Larry Langer
Principal and Consulting Actuary

Buck Consultants, LLC.
123 North Wacker Drive
Suite 1000
Chicago, IL 60606

larry.langer@xerox.com
tel 312.846.3669
fax 312.846.3502

September 19, 2016

Mr. Tom Crawford
Chief Financial Officer
City of Ann Arbor
301 E. Huron Street.
Ann Arbor, MI 48107

Re: Pension Analysis for Proposed Pension Multiplier Changes in Defined Benefit plan and supplemental Defined Contribution plan

Dear Mr. Crawford:

You requested that Buck provide an analysis on the actuarial impact to the City of Ann Arbor Employees Retirement System (ERS) of contemplated changes to the pension multiplier and the addition of a supplemental Defined Contribution arrangement for Active members hired on or after January 1, 2017. This letter presents the results of our analysis.

Background Summary

You requested that Buck determine the cost impact of proposed changes to the benefit provisions for Active members hired on or after January 1, 2017. This analysis does not include any analysis or comment on any possible impediments to adopting such a change in the plan, which should be discussed with your legal counsel.

Current Benefit Provisions

- The General City Members are entitled to a 2.50% benefit multiplier, while the benefit multiplier is 2.75% for Firefighter and Police Officer Members, for all credited service.
- The mandatory member contribution of 6% to the DB plan.

Proposed Benefit Provisions

- The proposed provisions would give active members hired on or after January 1, 2017 a pension benefit based on the benefit multiplier of 1.25% for General City Members, and if negotiated, 1.375% for Firefighter and Police Officer Members for credited service earned.
- The mandatory member contribution rates would be 3% to the DB plan and 3% to the DC plan.
- The City to match the employee contributions at a rate of 5.2% to General Employee, and if negotiated, 6.88% to public Safety to the DC plan; such that the proposed DB and DC plan hybrid have the benefit actuarially the same as the existing DB plan . The rates have been established to ensure to the extent possible that the resulting benefits are essentially actuarially equivalent at the inception of the arrangement.

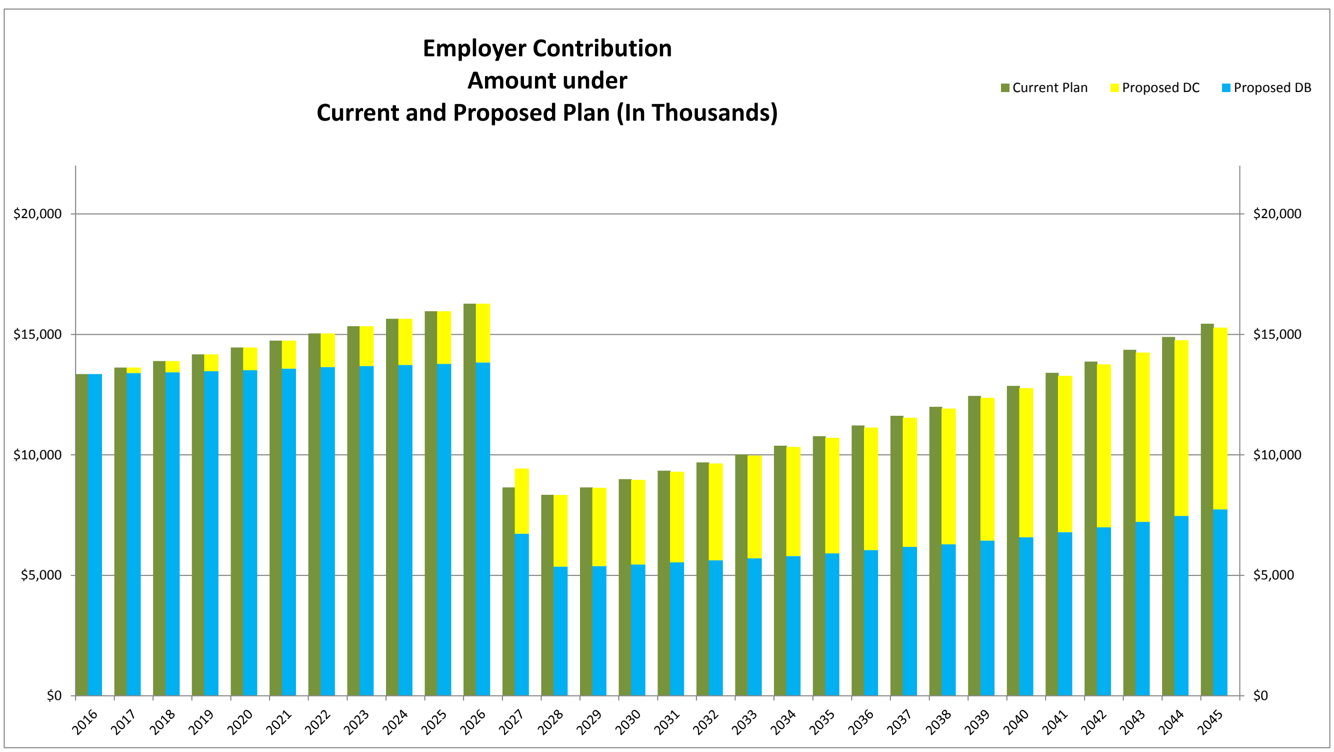
Actuarial Analysis

The proposed change in benefit multiplier is expected to decrease the amount of DB benefits paid from the ERS and would be expected to result in both decreased liabilities and contribution amounts to the ERS DB plan. However, the City is to make matching contributions to the Supplemental DC plan such that the member's benefit value under the proposed plan is actuarially the same as the existing DB plan. For purposes of setting the City match up contribution, we chose the cost of benefits for members out at year 2045 (30 years from the valuation date).

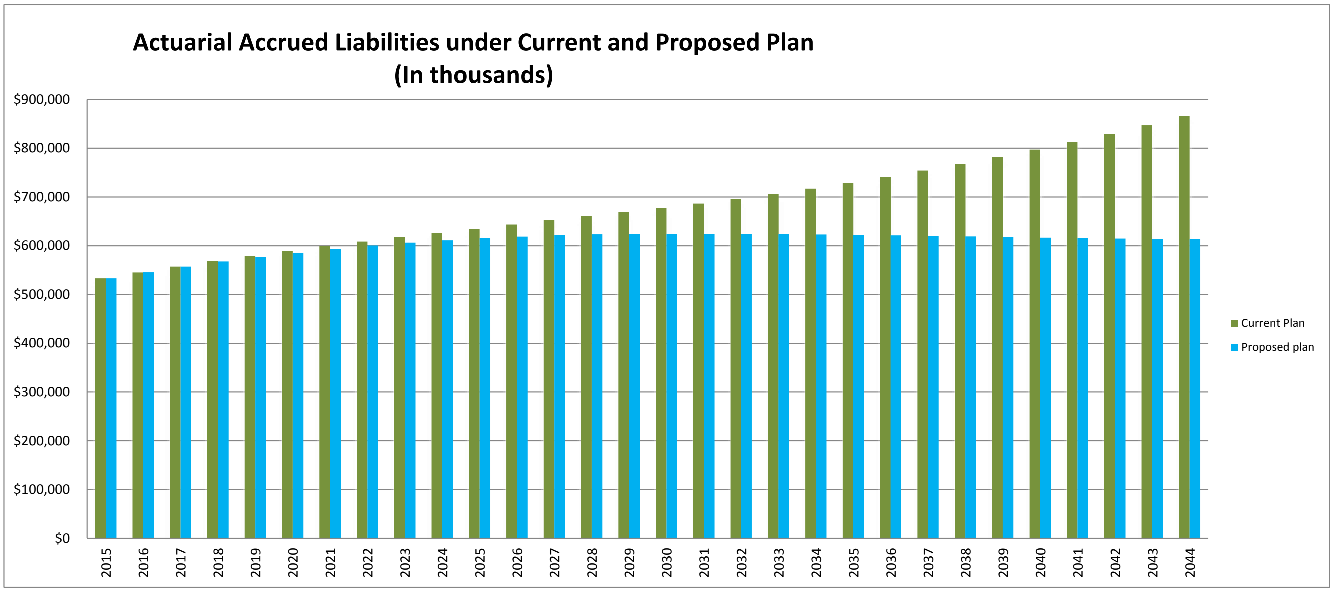
The exhibits below show the expected employer contribution for the proposed DB plan and addition of DC plan hybrid, as well as projected DB Actuarial Accrued liability and system membership by years.

Note that the plan design has been developed with the goal of ensuring, to the extent possible, that the benefits are actuarially equivalent to the existing DB plan. Therefore, the proposed plan change is more of transferring the investment risk/reward as well as the future longevity risk to the member instead of a cost saving for the city.

<u>Projected Employer Contribution</u>



Projected Actuarial Accrued Liability



* Forecast based on the present employees with assumption about replacement employees

** New hires after 2017 would have the following change:

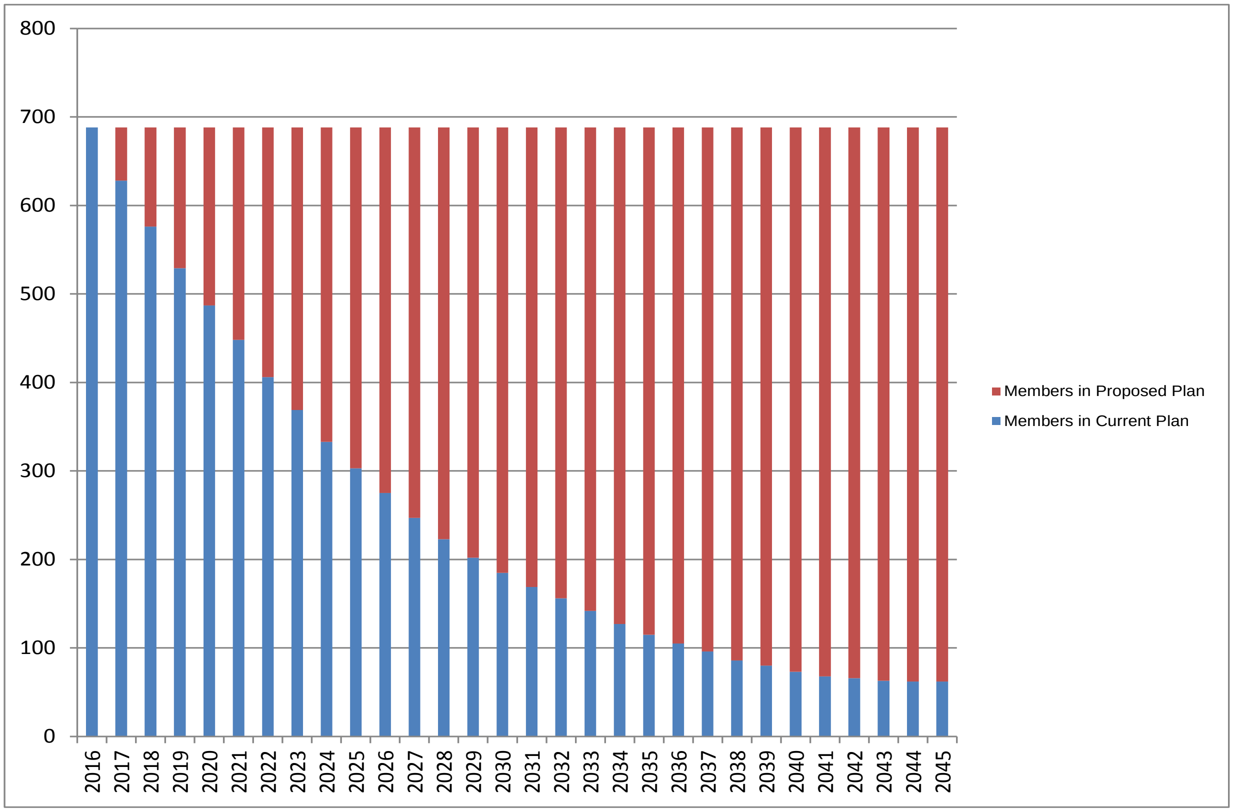
- o Multiplier cut in half (General, Police, and Fire)
- o Member contribution cut in half (General, Police, and Fire)
- o Member has the ability to contribute to their DC plan up to the amount of the reduction in member contribution, with the city to match up to 5.20% to General Emplyoee, and 6.88% to Public Safety.

*** Funding Policy

- o The total employer contribution amount under the current policy, represented by the green bar in the employer contribution graph, is the same as "Projected City Contribution" shown in section 4.4 of the June 30, 2015 valuation report.
  The total employer contribution amount under the proposed policy is the same as the current policy, prior to 2027.
  The contribution will first fund the DC plan with the remainder funded toward the DB plan, prior to 2027.
- o DB contribution is the employer normal cost when 100% funding is achieved in 2027 for the entire fund
- o The June 30, 2015 projection achieves a 100% funding ratio in 2027 with an assumed revenue growth of 2% under current funding policy.
  The funding ratio of 100% is projected to be achieved in 2027 under proposed plan.

**** The benefit value under the proposed plan is about 100% of that under current plan.

Projected System membership



Projected Change in Membership Count by Calender Year

Calender Year:	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Total Number of Employees:	688	688	688	688	688	688	688	688	688	688	688	688	688	688	688
Number in Current Plan:	688	628	576	529	487	448	406	369	333	303	275	247	223	202	185
Number in Proposed Plan:	0	60	112	159	201	240	282	319	355	385	413	441	465	486	503

Calender Year:	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045
Total Number of Employees:	688	688	688	688	688	688	688	688	688	688	688	688	688	688	688
Number in Current Plan:	169	156	142	127	115	105	96	86	80	73	68	66	63	62	62
Number in Proposed Plan:	519	532	546	561	573	583	592	602	608	615	620	622	625	626	626

Basis for the Analysis

Unless otherwise noted in this analysis, we have based this analysis on the data, assumptions and methods used for the results of the June 30, 2015 actuarial valuation. For the purpose of this analysis, current provisions are those included or referenced in the June 30, 2015 actuarial valuation. The rates of retirement are unchanged from the actuarial valuation. It is possible that due to benefit multiplier changes and the supplemental DC plan that the rates of retirement might change. Only after the changes have been implemented and experience unfolds might the magnitude of any effect be determined. Please refer to the referenced actuarial valuation report for a complete description of the methods, assumptions and data.

It is also important to recognize that future changes in behavior, decisions made by participants, changes in the tax rules, insurance company decisions, etc. can have a significant impact on the degree to which the resulting benefits will be similar in value to the current arrangement. For example, participants may have varying degrees of risk tolerance and they may invest the funds differently than they are invested under the current plan. In addition, participants may opt to withdraw the funds at retirement rather than leaving them to provide a lifetime benefit, thus raising the possibility that they may outlive the value of their accumulated assets in the DC plan. Even if the value of their accumulated DC balance is comparable to the value of the DB benefit that is being replaced, and they were to choose to purchase an annuity, the margins and costs associated with a purchase from an insurer may make the resulting benefit payment lower than they could achieve if the assets were to remain in a plan such as the DB plan. In essence, therefore, even if the initial cost projections indicate no change in cost and the benefits anticipated from the two arrangements are reasonably close in value at inception, there is no assurance that future events and decisions by any number of entities and the participants will result in a future balance being maintained.

This analysis has been developed for the City of Ann Arbor. This analysis was developed based on generally accepted actuarial principles and techniques in accordance with all Applicable Standards of Practice (ASOPs).

Use of this report for any other purpose may not be appropriate and may result in mistaken conclusions due to failure to understand applicable assumptions, methodologies, or inapplicability of the report for that purpose. Because of the risk of misinterpretation of actuarial results, you should ask Buck to review any statement you wish to make on the results contained in this report. Buck will accept no liability for any such statement made without prior review by Buck.

Future actuarial measurements may differ significantly from the current measurement presented in this report due to such factors as: plan experience different from that anticipated by the economic and demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements; and changes in plan provisions or applicable law. Due to the limited scope of this report, an analysis of the potential range of such future measurements has not been performed.

The undersigned is a Member of the American Academy of Actuaries and meets the Academy's Qualification Standards to issue this Statement of Actuarial Opinion.

Please call if you have any questions.

Sincerely,

Larry Langer, FCA, ASA, EA, MAAA
Principal, Consulting Actuary

LL:pl

cc: Kevin Peng
Patryk Tabernacki