Milliman

Actuarial Valuation Audit Services

November 2018

Agenda

- Overview of Milliman
- Introduction to Actuarial Team
- Audit Success Stories
- Proposed Services for ERF
- Project Timeline
- Proposed Fees

Overview of Milliman

- Actuarial and consulting offices in 60 principal cities worldwide
- **3,500** employees, including over 1,400 credentialed consultants and actuaries
- **9,000** clients in the private and public sectors
- Extensive governmental expertise, including:
  - City / county / state governments, school districts, law enforcement agencies, hospital districts, transportation authorities
  - We provide retirement plan services to over 400 public plans, which encompass over $700 billion in assets and nearly 7 million participants
  - Approximately 20% of Milliman's employee benefit business is related to retirement plans services to public sector organizations
- Privately owned and managed by our employees
- Independence provides professional freedom, impartiality and long-term perspective
- Providing consulting services for more than 70 years

Introduction to Actuarial Team

For ERF of Dallas

CO-AUDIT LEAD ACTUARY

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HIGHLY QUALIFIED ACTUARIAL TEAM

- Each office has extensive experience providing services to public sector plans.
- Team members will dedicate substantial time to the Employees' Retirement Fund of the City of Dallas.
- The actuarial team possesses the depth and resources needed to handle all work requested in a timely fashion.
- The team consists of team members that have deep experience working with plans like the ERF of Dallas

Audit Success Stories

Large County System

- Full actuarial audit of actuarial valuation and experience study
- Recommended changes included:
  - Stopped practice of applying termination assumption with refund of contribution after retirement benefit eligibility.
  - Increases to retirement rates and life expectancies.
  - Service based assumptions for termination and merit salary

State-wide System

- Full actuarial audit of actuarial valuation and experience study
- Recommended changes included:
  - Studying mortality weighted by benefit levels

Large County System

- Full actuarial valuation audit
- Recommended changes included:
  - Revised treatment of death benefit for new members.
  - Revised assumption for members with reciprocal service in another system
  - Changes to UAAL amortization assumption

VALUE FROM INDEPENDENT REVIEW

Proposed Services for ERF

PURPOSE OF AUDIT

- **Independent Review** of work performed by retained actuary for December 31, 2017 actuarial valuation
- **Core Actuarial Audit** includes:
  - High level review of member data used in valuation process
  - The results of liability calculations for sample members
  - The assumptions in use
  - Mathematical development of Total Obligation Rate
  - The results of QDRO calculations for sample members
- **Additional Value** – independent, expert analysis of the Fund's projected long-term financial status reflecting the establishment of Tier B for members hired after 2016

Streamlined experience for the ERF of Dallas due to Milliman experience performing prior audits for the Fund

KEY OUTCOMES

- **Detailed Actuarial Audit Report**
  - Report delivered in advance of meeting with ERF Board of Trustees to discuss findings
- **Forward-looking projections**
  - Assume future experience matches assumption
  - Appropriateness of methodology underlying contribution calculation
  - Deeper understanding of the impact of when experience deviates from assumption
- Identification of **significant risks** facing the Fund from an actuarial perspective (if any)

Delivered by consultants with considerable experience on similar assignments

Project Timeline

Actuarial Audit

	Start	End
Project startup / Finalize scope of work and execute Service Agreement	November 15, 2018	November 22, 2018
Milliman to deliver data request to ERF to supplement information already available		November 15, 2018
Discuss with the Board of Trustees the appropriate assumptions to use in conducting the audit		December 4, 2018
Field work (actuarial audit)	November 22, 2018	January 29, 2018
Briefing to the City on the progress of the Audit		January 10, 2019
Submit preliminary draft of audit report to the Board of Trustees		January 29, 2019
Deliver final audit report		February 12, 2019

Project Fees

ERF of the City of Dallas - Audit of 12/31/2017 Valuation	**$55,000**

Notes:

- Subsequent to the beginning of the plan audit, if the ERF identifies any additional items they would like Milliman to review concurrently with the plan audit (e.g. sensitivity projections/analysis), we will provide an additional fee for the analysis.
- Fees above include travel for two onsite meetings.

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Thank you