32,940,602                                  | 5,694,047                  | 5,694,047                             | 0  | 125,536   | 0   | 125,536  |
| 2079 | 29,431,951                                  | 5,201,760                  | 5,201,760                             | 0  | 106,930   | 0   | 106,930  |
| 2080 | 26,178,743                                  | 4,732,879                  | 4,732,879                             | 0  | 90,715  | 0   | 90,715   |
| 2081 | 23,175,258                                  | 4,288,246                  | 4,288,246                             | 0  | 76,636  | 0   | 76,636   |
| 2082 | 20,414,489                                  | 3,868,422                  | 3,868,422                             | 0  | 64,460  | 0   | 64,460   |
| 2083 | 17,888,340                                  | 3,473,648                  | 3,473,648                             | 0  | 53,969  | 0   | 53,969   |
| 2084 | 15,587,880                                  | 3,103,979                  | 3,103,979                             | 0  | 44,966  | 0   | 44,966   |
| 2085 | 13,503,472                                  | 2,759,286                  | 2,759,286                             | 0  | 37,270  | 0   | 37,270   |
| 2086 | 11,624,914                                  | 2,439,287                  | 2,439,287                             | 0  | 30,721  | 0   | 30,721   |
| 2087 | 9,941,555                                   | 2,143,625                  | 2,143,625                             | 0  | 25,172  | 0   | 25,172   |
| 2088 | 8,442,346                                   | 1,871,834                  | 1,871,834                             | 0  | 20,495  | 0   | 20,495   |
| 2089 | 7,115,916                                   | 1,623,412                  | 1,623,412                             | 0  | 16,573  | 0   | 16,573   |
| 2090 | 5,950,588                                   | 1,397,790                  | 1,397,790                             | 0  | 13,305  | 0   | 13,305   |
| 2091 | 4,934,433                                   | 1,194,219                  | 1,194,219                             | 0  | 10,599  | 0   | 10,599   |
| 2092 | 4,055,427                                   | 1,011,871                  | 1,011,871                             | 0  | 8,374   | 0   | 8,374  |
| 2093 | 3,301,536                                   | 849,803                    | 849,803                               | 0  | 6,557   | 0   | 6,557  |
| 2094 | 2,660,828                                   | 706,935                    | 706,935                               | 0  | 5,086   | 0   | 5,086  |
| 2095 | 2,121,625                                   | 582,130                    | 582,130                               | 0  | 3,905   | 0   | 3,905  |
| 2096 | 1,672,580                                   | 474,161                    | 474,161                               | 0  | 2,966   | 0   | 2,966  |
| 2097 | 1,302,793                                   | 381,752                    | 381,752                               | 0  | 2,226   | 0   | 2,226  |
| 2098 | 1,001,897                                   | 303,600                    | 303,600                               | 0  | 1,651   | 0   | 1,651  |
| 2099 | 760,121                                     | 238,315                    | 238,315                               | 0  | 1,208   | 0   | 1,208  |
| 2100 | 568,427                                     | 184,486                    | 184,486                               | 0  | 872   | 0   | 872  |
| 2101 | 418,581                                     | 140,725                    | 140,725                               | 0  | 620   | 0   | 620  |
| 2102 | 303,191                                     | 105,659                    | 105,659                               | 0  | 434   | 0   | 434  |
| 2103 | 215,751                                     | 77,984                     | 77,984                                | 0  | 299   | 0   | 299  |
| 2104 | 150,631                                     | 56,501                     | 56,501                                | 0  | 202   | 0   | 202  |
| 2105 | 103,039                                     | 40,121                     | 40,121                                | 0  | 134   | 0   | 134  |
| 2106 | 68,959                                      | 27,879                     | 27,879                                | 0  | 87  | 0   | 87   |
| 2107 | 45,086                                      | 18,926                     | 18,926                                | 0  | 55  | 0   | 55   |
| 2108 | 28,755                                      | 12,531                     | 12,531                                | 0  | 34  | 0   | 34   |
| 2109 | 17,863                                      | 8,078                      | 8,078                                 | 0  | 20  | 0   | 20   |
| 2110 | 10,792                                      | 5,062                      | 5,062                                 | 0  | 12  | 0   | 12   |
| 2111 | 6,332                                       | 3,078                      | 3,078                                 | 0  | 7   | 0   | 7  |
| 2112 | 3,604                                       | 1,813                      | 1,813                                 | 0  | 4   | 0   | 4  |
| 2113 | 1,987                                       | 1,033                      | 1,033                                 | 0  | 2   | 0   | 2  |
| 2114 | 1,061                                       | 569                        | 569                                   | 0  | 1   | 0   | 1  |
| 2115 | 549   | 302                        | 302                                   | 0  | 0   | 0   | 0  |
| 2116 | 276   | 155                        | 155                                   | 0  | 0   | 0   | 0  |
| 2117 | 136   | 77                         | 77                                    | 0  | 0   | 0   | 0  |
| 2118 | 66  | 38                         | 38                                    | 0  | 0   | 0   | 0  |
| 2119 | 32  | 18                         | 18                                    | 0  | 0   | 0   | 0  |
| 2119 | 16  | 8                          | 8                                     | 0  | 0   | 0   | 0  |
| 2121 | 8   | 4                          | 4                                     | 0  | 0   | 0   | 0  |
| 2122 | 5   | 2                          | 2                                     | 0  | 0   | 0   | 0  |
| 2123 | 4   | 1                          | 1                                     | 0  | 0   | 0   | 0  |
|      | 7   |                            |                                       |  |   |   |  |









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### **SECTION D**

**GLOSSARY OF TERMS** 

#### **Glossary of Terms**



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### Actuarial Accrued Liability (AAL)

The AAL is the difference between the actuarial present value of all benefits and the actuarial value of future normal costs. The definition comes from the fundamental equation of funding which states that the present value of all benefits is the sum of the Actuarial Accrued Liability and the present value of future normal costs. The AAL may also be referred to as "accrued liability" or "actuarial liability."

#### **Actuarial Assumptions**

These assumptions are estimates of future experience with respect to rates of mortality, disability, turnover, retirement, rate or rates of investment income and compensation increases. Actuarial assumptions are generally based on past experience, often modified for projected changes in conditions. Economic assumptions (compensation increases, payroll growth, inflation and investment return) consist of an underlying real rate of return plus an assumption for a long-term average rate of inflation.

#### **Accrued Service**

Service credited under the fund which was rendered before the date of the actuarial valuation.

#### **Actuarial Equivalent**

A single amount or series of amounts of equal actuarial value to another single amount or series of amounts, computed on the basis of appropriate actuarial assumptions.

#### **Actuarial Cost Method**

A mathematical budgeting procedure for allocating the dollar amount of the actuarial present value of the pension trust benefits between future normal cost and actuarial accrued liability. The actuarial cost method may also be referred to as the actuarial funding method.

#### **Actuarial Gain (Loss)**

The difference in liabilities between actual experience and expected experience during the period between two actuarial valuations is the gain (loss) on the accrued liabilities.

#### **Actuarial Present Value (APV)**

The amount of funds currently required to provide a payment or series of payments in the future. The present value is determined by discounting future payments at predetermined rates of interest and probabilities of payment.

#### **Actuarial Valuation**

The actuarial valuation report determines, as of the actuarial valuation date, the service cost, total pension liability, and related actuarial present value of projected benefit payments for pensions.

#### **Actuarial Valuation Date**

The date as of which an actuarial valuation is performed.

#### Actuarially Determined Contribution (ADC) or Annual Required Contribution (ARC)

A calculated contribution into a defined benefit pension plan for the reporting period, most often determined based on the funding policy of the plan. Typically the Actuarially Determined Contribution has a normal cost payment and an amortization payment.



#### **Glossary of Terms (Continued)**



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#### **Amortization Payment**

The amortization payment is the periodic payment required to pay off an interest-discounted amount with payments of interest and principal.

#### **Amortization Method**

The method used to determine the periodic amortization payment may be a level dollar amount, or a level percent of pay amount. The period will typically be expressed in years, and the method will either be "open" (meaning, reset each year) or "closed" (the number of years remaining will decline each year).

#### **Cost-of-Living Adjustments**

Postemployment benefit changes intended to adjust benefit payments for the effects of inflation.

Cost-Sharing Multiple-Employer Defined Benefit Pension Plan (cost-sharing pension plan) A multiple-employer defined benefit pension plan in which the pension obligations to the employees of more than one employer are pooled and pension plan assets can be used to pay the benefits of the employees of any employer that provides pensions through the pension plan.

#### **Covered Valuation Payroll**

The earnings of covered employees for the year ended on the valuation date, which is typically only the pensionable pay and does not include pay above any pay cap. It is not necessarily the same as payroll actually paid because it excludes all pay for people who exited during the year.

### Deferred Inflows and Outflows

The deferred inflows and outflows of pension resources are amounts used under GASB Statement No. 68 in developing the annual pension expense. Deferred inflows and outflows arise with differences between expected and actual experiences; changes of assumptions. The portion of these amounts not included in pension expense should be included in the deferred inflows or outflows of resources.

#### **Discount Rate**

For GASB purposes, the discount rate is the single rate of return that results in the present value of all projected benefit payments to be equal to the sum of the funded and unfunded projected benefit payments, specifically:

- 1. The benefit payments to be made while the pension plans' fiduciary net position is projected to be greater than the benefit payments that are projected to be made in the period; and
- 2. The present value of the benefit payments not in (1) above, discounted using the municipal bond rate.

### Entry Age Actuarial Cost Method (EAN)

The EAN is a funding method for allocating the costs of the plan between the normal cost and the accrued liability. The actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis (either level dollar or level percent of pay) over the earnings or service of the individual between entry age and assumed exit age(s). The portion of the actuarial present value allocated to a valuation year is the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is the actuarial accrued liability. The sum of the accrued liability plus the present value of all future normal costs is the present value of all benefits.



#### **Glossary of Terms (Continued)**



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**GASB** 

The Governmental Accounting Standards Board is an organization that exists in order to promulgate accounting standards for governmental entities.

**Fiduciary Net Position** 

The fiduciary net position is the value of the assets of the trust.

Long-Term Expected Rate of Return

The long-term rate of return is the expected return to be earned over the entire trust portfolio based on the asset allocation of the portfolio.

Money-Weighted Rate of Return

The money-weighted rate of return is a method of calculating the returns that adjusts for the changing amounts actually invested. For purposes of GASB Statement No. 68, money-weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense.

Multiple-Employer Defined Benefit Pension Plan A multiple-employer plan is a defined benefit pension plan that is used to provide pensions to the employees of more than one employer.

**Municipal Bond Rate** 

The Municipal Bond Rate is the discount rate to be used for those benefit payments that occur after the assets of the trust have been depleted.

**Net Pension Liability (NPL)** 

The NPL is the liability of employers and non-employer contribution entities to plan members for benefits provided through a defined benefit pension plan.

Non-Employer Contribution Entities Non-employer contribution entities are entities that make contributions to a pension plan that is used to provide pensions to the employees of other entities. For purposes of the GASB Accounting statement plan members are not considered non-employer contribution entities.

**Normal Cost** 

The actuarial present value of the pension trust benefits allocated to the current year by the actuarial cost method.

Other Postemployment Benefits (OPEB)

All postemployment benefits other than retirement income (such as death benefits, life insurance, disability, and long-term care) that are provided separately from a pension plan, as well as postemployment healthcare benefits regardless of the manner in which they are provided. Other post-employment benefits do not include termination benefits.

Real Rate of Return

The real rate of return is the rate of return on an investment after adjustment to eliminate inflation.

Service Cost

The service cost is the portion of the actuarial present value of projected benefit payments that is attributed to a valuation year.







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#### **Total Pension Expense**

The total pension expense is the sum of the following items that are recognized at the end of the employer's fiscal year:

- 1. Service Cost;
- 2. Interest on the Total Pension Liability;
- 3. Current-Period Benefit Changes;
- 4. Employee Contributions (made negative for addition here);
- 5. Projected Earnings on Plan Investments (made negative for addition here);
- 6. Pension Plan Administrative Expense;
- 7. Other Changes in Plan Fiduciary Net Position;
- 8. Recognition of Outflow (Inflow) of Resources due to Liabilities; and
- 9. Recognition of Outflow (Inflow) of Resources due to Assets.

Total Pension Liability (TPL)

The TPL is the portion of the actuarial present value of projected benefit payments that is attributed to past periods of member service.

Unfunded Actuarial Accrued Liability (UAAL)

The UAAL is the difference between actuarial accrued liability and valuation assets.

Valuation Assets

The valuation assets are the assets used in determining the unfunded liability of the plan. For purposes of the GASB Statement No. 68, the valuation asset is equal to the market value of assets.

