Corpus Christi Fire Fighters' Retirement System

Actuarial Audit of 12/31/2020 Valuation

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Audit Objectives

- Audit of the 12/31/2020 actuarial valuation report prepared by Rudd and Wisdom, Inc. (R&W)
  - Verify actuarial methods, considerations and analyses used are reasonable and consistent with actuarial standards
  - Verify calculations for funding requirements are appropriate based on the structure of the plan and funding objectives
  - Level Two Audit – check sample lives rather than full replication
- Key Categories Included in the Review
  - Member Data
  - Assets
  - Liabilities
  - Assumptions / Methods
  - Reporting

OVERALL FINDINGS

- Found no major deficiencies
  - Contribution requirements are sufficient and consistent with long-term objectives of funding the plan and paying benefits when due
  - Underlying member and asset information is reasonable, consistent and free of material discrepancies
  - Actuarial assumptions and methods are reasonable
  - Report complies with Actuarial Standards of Practice and is sufficient in communicating results
  - Valuation is complete and in accordance with State and Federal requirements
- Made several recommendations throughout report
  - Key recommendations shown in this document

Review Categories – Member Data

- Reviewed that the final data was correctly incorporated into the actuarial valuation
  - Confirmed that the data used was sufficient to measure the benefits provided by the System
  - No differences between data and report summaries
- **Key Recommendations/Observations:**
  - None

REVIEW CATEGORIES – ASSETS

- Verified the valuation correctly incorporated the market value of assets supplied by the System
- Reviewed the method used to determine the actuarial value of assets for accuracy and reasonability
- **Key Recommendations/Observations:**
  - None

REVIEW CATEGORIES – LIABILITIES

- Reviewed liabilities for 10 active and 10 inactive members
- **Key Recommendations/Observations:**
  - Sample lives generally matched R&W, although some outliers exist; possible reasons for outliers provided
  - Also prepared a rough full-replication and were very close on present value of benefits and actuarial accrued liability
  - It is our professional assessment that the valuation liabilities are reasonable

REVIEW CATEGORIES – LIABILITIES

KEY LIABILITY RESULTS – ACTIVES
(% Difference from Actuary Results)

Member	Present Value of Benefits (%)	Actuarial Accrued Liability	Normal Cost
Active #1	(0.31%)	(0.39%)	2.22%
Active #2	(0.37%)	(0.52%)	2.12%
Active #3	(0.51%)	(0.68%)	7.29%
Active #4	(0.32%)	(0.33%)	(0.29%)
Active #5	(0.62%)	0.32%	(1.78%)
Active #6	(0.62%)	(0.54%)	(1.31%)
Active #7	(1.09%)	(1.02%)	(2.03%)
Active #8	(0.68%)	(0.16%)	(1.97%)
Active #9	(0.45%)	(0.33%)	(1.14%)
Active #10	(0.56%)	1.98%	(0.67%)
All Samples	(0.51%)	(0.48%)	0.28%

KEY LIABILITY RESULTS – INACTIVES
(% Difference from Actuary Results)

Member	Actuarial Accrued Liability	Member	Actuarial Accrued Liability
InPay #1	0.00%	Deferred #1	(0.43%)
InPay #2	0.00%	Deferred #2	(0.06%)
InPay #3	0.00%		
InPay #4	0.00%		
InPay #5	0.27%		
InPay #6	0.00%		
InPay #7	0.00%		
InPay #8	0.00%		

Review Categories – Assumptions

- Reviewed assumptions for reasonableness, appropriateness and compliance with applicable standards of practice
- **Key Recommendations/Observations:**
  - Recommend using available mortality for survivors and disabled lives to best utilize the Pub-2010 information
  - Recommend regularly updating to the latest mortality projection scale to minimize impact of future mortality table changes

Review Categories – Methods

- Reviewed calculations used to determine contribution requirements
- Reviewed appropriateness of the underlying actuarial funding method used to develop contribution requirements
- Reviewed the funding policy to amortize unfunded liabilities
- **Key Recommendations/Observations:**
  - None

Review Categories – Reporting

- Compared benefit summary in report to plan document
- Reviewed overall report for clarity, completeness and compliance with actuarial standards
- **Key Recommendations/Observations:**
  - Formal risk section to disclosure items that may have a significant impact on the plan's financial condition, in compliance with ASOP 51.

Thank you.

Questions?

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