# Police and Fire Pension Task Force

July 29, 2009

Analysis of Employee Contributions and Recommendations.

# Current Level of Contributions

Tier I

1. 8.5% of salary
2. Plus, the amount determined by actuaries for the Board of Trustees that is needed to provide for the Additional Funding Contribution (AFC). The AFC is intended to cover the cost of the additional 0.3% multiplier.
    1. Now 2.85% of salary.
    2. Will be changed effective 7/1/2010
    3. Likely to be adjusted upward at that time.
3. All of the contributions are returned, without earnings at the time of separation from service.

Tier II

1. 8.5% of salary
2. Contributions returned only if participanty leaves service and is not entitled to further benefits.

# Real Value of Contributions with ROC component.

1. $1 invested at 7.5% for 25 years will earn $5.10!
2. $1 invested at 7.5% for 1 year will earn 7.5 cents.

I have often wondered what the real value is of the 11.35%-of-salary contribution made by the Tier I participants, since the contributions are returned when leaving service. I think the perception of many, including the lady who spoke at the Town Hall meeting Tuesday, is that the contribution is of little or no value. I ran some calculations that shed some light on this.

Example #1. You invest $1 each month for 25 years and earn 7.5% on the money. At the end of the 25 years you would have a balance of $877.30. Your total contribution was $300 ($1 times 300 months). The difference, $577.30 is earnings. Applying this to the Pension Plan, you would get the $300 back at retirement and the Fund retains the **$577.30**.

Example #2. You agree to contribute, on the same terms, whatever amount it takes to generate **$577.30**. $0.658, invested monthly for 25 years, earning 7.5%, will grow to $577.26. Applying this to the Pension Plan, contributing 65.8 cents per month and not receiving a return of contribution is of equal value to the Fund as investing $1.00 per month and having those contributions returned.

This is helpful but fails to consider that salaries (therefore contributions) do not stay the same, but grow over time.

# Continued…

Example #3. A Tier I participant hires on at age 30 at a beginning salary of $25,000. He contributes 11.35% of salary for 25 years. The plan earns 7.5% on investments and the salary increases at a rate of 4% per year. At the end of 25 years, the accumulated balance in the participant account is $305,577. He has contributed $121,570 which is returned to him in a lump sum. The difference, **$184,007**, has been realized in accumulated earnings and is retained in the Plan to provide for future benefits. By the way, his ending salary would be $67,620.

Example #4. You agree to contribute whatever percentage of salary on a monthly basis it takes to generate **$184,007** at the end of 25 years. You expect to earn 7.5% on the investment, think your salary will increase at the rate of 4% per year, and will not have a return of contribution. Drum roll here....6.835% will provide $184,019.

In other words, contributing 11.35% with a return of contribution, provides the same value to the fund as contributing 6.835% without a return of contribution. All of this is subject to my calculation errors, assumptions never work out perfectly, etc., but I saw the last bill from the actuary and decided this might be a worthwhile alternative exercise even with the obvious flaws.

# Continued….

## Future Value Computations

| | |
|---|---|
| Annual Salary | **$25,000** |
| Monthly Salary | $2,083.3333 |
| Contribution % | 11.3500% |
| Initial Monthly Contribution Amt.: | $236.4583 |
| Annual Salary Escalator | 4.0000% |
| Monthly escatation factor | 1.0033 |
| Annualized Rate of Earnings | 7.50% |
| Monthly Rate of Earnings | 0.6250% |
| Ending Salary | **$67,619** |

| Years of Service | Month | Monthly Contribution | Earnings | Cumulative Balance | Salary | % of Salary equilibrium |
|---|---|---|---|---|---|---|
| **5** | **Subtotals:** | **$15,677** | **$3,158** | **$18,835** | **$30,424** | **1.9030%** |
| **10** | **Subtotals:** | **$34,818** | **$15,549** | **$50,367** | **$37,147** | **3.5040%** |
| **15** | **Subtotals:** | **$58,190** | **$43,085** | **$101,275** | **$45,356** | **4.8220%** |
| **20** | **Subtotals:** | **$86,727** | **$94,737** | **$181,463** | **$55,380** | **5.9260%** |
| **25** | | **$121,570** | **$184,007** | **$305,577** | **$67,619** | **6.8350%** |
| | | | | | **Avg:** | **4.5980%** |

# Contribution History of Employees

- 1991-1993 – Employee contributions increased from 7% to 8.5% as part of increased cost of multilplier hike from 2.0% to 2.5%.
  - Total actuarial cost estimated at 6% of salary. This employee contribution increase estimated to provide 1½% of this.
- 2003 – Additional Funding Contribution provided to fully support .3% addition to multiplier
  - Adjusted every 5 years – currently 2.85%
  - Total Tier I contribution, 11.35% of gross salary.
- 2006 – Tier II employee contributions, 8 1/2% of gross salary.

# Can the Employee Contribution be Raised?

- Yes, by a Vote of City Council.

# Should the Employee Contribution be Raised?

# The Spirit of the Pension Plan Design Toward Employee Contributions.

- The language of Section 2-457, that was in effect from 1992 through 2004 stated that <u>if</u> the City’s contribution of a maximum 16% of salary plus employee contributions did no fully provide for the combined annual contribution, then additional funding was to come from “increased employee contributions or through employee reduction in benefits to be paid to future retirees.”
- Any informed employee hired on during those years would have expected their contributions to be increased significantly in a scenario like we are experiencing now.
- The City Attorney says we still have as much authority to raise employee contributions as we did prior to the ordinance change in 2004. And, we had no more ability to change benefits before the ordinance change than we do now.

# “Moral” issues:

- Is there a public perception that the Police and Fire need to share the cost of rescuing the plan after these staggering market losses?
- We have experienced the worst recession in modern history with associated high employment, wage cuts and freezes, job furloughs and layoffs. Are the citizens asking why Police and Firemen should escape the fallout from this at the expense of the taxpayer?
- Virtually everyone holding an IRA, 401K or other retirement account has been hurt badly through these Market collapses. The future of Social Security is in question. Shouldn’t the Police and Firemen be expected to pitch in, as is legally possible, to help shore up their retirement plan?

# Recommendations – Homan

- Alternative #1
  - Freeze the return of contribution.
    - Tier I contributions-to-date to be paid at separation from service according to current ordinance.
    - Future Tier I contributions will not be returned
  - Reduce Tier I contributions to 7%, plus what is actuarially required to support the AFC (approximately 1 3/4%).
    - This is roughly the equivalent to current "real" value of contributions for a 25 year employee, <u>plus 2%.</u>

## Continued – Homan recommendations

- Alternative #2
  - Increase the Tier I employee contributions to 8 ½% plus the AFC plus a percentage equivalent to a 2% non-ROC increase (appr. 3.25%).
  - At the current AFC of 2.85%, this would be a total Tier I contribution of 14.6% based on the 3.25% approximation.