



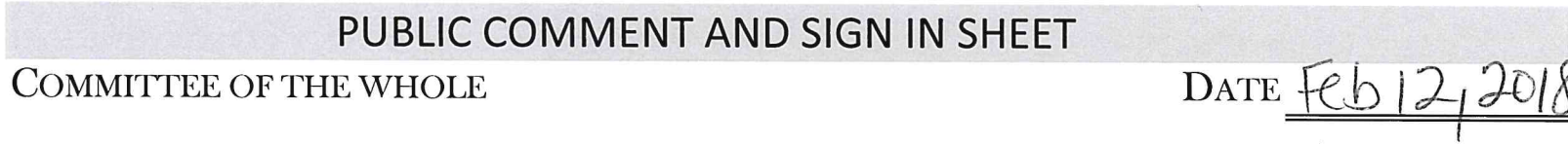
AGENDA
Committee of the Whole
Monday, February 12, 2018 – 5:00 p.m. (note time)
City Council Chambers, City Hall 10th Floor

Council Member Wood, Chairperson
Council Member Washington, Vice Chairperson

- 1. Call to Order**
- 2. Roll Call**
- 3. Minutes**
 - February 5, 2018
- 4. Public Comment on Agenda Items (Up to 3 Minutes)**
- 5. Presentation:**
 - A.) 2017 Final Pension Plan Analysis; 2017 Final OPEB Report
Financial Health Team/ Segal Consulting
 - B.) Comprehensive Annual Financial Report (CAFR)
Mayor's Office/Finance Department
- 6. Discussion/Action:**
 - A.) PLACE ON FILE – City of Lansing Employees' Retirement System; Actuarial Valuation
For Funding and Contributions
 - B.) PLACE ON FILE – City of Lansing Police and Fire Retirement System; Actuarial
Valuation For Funding and Contributions
- 7. Other**
- 8. Adjourn**

The City of Lansing's Mission is to ensure quality of life by:

- I. Promoting a vibrant, safe, healthy and inclusive community that provides opportunity for personal and economic growth for residents, businesses and visitors
- II. Securing short and long term financial stability through prudent management of city resources.
- III. Providing reliable, efficient and quality services that are responsive to the needs of residents and businesses.
- IV. Adopting sustainable practices that protect and enhance our cultural, natural and historical resources.
- V. Facilitating regional collaboration and connecting communities



DATE Feb 12, 2018

[illegible]



MINUTES
Committee of the Whole
Monday, February 5, 2018 @ 5:30 p.m.
City Council Chambers

CALL TO ORDER

Council President Wood called the meeting called to order at 5:30 p.m.

PRESENT

Councilmember Kathie Dunbar- arrived at 5:53 p.m.
Councilmember Jeremy A. Garza
Councilmember Adam Hussain
Council Member Brian T. Jackson
Councilmember Peter Spadafore
Councilmember Patricia Spitzley
Councilmember Jody Washington-excused
Councilmember Carol Wood

OTHERS PRESENT

Sherrie Boak, Council Staff
Eric Brewer Internal Auditor
Jim Smiertka, City Attorney- left at 5:32 p.m. returned at 5:36 pm
Mayor Andy Schor
Samantha Harkins, Mayors Executive Assistant
Brian McGrain, Planning & Neighborhood Development
Dr. Joan Jackson Johnson, HRCS
Nick Tate, Assistant City Attorney
Chief Yankowski, Lansing Police
Elaine Womboldt
Heather Sumner, Assistant City Attorney
Angie Bennett, Finance Director
Andy Kilpatrick, Public Service Director

Minutes

MOTION BY COUNCIL MEMBER SPITZLEY TO APPROVE THE MINUTES FROM JANUARY 16, 2018 AS PRESENTED. MOTION CARRIED 6-0.

MOTION BY COUNCIL MEMBE SPITZLEY TO APPROVE THE MINUTES FROM JANUARY 22, 2018 AS PRESENTED. MOTION CARRIED 6-0.

Regarding the past annual Council Training, Council President Wood noted that Council Member Jackson did complete the training he had missed, and Council Member Dunbar will be making up her training on February 7, 2018.

Public Comment on Agenda Items (Up to 3 Minutes)

Ms. Womboldt spoke in support of the reorganization of Planning and Neighborhood.

Discussion/Action:

RESOLUTION – Reorganization of the Department of Planning and Neighborhood Development (PND) into the Department of Economic Development and Planning (EDP), and the Department of Neighborhoods and Citizen Engagement (NCE) – Executive Order 2018-01

Council President Wood noted the Executive Order 2018-01 was before Council at the last meeting, and Council has 90 days to act on it, whether that is to turn it down, make suggestions or accept it and give the charge to move forward.

MOTION BY COUNCIL MEMBER SPADAFORÉ TO APPROVE THE RESOLUTION FOR THE EXECUTIVE ORDER 2018-01 FOR REORGANIZATION OF THE DEPARTMENT OF PLANNING AND NEIGHBORHOOD DEVELOPMENT INTO THE DEPARTMENT OF ECONOMIC DEVELOPMENT AND PLANNING AND THE DEPARTMENT OF NEIGHBORHOODS AND CITIZEN ENGAGEMENT. MOTION CARRIED 6-0.

RESOLUTION – Appointing the Chief Labor Negotiator

Council President Wood informed the Committee that per the Charter, this position is appointed by the Mayor, and the Mayor has recommended Nicholas Tate from the City Attorney office for this position. Mr. Tate will continue to be housed in the City Attorney office, but will be in the Mayor's staff.

Mayor Schor spoke confidently of Mr. Tate's abilities and his past work with labor.

Mr. Tate distributed his resume and was available for questions. Mr. Smiertka recommended Mr. Tate for the position, noting his experience supports the appointment.

Council Member Jackson noted Mr. Tate had past experience in Military Justice and asked what from that experience would make him a good labor negotiator. Mr. Tate confirmed that with his experience in JAG, there are different divisions and they need to balance. As an advisor in the military, he was there to advise with pluses and minuses, similar to labor negotiations and benefits and adjustments. Mr. Tate stated he felt confident he could negotiate for the City.

MOTION BY COUNCIL MEMBER HUSSAIN TO APPROVE THE RESOLUTION FOR THE APPOINTMENT OF NICHOLAS TATE A NEW CHIEF LABOR NEGOTIATOR. MOTION CARRIED 6-0.

RESOLUTION – Transfer of Funds; Department of Economic Development and Planning (EDP), and the Department of Neighborhoods and Citizen Engagement (NCE)

Ms. Bennett outlined the resolution noting funding from the Fire Department was being allocated to the new department of Economic Development and Planning since Code Enforcement will now be housed there, and funds from the Human Resources will now be moved to the Mayor's office for the new Chief Labor Negotiator. All budget items are neutral and are an expenditure transfer in the General Fund. Mr. Brewer had no comments.

Council President Wood asked if this transfer was taking any vacancy funds from the Fire Department for the personnel. Ms. Bennett stated it is only taking code compliance to the new department.

MOTION BY COUNCIL MEMBER SPADAFORÉ TO APPROVE THE RESOLUTION FOR THE TRANSFER OF FUNDS TO ADDRESS THE EXECUTIVE ORDER 2018-01; DEPARTMENT OF ECONOMIC DEVELOPMENT AND PLANNING AND DEPARTMENT OF NEIGHBORHOODS AND CITIZEN ENGAGEMENT. MOTION CARRIED 6-0.

RESOLUTION – FY 2017 Carry Forwards

Council President Wood read through the resolution which addressed the requirement of 1.25% of general fund dollars to be given to the HRCS department if they do not utilize, they are to reallocate them unless the director recommends otherwise. On the resolution was also a carry forward in the City Council budget for operating funds, and carry forwards for the LEAD Program and streets.

Dr. Joan Jackson Johnson went through her carry forward requests, those being always needing funds for the Mobile Food Bank, maintaining programs through financial empowerment, and the Lansing Housing Commission is working with the City on creating a program to help those who need assistance so they do not get evicted even when only paying \$10-\$15 a month in rent. Project Homeless Connect had funds allocated, but with the Volunteers of America participating they will need those funds this spring. There will be support given to One Church One Family who are a 501c3 and have 9 houses and address needs of large families. Council Member Wood asked about the mobile food pantries that are held outside of the City limits and if proof of City residency is required. Ms. Jackson Johnson noted that they always service the Greater Lansing area, but they are having a difficulty finding locations to service the need. Council Member Wood then asked if the discretionary dollars assist with utility shut-offs. Dr. Jackson Johnson stated they do not, but they are working with DHHS on arrangements with BWL.

Council Member Spitzley asked what the percentage was of Lansing residents vs. outside residents at the food pantry. Dr. Jackson Johnson confirmed it was 90-95% Lansing Residents. They also deliver and that can be arranged by calling 517-483-4477.

Ms. Bennett went through the rest of the transfers, noting the General Fund transfer was from the Planning and Neighborhood Development Department and going to the new Economic Development and Planning Department. The Major Street funds will be for bridge and trunk line maintenance.

Council Member Spitzley asked if the Lead Program was to continue or going forward. Ms. Bennett stated it was grant match dollars for testing services of paint.

Council President Wood asked if the \$281,000 under Major Streets was for certain streets. Mr. Kilpatrick stated that it was for a contract with MDOT for work on State trunk lines. This is for what the City agreed to do with MDOT it is not the City funds, but State funds that flow through the City. This includes bridge maintenance, but not specifically identified. Council President Wood asked if those funds could be used for corridors, mowing, expressway ramp maintenance, etc. Mr. Kilpatrick noted they are eligible activities, and after they do what was agreed upon with MDOT, they then get approval on anything additional. Council Member Spitzley asked if the funds could be used on the river trail. Mr. Kilpatrick stated it would have to be a specific State roadway.

MOTION BY COUNCIL MEMBER SPITZLEY TO APPROVE THE RESOLUTION FOR THE FY 2017 CARRIES FORWARDS. MOTION CARRIED 6-0.

Presentation:

Council President Wood informed the Committee that over the next couple Committee meetings, leadership has asked specific departments to come before them to talk about their current budget. Over the past years Council adopted a performance based budget. This type of budget would measure performance and how the funds would address the performance. This will give Council has a better idea when they get to March and the Mayor presents the FY2018/2019 budget.

Council Member Hussain stepped away from the meeting at 6:05 p.m.

Council President Wood concluded the introduction by stating these presentations would also address how this fiscal year will end.

2017/2018 Budget Update– Public Service

Public Service was presented with the following questions prior to the meeting.

1. What roads were fixed this construction season? FY 2017/2018
2. What roads are scheduled to be fixed during the upcoming construction season? FY 2017/2018
3. What vehicles were purchased this fiscal year?

Performance Measures

1. How have you: Timely remediation of pothole complaints
2. Improved walkability throughout the City
3. Provide cost-effective wastewater treatment.

What have you spend the public safety millage on in FY2016/2017 and in FY2017/2018?

Mr. Kilpatrick distributed a handout on the FY18 Mid-Year Budget Update which highlighted streets, sidewalks, CSO, remediation for potholes, walkability, cost-effective wastewater treatment, a map on 2017 street projects, and vehicle purchases. (Attached)

Regarding the streets it was noted that there are 413 miles of pavement to be maintained, and keep pace with deterioration they would need \$20-\$25 million for the projects. The sidewalks consist of 600 miles and in FY2018 they have funding of \$100,000. The CSO project has been non-existent over the last couple years, but will start up again with a minimum project a year for 15 years.

Council Member Hussain returned to the meeting at 6:09 p.m.

Mr. Kilpatrick explained that the CSO is a sewer separation program, and once the Public Service Board reviews the report for the upcoming projects it will be sent onto the Council. When they did projects in the City they spent \$8 million with CSO funding, and wastewater was paying for local streets to be done. There are a lot of combined sewers in the City, especially in old areas. Council Member Spitzley asked what the percentage was of the projects complete, and Mr. Kilpatrick confirmed it was about 1/3 done. It is difficult because the regulators on pipes flow into the river, and they have done them in sections. He would have to provide the actual miles to Council at a later time. They are also trying to eliminate the volume, and can get those numbers back to Council also.

Council Member Garza asked the question that was a concern with a large rain, and debris collecting which would clog the drain, would the sewer go into the street. Mr. Kilpatrick stated there is usually not a complete blockage; there could be sediment and debris, so those

cleanings are done regularly for the flow. Council Member Spitzley asked how street sweeping comes into the equation, and if they have looked into doing it more frequently. Mr. Kilpatrick confirmed they try to analyze the funding for the roads and determine how many for street sweeping. There is an option to street sweeping which could be 2 times a year but the goal is to have major streets done 8 times and local streets 4 times. With budget issues in the past they have gone to major streets 4 times and local twice. The hopes are to increase those once the ACT 51 funding improves.

Council Member Wood asked about the back flow preventers and if the City would help. Mr. Kilpatrick admitted that the basement backup prevention program was in the process of elimination, and after the CSO which has also been eliminated they didn't service those. He offered to get information on how many people applied, the average cost and how many went through.

The presentation and discussion moved onto performance measures, beginning with potholes. Council Member Spitzley asked how a resident can get reimbursed for damage to their vehicle from a pothole. Mr. Kilpatrick stated that all claims go to City Attorney after Public Service reviews. Mr. Smiertka confirmed that Law does review the information provided by Public Service, and if there is a question on the adjustment they take it to an outside adjuster. If the claimant is not satisfied, they can appeal it in court. He noted the outside adjuster does not make the final decision, but responds to the request and City Attorney's initial decision.

Regarding the performance measures Mr. Kilpatrick noted that the WWTP was down in costs due to more efficient pumps, and regarding rates, the big driver will be what can be done with the CSO and if the City does not have to separate the sewers. In the document was a list of streets that were done in 2017; however he noted it did not list "spot maintenance". The next final list will not come out until April once they can evaluate the streets after the winter. Council Member Hussain questioned the estimate of \$1 million per mile for reconstruction. Mr. Kilpatrick acknowledged it depends on the economy and cost per mile per foot. Some include sewer, some include curb, and some sidewalks. After the discussion on the upcoming CSO project, Council President Wood referred the Committee to a Resolution in the packet that was requested to be addressed at this meeting to issue bonds for the CSO. Mr. Kilpatrick added that there is a plan to create a map to reflect what will happen and what has happened.

Council President Wood asked if there were any staffing changes. Mr. Kilpatrick stated he currently has 2 vacancies. He then referred to the last page of the handout which a graph was reflecting the first 6 months of actual expenditures.

Council President Wood asked for details on where the funding went from the millage. Mr. Kilpatrick provides information that in the 2017 projects, all used millage funding. For the budget there was a line item for material and the rest of the funding for equipment and staffing cost are in the general lines. He admitted it was difficult to see how they spent the millage funding in 2015, 2016 but going forward they plan to have a single line item to reflect all costs.

Council Member Spadafore referred back to the list of vehicle purchases in the handout and asked what the cost and use of a Lenco Bearcat Armored vehicle was used for.

Council Member Dunbar stepped away from the meeting at 6:33 p.m.

Mr. Kilpatrick did not have a breakdown cost for each vehicle purchase with him, but stated he could provide that. Council Member Spadafore informed Mr. Kilpatrick he can provide that outside of a meeting.

Council Member Garza asked if there was a study done on where sidewalks were done, and also asked what it does to the integrity of the sidewalk and is cost effective. Mr. Kilpatrick was not sure of the long term effect, and they only 1.5”.

Council Member Spadafore stepped away from the meeting at 6:35 p.m.

Mr. Kilpatrick continued by confirming a study was done when they looked at grinding or cutting and cutting was cleaner, and the costs were similar for both, and both were more cost effective than “wedging” the sidewalks. Each cut costs about \$40-50, and to replace a section of sidewalk could run \$200. He noted, that it is not meant to be permanent fix, but make it safe until the City can do the whole sidewalk project. Council Member Garza then asked if OSHA had requirements on disposing of the dust. Mr. Kilpatrick assured him the contractor has a vacuum saw, and the dust is taken off-site. It is on the contractor to comply with all regulations and clean the site when they are done.

Council Member Hussain referenced the topic of ACT 51 road, and the City policy on plowing major roads when there is 2” and local when there is 4”, but he was interested in finding out if the City was removing that snow within 24 hours as is required by the residents. Mr. Kilpatrick could not confirm it was 100%, but that they do hold themselves accountable.

Council President Wood asked Mr. Kilpatrick for a status update since the parts department at the fleet garage was moved back to the City, and if there is a cost savings. Mr. Kilpatrick confirmed it was operating well but they had not done a cost analysis.

Council Member Spadafore returned to the meeting at 6:39 p.m.

He added that they do current have a City contract employee there, but they are not affiliated with NAPA.

Council Member Dunbar returned to the meeting at 6:40 p.m.

Council President Wood referred everyone to the resolution for the issuance of bonds for the CSO Wet Weather project. It will be referred on February 12, 2018 and action taken the same night. Mr. Kilpatrick added that there are two (2) bonds for the project. Eligible expenses with CSO are bonded by the State and repaid in a State Revolving Fund (SRF). Then the ineligible fund the City bonds for and is repaid by the wastewater fund. The bids did come back lower than anticipated; they had anticipated \$13 million for the SRF, so now they will need to look at eligible vs. ineligible.

MOTION BY COUNCIL MEMBER SPADAFORE TO APPROVE THE RESOLUTION FOR THE BONDING FOR THE WET WEATHER PROGRAM.

Mr. Kilpatrick stated they will begin in April 2018 and will be at Mt. Hope and MLK in 2019.

MOTION CARRIED 7-0.

Mr. Kilpatrick pointed out to the Committee that if they reviewed the budget overview that was given to them by staff, there are items that reflect a negative amount, however those are salary lines that get updated as the work is done and the item gets charged directly. They are working on addressing it clearer in the future.

2017/2018 Budget Update - LPD

The Police Department was presented with the following questions prior to the meeting.

1. CIP for Police Department Technology, where are we with purchase and installation.
2. How many vacancies do we have?
3. Where are we with front-loading of officers?
4. Have we replaced all the police vehicles that were funded?
What is that number and how many do we have left to replace?
5. How many officers are eligible for retirement this year?
6. Do we have enough storage space for body cameras?

What have you spend the public safety millage on in FY2016/2017 and in FY2017/2018?

Chief Yankowski gave a brief overview on where the LPD stands on the FY18 budget; \$41,295,000 of GF appropriates. In addition there are Federal and State forfeiture funding, and funds from the Tri-County metro budget that are attached to City. As of 12/31/17; 48.2% of the budget is utilized, and through January the department is at 54% of the budget for the year. There is \$20,000 in the CIP ear marked for an unmanned aircraft (UAS). Out of that they have currently spent \$4,208 on operations and training and they have spent \$2,596 for the project. This project will continue in fy2018. There will need to be additional training; additional payloads attached to the UAS along with any new modifications to the system will be bought from this. Regarding the LPD technology question, the Chief stated there are several projects, depending on research or development. Some funds have been used for a MobileID application, which has an annual subscription. Technology expenses also will include the continuation of the body camera replacement for in car cameras. The remaining \$60,000 in CIP, depending on which need comes first, will be either interview rooms or fleet. All 60 cars will have evidence cameras and audio, and they are working towards putting video on the same platform.

Chief Yankowski moved onto question 2, which was regarding the department vacancies at which he informed the Committee that in the uniform category there are 4 vacancies and as of 2/12/18 they will hiring 2. Then on 2/17/2018 there will be 4 retirements so they will back up to 6 vacancies. In the detention section of the department there is one vacancy as of 2/5/2018. In the civilian support there are 6 vacancies; 2 in the police tactical and 2 in central record, those currently being filled with contracted city employees, however the LPD is in the hiring process and continuing testing. The HR department is also working on filling the Secretary 26 position, and FY2018 budget also includes hiring a training secretary. The Chief noted he hoped to have those positions filled within 30 days. One position still open is the detective administrative assistant position, along with the police technician position, and administrative assistant to police headquarters. There are 3 in progress and 3 on the list with HR to fill. He concluded that filling the officers positions always take top priorities and then detention positions. The question has been asked about front loading officers in the past, and the Chief noted that they had front loaded 5 officers since last FY, but then they had 5 unexpected separations. Those separations are now absorbed, so now there are 4 vacancies within the organization. They currently anticipate sending 10 to the August 2018 academy, but those will be a front load for 2019, and will not count into the mix until May 2019. Regarding the detention division, they anticipate losing 2-3 in 2018.

Chief Yankowski addressed question four (4) which spoke to vehicles. He noted that for FY2018 they did not have any police vehicles ear marked, but with the City fleet budget item, they did earmark 4 police vehicles and they are in the current process to outfit. He did add that they have 2 vehicles that are being addressed in the accident repair funding. There was an earlier question with Public Service on the Bearcat, and the Chief now explained that this purchase was from the FY2017 funding, because the earlier vehicle the City used was a

federal armored tactical vehicle and it was returned, so it was replaced, and it was purchased as used which is half the cost. The LPD has an entire fleet of 144 vehicles including ATV, motorcycles, unmarked, administrative, vans, etc. Out of those, 10 vehicles need to be replaced in FY2018. With the fleet replacement plan, they would to replace 10-15 per year, to stay on a consistent plan, and every 4-5 years for detective.

Question five spoke to retirees this year, and Chief Yankowski stated that in 2018 there are six (6) eligible, and nine (9) eligible to front load. They also anticipate losing three (3) in detention.

Question 6 asked if there was sufficient storage for the body cameras, and the Chief confirmed, and added it was a contract secured for 5 years; unlimited until 1/1/2021 with AXON.com

Lastly, the question was asked about spending of the millage. Chief Yankowski informed the Committee that all except \$100,000 was spent on sworn police officers, and that \$100,000 was used on vehicle replacement.

Chief Yankowski concluded his presentation by noting to the Committee that the LPD is on budget to stay within the allotted funding in FY2017-2018, but can always have unexpected unknown for crime trends or illnesses.

Council Member Jackson asked the Chief what issues they are running into when hiring. The Chief confirmed that during the background check they run into issues because there are criminal offenses or they are untruthful on their applications. They do use an outside vendor for fact finding.

Council Member Spitzley asked if the projected budget for the LPD would address the impact of the opioid crisis. Chief Yankowski noted that for a program to work it will take an entire community to make an impact on the opioid epidemic. The department is trying to do a rapid response program and trying to utilize grant dollars.

Council Member Garza stepped away from the meeting at 7:05 p.m.

Chief Yankowski then highlighted the Angel Program which allows people to come directly to the LPD and ask for help.

Council Member Hussain asked how many officers are in the motorcycle division. Chief Yankowski answered the inquiry by stating there are 4 and a Sergeant and their responsibilities include but are not limited to traffic, and special events.

Council Member Garza returned to the meeting at 7:07 p.m.

He continued that special events sometimes take the focus, but these officers if not on the motorcycle are in patrol cars.

Council Member Wood asked if the LPD had any members of the Explorer program moving into the Academy. Chief Yankowski agreed their hope is to hire as cadets and they have hired 4 recently. Of those, 3 were in the Explorer program and they anticipate their 1st cadet to academy will be in 2019. An Explorer is between the age of 14-21 and it is a volunteer opportunity, and they teach skill trades. Cadets are paid and at least at the age of 21, and their hopes are they will graduate the academy and be a LPD officer.

Council Member Wood asked if they are replacing the computers in the vehicles. Chief Yankowski noted that 2 fiscal years ago the department spent \$325,000 to replace all in car computers.

Council Member Spadafore asked if their programs can benefit from the Promise Program. Chief Yankowski stated that HOPE dollars cannot be used to sponsor kids in the academy, but they are finalizing with the Promise Program a way to utilize Promise dollars.

{Closed Session}

MOTION BY COUNCIL MEMBER SPITZLEY TO GO INTO CLOSED FOR A CITY ATTORNEY PENDING LITIGATION UPDATE AT 7:14 P.M. MOTION CARRIED 7-0.

{Reconvene}

The Committee of the Whole reconvened at 7:57 p.m.

Other

No other topics.

ADJOURN

The meeting was adjourned at 7:58 p.m.

Respectfully Submitted by,
Sherrie Boak, Recording Secretary
Lansing City Council

Approved by the Committee on

Financial Health Team City of Lansing, Michigan

December 13, 2017

Mayor Virg Bernero and Mayor-elect Andy Schor
City of Lansing
David C. Hollister City Hall
124 W. Michigan Avenue
Lansing, MI 48933

**RE: FHT Recommendations to The City of Lansing regarding Long-Term Pension
and OPEB Liabilities**

Dear Mayor Bernero and Mayor-elect Schor:

Per the direction and request of Mayor Bernero, the Lansing Financial Health Team (the “FHT”) has reviewed and analyzed reports prepared by Segal Consulting related to the City of Lansing’s Pension Plan (attached Exhibit A) and Retiree Health Plan (attached Exhibit B). Under direction from the FHT’s Long-Term Liability Subcommittee, the FHT hereby presents this letter, which is intended to describe the problem, present our key recommendations, and provide an overall summary for your consideration.

The FHT was originally formed by Mayor Bernero in 2012 to proactively provide guidance and direction to the Mayor and City of Lansing with respect to various financial matters. Over that time, countless hours have been spent by dozens of volunteer FHT members to work toward the common goal of ensuring long-term financial sustainability for the City.

The Problem

The City of Lansing has an unfunded actuarial accrued liability (“UAAL”) of approximately \$680 million, including both pension and retiree healthcare, also known as other post-employment benefits (“OPEB”). This means, that the difference between the amount of money the City currently has invested to pay for the benefits retired and current City employees have earned and the present value of the additional amount the City needs to meet these future obligations, is a shortfall of \$680 million. With that in mind, the Lansing Financial Health Team has been tasked with providing recommendations to the City to lessen this projected shortfall while minimizing the impact to current and former City employees.

While the \$680 million UAAL is not due in full at this time, the associated costs, combined with State-imposed constraints on revenue growth, result in unsustainable pressure on available resources in the context of community needs. In 2006, the amount that the City was paying annually toward pension and OPEB was **\$25 million** out of revenues of \$184 million, or 13.5% of total revenue. In 2017, these payments represent **\$44 million** of the City’s revenues of \$197 million, or 22.4% of total revenue, and this amount does not fully fund the City’s actuarially-calculated OPEB annual required contribution (“ARC”). The City is fully funding its pension ARC.

If nothing is done, this trend will continue and a larger and larger portion of the City’s resources will be going toward services already provided, rather than services expected and needed today. This is not a sustainable use of city tax revenues.

There are various reasons why Lansing and so many other Michigan municipalities are in this situation. These include, but are not limited to the following:

- People are living longer.
- The stock market, bond market and all pension investments have not experienced the returns that were originally assumed.
- The City has 2.3 retirees for every 1 active employee, due in part to the age of the City and responsible, necessary, and prudent budgetary decisions that reduced the City's workforce by 30% since 2006.
- Health care costs continue to rise at much faster rates than could have been predicted at the time those commitments were made.
- The City has limited options to increase revenue, and growth of existing revenue is constrained.
- The City has been significantly impacted by cuts to State revenue sharing (over \$6 million annually, totaling more than \$78 million) and State-imposed property tax limitations (see Charts 5-7 on pages 9-11 of Exhibit A, Segal Pension Plan Analysis).

With the above in mind, the focus of this document is not to look back and quibble over reasons as to why the City is in the situation it's in, or who is to blame. At this time, the answer to the question of "why does the City have the large unfunded liability" is less important than the question of "what are we going to do to fully and sustainably fund it". This is a forward looking document with a focus of providing recommendations on next steps. Unfortunately, there are no easy or painless solutions to this problem. These recommendations will be the "least worst" options to put the city on a more sustainable path for meeting its obligations to current and past city employees. The ultimate goal is that these difficult decisions can be made between the City and all affected parties, as opposed to having those decisions made for the City by a consent agreement, Emergency Manager, or bankruptcy judge. Not taking adequate and immediate steps at this time could result in the City and employees having these decisions made for them.

It also must be noted and applauded that significant accommodations and sacrifices have already been made by City employees, in an attempt to address these issues. It is estimated that these efforts have reduced future projected costs by over \$200 million over the next forty years. However, additional adjustments are necessary so as to ensure that the City will be able to sustainably fund all employee retirement commitments, and those sacrifices will need to be shared by all, including both active and retired City employees.

Finally, it must also be noted that there are many positive things happening in Lansing at this time. The city's decades-long population decline has been reversed, with population gains in each of the last three years; at 5.9%, the city's 2016 unemployment rate fell to its lowest level in 15 years; the City has seen billions of dollars in new private investment over the last decade with continued investment on the horizon, especially along the crucial Michigan Avenue Corridor; and, thanks to prudent financial management, the City has enjoyed a modest budget surplus in each of the last four fiscal years, allowing it to substantially improve its critically necessary reserves (i.e. "rainy day fund").

Despite all of these positive indicators, the City must remain focused on addressing the significant annual revenue demands its employee retirement obligations require in order to ensure that City services are still able to be provided and the growth that is occurring can continue.

The Recommendations

The Segal reports should be thoroughly studied by the reader, including all conclusions and recommendations. This letter will highlight how the FHT feels those recommendations should be prioritized, considering i) impact on addressing the liabilities, ii) impact on current and retired employees, and iii) likelihood of the recommendations successfully being implemented. It should be further recognized that not all of these recommendations can be acted upon by the City unilaterally; some will require collective bargaining while others may require voter approval. The following recommendations which pertain to OPEB liabilities and refer to "Exhibit B, Segal Health Plan Analysis" include projected potential UAAL dollar savings within Exhibit B.

1. Consider replacing group Medicare-eligible medical and drug coverage with a “defined dollar” Health Reimbursement Account (HRA) arrangement. This design can result in a “win-win” scenario for the City and its retirees, and would have the largest projected impact on the OPEB liability, potentially in the range of \$110 - \$160 million. See page 12 and Section 5 of Exhibit B, Segal Health Plan Analysis.
2. Conduct a thorough and systematic review of City owned assets, starting with those assets with the highest potential market value. Analysis should include each asset’s net impact to the City’s budget, relative to its potential market value (i.e. even assets that produce a benefit to the budget should be considered; if those assets’ values are high enough the reduction in pension / OPEB payments could exceed the net annual financial benefit they provide). Consideration should be given to the sale (a one-time revenue source), monetization (e.g. bonding / financing particular assets), or transfer of those assets into the system(s).
3. Consider eliminating Medicare Part B reimbursement. See page 12 of Exhibit B, Segal Retiree Health Plan Analysis.
4. Consider eliminating subsidized dental and vision coverage. See page 12 of Exhibit B, Segal Retiree Health Plan Analysis.
5. Consider the addition and enforcement of the Michigan Public Act 152 hard cap for all groups. See page 12 of Exhibit B, Segal Retiree Health Plan Analysis.
6. It is recognized that the investment rate of return assumption has been reduced by the Pension Boards. The Pension Boards, the Mayor and City Council should monitor the investment return assumption, ensuring that actuarial assumptions being used are reasonable on a long term basis. This recommendation will not reduce the liability, but will ensure an accurate liability is being calculated.
7. Continue to update the mortality assumptions over time to the most recent Society of Actuaries’ mortality assumptions. This recommendation will not reduce the liability, but will ensure an accurate liability is being calculated.
8. Consider pursuing a special millage allowed under Public Act 345 of 1937 for police and fire pensions (not available for other obligations other than police and fire pensions). The 12/31/2016 police and fire unfunded liability is \$130 million. It should be noted that this would require a vote of the people and needs to be considered with regards to the City’s current millage level. See item number 4 on page 38 of Exhibit A, Segal Pension Plan Analysis.
9. The Segal Consulting report recommends having the City give consideration to whether a pension obligation bond would be a means to finance the pension plans. However, the FHT is hesitant in endorsing this recommendation to the City, and provides a cautionary note with respect to this item. It should be noted that bonding for pension liabilities requires closing the pension fund. See item number 3 on page 38 of Exhibit A, Segal Pension Plan Analysis.

The Summary

The most fiscally irresponsible thing that could be done is to do nothing. To not take action is a conscious decision and will not lead to putting the City on a sustainable path to ensure current and past employees are supported in retirement and city residents continue to receive public services that support and enhance their day-to-day living in this exquisite capital city. Furthermore, the FHT believes that not taking action will increase the likelihood that the City and its employees may ultimately have these difficult decisions made for them.

It should be highlighted that the City is not alone in dealing with these challenges. Other municipalities throughout the Metro Lansing region and across the state are faced with the same issues as well. Collectively regional municipalities have close to \$1 billion in unfunded liabilities. Unique challenges require unique solutions. The FHT recommends the City of Lansing to fully expand collaborative regional efforts to evaluate what services could be provided regionally that would benefit the region, improve efficiencies and provide overall cost saving to taxpayers. Existing initiatives such as the Capitol Council of Governments can play an important role in convening regional partners. There are many examples of successes with regard to regional efforts, but there are additional and creative regional solutions that must be evaluated as well.

The FHT is appreciative of the proactive measures taken by the City to date. It should be the City's desire to continue working to establish a sustainable path going forward to address its own unfunded retirement liabilities. As the State capital, the FHT hopes the City will play a leadership role in having its solutions provide guidance to other municipalities throughout the state in developing their own fiscally sustainable plans.

Despite Lansing's efforts, no city can resolve this unfunded liability issue on its own. The State cannot limit itself to warnings and punitive actions alone. The State must instead take proactive action to provide the necessary tools to allow cities to address this problem in a meaningful and effective way.

The FHT's wish is for the City to reach its greatest potential as a safe, vibrant and diverse community, and a City that thrives economically and culturally. We desire a fiscally healthy City government that provides public services efficiently and effectively for all of us today and for our future generations.

Working together in the spirit of collaboration, these goals certainly can be achieved if our City's leadership continues to focus on securing the long-term stability and sustainability of its finances.

Respectfully submitted,

Financial Health Team
City of Lansing

cc: Governor Rick Snyder, State of Michigan
Treasurer Nick A. Khouri, State of Michigan



CITY OF LANSING, MICHIGAN PENSION PLAN ANALYSIS

September 26, 2017

✦ Segal Consulting

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City of Lansing, Michigan

Pension Plan Analysis

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September 26, 2017

Mayor Virg Bernero
City Hall
124 W Michigan Avenue
Lansing, MI 48933

Re: Final Pension Plan Analysis Report

Dear Mayor Bernero:

We are pleased to present the final report of Segal's analysis of the City of Lansing's pension plans. This analysis provides a detailed review of the City's pension plans, including the actuarial assumptions and methods used in determining the City's contributions. This report includes the following:

1. ***Methods and assumptions review*** – an analysis of the actuarial assumptions and a review of the actuarial methods utilized in determining the funded status and accrued liability for compliance with generally accepted actuarial principles.
2. ***Peer group benchmarking*** – a detailed comparison of the City's plans with other cities' plans in the State of Michigan.
3. ***Plan design and funding approach alternatives*** – a discussion of other means of retirement benefit delivery and alternate strategies for funding the plans.

This review was conducted under the supervision of Kim Nicholl, a Fellow of the Society of Actuaries, a member of the American Academy of Actuaries, and an Enrolled Actuary under the Employee Retirement Income Security Act (ERISA). This review was conducted in accordance with the standards of practice prescribed by the Actuarial Standards Board.

The assistance of the City of Lansing's staff is gratefully acknowledged.

We appreciate the opportunity to serve as an independent actuarial advisor for the City of Lansing and we are available to answer any questions you may have on this report.

Sincerely,



Kim Nicholl, FSA, FCA, MAAA, EA
Senior Vice President, Public Sector
Retirement Practice Leader



Brad Ramirez, FSA, FCA, MAAA, EA
Vice President and Actuary



Matthew A. Strom, FSA, MAAA, EA
Vice President and Actuary

/cz

Enclosure

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1 Executive Summary

The City of Lansing (City) is seeking analysis and recommendations for potential ways to mitigate the cost and liability of its outstanding pension obligations and retiree healthcare and other post-employment benefits (“OPEB”) obligations, both present and future.

Segal Consulting (Segal) was engaged by the City to perform this analysis. This report will concern itself with the pension plans currently sponsored by the City. The analysis of the OPEB plans will be provided under separate cover. As of the December 31, 2015 actuarial valuations, the City sponsors two defined benefit pension plans:

- Police & Fire Retirement System (“Police and Fire”)
- Employees’ Retirement System (“Employees”)

The City’s actuary recently performed a five-year experience analysis of both Plans in order to improve the accuracy of the Plans’ actuarial valuation assumptions. This study resulted in an increase in projected contributions for both Plans.

The objectives of this study are as follows:

- Review the actuarial assumptions used in the valuation of the City’s retirement plans
- Evaluate the City’s current pension benefit plan designs, including the efficiency of benefit delivery
- Discuss appropriate plan design/structure alternatives to the structure currently in place, including hybrid plans, defined contribution plans and other alternatives
- Benchmark the design and funding aspects of the pension plans relative to a peer group
- Develop alternative funding approaches to increase financial stability of the City’s retirement plans
- Develop recommendations for the City’s consideration

Segal reviewed the plans’ actuarial assumptions and methods. We performed this analysis based upon the plans’ valuation reports as prepared by the plans’ actuaries, Boomershine Consulting Group, LLC (“Boomershine”). As part of this review, Segal did not independently replicate Boomershine’s calculations, and can only comment on the assumptions and methods as presented in the valuation reports and other supplemental material. Segal did not include an analysis of detailed actuarial data and this report is limited to review and reliance on existing actuarial reports and experience studies.

In addition, we reviewed the Actuarial Assumption Review and Experience Studies covering the period January 1, 2012 through December 31, 2015, which was prepared by Boomershine after the most recent 2015 valuations. The assumptions and methods recommended in these studies

were not incorporated into the valuation reports that we reviewed. However, we have noted where the experience study recommendations address the issues we observed.

The assistance of the City in creating this report is gratefully acknowledged.

The key findings of this report are below along with recommendations of areas that need additional review.

- The current actuarial valuation assumptions and methods appear to be reasonable and comply with relevant actuarial standards of practice. We recommend the following:
 - Review the inflation assumption and give consideration to whether the assumption should be lowered – the experience studies recommended lowering the inflation assumption from 3.10% to 2.75%. The Employees' Plan lowered this assumption to 2.925% with the stated intention of lowering the rate to 2.75% next year. The Police and Fire plan lowered this assumption to 2.85% with the stated intention of lowering the rate to 2.75% next year.
 - Monitor the investment return assumption, particularly given that the inflation assumption is on the high side of reasonableness – the experience studies recommended lowering the investment return assumption from 7.60% to 7.25%. The Employees' Plan lowered this assumption to 7.40% with the stated intention of lowering the rate to 7.25% next year. The Police and Fire plan lowered this assumption to 7.35% with the stated intention of lowering the rate to 7.25% next year.
 - Consider updating the mortality assumptions to the most recent Society of Actuaries' mortality and generational mortality improvement scale – the experience studies recommended updating the mortality tables.
 - Consider whether a corridor around the market value of assets should be included in the asset smoothing method
- The City's pension plans are similar to the plans of the peer group, and are funded on a similar basis. The City's pension multiplier for new participants is lower than those within the peer group for defined benefit plans but is supplemented by a Defined Contribution plan. The City's plans use similar assumptions and funding methods to those in the peer group, with the City's plans' assumptions being slightly more conservative than the overall group.
- There are many items to consider when transitioning to a defined contribution plan (DC) or a hybrid plan. While defined benefit (DB) plans are a more efficient mechanism for delivery of pension benefits, the contributions can be volatile due to investment performance and demographic changes, as the employer retains these risks. DC contributions are typically fixed as a percentage of payroll, and the employee bears the investment and demographic risks. Hybrid plans share these risks between the employer and employee. Before considering any changes to the current systems, it is important that the City balance the risks of their benefit plans with the goals of the City and its stakeholders.
- Retirement benefits are one of the tools that employers can use to manage its workforce. Plan design can attract, motivate, and retain talent. Plan design can also encourage individuals to terminate employment or to retire. Employers need to assess their current and future workforce needs and then design retirement arrangements that support those needs. Generally, DB plans encourage longer-term employment but may not be as useful as DC plans in attracting workers who do not intend to remain with an employer for a long period

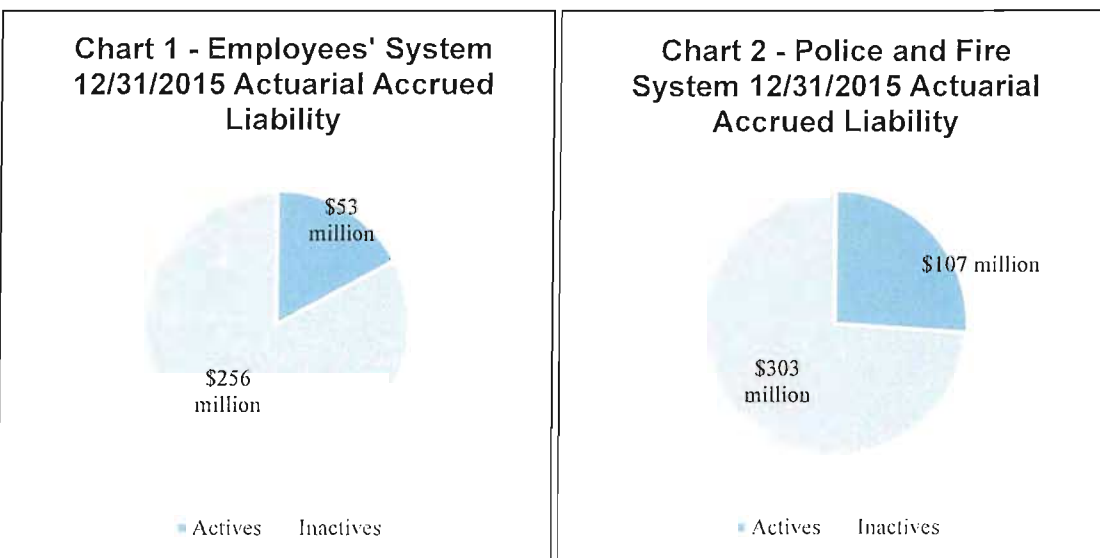
and desire portability. Hybrid plans can be attractive options as they combine the attributes of both DC and DB plans. Knowing what the workforce goals are is essential to a viable retirement benefit strategy, and if changes are needed to the overall retirement structure.

- The pension plans' unfunded liabilities represent benefit promises already made to active and retired employees. As of December 31, 2015, these unfunded liabilities are amortized over a closed 26-year period, decreasing by one year each year to an ultimate period of 15 years; at which point the amortization period will become a rolling 15-year amortization period. The experience study for the Employees' Plan recommends changing the ultimate period to 10 years. The experience study for the Police and Fire Plan recommends retaining the 15-year ultimate period. This means that the amortization period will remain at 15 years for the Employees' Plan and 10 years for the Police and Fire Plan and the plans will **never** be fully funded. Contributions toward the unfunded liabilities are based upon a payroll growth assumption of 3.10% per year. This means that the payments toward the unfunded liabilities will increase by this amount each year, which is intended to mirror the actual growth in member payroll. The payroll growth assumption and the actual increase in payroll each year determine how quickly the unfunded liabilities of the plans are amortized. The experience studies recommend lowering the payroll growth assumption to 2.75%. This assumption should be closely monitored and consideration should be given to adopting a funding policy that targets 100% funding over a reasonable period.
- If the existing plans were to be completely closed to new members, with new hires entering a DC plan, the closed group's active payroll would decrease. Since the current plans are being funded as a percent of payroll, including payroll for future members, this would result in an immediate need to accelerate DB contributions. Alternatively, the City could adopt a different funding policy not related to payroll.
- The unfunded liabilities of the plans would not be affected by transitioning to a DC or hybrid plan. Any plan changes would only affect active members' future benefits. The normal cost represents the value of benefits accruing for active members. A portion of the normal cost is funded by member contributions. The remaining portion is funded by the City. The City's normal cost rate is 7.2% of payroll for Employees' and 14.2% of payroll for Police and Fire. The normal cost portion of the City's contribution is \$1.7 million for Employees' and \$3.8 million for Police and Fire for a total of \$5.5 million. Reductions in future benefits for active members would lower the City's normal cost contributions of \$5.5 million. As an example, if the value of benefit accruals were reduced by 10% for all active members, the reduction in the City's contribution would be \$550,000.
- The unfunded actuarial accrued liability, which totals \$250 million, will not be affected by reducing new members' benefits. This liability will need to be paid by the City.
- The City could accelerate its contributions to the pension plans, which would reduce future contributions. However, like other Michigan municipalities, the City of Lansing is challenged in its revenue structure, which limits its ability to do so.

2 Background

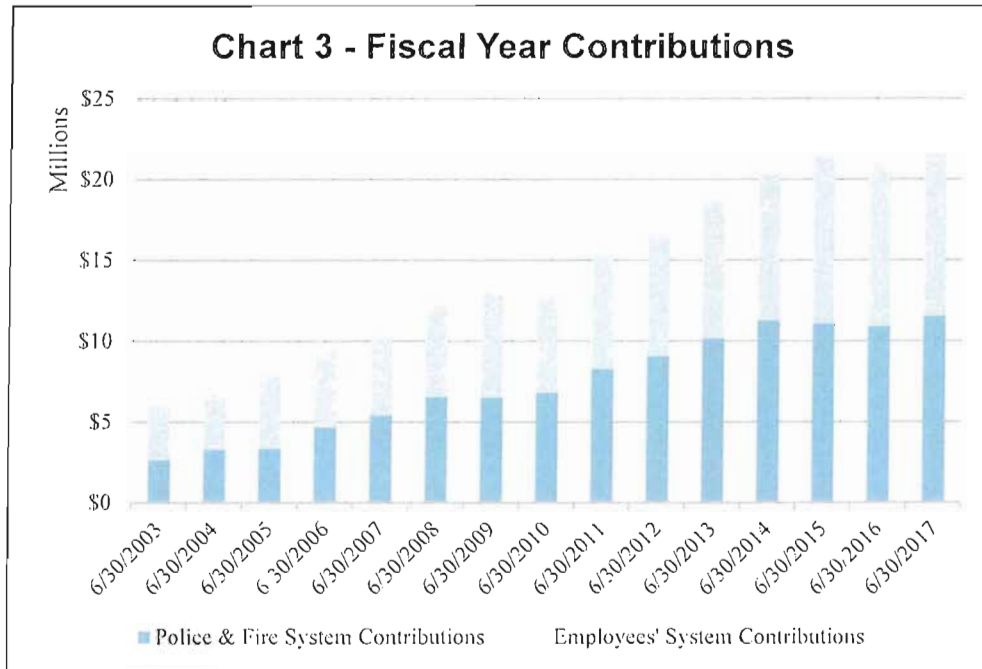
The Employees' Plan has a Funding Ratio (actuarial value of assets divided by liabilities) of 57.0%. The plan has 981 inactives and 371 active participants, and over 80% of the Plan's liability is devoted to inactive members. As a result, a significant portion of annual contributions is made toward benefits earned in previous years. Of the total projected City contribution of \$10.2 million for 2016, only \$1.7 million represents benefits earned for actives during the year.

The Police and Fire plan faces similar challenges. The Funding Ratio is 71.3%, and inactives represent approximately 75% of the Plan's liability. Of the total projected City contribution of \$11.5 million, only \$3.8 million represents new benefits earned.



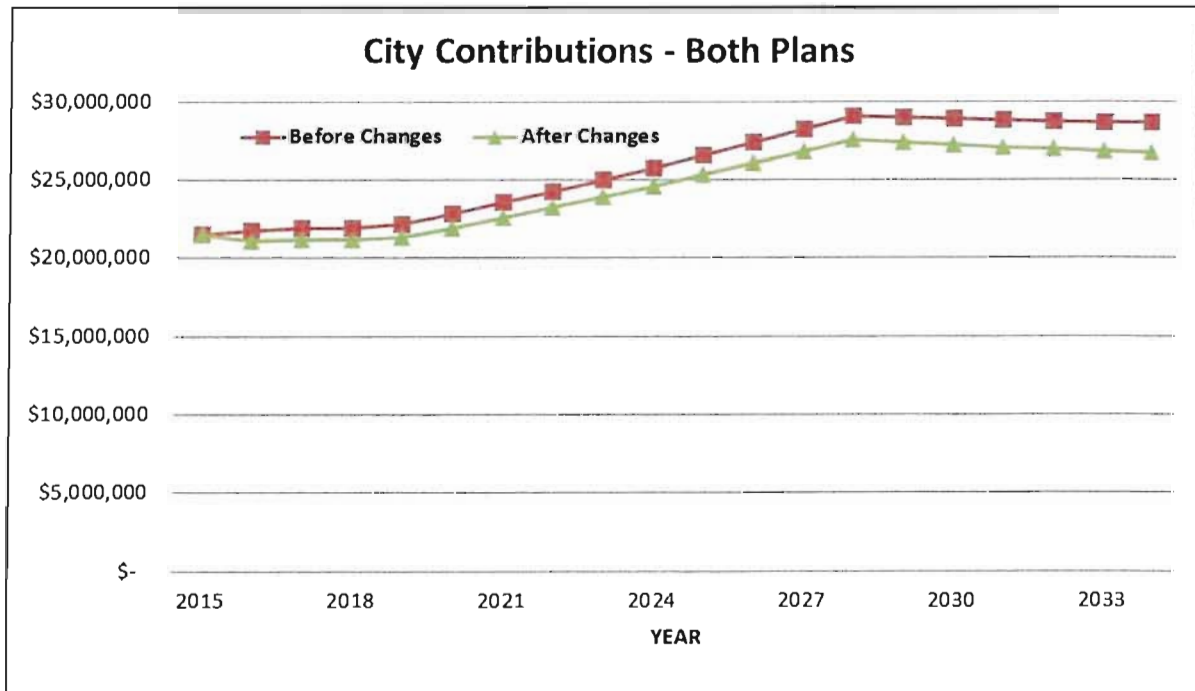
Because the majority of liability is devoted to inactive benefits, the total elimination of benefits for actives going forward would result in a reduction of \$5.5 million per year. However, the remaining unfunded liability would remain and continued payments would be necessary.

Contributions to fund these and retiree health obligations have increased dramatically over the last ten years, and currently comprise 35% of the city's budget. Projections indicate that the contributions will increase significantly for the next several years. As with other cities across the country, this presents a challenge in light of cuts in state funding and legal restrictions on revenue growth.



The City has made a number of changes to collective bargaining agreements that have impacted the Plans, including increasing employee contributions and lowering the retirement benefit formula. Because most of these changes apply to new hires after a certain date, the cost savings are recognized slowly over time as active employees are replaced by those subject to the new provisions.

Chart 4 - Projected Contributions



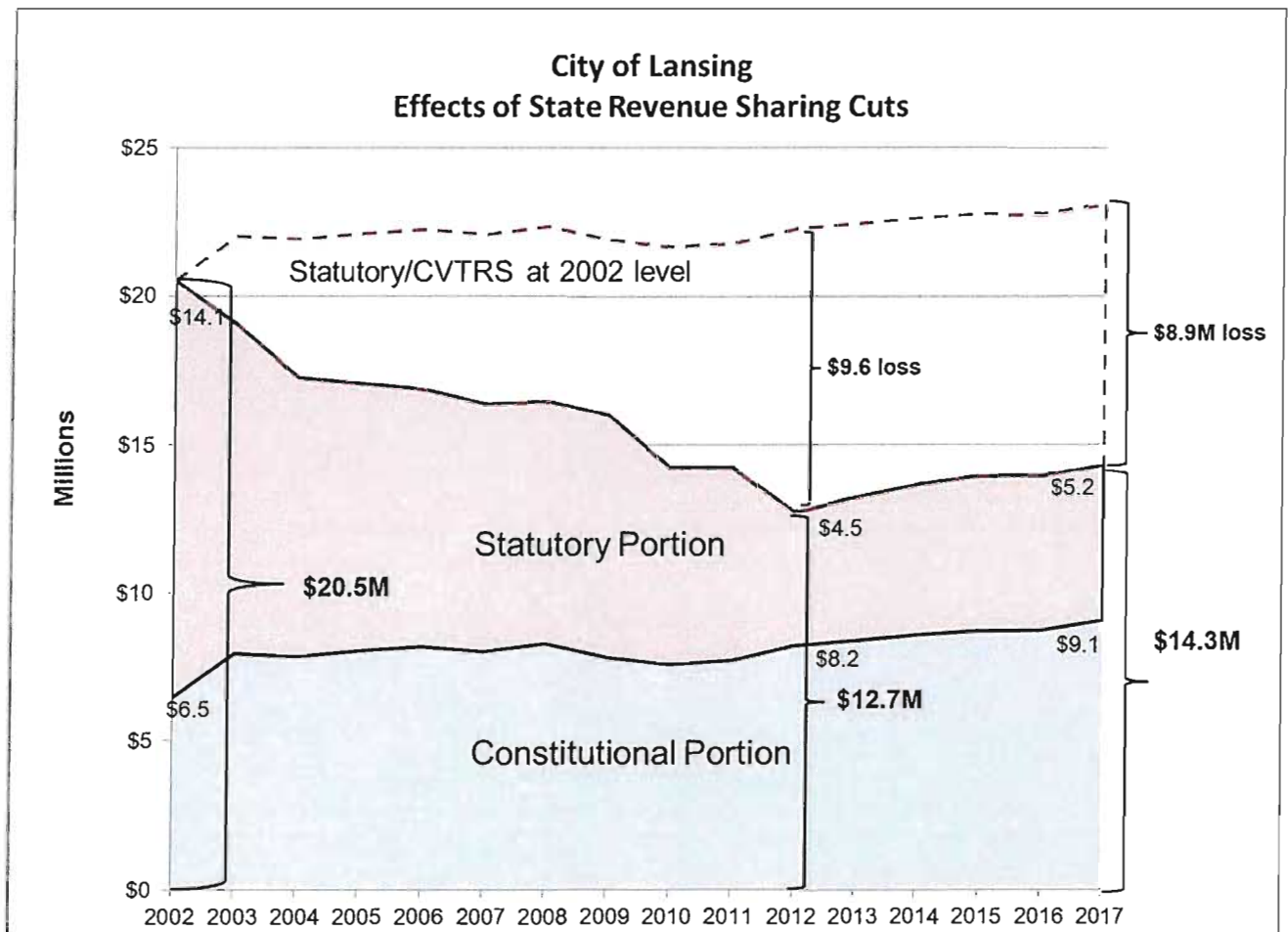
Source: "The City of Lansing Employees' Retirement System and Police and Fire Retirement System Analysis of Recent Benefit Changes" by Boomershine Consulting Group, March 2, 2015

City Resource Challenges

The City of Lansing, like other Michigan municipalities, is challenged in its revenue structure. The structure for Michigan's municipal funding is based on centralization of taxation and revenue diversification at the state level, with municipalities having limitations on ability to raise revenues. A prime example is sales taxes: in many other states, municipalities can levy sales taxes; in the state of Michigan, only the state is allowed to levy sales tax. This structure was predicated on revenue sharing by the state with its municipalities.

Preceding and through the Great Recession, as the State of Michigan ran into its own budgetary challenges, the statutory portion of revenue sharing to municipalities by the state was reduced by approximately \$8.1 billion. For the City of Lansing, these cuts have amounted more than \$6 million in real dollars *annually* for the City, and almost \$9 million annually when adjusted for inflation, or over \$104 million from 2002-2017.

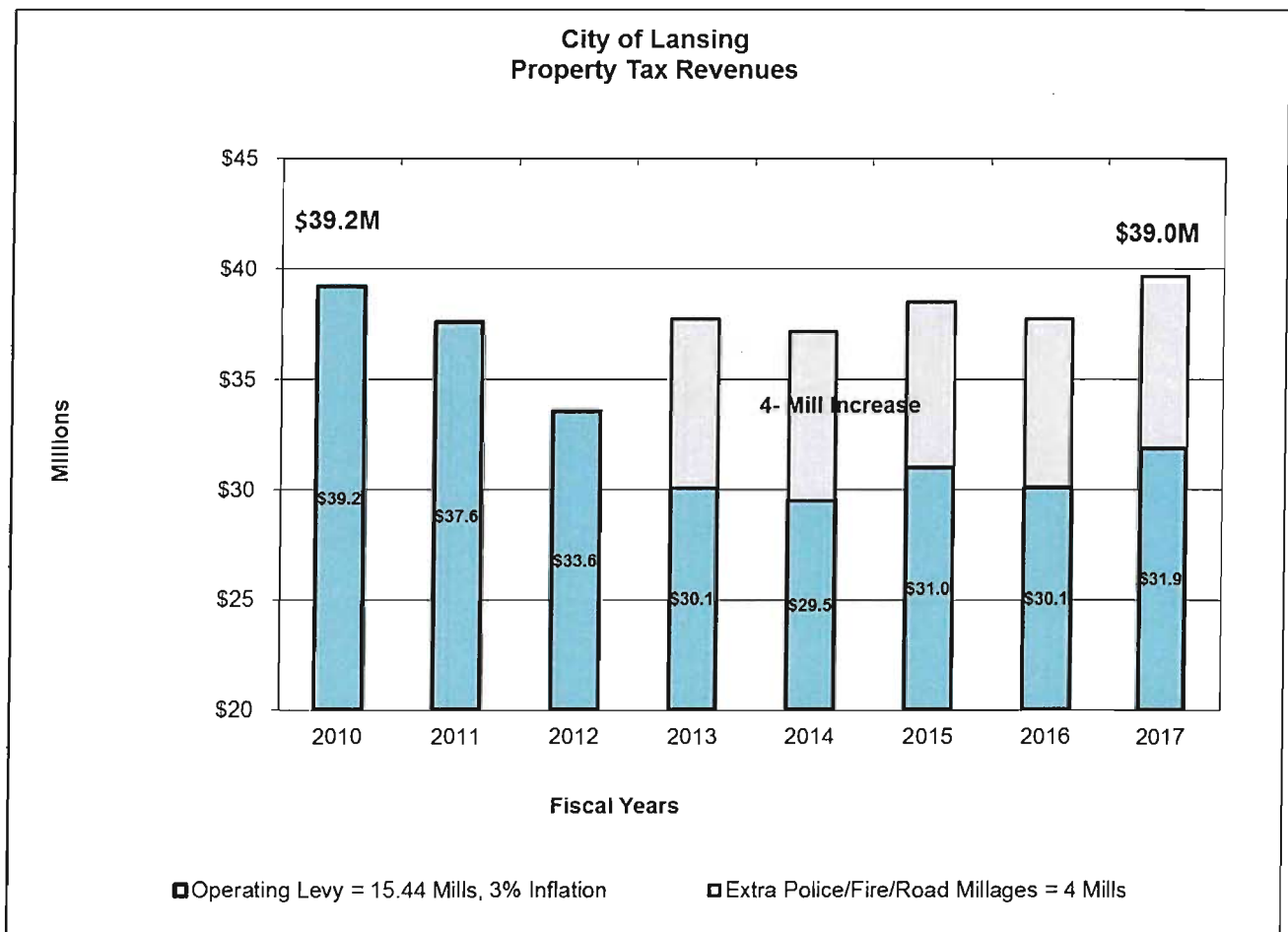
Chart 5 – Effect of State Revenue Sharing Cuts



At the same time, due to limitations by the state Headlee Amendment and Proposal A, the City's (and other municipalities') largest General Fund revenue source, the property tax, is limited in growth by the lesser of the rate of inflation or five percent.

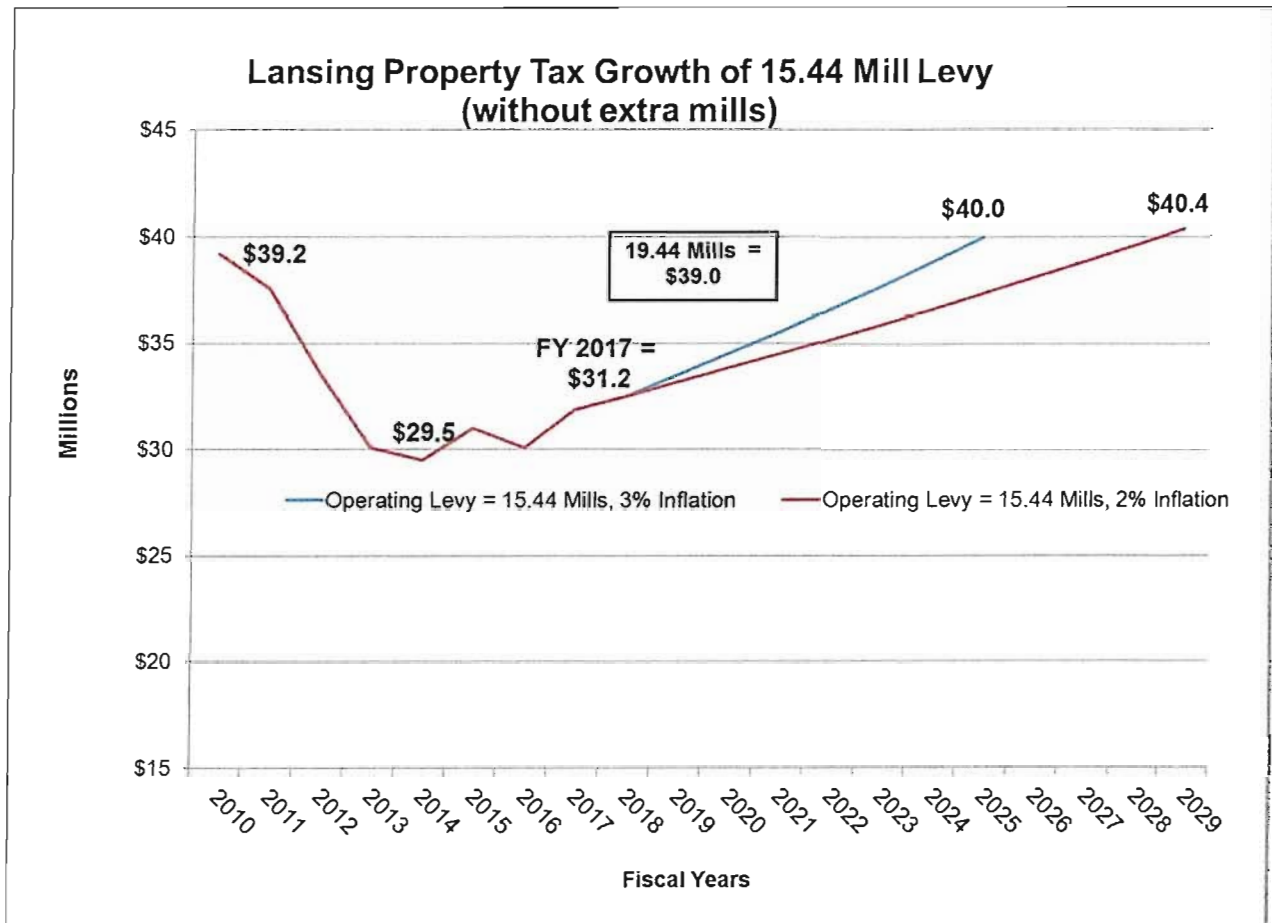
During the Great Recession, as property values declined, Lansing's property taxes decreased by 25%, or \$9.7 million, over a four-year period, resulting in a four mill voted property tax increase for police, fire, and roads. While that four mill property tax levy substantially offset that loss, it brought the City's operating levy up to 19.44 mills, which within .56 mills of the 20-mill maximum allowed for home-rule cities in the State of Michigan. As a result, the City is unable to increase its operating property tax levy much further.

Chart 6 – Property Tax Revenues



As demonstrated in the following chart, because of the above-stated state limitations on property tax revenue growth from the state Headlee Amendment and Proposal A, the City anticipates property taxes to increase only 2%-3% over the next several years and that pre-recession property tax revenue levels, net of the extra four mills, will not be reached until 2025 to 2028.

Chart 7 – Property Tax Growth



These funding cuts and revenue constraints have generally affected the state's urban core communities more than others. Urban core cities, like Lansing, tend to be older communities, having aged infrastructure; tend to be built-out with limited undeveloped land; tend to have higher poverty rates; and tend to have higher legacy (pension and retiree healthcare) costs. These factors are true for the City of Lansing, which was incorporated in 1859 and has twice the number of retirees as current employees.

In response to these challenges, leading up to and during the Great Recession, the City enacted many different changes in city programs, staffing, and organization, including:

- Reducing the City's workforce by 30% since FY 2006, from 1,220 to 867
- Reducing City pension and retiree healthcare cost growth by negotiating increases in employee health insurance premium sharing, healthcare plan changes, and pension contributions
- Reducing City health insurance costs with a wrap program for Medicare-eligible retirees
- Closing 3 fire stations and eliminating associated costs

- Closing Waverly and Red Cedar Golf courses
- Closing Miller Road Senior Community Center
- Closing Washington Ice Dome and Scott House
- Consolidating functions within the City (grounds maintenance, engineering, fleet maintenance, parking enforcement, fire/building inspections)
- Consolidating functions with other governments (911, dive team)
- Entering into cooperative agreements with other governments (police and fire training, purchasing, economic development)
- Expanding mutual aid agreements and shared services studies with adjoining municipalities
- Transferring management of Sycamore Driving Range and Fenner Nature Center to non-profits
- Eliminating leased space by consolidating police Patrol and Investigations Divisions
- Increasing fees
- Implementing new technology to improve efficiency (including cash receipting, code compliance, financial system upgrades, payroll system, computerized traffic ticket system, E-filing for income taxes)
- Implementing energy efficiency measures in City buildings
- Instituting a voter-approved 4.0 mill property tax increase to mitigate further reductions to police, fire and road services

Noteworthy is the fact that the City's FY 2018 General Fund Budget is still less than the budget proposed by former Mayor Hollister in **FY 1999**, when adjusted for inflation.

During this time, the City also worked with its unions to reduce the growth of pension and retiree healthcare costs. A recent actuarial study estimates that these efforts have reduced projected costs to by over **\$200** million over the next forty years. However, the challenge remains in the projected growth of these costs, in combination with its aging infrastructure, reductions in revenue and revenue constraints in the next fifteen-to-twenty years.

As previously noted, these challenges are not unique to the City of Lansing, especially within the State of Michigan.

3 Assumption Review

The valuation of a defined benefit pension plan is dependent upon assumptions of future experience. These assumptions are utilized in order to project the benefits that will be paid from the system. Using these projections, organizations make contributions under a funding policy that will timely fund the benefits as they are payable.

It is important to note that the assumptions used in the valuation do not affect the benefits that are promised to participants. Ultimately, the “true cost” of a pension plan will be the benefits that are paid to its participants. Assumptions are used, along with the plan’s funding policy, to determine how to fund the pension plan over time in accordance with the governing entity’s budgetary concerns and risk profile.

Assumptions are the actuary’s best estimate of future events and are rarely perfectly accurate. It is important that the assumptions used in these calculations are monitored and modified as appropriate so that the true cost of the benefits paid is being accurately measured.

For the purposes of this study, we evaluated the following reports:

- City of Lansing Employees’ Retirement System Actuarial Valuation for Funding and Contributions as of December 31, 2015 (prepared October 2016)
- City of Lansing Police and Fire Retirement System Actuarial Valuation for Funding and Contributions as of December 31, 2015 (prepared October 2016)
- City of Lansing Employees’ Retirement System Actuarial Assumption Review and Experience Study Covering January 1, 2012 through December 31, 2015 (prepared December 2016)
- City of Lansing Police and Fire Retirement System Actuarial Assumption Review and Experience Study Covering January 1, 2012 through December 31, 2015 (prepared December 2016)

The reports were produced by the Boomershine Consulting Group (“Boomershine”), the plans’ actuaries.

Segal’s analysis of the assumptions and methods was based upon those reported in the valuation reports and recommended in the experience study reports as prepared by Boomershine. Segal did not independently perform a replication of these valuations or the analysis of experience.

There are two types of actuarial valuation assumptions: demographic and economic. Demographic assumptions are used to model the expected individual behavior of plan participants and include assumptions for retirement, disability, withdrawal, and mortality. Economic assumptions are used to model more global financial effects, such as rates of inflation, rates of return on assets, and salary increases.

Inflation Assumption

The inflation assumption underlies every other economic assumption. It is important that the inflation assumption be consistent throughout all of the economic assumptions. In fact, most actuaries start the economic assumption-setting process by specifying the inflation assumption and then building the other economic assumptions from that amount (referred to as the “building-block method”).

The inflation assumption may also directly affect other valuation elements, including cost-of-living increases and the amortization of the unfunded liabilities. If plan cost-of-living increases are tied to inflation, the assumption will determine the amount of projected increases in retirement benefits each year. The Plans’ cost-of-living increases are linked to actual inflation.

The inflation assumption has been reduced from 3.10% to 2.925% for the Employees’ Plan and from 3.10% to 2.85% for the Police and Fire Plan. These assumptions are consistent with historic averages. However, recent years have seen historically low inflation--the CPI-W increased approximately 1.8% per year from 2006-2016. Horizon’s 2016 Survey of Capital Market assumptions indicates that the average median inflation is expected to be 2.31% over the next 20 years with expectations ranging from 2.00% to 2.80%. As of June 2016, the difference between the yields on US Treasury bonds with and without inflation indexing is 1.61%, which represents one measure of the financial market’s current expectation of inflation over the next 30 years. The 2016 OASDI Trustees Report uses three inflation assumptions to project its future financial status:

- Low inflation of 2.00%
- Moderate inflation of 2.60%
- High inflation of 3.2%

The median inflation assumption for the 160 public pension plans that are included in the Public Plans Database (collected by the Center for Retirement Research at Boston College) is 3.05%.

The experience studies recommend a decrease to the inflation assumption, from 3.10% to 2.75%, which we believe are reasonable. The plans’ inflation assumptions have been reduced to 2.92% for the Employees’ Plan and 2.85% for the Police and Fire Plan and appear to be reasonable. We understand that the boards’ intent is to lower the inflation assumptions to 2.75% in 2018. Because of the importance of the inflation assumption, we recommend that these assumptions be evaluated on an ongoing basis.

Investment Return Assumption

The investment return assumption is of key importance to the actuarial valuation. For public sector funding valuations, benefit payments are typically discounted at the same interest rate as the investment return assumption. In order for this discounting to be valid, the investment return assumption must be supported by the underlying asset mix of the fund. In other words, the rate of return of a pension plan’s assets over the projection period should match the plan’s rate of return assumption.

The investment return assumption has a large effect on plan funding. A drop in the investment return assumption corresponds with an immediate increase in the plan's liabilities. Typically, a 1% decrease in the assumption results in an immediate 10%-15% increase in Actuarial Accrued Liability.

Using a relatively high investment return assumption will result in lower liabilities and lower current contributions. The fund's projected market returns will be expected make up for the lower contributions. However, if actual investment returns are lower than the assumption, the contributions will increase. Using a relatively low investment return assumption will result in higher liabilities and higher current contributions. The fund's higher contributions will be expected to make up for the lower projected returns. In addition, a lower investment return assumption may result from a desire for the plans to take on less risk in their investment portfolios.

There are significant risks in not meeting the investment rate of return assumption. If the plan consistently underperforms the assumed rate of return, funding will not occur in accordance with the plan's policy. Future contributions will need to be higher in order to balance the lower returns.

The City's investment return assumption has been reduced from 7.60% to 7.40% for the Employees' Plan and from 7.60% to 7.35% for the Police and Fire Plan. These assumptions are within industry standards as the majority of public sector pension plans use an investment return assumption between 7.00% and 7.75%. In recent years, many public sector plans have lowered this assumption in light of recent economic events. The City and its advisors should continue to carefully monitor returns to verify that the plans' asset mixes support the use of this assumption.

The experience studies recommend that the investment return assumption be lowered from 7.60% to 7.25% along with lowering the inflation assumption. We believe this assumption would be reasonable. The plans' investment assumptions have been reduced to 7.40% for the Employees' Plan and 7.35% for the Police and Fire Plan and appear to be reasonable. We understand that the boards' intent is to lower the investment return assumptions to 7.25% in 2018. Because of the importance of the investment return assumption, we recommend that these assumptions be evaluated on an ongoing basis.

Mortality Assumption

The assumptions for mortality attempt to accurately project how long plan members will live. Since defined benefit plans pay benefits until a retiree and/or beneficiary dies, increases in life expectancies result in benefits being paid for a longer period and increased liabilities.

Because only the largest pension plans are able to provide enough mortality exposure to develop their own assumptions, industry standard mortality tables are typically used for actuarial valuations. In addition, plans often use different tables for healthy and disabled members, reflecting the higher mortality observed for those that retire with a disability pension.

There have been significant improvements in mortality over the last several decades. It is common for actuaries to use mortality tables that have a built-in projection scale, so that mortality is assumed to improve over time. In fact, Actuarial Standards of Practice now specify that pension plan actuaries explicitly reflect the effects of mortality improvement in retirement plan valuations, unless there is a specific reason for not doing so.

The Employees' Plan uses the RP-2000 Combined Healthy Mortality Tables set back one year for females, with projection to 2023 using 50% of Scale BB. For disabled members, the corresponding Disability Tables are used with projection to 2008 using Scale BB.

The Police and Fire Plan uses the RP-2000 Combined Tables with Blue Collar Adjustments, with projection to 2029 using 50% of Scale BB. For disabled members, the corresponding Disability Tables are used with a five-year setback for males and projection to 2008 using Scale BB. Future improvements in mortality are anticipated by projecting these tables to 2021 (for Police and Fire) and to 2023 (for Employees) using 50% of Scale BB. Projection of the tables to a specific year will allow for some projection of future mortality, but not the total amount of projection that is implied by the Scale.

Since the previous experience study, the Society of Actuaries has published the RP-2014 mortality table as well as a generational mortality improvement scale (MP-2016).

We recommend that consideration be given to updating the mortality assumptions to a more recent mortality table and generational improvement scale. The experience studies recommend maintaining the current tables (RP-2000) and applying Scale BB in full to 2026. Based upon the data in the experience study, this table appears to allow for a reasonable margin for improvement. We believe that the recommended assumption is reasonable.

Asset Smoothing Method

Pension plans often use smoothing methods to dampen the short-term effects of asset returns. The Employees' and Police and Fire Plans use a five-year smoothing mechanism, which is the most common period used in the public sector.

As part of the asset smoothing mechanism, some plans apply an additional "corridor" so that the smoothed value of assets does not differ from the market value of assets by more than a set amount. A common example of a corridor would be 80% to 120%, meaning that the actuarial value of assets cannot be less than 80% of the market value nor more than 120% of market value. We note that no corridor is applied in the Employees' and Police and Fire plans asset smoothing method. However, the smoothing period is short enough that the application of a corridor would only occur in rare circumstances, such as the 2008 market crash.

Actuarial Standards of Practice specify that asset smoothing methods be unbiased, reflect market returns in a systematic matter, and result in an actuarial asset value that falls within a reasonable range of market value. The City's methodology satisfies these requirements.

The asset smoothing method is reasonable. Consideration may be given to the application of an 80% to 120% corridor.

Funding Method

In order to determine the Actuarial Accrued Liability, the actuary must apply a funding method to assign benefits to past and future service. There are several methods commonly used in this process. For the Employees' and Police and Fire Plans, the Entry Age Actuarial Cost Method is used. This method is the most commonly used allocation method in the public sector and results in relatively stable contributions as a percent of payroll.

The amortization period of both the Employees' and Police and Fire Plans is **partially** closed with 26 years remaining as of December 31, 2015. The partially closed amortization period means that the funding period will decrease each year, and according to the plans' funding policies, will decrease until the remaining period is 15 years at which point it will remain at 15 years. Closed periods have the feature that every dollar of unfunded liability will be retired by a certain date, although required contributions can become very volatile in the final years of the amortization period. This volatility can be managed through a funding policy that tracks the source of change in unfunded liability by year and amortizes each year's change in unfunded liability over a closed period.

The plans will use an open 15-year amortization period when there are 15 years remaining in the funding period (December 31, 2026). The experience study recommends changing the length of this period to 10 years for the Employees' Plan. Open amortization periods are often used in the public sector, but are not expected to fully amortize the unfunded liabilities by a specified date. An important concept in funding pension plans is "negative amortization".

When unfunded liability payments are made as a percent of payroll, the dollar amount of payments rise over time as the payroll base increases. Because smaller payments are made at the beginning of the payment period, the unfunded liability will increase for several years, then rapidly decrease in the last few years of the period. This is a result of the payments in early years not being sufficient enough to pay the interest accruing on the unfunded liability. While this type of payment stream is often used to fund public sector plans, it is important that stakeholders understand this effect.

Payments on the plans' unfunded liabilities are made using a projection of future payroll increases for the groups. This is done in order to reflect the growth of payroll over the payment period. The City's plans use assumptions of 2.92% and 2.85% annual payroll growth. This means that the current payment calculation assumes that total payroll will grow at a rate of 2.92% or 2.85% per year over the payment period. In years where total payroll growth is less than the assumption, payments toward the unfunded will be less than assumed. This will have the effect of increasing required payments in the future.

An alternative to funding the plans on a percent-of-pay basis would be to make payments on the unfunded liability on a "flat-dollar" basis. This method would amortize the unfunded with an unchanging payment over the period, similar to a home mortgage. Though the dollar amount would remain the same, the payments as a percent of payroll would decrease as the period goes on. This would have the effect of paying the unfunded liability more quickly, but would result in significantly higher payments in early years.

The assumption of 2.92% or 2.85% annual payroll growth (and 2.75% as recommended by the experience studies) is consistent with other entities in the public sector. As shown in the peer group analysis, the City's assumptions are lower than any of the comparable plans in the peer group. Because of the importance of this assumption to payments made on the unfunded liabilities, we recommend that this assumption be carefully monitored, particularly if payroll increases are expected to be lower than the assumption.

The City should be aware of the effect of the negative amortization inherent in making unfunded liability payments as a percent of payroll.

We recommend that the plans evaluate the use of an open amortization period when the plans reach the 15-year (or 10-year) open funding period in 2026. We recommend that consideration be given to adopting a funding policy that targets 100% funding over a reasonable time period. Due to the importance of the payroll growth assumption on unfunded liability payments, we recommend that it be carefully monitored.

Retirement Rates

The retirement rates used in the valuation appear to be reasonable. We note the following points for consideration.

- The retirement assumptions for the Employees' System are split by group (UAW/Others) and by age. Many public sector systems see higher retirement rates in the early years of retirement eligibility, especially in the first year. If this behavior is being observed, the actuary may consider applying an ultimate rate for the first year of eligibility to reflect these retirements.
- It appears that the City has mandatory retirement ages for Police (60) and Firefighters (70), but it is unclear from the report whether these age limits are being taken into account in the valuation assumptions. If these limits are being applied, they should be noted in the report.

The experience studies recommend changes to some of the rates currently used and the data indicate that the new assumptions match recent experience. We believe that the recommended assumptions appear to be reasonable.

Other Assumptions

The other assumptions used in the valuations appear to be reasonable. We note the following:

- The Employees' System and the Police and Fire System both provide special benefits for active deaths that are incurred in the line of duty. However, the valuation does not specify what percentage of active deaths are considered to be duty-related. In contrast, the percentage assumption for duty disabilities is stated in both reports. The percentage assumption for duty deaths should also be stated.

In general, we conclude the assumptions and methods used in the valuation appear to be reasonable and comply with relevant standards of practice. The recommended assumptions in the experience studies also appear to be reasonable. We recommend the following:

- Review the inflation assumption and give consideration to whether the assumption should be lowered as recommended in the experience studies
- Monitor the investment return assumption and consider lowering the assumption as recommended in the experience studies
- Consider updating the mortality assumptions to the most recent Society of Actuaries' mortality table and generational mortality improvement scale as recommended in the experience studies

- **Consider whether a corridor around the market value of assets should be included in the asset smoothing method**
- **Evaluate the use of an open amortization period when the plans reach the 15-year open funding period (or 10-year as recommended in the experience study) in 2026. Consider adopting a funding policy that targets 100% funding over a reasonable time period. Monitor the payroll growth assumption to ensure that it remains consistent with actual increases in payroll.**
- **Consider refinements to the retirement assumptions as noted above**

4 Peer Group Benchmarking

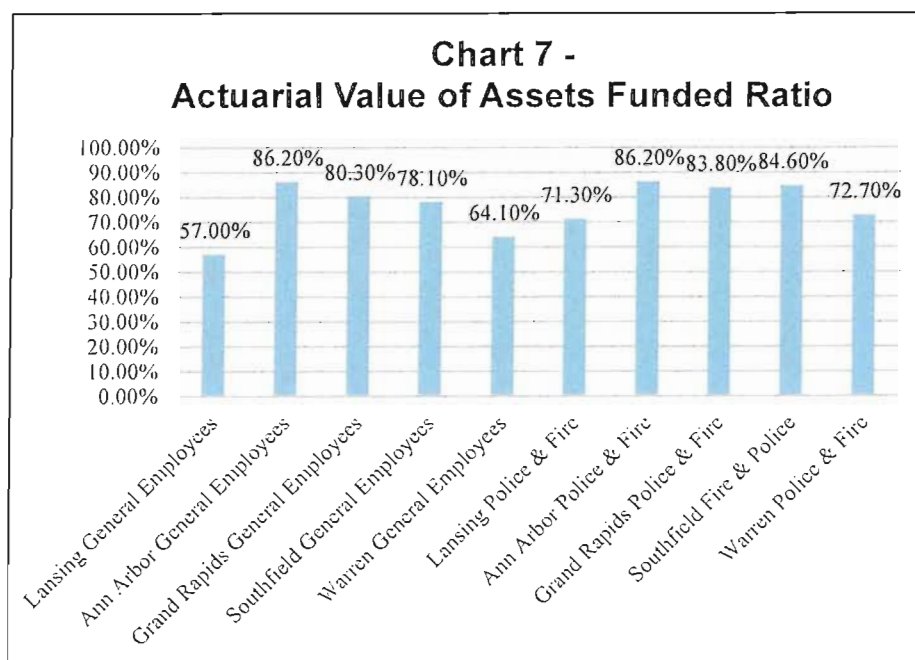
In order to compare the adequacy of plan design, funding methods, benefit provisions, and other features of the City of Lansing Retirement Systems, we have assembled information from other retirement programs, as directed. This peer group consists of seven plans from four cities in Michigan. The seven plans included are:

- City of Ann Arbor — Employees' Retirement System (includes General, Police, and Fire members)
- City of Grand Rapids — General Retirement System
- City of Grand Rapids — Police and Fire Retirement System
- City of Southfield — Employees Retirement System
- City of Southfield — Fire and Police Retirement System
- City of Warren — Employees Retirement System
- City of Warren — Police and Fire Retirement System

The information used in this analysis was drawn from the following reports:

- "City of Ann Arbor Employees' Retirement System June 30, 2015 Actuarial Valuation of Pension Benefits" prepared by Buck Consultants, November 2015
- "City of Grand Rapids General Retirement System 48th Annual Actuarial Valuation Report June 30, 2015 – Revised" prepared by Gabriel Roeder Smith, March 2016
- "City of Grand Rapids Police and Fire Retirement System 49th Annual Actuarial Valuation December 31, 2015" prepared by Gabriel Roeder Smith, April 2016
- "City of Southfield Employees Retirement System Fiftieth Actuarial Valuation Report as of June 30, 2015" prepared by Gabriel Roeder Smith, November 2015
- "City of Southfield Fire and Police Retirement System 63rd Actuarial Valuation Report as of June 30, 2015" prepared by Gabriel Roeder Smith, November 2015
- "City of Warren Employees Retirement System Summary Annual Report December 31, 2014"
- "City of Warren Police and Fire Retirement System Summary Annual Report December 31, 2014"

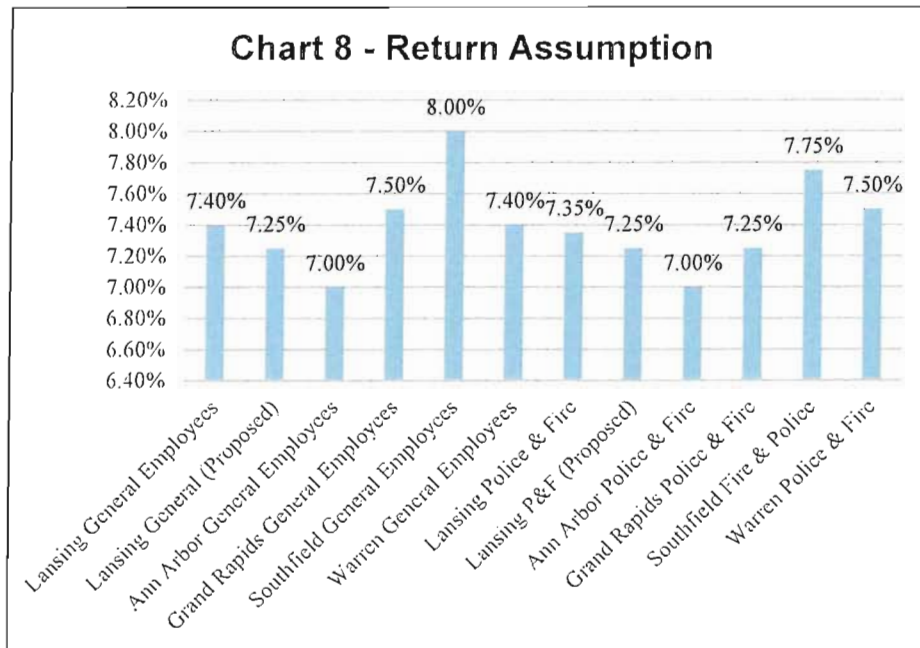
A summary of actuarial assumptions/methods and plan provisions is provided in the tables below.



Lansing's plans have the lowest funded ratios of the plans in the study for both General Employees and Police & Fire.

Table 1 - Asset Smoothing		
Plan	Smoothing Period	Corridor
Lansing General Employees	5 years	None
Ann Arbor General Employees	5 years	None
Grand Rapids General Employees	5 years	None
Southfield General Employees	5 years	None
Warren General Employees	4 years	None
Lansing Police & Fire	5 years	None
Ann Arbor Police & Fire	5 years	None
Grand Rapids Police & Fire	5 years	None
Southfield Fire & Police	6 years	None
Warren Police & Fire	4 years	None

All of the plans use an asset smoothing period of 4-6 years, which is also consistent with industry norms. None of the plans apply a corridor in the calculation of the actuarial value of assets.



The rate of investment return assumptions used by the plans are in the range of 7.00%-8.00%, which is consistent with other state and local pension funds in the industry. The investment return assumption for the Lansing plans is 7.60% and the information in this section is based on that assumption. The Employees' Plan lowered this assumption to 7.40% with the stated intention of lowering the rate to 7.25% next year. The Police and Fire plan lowered this assumption to 7.35% with the stated intention of lowering the rate to 7.25% next year. The decrease in the investment return assumptions will result in a decrease in the funded ratio and an increase in the liabilities and contribution rates.

Table 2 - Amortization of Unfunded Liabilities			
Plan	Amortization Method	Payroll Growth	Amortization Period
Lansing General Employees	Level % of pay	3.10%	Partially Closed – 27 years reduced by one year each year until 15 years, when the period remains at 15
Ann Arbor General Employees	Level % of pay	3.50%	Closed – 25 years
Grand Rapids General Employees	Level dollar	N/A	Closed – 30 years
Southfield General Employees	Level % of pay	3.50%	Closed – 25 years
Warren General Employees	Level % of pay	4.00%	Closed over active working lifetime
Lansing Police & Fire	Level % of pay	3.10%	Partially Closed – 27 years reduced by one year each year until 15 years, when the period remains at 15

Ann Arbor Police & Fire	Level % of pay	3.50%	Closed – 25 years
Grand Rapids Police & Fire	Level % of pay	3.50%	Closed – 30 years
Southfield Fire & Police	Level % of pay	4.00%	Closed – 22 years
Warren Police & Fire	Level % of pay	5.00%	Closed – 25 years

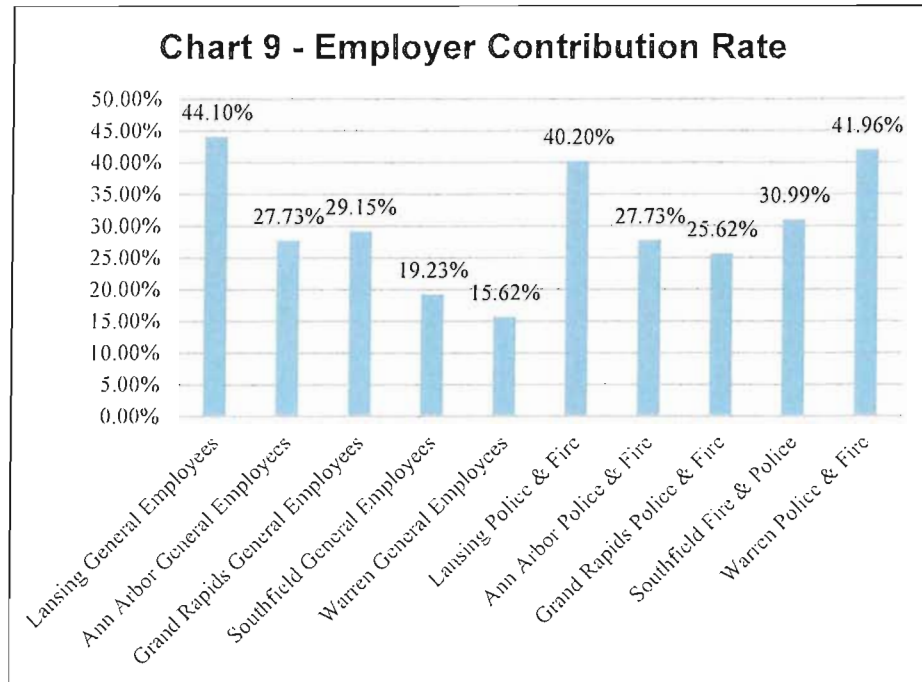
All of the plans use a closed period for the amortization of unfunded liabilities, and all but one (Grand Rapids General) calculate the required contribution as a percent of payroll. Closed periods amortize unfunded liabilities more rapidly than open periods, which may not ever amortize the unfunded liability. Lansing's plans have the additional mechanism that the funding period will become open when the closed period reaches 15 years.

The payroll growth (inflation) assumption has been reduced from 3.10% to 2.925% for the Employees' Plan and from 3.10% to 2.85% for the Police and Fire Plan. Lansing has the lowest inflation assumptions, with other cities using rates up to 5.00% per year. Grand Rapids uses a flat-dollar amortization of unfunded liabilities, and hence does not apply an inflation adjustment in the context of financing the unfunded liability.

All employers are currently making contributions in accordance with their funding policies and actuarial valuations.

Table 3 - Employee Contributions	
Plan	Employee Contribution Rate
Lansing General Employees	2.95% - 6.50% by job classification and tier
Ann Arbor General Employees	6.00%
Grand Rapids General Employees	4.22% - 11.54% by benefit election, job classification, and tier
Southfield General Employees	AFSCME 5.41%, all others 5.00%
Warren General Employees	None
Lansing Police & Fire	7.00% - 9.52% by job classification and tier
Ann Arbor Police & Fire	6.00%
Grand Rapids Police & Fire	9.86% - 10.70% by job classification; lower if funded percentage exceeds 100%
Southfield Fire & Police	3.00% or 5.00% based upon group and tier; no contributions for Fire Chief
Warren Police & Fire	3.67%

Employee contributions vary, from no contribution (Warren Employees) to 11.54% of payroll (Grand Rapids Emergency Communication Supervisors).



Lansing employer contribution rates are relatively high within the peer group, representing the highest rate (44.10% of covered payroll) for general employee groups and the second-highest rate (40.20%) for police and fire groups. This is a result of many factors, including the underlying benefits of the plans, the historical funding, and the current asset levels.

Table 4 - Retirement Eligibility		
Plan	Normal Retirement Age	Early Retirement Age
Lansing General Employees	New Plan: Age 50 with 25 years of service or at age 58 with 8 years of service	N/A
Ann Arbor General Employees	Age 50 with 25 years of service, or age 60 with 5 years of service (10 years for Tier 2)	Age 50 with 20 years of service
Grand Rapids General Employees	30 years of service, or age 62 and 8 years of service. Effective January 1, 2001, members covered by the Emergency Communications Operators Bargaining Unit may retire after age 55 and 8 years of service.	20 years of service, or age 55 and 10 years of service
Southfield General Employees	Tier II: Age 57 with 25 years of service, age 62 with 20 years of service, or age 65 with 10 or more years of service	Tier II: Age 57 with 20 or more years of service or age 60 with 10 years of service.
Lansing Police & Fire	Age 55 or 25 years of service, for FOP-NS hired on or after August 1, 2014, age 50 with 25 years of service	N/A
Ann Arbor Police & Fire	25 years of service, or age 55 with 5 years of service (10 years for Tier 2)	Age 50 with 20 years of service
Grand Rapids Police & Fire	Police: age 50 and 10 years of service. Firefighters: age 55 with 10 years of service.	Age 50 and 10 years of service
Southfield Fire & Police	20 years of service regardless of age	N/A
Warren Police & Fire	Unknown	Unknown
Note: Benefit information not available for City of Warren		

Table 5 - Retirement Benefits		
Plan	Final Average Compensation	Benefit Multiplier
Lansing General Employees	Highest annual compensation paid over 2 consecutive years of credited service within the last 10 years	1.25% to 2.8% based upon employee group and tier
Ann Arbor General Employees	Highest 3 consecutive years out of last 10 (last 5 for Tier 2)	2.5%
Grand Rapids General Employees	Highest 3 calendar years, with exceptions by group	1.8% to 2.7% based upon group, tier, and year of accrual
Southfield General Employees	Tier II: Highest 5 consecutive years out of last 10	Tier I: 2.0% (maximum benefit of 70% of FAC)
Lansing Police & Fire	Highest annual compensation paid over 2 consecutive years of credited service	2.5% - 3.2% based on employee group and tier
Ann Arbor Police & Fire	Highest 3 consecutive years out of last 10 (last 5 for Tier 2)	2.75%
Grand Rapids Police & Fire	Highest 3 consecutive years, increased by adjustment factors	2.0% - 2.8% based on employee group and tier
Southfield Fire & Police	Highest 3 or 5 years based upon group and tier	2.5% or 2.8% based upon group
Note: Benefit information not available for City of Warren		

The newest tier for the Lansing plans have a lower multiplier than the other members of the peer group. However, the newest tier of Lansing members also participate in a DC plan. Our analysis is confined to the defined benefit plans of each city.

All of the plans offer traditional defined benefits derived from years of service and final average compensation. Both Lansing plans have the shortest averaging period for final average compensation among the plans in the peer group. Use of a shorter averaging period results in higher average compensation, leading to higher benefits and liabilities.

Table 6 - Early Retirement Reductions	
Plan	Reductions
Lansing General Employees	N/A
Ann Arbor General Employees	.33% per month from the earlier of age 60 or 25 years of service
Grand Rapids General Employees	Actuarially reduced from age 62
Southfield General Employees	.50% per month from age 62 with 20 years of service or age 65 with 10 years of service
Lansing Police & Fire	N/A
Ann Arbor Police & Fire	.33% per month from the earlier of age 55 or 25 years of service
Grand Rapids Police & Fire	Actuarially reduced from age 55
Southfield Fire & Police	N/A
Note: Benefit information not available for City of Warren	

Table 7 - Post-Retirement Increases	
Plan	Increases
Lansing General Employees	Financed by Members' Benefit Fund, subject to limits and reductions
Ann Arbor General Employees	Ad-hoc, funded by financial gains
Grand Rapids General Employees	1.0% subject to 4-7 year delays by group
Southfield General Employees	None
Lansing Police & Fire	\$525 (annual) per year, subject to limits and reductions
Ann Arbor Police & Fire	Ad-hoc, funded by financial gains
Grand Rapids Police & Fire	1.0% or 1.5% subject to 2 or 5 year delays by group
Southfield Fire & Police	Additional benefits provided through Reserve for Inflation Equity
Note: Benefit information not available for City of Warren	

Most of the plans offer some level of post-retirement increases. In some cases, the increases are limited by increases in the CPI or asset reserves that are specifically set aside for these increases.

In general, the plans in the peer group are very similar in design and funding. Lansing's benefit multiplier for new hires is lower than those in the peer group, but the final average salary period is shorter than the other plans and the City also provides benefits in the form of a DC plan for newly hired general employees. The assumptions Lansing uses in the actuarial valuation are similar to the other plans in the peer group. Lansing's plans have lower funded percentages than the other plans in the peer group.

5 Benefit Efficiency & Plan Design Alternatives

Defined Benefit Plans, Defined Contribution Plans, and Hybrid Plans

Governmental employers sponsor retirement plans in order to provide post-retirement income to their employees through pre-retirement contributions. These plans can be divided into three main categories: defined benefit (DB) plans, defined contribution (DC) plans, and hybrid plans. These classifications are defined by the forms of benefits that are provided and by the funding mechanisms used to supply those benefits.

Defined benefit plans are common in the public sector and are often referred to as “traditional” pension plans. Under a DB plan, the pension amount is defined by formula at retirement for each participant. The benefit is commonly based upon factors such as the participant’s age, service, and salary at retirement. The contributions necessary to fund these benefits are adjusted, as needed, to ensure adequate funding of benefits. DB plans typically pay benefits as a monthly annuity for the life of the retiree, often with additional survivor benefits that can be elected upon retirement. Additional options that may be offered in DB plans include active death and disability benefits (“ancillary benefits”), subsidized early retirement benefits, and post-retirement cost-of-living adjustments. From the employer perspective, the amount of benefits that will be paid from the plan will drive the ultimate costs.

Defined contribution plans are common in the private sector, often in the form of a 401(k) plan or in the public sector, in the form of a supplemental 457(b) plan, referring to the sections of the IRS code that govern their administration. Under a DC plan, the contributions into the trust are fixed and the amount of benefits that each participant receives is unknown. At retirement, the benefit is simply the total of contributions allocated to the employee, with interest. DC plans typically pay a lump sum amount at retirement, although some DC plans also offer annuity options. Since the participant’s benefit is defined to be their account balance, disability and death benefits are limited to this amount. Unlike DB plans, DC plans sometimes provide an active employee access to funds through loans or hardship distributions. From the employer perspective, the ultimate cost of the plan is fixed and the individual account balances will determine the amount of benefits that will be paid to individual employees from the plan.

Hybrid plans have a combination of defined benefit and defined contribution attributes. Hybrid plans have gained popularity in the last few decades, and are in effect for state employees in Oregon, Georgia, Utah, Washington, and Nebraska, among others. Examples of hybrid plans include DB/DC offset plans, cash balance plans, combined plans, and variable annuity plans. Hybrid plans can result in reduced cost volatility to the employer, depending upon how they are structured.

In most cases, DC plans are designed to have lower employer costs than DB or hybrid plans. The lower cost structure is a result of the transfer of risks from the employer to the employees. If a DB plan and a DC plan have the same employer cost, the benefits provided from a DC plan are lower than benefits provided from a DB plan. This is because there is a pooling of certain risks (such as longevity) in a DB plan that does not exist in a DC plan.

In a DB plan, primarily the employer assumes the risks, while in a DC plan the risks are borne by the employee. Hybrid plans were developed in part to share these risks between employers and employees.

Defined benefit plans have proven to be an efficient system for delivery of retirement benefits. Typically, defined contribution plans cannot provide the same level of benefits per dollar of cost as defined benefit plans. Some of the main reasons are as follows:

- Defined benefit plans provide significant cost-sharing by spreading mortality risk over a large pool of members. Defined contribution accounts are individually assigned and must be managed so that the retiree does not outlive his or her benefits.
- In practice, individually managed accounts can expect higher administrative costs and lower investment returns than a professionally managed defined benefit plan with a longer time horizon.
- Defined contribution accounts suffer from “leakage” as funds are used for purposes other than retirement.
- In a defined contribution plan, there is a higher cost of converting an account balance to an annuity at market rates or else members must assume the longevity risk of benefits.
- Defined contribution plans cannot provide pre-retirement death benefits or disability benefits at comparable costs and benefit levels as provided under a defined benefit plan.

While more efficient, defined benefit plans do bring a significant level of risk to employers, who are ultimately responsible for making required contributions in most cases. Because of this, many corporations have frozen participation in their defined benefit plans or shut them down entirely. This is often difficult in the public sector due to the contractual nature of the benefits.

Workforce Management

An important issue in employee retirement and benefit plans is the effect that the plans have on employee behavior. As part of a compensation package, employers use retirement plans to help attract and retain qualified employees. This is especially important in the public sector, where potential hires often have an expectation of participating in attractive retirement plans to make up for lower compensation than in the private sector. Due to onerous IRS and accounting rules and the high volatility associated with these measurements, private companies have mostly eliminated their DB plans and moved to DC plans. This has made DB plans (and hybrid plans that offer a meaningful DB benefit) an attractive feature for potential hires found predominantly in the public sector.

In some cases, DC plans may be more attractive to new hires. The portability feature of DC plans allows the participant to take the DC account balance when leaving service. This differs from a DB plan, where benefits payable upon withdrawal before retirement are typically smaller. This portability can make a DC plan a more attractive option to younger employees who may not plan to work with the same organization for an extended period. Recent trends indicate that employees' tenure with each employer is shorter than it was in the past.

Mid-career employees who are closer to retirement will often prefer the benefits provided by DB plans. Because their working lifetimes are shorter, these employees may not be as attracted to portable benefits. Instead, they may be more likely to find value in the lifetime benefits that DB plans provide.

In general, moving from a DB or hybrid plan to a DC plan will reduce the employer's ability to attract qualified employees to the extent that potential employees find DB plans valuable. This may have less of an effect for younger employees who value the portability of the DC plan benefits.

Because many hybrid plans have DB and DC features, these types of plans can be attractive to both older and younger new hires. Younger hires who plan to withdraw earlier will find the DC portion of the benefit attractive, while older hires who plan to work until retirement age will find the DB portion valuable.

The City of Lansing plans has DB plans. The multipliers for some new member groups have been reduced and are supplemented by participation in a DC plan. These benefits are expected to attract and retain older new hires and certain younger employees, depending on their preference.

The provisions of DB plans may also be used to affect employee behavior after the date of hire. Subsidized benefits like early retirement may encourage employees to retire when certain age or service thresholds are met. For example, a DB plan that offers an unreduced early retirement benefit at age 62 will invariably see a spike in retirements at age 62. To the extent that the employers whose employees participate in the plan desire that their employees leave active service at the age of 62, this would be an effective tool for workforce management. However, if not carefully considered, early retirement benefits can result in unwanted workforce implications. For example, an unreduced retirement benefit at a set level of service (30 years, for example) may have the effect of encouraging the retirement of participants who are at their most valuable to the organization. Participants who were hired at a young age would reach the service threshold in their early 50s, and would then be encouraged by the plan to retire. These employees may still be productive, and the costs of hiring and training new hires to fill these positions may be prohibitive. In short, this feature may have the effect of causing the employer's best employees to leave.

DC plans do not provide subsidized early retirement benefits, as the account balance structure of a DC plan benefit does not allow for these types of benefits. The DC plan structure does not allow for a retirement age that is considered "normal". In fact, if DC participants experience poor returns, they may be required to work well into old age.

DC plans are also unable to influence workforce behavior through special retirement benefits, or "windows". Windows can be structured to target a group of employees to encourage their retirement during a specific period. This may be desirable for employers who would prefer that a group of employees leave active service. Windows will increase the liabilities of the DB plan as they encourage employees to retire sooner than expected and with an increased benefit.

The Lansing Plans provides for a "normal" retirement age and may assist with workforce management. If new employees are moved to a DC plan, it may be more difficult to address workforce management issues through the plan.

Transition

The effect of transition from one plan structure to another must also be considered when contemplating a plan change. Changing benefit structures for participants hired after a certain date will result in new plan “tiers” that will need to be maintained separately from the existing tiers. As a result, there may be an increase in actuarial valuation and administrative costs.

In the case of a transition from a DB plan to a DC plan, the administrative processes would need to be modified to include any new DC plans. Lansing has DC plans in place and therefore would need to amend the current DC plan administration structure to reflect the new provisions.

In addition, the plan change must be clearly communicated to employees. This is especially true if employees are given a choice between two plans. Since the City currently has tiers of employees, the staff has likely dealt with many of these transition issues in the past. This experience would likely reduce the effect of future transitions.

From a cost perspective, closing the DB plan to new members could have significant cost impacts on the current DB plan. If the current plan were closed to new members and the payroll for new DC members is not used in the amortization of the current UAAL, the payroll for the current plan would decline rather than grow during the remaining funding period. As a result, the amortization component would have to be determined as a level percent of declining payroll or as a level dollar amount. This creates a significant increase in the UAAL amortization rates as a percent of payroll.

Lansing’s Plan Liabilities and Impact on Design Alternatives

The following table shows highlights from the December 31, 2015 actuarial valuations:

Table 9 – Summary of Valuation Results (\$ in millions)		
	Employees’ Retirement System	Police and Fire Retirement System
1. Actuarial Accrued Liability		
a) Active Employees	\$ 68.6	\$ 107.0
b) Retirees and Inactive Members	240.2	303.2
c) Total	\$308.8	\$410.2
2. Actuarial Value of Assets	176.0	292.5
3. Unfunded Actuarial Accrued Liability	\$132.8	\$117.7
4. Funded Ratio	57.0%	71.3%
5. City Normal Cost Rate	7.2%	14.2%
6. Active Member Payroll	\$23.9	\$27.9
7. City Contribution Dollars		
a) Normal Cost	\$1.7	\$3.8
b) Payment toward Unfunded	8.5	7.7
c) Total	\$10.2	\$11.5

We observe the following about the Plans' financial condition:

- Any plan changes would only affect active members' future benefits. The normal cost represents the value of benefits accruing for active members. The City normal cost rate is 7.2% of payroll for Employees' and 14.2% of payroll for Police and Fire. The normal cost portion of the City's contribution is \$1.7 million for Employees' and \$3.8 million for Police and Fire for a total of \$5.5 million. Reductions in future benefits would affect the City's contributions of the normal cost of \$5.5 million. As an example, if the value of benefit accruals were reduced across the Board by 10% for active members, the reduction in the City's contribution would be \$550,000.
- The unfunded actuarial accrued liability, which totals \$250 million, represents benefits that have already been earned. These benefits will not be affected by reducing future benefits. As mentioned above, new benefits accrue at the rate of approximately \$5.5 million per year. This unfunded liability will need to be paid by the City over a reasonable amortization period to ensure that promised benefits are secure.
- One of the ways to affect the unfunded actuarial accrued liability is to reduce benefits to retirees. This option is not being considered in this study, as it is our understanding that this type of plan change is not legal in the State of Michigan. It is important to note that reducing these benefits would affect retirees' income on which they depend for living expenses.

The City should consider whether a change in the delivery of retirement benefits for its active members should be modified from the current defined benefit structure given the minor impact a change would have on the contribution requirements. A change to a defined contribution plan would ultimately set the City's contribution at a certain percentage of payroll. However, the unfunded liability of the plans will need to be funded over a reasonable amortization period and the transition period to a 100% defined contribution plan will take many years. The City should consider whether this change in retirement benefit delivery, that will take many years to realize any significant reduction in contribution, is worthwhile. Furthermore, the City should consider whether the shifting of all retirement risks to its employees is appropriate and consistent with its workforce management goals.

Defined Benefit Plan Changes

In addition to changing the structure of benefits, many organizations have taken the approach of enacting changes to their defined benefit plans in order to reduce costs and lower contribution volatility. In many cases, plan changes are made for employees hired after a certain date, creating a new "tier" of benefits. This can slow down the financial effects of these changes, as cost savings are realized only as current employees leave active service and are replaced by new employees over time.

Some of the more common changes made to defined benefit plans are as follows:

- **Contribution increases:** Plan funding levels can be improved by increasing required contributions by employers, employees or both. In some cases, increases have been accompanied with caps on the amount that the employer will pay, with the rest of the actuarially recommended contribution being the responsibility of employees. This helps

to reduce the volatility of employer contributions, but increases the burden on employees. Employee contribution increases are often perceived as a decrease in pay and can affect the ability of plans to retain employees.

- **Benefit changes:** These changes are made to the mechanisms that determine the amount of retirement (for example, lowering the benefit multiplier from 1.80% to 1.25%). These changes are simple and are typically easy to implement. As with any change, a reduction in benefits can be negatively perceived by employees and conflict with workforce management objectives. The City has made similar changes for new hires with a supplemental DC arrangement for some groups.
- **Cost of Living Increases:** Unlike the private sector, many public sector plans have cost-of-living adjustments (“COLAs”) that increase the amount of benefits as retirees age. This helps maintain benefit security, but can be quite expensive. A 1% ongoing COLA on all benefits can result in a 10%-15% increase in liabilities or more. Many plans have lowered costs by reducing COLAs for non-retirees through limiting increases to inflation, tying them to favorable asset returns, or removing them outright. In some cases, COLAs for current retirees have been lowered. In many cases, these changes have legally challenged with mixed results in courts.
- **Eligibility changes:** These changes are made to the eligibility for benefits (for example, raising the minimum retirement age from 55 to 60). While the ultimate benefit is not affected, the number of payments is reduced since younger retirements are not allowed. These can be a source of significant cost savings, but workforce management issues are very important. As an example, raising the retirement age for a plan that covers police and fire employees only makes sense if the underlying organization has a policy for allowing these employees to work past that age.
- **Compensation adjustments:** Another method for reducing liability is by changing the compensation used in determining the benefit (for example, using more years in the average compensation calculation). Other adjustments have been made to reduce the effect of “spiking”, or the deliberate increase in compensation near the end of an employee’s career to increase pension benefits. While anti-spiking provisions can be important tools in promoting plan fairness, their effects on costs are usually limited.

Any changes to the plan must balance cost savings with workforce management as discussed above. The plan’s goals of attracting and retaining productive employees should always be taken into account when a plan change is considered.

6 Funding Approaches

Amortization Methods

The goal of an appropriate funding policy is to fund the benefits payable from the plan over a reasonable time period. For the purposes of generational equity, the amortization period should also be related to the working lifetime of the group being covered. An appropriate funding policy results in a contribution that funds the Normal Cost (*i.e.*, the cost of benefits accruing in the current year) and includes a payment towards the UAAL, which is the amount for which assets are insufficient to cover the benefits that have been earned in the past. Some commonly used methods of amortization are discussed below.

A “closed” amortization period will reduce the UAAL of the plan over a set timeframe, ending at a specific future date. A closed period has the advantage of effectively amortizing the liability in a predictable manner, but can result in volatile contributions, as the remaining period gets smaller.

An “open” amortization period re-amortizes the UAAL of the plan each year over the same period as the previous year. The contributions under an open amortization period are less volatile than with a closed period, but the UAAL is not amortized as quickly as with a closed period and may never be amortized. Depending on the amortization period, the UAAL may increase under an open amortization period. Open amortization periods are commonly used in the public sector.

A “level percent of payroll” amortization expresses the amortization payments over the future payroll of the group. An assumption must be made about the increase in payroll that is expected to occur over the amortization period. While the payments are expected to be level as a percent of pay, the amount of the payments is smaller in the earlier years of the amortization period and larger in the later years. This can result in a “negative amortization”, where the UAAL grows during the first years of the amortization period. Typically, negative amortization occurs until the amortization period reaches about 15 years. The level percent of payroll amortization method generally results in a stable contribution rate. However, if actual payroll increases are less than expected, the payments are lower and future contributions as a percentage of payroll will increase. In addition, combining the level percent of payroll method with an open amortization period will result in the UAAL increasing every year in the future.

A “level dollar” amortization expresses the amortization payments as a fixed dollar amount over the amortization period. A typical example is a home mortgage payment, where a fixed amount is paid each month. This results in greater payments at the beginning of the period than with the level percent of payroll method. While the payments reduce the UAAL more quickly in the early years of the amortization period, the payments do not remain constant as a percent of payroll.

In some cases, retirement systems use a combination of the methods above in their funding policies. A common example is to use a short, closed period for a one-time benefit adjustment or window, while amortizing the remaining UAAL over a longer, open period. Another option is using fixed-length closed periods to amortize changes in the UAAL each year.

The Employees' and Police and Fire plans use a closed funding method with payments based upon a level percent of payroll. Additionally, when the funding period decreases to 15 years remaining, the funding method will then become an open 15-year period. The experience study recommends lowering this open period for the Employees' Plan to 10 years.

The City has many other options to either accelerate payments toward the plans' UAAL. Payments toward the unfunded liabilities of the Plans could be accelerated by the following changes to the valuation assumptions and methods, among others:

- Shortening the amortization periods of the plans (26 years remaining as of December 31, 2015)
- Lowering the payroll growth assumption (2.92%/2.85% per year) – the experience studies recommend lowering this assumption
- Lowering the rate of return assumption (7.40%/7.35% per year) – the experience studies recommend lowering this assumption

Changing the assumptions or amortization period as suggested will result in higher contributions in the short term. However, the accelerated contributions will earn investment returns and will lower future contributions. Ultimately, the City must determine the methods of funding the plans that provides for systematic funding while meeting the risk profile of the City and its stakeholders.

We recommend the City consider whether increasing contributions would be desirable as a mechanism for reducing future contributions.

We recommend that the City evaluate the use of an open amortization period when the plans reach the 15-year open funding period (or 10-year as recommended by the experience study) in 2026. The City should also consider adopting a funding policy that targets 100% funding over a reasonable time period.

7 Challenges, Conclusions and Recommendations

Based upon the analysis performed above, Segal has identified the following challenges, conclusions and recommendations:

Challenges

The City faces the following challenges that make it difficult to achieve a meaningful reduction in the liabilities of and contributions to the plans:

1. The plans combined have 720 active members and 1,632 retirees and beneficiaries. The ratio of member in pay status to active members is 2.3.
2. The total actuarial accrued liability of the plans is \$719 million, of which \$543 million or 76% is attributable to retirees and beneficiaries.
3. The unfunded actuarial accrued liability as of December 31, 2015 is \$250 million. The City contribution as of December 31, 2015 is \$21.8 million, of which \$16.8 million is toward the unfunded liability of \$250 million. The remaining \$5.5 million is to fund the annual pension benefit accrual for active members. If pension benefits were frozen for active members (i.e., active members would accrue no additional benefits) the reduction in annual contributions would be \$5.5 million.
4. Because of the state limitations on property tax revenue growth, from the state Headlee Amendment and Proposal A, the City anticipates its largest revenue source accounting for 31% of General Fund Revenues, to increase only 2%-3% over the next several years and that pre-Recession property tax revenue levels, net of the extra four mills, will not be reached until 2025 to 2028. Further challenging Lansing and Michigan municipalities, municipal revenue sharing by the State of Michigan has been reduced over the past 15 years by more than \$6 million in real dollars annually for the City, and almost \$9 million annually when adjusted for inflation (see Background section on pages 9-12).

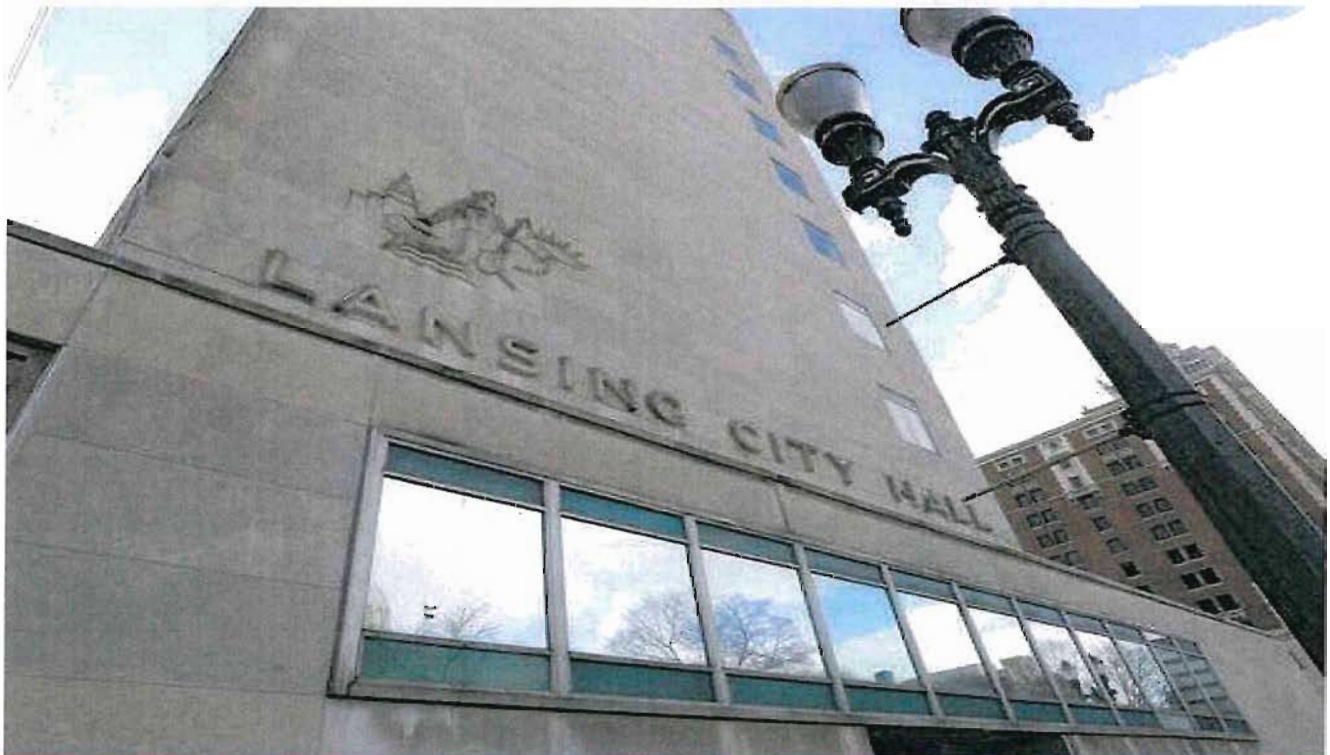
Conclusions and Recommendations

1. We conclude the assumptions and methods used in the valuation appear to be reasonable and comply with relevant standards of practice. We recommend the following:
 - Monitor the investment return assumption, particularly given that the inflation assumption is on the high side of reasonableness, as recommended in the experience studies. The fund is moving to lower this assumption in accordance with the recent experience study. Many public plans have lowered the investment return assumption in response to market conditions. Lowering the investment return assumption results in an increase in the actuarial accrued liability.

- Consider updating the mortality assumptions to the most recent Society of Actuaries' mortality and generational mortality improvement scale as recommended in the experience studies. An update to the mortality table would result in an increase in the actuarial accrued liability, in the range of 2% to 4%.
 - Consider whether a corridor around the market value of assets should be included in the asset smoothing method.
 - Evaluate the use of an open amortization period when the plans reach the 15-year open funding period (or 10-year as recommended by the experience study) in 2026. Consider adopting a funding policy that targets 100% funding over a reasonable time period. Monitor the payroll growth assumption to ensure that it remains consistent with actual increases in payroll.
 - Consider refinements to the retirement assumptions as discussed in the report
2. The City should consider whether a change in the delivery of retirement benefits for its active members should be further modified from its current structure keeping in mind its workforce management goals for recruitment and retention.
 3. The City could consider whether a pension obligation bond would be a means to fund the pension plans. There are a number of issues related to pension obligation bonds including that the bonds need to be issued as taxable bonds and there is a risk that there is a major market correction when the bond proceeds are invested. Some municipalities have seen total costs, including bond debt service, increase after a pension obligation bond is issued. Furthermore, the debt service is a fixed cost and must be paid each year regardless of investment returns.
 4. Ideally, the City could consider accelerating its contributions to the pension plan; however, it is recognized that this may not be practical, given the City's much larger unfunded liability for retiree healthcare and significant resource constraints noted on pages 9-12 of the Background section. Measures the City could consider include:
 - Sale of City assets, which would a one-time, non-recurring source.
 - Increase in the City's income tax rates, although it is understood that to do so, changes would need to be made to State of Michigan legislation.
 - Levying a property tax millage, either within its operating millage or by special millage allowed under State of Michigan Public Act 345 of 1937 for police and fire pensions. It is understood from City officials that the City Charter maximum operating property tax levy is 20.0 mills, and the City is currently levying 19.44 mills. It is also understood from City officials that 1.0 mill currently generates approximately \$2.0 million and equates to a \$50 annual increase for a taxpayer owning a house valued at \$100,000.
 - Levying a local sales tax, which would require a change in State of Michigan legislation, as it is understood to currently be prohibited at the municipal level.

5. The City could consider exploring the transfer of public assets or the revenue generated as sources to fund the pension plans. In the private sector, corporations have made in-kind contributions – non-cash assets such as securities and real estate to fund their retirement plans. US Steel contributed 170,000 acres of timberland to meet its pension liabilities. Pan American World Airways transferred the lease for its flagship terminal at New York's Kennedy Airport to its pension funds. The public sector has begun to implement or consider alternative revenue sources. Some strategies are as follows:
- The private sector's practice of transferring assets to pension funds was cited in a New Jersey proposal to fund the state's beleaguered public pension plans with revenues from the state's lottery.
 - In Canada, the Ontario Teachers' Pension Plan owns the licenses to operate both the British and Irish national lotteries. These assets were not in-kind contributions but rather a direct investment aimed at boosting the pension fund's returns.
 - In 2010, the Pittsburgh City Council irrevocably dedicated parking revenues to the city's three employee pension funds for 31 years. The city effectively transferred the value of asset ownership to the pension plan without requiring it to assume the risks of ownership or management responsibilities.
 - The City of Hartford, Connecticut plans to donate a 600-acre public park, which does not produce revenue, as partial payment of the city's annual required contribution to the Municipal Employees Retirement Fund.
 - One of the most profitable in-kind contributions made to a pension fund was the conveyance in 2011 of a toll-road network owned by Australia's Queensland state government to the state's pension fund. Queensland Investment Corporation, the fund's manager, restructured the business, added two additional roads to the toll network and sold the asset three years later at a \$3.8 billion profit for the pension fund.

The City must weigh these recommendations and its options with the costs of doing nothing. As demonstrated on Chart 3 of the Background section, pension contributions have tripled over the past fourteen years and, even with recent collective bargaining changes, are currently projected to increase another six million in the next twelve years. In light of the City's revenue constraints, combined with retiree healthcare obligations, pension funding obligations could have the effect of crowding out available resources for City services, as well as or in combination with, the path of emergency financial management or bankruptcy, as experienced by some other Michigan communities.



CITY OF LANSING, MICHIGAN RETIREE HEALTH PLAN ANALYSIS

September 26, 2017

 Segal Consulting

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City of Lansing, Michigan

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September 26, 2017

Mayor Virg Bernero
City of Lansing
City Hall
124 W Michigan Avenue
Lansing, MI 48933

Re: Final Retiree Health Plan Analysis

Dear Mayor Bernero:

We are pleased to present Segal's final analysis of the City of Lansing's retiree health plans. This analysis provides a detailed review of the City's retiree health plans, including the following:

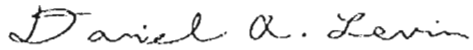
- ***Assumption and method review*** – an analysis of the actuarial assumptions and a review of the actuarial methods utilized in determining the Accrued Liability for compliance with generally accepted actuarial principles
- ***Peer group benchmarking*** – a comparison of the City's plans with other similar city plans in the State of Michigan
- ***Program design alternatives*** – a discussion of alternative design strategies for retiree health benefits
- ***Create independent actuarial valuation model*** – in order to quantify the current situation and potential changes
- ***Estimated Impact of Select Design Alternatives*** – estimated financial impact of potential changes
- ***Funding and Financing*** – a discussion of funding and financing issues around the City's retiree health benefits
- ***Other Important Considerations*** – a discussion of other considerations involved in reviewing the City's retiree health programs

This analysis was conducted under the supervision of Dan Levin, a Fellow of the Society of Actuaries, a member of the American Academy of Actuaries, and a Fellow of the Conference of Consulting Actuaries, and a Certified Employee Benefits Specialist. The calculations were performed in accordance with the standards of practice prescribed by the Actuarial Standards Board.

The assistance of the City of Lansing's staff is gratefully acknowledged.

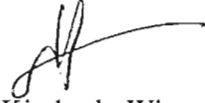
We appreciate the opportunity to serve as an independent actuarial advisor for the City of Lansing and we are available to answer any questions you may have on this report.

Sincerely,



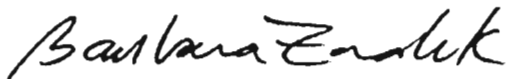
Daniel Levin, FSA, FCA, MAAA, CEBS
Senior Vice President
Health Consulting Actuary

Sincerely,



Kimberly Wixson
Vice President
Health Consultant

Sincerely,



Barbara Zaveduk, MAAA, EA
Vice President and Actuary

Enclosure

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1 Background

Understanding the Situation

The City of Lansing sponsors health care benefits for its retirees. The benefit specifics vary by group, based on collective bargaining agreements for union groups and fringe benefit documents for non-union groups. Depending on the specific group, benefits might include a combination of the following:

- Medical and prescription drug coverage for those not eligible for Medicare
- Medical and prescription drug coverage for those eligible for Medicare
- Retiree dental coverage
- Retiree vision coverage
- Medicare Part B premium reimbursement
- Retiree life insurance (Police and Fire only)

Together, all of these non-pension retirement benefits are referred to as the City's "Other Post-Employment Benefits" or OPEB.

The exact benefits and eligibility for receiving them depend on one or more of these factors:

- Group affiliation (examples – Police, UAW, District Court Exempt, etc.)
- Date of retirement
- Date of hire

Eligibility of joint spouses, child dependents, and surviving spouses may also depend on these factors. A matrix listing current benefits by date of hire and/or retirement cohort is shown in Appendix A of this report, for each major group and cohort.

Providing retiree health benefits to these groups creates significant challenges for the City, in terms of both current cash costs and long-term liabilities. As of January 1, 2016, we have estimated closed group liabilities (assuming no new hires eligible) under the City's OPEB program to be over \$432.9 million, using a full prefunding-based discount rate of 7.25%. Current annual cash cost (net of retiree contributions) is estimated at over \$20.7 million.

- Almost 90% of the liability (\$387.0 million) is attributable to collectively bargained groups
- Over 73% of the liability (\$317.6 million) is attributable to participants who are already retired as of January 1, 2016
- City payroll of active employees covered by the defined benefit retiree health plan is approximately \$46 million as of January 1, 2016, which means the City's annual cash cost for retiree health benefits is almost 45% of covered payroll.

The calculations shown above were completed using a full prefunding-based discount rate of 7.25%. If an unfunded discount rate of 4.00% were used instead, the total estimated closed group liabilities for the City's OPEB program would be over \$692.1 million.

Note that none of these numbers includes any of the City's pension plans or any of the new defined contribution retiree health care plans for newer hires.

Previous Actions Taken by the City

In recognition of these challenges, the City has taken steps to modify benefits for its retiree groups, over the last several years.

Police Non-Supervisory and Supervisory

- Hires after August 1, 2014 do not receive retiree spouse/dependent medical, drug or Part B coverage in retirement
- Retirees after October 12, 2015 follow active medical and drug plan designs

Fire (IAFF)

- Hires after August 1, 2014 do not receive retiree spouse/dependent medical, drug, or Part B coverage in retirement
- Retirees after July 1, 2013 follow active medical and drug plan designs

UAW

- Hires after October 21, 2013 do not receive retiree spouse/dependent medical, drug, or Part B coverage in retirement
- Hires after October 21, 2013 do not receive medical/drug coverage, upon attainment of Medicare eligibility. They also do not receive reimbursement for Medicare Part B premiums.
- Retirees after October 1, 2014 follow active medical and drug plan designs

Teamsters 214

- Effective January 1, 2015, new hires do not receive defined benefit medical, drug, or Medicare Part B premium benefits

Teamsters 243 (Excludes T243 District Court)

- Effective May 19, 2014, new hires do not receive defined benefit medical, drug, or Medicare Part B premium benefits

Teamsters 243 District Court and District Court Exempt

- Hires after April 1, 2014 do not receive retiree spouse/dependent medical, drug, or Part B coverage in retirement
- Hires after April 1, 2014 do not receive medical/drug coverage, upon attainment of Medicare eligibility. They also do not receive reimbursement for Medicare Part B premiums.

Since the 2015 study, the City has also implemented the following additional program changes:

Teamsters 243 District Court and District Court Exempt

- Effective July 1, 2016, new hires do not receive defined benefit medical, drug, or Medicare Part B premium benefits

Exempt Non-Bargaining

- Effective July 1, 2016, new hires do not receive defined benefit medical, drug, or Medicare Part B premium benefits

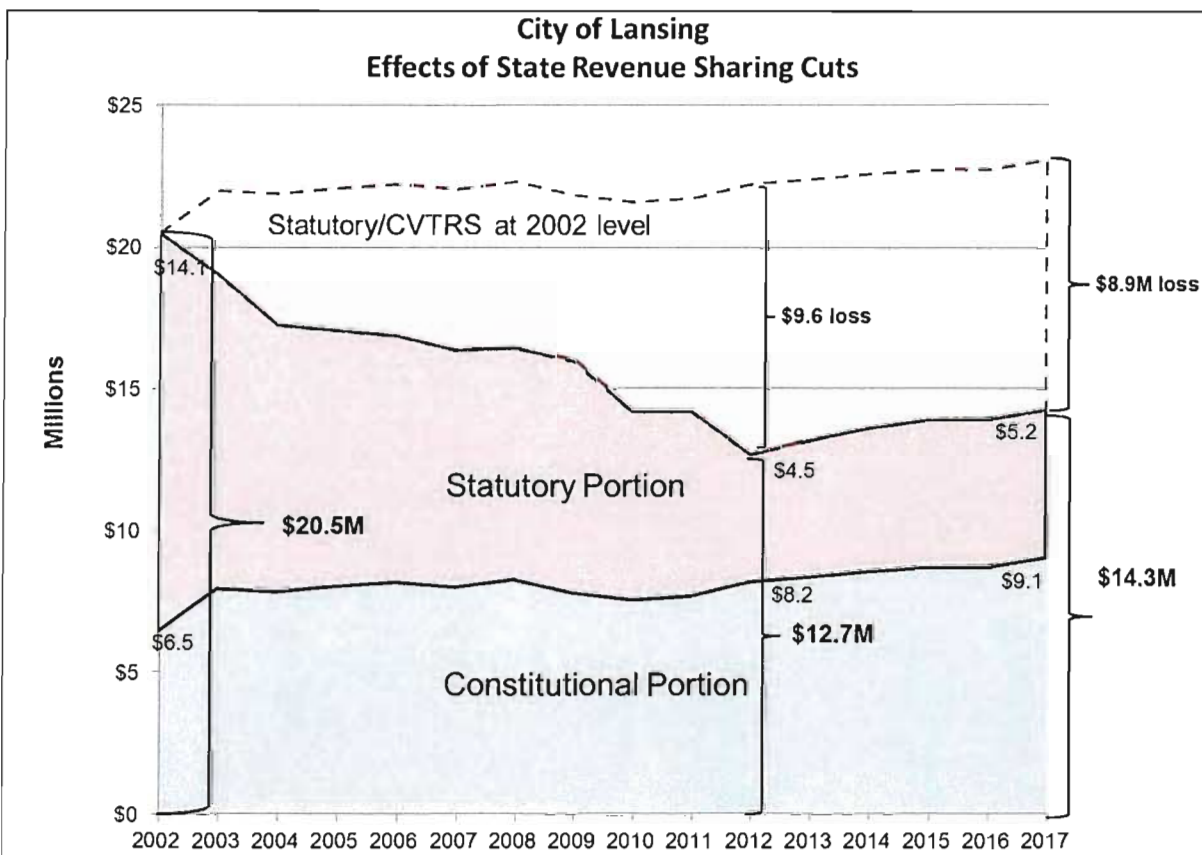
While these changes have helped to limit the City's liability on recent and future hires, the fact remains that the majority of the liability resides with current retirees. As a result, unless changes can be made to existing retirees, over 73% of the current retiree health liability cannot be affected at all.

In 2015, the Boomershine Consulting Group ("Boomershine") conducted an impact study of the above changes on the City's retiree health liability excluding the two changes effective July 1, 2016. The study estimated a cumulative cost savings of \$172.4 million over the next 40 years, assuming full pre-funding of actuarially calculated contribution amounts.

City Resource Challenges

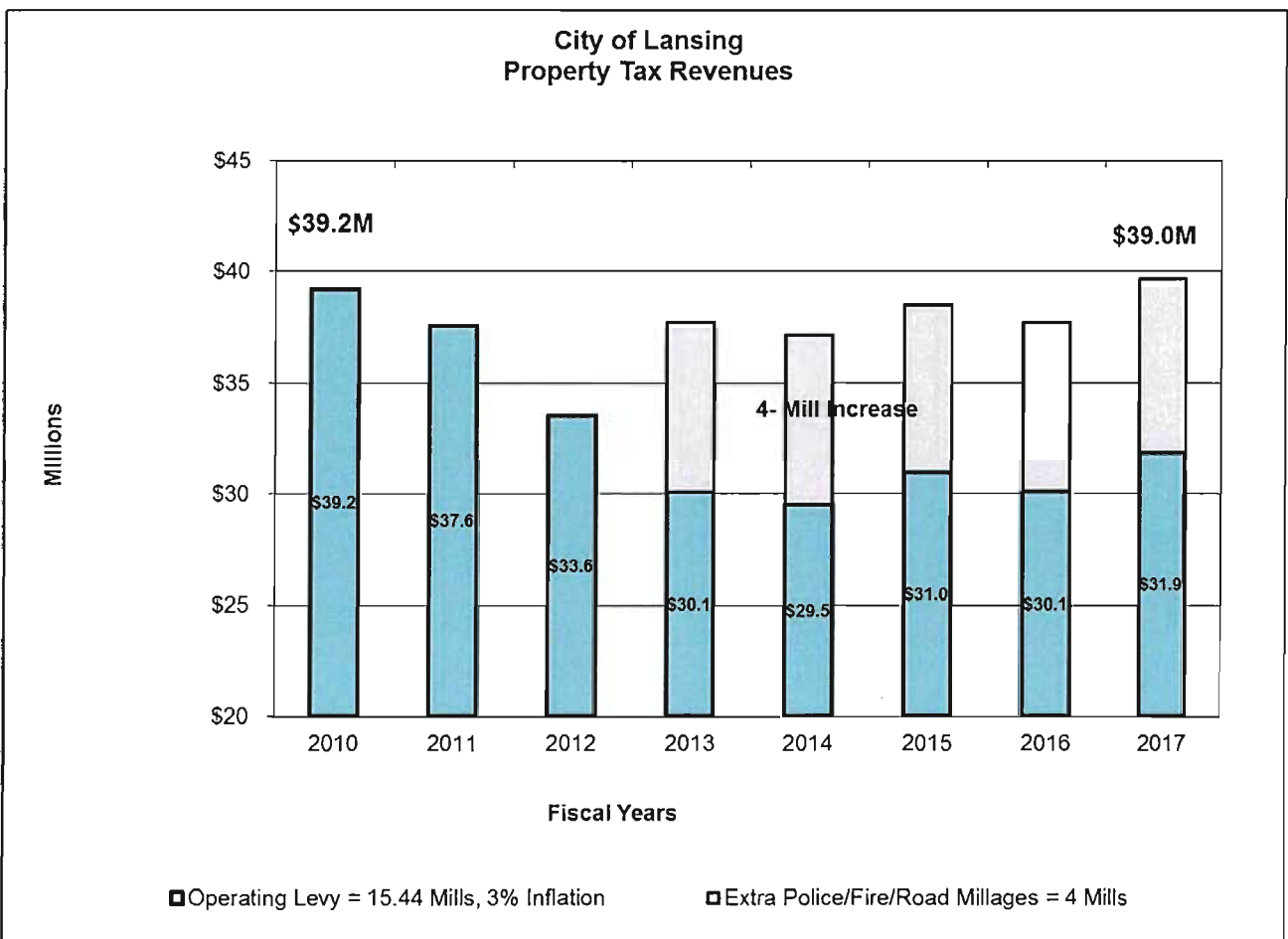
The City of Lansing, like other Michigan municipalities, is challenged in its revenue structure. The structure for Michigan's municipal funding is based on centralization of taxation and revenue diversification at the state level, with municipalities having limitations on ability to raise revenues. A prime example is sales taxes: in many other states, municipalities can levy sales taxes; in the state of Michigan, only the state is allowed to levy sales tax. This structure was predicated on revenue sharing by the state with its municipalities.

Preceding and through the Great Recession, as the State of Michigan ran into its own budgetary challenges, the statutory portion of revenue sharing to municipalities by the state was reduced by approximately \$8.1 billion. For the City of Lansing, these cuts have amounted more than \$6 million in real dollars *annually* for the City, and almost \$9 million annually when adjusted for inflation, or over \$104 million from 2002-2017.

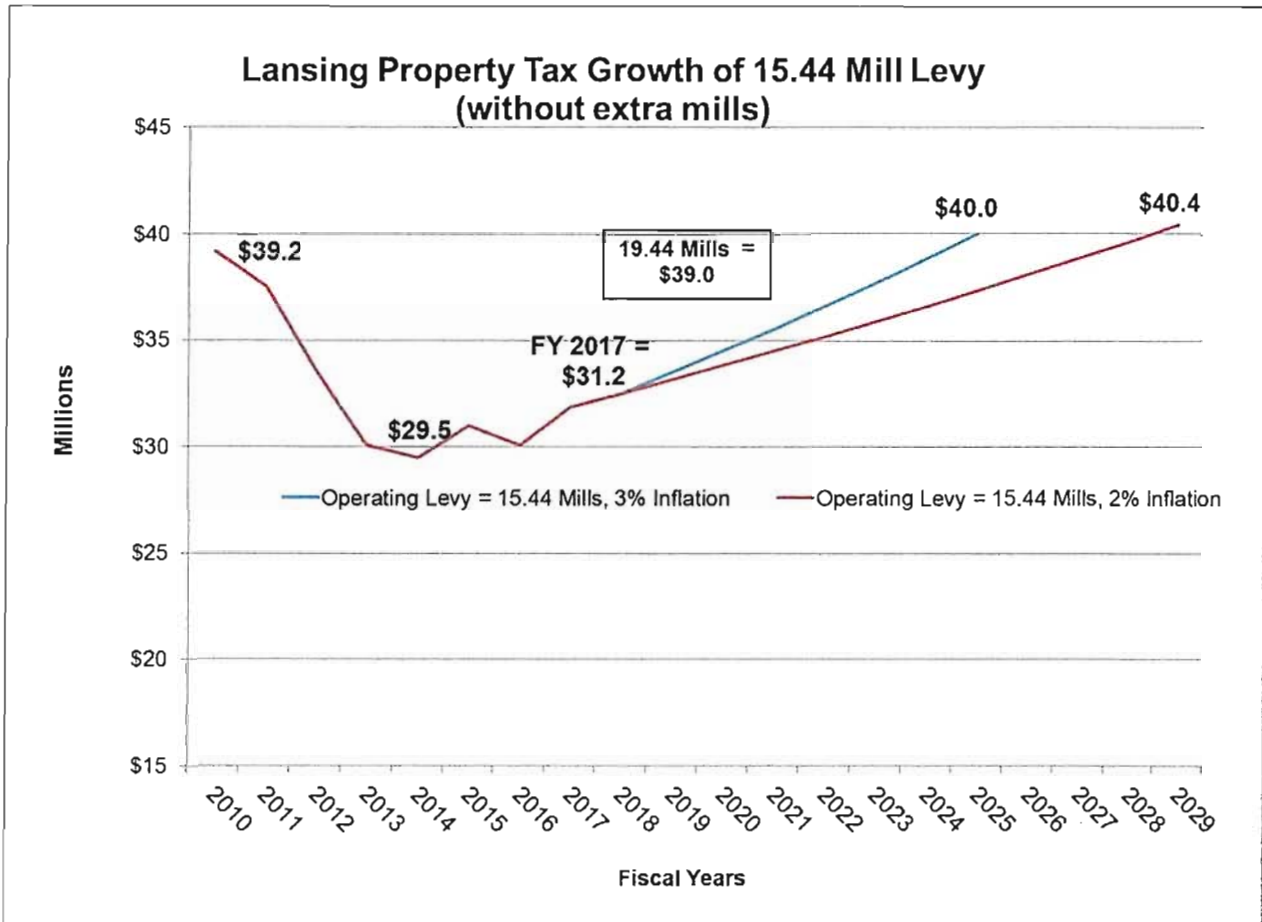


At the same time, due to limitations by the state Headlee Amendment and Proposal A, the City's (and other municipalities') largest General Fund revenue source, the property tax is limited in growth by the lesser of the rate of inflation or five percent.

During the Great Recession, as property values declined, Lansing's property taxes decreased by 25%, or \$9.7 million, over a four-year period, resulting in a four mill voted property tax increase for police, fire, and roads. While that four-mill property tax levy substantially offset that loss, it brought the City's operating levy up to 19.44 mills, which within .56 miles of the 20-mill maximum allowed for home-rule cities in the State of Michigan. As a result, the City is unable to increase its operating property tax levy much further.



As demonstrated in the following chart, because of the above-stated state limitations on property tax revenue growth from the state Headlee Amendment and Proposal A, the City anticipates property taxes to increase only 2%-3% over the next several years and that pre-recession property tax revenue levels, net of the extra four mills, will not be reached until 2025 to 2028.



These funding cuts and revenue constraints have generally affected the state's urban core communities more than others. Urban core cities, like Lansing, tend to be older communities, having aged infrastructure; tend to be built-out with limited undeveloped land; tend to have higher poverty rates; and tend to have higher legacy (pension and retiree healthcare) costs. These factors are true for the City of Lansing, which was incorporated in 1859 and has twice the number of retirees as current employees.

In response to these challenges, leading up to and during the Great Recession, the City enacted many different changes in City programs, staffing, and organization, including:

- Reducing the City's workforce by 30% since FY 2006, from 1,220 to 867
- Reducing City pension and retiree healthcare cost growth by negotiating increases in employee health insurance premium sharing, healthcare plan changes, and pension contributions
- Reducing City health insurance costs with a wrap program for Medicare-eligible retirees
- Closing 3 fire stations and eliminating associated costs

- Closing Waverly and Red Cedar Golf courses
- Closing Miller Road Senior Community Center
- Closing Washington Ice Dome and Scott House
- Consolidating functions within the City (grounds maintenance, engineering, fleet maintenance, parking enforcement, fire/building inspections)
- Consolidating functions with other governments (911, dive team)
- Entering into cooperative agreements with other governments (police and fire training, purchasing, economic development)
- Expanding mutual aid agreements and shared services studies with adjoining municipalities
- Transferring management of Sycamore Driving Range and Fenner Nature Center to non-profits
- Eliminating leased space by consolidating police Patrol and Investigations Divisions
- Increasing fees
- Implementing new technology to improve efficiency (including cash receipting, code compliance, financial system upgrades, payroll system, computerized traffic ticket system, E-filing for income taxes)
- Implementing energy efficiency measures in City buildings
- Instituting a voter-approved 4.0 mill property tax increase to mitigate further reductions to police, fire and road services

Noteworthy is the fact that the City's FY 2018 General Fund Budget is still less than the budget proposed by former Mayor Hollister in **FY 1999**, when adjusted for inflation.

During this time, the City also worked with its unions to reduce the growth of pension and retiree healthcare costs. A recent actuarial study estimates that these efforts have reduced projected costs to by over **\$200** million over the next forty years. However, the challenge remains in the projected growth of these costs, in combination with its aging infrastructure, reductions in revenue and revenue constraints in the next fifteen-to-twenty years.

As previously noted, these challenges are not unique to the City of Lansing, especially within the State of Michigan.

2 Executive Summary

The City of Lansing (City) is seeking analysis and recommendations for potential ways to mitigate the cost and liability of its outstanding pension obligations and retiree healthcare and other post-employment benefits (“OPEB”) obligations, both present and future.

Segal Consulting (Segal) was engaged by the City to perform this analysis. This report will concern itself with the OPEB plans currently sponsored by the City. The analysis of the pension plans is provided in a separate report.

Current State

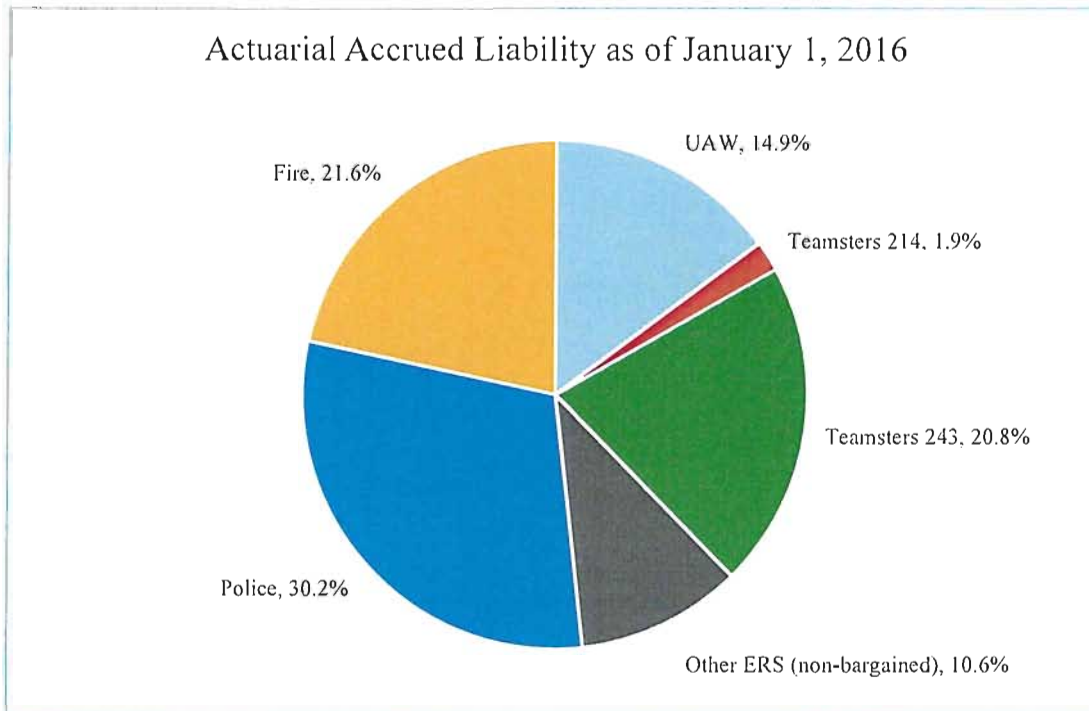
The City of Lansing sponsors a defined benefit (DB) health care program for its retirees. The benefit specifics vary by group, based on collective bargaining agreements for union groups and fringe benefit documents for non-union groups. Key features of the program are:

- Most groups receive medical and prescription drug coverage for both Medicare-eligible and non-Medicare participants, dental, vision, and full Medicare Part B reimbursement.
- No participant contributions are required for Medicare-eligible medical/prescription drug coverage, dental, or vision. Older retiree cohorts have no participant contributions for non-Medicare benefits either.
- Newer non-Medicare retiree cohorts are responsible for retiree contributions only to the extent the full premium cost exceeds the Michigan PA-152 “hard cap”. However, some groups have pension percentage limits or dollar limits on retiree contributions, which override the hard cap.
- New hires after specific dates for Teamsters 214, Teamsters 243, District Court, and most other non-bargained groups are in a separate defined contribution (DC) program and can only qualify for dental and vision benefits through the DB program. New hires of Police, Fire, UAW, and a few specific non-bargained employees are still eligible for the full DB plan, including medical, prescription drug, and Medicare B reimbursement.

Complete details of all plan provisions used for our report valuation are in Appendix A. Please note that these provisions reflect the plan of benefits Segal valued in this report, but in no way imply a promise or legal obligation on behalf of the City of Lansing to provide the benefits illustrated.

As of January 1, 2016, there are 374 actives, 52 terminated vested participants, and 865 retirees participating the defined benefit retiree health plan. Police and Fire have 346 actives, 23 terminated vested participants, and 654 retirees participating the defined benefit retiree health plan.

The current Actuarial Accrued Liability is estimated at about \$432.9 million, using a 7.25% discount rate, based on a full prefunding-based investment return rate of 7.25%. Complete details of assumptions used can be found in Appendix B. This Accrued Liability is approximately split by group as follows:



From the above chart, it can be seen that almost 90% of the Accrued Liability (\$387.0 million) is attributable to collectively bargained groups. It is also important to note that over 73% of the current Accrued Liability (\$317.6 million) is attributable to current retirees and their dependents.

Although the City of Lansing's plan is only partially funded, all calculations in this report were completed assuming that a full prefunding-based discount rate of 7.25% will be in effect going forward for illustrative purposes. If an unfunded discount rate of 4.00% were used instead, the total estimated closed group liabilities for the City's OPEB program would be over \$692.1 million.

Also, note that none of these numbers includes any of the City's pension plans or any of the new defined contribution retiree health care plans for newer hires.

Scenarios and Their Impact

In order to estimate the impact of various potential program changes, Segal created an independent actuarial valuation model as of January 1, 2016. We reviewed a number of different scenarios, in order to illustrate the impact on the Accrued Liability of various possible program design changes. The change in Actuarial Accrued Liability for each scenario is shown in Section 6 of this report.

In order to understand the impact not only on current Accrued Liability, but also on future liability, we produced a second set of scenarios that estimate the projected Accrued Liability impact as of January 1, 2046 – 30 years into the future. Since current liabilities are only based on a closed group (no new hires), the impact of certain changes to current actives or future hires would not be obvious without a long-term projection, which does incorporate assumed future hires.

Benefit Change Options for the City

In considering options for the City to pursue, one should consider:

- Impact on City's liability (magnitude of the reduction in liability)
- Prevalence of the benefits being reduced (see benchmark comparators in Section 4, as well as discussion regarding our experience with public sector retiree health programs)
- Impact on affected groups
- Difficulty of making the change (more difficult for current retirees, as an example)

In reviewing those considerations, we believe it makes sense for the City to further investigate the following options:

- **Eliminating Medicare Part B reimbursement** – The Medicare Part B reimbursement represents more than 11% of the total liability (\$47.8 million). This benefit is not offered by any benchmark comparator and our experience is that plans that had a Part B benefit in the past eliminated it years ago. Additionally, Part B premiums are a very predictable expense to budget for retired participants.
- **Eliminating subsidized dental and vision coverage** – Combined, these represent about 5% of total liability (\$21.2 million). It appears that no other comparator group provides subsidized dental or vision beyond age 65. Alternatively, these coverages could be offered with no subsidy, where retirees have access at the full premium cost.
- **Institute a percentage cost share for Medicare-eligible coverage** – The impact of this obviously depends upon the level of contribution required, but our illustrative scenario of 25% would reduce the liability by almost 13% (\$55.3 million). Monthly contributions for Medicare-eligible medical and drug coverage are a typical plan feature, in our experience. The comparators were mixed, with one city not even offering any subsidy for Medicare coverage and another with very high (but less than 100%) subsidy. Monthly contributions are predictable and easier for retirees to budget as well. We recommend a percentage of cost rather than a fixed dollar amount so that the contribution amount automatically keeps pace with inflation.
- **Replace “Option2” design with “Option1” design for Medicare-eligible medical and prescription drug coverage** – This would reduce the liability by over 9% (\$39.6 million). Increases in Medicare point-of-service cost sharing are relatively predictable expenses for retirees. While Medicare-eligible plan designs of comparators were not available for benchmarking, our experience indicates that the current AMWINS designs are relatively rich.
- **Addition and enforcement of the Michigan Public Act 152 hard cap for all groups** – Currently, the cap does not apply to legacy retiree cohorts, and many of the newer cohorts have contribution limits as a percentage of pension or a dollar amount, which override the hard cap. Adding/enforcing the cap on all groups (no contribution limits) would reduce the liability by over 16% (\$71.0 million).
- **Replace group Medicare-eligible medical and drug coverage with a “defined dollar” Health Reimbursement Account (HRA) arrangement** – This reduces the liability by 26% (\$110.8 million) to 37% (\$159.8 million), depending on the annual increases provided by the City. This design can result in a short-term “win-win” scenario for the City and the participants. Since the

liability savings is generated by the control of health care trend, however, over the longer-term health inflation will eventually reduce the value of the benefit compared to the current offering. More detail on this design and the participant impact can be found in Section 5 of this report.

- **Consider funding the DB OPEB annually with an actuarially calculated contribution amount** – This will fund the plan and provide assets to lower future contributions. However, it is recognized that this may not be practical, given the City’s resource constraints.

While the above are options that we believe are reasonable for the City to consider, an expanded list of options and impacts is presented in Section 6.

Some of these changes are mutually exclusive. For example, moving Medicare coverage to a defined dollar arrangement would make instituting a 25% participant contribution on Medicare-eligible costs irrelevant. As a result, it is important to consult with your actuary regarding the impact of multiple changes, since they are not necessarily additive.

Note that the above numbers assume the changes are made to all current and future retirees. Section 6 of this report breaks down these scenarios, so that one can see the impact of grandfathering current retirees.

While no changes are “painless”, a combination of one or more of these items may be a way for the City to help manage its retiree health liability both currently and into the future.

3 Assumption and Method Review

The assumptions and methods used to produce the City of Lansing's results used in this report are detailed in Appendix B. This section focuses on our review of assumptions utilized by the Boomershine Consulting Group ("Boomershine") in their January 1, 2016 retiree health valuations.

The actuarial valuation of a defined benefit (DB) retiree health plan is dependent upon assumptions of future experience. These assumptions are utilized in order to project the benefits that will be paid from the system.

It is important to note that the actuarial assumptions used in the valuation do not affect the benefits that are promised to participants. Ultimately, the "true cost" of a program will be the benefits that are paid to its participants. Assumptions are used to estimate the liability of the program and to review potential funding of the cost over time.

Assumptions are used to measure factors, which are uncertain and unknowable. These assumptions are the actuary's best estimate of future events and are rarely perfectly accurate. There is no right answer, except with hindsight. The assumptions used in these calculations should be monitored and modified as appropriate, so that the true cost of the benefits paid is being measured as accurately as possible.

For the purposes of reviewing assumptions for this study, we reviewed and evaluated the following documents produced by the Boomershine Consulting Group ("Boomershine"), the plans' valuation actuaries:

- City of Lansing Employees' Retirement System Actuarial Valuation of Retiree Healthcare Benefits as of December 31, 2015 (prepared December 2016)
- City of Lansing Employees' Retirement System Actuarial Assumption Review and Experience Study Covering January 1, 2012 through December 31, 2015 (prepared December 2016)
- City of Lansing Police and Fire Retirement System Actuarial Valuation of Retiree Healthcare Benefits as of December 31, 2015 (prepared December 2016)
- City of Lansing Police and Fire Retirement System Actuarial Assumption Review and Experience Study Covering January 1, 2012 through December 31, 2015 (prepared December 2016)
- City of Lansing Employees' Retirement System Actuarial Valuation for Funding and Contributions as of December 31, 2015 (prepared October 2016)
- City of Lansing Police and Fire Retirement System Actuarial Valuation for Funding and Contributions as of December 31, 2015 (prepared October 2016)

In addition, we have had extensive discussions with Boomershine regarding the assumptions they intend to use for the January 1, 2017 valuations.

Actuarial valuation assumptions are generally divided into two groups: demographic and economic. Demographic assumptions are used to model the expected individual behavior of plan participants

and include assumptions for retirement, disability, withdrawal, and mortality. Economic assumptions are used to model financial behavior, such per capita benefit costs, healthcare trend, return on assets, and salary increases.

Demographic Assumptions

Retirement, Termination, and Disability

Segal is not in a position to independently evaluate retirement, termination, and disability rates. However, we did review the assumptions Boomershine recommends in the above experience reviews and agree they appear to be reasonable.

The percentage of disabilities assumed as duty-related is 100% for both Boomershine OPEB valuations. Boomershine's pension valuation reports use more detailed disability assumptions, which assume 95% of Police and Fire and 50% of ERS disabilities are duty-related.

Segal recommends the City consider using duty versus non-duty disability actuarial valuation assumptions that are consistent with the Boomershine pension valuation reports.

Mortality

There have been significant improvements in mortality over the last several decades. It is now common for actuaries to use mortality tables that have a built-in projection scale, so that mortality is assumed to improve over time. In fact, Actuarial Standards of Practice now specify that plan actuaries explicitly reflect the effects of mortality improvement in valuations, unless there is a specific reason for not doing so.

The Boomershine experience reviews recommend using the sex-distinct RP-2000 Table projected to 2026 with improvement Scale BB. Blue-collar adjustments are used for Police and Fire and separate rates are used for disabled lives.

Projection of the tables to a specific year will allow for some projection of future mortality, but not the total amount of projection that is implied by the improvement scale. The Society of Actuaries has published the RP-2014 mortality table as well as a generational mortality improvement scale (MP-2015).

Segal recommends the City consider using updated mortality tables with a fully generational projection scale. The results in this report utilize the Approximate 2006 Headcount-Weighted Mortality Tables with full generational projections from 2006 using Scale MP-2015 instead of the RP-2000 Mortality Tables projected to 2026 with Scale BB as recommended in the December 2016 Experience Studies. This caused the Accrued Liability to be approximately 1.4% (\$6.1 million) higher than if we had used the Boomershine assumption.

Retirement Age of Terminated Vested Participants

The Boomershine OPEB reports assume that, within each group, all terminated vested participants elect to receive their retiree health benefits at a single age.

This single age assumption is common for pension valuations, because the presence of early retirement reduction factors minimizes the difference between liabilities at different retirement ages. However, a single age assumption does not generally work as well for valuing retiree health benefits, because not only do more years of benefit receipt mean higher liability, but also years received prior

to attainment of Medicare age are significantly more expensive than those years after Medicare eligibility.

Segal recommends that the City consider developing a distribution of terminated vested health plan retirement age assumption rates, which vary by age and group.

Spouse/Dependent Assumptions

Segal is not in a position to independently evaluate independent spouse married rates, spouse/child election rates, or spouse/child age assumptions. We did review them and agree they appear to be reasonable.

The Boomershire OPEB reports use actual spouse date of birth to determine marital status for both actives and retirees. While this is typical for current retirees, it is more common for valuations to assume a married percentage for active participants at the point of retirement, since their status often changes between the valuation date and the time they retire.

Segal recommends that the City consider using a percentage married at retirement assumption for currently active employees, rather than actual married status at the valuation date.

Economic Assumptions

Investment Return Rate

Segal is not in a position to independently evaluate the investment return rate assumption. However, we did review the 7.25% assumption Boomershire recommends in the above experience reviews and agree that it appears to be reasonable.

Healthcare Trend Rates

The Boomershire December 31, 2015 OPEB valuations use a non-Medicare combined medical and prescription drug initial trend rate of 6.5% and graded down to 4.5% at 0.5% annually. Segal agrees that an ultimate non-Medicare trend rate of 4.5% is reasonable.

In the current economic environment, it is typical for OPEB valuations to use a higher initial non-Medicare trend and a long-term period to grade down to the ultimate rate (for example, an initial non-Medicare combined trend rate of 8.5% and grading down to 4.5% at 0.25% annually).

The City may wish to consider using a higher initial non-Medicare combined medical/prescription drug trend rate, and may also wish to consider lengthening the grading period to the ultimate rate.

The Boomershire OPEB valuations use a Medicare combined medical and prescription drug trend rate of a flat 4.5%. Segal agrees that an ultimate Medicare-eligible trend rate of 4.5% is reasonable.

In the current economic environment, it is typical for OPEB valuations to use a higher initial Medicare-eligible trend and a long-term period to grade down to the ultimate rate (for example, an initial Medicare-eligible combined trend rate of 6.5% and grading down to 4.5% at 0.25% annually).

The City may wish to consider using a higher Medicare-eligible combined medical/prescription drug initial trend rate, with a grade down period to the ultimate rate. The results in this report utilize the trend rates suggested above, instead of those used in the Boomershire Consulting

December 31, 2015 valuation report. This caused the Accrued Liability to be approximately 8.5% (\$33.9 million) higher than if we had used the Boomershine assumption.

Segal agrees with the reasonableness of a flat 4.5% annual trend for Medicare Part B, dental, and vision.

Michigan Public Act 152 Increase Rate

Since the City's non-Medicare benefits are subject to the Michigan Public Act 152 hard cap for many of the newer retiree cohorts, an assumption about the rate of increase in the hard cap is required for the valuation. The Boomershine OPEB valuations use a trend rate of 3.5% on the hard cap amount.

Given both the historical increases in the cap and the current economic environment, the City may wish to consider using a lower trend rate on the hard cap. For example, 3.0% might be more in line with historical increases and the current inflation environment.

Per Capita Claim Cost

Segal reviewed the per capita claim cost development performed by Boomershine, which was used in their January 1, 2016 OPEB valuations, and we agree it is reasonable based on the information provided to Boomershine by the City.

Segal recommends that the City track and report on non-Medicare claim experience for both Blue Cross Blue Shield of Michigan (BCBSM) and Physicians Health Plan (PHP) separately for the ERS versus Police and Fire groups. Additionally, we recommend that the City have AMWINS track and report on claims for both the insured Medicare Supplement plans and the insured Express Scripts Prescription Drug Plans (PDPs) separately for the ERS versus Police and Fire groups. Ongoing tracking and reporting of these claims separately by group will allow the most accurate per capita cost assumptions going forward.

Segal reviewed per capita cost assumptions for the dental, vision, and Medicare Part B benefits and agree that they appear to be reasonable.

Wage Inflation and Salary Scale

The Boomershine experience studies recommend a base wage inflation of 2.75%, which we find to be reasonable.

The Boomershine January 1, 2016 OPEB valuation reports use a flat 2.75% base wage inflation with no additional salary increase components. Since the actuarial cost method used is Entry Age Normal as a level percentage of salary, the salary increase assumptions have an impact on the Actuarial Accrued Liability.

Boomershine's pension valuation reports use more detailed salary increase assumptions, which reflect additional increase components about the base wage inflation rate.

Segal recommends the City consider using actuarial valuation salary increase assumptions that are consistent with the Boomershine pension valuation reports.

Funding and Amortization Method

In order to determine the Actuarial Accrued Liability, the actuary applies a funding method to allocate benefits to past and future service. There are several methods commonly used in this process.

For the City's OPEB plans, the method used is the Entry Age Actuarial Cost Method as a level percentage of salary. This method is the most commonly used allocation method in the public sector and results in relatively stable contributions as a percent of payroll. In fact, this is the method required by new GASB OPEB Accounting Statements No. 74 and No. 75.

The amortization period of both the ERS and the Police and Fire OPEB plans is **partially** closed with 26 years remaining as of January 1, 2016. The partially closed amortization period means that, according to the plans' funding policies, the funding period will decrease each year until the remaining period is 15 years, at which point it will remain at 15 years. Closed periods have the feature that every dollar of Unfunded Accrued Liability will be fully amortized by a certain date, although required contributions can become very volatile in the final years of the amortization period. This volatility can be managed through a funding policy that tracks the source of change in Unfunded Accrued Liability by year and amortizes each year's change in Unfunded Accrued Liability over a closed period.

The plan's policy is to use an open 15-year amortization period when there are 15 years remaining in the funding period. The Boomershire experience reviews recommend changing the length of this period to 10 years for the ERS pension system. Open periods are often used in the public sector, but are not expected to fully amortize the Unfunded Accrued Liabilities by a specified date. An important concept in funding benefit plans is "negative amortization".

When Unfunded Accrued Liability payments are made as a percent of payroll, the dollar amount of payments rise over time as the payroll base increases. Because smaller payments are made at the beginning of the payment period, the Unfunded Accrued Liability will increase for several years, and then rapidly decrease in the last few years of the period. This is a result of the payments in early years not being sufficient to pay the interest accruing on the Unfunded Accrued Liability. While this type of payment stream is commonly used to fund public sector plans, it is important that stakeholders understand this effect.

Payments on the Unfunded Accrued Liabilities are made using a projection of future payroll increases for the groups. This is done in order to reflect the growth of payroll over the payment period. In years where total payroll growth is less than the assumption, payments toward the Unfunded Accrued Liability will be less than assumed. This will have the effect of increasing required payments in the future.

An alternative to amortizing plan funding on a level percentage of pay basis would be to make payments on the Unfunded Accrued Liability on a level dollar basis. This method would amortize the Unfunded Accrued Liability with an unchanging payment over the period, similar to a home mortgage. Although the dollar amount would remain the same, the payments as a percent of payroll would decrease as the period goes on. This would have the effect of amortizing the Unfunded Accrued Liability more quickly, but it would also result in higher payments in early years.

Segal recommends that the OPEB plans evaluate the use of an open amortization period when the plans reach the 15-year (or 10-year) open funding period. We recommend that consideration be given to adopting a funding policy that targets 100% funding over a reasonable time-period.

Summary of Assumption and Method Review

Segal recommends that the City consider the following:

- Use actuarial valuation duty versus non-duty disability assumptions that are consistent with the Boomershire pension valuation reports.
- Use updated Society of Actuaries mortality tables with a fully generational projection scale.
- Develop a distribution of terminated vested health plan retirement rates that vary by age and group.
- Use a percentage married at retirement assumption for currently active employees, rather than actual married status at the valuation date.
- Review the non-Medicare trend rate assumption, and possibly use a higher non-Medicare combined medical/prescription drug initial trend rate. The City may also consider lengthening the grading period to the ultimate rate.
- Review the Medicare-eligible combined medical/prescription drug trend rate assumption, and possibly use a higher combined initial trend rate, along with a reasonable grading period to the ultimate rate.
- Given both the historical increases in the cap and the current economic environment, consider lowering the trend rate of 3.5% on the hard cap.
- Track and report on non-Medicare claim experience for both Blue Cross Blue Shield of Michigan (BCBSM) and Physicians Health Plan (PHP) separately for the ERS versus Police and Fire groups. Have AMWINS track and report on claims for both the insured Medicare Supplement plans and the insured Express Scripts Prescription Drug Plans (PDPs) separately for the ERS versus Police and Fire groups.
- Use actuarial valuation salary increase assumptions that are consistent with the Boomershire pension valuation reports.
- Evaluate the use of an open amortization period when the plans reach the 15-year (or 10-year) open funding period. Consider adopting a funding policy that targets 100% funding over a reasonable time-period.

4 Peer Group Benchmarking

In order to compare the adequacy of plan design, funding methods, benefit provisions, and other features of the City of Lansing retiree healthcare benefits, we have assembled information from other programs, as directed. This peer group consists of eight groups from three cities in Michigan. The eight groups included are:

- City of Ann Arbor — General Employees
- City of Ann Arbor — Police
- City of Ann Arbor — Fire
- City of Grand Rapids — General Employees
- City of Grand Rapids — Police
- City of Grand Rapids — Fire
- City of Southfield — General Employees
- City of Southfield — Police and Fire

The City of Warren was also asked to participate, but we were not able to get enough detailed information to include them in the comparator group.

The information used in this report was obtained from the following sources:

- “City of Ann Arbor Retiree Health Care Benefits Plan Retiree Health Actuarial Valuation Under GASB 45 Valuation Date: June 30, 2016” prepared by Buck Consultants, November 2016
- “City of Grand Rapids General Other Postemployment Benefits Actuarial Valuation Report June 30, 2015” prepared by Gabriel Roeder Smith, January 2016
- “City of Grand Rapids Police Other Postemployment Benefits Actuarial Valuation Report June 30, 2015” prepared by Gabriel Roeder Smith, January 2016
- “City of Grand Rapids Fire Other Postemployment Benefits Actuarial Valuation Report June 30, 2015” prepared by Gabriel Roeder Smith, January 2016
- “City of Grand Rapids 2015 Trend Report” prepared by Gabriel Roeder Smith, November 2014
- “City of Southfield Retiree Health Care Benefits Plan and Trust Actuarial Valuation Report as of June 30, 2015” prepared by Gabriel Roeder Smith, February 2016

We have grouped the results into the following tables shown below:

- Table 1 — Program Size (Defined Benefit Retiree Health Only)
- Table 2 — Key Financial Information (Defined Benefit Retiree Health Only)
- Table 3 — Other Financial Comparisons (Defined Benefit Retiree Health Only)
- Table 4 — Funding Policy and Amortization Methods
- Table 5 — Actuarial Assumptions Used in Most Recent GASB Accounting Valuations
- Table 6 — Retirement Eligibility
- Table 7 — Types of Benefits Provided (Defined Benefit Retiree Health Only)
- Table 8 — Other Plan Features (Defined Benefit Retiree Health Only)
- Table 9 — Approximate Employer Subsidy Percentage (Defined Benefit Retiree Health Only)

Note that these tables all focus on employees and retirees eligible for a defined benefit (DB) retiree health plan. Many of the groups have a defined contribution (DC) health plan, where the employee and/or employer make specific contributions each year to an individual account, during active service. Whatever amount is in the account at retirement defines the benefit – like a 401(k) or 403(b) plan versus a defined benefit pension plan. The groups with DC programs are:

- Lansing Teamsters 214, if hired January 1, 2015 or later
- Lansing Teamsters 243, if hired May 19, 2014 or later
- Lansing Teamsters 243 District Court and District Court non-bargained, if hired July 1, 2016 or later
- Lansing other non-bargained, if hired July 1, 2016 or later (excludes Council Staff, Executive Management, Mayoral Staff, City Mayor, City Clerk, and Judges)
- Grand Rapids, all employees, if hired after 2001
- Southfield Police, if hired March 1, 2014 or later
- Southfield Fire, AFSCME, TPOAM, ACS, Management, and Court, if hired September 12, 2011 or later
- Southfield PSS, if hired May 31, 2013 or later
- Southfield PST, if hired April 10, 2014 or later

Note that while Ann Arbor does not technically have a DC plan for its newer hires, it has a hybrid type defined dollar program for these groups. They get \$2,500 per year of service allocated to a notional account, which can be drawn down upon retirement to pay for claims or premiums. This defined dollar hybrid plan was effective for dates of hire ranging from July 1, 2011 to July 1, 2012, depending on the specific group.

Table 1 – Program Size (Defined Benefit Retiree Health Only)					
Group	Actives	Terminated Vested	Retirees	Inactive to Active Ratio	Annual Pay-As-You-Go Net Cost
Lansing UAW	136	1	227	1.7	\$ 2,710,000
Lansing Teamsters 214	20	12	29	2.1	\$ 300,000
Lansing Teamsters 243	173	2	355	2.1	\$ 3,980,000
Lansing All Other ERS	<u>45</u>	<u>37</u>	<u>254</u>	6.5	<u>\$ 2,710,000</u>
Lansing ERS – Total	374	52	865	2.5	\$ 9,700,000
Ann Arbor General*	488	0	540	1.1	\$ 8,710,000
Grand Rapids General**	817	0	335	0.9	\$ 5,730,000
Southfield General	238	33	266	1.3	\$ 3,920,000
Lansing Police	186	18	323	1.8	\$ 5,680,000
Lansing Fire	<u>160</u>	<u>5</u>	<u>331</u>	2.1	<u>\$ 5,370,000</u>
Lansing Police & Fire – Total	346	23	654	2.0	\$ 11,050,000
Ann Arbor Police*	120	0	174	1.5	\$ 3,010,000
Ann Arbor Fire*	77	0	140	1.8	\$ 2,310,000
Grand Rapids Police**	295	26	95	0.7	\$ 2,100,000
Grand Rapids Fire**	201	4	95	0.6	\$ 2,370,000
Southfield Police & Fire	197	1	283	1.4	\$ 5,120,000

* *Ann Arbor retiree counts exclude those with only retiree life insurance benefits*

** *Grand Rapids retiree counts exclude Medicare-eligible retirees, since they receive no subsidized benefit*

Observations

- The City of Lansing has the largest combined number of DB health participants of all cities compared
- Lansing's program also has the largest ratio of inactives per active. This is problematic, because employer funding is typically expressed as a percentage of active payroll. The City's high ratios exacerbate generational equity issues in funding the benefits.
- Grand Rapids counts are misleadingly low, because the DB retiree health arrangement closed in 2001 for all groups. Many of the Grand Rapids employees are in a DC arrangement. In addition, it appears that retirees on Medicare are excluded from the counts in the valuation reports, since coverage is access only (retiree-pay-all) for Grand Rapids Medicare-eligible retirees.
- Although the City of Lansing has the largest annual pay-as-you-go (cash) cost, it is attributable to their larger number of retirees. Table 3 shows that a per capita view of the cash cost is in line with other cities.

Table 2 – Key Financial Information (Defined Benefit Retiree Health Only)				
Group	Discount Rate	Accrued Liability	Employer Normal Cost	Funded Ratio
Lansing UAW	7.25%	\$ 64,370,000	\$ 810,000	
Lansing Teamsters 214	7.25%	\$ 8,390,000	\$ 80,000	
Lansing Teamsters 243	7.25%	\$ 90,060,000	\$ 530,000	
Lansing All Other ERS	7.25%	\$ 45,870,000	\$ 130,000	
Lansing ERS - Total	7.25%	\$ 208,690,000	\$ 1,550,000	21.8%
Ann Arbor General	7.00%	\$ 174,580,000	\$ 2,110,000	51.8%
Grand Rapids General	5.00%	\$ 56,080,000	\$ 1,010,000	16.1%
Southfield General	5.50%	\$ 103,740,000	\$ 1,690,000	14.7%
Lansing Police	7.25%	\$ 130,570,000	\$ 2,120,000	
Lansing Fire	7.25%	\$ 93,640,000	\$ 1,190,000	
Lansing Police & Fire - Total	7.25%	\$ 224,210,000	\$ 3,310,000	12.9%
Ann Arbor Police	7.00%	\$ 70,610,000	\$ 710,000	51.8%
Ann Arbor Fire	7.00%	\$ 46,500,000	\$ 540,000	51.8%
Grand Rapids Police	5.00%	\$ 57,140,000	\$ 1,530,000	34.6%
Grand Rapids Fire	5.00%	\$ 38,170,000	\$ 1,230,000	32.2%
Southfield Police & Fire	5.50%	\$ 142,320,000	\$ 2,230,000	30.4%

Observations

- The discount rates of the other comparators are not so much a function of investment return assumptions, as they are of funding status over time
 - Plans with a contribution policy that indicates they are expected to remain solvent indefinitely can use a full long-term investment return assumption for GASB valuations. Only the City of Ann Arbor currently fits that description.
 - Plans not expected to remain solvent and/or approach 100% funding, must blend the full return assumption with a rate earned on general assets - typically around 4.0%, for GASB accounting purposes. That is why most of the plans show a blended rate of 4.5% to 5.5%.
 - Although the City of Lansing's plan is only partially funded, all calculations in this report were completed assuming that a full prefunding-based discount rate of 7.25% will be in effect going forward for illustrative purposes. If an unfunded discount rate of 4.00% were used instead, the total estimated closed group liabilities for the City's OPEB program would be over \$692.1 million.
- Accrued Liability and Normal Cost (cost of benefits accruing during the year) are a function of more than just benefit design, but also demographics and assumptions
- Other than Ann Arbor, no group is even 35% funded on its OPEB plans, which often do not have the legislative requirements that apply to defined benefit pension plans

Table 3 – Other Financial Comparisons (Defined Benefit Retiree Health Only)				
Group	Actuarially Calculated Contribution	Pay-As-You-Go Per Retiree	Employer Normal Cost Per Active	Ratio of Actuarial Contribution to Pay-As-You-Go Cost
Lansing UAW		\$ 11,938	\$ 5,956	
Lansing Teamsters 214		\$ 10,345	\$ 4,000	
Lansing Teamsters 243		\$ 11,211	\$ 3,064	
Lansing All Other ERS		\$ 10,669	\$ 2,889	
Lansing ERS – Total	\$ 12,210,000	\$ 11,214	\$ 4,144	1.26
Ann Arbor General	\$ 6,470,000	\$ 16,130	\$ 4,324	0.74
Grand Rapids General*	\$ 4,930,000	\$ 17,104	\$ 2,745	0.86
Southfield General	\$ 8,340,000	\$ 14,737	\$ 7,101	2.13
Lansing Police		\$ 17,585	\$ 11,398	
Lansing Fire		\$ 16,224	\$ 7,438	
Lansing Police & Fire – Total	\$ 16,190,000	\$ 16,896	\$ 9,566	1.47
Ann Arbor Police	\$ 2,470,000	\$ 17,299	\$ 5,917	0.82
Ann Arbor Fire	\$ 1,700,000	\$ 16,500	\$ 7,013	0.74
Grand Rapids Police*	\$ 4,130,000	\$ 22,105	\$ 9,053	1.97
Grand Rapids Fire*	\$ 2,970,000	\$ 24,947	\$ 7,640	1.25
Southfield Police & Fire	\$ 9,680,000	\$ 18,092	\$ 11,320	1.89

* Grand Rapids per capita calculations exclude Medicare eligible retirees, since they receive no subsidized benefit

Observations

- The actuarially calculated contribution is often a function of amortization period and method, along with the same factors affecting Accrued Liability and Normal Cost (cost of benefits accruing during the year)
- Showing results on a per capita basis removes pure group size out of the comparison
- The City's ERS cash cost per retiree is favorable relative to other groups. This may reflect a higher blend of lower cost post-65 retirees relative to other groups.
- The City's Police and Fire cash cost per retiree is much higher than ERS, partly due to a higher non-Medicare mix, and partly due to more grandfathering of richer benefit designs
 - However, the Police and Fire cost is on the low side of the other public safety comparators
- The Grand Rapids very high cash cost per retiree is biased from the fact that it appears retirees eligible for Medicare are excluded from the counts in the valuation report. This leaves only non-Medicare retirees, who always have a much higher per capita cost.

- Lansing's ERS Normal Cost (cost of benefits accruing during the year) per active is favorable relative to other groups. This reflects the efforts taken by the City to increase eligibility requirements to 55/25 for most recent hire groups and the elimination of Medicare benefits for recent hires of UAW and District Court.
- Lansing's Police and Fire Normal Cost per active is the highest of any group other than Southfield Police and Fire. This reflects the rich benefit designs, lack of retiree contributions required for Medicare coverage, and the fact that Police retirees have a separate contribution limit as 1% of pension, which overrides the impact of the Michigan Public Act 152 hard cap for non-Medicare retirees.
- Groups like Ann Arbor that are making more actuarial based contributions (and are expected to fully fund the plan over time) are now at a point where their actuarial calculated contribution under GASB accounting is lower than their cash cost
- Lansing's ERS group is expected to have a low ratio of actuarial contribution to cash cost, due to the fact it has richer benefits that are front-loaded to legacy retiree groups
- Lansing's Police and Fire group is expected to have an actuarial contribution much higher than cash cost, because the benefits are not particularly front-loaded, as newer retirees will get similarly rich benefits to current retirees

Table 4 – Funding Policy and Amortization Methods				
Group	Employer Contribution Policy	Amortization Method	Payroll Growth Rate	Amortization Period
Lansing ERS	2.5% of payroll for UAW and old plans; 4.0% of payroll for new plans	Level % of pay	3.1%	Partially closed: 26 years decreasing to 15 year open
Ann Arbor General	2% annual increases until plan is 100% funded	Level % of pay	3.5%	Open: 30 years for GASB
Grand Rapids General	Pay-as-you-go already exceeds actuarial amount	Level dollar	N/A	Closed: 17 years
Southfield General	Partial funding of actuarially calculated contribution	Level dollar	N/A	Closed: 26 years
Lansing Police & Fire	2.48% of payroll	Level % of pay	3.1%	Partially closed: 26 years decreasing to 15 years open
Ann Arbor Police	2% annual increases until plan is 100% funded	Level % of pay	3.5%	Open: 30 years for GASB
Ann Arbor Fire	2% annual increases until plan is 100% funded	Level % of pay	3.5%	Open: 30 years for GASB
Grand Rapids Police	Actuarially calculated	Level dollar	N/A	Closed: 23 years
Grand Rapids Fire	Actuarially calculated	Level dollar	N/A	Closed: 25 years
Southfield Police & Fire	Partial funding of actuarially calculated contribution	Level dollar	N/A	Closed: 26 years

Observations

- Lansing's amortization period is only partially closed, which is expected to keep the plan from being on a path to 100% funding over the long-term
- On the other hand, Lansing's plans have legislative funding requirements as a percentage of payroll, while the other survey participants do not appear to have any such guarantees
- Although Ann Arbor uses an open period for GASB accounting, their actual contribution policy has been to increase contributions 2% each year, which results in full funding over time

Table 5 – Actuarial Assumptions in Most Recent GASB OPEB Valuations				
Group	Investment Return	Medical/Rx Non-Medicare Health Trend	Medical/Rx Medicare Health Trend	Healthy Mortality Tables
Lansing ERS	7.25%	6.5% to 4.5% over 4 years	4.5% flat	RP-2000 to 2008 with 100% scale BB and to 2023 with 50% scale BB
Ann Arbor General	7.00%	8.25% to 4.5% over 15 years	6.25% to 4.5% over 13 years	RP-2000 to 2007; +2 male; -3% female; fully generational with scale AA
Grand Rapids General	5.00%	8.0% to 3.5% over 9 years	8.0% to 3.5% over 9 years	RP-2014 to 2019 with MP-2014
Southfield General	Unknown (5.9% blended for GASB)	9.0% to 4.0% over 10 years	9.0% to 4.0% over 10 years	RP-2000 to 2015; +1 year males
Lansing Police & Fire	7.25%	6.5% to 4.5% over 4 years	4.5% flat	RP-2000 to 2008 with 100% scale BB and to 2023 with 50% scale BB
Ann Arbor Police	7.00%	8.25% to 4.5% over 15 years	6.25% to 4.5% over 13 years	RP-2000 to 2007; +2 male; -3% female; fully generational with scale AA
Ann Arbor Fire	7.00%	8.25% to 4.5% over 15 years	6.25% to 4.5% over 13 years	RP-2000 to 2007; +2 male; -3% female; fully generational with scale AA
Grand Rapids Police	Unknown (5.0% blended for GASB)	8.0% to 3.5% over 9 years	8.0% to 3.5% over 9 years	RP-2014 to 2019 with MP-2014
Grand Rapids Fire	Unknown (5.0% blended for GASB)	8.0% to 3.5% over 9 years	8.0% to 3.5% over 9 years	RP-2014 to 2019 with MP-2014
Southfield Police & Fire	Unknown (5.5% blended for GASB)	9.0% to 4.0% over 10 years	9.0% to 4.0% over 10 years	RP-2000 to 2015

Observations

- Lansing and Ann Arbor have similar investment return assumptions. It is difficult to compare to Grand Rapids and Southfield, because their GASB OPEB reports do not provide an explicit assumption for investment return that goes into calculating the blended partial funding rate
- Lansing uses more aggressive short-term health trend rates than the comparators – both in terms of the initial rate and the period to grade to ultimate
- On the other hand, Lansing's ultimate trend is at the high end of the comparators
- Although Lansing's use of RP-2000 as the base mortality table is mirrored by two of the comparators, the new RP-2014 table used by Grand Rapids is becoming an industry standard
- Ann Arbor uses a fully generational improvement scale, which is becoming standard in actuarial valuations. However, other comparator groups are still projecting to a fixed year.

Table 6 – Retiree Health Eligibility (Age/Service)				
Group	New Hires	Hired 1/1/2011	Hired 1/1/2001	New Hire Terminated Vesting
Lansing UAW	50/25	50/25	58/15 OR 50/25	25 years
Lansing Teamsters 214	50/25 (dental/vision only)	58/15 OR 50/25	55/15 OR 50/25	25 years (dental/vision only)
Lansing Teamsters 243	50/25 (dental/vision only)	50/25	58/15 OR 50/25	25 years (dental/vision only)
Lansing All Other ERS	most are 50/25 (dental/vision only)	most are 55/15	most are 55/15	most 25 years (dental/vision only)
Ann Arbor General	Notional \$2,500 per year/svc only	60/5 OR 50/20	60/5 OR 50/20	Not eligible
Grand Rapids General	RHSA only	RHSA only	RHSA only	RHSA only
Southfield General	RHSA only	57/20 OR 60/15	57/20 OR 60/10	Not DB eligible
Lansing Police	50/25	any/25	55/15 OR any/25	25 years
Lansing Fire	50/25	any/25	55/15 OR any/25	25 years
Ann Arbor Police	Notional \$2,500 per year/svc only	55/5 OR any/25 OR 50/20	55/5 OR any/25 OR 50/20	Not eligible
Ann Arbor Fire	Notional \$2,500 per year/svc only	55/5 OR any/25 OR 50/20	55/5 OR any/25 OR 50/20	Not eligible
Grand Rapids Police	RHSA only	RHSA only	RHSA only	RHSA only
Grand Rapids Fire	RHSA only	RHSA only	RHSA only	RHSA only
Southfield Police & Fire	RHSA only	most are any/20	any/20	RHSA only

Observations

- All comparator groups have effectively eliminated their defined benefit retiree health plans for newer hires
 - Grand Rapids and Southfield new hires receive a retiree savings account (RHSA)
 - Ann Arbor new hires receive a notional allocation of \$2,500 per year of service
- While Lansing has eliminated the DB program for most ERS groups (and UAW provides new hires with Medicare-eligible benefits only), Police and Fire new hires still receive the current retiree health program, with no participant contributions for Medicare-eligible retirees and rich Medicare Supplement plans
- Lansing has been aggressive about pushing service requirements to 25 years for most groups, including Police and Fire. Hires grandfathered into the comparator defined benefit plans generally required no more than 20 years of service, and less than that in many cases.
- Actives grandfathered into the comparator defined benefit plans of Southfield and Grand Rapids Police and Fire allowed vesting of retiree health benefits
- However, Ann Arbor and Grand Rapids General did not allow any terminated vesting for retiree health benefits

Table 7 – Types of Benefits Provided (Defined Benefit Retiree Health Only)					
Group	Non-Medicare Medical/Rx	Medicare Medical/Rx	Medicare Part B	Dental	Vision
Lansing UAW	Yes	If DOH < 10/21/13	If DOH < 10/21/13	Yes	Yes
Lansing Teamsters 214	Yes	Yes	Yes	Yes	Yes
Lansing Teamsters 243	Yes	Yes	Yes	Yes	Yes
Lansing District Court	Yes	If DOH < 4/1/14	If DOH < 4/1/14	Yes	No
Lansing All Other ERS	Yes	Yes	Yes	Yes	Yes
Ann Arbor General	Yes	Yes	No	No	No
Grand Rapids General	Yes	Access only	No	Yes < 65; >65 access only	Yes < 65; >65 access only
Southfield General	Yes	Yes	No	Not clear	Not clear
Lansing Police	Yes	Yes	Yes	Yes	Yes
Lansing Fire	Yes	Yes	Yes	Yes	Yes
Ann Arbor Police	Yes	Yes	No	No	No
Ann Arbor Fire	Yes	Yes	No	No	No
Grand Rapids Police	Yes	Access only	No	Yes < 65; >65 access only	Yes < 65; >65 access only
Grand Rapids Fire	Yes	Access only	No	Yes < 65; >65 access only	Yes < 65; >65 access only
Southfield Police & Fire	Yes	Yes	No	Not clear	Not clear

Observations

- All comparator groups provide non-Medicare medical/prescription drug for those in a DB health plan
- Grand Rapids only provides retiree-pay-all coverage to Medicare retirees, but the other comparators do subsidize medical/Rx coverage for Medicare-eligible participants
- No other comparator provides reimbursement for Medicare Part B premiums, while Lansing provides full reimbursement to almost everyone
- Ann Arbor does not provide any retiree dental or vision coverage and Grand Rapids only provides a dental/vision subsidy for non-Medicare retirees. It was not clear from the Southfield valuation report if subsidized dental and/or vision coverage is provided.
- Lansing provides free dental and vision coverage to almost all participants regardless of Medicare status. This includes newer hires not otherwise in the DB retiree health program and spouses/dependents who are not eligible to receive medical or prescription drug coverage.

Table 8 – Other Plan Features (Defined Benefit Retiree Health Only)

Group	Dependent Spouse Coverage	Surviving Spouse Coverage	Dependent Child Coverage	OPEB Life Insurance Benefit	In-Service Participant Contributions
Lansing UAW	DOH < 10/21/13	As spouse, if J&S	As spouse	None	None
Lansing Teamsters 214	Yes	As spouse, if J&S	As spouse	None	None
Lansing Teamsters 243	Yes	As spouse, if J&S	As spouse	None	None
Lansing District Court	DOH < 4/1/14	As spouse, if J&S	As spouse	None	None
Lansing All Other ERS	DOH < 7/1/07	As spouse, if J&S	As spouse	None	None
Ann Arbor General	Yes	If pension payable	Yes	\$ 5,000	None
Grand Rapids General	Yes	Until earlier of ret/spouse age 65	No	No	None
Southfield General	Yes	If J&S	No	No	2% of pay
Lansing Police	DOH < 8/1/14	As spouse, if J&S	As spouse	\$ 3,000	None
Lansing Fire	DOH < 8/1//14	As spouse, if J&S	As spouse	\$ 3,000	None
Ann Arbor Police	Yes	If pension payable	Yes	\$ 10,000	None
Ann Arbor Fire	Yes	If pension payable	Yes	\$ 10,000	None
Grand Rapids Police	Yes	Until earlier of ret/spouse age 65	No	No	None
Grand Rapids Fire	Yes	Until earlier of ret/spouse age 65	No	No	None
Southfield Police & Fire	Yes	If J&S	Yes	No	2% of pay

Observations

- Lansing has been aggressive about eliminating spouse/dependent coverage eligibility for newer hires, or requiring them to pay the full cost. Other cities still cover spouses in the DB program.
- All groups other than Grand Rapids treat surviving spouses as a joint spouse, as long as a survivor pension is being received
- Grand Rapids only provides benefits to surviving spouses until the earlier of when the spouse reaches age 65 or when the retiree would have reached age 65. However, Grand Rapids Medicare retiree benefits are participant-pay-all anyway.
- Southfield Police and Fire and Ann Arbor provide dependent child coverage, while Grand Rapids and Southfield General do not
- Only Lansing and Ann Arbor provide an OPEB death benefit, and they are relatively small flat amounts
- Requiring participants to make **in-service** contributions to their DB retiree health plan is not as common as it is for pension plans, but Southfield does require participants to contribute 2% of pay to the plan

Table 9 – Approximate Employer Subsidy Percentage (Defined Benefit Retiree Health Only)				
Group	Non-Medicare Retiree Age 60	Non-Medicare Spouse Age 60	Medicare Retiree Age 70	Medicare Spouse Age 70
Lansing UAW (DOR > 9/30/14)	100% of City paid plan to PA-152 cap; ret contrib. max 1% of pension for Opt1	Same, if eligible	100%, if eligible	100%, if eligible
Lansing Teamsters 214	100% of City paid plan to PA-152 cap	Same	100%	100%
Lansing Teamsters 243 (DOR > 2/19/04)	100% of City paid plan to PA-152 cap; ret contrib. max \$ or 1% pension for Opt1	Same	100%	100%
Lansing District Court (T243 & Non-Bargained)	100% of City paid plan to PA-152 cap; ret contrib. max 1% of pension for Opt1*	Same, if eligible	100%, if eligible	100%, if eligible
Lansing All Other ERS (DOR > 6/30/07)	100% of City paid plan to PA-152 cap	Same, if eligible	100%	100%, if eligible
Ann Arbor General ⁽¹⁾	94% city paid	96% city paid	92% city paid	95% city paid
Grand Rapids General ⁽²⁾	70% city paid	63% city paid	0% city paid – access only	0% city paid – access only
Southfield General ⁽³⁾	99% city paid	99% city paid	98% city paid	98% city paid
Lansing Police (DOR > 10/12/15)	100% of City paid plan to PA-152 cap; ret contrib. max 1% of pension	Same, if eligible	100%	100%, if eligible
Lansing Fire (DOR > 6/30/13)	100% of City paid plan to PA-152 cap	Same, if eligible	100% for most	100%, if eligible
Ann Arbor Police ⁽¹⁾	94% city paid	96% city paid	92% city paid	95% city paid
Ann Arbor Fire ⁽¹⁾	94% city paid	96% city paid	92% city paid	95% city paid
Grand Rapids Police ⁽⁴⁾	77% city paid	72% city paid	0% city paid – access only	0% city paid – access only
Grand Rapids Fire ⁽⁵⁾	77% city paid	72% city paid	0% city paid – access only	0% city paid – access only
Southfield Police & Fire ⁽⁶⁾	100% city paid	100% city paid	100% city paid	100% city paid

* 1% pension limit for District Court Non-Bargained not in the fringe document, but is currently administered for participants

- (1) Assumes High Option Plan selected
- (2) Assumes non-union retiree with 20 years of service
- (3) Assumes union retiree hired before January 1, 2007
- (4) Assumes GRPOA retiree with 20 years of service
- (5) Assumes retiree with 20 years of service
- (6) Assumes Police retiree

Observations

- Ann Arbor requires only a small dollar contribution to receive medical/prescription drug coverage
- Southfield's General Plan required contribution vary greatly by individual union/department, but Police and Fire participants pay nothing, while many General Plan participants pay a very small amount
 - On the other hand, Southfield requires in-service participant contributions to the DB retiree health plan of 2% of payroll
- Grand Rapids non-Medicare contribution is calculated as a percentage of a blended retiree premium rate
 - The percentage is somewhat based on service and group, but it caps out at 80% City paid with either 25 or 30 years of service
- Grand Rapids Medicare contribution is the full separate premium rate determined for Medicare participants
- Lansing provides non-Medicare benefits at no cost to the retiree, but subject to the Michigan Public Act 152 hard cap amounts for newer retiree cohorts. However, many of the Lansing groups have 1% pension limits or dollar amount limits on the amount the participant is required to pay, overriding the cap for those groups.
 - For Lansing groups truly under the hard cap, participants will pay a larger portion of the total cost each year for non-Medicare coverage, if the cost is in excess of the Michigan Public Act 152 hard cap
- Lansing provides Medicare benefits at no cost to the retiree
- All groups treat spouses similarly to retirees in terms of required contributions, assuming the spouse is eligible at all

Overall Benchmarking Observations

- Lansing has the largest ratio of retirees per active. This is problematic, because employer funding is typically expressed as a percentage of active payroll. Lansing's high ratios exacerbate generational equity issues in funding the benefits.
- Lansing's Police and Fire cash cost per retiree is much higher than ERS, partly due to a higher non-Medicare mix, and partly due to more grandfathering of richer benefit designs
 - However, the Police and Fire cost is on the low side of the other public safety comparators
- Lansing's ERS Normal Cost (cost of benefits accruing during the year) per active is favorable relative to other groups. This reflects the efforts taken by the City to increase eligibility requirements to 55/25 for most recent hire groups and the elimination of Medicare-eligible benefits for UAW and District Court hires after 2014.
- Lansing's Police and Fire Normal Cost per active is the highest of any group, other than Southfield Police and Fire. This reflects the rich benefit designs, and the lack of required retiree contributions.
- Lansing's amortization period is only partially closed, which is expected to keep the plan from being on a path to 100% funding over the long-term
- Lansing's Police and Fire new hires still receive the current DB retiree health program, with no participant contributions for Medicare-eligible retirees
 - All other comparator groups have effectively eliminated their defined benefit retiree health benefits for newer hires – even for public safety employees
- Lansing has been aggressive about pushing service requirements to 25 years for most groups, as well as eliminating spouse/dependent coverage for new hire cohorts. Most other groups require 20 years or less on their most recent hires still eligible for the DB retiree health program.
- Lansing provides some extra benefits beyond basic medical and prescription drug coverage that comparators are not providing
 - No comparator provides even partial Medicare B premium reimbursement
 - No comparator provides any subsidized dental or vision coverage for Medicare retirees
- Lansing appears to be the only comparator interacting with the Michigan Public Act 152 hard cap for its non-Medicare benefits
 - Careful attention must be paid as to how non-Medicare design and/or contribution decisions are impacted by the presence of the hard cap
- Lansing provides rich fully insured Medicare Supplement and prescription drug coverage, while requiring no participant contributions. Southfield Police and Fire is the only other group to be 100% employer paid, but they also require participant in-service contributions to fund the plan.

5 Program Design Alternatives

Affected Groups and Cohorts

A principal part of any design change is to decide which cohorts will be affected by the change and which ones (if any) will be grandfathered into keeping their previous benefits. Cohorts are typically defined by date of hire and/or by date of retirement. It is also possible to use some formula, for example, age + service, to determine grandfathering rules.

Reducing/eliminating benefits or increasing contributions for current retirees provides the most immediate impact to current liability. However, this is often a difficult group to change as retirees often feel they have been “promised” their current benefits levels, whether or not there is any actual promise from a legal standpoint. Additionally, it may be argued that those already retired are in the least favorable position to adjust to any program changes, as they have no time to plan retirement under the new conditions. Any changes to current retirees directly affects the annual program cash cost (also called “pay-as-you-go” cost), whereas changes to other current or future participants affect the current and/or future liability, but do not significantly impact the immediate cash cost.

Another set of participants to consider is terminated (also called deferred) vested former employees. These participants represent about 1% of the currently liability (\$5.1 million). This group has not actually retired, which may impact legal standing as well as public perception. For those who have reached eligibility age, many of the same points discussed for retired participants above also apply. Those old enough to retire immediately may also change their retirement behavior to avoid being affected by any new design changes (choosing to retire immediately). This could, in turn, affect the City’s cash cost in the short-term.

Some active employees have already reached benefit eligibility based on the applicable age/service requirements. In this way, they are similar to the terminated vested group. However, they may still have some opportunity to plan and adapt to benefit changes. Program changes could be defined so that those already eligible are grandfathered, but any such grandfathering obviously reduces the potential savings of the changes. The fact that they are currently active may very well affect options from a legal standpoint, particularly those under a collective bargaining agreement. Finally, this group could also elect to retire immediately, prior to the effective date of any design changes. As a result, all changes must be considered with care, since those changes can affect retirement behavior patterns, and potentially create skilled resource problems for the City.

Active employees not yet eligible for benefits represent the majority of the current City employees, although they do not represent a majority of the liability. These younger and/or lower service employees would have more time to adjust to program changes and plan accordingly for retirement. As such, it may be deemed more palatable to apply benefit changes to this group than to current retirees or those immediately able to retire. However, several factors limit the impact of changes to this group on the City’s current OPEB liability:

- Liability for active participants is less than the full present value of their future benefits. Instead, a participant’s current liability accrues from the date of hire to the date of decrement. The method used in the City’s actuarial valuation is to allocate the liability over that period as a level percentage of salary. When an employee progresses in their career, their salary increases, so there

is a steep increase in current liability from hire date (no liability) to decrement date (full present value of future benefits). Although other actuarial allocation methods exist, this is the most common method for public sector entities and is also the method that is required by the latest GASB OPEB accounting standards.

- Actives employees may still terminate (withdraw) from service with no benefit eligibility, which reduces their present value of future benefits.
- Since active employees will not receive OPEB benefits immediately, they are further away from actually incurring any benefit cash flows, so the present value of benefits is further discounted.
- Due to prior plan design changes over time, active cohorts typically have less generous benefits already, so there is less liability to affect.

Finally, there are those future employees who have not yet been hired as of the valuation date, but are assumed to be hired in the future. Since current actuarial liability is calculated on a closed group basis, this group has no effect at all on current liability. However, this group becomes increasingly more impactful as time goes on and can have a significant effect on estimated future liability and cash cost. Therefore, it is important to look at a long-term open group projection, in order to understand the significance of changes to these future employees. As a result, when we show plan change scenarios in Section 6, we show the impact on liability as of the current valuation date, and also projected 30 years into the future.

Since the impact of many potential design changes varies greatly depending on which groups they apply to, in Section 6 we have provided the impact of scenarios under the approach of having the changes apply to all current and future retirees, as well as having them apply only to future retirees. Additionally, some scenarios only affect future hires (cohort g. under scenarios 1/2/3/4), which do not affect the results as of the valuation date, but do affect the 30-year projection results.

Eligibility Requirements

One key design feature to any retiree health program is the combination of age and/or service required to retire and receive benefits. Examples are:

- Age 55 and 20 years of service
- Age + service = “80 points”
- Age 60 and 10 years of service OR 25 years of service

While defined benefit pension plans usually accrue a benefit multiplier based on service, OPEB plan benefits do not lend themselves as easily to this kind of benefit multiplier approach. However, age and/or service can be used to determine the level of benefits received. For example, an employer could require age 55 and 5 years of service for eligibility, but pay 80% of costs for employees with 25 years of service and reduce the employer paid amount by 4% for each year of service less than 30. That kind of design rewards people with longer service time.

The City has increased service requirements over the years for most groups, so that they now require a minimum of 25 years of service and a minimum age of 50 or 55. Due to the amount of service now required of new hires, an age/service based benefit level is not practical for the newest cohorts of employees. However, this approach might be applied to employees in older cohorts, requiring (for example) those with 15 years of service to pay higher participant contributions and those with more

service to pay lower contributions, until maxing out benefits at 25 years of service. Such a design would require changing benefits for current active employees hired some years ago. We did not model any specific scenarios around this idea, but we could discuss further with the City if that idea is of interest.

Another eligibility concept is whether an employee can separate from service and still claim a benefit in the future, when their age would have made a benefit payable. This is the concept of “vesting” and is a feature of all pension plans, but not all OPEB plans. Terminated vesting for retiree health is almost unheard of in the corporate world, but is not uncommon for the public sector. Although many of the City’s new hires are not eligible for defined benefit health coverage (except dental/vision), older active cohorts are typically eligible with whatever years of service would have been required to be retirement eligible. We illustrate the impact of eliminating terminated vesting in Section 6 (scenario 13).

We also reviewed the impact of eliminating non-duty related disabilities from eligibility for retiree health benefits. Since most Police and Fire disabilities are duty-related, the impact of this change is low and is shown in Section 6 (scenario 14).

Spouse and Dependent Coverage

Eligibility of a retiree may or may not mean their spouse and/or dependents are eligible for benefits. The City’s most recent hire cohorts are generally not eligible for spouse or dependent child coverage of medical and prescription drug benefits.

We reviewed the impact of eliminating coverage for spouses and children. The impact is quite large if spouses of current retirees are affected. Even if only spouses of future retirees are affected, there is still a moderate liability reduction. These are quantified in Section 6 (cohorts b. and e. in scenarios 1/2/3/4).

We also reviewed the impact of eliminating coverage only on dependent children. However, because they are only covered until age 26 and because the average cost of children is lower than adults, eliminating children has a very low impact on liability.

Some plans allow spouses to elect coverage, but provide no subsidy, so that the spouse pays 100% of the cost. Our understanding is that Teamsters 214 and some other non-bargained ERS groups have this feature. From a liability standpoint, this arrangement is equivalent to eliminating benefits for spouses. However, such an arrangement also requires careful underwriting, updating, and monitoring of full cost premium equivalent rates, in order to ensure the spouse is truly paying 100% of the cost. In particular, non-Medicare premiums must be calculated based on non-Medicare retiree claim experience alone. Blending in active experience creates an “implicit rate subsidy” and does not eliminate non-Medicare retiree liability. Another disadvantage of allowing this “access only” coverage is it creates anti-selection - meaning that the sicker spouses will tend to be the ones willing to pay the full cost. This raises the per capita premiums for all of the retiree health plan participants.

A separate question relates to the treatment of surviving spouses, after a retiree is deceased. For example, some plans limit survivor coverage to age 65 (Medicare eligibility) or even to the earlier of age 65 or when the retiree would have reached age 65. In the public sector, it is common to treat surviving spouses as retirees, as long as they are pension annuitants. This is the approach currently used by the City. We reviewed the impact of eliminating surviving spouse coverage in Section 6 (cohorts c. and f. in scenario 2).

Benefits Offered

The City's OPEB benefits include medical and prescription drugs for both Medicare- and non-Medicare-eligibles, dental, vision, and Medicare Part B reimbursement.

It is common for employers provide retiree medical and prescription drug coverage only for non-Medicare retirees/dependents on the theory that once Medicare is available, participants have guaranteed issue supplement coverage available in the individual market, which is highly regulated. We examined the impact of eliminating Medicare-eligible coverage (including Medicare Part B reimbursement). This has a large impact on the liability, as can be seen in Section 6 (scenario 2). If the City wishes to explore this option, it should make sure to note treatment of post-65 retirees not eligible for free Medicare Part A, as discussed in Section 8 of this report.

The converse idea of providing Medicare-eligible coverage, but not providing non-Medicare coverage is not a common design, since it is those prior to Medicare age that need protection the most. In addition, removing non-Medicare retiree coverage is likely to have an impact on retirement patterns – with people tending to stay longer to keep their active health coverage under age 65. Although we would not recommend this option, we did review the impact of eliminating non-Medicare medical and prescription drug coverage in Section 6 (scenario 1). It is important to note that non-Medicare benefits are a much larger portion of total liability for Police and Fire groups than they are for ERS groups. This is because the public safety employees retire at earlier ages and because the Police pension 1% participant contribution limit overrides the PA-152 cap.

The Medicare Part B reimbursement benefit is quite significant at about 11% of the grand total current liability (\$47.8 million). The benchmarking in Section 4 and our general experience indicates that this benefit is not common anymore. Even in plans that still have it, it is not usually 100% of the premium, as it is for the City. Based on the significance of this benefit coupled with the benchmarking results, this may be an area the City wishes to consider making a change. We illustrate the impact of eliminating only the Part B reimbursement in Section 6 (scenario 4).

The City currently provides free dental coverage to everyone and free vision coverage to everyone except District Court retirees. The Benchmarking in Section 4 (as well as our experience) shows that it is not typical to provide subsidized dental or vision coverage at all. Those groups that do provide coverage, often only subsidize it until age 65. Although much less costly than medical, dental and vision do constitute about 5% of the total current liability (\$21.2 million). Given this and the benchmark results, this is another area the City may wish to review. Our understanding is that the City intends to continue providing free dental and vision to participants not eligible for the defined benefit retiree health plan. This is basically the entire liability for most of the newest ERS hires. We illustrate the impact of eliminating subsidized dental and vision coverage in Section 6 (scenario 3).

In addition, Police and Fire retirees receive a \$3,000 life insurance benefit. We reviewed the impact of eliminating the life insurance benefit and it is almost zero, due to the relatively low and flat benefit amount (scenario 5 in Section 6). As a result, we would not recommend removing this benefit for public safety employees.

Addition and Enforcement of Michigan Public Act 152 Hard Cap

Newer retiree cohorts have a choice of Option 2, Option 1, or Base plan designs for non-Medicare benefits. The choice is complicated by the Michigan Public Act 152 (PA-152) cap affecting groups differently. For example, Police have little incentive to choose the less rich Option 1 or Base designs,

because they have a 1% of pension contribution limit that overrides the PA-152 cap no matter which option they select. Other groups, such as UAW, also have a 1% pension limit, but the limit does not apply if the richer Option 2 is selected. As a result, we believe it is likely most retirees in this position will migrate to Option 1, in order to preserve their contribution limit. Groups like Fire and most non-bargaining are subject to the PA-152 hard cap with no contribution limits.

We reviewed the impact of implementing, adding, and/or “enforcing” the PA-152 cap for all non-Medicare retiree participants. By enforcing, we mean having the hard cap override any participant contribution limits. The impact would be significant, but it varies greatly by group, as shown in Section 6 (scenario 10). See Section 8 of the report, for additional discussion of PA-152.

Point-of-Service Cost Sharing

Medical and prescription drug plans typically contain various payments made by participants at the point-of-service, as opposed to premiums periodically paid to the employer. This includes deductibles, copays, and coinsurances. Most of the City’s older retiree cohorts have rich legacy plan designs with low amounts of cost sharing, making the cost of those plans relatively expensive for the City.

Newer retiree cohorts have a choice of Option 2, Option 1, or Base plan designs for non-Medicare benefits. However, as discussed above, this choice is greatly affected by each group’s interaction with the PA-152 cap. We examined the impact of having retirees all receive the Option 1 plan design (in a non-choice environment) or having all retirees receive the Base plan design (in a non-choice environment). As seen in Section 6 (scenarios 6 and 7), the impact varies by group, but it does have some impact on the overall liability – especially the Base plan.

For Medicare-eligible benefits, the City made a decision to offer newer retiree cohorts the richer “Option 2 based” Medicare Supplement and prescription drug coverages through AMWINS, as opposed to requiring the less rich “Option 1 based” or “Base level” benefits. Section 6 (scenarios 8 and 9) illustrates the impact of providing those Option 2 or Base level benefits. The impact is significant, because the higher deductibles have a large impact on the cost of the Medicare Supplement insurance. Also, there is no interaction with the Michigan PA-152 cap, so all participants are affected. A less rich design for medical and prescription drugs for Medicare-eligible retirees may be something the City wishes to consider.

Participant Contributions

This section discusses monthly participant contributions made during retirement, and not in-service contributions to the retiree health plan. While in-service contributions are not nearly as common for retiree health as they are for pension plans, participant contributions in retirement are very common for retiree health programs.

The contribution can be expressed as a fixed dollar amount or as a percentage of full cost. The advantage to a percentage of cost is that the dollar amounts automatically inflate over time as the 100% cost inflates over time. Fixed dollar amounts need to be evaluated periodically to prevent their impact from declining over time.

As discussed in the “Eligibility” section above, contributions may be age and/or service based. Contributions are often different for retirees versus spouses/dependents. It is also common for the percentage of cost to vary for non-Medicare versus Medicare-eligible coverage.

The City's non-Medicare contributions for medical/prescription drugs are defined by the PA-152 cap or by pension or dollar limits for some groups (see above discussion). However, no contributions are required at all for Medicare-eligible medical/prescription drug coverage. This could be an area the City wishes to review. There are infinite amounts of potential contribution scenarios, but for illustrative purposes in Section 6 we show the impact of requiring a 25% contribution for all Medicare eligible participants (scenario 11).

Group Medicare Advantage Plans

For Medicare-eligible participants, many employers who still wish to sponsor a defined benefit group plan are moving to group Medicare Advantage plans as a way to reduce costs.

In contrast with Medicare Supplement designs, Medicare Advantage (MA) and Medicare Advantage Prescription Drug (MAPD) plans are offered by private insurers that contract with Medicare to provide benefits, **in lieu of Medicare**, to Medicare-eligible retirees. These MA and MAPD plans completely replace traditional Medicare Parts A and B; they also replace Medicare Part D in the case of an MAPD plan.

Medicare Advantage plans generally cover the same services as Parts A and B, but often impose different cost-sharing strategies, such as office visit copayments and out-of-network coinsurance differentials. Annual deductibles and out-of-pocket maximums are common features. Many plans provide ancillary benefits such as hearing, dental, and exercise programs. Medicare Advantage plan enrollees must still pay the Medicare Part B premium, in addition to the premium for the Medicare Advantage plan selected.

Medicare Advantage plan funding from the federal government will vary depending on the health risk score of the covered participant group, as well as a star rating assigned to each plan. Star ratings are updated annually and are intended to measure plan quality and performance. Five stars is excellent and one star is poor. Plans with higher star ratings receive bonus funding from the federal government. Payments also vary by geographic area, with densely populated areas tending to get more funding.

Potential cost reduction through a group MA or MAPD plans is beyond the scope of the report, since it can only be evaluated via a vendor competitive bidding process. However, the City should be aware of this option for future consideration.

Other Group Plan Management Techniques

Group plans may use other price and utilization management techniques, in an attempt to reduce costs.

Examples of techniques intended to manage plan utilization and cost are:

- Disease management programs (non-Medicare or MA environment only), intended to reduce costly episodes over time, by managing and engaging chronic patients
- Mandatory generic drugs, requiring the filling prescriptions with generics whenever possible
- Tighter prescription drug formularies, requiring lower net cost drugs to be used

- Periodic competitive bidding of vendor fixed costs or insured plans
- Narrow medical provider networks, improving efficiency and/or price

These techniques are very difficult to quantify in terms of any change in actuarial liability, but they can generally be applied independently of other options discussed above. For example, retirees could receive the Option 1 plan design, but also get a more restricted drug formulary.

Defined Benefit versus Defined Contribution Plans

All of the discussion in this section up until now has focused on traditional defined benefit (DB) group health coverage, where the employer promises a plan design, providing the benefits under the specified design regardless of how much it costs.

At the other end of the scale, there are true defined contribution (DC) designs. In those plans, employer contributions (or employer matches) into individual employee accounts are made during active service. The account typically has investment options and earns interest. This is similar to a 401(k) or 403(b) DC retirement design, except the benefits are tax advantaged, as long as they are only be used on qualified expenses, such as insurance premiums, deductibles, and copays.

Similar to the trend in pension plans, many organizations are moving to this pure DC approach, because it eliminates unknown employer financial risk in future years. Also, since accounts are often structured to be portable, many younger employees identify well with something tangible, as opposed to some undefined future retirement promise.

In fact, all of the other benchmark comparators in Section 4 have moved to true DC programs for new hires. The City has done so for all groups other than Police, Fire, UAW, and a few specific ERS non-bargained employees.

Defined Dollar Plans

There is a hybrid design, which we will refer to here as a “defined dollar” (DD) approach. The idea is that each year retirees are allocated a specific dollar amount that they can use to draw upon for qualified medical expenses.

It is important to note that this DD approach has some key differences from the true DC approach discussed above:

- Accounts are only notional and no individual’s allocation is actually funded, until the individual retires and actually submits qualified health expenses for reimbursement
- The aggregate expected liability can be funded as with any other DB program. See Section 7 for more discussion of OPEB funding.
- Although defining the allocation eliminates health trend risk for the employer, there are still other risks present. For example, there may be more retirements than expected.
- DD programs as defined here still count as “defined benefit” plans for purposes of GASB accounting provisions. Therefore, the program still carries the same GASB OPEB accounting requirements as other DB retiree health programs.

- There is no employee contribution component. All allocations are employer based and there is no mechanism to “match” employee contributions made during active service.
- Participants take on the inflation risk of health care (see discussion of health trend impact later in this section)
- Participants do NOT take on investment risk, as they would in a true DC environment
- The money can be delivered to retirees in a tax-advantaged way, through a stand-alone retiree Health Reimbursement Account (HRA)

This “hybrid” DD approach has several advantages to employers and employees:

- Since employers define the amounts allocated, there is no health care inflation risk to the employer, which is the key risk in a DB group health plan approach
- The money is not actually funded until a participant retires and begins submitting reimbursable health expenses
- Budgeting of employer plan cost on a year-by-year basis is predictable
- Retirees and their dependents are not locked into a single plan design offering, but can choose among various insurance carriers, designs, and network types, based upon their own needs and preferences
- There are flexible design options around single versus family allocations, allocations varying with years of service, etc. In addition, the employer gets to determine whether the allocation increases each year and by how much.
- The employer no longer has to be in the business of maintaining and administering a retiree health plan for affected participants
- Some retirees may be able to purchase similar coverage for less money than the employer currently subsidizes
- Unused annual allocations are not lost, but rather carried over indefinitely in the HRA account, until used by the retiree

Although some organizations are considering this DD approach for non-Medicare retirees, we are not recommending that course at this time, because this approach to providing retiree health coverage depends on having a guaranteed issue environment for retirees and their dependents. Up until the recent public marketplaces created by the Affordable Care Act (ACA), non-Medicare retirees could be charged very high premiums or denied coverage completely. Although the ACA public marketplaces currently provide a guaranteed issue vehicle for non-Medicare retirees, the marketplaces are not mature and may not be financially stable. In addition, the recent change in political leadership at the federal level leaves the continued operation of the public marketplaces in doubt.

In contrast, the DD approach has worked well for many Medicare-eligible retiree groups and it may be a viable consideration. The Medicare individual market is mature and it is stable. Retirees have a

broad choice of carriers, networks, and designs. Some retirees may find they can get similar coverage for less money than the City currently spends on their behalf in the defined benefit plan.

We examined a couple of scenarios using this defined dollar approach for the City's Medicare-eligible participants, and the impact can be seen in Section 6 as moderate to large, depending on grandfathering and annual allocation increases (scenario 12). Our scenarios assume that the City would contribute 100% of the current medical and prescription drug costs to each retiree and spouse. Many employers choose to fund less than 100%, in an effort to get a greater savings and knowing that some retirees can get the same overall value on less than 100% of the current net benefit.

Note that the reduction in liability in the illustrated scenarios does not come from a reduced City cash layout for medical and prescription drug coverage, but rather from elimination or reduction of annual inflation on the allocations being less than assumed medical and prescription drug trend rates. In addition, it was assumed that Medicare Part B reimbursement would be discontinued. No change was made to dental or vision benefits.

Retiree Navigation of the Individual Medicare Market

Retirees moving from an employer-sponsored plan (with little or no need to select options) to a defined dollar approach may be overwhelmed by the array of plan options and associated marketing materials.

Plan sponsors are increasingly looking to private Medicare exchanges to assist retirees with transition from traditional benefit plans to defined dollar type plans, and to administer the HRA accounts and annual open enrollment following transition. Private Medicare exchanges have been around since about 2000, when advances in technology and availability of information made the ability for seniors to shop for health insurance a reality.

The greatest value derived from engaging an exchange vendor is the customized enrollment guidance provided to each retiree, based on each individual's travel, health status, drug utilization, provider preferences, etc. Licensed agents employed by the exchange vendor spend up to several hours on multiple phone calls, helping the retiree navigate the initial enrollment process. Re-enrollment in subsequent years involves less time, but includes the same one-on-one attention. Enrollment can be web-based, but can be completely handled by mail and phone for those without internet access or expertise. Additionally, very sick and/or elderly retirees can have an authorized representative enroll on the retiree's behalf. After coverage is purchased, retirees are directly billed by the carrier, but the exchange vendor remains available for assistance with claims and other issues that arise during the policy year.

Private exchange vendors can also provide HRA account administration services and may be able to collect plan sponsor contributions and coordinate premium payments to insurance carriers. Private exchanges earn commissions for enrolling the retirees, and those commissions are often sufficient to pay for the services rendered – at no additional cost to the employer or to the retiree. Such commissions are built directly into the individual plan premiums, so any commissions not paid to an agent or enrollment vendor are simply forfeited to the insurance carrier.

Impact on Retirees of Defined Dollar Benefit Design

There are several advantages of the DD design from the participant point of view, relative to a traditional defined benefit approach:

- Retirees and their dependents are not locked into a single plan design offering, but can choose among a broad array of designs, networks, and carriers
- Participants can choose a Medicare Supplement design or a Medicare Advantage design based on their own preferences and needs
- Retirees and spouses could choose different designs based on their separate needs
- Many retirees find they are able to purchase similar coverage for the same or less than the amount of monetary value that they were receiving from the employer DB plan
- Retirees spending less than their annual allocation can carry over unused amounts in their HRA account for use in future years

However, the City should clearly understand the impact of health trend on retirees; that impact is discussed below. Also, if the City wishes to pursue this defined dollar approach for Medicare-eligible retirees, it should make sure to note treatment of post-65 retirees not eligible for free Medicare Part A, as discussed in Section 8 of this report.

Impact of Health Trend on Retiree Costs

In order to illustrate the impact of health trend increasing at a higher rate than the HRA allocation increases, let us review an example, **which is for illustrative purposes only**:

- A retiree (no spouse) receives an HRA allocation of \$5,000 annually
- The retiree finds similar value coverage on the individual market and the premium plus all deductibles, copays, and coinsurances is \$4,500 in the first year
- Total of all premium and cost sharing increases at 4.5% annually
- The annual HRA allocation is designed to increase at 3.0% annually

Year	New HRA Allocation	HRA Balance at 1/1	Premium Plus All Cost sharing	HRA Balance at 12/31	Retiree Net Total Cost
1	\$5,000	\$5,000	\$4,500	\$500	\$0
2	\$5,150	\$5,650	\$4,703	\$948	\$0
3	\$5,305	\$6,252	\$4,914	\$1,338	\$0
4	\$5,464	\$6,802	\$5,135	\$1,666	\$0
5	\$5,628	\$7,294	\$5,366	\$1,927	\$0
6	\$5,796	\$7,724	\$5,608	\$2,116	\$0
7	\$5,970	\$8,086	\$5,860	\$2,226	\$0
8	\$6,149	\$8,375	\$6,124	\$2,252	\$0
9	\$6,334	\$8,585	\$6,399	\$2,186	\$0
10	\$6,524	\$8,710	\$6,687	\$2,022	\$0
11	\$6,720	\$8,742	\$6,988	\$1,754	\$0
12	\$6,921	\$8,675	\$7,303	\$1,372	\$0
13	\$7,129	\$8,501	\$7,631	\$869	\$0
14	\$7,343	\$8,212	\$7,975	\$237	\$0
15	\$7,563	\$7,800	\$8,334	\$0	\$534

The annual HRA allocation is enough to cover the annual premium and cost sharing for the first 8 years, but in year 9 the higher trend on the costs makes the HRA allocation insufficient to cover the

whole cost. However, the retiree has spent those first 8 years building up an HRA balance. By drawing from that balance, the retiree is able to avoid having any actual out-of-pocket costs for an additional 6 years. Finally, the HRA balance is depleted in year 15, and the retiree begins having real out-of-pocket costs.

The amount of inflation in the HRA allocation is important. For example, let us assume the same facts as in the prior example, except that the HRA allocation does not increase at all each year.

Year	New HRA Allocation	HRA Balance at 1/1	Premium Plus All Cost sharing	HRA Balance at 12/31	Retiree Net Total Cost
1	\$5,000	\$5,000	\$4,500	\$500	\$0
2	\$5,000	\$5,500	\$4,703	\$798	\$0
3	\$5,000	\$5,798	\$4,914	\$883	\$0
4	\$5,000	\$5,883	\$5,135	\$748	\$0
5	\$5,000	\$5,748	\$5,366	\$382	\$0
6	\$5,000	\$5,382	\$5,608	\$0	\$226

This time the annual HRA allocation is only enough to cover the annual premium and cost sharing for the first 3 years, but in year 4 the higher trend on the costs makes the HRA allocation insufficient to cover the whole cost. Now, the retiree has spent only 3 years building up an HRA balance. By drawing from that balance, the retiree is able to avoid having any actual out-of-pocket costs for an additional 2 years. The HRA balance is depleted in year 6, and the retiree begins having real out-of-pocket costs.

6 Estimated Impact of Select Design Alternatives

In order to estimate the impact of various potential program changes, Segal created an independent actuarial valuation model as of January 1, 2016. We reviewed a number of different scenarios, in order to illustrate the impact on the Accrued Liability of various possible program design changes.

The effect of these changes on the Accrued Liability is shown on the following two pages. The first page shows the effect on the current Accrued Liability, as of January 1, 2016.

In order to understand the impact not only on current Accrued Liability, but also on future liability, we produced a second set of scenarios that estimate the projected Accrued Liability impact as of January 1, 2046 – 30 years into the future. Since current liabilities are only based on a closed group (no new hires), the impact of certain changes to current actives or future hires would not be obvious without a long-term projection, which does incorporate assumed future hires. The scenario numbers have the same meaning across both pages, but not all scenarios are included in this second, long-term, set of projections on the second page.

Each numbered scenario indicates a benefit to be affected (i.e. “Eliminate subsidized dental and vision coverage”).

Beneath the numbered scenarios are variations showing the change applied to different participant cohorts, as follows:

- a. current and future retirees/dependents
- b. current and future spouses/children of retirees
- c. current and future surviving spouses/children of retirees
- d. future retirees/dependents
- e. future spouses/children of retirees
- f. future surviving spouses/children of retirees
- g. newly hired future retirees/dependents

Not all participant cohort variations are shown for all numbered scenarios.

The color shading indicates the relative impact on the Accrued Liability, as follows:

Orange = High impact: 15% or more reduction in total Actuarial Accrued Liability for each sub-group and and/or for the composite of all groups combined.

Yellow = Medium impact: 5% to 15% reduction in total Actuarial Accrued Liability for each sub-group and and/or for the composite of all groups combined.

Blue = Low impact: less than 5% reduction in total Actuarial Accrued Liability for each sub-group and and/or for the composite of all groups combined.

Items may not add due to rounding.

Impact of Select Alternatives on Current Accrued Liability (Dollar amounts in \$millions)

Plan Change Scenario		Decrease in accrued liability in year 1 (2016)														UAW	
		Total		Fire		Police		Police Superv		Other ERS		T214		T243			
1 Eliminate non-Medicare medical/drug coverage																	
a	for current & future retirees/dependents	\$ 142.0	33%	\$ 35.1	38%	\$ 42.4	51%	\$ 22.1	47%	\$ 5.3	12%	\$ 1.6	19%	\$ 18.6	21%	\$ 16.8	26%
b	for current & future spouses/children of retirees	\$ 70.5	16%	\$ 18.0	19%	\$ 22.3	27%	\$ 11.5	24%	\$ 2.2	5%	\$ 0.6	8%	\$ 8.1	9%	\$ 7.7	12%
d	for future retirees/dependents	\$ 54.2	13%	\$ 7.1	8%	\$ 21.6	26%	\$ 9.0	19%	\$ 0.9	2%	\$ 0.7	8%	\$ 7.0	8%	\$ 8.0	12%
e	for future spouses/children of retirees	\$ 26.2	6%	\$ 3.8	4%	\$ 10.7	13%	\$ 4.4	9%	\$ 0.4	1%	\$ 0.3	4%	\$ 2.9	3%	\$ 3.5	6%
g	for newly hired future retiree/dependents	\$ -	0%	\$ -	0%	\$ -	0%	\$ -	0%	\$ -	0%	\$ -	0%	\$ -	0%	\$ -	0%
2 Eliminate Medicare-eligible medical/drug coverage, including Medicare Part B reimbursement																	
a	for current & future retirees/dependents	\$ 268.9	62%	\$ 53.5	57%	\$ 37.4	45%	\$ 23.0	49%	\$ 38.0	83%	\$ 6.3	75%	\$ 66.6	74%	\$ 44.2	69%
b	for current & future spouses/children of retirees	\$ 117.8	27%	\$ 26.6	28%	\$ 17.7	21%	\$ 11.3	24%	\$ 15.6	34%	\$ 2.1	25%	\$ 26.2	29%	\$ 18.4	29%
c	for current & future surviving spouses/children of retiree	\$ 48.2	11%	\$ 12.1	13%	\$ 7.1	9%	\$ 5.2	11%	\$ 6.7	15%	\$ 0.6	8%	\$ 9.0	10%	\$ 7.3	11%
d	for future retirees/dependents	\$ 52.8	12%	\$ 10.4	11%	\$ 9.2	11%	\$ 3.4	7%	\$ 5.1	11%	\$ 2.2	27%	\$ 12.1	13%	\$ 10.4	16%
e	for future spouses/children of retirees	\$ 20.0	5%	\$ 4.3	5%	\$ 3.5	4%	\$ 1.4	3%	\$ 0.9	2%	\$ 0.7	9%	\$ 5.5	6%	\$ 3.7	6%
f	for future surviving spouses/children of retirees	\$ 4.6	1%	\$ 1.2	1%	\$ 0.9	1%	\$ 0.4	1%	\$ 0.2	0%	\$ 0.2	2%	\$ 1.0	1%	\$ 0.9	1%
g	for newly hired future retiree/dependents	\$ -	0%	\$ -	0%	\$ -	0%	\$ -	0%	\$ -	0%	\$ -	0%	\$ -	0%	\$ -	0%
3 Eliminate subsidized dental & vision coverage																	
a	for current & future retirees/dependents	\$ 21.2	5%	\$ 4.7	5%	\$ 3.3	4%	\$ 1.9	4%	\$ 2.6	6%	\$ 0.5	6%	\$ 4.8	5%	\$ 3.4	5%
b	for current & future spouses/children of retirees	\$ 9.7	2%	\$ 2.4	3%	\$ 1.7	2%	\$ 1.0	2%	\$ 1.1	2%	\$ 0.2	2%	\$ 2.0	2%	\$ 1.5	2%
d	for future retirees/dependents	\$ 5.5	1%	\$ 1.2	1%	\$ 1.1	1%	\$ 0.4	1%	\$ 0.4	1%	\$ 0.2	2%	\$ 1.2	1%	\$ 1.0	2%
g	for newly hired future retiree/dependents	\$ -	0%	\$ -	0%	\$ -	0%	\$ -	0%	\$ -	0%	\$ -	0%	\$ -	0%	\$ -	0%
4 Eliminate Medicare Part B reimbursement																	
a	for current & future retirees/dependents	\$ 47.8	11%	\$ 9.4	10%	\$ 6.6	8%	\$ 4.0	9%	\$ 6.8	15%	\$ 1.1	14%	\$ 12.0	13%	\$ 7.9	12%
b	for current & future spouses/children of retirees	\$ 20.9	5%	\$ 4.6	5%	\$ 3.1	4%	\$ 2.0	4%	\$ 2.8	6%	\$ 0.4	5%	\$ 4.7	5%	\$ 3.3	5%
d	for future retirees/dependents	\$ 10.0	2%	\$ 1.8	2%	\$ 1.6	2%	\$ 0.6	1%	\$ 0.9	2%	\$ 0.4	5%	\$ 2.7	3%	\$ 1.9	3%
g	for newly hired future retirees/dependents	\$ -	0%	\$ -	0%	\$ -	0%	\$ -	0%	\$ -	0%	\$ -	0%	\$ -	0%	\$ -	0%
5 Eliminate life insurance																	
a	for current & future retirees	\$ 0.6	0%	\$ 0.3	0%	\$ 0.2	0%	\$ 0.1	0%	\$ -	0%	\$ -	0%	\$ -	0%	\$ -	0%
6 Move non-Medicare medical/drug coverage to current Base plan design																	
a	for current & future retirees/dependents	\$ 22.4	5%	\$ 4.7	5%	\$ 8.2	10%	\$ 4.3	9%	\$ 0.4	1%	\$ 0.0	0%	\$ 1.9	2%	\$ 3.0	5%
d	for future retirees/dependents	\$ 8.0	2%	\$ -	0%	\$ 4.2	5%	\$ 1.8	4%	\$ 0.0	0%	\$ 0.0	0%	\$ 0.6	1%	\$ 1.4	2%
7 Move non-Medicare medical/drug coverage to current Option 1 plan design																	
a	for current & future retirees/dependents	\$ 12.6	3%	\$ 2.9	3%	\$ 5.0	6%	\$ 2.6	5%	\$ 0.2	0%	\$ 0.0	0%	\$ 0.3	0%	\$ 1.7	3%
d	for future retirees/dependents	\$ 4.4	1%	\$ -	0%	\$ 2.5	3%	\$ 1.1	2%	\$ 0.0	0%	\$ 0.0	0%	\$ 0.0	0%	\$ 0.8	1%
8 Move Medicare-eligible medical/drug coverage to Base AMWNS design																	
a	for current & future retirees/dependents	\$ 57.9	13%	\$ 12.2	13%	\$ 8.5	10%	\$ 5.2	11%	\$ 7.8	17%	\$ 1.3	16%	\$ 13.8	15%	\$ 9.2	14%
d	for future retirees/dependents	\$ 11.9	3%	\$ 2.4	3%	\$ 2.1	3%	\$ 0.8	2%	\$ 1.0	2%	\$ 0.5	5%	\$ 3.0	3%	\$ 2.1	3%
9 Move Medicare-eligible medical/drug coverage to Option 1 AMWNS design																	
a	for current & future retirees/dependents	\$ 39.6	9%	\$ 8.6	9%	\$ 6.0	7%	\$ 3.7	8%	\$ 5.2	11%	\$ 0.8	10%	\$ 9.2	10%	\$ 6.2	10%
d	for future retirees/dependents	\$ 8.2	2%	\$ 1.7	2%	\$ 1.5	2%	\$ 0.6	1%	\$ 0.7	1%	\$ 0.3	4%	\$ 2.0	2%	\$ 1.4	2%
10 Add non-Medicare PA-152 medical/drug coverage hard cap for cohorts not under it																	
a	for current & future retirees/dependents	\$ 71.0	17%	\$ 15.2	16%	\$ 27.8	33%	\$ 14.3	30%	\$ 0.9	2%	\$ 0.0	0%	\$ 6.0	7%	\$ 6.7	10%
d	for future retirees/dependents	\$ 27.4	6%	\$ -	0%	\$ 14.8	18%	\$ 6.1	13%	\$ 0.0	0%	\$ 0.0	0%	\$ 2.8	3%	\$ 3.6	6%
11 Medicare-eligible medical/drug coverage contributions at 25% of cost																	
a	for current & future retirees/dependents	\$ 55.3	13%	\$ 11.0	12%	\$ 7.7	9%	\$ 4.7	10%	\$ 7.8	17%	\$ 1.3	15%	\$ 13.7	15%	\$ 9.1	14%
d	for future retirees/dependents	\$ 11.4	3%	\$ 2.1	2%	\$ 1.9	2%	\$ 0.7	1%	\$ 1.0	2%	\$ 0.5	5%	\$ 3.0	3%	\$ 2.1	3%
12 Medicare-eligible to HRA targeting current City net medical/drug coverage cost, eliminate Medicare Part B reimbursement																	
a	for current & future retirees/dependents, 0% increases	\$ 159.8	36%	\$ 32.6	35%	\$ 23.3	28%	\$ 13.7	29%	\$ 21.4	47%	\$ 2.7	32%	\$ 39.5	44%	\$ 26.6	41%
a	for current & future retirees/dependents, 3% increases	\$ 110.8	25%	\$ 22.4	24%	\$ 15.9	19%	\$ 9.4	20%	\$ 15.4	34%	\$ 1.3	15%	\$ 27.8	31%	\$ 18.6	29%
d	for future retirees/dependents, 0% increases	\$ 41.8	10%	\$ 8.2	9%	\$ 7.4	9%	\$ 2.7	6%	\$ 3.8	8%	\$ 1.6	19%	\$ 10.5	12%	\$ 7.6	12%
d	for future retirees/dependents, 3% increases	\$ 27.8	6%	\$ 5.4	6%	\$ 4.9	6%	\$ 1.8	4%	\$ 2.6	6%	\$ 1.1	13%	\$ 7.0	8%	\$ 5.0	8%
13 Eliminate deferred vesting																	
d	for future retirees/dependents	\$ 0.6	0%	\$ -	0%	\$ 0.3	0%	\$ 0.1	0%	\$ -	0%	\$ -	0%	\$ -	0%	\$ 0.2	0%
14 Eliminate non-duty disabled benefits																	
d	for future retirees/dependents	\$ 3.1	1%	\$ 0.1	0%	\$ 0.1	0%	\$ 0.0	0%	\$ 0.9	2%	\$ 0.0	0%	\$ 0.5	1%	\$ 1.4	2%

Impact of Select Alternatives on Long-Term Projected Accrued Liability (Dollar amounts in \$millions)

Plan Change Scenario		Decrease in accrued liability in year 30 (2046)															
		Total	Fire	Police	Police Superv	Other ERS	T214	T243	UAW								
1 Eliminate non-Medicare medical/drug coverage																	
a	for current & future retirees/dependents	\$138.1	20%	\$ 18.5	10%	\$ 83.2	38%	\$22.6	31%	\$ 0.5	1%	\$ 0.0	0%	\$ 1.3	2%	\$12.0	15%
b	for current & future spouses/children of retirees	\$ 9.0	1%	\$ 2.0	1%	\$ 4.2	2%	\$ 1.5	2%	\$ -	0%	\$ -	0%	\$ 0.7	1%	\$ 0.6	1%
d	for future retirees/dependents	\$135.7	20%	\$ 17.3	9%	\$ 82.9	38%	\$22.0	30%	\$ 0.5	1%	\$ 0.0	0%	\$ 0.9	1%	\$12.0	16%
e	for future spouses/children of retirees	\$ 6.6	1%	\$ 0.9	0%	\$ 4.0	2%	\$ 0.8	1%	\$ -	0%	\$ -	0%	\$ 0.4	0%	\$ 0.6	1%
g	for newly hired future retiree/dependents	\$112.6	17%	\$ 14.4	8%	\$ 66.2	30%	\$20.8	29%	\$ 0.4	1%	\$ -	0%	\$ -	0%	\$10.7	14%
2 Eliminate Medicare-eligible medical/drug coverage, including Medicare Part B reimbursement																	
a	for current & future retirees/dependents	\$489.8	72%	\$148.5	81%	\$122.4	56%	\$45.6	63%	\$34.3	90%	\$ 9.3	90%	\$70.6	89%	\$59.1	75%
b	for current & future spouses/children of retirees	\$177.9	26%	\$ 51.5	28%	\$ 40.7	19%	\$18.7	26%	\$ 9.5	25%	\$ 2.6	26%	\$28.3	36%	\$26.5	34%
c	for current & future surviving spouses/children of retiree	\$ 93.9	14%	\$ 26.6	15%	\$ 19.7	9%	\$10.4	14%	\$ 5.6	15%	\$ 1.6	15%	\$15.5	20%	\$14.5	18%
d	for future retirees/dependents	\$353.0	52%	\$112.6	62%	\$ 98.7	45%	\$30.9	43%	\$21.5	57%	\$ 6.2	60%	\$42.2	53%	\$40.9	52%
e	for future spouses/children of retirees	\$103.4	15%	\$ 30.6	17%	\$ 25.7	12%	\$ 9.7	13%	\$ 4.0	10%	\$ 1.6	15%	\$15.2	19%	\$16.6	21%
f	for future surviving spouses/children of retirees	\$ 36.6	5%	\$ 11.1	6%	\$ 8.3	4%	\$ 3.4	5%	\$ 1.3	4%	\$ 0.7	7%	\$ 5.3	7%	\$ 6.5	8%
g	for newly hired future retiree/dependents	\$ 78.9	12%	\$ 37.3	20%	\$ 29.3	13%	\$ 9.2	13%	\$ 3.2	8%	\$ -	0%	\$ -	0%	\$ -	0%
3 Eliminate subsidized dental & vision coverage																	
a	for current & future retirees/dependents	\$ 48.8	7%	\$ 14.2	8%	\$ 11.7	5%	\$ 3.9	5%	\$ 2.6	7%	\$ 1.0	10%	\$ 7.4	9%	\$ 8.0	10%
d	for future retirees/dependents	\$ 41.3	6%	\$ 12.2	7%	\$ 10.4	5%	\$ 3.1	4%	\$ 1.9	5%	\$ 0.9	8%	\$ 5.8	7%	\$ 7.0	9%
g	for newly hired future retiree/dependents	\$ 24.6	4%	\$ 7.5	4%	\$ 6.1	3%	\$ 1.9	3%	\$ 0.8	2%	\$ 0.5	5%	\$ 3.4	4%	\$ 4.4	6%
4 Eliminate Medicare Part B reimbursement																	
a	for current & future retirees/dependents	\$ 83.3	12%	\$ 25.5	14%	\$ 21.1	10%	\$ 7.8	11%	\$ 5.7	15%	\$ 1.5	15%	\$11.8	15%	\$ 9.9	13%
b	for current & future spouses/children of retirees	\$ 29.8	5%	\$ 8.6	5%	\$ 6.8	4%	\$ 3.1	4%	\$ 1.6	6%	\$ 0.4	5%	\$ 4.7	5%	\$ 4.5	5%
d	for future retirees/dependents	\$ 60.8	9%	\$ 19.6	11%	\$ 17.1	8%	\$ 5.3	7%	\$ 3.6	10%	\$ 1.0	10%	\$ 7.1	9%	\$ 6.9	9%
g	for newly hired future retirees/dependents	\$ 14.6	2%	\$ 6.9	4%	\$ 5.4	2%	\$ 1.7	2%	\$ 0.6	1%	\$ -	0%	\$ -	0%	\$ -	0%
5 Eliminate life insurance																	
a	for current & future retirees	\$ 3.2	0%	\$ 1.5	1%	\$ 0.8	0%	\$ 0.3	0%	\$ 0.6	2%	\$ 0.0	0%	\$ 0.0	0%	\$ 0.0	0%
6 Move non-Medicare medical/drug coverage to current Base plan design																	
a	for current & future retirees/dependents	\$ 22.0	3%	\$ 0.2	0%	\$ 16.1	7%	\$ 4.4	6%	\$ 0.0	0%	\$ -	0%	\$ 0.1	0%	\$ 1.1	1%
d	for future retirees/dependents	\$ 21.6	3%	\$ -	0%	\$ 16.1	7%	\$ 4.3	6%	\$ 0.0	0%	\$ -	0%	\$ 0.1	0%	\$ 1.1	1%
7 Move non-Medicare medical/drug coverage to current Option 1 plan design																	
a	for current & future retirees/dependents	\$ 12.7	2%	\$ 0.1	0%	\$ 9.8	4%	\$ 2.7	4%	\$ -	0%	\$ -	0%	\$ 0.0	0%	\$ 0.1	0%
d	for future retirees/dependents	\$ 12.5	2%	\$ -	0%	\$ 9.8	4%	\$ 2.6	4%	\$ -	0%	\$ -	0%	\$ -	0%	\$ 0.1	0%
8 Move Medicare-eligible medical/drug coverage to Base AMWNS design																	
a	for current & future retirees/dependents	\$105.5	16%	\$ 32.6	18%	\$ 26.9	12%	\$10.0	14%	\$ 7.1	19%	\$ 1.9	19%	\$14.7	19%	\$12.3	16%
d	for future retirees/dependents	\$ 76.2	11%	\$ 24.7	14%	\$ 21.8	10%	\$ 6.8	9%	\$ 4.4	12%	\$ 1.3	12%	\$ 8.7	11%	\$ 8.4	11%
9 Move Medicare-eligible medical/drug coverage to Option 1 AMWNS design																	
a	for current & future retirees/dependents	\$ 71.7	11%	\$ 22.4	12%	\$ 18.6	9%	\$ 6.9	10%	\$ 4.7	12%	\$ 1.3	12%	\$ 9.7	12%	\$ 8.1	10%
d	for future retirees/dependents	\$ 51.9	8%	\$ 17.0	9%	\$ 15.1	7%	\$ 4.7	7%	\$ 2.9	8%	\$ 0.8	8%	\$ 5.8	7%	\$ 5.6	7%
10 Add non-Medicare PA-152 medical/drug coverage hard cap for cohorts not under it																	
a	for current & future retirees/dependents	\$ 88.2	13%	\$ 0.8	0%	\$ 67.5	31%	\$18.3	25%	\$ 0.1	0%	\$ -	0%	\$ 0.8	1%	\$ 0.8	1%
d	for future retirees/dependents	\$ 86.5	13%	\$ -	0%	\$ 67.2	31%	\$17.8	25%	\$ 0.1	0%	\$ -	0%	\$ 0.6	1%	\$ 0.8	1%
11 Medicare-eligible medical/drug coverage contributions at 25% of cost																	
a	for current & future retirees/dependents	\$101.6	15%	\$ 30.7	17%	\$ 25.3	12%	\$ 9.5	13%	\$ 7.1	19%	\$ 1.9	19%	\$14.7	19%	\$12.3	16%
d	for future retirees/dependents	\$ 73.1	11%	\$ 23.3	13%	\$ 20.4	9%	\$ 6.4	9%	\$ 4.5	12%	\$ 1.3	13%	\$ 8.8	11%	\$ 8.5	11%
12 Medicare-eligible to HRA targeting current City net medical/drug coverage cost, eliminate Medicare Part B reimbursement																	
a	for current & future retirees/dependents, 0% increases	\$457.9	67%	\$131.2	72%	\$108.4	50%	\$40.1	55%	\$34.9	92%	\$ 9.6	93%	\$72.7	92%	\$61.0	77%
a	for current & future retirees/dependents, 3% increases	\$327.9	48%	\$ 91.0	50%	\$ 75.4	35%	\$27.8	38%	\$26.1	69%	\$ 7.2	70%	\$54.6	69%	\$45.7	58%
d	for future retirees/dependents, 0% increases	\$330.4	49%	\$100.4	55%	\$ 88.1	40%	\$27.5	38%	\$21.9	58%	\$ 6.4	62%	\$43.7	55%	\$42.4	54%
d	for future retirees/dependents, 3% increases	\$236.0	35%	\$ 69.8	38%	\$ 61.4	28%	\$19.1	26%	\$16.3	43%	\$ 4.8	47%	\$32.8	41%	\$31.8	40%

7 Funding OPEB Obligations

Funding Discussion

Funding the retiree obligation provides security for both the City and the participants that funds will be available to pay the retiree health benefits. Some type of legislated actuarial-based contribution would give retirees more confidence that money will be available to pay for benefits. As a result, strong funding requirements could be used as a negotiation tool, in return for making any changes that lower the value of the overall benefit package. However, it is recognized that this may not be practical, given the City's resource constraints.

Prefunding is a proven management tool. The advantages of prefunding include longer-term savings and higher interest rate assumptions, with correspondingly lower annual required contribution levels and lower total liability amounts.

A policy for funding retiree health benefits is a concise statement of how a plan sponsor intends to pay for its retiree health benefits, including both current year costs and prefunding of future retiree health liabilities. It can be a statute, ordinance or policy document. It is usually created by the jurisdiction's governing body.

Our understanding of the City of Lansing's current OPEB funding policy for ERS is a statutory employer contribution of 2.5% of payroll for UAW and all older plan participants and 4.0% of payroll for newer non-UAW plan participants. Our understanding of the City of Lansing's current OPEB funding policy for Police and Fire is a statutory employer contribution of 2.48% of payroll. These statutory contribution amounts are not expected to be sufficient to get the plans to 100% funded over time.

In deciding whether to modify the current prefunding approach, the City may want to project the short-term and long-term costs associated with multiple approaches, ideally reviewing a number of potential contribution scenarios, in order to determine a funding policy that would work for the City.

Another consideration is the likely reactions of stakeholders. While many employees may not think much about their retirement benefits until later in their careers, employees (and retirees) are likely to feel more secure they will receive future benefits in plans that are funded at increased levels. Because public sector financing takes place in open meetings, the issue of whether to prefund the liabilities for retiree benefits or to use money for other government services, infrastructure improvements, or repair projects for the jurisdiction is at the forefront of taxpayers' attention. Elected officials may find it difficult to commit hard-won tax revenues toward prefunding liabilities for current and future retirees, where the value of those investments is not immediately apparent to taxpayers.

Amortization Methods

The goal of an appropriate funding policy is to fund the benefits payable from the plan over a reasonable period. For the purposes of generational equity, the amortization period should also be related to the working lifetime of the group being covered. An appropriate funding policy results in a contribution that funds the Normal Cost (cost of benefits accruing during the year) and includes a payment towards the Unfunded Accrued Liability, which is the amount for which assets are

insufficient to cover the benefits that have been earned in the past. Amortization of Unfunded Accrued Liability can be over a “closed” period or an “open” period.

A “closed” amortization period will reduce the Unfunded Accrued Liability of the plan over a set timeframe, ending at a specific future date. A closed period has the advantage of effectively amortizing the liability in a specified period, but it can result in volatile contributions near the end of the amortization period.

An “open” amortization period re-amortizes the Unfunded Accrued Liability of the plan each year over the same period as the previous year. The contributions under an open amortization period are less volatile than with a closed period, but the Unfunded Accrued Liability is not amortized as quickly as with a closed period and may never be amortized. Depending on the amortization period, the Unfunded Accrued Liability may actually increase under an open amortization period.

Amortization can also be done as a “level percent of payroll” or as a “level dollar” amount. “Level percent of payroll” amortization expresses the amortization payments over the future payroll of the group. An assumption must be made about the increase in payroll that is expected to occur over the amortization period. While the payments are expected to be level as a percent of pay, the amount of the payments is smaller in the earlier years of the amortization period and larger in the later years. This can result in a “negative amortization”, where the Unfunded Accrued Liability grows during the first years of the amortization period. The level percent of payroll amortization method generally results in a stable contribution rate. However, if actual payroll increases are less than expected, the actual current payments are lower and future contributions, as a percentage of payroll, will need to increase. In addition, combining the level percent of payroll method with an open amortization period can result in the “negative amortization”, where the Unfunded Accrued Liability increases every year in the future.

A “level dollar” amortization expresses the amortization payments as a fixed dollar amount over the amortization period. A typical example is a home mortgage payment, where a fixed amount is paid each month. This results in greater payments at the beginning of the period than with the level percent of payroll method. While the payments reduce the Unfunded Accrued Liability more quickly in the early years of the amortization period, the payments do not remain constant as a percent of payroll.

In some cases, retirement systems use a combination of the methods above in their funding policies. A common example is to use a short, closed period for a one-time benefit adjustment or window, while amortizing the remaining Unfunded Accrued Liability over a longer open period. Another option is using fixed-length closed periods to amortize changes in the Unfunded Accrued Liability each year.

The City of Lansing is currently using a “partially closed” hybrid amortization as a level percentage of payroll, for purposes of GASB OPEB reporting. A closed period of 26 years is amortized down to 15 years, and then the 15 years remain as an open period. This method is not expected to get the plans to 100% funding over time.

The City has options to accelerate payments toward the Unfunded Accrued Liability of the plans. A statutory policy requiring the funding of an actuarially calculated contribution would accelerate payments. An actuarially calculated contribution would increase payments by requiring funding of the Normal Cost each year PLUS an amortization payment to the Unfunded Actuarial Accrued

Liability. Payments toward the Unfunded Accrued Liabilities of the plans could be controlled by the following valuation assumptions and methods, among others:

- The initial amortization period of the plans – shorter initial period increases payments
- The payroll growth assumption – reducing the growth rate increases payments
- Investment return assumption – reducing the assumed investment return increases payments

Increased OPEB Contributions

The advantage of accelerating contribution amounts is increased assets earning investment returns, which will lower future contributions. Ultimately, the City must determine the method of funding the OPEB plans that provides for systematic payments to the Unfunded Accrued Liability, while meeting the risk profile of the City and its stakeholders.

Ideally, the City could consider accelerating its contributions to the OPEB plan. However, it is recognized that this may not be practical, given the City's unfunded liability for pension benefits and significant resource constraints noted on pages 7-10 of the Background section.

Measures the City could consider include:

- Sale of City assets, which would a one-time, non-recurring source
- Increase in the City's income tax rates, although it is understood that to do so, changes would need to be made to State of Michigan legislation.
- Levying a property tax millage. It is understood from City officials that the City Charter maximum operating property tax levy is 20.0 mills, and the City is currently levying 19.44 mills. It is also understood from City officials that 1.0 mill currently generates approximately \$2.0 million and equates to a \$50 annual increase for a taxpayer owning a house valued at \$100,000.
- Levying a local sales tax, which would require a change in State of Michigan legislation, as it is understood to currently be prohibited at the municipal level.
- The City should consider whether an OPEB obligation bond would be a means to fund the OPEB plan. There are a number of issues related to OPEB obligation bonds including that the bonds need to be issued as taxable bonds and there is a risk that there could be a major market correction when the bond proceeds are invested. Some municipalities have seen total costs, including bond debt service; increase after an OPEB obligation bond is issued. Furthermore, the debt service is a fixed cost and must be paid each year regardless of investment returns.

The City could consider exploring the transfer of public assets or the revenue generated as sources to fund the OPEB plan. In the private sector, corporations have made in-kind contributions – non-cash assets such as securities and real estate to fund their retirement plans. US Steel contributed 170,000 acres of timberland to meet its pension liabilities. Pan American World Airways transferred the lease for its flagship terminal at New York's Kennedy Airport to its pension funds. The public sector has begun to implement or consider alternative revenue sources. Some strategies are as follows:

- The private sector's practice of transferring assets to pension funds was cited in a New Jersey proposal to fund the state's beleaguered public pension plans with revenues from the state's lottery.

- In Canada, the Ontario Teachers' Pension Plan owns the licenses to operate both the British and Irish national lotteries. These assets were not in-kind contributions but rather a direct investment aimed at boosting the pension fund's returns.
- In 2010, the Pittsburgh City Council irrevocably dedicated parking revenues to the city's three employee pension funds for 31 years. The city effectively transferred the value of asset ownership to the pension plan without requiring it to assume the risks of ownership or management responsibilities.
- The City of Hartford, Connecticut plans to donate a 600-acre public park, which does not produce revenue, as partial payment of the city's annual required contribution to the Municipal Employees Retirement Fund.
- One of the most profitable in-kind contributions made to a pension fund was the conveyance in 2011 of a toll-road network owned by Australia's Queensland state government to the state's pension fund. Queensland Investment Corporation, the fund's manager, restructured the business, added two additional roads to the toll network and sold the asset three years later at a \$3.8 billion profit for the pension fund.

The City must weigh these potential options with the costs of doing nothing. In light of the City's revenue constraints, combined with its pension obligations, OPEB funding obligations could have the effect of crowding out available resources for City services, as well as or in combination with, the path of emergency financial management or bankruptcy, as experienced by some other Michigan communities.

8 Other Considerations

GASB Accounting Standards

GASB 74 (plan accounting/reporting) is effective for the first fiscal year beginning after June 15, 2016 and replaces GASB No. 43. GASB 75 (employer accounting/reporting) is effective for the first fiscal year beginning after June 15, 2017 and replaces GASB No. 45. GASB No. 75 will require employers to place the entire unfunded OPEB liability directly onto their balance sheets immediately.

The new statements also mandate a common actuarial allocation method for all entities – the Entry Age Normal method, as a level percentage of salary. In anticipation of this impending change, the December 31, 2015 Boomershine Consulting OPEB valuation reports switched the City of Lansing plans from a level dollar actuarial cost method to the level percentage of pay actuarial cost method.

These new GASB changes could spur renewed interest in prefunding of OPEB benefits. Although GASB does not require prefunding of OPEB liabilities, given how large these values are likely to be, their inclusion on financial reports will have a measurable impact on the reported financial status of many municipalities.

In light of new GASB OPEB Statements No. 74 & 75, some entities will need to re-examine their existing OPEB contribution policies. An example of a policy requiring revision is one that uses a percentage of the Annual Required Contribution (ARC) for funding, since GASB No. 74 & 75 eliminate the concept of the ARC altogether. The new statements make it clear that funding must be considered completely separate from accounting. Actuarial valuations will need to show two completely different sets of results for funding versus GASB accounting.

Although separate, the funding policy and funded status of the plans will affect the GASB accounting results, because GASB mandates that funded plans use a discount rate related to the rate of return the assets are expected to generate – in other words, the investment return assumption. Completely unfunded plans are required to use a discount rate tied to an index rate for 20-year tax-exempt general obligation municipal bonds with an average rating of AA/Aa or higher, while partially funded plans must use a blend of these two rates. Therefore, a better-funded plan will have a lower GASB OPEB obligation, not only due to having more assets, but also due to using a higher discount rate.

Michigan Public Act 152

In 2011, the State of Michigan passed Public Act 152 (PA-152), which requires that local units of government place a hard cap on their health care, institute an 80/20 cost sharing arrangement, or opt out with 2/3 vote of the governing body. The City of Lansing complies via the hard cap.

Although retired employees are exempt from the requirements of PA-152, the City's collective bargaining agreements and fringe benefit documents specify that some retiree cohorts are subject to all of the same cost sharing requirements of the active plans – including the PA-152 hard cap.

Compliance with the hard cap effectively reduces the impact of health care trend on non-Medicare medical and prescription drug benefits for those cohorts subject to the cap, since the expected inflation on the hard cap amounts is 2.5% to 3.5%, while the ultimate health care trend rate assumed

by the City is 4.5%. Most of the retiree rates for medical and prescription drug non-Medicare plans are already close to or above the current hard cap amounts.

Newer Fire retirees, all Teamsters 214 retirees, and most non-bargained newer retiree cohorts are directly subject to the hard cap, with no participant contribution limits.

The effect of the PA-152 cap is somewhat muted by the current collective bargaining agreements for UAW, Teamsters 243 City, Teamsters 243 District Court, Police (both supervisor and non-supervisor), and the fringe document for District Court non-bargained. These groups have retiree contribution limits that override the hard cap, based on a specified dollar amount and/or a specified percentage of pension benefit. However, some of these groups lose the protection of the limit, unless they choose one of the newer (and less rich) City plan designs, so the cap still has some effect on these groups, although the impact is lessened.

Note the Medicare premium rates are much lower than non-Medicare rates, and well below the hard cap amounts. As a result, there is no material impact expected for the near future on Medicare-eligible benefits.

Overall, the presence of the PA-152 legislation reduces the Accrued Liability of City's non-Medicare retiree health benefits. If PA-152 were repealed or if the City elected to opt-out, the City's January 1, 2016 OPEB liability would increase by about 6% (\$24.1 million) in total. However, the liability for the Fire group would increase by about 23% (\$21.9 million), as that group has no participant contribution limits that are overriding the hard cap. For retirees scheduled to pay the lesser of the PA-152 hard cap or a participant contribution limit, we assumed the specified contribution limit would continue to apply.

Given the interaction of the PA-152 hard cap with the City's non-Medicare costs, it will be critical that any changes made by the City consider the presence of the hard cap.

Retirees Not Eligible for Free Medicare Part A

There are likely participants who are over age 65 who are not eligible for free Medicare Part A. These are typically state or local governmental employees hired prior to March 31, 1986 who have never paid Social Security taxes for the required 10 years and who do not have a spouse whose work qualified both of them for Medicare. There are two options for handling these participants:

1. Treat them the same as any other participant not eligible for Medicare and enroll them in the non-Medicare retiree plans.
2. Require them to enroll in Medicare Parts A and B. This would require a monthly premium to buy Part A (\$411.00 in 2016) as well as paying for Part B (\$121.80 in 2016, unless making more than \$85,000 single or \$170,000 married filing jointly). The retiree would need to decide whether to purchase a Prescription Drug plan under Medicare Part D (average cost of \$42.43 in Michigan for 2016).

The monthly Part B premium may be subject to a lifetime late enrollment penalty since the participant did not first sign up when age 65. The penalty is 10% for every 12-month period the individual could have enrolled in Part B. However, it is our understanding that the penalties would be waived if the retiree had uninterrupted medical and credible drug coverage through an employer until that date and that group coverage was cancelled.

The monthly Part D premium may also be subject to a lifetime late enrollment penalty since the participant did not first sign up when age 65. The penalty is 1% per month from the period the individual could have enrolled in Part D. It is our understanding that the penalties would be waived if the retiree had uninterrupted creditable drug coverage through an employer, until that group coverage was cancelled.

Legal and Collective Bargaining Considerations

Most of the potential scenarios illustrated in Section 6 of this report would be considered changes to those retirees and/or active employees who are affected. Whenever there is a perceived change in benefits, the plan sponsor must consider the potential litigation that could arise.

The City should review all correspondence, contracts, letters, documents, etc., in order to determine what, if any, any legal promises have been made to current retirees and/or current employees (as future retirees).

Future employees are just that – employee who will be hired in the future. There is no litigation risk there. Future employees may consider the value of retiree health benefits as they make their decision to join, or to stay at, a future employer. However, this is the easiest place for the City to reduce retiree health benefits. These employees have not yet started to work and voters, many of whom do not receive retiree health benefits, may not consider this a significant issue. There may still be resistance from the national unions that represent public sector employees. Of course, the City has already eliminated defined benefit retiree health (other than dental and vision) for new retirees of most groups, but the Police, Fire, UAW, and some specific non-bargained employees are still entitled to them. Note that while changes to future hires reduce costs in the future, they will have NO impact on current OPEB liabilities, as those amounts only represent the projected costs for current active employees and current retirees.

Potential Impact on Employment and Retirement Patterns

Any change to retiree health (or pension) benefits can cause a change in retirement patterns. In the January 2014 periodical “Trends and Issues,” by the TIAA-CREF Institute, the question of “How Does Coverage by Retiree Health Insurance Affect the Age of Retirement” was explored. The findings include that the existence of retiree health benefits has an impact on public sector retirement patterns and the lack of those benefits can delay retirement. The second question applicable to this analysis is not examined – what happens if the level of retiree health benefits is reduced, but not eliminated?

Similar findings were seen in the “Does Retiree Health Insurance Encourage Early Retirement?” paper, published in the “Journal of Public Economics, Volume 104, August 2013.” Again, there is the question of whether a lower level of benefit or modification of the benefit would lead to a similar delay in retirements.

We believe it is likely that a reduction in **non-Medicare** benefits is likely to cause some effect on retirement patterns, but it is impossible to determine exactly how the retirement patterns would change.

However, a potential delay in retirement patterns has several implications, including:

1. Additional savings in retiree health benefits, since retirees will have coverage for less years of their lives. For example, they may choose to retire at age 65, rather than age 60, due to lack of health benefits for non-Medicare retirees. However, see the next point for the offsetting consequence of this choice.
2. Increase in active health benefits costs as the older active employees will work longer (not retire as quickly). While, on average, retiree health benefits costs more than active health benefits (assuming the benefit levels and required contributions are the same), this does not affect them at the individual person level. If hypothetical employee, Mary, were to work one additional year (from age 61 to age 62), her health care costs will be similar in that one year of work as compared to what they would have been if she retired at age 61.
3. Projected changes in the active workforce will not take place. If fewer employees retire, the ability to replace more expensive (payroll, benefits) older employees with less expensive (payroll, benefits) younger employees will not occur.

Because of these potential implications, changes in retiree health benefits for current active employees should consider the issue of retirement patterns.

Appendix A: Current Benefit Provisions

These plan summaries are intended to illustrate the benefits valued by Segal for purposes of this report. In no way do they imply a promise or legal obligation on behalf of the City of Lansing to provide the benefits shown here.

To save space, we did not include non-duty disability age/service requirements in the summaries. Most groups generally require the same amount of service that would be required for retiree health benefit vesting. Other non-bargained and District Court non-bargained generally require 10 years of service.

Appendix A - Retiree Benefit Summaries

Group	Police Non-Supervisory					
Status	Inactive			Active		
Cohort	Retired < 5/18/10	Retired 5/18/10 to 10/12/15	Retired > 10/12/15	Hired < 7/1/10	Hired 7/1/10 to 7/31/14	Hired > 7/31/14
Pre-Medicare Medical/Rx Coverage Type of Plan Design(s) Do Plan Designs Follow Active Plan Changes? Retiree Contributions Limit on Retiree Contribution Amounts Restriction on Retiree Contribution Limits	Various legacy No None N/A N/A	Option2 No None N/A N/A	Base/Option1/Option2 No > PA-152 cap with limits 1% of pension None	Base/Option1/Option2 No > PA-152 cap with limits 1% of pension None	Base/Option1/Option2 No > PA-152 cap with limits 1% of pension None	Base/Option1/Option2 No > PA-152 cap with limits 1% of pension None
	AMM/WINS None	AMM/WINS None	AMM/WINS None	AMM/WINS None	AMM/WINS None	AMM/WINS None
	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Retiree Only Yes Yes
	Yes if J&S form Yes	Yes if J&S form Yes	Yes if J&S form Yes	Yes if J&S form Yes	Yes if J&S form Yes	dental/vision only dental/vision only dental/vision only
Retiree Life Insurance Benefit	\$3,000*	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Opt-Out Credit Available	Yes	Yes	Yes	Yes	Yes	Yes
Retirement Eligibility Age/Service #1 Age/Service #2 Age/Service #3				55/15 any/25 N/A	any/25* N/A N/A	50/25* N/A N/A
				15 years service Age 55	25 years service Age 55	25 years service Age 55
OPEB Vesting Eligibility Service Payable						
Notes	*No life ins. If retired before 7/1/82				*Up to 2 years credit for military svc	*Up to 2 years credit for military svc

Important Note

These plan features are intended to illustrate the benefits valued by Segal for purposes of this report. In no way do they imply a promise or legal obligation on behalf of the City of Lansing to provide the benefits shown here.

Appendix A - Retiree Benefit Summaries

Group Status Cohort	Police Supervisory				
	Inactive		Active		
	Retired < 7/15/10	Retired 7/15/10 to 10/12/15	Retired > 10/12/15	Hired < 7/15/10	Hired 7/15/10 to 7/31/14
Pre-Medicare Medical/Rx Coverage Do Plan Designs Follow Active Plan Changes? Retiree Contributions Limit on Retiree Contribution Amounts Restriction on Retiree Contribution Limits	Various legacy No None N/A N/A	Option2 No \$250/\$550/\$650 Only contribute up to 5 yrs N/A	Base/Option1/Option2 No > PA-152 cap with limits 1% of pension None	Base/Option1/Option2 No > PA-152 cap with limits 1% of pension None	Base/Option1/Option2 No > PA-152 cap with limits 1% of pension None
	AMWINS None	AMWINS None	AMWINS None	AMWINS None	AMWINS None
	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Retiree Only Yes Yes
	Yes if J&S form Yes	Yes if J&S form Yes	Yes if J&S form Yes	Yes if J&S form Yes	dental/vision only dental/vision only dental/vision only
Retiree Life Insurance Benefit	\$3,000*	\$3,000	\$3,000	\$3,000	\$3,000
Opt-Out Credit Available	Yes	Yes	Yes	Yes	Yes
Retirement Eligibility Age/Service #1 Age/Service #2 Age/Service #3			55/15 any/25 N/A	any/25* N/A N/A	50/25* N/A N/A
OPEB Vesting Eligibility Service Payable			15 years service Age 55	25 years service Age 55	25 years service Age 55
Notes	*No life ins. If retired before 7/1/82			*Up to 2 years credit for military svc	*Up to 2 years credit for military svc

Important Note

These plan features are intended to illustrate the benefits valued by Segal for purposes of this report. In no way do they imply a promise or legal obligation on behalf of the City of Lansing to provide the benefits shown here.

Appendix A - Retiree Benefit Summaries

Group	Fire				Active			
Status	Inactive		Fire		Inactive		Fire	
Cohort	Retired < 7/1/11	Retired 7/1/11 to 6/30/13	Retired > 6/30/13	Hired < 7/1/06	Hired 7/1/06 to 6/30/10	Hired 7/1/10 to 7/31/14	Hired > 7/31/14	
Pre-Medicare Medical/Rx Coverage Type of Plan Design(s) Do Plan Designs Follow Active Plan Changes? Retiree Contributions Limit on Retiree Contribution Amounts Restriction on Retiree Contribution Limits	Various legacy No None N/A N/A	Option2* No 15% premium fixed by DOR N/A N/A	Base/Option1/Option2* No > PA-152 cap No Limit N/A	Base/Option1/Option2 No > PA-152 cap No Limit N/A	Base/Option1/Option2 No > PA-152 cap No Limit N/A	Base/Option1/Option2 No > PA-152 cap No Limit N/A	Base/Option1/Option2 No > PA-152 cap No Limit N/A	
	AMM/VINS None	AMM/VINS None	AMM/VINS None	AMM/VINS None	AMM/VINS None	AMM/VINS None	AMM/VINS None	
	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Retiree Only Yes Yes
	Yes if J&S form Yes	Yes if J&S form Yes	Yes if J&S form Yes	Yes if J&S form Yes	Yes if J&S form Yes	Yes if J&S form Yes	Yes if J&S form Yes	dental/vision only dental/vision only dental/vision only
Retiree Life Insurance Benefit	\$3,000*	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	
Opt-Out Credit Available	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Retirement Eligibility Age/Service #1 Age/Service #2 Age/Service #3				55/10 any/25 N/A	55/15 any/25* N/A	any/25* N/A N/A	50/25* N/A N/A	
OPEB Vesting Eligibility Service Payable				10 years service Age 55	15 years service Age 55	25 years service Age 55	25 years service Age 55	
Notes	*No life ins. if retired before 7/1/83	* Legacy if ret < 9/1/11	* Option2 only if ret < 8/1/14		*Up to 2 years credit for military svc	*Up to 2 years credit for military svc	*Up to 2 years credit for military svc	

Important Note

These plan features are intended to illustrate the benefits valued by Segal for purposes of this report. In no way do they imply a promise or legal obligation on behalf of the City of Lansing to provide the benefits shown here.

Appendix A - Retiree Benefit Summaries

Group Status Cohort	UAW					
	Inactive			Active		
	Retired < 7/1/10	Retired 7/1/10 to 9/30/14	Retired > 9/30/14	Hired < 12/1/89	Hired 12/1/89 to 3/7/10	Hired 3/8/10 to 10/20/13
Pre-Medicare Medical/Rx Coverage						
Type of Plan Design(s)	Various legacy*	Option2 No	Base/Option1/Option2 Yes	Base/Option1/Option2 Yes	Base/Option1/Option2 Yes	Base/Option1/Option2 Yes
Do Plan Designs Follow Active Plan Changes?	No	\$125/\$225/\$325	> PA-152 cap with limits 1% of pension	> PA-152 cap with limits 1% of pension	> PA-152 cap with limits 1% of pension	> PA-152 cap with limits 1% of pension
Retiree Contributions	N/A	N/A	No limit if Option2 elected	No limit if Option2 elected	No limit if Option2 elected	No limit if Option2 elected
Limit on Retiree Contribution Amounts						
Restriction on Retiree Contribution Limits						
Medicare Eligible Medical/Rx Coverage						
Type of Plan Design(s)	AMWINS None	AMWINS None	AMWINS None	AMWINS None	AMWINS None	N/A No
Retiree Contributions	Yes	Yes	Yes	Yes	Yes	No
Medicare B Premium Reimbursements	Yes	Yes	Yes	Yes	Yes	Yes
Retiree Dental Coverage	Yes	Yes	Yes	Yes	Yes	Yes
Retiree Vision Coverage	Yes	Yes	Yes	Yes	Yes	Yes
Joint Spouse Medical/Rx Coverage	Yes	Yes	Yes	Yes	Yes	dental/vision only
Surviving Spouse Medical/Rx Coverage	if J&S form Yes	if J&S form Yes	if J&S form Yes	if J&S form Yes	if J&S form Yes	dental/vision only
Dependent Child Medical/Rx Coverage	Yes	Yes	Yes	Yes	Yes	dental/vision only
Retiree Life Insurance Benefit	N/A	N/A	N/A	N/A	N/A	N/A
Opt-Out Credit Available	Yes	Yes	Yes	Yes	Yes	Only pre-Medicare
Retirement Eligibility						
Age/Service #1				58/8	58/15	50/25
Age/Service #2				50/25	50/25	50/25
Age/Service #3				N/A	N/A	N/A
OPEB Vesting Eligibility						
Service Payable			8 years service Normal retirement age	15 years service Normal retirement age	25 years service Age 50	25 years service Age 50
Notes	* Option2 If ret > 3/28/10					

Important Note

These plan features are intended to illustrate the benefits valued by Segal for purposes of this report. In no way do they imply a promise or legal obligation on behalf of the City of Lansing to provide the benefits shown here.

Appendix A - Retiree Benefit Summaries

Group	T214				
	Inactive		Active		
Status					
Cohort	All Retirees	Hired < 10/29/90	Hired 10/29/90 to 12/7/08	Hired 12/8/08 to 9/16/12	Hired 9/17/12 to 12/31/14
Pre-Medicare Medical/Rx Coverage Do Plan Designs Follow Active Plan Changes? Retiree Contributions Limit on Retiree Contribution Amounts Restriction on Retiree Contribution Limits	Base/Option1/Option2: Yes > PA-152 cap No Limit N/A	Base/Option1/Option2: Yes > PA-152 cap No Limit N/A	Base/Option1/Option2: Yes > PA-152 cap No Limit N/A	Base/Option1/Option2: Yes > PA-152 cap No Limit N/A	N/A N/A N/A N/A N/A
Medicare Eligible Medical/Rx Coverage Type of Plan Design(s) Retiree Contributions	AMWINS None	AMWINS None	AMWINS None	AMWINS None	N/A N/A
Medicare B Premium Reimbursements Retiree Dental Coverage Retiree Vision Coverage	Yes Yes Yes	Yes Yes Yes	Retiree Only Yes Yes	Retiree Only Yes Yes	No Yes Yes
Joint Spouse Medical/Rx Coverage Surviving Spouse Medical/Rx Coverage Dependent Child Medical/Rx Coverage	Yes if J&S form Yes	Yes if J&S form Yes	Yes if J&S form Yes	Med/Rx not subsidized Med/Rx not subsidized Med/Rx not subsidized	dental/vision only dental/vision only dental/vision only
Retiree Life Insurance Benefit	N/A	N/A	N/A	N/A	N/A
Opt-Out Credit Available	Yes	Yes	Yes	Yes	N/A
Retirement Eligibility Age/Service #1 Age/Service #2 Age/Service #3	65 points with 8 yrs N/A N/A	55/15 50/25 N/A	58/15 50/25 N/A	50/25 N/A N/A	50/25 for d/v only N/A N/A
OPEB Vesting Eligibility Service Payable	8 years service 65 points	15 years service Age 55	15 years service Age 55	25 years service Age 55	25 yrs for d/v only Age 55 for d/v only
Notes					No DB retiree health, except dental/vision

Important Note

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Appendix A - Retiree Benefit Summaries

Group Status Cohort	T243 - Regular				
	Inactive		Active		
	Retired < 2/20/04	Retired > 2/19/04	Hired < 7/1/87	Hired 10/29/90 to 10/28/90	Hired 2/9/10 to 5/18/14
Pre-Medicare Medical/Rx Coverage					
Type of Plan Design(s)	Various legacy	Base/Option1/Option2	Base/Option1/Option2	Base/Option1/Option2	Base/Option1/Option2
Do Plan Designs Follow Active Plan Changes?	No	Yes	Yes	Yes	Yes
Retiree Contributions	None	> PA-152 cap with limits	> PA-152 cap with limits	> PA-152 cap with limits	> PA-152 cap with limits
Limit on Retiree Contribution Amounts	N/A	1% pension OR \$125/\$225/\$325	1% pension OR \$125/\$225/\$325	1% pension OR \$125/\$225/\$325	1% pension OR \$125/\$225/\$325
Restriction on Retiree Contribution Limits	N/A	No limit if Option2 elected	No limit if Option2 elected	No limit if Option2 elected	No limit if Option2 elected
Medicare Eligible Medical/Rx Coverage					
Type of Plan Design(s)	AMWINS	AMWINS	AMWINS	AMWINS	AMWINS
Retiree Contributions	None	None	None	None	None
Medicare B Premium Reimbursements	Yes	Yes	Yes	Yes	Yes
Retiree Dental Coverage	Yes	Yes	Yes	Yes	Yes
Retiree Vision Coverage	Yes	Yes	Yes	Yes	Yes
Joint Spouse Medical/Rx Coverage	Yes	Yes	Yes	Yes	Yes
Surviving Spouse Medical/Rx Coverage	if J&S form	if J&S form	if J&S form	if J&S form	if J&S form
Dependent Child Medical/Rx Coverage	Yes	Yes	Yes	Yes	Yes
Retiree Life Insurance Benefit	No	No	No	No	No
Opt-Out Credit Available	Yes	Yes	Yes	Yes	Yes
Retirement Eligibility					
Age/Service #1		65 points with 8 yrs	65 points with 15 yrs	58/15	50/25
Age/Service #2		N/A	N/A	50/25	N/A
Age/Service #3		N/A	N/A	N/A	N/A
OPEB Vesting Eligibility					
Service Payable		8 years service	15 years of service	15 years of service	25 years of service
		65 points	Age 55	Age 55	Age 55
Notes					
					50/25 for dv only
					N/A
					N/A
					25 yrs for dv only
					Age 55 for dv only
					No DB retiree health, except dental/vision

Important Note

These plan features are intended to illustrate the benefits valued by Segal for purposes of this report. In no way do they imply a promise or legal obligation on behalf of the City of Lansing to provide the benefits shown here.

Appendix A - Retiree Benefit Summaries

Group	T243 - District Court					911 Operators	
	Status	Inactive	Active			Inactive	
Cohort		All Retirees	Hired < 6/1/10	Hired 6/1/10 to 3/31/14	Hired 4/1/14 to 6/30/16	Hired > 6/30/16	Retired < 7/1/12*
Pre-Medicare Medical/Rx Coverage Type of Plan Design(s) Do Plan Designs Follow Active Plan Changes? Retiree Contributions Limit on Retiree Contribution Amounts Restriction on Retiree Contribution Limits		Base/Option1/Option2 Yes > PA-152 cap with limits 1% pension No limit if Option2 elected	Base/Option1/Option2 Yes > PA-152 cap with limits 1% pension No limit if Option2 elected	Base/Option1/Option2 Yes > PA-152 cap with limits 1% pension No limit if Option2 elected	Base/Option1/Option2 Yes > PA-152 cap with limits 1% pension No limit if Option2 elected	N/A N/A N/A N/A N/A	Various legacy No None N/A N/A
	Medicare Eligible Medical/Rx Coverage Type of Plan Design(s) Retiree Contributions	AMWINS None	AMWINS None	AMWINS None	N/A No	N/A N/A	AMWINS None
	Medicare B Premium Reimbursements Retiree Dental Coverage Retiree Vision Coverage	Yes Yes Not subsidized	Yes Yes Not subsidized	Yes Yes Not subsidized	No Yes Not subsidized	No Yes Not subsidized	Yes Yes Yes
	Joint Spouse Medical/Rx Coverage Surviving Spouse Medical/Rx Coverage Dependent Child Medical/Rx Coverage	Yes if J&S form Yes	Yes if J&S form Yes	Yes if J&S form Yes	dental/vision only dental/vision only dental/vision only	dental/vision only dental/vision only dental/vision only	Yes if J&S form Yes
Retiree Life Insurance Benefit		No	No	No	N/A	N/A	N/A
Opt-Out Credit Available		Yes	Yes	Yes	Only pre-Medicare	N/A	Yes
Retirement Eligibility Age/Service #1 Age/Service #2 Age/Service #3			58/15 50/25 N/A	50/25 N/A N/A	50/25 N/A N/A	50/25 for div only N/A N/A	
	OPEB Vesting Eligibility						
	Service Payable		15 years of service Age 55	25 years of service Age 55	25 years of service Age 55	25 yrs for div only Age 55 for div only	* Retirees > 6/30/12 not Lansing's; TVs still possible
Notes						No DB retiree health, except dental/vision	

Important Note

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Appendix A - Retiree Benefit Summaries

Group	District Court Non-Bargaining			
	Inactive	Active		
Status	All Retirees	Hired < 6/1/10	Hired 6/1/10 to 3/31/14	Hired 4/1/14 to 6/30/16
Cohort				
Pre-Medicare Medical/Rx Coverage Type of Plan Design(s) Do Plan Designs Follow Active Plan Changes? Retiree Contributions Limit on Retiree Contribution Amounts Restriction on Retiree Contribution Limits	Base/Option1/Option2 Yes > PA-152 cap with limits* 1% pension* No limit if Option2 elected	Base/Option1/Option2 Yes > PA-152 cap with limits* 1% pension* No limit if Option2 elected	Base/Option1/Option2 Yes > PA-152 cap with limits* 1% pension* No limit if Option2 elected	Base/Option1/Option2 Yes > PA-152 cap with limits* 1% pension* No limit if Option2 elected
	AMWINS None	AMWINS None	AMWINS None	N/A N/A N/A N/A N/A
	Yes Yes Not subsidized	Yes Yes Not subsidized	Yes Yes Not subsidized	No Yes Not subsidized
	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	dental/vision only dental/vision only dental/vision only
Retiree Life Insurance Benefit	No	No	No	N/A
Opt-Out Credit Available	Yes	Yes	Yes	N/A
Retirement Eligibility Age/Service #1 Age/Service #2 Age/Service #3		65 points with 15 yrs N/A N/A	25 years of service N/A N/A	50/25 for d/v only N/A N/A
OPEB Vesting Eligibility Service Payable		15 years service 65 points	25 years of service Age 55	25 yrs for d/v only Age 55 for d/v only
Notes	*1% pension limit not in fringe document, but is currently administered	*1% pension limit not in fringe document, but is currently administered	*1% pension limit not in fringe document, but is currently administered	No DB retiree health, except dental/vision

Important Note

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Appendix A - Retiree Benefit Summaries

Group	Other Non-Bargaining					
	Inactive			Active		
Status	Ret < 7/1/07	Retired > 6/30/07				
Cohort			Hired < 10/29/90	Hired 10/29/90 to 6/30/07	Hired 7/1/07 to 6/30/16	Hired > 6/30/16
Pre-Medicare Medical/Rx Coverage Type of Plan Design(s) Do Plan Designs Follow Active Plan Changes? Retiree Contributions Limit on Retiree Contribution Amounts Restriction on Retiree Contribution Limits	Legacy	Base/Option1/Option2	Base/Option1/Option2	Base/Option1/Option2	Base/Option1/Option2	
	No	Yes	Yes	Yes	Yes	N/A
	None	> PA-152 cap	> PA-152 cap	> PA-152 cap	> PA-152 cap	N/A
	N/A	N/A	N/A	N/A	N/A	N/A
Medicare Eligible Medical/Rx Coverage Type of Plan Design(s) Retiree Contributions	AMWINS	AMWINS	AMWINS	AMWINS	AMWINS	N/A
	None	None	None	None	None	N/A
Medicare B Premium Reimbursements Retiree Dental Coverage Retiree Vision Coverage	Yes	Yes	Yes	Yes	Retiree Only	No
	Yes	Yes	Yes	Yes	Yes	Yes
	Yes	Yes	Yes	Yes	Yes	Yes
Joint Spouse Medical/Rx Coverage Surviving Spouse Medical/Rx Coverage Dependent Child Medical/Rx Coverage	Yes	Yes	Yes	Yes	Med/Rx not subsidized	dental/vision only
	if J&S form	if J&S form	if J&S form	if J&S form	Med/Rx not subsidized	dental/vision only
	Yes	Yes	Yes	Yes	Med/Rx not subsidized	dental/vision only
Retiree Life Insurance Benefit	No	No	No	No	No	N/A
	Yes	Yes	Yes	Yes	Yes	N/A
Opt-Out Credit Available						
Retirement Eligibility Age/Service #1 Age/Service #2 Age/Service #3						
OPEB Vesting Eligibility Service Payable						
Notes						

Important Note

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Appendix A - Retiree Benefit Summaries

Group		Council Staff							
Status		Inactive			Active				
Cohort		Retired < 7/1/07	Retired > 6/30/07	Hired < 7/1/07	Hired 7/1/07 to 10/28/90	Hired 10/29/90 to 6/30/07	Hired 7/1/07 to 2/28/09	Hired 3/1/09 to 10/14/12	Hired > 10/14/12
Pre-Medicare Medical/Rx Coverage Type of Plan Design(s) Do Plan Designs Follow Active Plan Changes? Retiree Contributions Limit on Retiree Contribution Amounts Restriction on Retiree Contribution Limits Medicare Eligible Medical/Rx Coverage Type of Plan Design(s) Retiree Contributions Medicare B Premium Reimbursements Retiree Dental Coverage Retiree Vision Coverage Joint Spouse Medical/Rx Coverage Surviving Spouse Medical/Rx Coverage Dependent Child Medical/Rx Coverage Retiree Life Insurance Benefit Opt-Out Credit Available Retirement Eligibility Age/Service #1 Age/Service #2 Age/Service #3 OPEB Vesting Eligibility Service Payable Notes	Legacy No City pays 55%/75%/100% prem svc based N/A N/A AMWINS None Yes Yes Yes Yes Yes Yes J&S form Yes No Yes	Base/Option1/Option2 Yes > PA-152 cap* N/A N/A AMWINS None Yes Yes Yes Yes Yes Yes J&S form Yes No Yes	Base/Option1/Option2 Yes > PA-152 cap* N/A N/A AMWINS None Yes Yes Yes Yes Yes Yes J&S form Yes No Yes	Base/Option1/Option2* Yes > PA-152 cap* N/A N/A AMWINS None Yes Yes Yes Yes Yes Yes J&S form Yes No Yes	Base/Option1/Option2* Yes > PA-152 cap* N/A N/A AMWINS None Yes Yes Yes Yes Yes Yes J&S form Yes No Yes	Base/Option1/Option2 Yes > PA-152 cap N/A N/A AMWINS None Retiree Only Yes Yes Med/Rx not subsidized Med/Rx not subsidized Med/Rx not subsidized No Yes	0095/0094/0056 Yes > PA-152 cap N/A N/A AMWINS None Retiree Only Yes Yes Med/Rx not subsidized Med/Rx not subsidized Med/Rx not subsidized No Yes	25 years of service Age 55	

Important Note

These Plan Features are intended to illustrate the benefits valued by Segal for purposes of this report. In no way do they imply a promise or legal obligation on behalf of the City of Lansing to provide the benefits shown here.

Appendix A - Retiree Benefit Summaries

Group	Executive Management & Mayoral Staff				
	Inactive		Active		
Status	Retired < 7/1/07	Retired > 6/30/07	Hired < 10/29/90	Hired 10/29/90 to 6/30/07	Hired > 7/1/07
Cohort	Retired < 7/1/07	Retired > 6/30/07	Hired < 10/29/90	Hired 10/29/90 to 6/30/07	Hired > 7/1/07
Pre-Medicare Medical/Rx Coverage					
Type of Plan Design(s)	Legacy No	Base/Option1/Option2 Yes > PA-152 cap*	Base/Option1/Option2* Yes > PA-152 cap*	Base/Option1/Option2* Yes > PA-152 cap*	Base/Option1/Option2 Yes > PA-152 cap
Do Plan Designs Follow Active Plan Changes?	N/A	N/A	N/A	N/A	N/A
Retiree Contributions	N/A	N/A	N/A	N/A	N/A
Limit on Retiree Contribution Amounts	N/A	N/A	N/A	N/A	N/A
Restriction on Retiree Contribution Limits					
Medicare Eligible Medical/Rx Coverage					
Type of Plan Design(s)	AMMINS None	AMMINS None	AMMINS None	AMMINS None	AMMINS None
Retiree Contributions	Yes	Yes	Yes	Yes	Retiree Only Yes
Medicare B Premium Reimbursements	Yes	Yes	Yes	Yes	Yes
Retiree Dental Coverage	Yes	Yes	Yes	Yes	Yes
Retiree Vision Coverage	Yes	Yes	Yes	Yes	Yes
Joint Spouse Medical/Rx Coverage	Yes if J&S form Yes	Yes if J&S form Yes	Yes if J&S form Yes	Yes if J&S form Yes	Med/Rx not subsidized Med/Rx not subsidized Med/Rx not subsidized
Surviving Spouse Medical/Rx Coverage	No	No	No	No	No
Dependent Child Medical/Rx Coverage	Yes	Yes	Yes	Yes	Yes
Retiree Life Insurance Benefit					
Opt-Out Credit Available					
Retirement Eligibility					
Age/Service #1			Fire 55/10 OR any/25	55/8**	55/15
Age/Service #2			Police 55/15 OR any/25	N/A	N/A
Age/Service #3			Non-P/F 65 points and 15 yrs	N/A	N/A
OPEB Vesting Eligibility					
Service Payable			15 years of service 65 points	8 years of service** Age 55	15 years of service Age 55
Notes	* If hired <10/29/90, premium share is \$0	* If <15 yrs, City pays 55%/75% of Base prem (8/12 yrs)	* If retired < 7/1/07, \$0 ret cnt and Legacy plan design	* If retired < 7/1/07, City pays 100% of Base Plan (no cap); retiree can buy-up ** If <15 yrs, City pays 55%/75% of Base prem (8/12 yrs)	

Important Note

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Appendix A - Retiree Benefit Summaries

Group	Mayor / City Clerk			
	Inactive		Active	
Status	Retired < 1/1/06	Retired > 12/31/05		
Cohort		Elected < 7/1/87	Elected 7/1/87 to 6/30/07	Elected 7/1/07 to 6/30/09
Pre-Medicare Medical/Rx Coverage Type of Plan Design(s) Do Plan Designs Follow Active Plan Changes? Retiree Contributions Limit on Retiree Contribution Amounts Restriction on Retiree Contribution Limits	Legacy No None N/A N/A	Base/Option1/Option2* Yes > PA-152 cap* N/A N/A	Base/Option1/Option2* Yes > PA-152 cap* N/A N/A	Base/Option1/Option2 Yes > PA-152 cap N/A N/A
	AMWINS None	AMWINS None	AMWINS None	AMWINS None
	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Retiree Only Yes No
	Yes Yes form Yes	Yes if J&S form Yes	Yes if J&S form Yes	Med/Rx not subsidized Med/Rx not subsidized Med/Rx not subsidized
Medicare Eligible Medical/Rx Coverage Type of Plan Design(s) Retiree Contributions	AMWINS None	AMWINS None	AMWINS None	AMWINS None
Medicare B Premium Reimbursements	Yes	Yes	Yes	Yes
Retiree Dental Coverage	Yes	Yes	Yes	Yes
Retiree Vision Coverage	Yes	Yes	Yes	Yes
Joint Spouse Medical/Rx Coverage	Yes	Yes	Yes	Yes
Surviving Spouse Medical/Rx Coverage	Yes	Yes	Yes	Yes
Dependent Child Medical/Rx Coverage	Yes	Yes	Yes	Yes
Retiree Life Insurance Benefit	No	No	No	No
Opt-Out Credit Available	Yes	Yes	Yes	Yes
Retirement Eligibility Age/Service #1 Age/Service #2 Age/Service #3		Any/8 N/A N/A	55/15 N/A N/A	55/15 N/A N/A
OPEB Vesting Eligibility Service Payable		8 years of service At termination	15 years of service Age 55	15 years of service Age 55
Notes		* If retired < 1/1/06, \$0 retiree contribution, and Legacy design	* If retired < 1/1/06, \$0 retiree contribution, and Legacy design	

Important Note

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Appendix A - Retiree Benefit Summaries

Group	City Council				
	Inactive		Active		
Status	Retired < 1/1/06	Retired > 12/31/05	Elected < 7/1/87	Elected 7/1/87 to 6/30/07	Elected 7/1/07 to 12/31/09
Cohort	Retired < 1/1/06	Retired > 12/31/05	Elected < 7/1/87	Elected 7/1/87 to 6/30/07	Elected 7/1/07 to 12/31/09
Pre-Medicare Medical/Rx Coverage					
Type of Plan Design(s)	Legacy	Base/Option1/Option2			
Do Plan Designs Follow Active Plan Changes?	No	Yes			
Retiree Contributions	None	> PA-152 cap			
Limit on Retiree Contribution Amounts	N/A	N/A			
Restriction on Retiree Contribution Limits	N/A	N/A			
Medicare Eligible Medical/Rx Coverage					
Type of Plan Design(s)	AMWINS	AMWINS			
Retiree Contributions	None	None			
Medicare B Premium Reimbursements	Yes	Yes			
Retiree Dental Coverage	Yes	Yes			
Retiree Vision Coverage	Yes	Yes			
Joint Spouse Medical/Rx Coverage	Yes	Yes			
Surviving Spouse Medical/Rx Coverage	if J&S form	if J&S form			
Dependent Child Medical/Rx Coverage	Yes	Yes			
Retiree Life Insurance Benefit	No	No			
Opt-Out Credit Available	Yes	Yes			
Retirement Eligibility					
Age/Service #1					
Age/Service #2					
Age/Service #3					
OPEB Vesting Eligibility					
Service Payable					
Notes					

Important Note
These plan features are intended to illustrate the benefits valued by Segal for purposes of this report. In no way do they imply a promise or legal obligation on behalf of the City of Lansing to provide the benefits shown here.

Appendix A - Retiree Benefit Summaries

Group	Judges		
	Inactive	Active	
Cohort	All Retirees	Took Office < 7/1/88	Took Office 7/1/88 to 10/28/90
Pre-Medicare Medical/Rx Coverage Type of Plan Design(s) Do Plan Designs Follow Active Plan Changes? Retiree Contributions Limit on Retiree Contribution Amounts Restriction on Retiree Contribution Limits	Base/Option1/Option2 Yes > PA-152 cap N/A N/A AMW/INS None Yes Yes Not subsidized	Base/Option1/Option2 Yes > PA-152 cap N/A N/A AMW/INS None Yes Yes Not subsidized	Base/Option1/Option2 Yes > PA-152 cap N/A N/A AMW/INS None Yes Yes Not subsidized
Medicare Eligible Medical/Rx Coverage Type of Plan Design(s) Retiree Contributions	AMW/INS None	AMW/INS None	AMW/INS None
Medicare B Premium Reimbursements Retiree Dental Coverage Retiree Vision Coverage	Yes Yes Not subsidized	Yes Yes Not subsidized	Yes Yes Not subsidized
Joint Spouse Medical/Rx Coverage Surviving Spouse Medical/Rx Coverage Dependent Child Medical/Rx Coverage	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes
Retiree Life Insurance Benefit	No	No	No
Opt-Out Credit Available	Yes	Yes	Yes
Retirement Eligibility Age/Service #1 Age/Service #2 Age/Service #3			
OPEB Vesting Eligibility Service Payable Notes	Any/8 N/A N/A 8 years of service At termination	Any/15 N/A N/A 15 years of service Age 55	55/15 N/A N/A 15 years of service Age 55

Important Note

These plan features are intended to illustrate the benefits valued by Segal for purposes of this report. In no way do they imply a promise or legal obligation on behalf of the City of Lansing to provide the benefits shown here.

Appendix B: Assumptions & Methods

Data

Detailed census data as of December 31, 2015 for postretirement welfare benefits was provided by Boomershine Consulting Group.

For the 30-year projection scenarios, replacement new entrants were generated each year to maintain the number of budgeted employee positions in each group, as provided by the City. The age, gender, and salary profile for each new entrant was based on an average of the most recent hires of each plan group in a specified time period. Assumptions for each new hire group are shown in the table below:

Plan Group	Active Population as of 1/1/2016	Active Population from 1/1/2017 to 1/1/2046	Basis of New Entrant Age/Gender/Salary Profile
Fire	160	175	Recent hires in last 5 years
Police Non-Supervisory	145	159	Recent hires in last 5 years
Police Supervisory	41	42	Recent hires in last 15 years
UAW	136	161	Recent hires in last 5 years
Non-UAW	238	238	Recent hires in last 5 years

Actuarial Cost Method

Entry-Age Normal, level Percentage of Payroll

Measurement Date

January 1, 2016, using census data as of December 31, 2015

Source of Certain Demographic and Economic Assumptions

Some of the assumptions relied upon the results the “Actuarial Assumption Review and Experience Study Covering January 1, 2012 through December 31, 2015” of the Police and Fire and Employees’ Retirement Systems, completed by Boomershine Consulting Group in December 2016. These include rates of termination, retirement, and disability, as well the investment return rate, and base wage inflation rate. We modified the mortality assumption based on Segal’s professional judgment. The others were reviewed for general reasonableness.

Discount Rate and Investment Return

7.25%

For illustrative purposes of this report, fully prefunding an actuarially calculated contribution was assumed, so the discount rate was set equal to the investment return rate.

Wage Inflation Rate:

ERS and Police and Fire - 2.75% per year

Salary Increase Rate:**Employees' Retirement System**

UAW – Additional increase of 2.00% per year with less than 10 years of service, and an additional 1.00% per year with 10 years of service or more.

Non-UAW - Additional increase of 1.50% per year with less than 9 years of service, and an additional 0.25% per year with 9 years of service or more.

Police and Fire Retirement System

Additional increase of 7.00% per year with less than 5 years of service, and an additional 0.75% per year with 5 years of service or more.

The salary increase rate assumptions were based on the “Actuarial Valuation for Funding and Contributions as of December 31, 2015” pension studies completed by Boomershine Consulting Group (December 2016).

Postretirement Mortality Rates**Employees' Retirement System**

Healthy: Based on Headcount-Weighted Approximate RP-2006 Combined Healthy Mortality Table, projected generationally with the MP-2015 improvement scale from 2006

Disabled: Based on Headcount-Weighted Approximate RP-2006 Disabled Retiree Mortality Table, projected generationally with the MP-2015 improvement scale from 2006

Police and Fire Retirement System

Healthy: Based on Headcount-Weighted Approximate RP-2006 Blue Collar Healthy Mortality Table, projected generationally with the MP-2015 improvement scale from 2006

Disabled: Based on Headcount-Weighted Approximate RP-2006 Disabled Retiree Mortality Table, projected generationally with the MP-2015 improvement scale from 2006

The underlying tables reasonably reflect the mortality experience of the Plan as of the measurement date. These mortality tables were then adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

Termination Rates

Years of Service	ERS Assumed Rate (%)*		
	UAW	Non-UAW Male	Non-UAW Female
0	10.00	22.00	33.00
1	7.00	18.70	28.10
2	5.00	15.90	23.80
3	5.00	13.50	20.30
4	5.00	11.65	17.45
5	4.00	9.80	14.60
10	1.00	4.30	6.50
15	1.00	0.00	0.00
20+	0.50	0.00	0.00

* Rates cut out at earliest retirement age

Years of Service	Fire Assumed Rate (%)	Age	Police Assumed Rate (%)
0	4.00	20	15.00
1	3.20	25	7.50
2	2.73	30	3.70
3	2.25	35	1.90
4	1.78	40	0.90
5	1.30	45	0.50
10	0.40	50	0.08
15	0.10	51 & Over	0.00
20+	0.00		

Disability Rates

Age	Assumed Rate (%)	
	ERS ¹	Police & Fire ²
20	0.04	0.12
30	0.04	0.60
40	0.13	0.94
50	0.41	1.13
60	0.90	0.00

¹ 50% of disabilities were assumed to be duty related

² 95% of disabilities were assumed to be duty related

Retirement Rates

After meeting eligibility requirements for Healthcare coverage, based on the participant's plan and date of hire, the following rates apply:

Years of Service	Fire Assumed Rate (%)	Years of Service	Police Assumed Rate (%)
10-24	5	10-24	5
25	90	25	90
26-29	60	26-29	25
30+	100	30+	100
ERS Assumed Rate (%)			
Age	UAW	Age	Non-UAW
50-54	50	50-57	55
55-64	30	58	15
65+	100	59	5
		60-64	15
		65	60
		66-69	25
		70+	100

Retirement Age for Inactive Vested Participants

Employees' Retirement System

UAW: 100% at age 65

Non-UAW: 100% at age 70

Police and Fire Retirement System

Police and Fire: 100% at age 65

Unknown Data for Participants

A missing census item for a given participant was assumed to equal the average value of that item over all other participants of the same status and group for whom the item is known. If not specified, participants are assumed to be male.

Participation and Coverage Election

100% of employees eligible to retire and receive subsidized postretirement welfare coverage were assumed to participate in the plan. 60% of future surviving spouses (for both current retirees with a joint spouse, and for future retirees) eligible to receive subsidized postretirement welfare coverage were assumed to participate in the plan.

Dependents

Demographic data was available for spouses of current retirees. For future retirees, husbands were assumed to be three years older than their wives.

100% of active participants currently with a spouse were assumed to have a spouse also electing coverage at a retirement

0% of active participants currently without a spouse were assumed to have one electing coverage at retirement.

8% of all ERS retirees and 20% of all Police and Fire retirees are assumed to have covered children, up to age 26. Retirees are assumed to be 30 years older than their children, with two children on average.

Per Capita Cost Development

Per capita costs were developed by the Boomershine Consulting Group, based on data provided to them by the City. Segal reviewed the development of these for reasonableness.

Per Capita Health Cost

The annual per capita dental and vision claims costs for the plan year beginning January 1, 2016 were estimated to be \$367 and \$67, respectively. The annual per capita medical and prescription drug claims costs for the plan year beginning January 1, 2016 are shown in the table below for males and for females at selected ages. These costs are net of deductibles and other benefit plan cost sharing provisions. Dependent children were assumed to have a blended claim amount of 50% male and 50% female at each age.

Age	Medical & Prescription Drug			
	ERS		Police and Fire	
	Male	Female	Male	Female
50	\$4,483	\$5,577	\$8,218	\$10,223
55	6,026	6,724	11,046	12,326
60	8,339	7,786	15,285	14,271
64	10,232	9,554	18,756	17,512
65	4,343	4,343	4,482	4,482
70	5,035	5,035	5,196	5,196
75	5,697	5,697	5,879	5,879
80	6,077	6,077	6,271	6,271

Retirees are assumed to elect the option that provides the most benefits at the lowest retiree cost. The following factors were applied to the claims above for each option.

	Non-Medicare			Medicare	
	Legacy	Option 1	Option 2	Legacy	Non-Legacy
ERS	1.000	0.897	1.000	1.000	0.987
Police and Fire	1.000	1.000	1.000	1.000	0.939

Medicare Part B Premium Reimbursement

\$1,463 in calendar year 2016 for participants over the age of 65

90% of participants over the age of 65 were assumed to be receiving the reimbursement.

Michigan PA-152 Cap and Inflation Rate

Participants and dependents subject to the Michigan PA-152 hard cap amount, who do not have any limits on their participant contributions, had their medical and prescription drug per capita claim costs limited to the hard cap amounts in effect for the plan year beginning January 1, 2016.

Michigan PA-152 Cap Limits:	\$6,142.11 Single / \$12,845.04 Double / \$16,751.23 Family
------------------------------------	---

The Michigan PA-152 hard cap was assumed to increase at a rate of 3.00% per year, based on a historical review of the Cap limits over the previous five years.

Health Care Trend Rates

Health care trend measures the anticipated overall rate at which health plan costs are expected to increase in future years. The rates shown below are “net” and are applied to the net per capita costs shown above. The trend shown for a particular plan year is the rate that is applied to that cost to yield the next year’s projected cost.

Year	Rate (%)			
	Pre-65 Medical & Prescription Drug	Post-65 Medical & Prescription Drug	Medicare Part B Reimbursement	Dental & Vision
2016	8.50	6.50	4.50	4.50
2017	8.25	6.25	4.50	4.50
2018	8.00	6.00	4.50	4.50
2019	7.75	5.75	4.50	4.50
2020	7.50	5.50	4.50	4.50
2021	7.25	5.25	4.50	4.50
2022	7.00	5.00	4.50	4.50
2023	6.75	4.75	4.50	4.50
2024	6.50	4.50	4.50	4.50
2025	6.25	4.50	4.50	4.50
2026	6.00	4.50	4.50	4.50
2027	5.75	4.50	4.50	4.50
2028	5.50	4.50	4.50	4.50
2029	5.25	4.50	4.50	4.50
2030	5.00	4.50	4.50	4.50
2031	4.75	4.50	4.50	4.50
2032 & Later	4.50	4.50	4.50	4.50

The trend rate assumptions were developed using Segal’s internal guidelines, which are established each year using data sources such as the 2017 Segal Health Trend Survey, internal client results, trends from other published surveys prepared by the S&P Dow Jones Indices, consulting firms and brokers, and CPI statistics published by the Bureau of Labor Statistics.

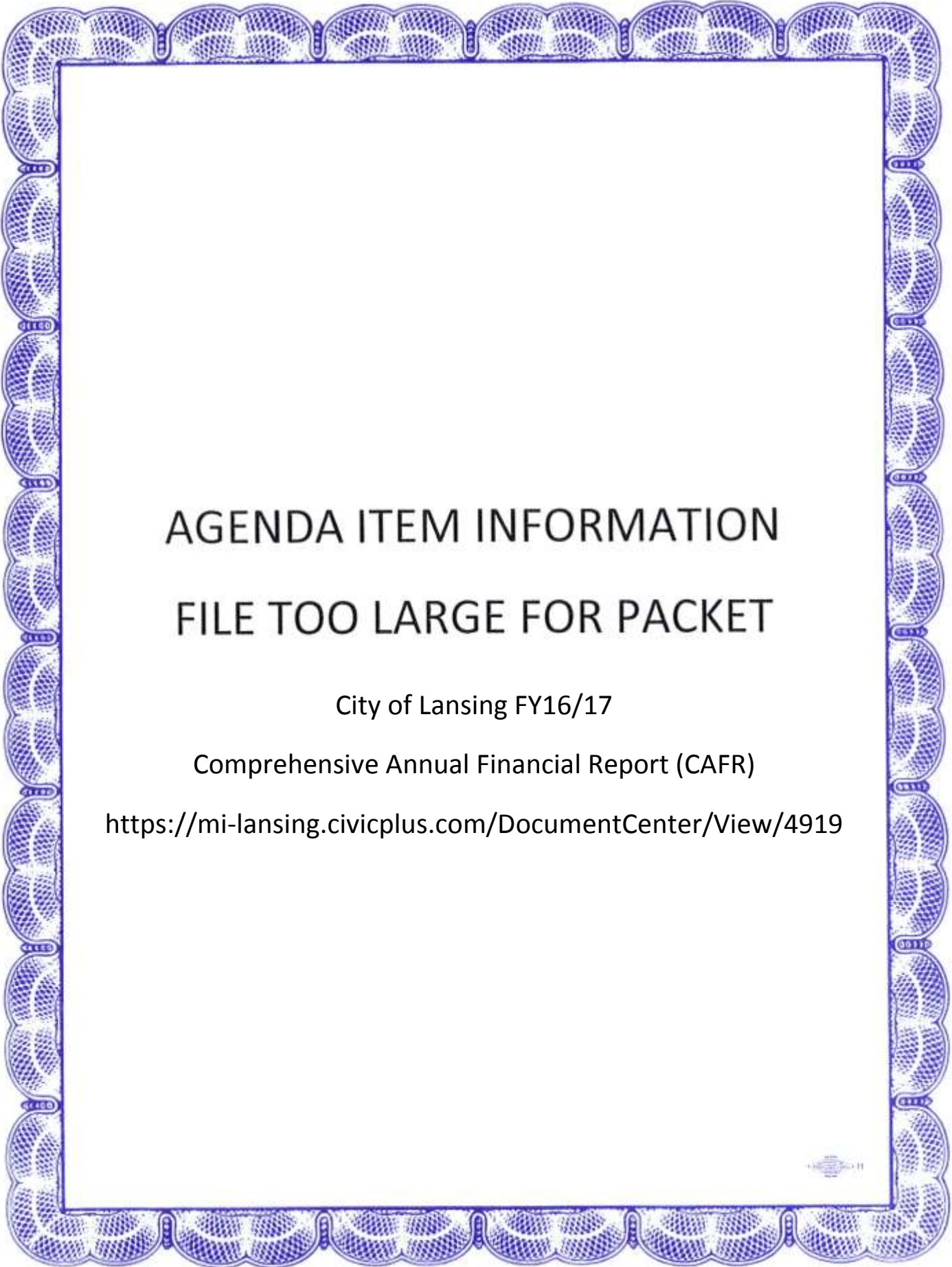
Retiree Contribution Increase Rate

Retirees with contributions limited to 1% of their gross annual pension amount were assumed to increase at 3.0% per year. Retirees with contribution equal to a percentage of the cost of coverage were assumed to increase with medical trend. No annual increase on any other required retiree contributions was assumed.

	Police	Police Super	UAW	District Court
Assumed average pension amount	\$50,000	\$75,000	\$27,500	\$21,000

Plan Design

Development of plan liabilities was based on the plan of benefits in effect as described in Appendix A



AGENDA ITEM INFORMATION

FILE TOO LARGE FOR PACKET

City of Lansing FY16/17

Comprehensive Annual Financial Report (CAFR)

<https://mi-lansing.civicplus.com/DocumentCenter/View/4919>

Boak, Sherrie

From: Eric Brewer
Sent: Monday, January 8, 2018 3:45 PM
To: Wood, Carol; Washington, Jody; Spitzley, Patricia; Dunbar, Kathie; Hussain, Adam; Jackson, Brian T.; Garza, Jeremy; Spadafore, Peter
Cc: Boak, Sherrie
Subject: Comprehensive Annual Financial Report (CAFR) Received from Finance
Attachments: 2017 City of Lansing-FS Final.pdf; Pages_from_Annual_Financial_Report_FY2017_Pages_214-230.pdf

Dear Council Members,

The City of Lansing is required to report their Comprehensive Annual Financial Report (CAFR) to the State of Michigan Department of Treasury before 180 days following their Fiscal Year Close of June 30, 2017. This was done on December 22nd of 2017 and can be located below. **(Note – 230 Pages in Report)**

https://treas-secure.state.mi.us/LAFDocSearch/tl41R01.aspx?&lu_id=1921&doc_yr=2017&doc_code=AUD

The finance department has provided City of Lansing final Comprehensive Annual Financial Report (CAFR) for the Year Ended June 30, 2017 by email on January 8th of 2018. **See attached 2017_City_of_Lansing-FS_Final.pdf. (Note – 213 Pages)**

In addition, I have extracted the pages not included from the finance department that have been submitted to the Michigan Department of Treasury. **See attached Pages_from_Annual_Finance_Report_FY2017_Pages_214-230.pdf**

Background on Reporting Requirements

Source: https://www.michigan.gov/documents/treasury/Audit_Manual_for_LUG_in_Michigan_383593_7.pdf

MCL 141.428 reads:

“Every audit report shall do all of the following:

- (a) State that the audit has been conducted in accordance with generally accepted auditing standards and with the standards prescribed by the state treasurer.
- (b) State that financial statements in such reports have been prepared in accordance with generally accepted accounting principles and with applicable rules and regulations of any state department or agency. Any deviations from such principles, rules or regulations shall be described.
- (c) Disclose any material deviations by the local unit from generally accepted accounting practices or from applicable rules and regulations of any state department or agency.
- (d) Disclose any fiscal irregularities, including but not limited to any deviations from the requirements of section 4; defalcations; misfeasance; nonfeasance; or malfeasance that came to the auditor's attention.”

MCL 141.431 reads in part:

“Reports by the independent CPA on each fund, agency and/or operation in order to comply with the above provisions of the law are as follows and would constitute the Audit Reporting Package required by the Michigan Department of Treasury:

1. Report on Financial Statements--The independent CPA shall report on the financial statements of the local unit of government as required under Section 4 of PA 2 of 1968, as amended. This report shall conform with one of the standard forms recommended by the American Institute of Certified Public Accountants.

2. Report on Internal Control and Report to Those Charged With Governance--The reports shall include a description of improper, illegal or other actions disclosed by the independent CPA's tests and reviews..."

Let me know if you have any questions.

Sincerely,

Eric



Eric Brewer, CPA, MBA

City of Lansing

Internal Auditor

Phone: 517-483-4159

Email: Eric.Brewer@lansingmi.gov

Website: [www.lansingmi.gov/City Council](http://www.lansingmi.gov/City_Council)

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INDEPENDENT AUDITORS' COMMUNICATION WITH THOSE CHARGED WITH GOVERNANCE

December 22, 2017

Honorable Mayor and
Members of the City Council
City of Lansing, Michigan

We have audited the financial statements of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information of the *City of Lansing, Michigan* (the "City") as of and for the year ended June 30, 2017, and have issued our report thereon dated December 22, 2017. Professional standards require that we advise you of the following matters relating to our audit.

Our Responsibility in Relation to the Financial Statement Audit

As communicated in our engagement letter dated July 19, 2017, our responsibility, as described by professional standards, is to form and express opinions about whether the financial statements that have been prepared by management with your oversight are fairly presented, in all material respects, in conformity with accounting principles generally accepted in the United States of America. Our audit of the financial statements does not relieve you or management of your respective responsibilities.

Our responsibility, as prescribed by professional standards, is to plan and perform our audit to obtain reasonable, rather than absolute, assurance about whether the financial statements are free of material misstatement. An audit of financial statements includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control over financial reporting. Accordingly, as part of our audit, we considered the internal control of the City solely for the purpose of determining our audit procedures and not to provide any assurance concerning such internal control.

We are also responsible for communicating significant matters related to the audit that are, in our professional judgment, relevant to your responsibilities in overseeing the financial reporting process. However, we are not required to design procedures for the purpose of identifying other matters to communicate to you.

We have provided our findings regarding internal control over financial reporting and compliance noted during our audit in a separate letter to you dated December 22, 2017. In addition, we noted certain other matters which are included in Attachment A to this letter.

Planned Scope and Timing of the Audit

We performed the audit according to the planned scope and timing previously communicated to you in our engagement letter and in our meeting about planning matters on October 10, 2017.

Compliance with All Ethics Requirements Regarding Independence

The engagement team, others in our firm, as appropriate, and our firm has complied with all relevant ethical requirements regarding independence.

Qualitative Aspects of the City's Significant Accounting Practices

Significant Accounting Policies

Management has the responsibility to select and use appropriate accounting policies. A summary of the significant accounting policies adopted by the City is included in Note 1 to the financial statements.

There have been no initial selections of accounting policies and no changes in significant accounting policies or their application during the year.

No matters have come to our attention that would require us, under professional standards, to inform you about (1) the methods used to account for significant unusual transactions and (2) the effect of significant accounting policies in controversial or emerging areas for which there is a lack of authoritative guidance or consensus.

Significant Accounting Estimates

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's current judgments. Those judgments are normally based on knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ markedly from management's current judgments.

The most sensitive accounting estimates affecting the financial statements were:

- Management's estimate of the useful lives of depreciable capital assets is based on the length of time it is believed that those assets will provide some economic benefit in the future.
- Management's estimate of the accrued compensated absences is based on current hourly rates and policies regarding payment of sick and vacation banks.
- Management's estimate of the allowance for uncollectible receivable balances is based on past experience and future expectation for collection of various account balances.
- Management's estimate of the insurance claims incurred but not reported is based on information provided by the entity's third party administrators and subsequent claims activity.
- The assumptions used in the actuarial valuations of the pension and other postemployment benefits plans are based on historical trends and industry standards.
- Management's estimate of the leases receivable balances is based on past experience and future estimates of lease collections.
- Management's estimate of the income tax receivable balance is based on past experience utilizing the first 45 days collections of income tax withholdings.

We evaluated the key factors and assumptions used to develop these estimates and determined that they are reasonable in relation to the basic financial statements taken as a whole and in relation to the applicable opinion units.

Significant Difficulties Encountered During the Audit

The timing of our audit procedures was delayed from the schedule agreed to during the planning stages of our engagement due to delays in the availability of supporting documentation and the ability of City staff to provide needed follow-up documentation in expected timeframes. This condition appears to largely be the result of limited staffing levels in the Finance Department.

Uncorrected and Corrected Misstatements

For purposes of this communication, professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that we believe are trivial, and communicate them to the appropriate level of management. Further, professional standards require us to also communicate the effect of uncorrected misstatements related to prior periods on the relevant classes of transactions, account balances or disclosures, and the financial statements as a whole and each applicable opinion unit. In addition, professional standards require us to communicate to you all material, corrected misstatements that were brought to the attention of management as a result of our audit procedures. The material misstatements detected as a result of audit procedures and corrected by management are described in the Schedule of Findings and Responses issued in connection with our report on internal control over financial reporting.

The schedule of adjustments passed is included with management's written representations in Attachment C to this letter, and summarizes uncorrected financial statement misstatements whose effects in the current and prior periods, as determined by management, are immaterial, both individually and in the aggregate, to the financial statements taken as a whole and each applicable opinion unit.

Disagreements with Management

For purposes of this letter, professional standards define a disagreement with management as a matter, whether or not resolved to our satisfaction, concerning a financial accounting, reporting, or auditing matter, which could be significant to the City's financial statements or the auditors' report. No such disagreements arose during the course of the audit.

Representations Requested from Management

We have requested certain written representations from management, which are included in Attachment C to this letter.

Management's Consultations with Other Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters. Management informed us that, and to our knowledge, there were no consultations with other accountants regarding auditing and accounting matters.

Other Significant Matters, Findings, or Issues

In the normal course of our professional association with the City, we generally discuss a variety of matters, including the application of accounting principles and auditing standards, operating and regulatory conditions affecting the entity, and operational plans and strategies that may affect the risks of material misstatement. None of the matters discussed resulted in a condition to our retention as the City's auditors.

Other Information in Documents Containing Audited Financial Statements

Our responsibility for the supplementary information accompanying the financial statements, as described by professional standards, is to evaluate the presentation of the supplementary information in relation to the financial statements as a whole and to report on whether the supplementary information is fairly stated, in all material respects, in relation to the financial statements as a whole. We made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.

Upcoming Changes in Accounting Standards

Generally accepted accounting principles (GAAP) are continually changing in order to promote the usability and enhance the applicability of information included in external financial reporting. While it would not be practical to include an in-depth discussion of every upcoming change in professional standards, Attachment B to this letter contains a brief overview of recent pronouncements of the Governmental Accounting Standards Board (GASB) and their related effective dates. Management is responsible for reviewing these standards, determining their applicability, and implementing them in future accounting periods.

This information is intended solely for the use of the governing body and management of the City of Lansing, Michigan and is not intended to be and should not be used by anyone other than these specified parties.

Very truly yours,

Rehmann Robson LLC

CITY OF LANSING, MICHIGAN

■ Attachment A - Comments and Recommendations

For the June 30, 2017 Audit

During our audit, we became aware of certain other matters that are opportunities for strengthening internal control and/or improving operating efficiency. This memorandum summarizes our comments and recommendations regarding those matters. Our consideration of the City's internal control over financial reporting is described in our report, dated December 22, 2017 issued in accordance with *Government Auditing Standards*. This memorandum does not affect that report or our report dated December 22, 2017, on the financial statements of the City of Lansing, Michigan.

Stale Reconciling Items (Repeat Comment)

During our review of the City's bank reconciliations, we noted a number of reconciling items dating back as far as 1997. We continue to recommend the City review stale items and either void and reissue or escheat them to the State, as necessary.

End Control over Payroll Processing (Repeat Comment)

The City currently has procedures in place to ensure that employees are being paid at the correct rate and for the actual number of hours worked. Since the process of inputting timesheet data into the payroll system requires manual entry, we recommend that the City implement an "end control" over payroll disbursements. This could be done by having an employee independent of payroll processing review a preliminary payroll register by employee, or by having the payroll system generate exception reports for data outside certain parameters. In all instances, any independent review and approval should be documented and retained as evidence of the control.

Internal Controls over Manually Prepared Spreadsheets (Repeat Comment)

The City utilizes manual spreadsheets for documenting the composition of certain account balances for audit workpaper preparation which are not subjected to a documented review/approval process. We recommend that all documentation prepared by management, in whatever format is preferred, that supports financial statement balances, be reviewed and approved by a responsible member of management and that such review be documented by the signature/initials of the assigned reviewer and the date of the review.

Pension Plan Funding (Repeat Comment)

The City maintains pension plans for its qualified employees. With the implementation of GASB 67 and 68, the focus of pension plan reporting changed from a funding perspective to a net liability approach. Further, with the implementation of these standards, the comprehensive annual financial report now provides certain trend information regarding the City's funding progress for its employees' retirement system and police and fire retirement system. Based on the four years of trend data now available, we have observed that the scheduled contributions are not keeping pace with the interest on the outstanding total pension liability. In addition, the fiduciary net position as a percentage of the total pension liability has decreased in three of the previous four years presented (2017 did result in an increase), reflecting 55.3% and 67.1% for the employees' retirement system and police and fire retirement system, respectively. The pension plans showed improvement during the current fiscal year due to an increase in investment return. However, the contributions still are not exceeding the interest on the total pension liability for each plan. We recommend the City actively search for ways to reverse the negative trends and increase the funded status of the plans.

■ ■ ■ ■ ■

CITY OF LANSING, MICHIGAN

Attachment B - Upcoming Changes in Accounting Standards / Regulations

For the June 30, 2017 Audit

The following pronouncements of the Governmental Accounting Standards Board (GASB) have been released recently and may be applicable to the City in the near future. We encourage management to review the following information and determine which standard(s) may be applicable to the City. For the complete text of these and other GASB standards, visit www.gasb.org and click on the "Standards & Guidance" tab. If you have questions regarding the applicability, timing, or implementation approach for any of these standards, please contact your audit team.

GASB 75 ■ Postemployment Benefits Other than Pensions

Effective 06/15/2018 (your FY 2018)

This standard builds on the requirements of GASB 74 by requiring employers that provide other postemployment benefits (OPEB) to recognize a net OPEB liability on their statements of net position. It mirrors the new accounting and financial reporting requirements of GASB 68 for pension benefits.

GASB 81 ■ Irrevocable Split-Interest Agreements

Effective 12/15/2017 (your FY 2018)

This standard addresses the accounting for split-interest agreements for which the government serves as the intermediary and/or the beneficiary. It requires governments to record assets, liabilities, and deferred inflows of resources at the inception of the agreement when serving as intermediary, or when the government controls the present service capacity of a beneficial interest. We do not expect this standard to have any significant effect on the City.

GASB 83 ■ Certain Asset Retirement Obligations

Effective 06/15/2019 (your FY 2019)

This standard addresses accounting and financial reporting for certain asset retirement obligations--legally enforceable liabilities associated with the retirement of a tangible capital asset. We do not expect this standard to have any significant effect on the City.

GASB 84 ■ Fiduciary Activities

Effective 12/15/2019 (your FY 2020)

This standard establishes new criteria for determining how to report fiduciary activities in governmental financial statements. The focus is on whether the government is controlling the assets, and who the beneficiaries are. Under this revised standard, certain activities previously reported in agency funds may be reclassified in future periods. Due to the number of specific factors to consider, we will continue to assess the degree to which this standard may impact the City.

GASB 85 ■ Omnibus 2017

Effective 06/15/2018 (your FY 2018)

This standard includes a variety of small technical revisions to previously issued GASB statements. We do not expect this standard to have any significant effect on the City.

CITY OF LANSING, MICHIGAN

■ Attachment B - Upcoming Changes in Accounting Standards / Regulations

For the June 30, 2017 Audit

GASB 86 ■ Certain Debt Extinguishment Issues

Effective 06/15/2018 (your FY 2018)

This standard provides guidance for reporting the in-substance defeasance of outstanding debt obligations using existing resources. Qualifying transactions will remove both the assets placed into trust and the related debt obligation from the government's statement of net position. We do not expect this standard to have any significant effect on the City.

GASB 87 ■ Leases

Effective 12/15/2020 (your FY 2021)

This standard establishes a single model for reporting all leases (including those previously classified as operating and capital). Lessees will now report offsetting intangible lease assets and lease liabilities equal to the present value of future lease payments. Lessors will report offsetting lease receivables and deferred inflows of resources.

■ ■ ■ ■ ■

CITY OF LANSING, MICHIGAN

Attachment C - Management Representations

For the June 30, 2017 Audit

The following pages contain the written representations that we requested from management.



December 22, 2017

Rehmann Robson
2330 East Paris Avenue, SE
Grand Rapids, Michigan 49546

This representation letter is provided in connection with your audit of the financial statements of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information of the *City of Lansing, Michigan* (the "City"), as of and for the year ended June 30, 2017, and the related notes to the financial statements, for the purpose of expressing opinions on whether the basic financial statements present fairly, in all material respects, the financial position, results of operations, and cash flows, where applicable, and the budgetary comparison for the General Fund of the City in conformity with accounting principles generally accepted for governments in the United States of America (U.S. GAAP).

Certain representations in this letter are described as being limited to matters that are material. Items are considered material, regardless of size, if they involve an omission or misstatement of accounting information that, in the light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would be changed or influenced by the omission or misstatement.

We confirm that, having made such inquiries as we considered necessary for the purpose of appropriately informing ourselves as of December 22, 2017:

Financial Statements

1. We have fulfilled our responsibilities, as set out in the terms of the audit engagement letter dated July 19, 2017, for the preparation and fair presentation of the financial statements of the various opinion units referred to above in accordance with U.S. GAAP. We have reviewed, approved, and taken responsibility for the financial statements and related notes.
2. We have reviewed and approved the various adjusting journal entries that were proposed by you for recording in our books and records and reflected in the financial statements.
3. We acknowledge our responsibility for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.
4. We acknowledge our responsibility for the design, implementation, and maintenance of internal control to prevent and detect fraud.
5. Significant assumptions used by us in making accounting estimates, including those measured at fair value, are reasonable.

6. Related party relationships and transactions have been appropriately accounted for and disclosed in accordance with the requirements of U.S. GAAP. For the purposes of this letter, related parties mean members of the governing body; board members; administrative officials; immediate families of administrative officials, board members, and members of the governing body; and any companies affiliated with or owned by such individuals.
7. All events subsequent to the date of the financial statements and for which U.S. GAAP requires adjustment or disclosure have been adjusted or disclosed.
8. The effects of uncorrected misstatements summarized in the attached schedule and aggregated by you during the current engagement are immaterial, both individually and in the aggregate, to the applicable opinion units and to the financial statements as a whole.
9. The effects of all known actual or possible litigation and claims have been accounted for and disclosed in accordance with U.S. GAAP.
10. With regard to items reported at fair value:
 - a. The underlying assumptions are reasonable and they appropriately reflect management's intent and ability to carry out its stated courses of action.
 - b. The measurement methods and related assumptions used in determining fair value are appropriate in the circumstances and have been consistently applied.
 - c. The disclosures related to fair values are complete, adequate, and in conformity with U.S. GAAP.
 - d. There are no subsequent events that require adjustments to the fair value measurements and disclosures included in the financial statements.
11. All component units, as well as joint ventures with an equity interest, are included and other joint ventures and related organizations are properly disclosed.
12. All funds and activities are properly classified.
13. All funds that meet the quantitative criteria in GASB Statement No. 34, *Basic Financial Statements—and Management's Discussion and Analysis—for State and Local Governments*, and GASB Statement No. 37, *Basic Financial Statements—and Management's Discussion and Analysis—for State and Local Governments: Omnibus*, for presentation as major are identified and presented as such and all other funds that are presented as major are considered important to financial statement users.
14. All components of net position and fund balance classifications have been properly reported.
15. All revenues within the statement of activities have been properly classified as program revenues, general revenues, contributions to term or permanent endowments, or contributions to permanent fund principal.
16. All expenses have been properly classified in or allocated to functions and programs in the statement of activities, and allocations, if any, have been made on a reasonable basis.
17. All interfund and intra-entity transactions and balances have been properly classified and reported.
18. Special items and extraordinary items have been properly classified and reported.
19. Deposit and investment risks have been properly and fully disclosed.
20. Capital assets, including infrastructure assets, are properly capitalized, reported, and if applicable, depreciated.
21. All required supplementary information is measured and presented within the prescribed guidelines.
22. We agree with the findings of the specialists in evaluating the workers' compensation liability and have adequately considered the qualifications of the specialist in determining the amounts and disclosures used in the financial statements and underlying accounting records. We did not give or cause any instructions to be given to specialists with respect to values or amounts derived in an attempt to bias their work, and we have not otherwise aware of any matters that have had an effect on the independence or objectivity of the specialists.

23. We believe that the actuarial assumptions and methods used to measure pension and other postemployment benefit liabilities and costs for financial accounting purposes are appropriate in the circumstances.

Information Provided

24. We have provided you with:
- a. Access to all information, of which we are aware that is relevant to the preparation and fair presentation of the financial statements of the various opinion units referred to above, such as records, documentation, meeting minutes, and other matters;
 - b. Additional information that you have requested from us for the purpose of the audit; and
 - c. Unrestricted access to persons within the entity from whom you determined it necessary to obtain audit evidence.
25. All transactions have been recorded in the accounting records and are reflected in the financial statements.
26. We have disclosed to you the results of our assessment of the risk that the financial statements may be materially misstated as a result of fraud.
27. We have no knowledge of any fraud or suspected fraud that affects the entity and involves:
- d. Management;
 - e. Employees who have significant roles in internal control; or
 - f. Others where the fraud could have a material effect on the financial statements.
28. We have no knowledge of any allegations of fraud, or suspected fraud, affecting the entity's financial statements communicated by employees, former employees, vendors, regulators, or others.
29. We are not aware of any pending or threatened litigation and claims whose effects should be considered when preparing the financial statements.
30. We have disclosed to you the identity of the entity's related parties and all the related party relationships and transactions of which we are aware.
31. There have been no communications from regulatory agencies concerning noncompliance with or deficiencies in accounting, internal control, or financial reporting practices.
32. The government has no plans or intentions that may materially affect the carrying value or classification of assets and liabilities.
33. We have disclosed to you all guarantees, whether written or oral, under which the government is contingently liable.
34. We have identified and disclosed to you the laws, regulations, and provisions of contracts and grant agreements that could have a direct and material effect on financial statement amounts, including legal and contractual provisions for reporting specific activities in separate funds.
35. There are no:
- g. Violations or possible violations of laws or regulations, or provisions of contracts or grant agreements whose effects should be considered for disclosure in the financial statements or as a basis for recording a loss contingency, including applicable budget laws and regulations.
 - h. Unasserted claims or assessments that our lawyer has advised are probable of assertion and must be disclosed in accordance with GASB-62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*.
 - i. Other liabilities or gain or loss contingencies that are required to be accrued or disclosed by GASB-62.
36. The government has satisfactory title to all owned assets, and there are no liens or encumbrances on such assets nor has any asset or future revenue been pledged as collateral, except as disclosed to you.

37. We have complied with all aspects of grant agreements and other contractual agreements that would have a material effect on the financial statements in the event of noncompliance.
38. We have disclosed to you all significant estimates and material concentrations known to management that are required to be disclosed in accordance with GASB-62. Significant estimates are estimates at the balance sheet date that could change materially within the next year. Concentrations refer to volumes of business, revenues, available sources of supply, or markets or geographic areas for which events could occur that would significantly disrupt normal finances within the next year.

Supplementary Information in Relation to the Financial Statements as a Whole

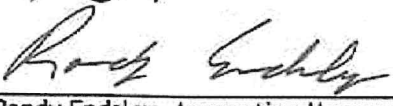
39. With respect to the supplementary information accompanying the financial statements:
 - a. We acknowledge our responsibility for the presentation of the supplementary information in accordance with accounting principles generally accepted in the United States of America.
 - b. We believe the supplementary information, including its form and content, is fairly presented in accordance with accounting principles generally accepted in the United States of America.
 - c. The methods of measurement or presentation have not changed from those used in the prior period.
 - d. We believe the significant assumptions or interpretations underlying the measurement or presentation of the supplementary information, and the basis for our assumptions and interpretations, are reasonable and appropriate in the circumstances.

Required Supplementary Information

40. With respect to the required supplementary information accompanying the financial statements:
 - a. We acknowledge our responsibility for the presentation of the required supplementary information in accordance with accounting principles generally accepted in the United States of America.
 - b. We believe the required supplementary information, including its form and content, is measured and fairly presented in accordance with accounting principles generally accepted in the United States of America.
 - c. The methods of measurement or presentation have not changed from those used in the prior period.
 - d. We believe the significant assumptions or interpretations underlying the measurement or presentation of the required supplementary information, and the basis for our assumptions and interpretations, are reasonable and appropriate in the circumstances.



Angela Bennett, Finance Director



Randy Endsley, Accounting Manager

CITY OF LANSING, MICHIGAN

Schedule of Adjustments Passed (SOAP)

For the June 30, 2017 Audit

In accordance with generally accepted auditing standards, we have prepared the following schedule of proposed audit adjustments, which we believe are immaterial both individually and in the aggregate. We are providing this schedule to both management and those charged with governance to receive their assurance that they agree that the amounts listed below are not material to the financial statements, either individually or in the aggregate, and do not need to be recorded.

	Effect of Passed Adjustment - Over(Under)Statement				
	Assets	Liabilities	Beginning Equity	Revenues	Expenses/ Expenditures
General fund					
Nuisance fee revenue recorded for collections subsequent to the period of availability	\$ -	\$ (69,537)	\$ -	\$ 69,537	\$ -
Effect of unallocated bank charges	-	(76,726)	-	75,820	(906)
Total general fund	<u>\$ -</u>	<u>\$ (146,263)</u>	<u>\$ -</u>	<u>\$ 145,357</u>	<u>\$ (906)</u>
Misstatement as a percentage of total revenues - general fund	0.00%	-0.12%	0.00%	0.11%	0.00%
Governmental activities					
Cumulative effect of items reported above impacting governmental activities	\$ -	\$ (76,726)	\$ -	\$ 75,820	\$ (906)
Unreported estimated liability for potential Michigan Tax Tribunal settlement	-	(89,336)	134,003	-	44,667
Variance in accrued interest on long-term debt	-	(68,915)	-	-	(68,915)
Total governmental activities	<u>\$ -</u>	<u>\$ (234,977)</u>	<u>\$ 134,003</u>	<u>\$ 75,820</u>	<u>\$ (25,154)</u>
Misstatement as a percentage of total revenues - governmental activities	0.00%	-0.15%	0.09%	0.05%	-0.02%
Municipal parking system					
Overstated retainage liability	<u>\$ -</u>	<u>\$ 80,387</u>	<u>\$ (80,387)</u>	<u>\$ -</u>	<u>\$ -</u>
Misstatement as a percentage of total assets - municipal parking fund	0.00%	0.15%	-0.15%	0.00%	0.00%



Rehmann Robson

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**INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING
AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS
PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS***

December 22, 2017

Honorable Mayor and
Members of City Council
City of Lansing, Michigan

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information of the **City of Lansing, Michigan** (the "City"), as of and for the year ended June 30, 2017, and the related notes to the financial statements, which collectively comprise the City's basic financial statements, and have issued our report thereon dated December 22, 2017.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the City's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the City's internal control. Accordingly, we do not express an opinion on the effectiveness of the City's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that have not been identified. We did identify certain deficiencies in internal control, described in the accompanying schedule of findings and responses as items 2017-001 and -002, that we consider to be material weaknesses.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the City's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

City of Lansing, Michigan's Response to Findings

The City's responses to the findings identified in our audit are described in the accompanying schedule of findings and responses. The City's responses were not subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on them.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the City's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Rehmann Lohman LLC

CITY OF LANSING, MICHIGAN

Schedule of Findings and Responses

For the Year Ended June 30, 2017

2017-001 - Material Audit Adjustments (Repeat Comment)

Finding Type. Material Weakness in Internal Control over Financial Reporting.

Criteria. Management is responsible for maintaining its accounting records in accordance with generally accepted accounting principles (GAAP).

Condition. During our audit, we identified and proposed material adjustments (which were approved and posted by management) to adjust the City's accounting records. In addition, we received several revisions to the City's trial balance (the final version was received on December 6, 2017), each of which contained material corrections to previous versions. Also, management identified and posted many smaller adjustments to a wide variety of funds and accounts throughout the audit process that collectively had a material effect on the City's financial reporting process.

Cause. Over the past several years, the City's finance department has reduced in size due to staffing reductions and staffing turnover. These changes have placed a significant burden on the year-end close process, and have resulted in reconciliation of account balances and adjustment of related accounts, and preparation of the schedule of expenditures of federal awards (SEFA), not being completed timely.

Effect. As a result of this condition, the City's financial information was initially misstated by amounts that were deemed to be quantitatively material to nearly every opinion unit, and numerous account balances were not adjusted timely throughout the year. Correcting entries were subsequently posted by management to the City's records and the appropriate balances are presented in the audited financial statements.

Recommendation. Management has already taken appropriate corrective action by posting correcting journal entries. However, we strongly recommend that the City critically assess the staffing levels in its Finance Department to ensure that there are an appropriate number of qualified/trained individuals available throughout the year to maintain the City's books and records in accordance with GAAP, and that balance sheet accounts for all funds be subject to periodic review and adjusted or reconciled to their underlying detail as soon as practical after fiscal year-end.

View of Responsible Officials. The City has filled previous vacancies. The corresponding training was still in process during the FY 2017 audit.

CITY OF LANSING, MICHIGAN

Schedule of Findings and Responses

For the Year Ended June 30, 2017

2017-002 - Timely and Accurate Preparation and Submission of Pension and OPEB Data (Repeat Comment)

Finding Type. Material Weakness in Internal Control over Financial Reporting.

Criteria. The City obtains actuarial valuations and other reports for its various pension and other postemployment benefit (OPEB) plans each year. Ideally, these valuations should be obtained far enough in advance to be used to calculate amounts to be included in the audited financial statements. The City is responsible for accurate and timely compilation of data necessary for actuarial professionals to process and complete reporting necessary for the proper reporting of pension and OPEB information in the annual financial statements.

Condition. Actuarial valuations for the pension and other postemployment benefit plans, the GASB 67 rollforward related to the defined benefit pension plans, and the GASB 74 rollforward related to the other postemployment benefit plans were not completed until December 2017, and the related account balances were not adjusted until late in audit fieldwork. In addition, when making analytical comparisons of census data, we noted several instances of inconsistency between the current year and prior year census data.

Cause. The City undertook a large study of its pension and retiree healthcare liabilities for addressing its legacy costs, which involved a substantial amount of effort by the City's actuary. Coupled with staffing transitions in the Finance Department, this resulted in the delayed delivery of necessary information to the actuary. In addition, the census data submitted to the actuary is not subject to independent review for accuracy prior to submission.

Effect. As a result of this condition, the City experienced an increased risk that misstatements in the accounting records, whether caused by error or fraud, would not be detected and corrected on a timely basis.

Recommendation. We strongly recommend that the City critically assess the activities of the finance staff to assure that required tasks are completed accurately and in a timely fashion. We further recommend that the City implement a review process to determine that census data submitted to the actuary is accurate and complete.

View of Responsible Officials. The above-mentioned pension and retiree healthcare study is now complete, and the staff training will be complete before the next audit. In addition, the City has implemented a pension tracking system to automate and store many data elements required for OPEB and pension valuations. As the former process consists of three computer databases and paper records, data validation and comparison is still ongoing.

RECEIVED

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LANSING CITY CLERK



City of Lansing Employees' Retirement System

Actuarial Valuation For Funding and Contributions

as of December 31, 2016

November, 2017

Executive Summary

November 28, 2017

City of Lansing Employees' Retirement System
124 W. Michigan Avenue
8th Floor
Lansing, MI 48933

Members of the Board:

The following report sets forth the Actuarial Valuation of the City of Lansing Employees' Retirement System (the System) as of December 31, 2016. The report is based on participant data and asset summary as submitted by the Plan Administrator and City finance department. We relied on this information without auditing it.

INVESTMENT PERFORMANCE

The total Market Value of Plan Assets for the plan year ending December 31, 2016 was \$196,865,514. Plan assets exclude from this a reserve for healthcare benefits. The total yield of the fund for the plan year ending December 31, 2016 was 5.9% on the market value of assets and 7.4% on an actuarial basis.

The Plan uses a smoothing method to determine the City's contributions. Under this method, asset gains or losses are spread over a 5-year period. The gains and losses are determined every year by comparing actual investment returns with expected asset performance.

Details of the development of the Actuarial Asset Value are shown on page 8.

FUNDING RECOMMENDATIONS

The total City contribution for fiscal year 2018, based on the 7.4% assumption, is \$10,185,060. Because this is lower than last year's contribution of \$10,246,872, it would be prudent for the City to contribute a higher amount. Changes in actuarial assumptions were made for this valuation, which resulted in an increase in the City Contribution. However, this was offset by favorable demographic experience during 2016.

FUNDING PROGRESS

The Actuarial Accrued Liability as of December 31, 2016 is \$305,886,505 compared to the Actuarial Value of Assets (excluding healthcare reserve) of \$176,160,086, resulting in a plan funded ratio of 57.6%. On a market value basis, this ratio is 55.4%. These figures are based on the 7.40% return assumption.

Section 1: Plan Asset Information

1.2: Development of Actuarial Value of Assets

Market Value of Total Fund as of January 1, 2016	\$197,212,909
Plus: Contributions	11,667,266
Less: Benefit Payments, Refunds	22,861,856
Less: Admin Expenses	39,101
Plus: Expected Return during 2016 (@ 7.6%)	14,250,880
Expected Market Value as of December 31, 2016	200,230,099
Actual Market Value of Total Fund as of December 31, 2016	196,865,514
Asset Gain/(Loss) for 2016 Plan Year	(3,364,585)
Actuarial Value = Market Value	
Less: 80% of 2015 Gain/(Loss) 80%* (3,364,585)	(2,691,668)
Less: 60% of 2014 Gain/(Loss) 60%* (10,548,489)	(6,329,093)
Less: 40% of 2013 Gain/(Loss) 40%* (2,809,882)	(1,123,953)
Less: 20% of 2012 Gain/(Loss) 20%* 10,553,104	<u>2,110,621</u>
Total Deferred Gain/(Loss)	(8,034,093)
Actuarial Value of Assets, Total Fund - December 31, 2016	\$204,899,607
as % of Market Value of Assets	104.1%
Healthcare Reserve as of December 31, 2016	27,612,914
Adjusted Healthcare Reserve ¹	28,739,521
Actuarial Value of Assets, Pension Plan - December 31, 2016	\$176,160,086
Estimated Rate of Return on the Actuarial Value of Assets:	7.36%

¹ Takes into account asset smoothing

Section 2: Participant Summary

2.2: Distribution of Active Participants

Nearest Age	-----Years of Credited Service-----								Total
	<1	1	2 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25+	
20 - 24	2	2							4
25 - 29	7	2	8						17
30 - 34	4	2	7						13
35 - 39	3	4	6	7	5	2			27
40 - 44	6	8	7	2	14	1			38
45 - 49	4	2	10	6	28	19	8		77
50 - 54	3	5	3	5	32	23	10	2	83
55 - 59	2	2	4	5	24	17	12	1	67
60 - 64	2	4	3	3	10	7	2	3	34
>64	1	1			10	4		1	17
Total	34	32	48	28	123	73	32	7	377

	<u>Males</u>	<u>Females</u>	<u>Total</u>
Total Compensation	\$12,760,999	\$7,721,550	\$20,482,549
Average Compensation	55,483	52,528	54,330
Arithmetic Averages:			
Nearest Age	49.2	49.5	49.3
Completed Years of Service	10.8	10.3	10.6
Salary-Weighted Averages:			
Nearest Age	50.5	50.7	50.6
Completed Years of Service	12.0	11.2	11.7
Number of Participants	230	147	377
Percent male / female	61.0%	39.0%	100.0%

3.1: Summary of Actuarial Liability and Funding Progress

Actuarial Accrued Liability		12/31/2016	
	12/31/2015	Old Assumptions 7.60%	New Assumptions 7.40%
Active Employees	\$ 52,775,962	\$51,868,676	\$54,452,341
Member Benefit Fund	15,794,930	15,738,432	15,738,432
Terminated Vested	5,753,407	6,147,193	6,435,440
<u>Retirees and Beneficiaries</u>	<u>234,470,694</u>	<u>220,974,285</u>	<u>229,260,292</u>
Total Actuarial Accrued Liability	\$ 308,794,993	\$294,728,586	\$305,886,505
Actuarial Value of Assets	176,031,902	176,160,086	176,160,086
Unfunded Actuarial Accrued Liability	132,763,091	118,568,500	129,726,419
Plan Funding Ratio	57.0%	59.8%	57.6%

Section 4: Actuarial Assumptions and Methods

Termination*: Rates of termination vary based on the service of the member. Sample Rates are shown below:

<u>Years of Service</u>	Old Assumption	No Change in Assumption
	<u>UAW</u>	<u>Others</u>
0	10.0%	20.0%
1	7.0%	10.0%
2	5.0%	4.0%
3	5.0%	4.0%
4	5.0%	4.0%
5	4.0%	3.0%
10	1.0%	1.0%
15	1.0%	1.0%
20+	0.5%	0.5%

New Assumption

<u>Years of Service</u>	UAW Males	UAW Females
	<u>Males</u>	<u>Females</u>
0	22.0%	33.0%
1	18.7%	28.1%
2	15.9%	23.8%
3	13.5%	20.3%
5	9.8%	14.6%
10	4.3%	6.5%
15+	0.0%	0.0%

Retirement*: Rates of retirement vary based on the age of the member as shown below. Rate is applied only if the member is eligible to retire.

<u>Age</u>	<u>UAW</u>	<u>Others</u>
45-49	0.0%	10.0%
50-54	40.0%	10.0%
55-56	40.0%	15.0%
57	20.0%	15.0%
58	10.0%	25.0%
59	10.0%	10.0%
60	20.0%	15.0%
61	35.0%	15.0%
62-64	20.0%	15.0%
65-69	100.0%	50.0%
70 +	100.0%	100.0%

Section 5: Summary of Plan Benefits

Normal Retirement Benefit Formula (Old Plan):

UAW and Elected Officials	2.75% of Final Average Compensation times for the first 35 years of credited service, plus 1.5% of Final Average Compensation for the next 5 years of service, plus 1.0% of Final Average Compensation for service in excess of 40 years, with a maximum of 100% of Final Average Compensation.
District Court Teamsters	2.30% of Final Average Compensation times years of credited service.
All Others	2.80% of Final Average Compensation times for the first 35 years of credited service, plus 1.5% of Final Average Compensation for the next 5 years of service, plus 1.0% of Final Average Compensation for service in excess of 40 years, with a maximum of 100% of Final Average Compensation.

Termination Prior to Retirement

Eligibility	Vesting is after 8 years of credited service
Form of Benefit	Benefit is payable as a Life Annuity beginning at age 58 for new Plan Members and at the age at which age plus service equals 65 for Old Plan Members (except UAW).

Duty Disability

Eligibility	Members are eligible for Duty Disability Retirement benefits immediately upon employment.
Benefit Amount	Benefit is paid at the effective date of disability retirement as a Life Annuity and is equal to the accrued Retirement Benefit, with additional service granted to age 60. During the worker's compensation period, the disability benefit may not exceed the difference between the member's final compensation and the worker's compensation amount. Upon the attainment of age 60, disabled retirees are transferred to service retirement status.

Non Duty Disability

Eligibility	Members are eligible for Non Duty Disability Retirement benefits after completing 10 years of service.
Benefit Amount	Benefit is paid at the effective date of disability retirement as a Life Annuity and is equal to the accrued Retirement Benefit, with a minimum benefit equal to 25% of final average compensation.

Death incurred in the Line of Duty

Eligibility	Benefit is payable to the survivors of a member who died as a result of an injury or disease arising out of and in the course of duty.
Benefit Amount	Benefit is paid upon termination of the survivor's workers' compensation period as a Life Annuity and is equal to the survivor's weekly workers' compensation converted to an annual basis.

Glossary of Terms

Actuarial Accrued Liability (AAL):	The portion of benefits deemed to be accrued by participants based on past service. The AAL serves as the asset funding target, when annual contributions are determined.
Actuarial Value of Assets (AVA):	The smoothed value of assets, used to compute the Unfunded AAL. The purpose of the AVA is to control volatility in annual cash contributions .
Amortization of Unfunded Liability:	The portion of the annual cash contribution that represents a portion of the Unfunded AAL. The amortization can be positive or negative.
Actuarially Determined Employer Contribution (ADEC):	The contribution determined by the actuary for funding purposes .
Market Value of Assets (MVA):	The total value of Plan assets available to pay benefits.
Normal Cost:	That portion of the annual contribution that represents one year's accrual of benefits. In funding calculations, this is known as the Service Cost.
Unfunded Actuarial Accrued Liability:	The difference between the Actuarial Value of Assets and the Actuarial Accrued Liability, used for funding purposes .

Appendix II: History of Employer Contributions and Funding Progress

Historical Employer Contributions

Fiscal Year Ending	Actuarially Determined Employer Contribution	Actual Employer Contribution	
6/30/2009	\$ 6,047,520	\$ 6,476,000	(1)
6/30/2010	6,472,341	6,043,861	(1)
6/30/2011	7,297,083	7,297,083	
6/30/2012	7,596,879	7,523,534	(2)
6/30/2013	8,586,536	8,586,536	(3)
6/30/2014	9,361,000	9,361,000	
6/30/2015	10,548,000	10,548,000	(4)
6/30/2016	10,182,000	10,182,000	
6/30/2017	10,247,000	10,247,000	
6/30/2018	To be determined		(5)

(1) The City contributed in excess of its FY 2009 Contribution. The City's FY 2010 contribution was reduced by the dollar amount of the FY 2009 overpayment.

(2) The FY 2012 City contribution was reduced by \$73,345 in recognition of additional contributions by United Auto Workers (UAW) employees, which were negotiated and contributed after the establishment of the June 30, 2012 Contribution from the December 31, 2010 valuation.

(3) Fiscal year 2013 Contribution reflects changes made to actuarial assumptions based on an Experience Study. Changes included a decrease in the assumed rate of return from 8.0% to 7.8%. A closed amortization period was also adopted as of 12/31/2011, beginning at 30 years and decreasing each year until 15 years is reached.

(4) Fiscal year 2015 Contribution reflects changes made to assumed return and inflation from 7.8% and 3.3% to 7.6% and 3.1%, respectively.

(5) Reflects changes made to actuarial assumptions based on an Experience Study completed in 2016, including assumed return of 7.40%, with 2.925% underlying inflation.

Appendix III: Benefit Costs by Unit/Formula

Employee Group(s)	# Employees	Benefit Multiplier	Total Normal Cost	% of Pay	Net Employer Normal Cost	% of Pay
T214, T243, T243DC (I), Teamsters Exempt, NBU DCT (old)	3	2.80%	\$36,269	14.6%	\$25,826	10.8%
T214, T243, T243DC (II), Council Staff	4	2.30%	36,322	12.8%	25,778	9.4%
T214, T243, T243DC (III)	138	1.80%	1,020,217	10.7%	495,507	5.4%
UAW I	51	1.25%	148,559	7.3%	56,168	2.9%
UAW II	116	2.75%	985,088	16.7%	829,042	14.6%
NBU, Exec	19	1.70%	92,806	9.4%	66,196	6.9%
	46	1.60%	345,150	9.4%	147,280	4.1%
All ERS Employees	377	N/A	\$ 2,664,411	11.8%	\$1,645,797	7.5%

UAW I: hired before 10/21/2013
UAW II: hired on or after 10/21/2013
T214 I: hired before 12/8/2008
T214 II: hired after 12/8/2008 and before 1/1/2015
T214 III: hired on or after 1/1/2015
T243 I: all except District Court
T243 II: hired on or after 5/19/2014
T243DC I: District Court hired before 4/1/2014
T243DC II: District Court hired on or after 4/1/2014 and before 7/1/2016
T243DC III: District Court hired on or after 7/1/2016



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LANSING CITY CLERK

City of Lansing Police and Fire Retirement System

Actuarial Valuation For Funding and Contributions

as of December 31, 2016

November, 2017

Executive Summary

November 22, 2017

City of Lansing Police and Fire Retirement System
124 W. Michigan Avenue
8th Floor
Lansing, MI 48933

Members of the Board:

The following report sets forth the Actuarial Valuation of the City of Lansing Police and Fire Retirement System (the System) as of December 31, 2016. The report is based on participant data and asset summary as submitted by the Plan Administrator and City finance department. We relied on this information without auditing it.

INVESTMENT PERFORMANCE

The total Market Value of Plan Assets for the plan year ending December 31, 2016 was \$312,795,888. Plan assets exclude from this a reserve for healthcare benefits. The total yield of the fund for the plan year ending December 31, 2016 was 6.1% on the market value of assets and 6.3% on an actuarial basis, taking into account asset smoothing.

The Plan uses a smoothing method to determine the City's contributions. Under this method, asset gains or losses are spread over a 5-year period. The gains and losses are determined every year by comparing actual investment returns with expected asset performance.

Details of the development of the Actuarial Asset Value are shown in Section 1.2.

FUNDING RECOMMENDATIONS

The total recommended City contribution for fiscal year 2018 is \$12,562,547. Last year the total recommended contribution was \$11,521,768. The increase in cost is due to the adoption of updated assumptions based on the recent experience study.

FUNDING PROGRESS

The Actuarial Accrued Liability as of December 31, 2016 is \$424,264,103 compared to the Actuarial Value of Assets of \$294,311,956 (excluding healthcare reserve), resulting in a plan funded ratio of 69.4%. Using the market value of assets, this ratio is 66.0%.

Section 1: Plan Asset Information

1.2: Development of Actuarial Value of Assets

Market Value of Total Fund as of January 1, 2016	\$310,270,615
Plus: Contributions	15,750,968
Less: Benefit Payments, Refunds	30,327,720
Less: Administrative Expenses	47,787
Plus: Expected Return during 2016 (@ 7.6%, net of investment expenses)	22,677,604
Expected Market Value as of December 31, 2016	\$318,323,680
Actual Market Value of Total Fund as of December 31, 2016	\$312,795,888
Investment Gain/(Loss) for 2016 Plan Year	(5,527,792)
Actuarial Value = Market Value	
Less: 80% of 2016 Gain/(Loss) 80% * (5,527,792)	(4,422,234)
Less: 60% of 2015 Gain/(Loss) 60% * (24,424,402)	(14,654,641)
Less: 40% of 2014 Gain/(Loss) 40% * (5,226,518)	(2,090,607)
Less: 20% of 2013 Gain/(Loss) 20% * 25,936,548	<u>5,187,310</u>
Total Deferred Gain/(Loss)	(15,980,172)
Actuarial Value of Assets, Total Fund - December 31, 2016	\$328,776,060
as % of Market Value of Assets	105.1%
Healthcare Reserve as of December 31, 2016	\$32,788,606
Adjusted Healthcare Reserve ¹	34,464,104
Actuarial Value of Assets, Pension Plan - December 31, 2016	\$294,311,956
Estimated Rate of Return on the Actuarial Value is	6.29%

¹ Takes into account asset smoothing

Section 2: Participant Summary

2.2: Distribution of Active Participants

Nearest Age	-----Completed Years of Service from Date of Hire-----								Total
	<1	1	2 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25+	
20 - 24	17	2	5						24
25 - 29	15	8	24						47
30 - 34	3		18	12	7				40
35 - 39	5		4	17	20	13			59
40 - 44			2	4	23	39	13		81
45 - 49	1			3	9	25	38	1	77
50 - 54					3	9	14	1	27
55 - 59					1		4		5
60 - 64					1				1
>64									
Total	41	10	53	36	64	86	69	2	361

	<u>Males</u>	<u>Females</u>	<u>Total</u>
Total Compensation	\$21,680,912	3,718,799	\$25,399,711
Average Compensation	71,319	65,242	70,359
Arithmetic Averages:			
Nearest Age	38.8	38.5	38.8
Completed Years of Service	11.8	11.4	11.8
Salary-Weighted Averages:			
Nearest Age	40.8	40.3	40.7
Completed Years of Service	13.7	13.7	13.7
Number of Participants	304	57	361
Percent male / female	84.2%	15.8%	100.0%

3.1: Summary of Actuarial Liability and Funding Progress

Actuarial Accrued Liability	12/31/2015	12/31/2016	
		Old Assumptions	New Assumptions
	7.60%	7.60%	7.35%
Active Employees	\$106,965,325	\$ 99,027,797	\$103,213,961
Terminated Vested	5,315,759	4,779,120	5,041,817
<u>Retirees and Beneficiaries</u>	<u>297,908,471</u>	<u>303,136,483</u>	<u>316,008,325</u>
Total Actuarial Accrued Liability	\$410,189,555	\$ 406,943,400	\$424,264,103
Actuarial Value of Assets	292,531,481	294,311,956	294,311,956
Net Unfunded Actuarial Accrued Liability	117,658,075	112,631,444	129,952,147
Plan Funding Ratio	71.3%	72.3%	69.4%

Section 4: Actuarial Assumptions and Methods

Termination*: Rates of termination vary based on the service of the member.

Sample Rates are shown below:

<u>Years of Service</u>	<u>Fire (No Change)</u>	<u>Police (Old)</u>	<u>Police (New)</u>	
			<u>Age</u>	<u>Rate</u>
0	4.0%	5.0%	20	15.0%
1	3.2%	4.3%	25	7.5%
5	1.3%	2.2%	30	3.7%
10	0.4%	1.0%	35	1.9%
15	0.1%	0.4%	40	0.9%
20	0.0%	0.0%	45	0.3%
			50+	0.0%

Retirement*: Rates of retirement vary based on the service of the member as shown below.

<u>Years of Service</u>	<u>Fire (Old)</u>	<u>Fire (New)</u>	<u>Police (Old)</u>	<u>Police (New)</u>
10-24	5.0%	5.0%	5.0%	5.0%
25	80.0%	90.0%	80.0%	90.0%
26-29	60.0%	60.0%	25.0%	25.0%
30+	100.0%	100.0%	100.0%	100.0%

Also 100% at mandatory retirement ages.

Changes in assumptions and methods

Changes in assumptions since the prior valuation are indicated above with asterisks.

The assumptions above are based on the most recent experience study, covering 2012 through 2015.

All benefits are subject to the language in the City Ordinance and relevant collective bargaining agreements.

Employee Group Covered: Police Officers (CCLP, formerly FOP), and Fire Fighters

Normal Retirement: Age 55 or 25 years of service
For CCLP-NS hired on or after August 1, 2014, full retirement is at age 50 with 25 years of service

Mandatory Retirement: Age 60 for Police and age 70 for Firefighters

Normal Form of Benefit: Monthly life annuity with 50% of the benefit payable to the spouse upon the member's death.

	Group	Contribution Rate (% of Pay)
Member Contribution Rates:	Fire (IAFF)	10.00%
	Police, Supervisor (CCLP-S)	9.52%
	Police, Non Supervisor (CCLP-NS)	9.00%
	Hires after 5/19/2014 Fire (IAFF)	7.00%
	Hires after 08/01/2014 Police, Non Supervisor (CCLP-NS)	7.00%

Included Compensation: For a police officer member, Included Compensation is defined as annual base salary, overtime pay (including holiday pay), longevity, gun allowance, clothing allowances, sick leave reimbursement (buy-back), shift premium and retroactive pay (prorated by effective date). For a Police Supervisory Division Unit member, the definition also includes compensatory time buy-back (up to a maximum of 160 hours), provided that the compensatory time was earned in the same 24 months on which final average compensation is based. For a firefighter member, Included Compensation is defined as annual base salary, overtime pay, acting pay, ambulance wage differential pay, longevity, holiday pay, field training instructor pay and retroactive pay (prorated by effective date).

Final Average Compensation: Final Average Compensation means the monthly average of the member's final compensation that is included in Included Compensation, paid during the period of the member's 24 highest consecutive months of credited service as a police officer, or firefighter. If the member has less than 24 months of credited service, the member's final average compensation shall be the monthly average of the Included Compensation paid for his or her total period of credited service.

Normal Retirement Benefit Formula: 3.2% of Final Average Compensation times years of credited service, not to exceed 25 years. Maximum benefit is 80% of Final Average Compensation. Pension benefit is capped at 110% of Base Wage for IAFF and CCLP-NS and 115% for CCLP-Supervisors.

Benefit Multiplier is changed to 2.5% and Pension Benefit is capped at 100% of Base Wage for hires on or after May 19, 2014 for IAFF and August 1, 2014 for CCLP-NS

Optional Benefit Forms

Prior to retirement, a member may elect a reduced benefit of either 93% or 86% of the original amount, thereby increasing the spouse benefit to either 75% or 86%, respectively.

Ad Hoc Cost-of-Living Adjustments

One-time cost of living increases were granted in 1973, 1984 and 1987.

Post Retirement Benefit Adjustments

Effective January 1, 1995 and each January 1 thereafter, the annual benefit amount will be increased by \$525 for each retiree who meets each of the following conditions:

- 1) 25 or more years of credited service at the time of retirement
- 2) Age 60 as of the January 1 increase date
- 3) Has been retired at least 6 months as of the January 1 increase date

The \$525 amount is reduced for retirees who elected the 75% or 86% optional forms of benefit (\$488.25 and \$451.50, respectively).

Spouses of deceased members are also eligible for benefit increases each January 1 if:

- 1) The deceased member had at least 25 years of credited service at the time of retirement
- 2) The deceased member would have attained at least age 60 as of the January 1 increase date
- 3) The deceased member had been deceased at least 6 months as of the January 1 increase date.

The spouse's annual benefit increase amount is adjusted based on the form of payment elected by the deceased member, according to the following schedule:

<u>Spouse Benefit %</u>	<u>Annual Benefit Increase</u>
50%	\$262.50
75%	\$393.75
86%	\$451.50

The benefit increases accumulate from year to year, but cumulative benefit increases shall not exceed cumulative increases in the Consumer Price Index.

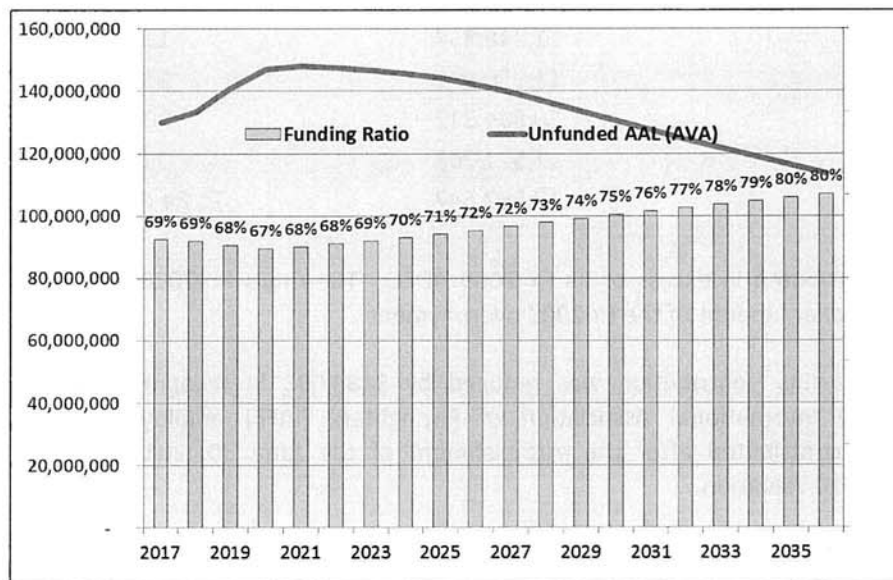
Changes in Plan provisions since the prior valuation

There have been no changes in Plan provisions since the prior valuation.

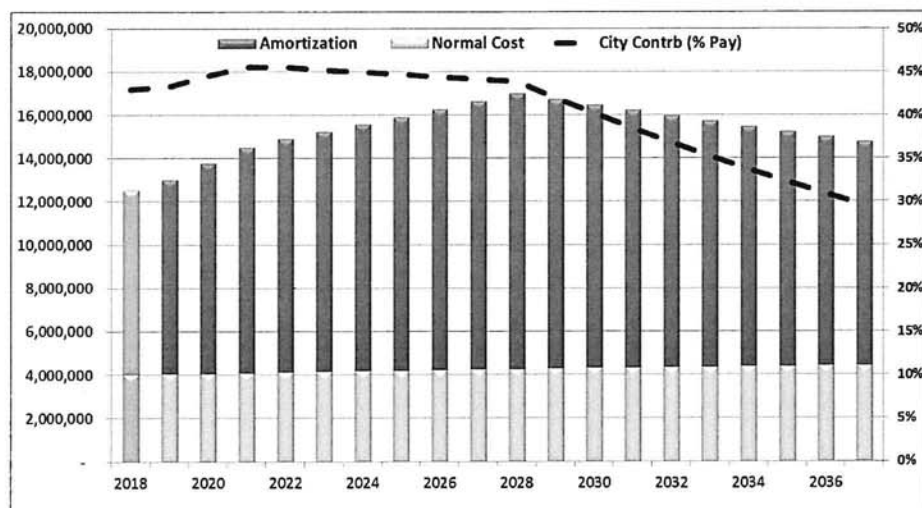
Appendix I: 20 Year Projection of Funding and Contributions

The graphs below show a projection of expected funding progress and City pension contributions to the Fund. We can see that the Plan is on a path to eventually decreasing the unfunded liability (top graph, red line) and improving the funding ratio to 80% over 20 years. During this time, the City contribution rate is expected to remain around 45% of payroll over the next 10 years, before gradually decreasing thereafter. The amounts are expected to increase by about \$4 million over the course of the next decade, before decreasing. The actual funding progress and contributions over this time period will differ from what is shown here, due to the actual experience of the Plan.

Projection of Funding Progress



Projection of City Contributions



Historical Funding Progress

Valuation Date	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Percentage Funded	Unfunded Actuarial Accrued Liability
12/31/2007	\$ 293,571,000	\$ 315,635,000	93.0%	\$ 22,064,000
12/31/2008	287,394,000	326,673,000	88.0%	39,279,000
12/31/2009	280,342,000	337,315,000	83.1%	56,973,000
12/31/2010	276,377,041	359,293,016	76.9%	82,915,975
12/31/2011	264,492,738	372,547,509	71.0%	108,054,771 (6)
12/31/2012	257,898,061	373,083,911	69.1%	115,185,850
12/31/2013	277,267,947	383,879,280	72.2%	106,611,333 (7)
12/31/2014	288,785,965	395,089,321	73.1%	106,303,356
12/31/2015	292,531,481	410,189,555	71.3%	117,658,075
12/31/2016	294,311,956	424,264,103	69.4%	129,952,147 (8)

(6) Reflects changes made to actuarial assumptions, based on Experience Study, including a reduction in the assumed return 8.0% to 7.8%.

(7) Reflects changes made to assumed return and inflation from 7.8% and 3.3% to 7.6% and 3.1%, respectively. AVA also reflects change in asset smoothing to immediately recognize all investment gains and losses prior to 12/31/2012.

(8) Reflects changes made to actuarial assumptions as of 12/31/2016, including return assumption of 7.35%, with underlying 2.85% inflation.

Appendix IV: Valuation Sensitivity

The figures shown on this page are based on the return assumption of 7.25%, recommended in the 2016 assumption review.

Actuarial Accrued Liability	12/31/2016
Total Actuarial Accrued Liability	\$428,464,318
Actuarial Value of Assets	294,311,956
Unfunded Actuarial Accrued Liability	134,152,362
Plan Funding Ratio	68.7%

City Contribution	12/31/2016
1) Total Entry Age Normal Cost	\$6,636,904
2) <u>Estimated Employee Contributions</u>	<u>2,706,508</u>
3) Net City Normal Cost: (1) – (2)	\$3,930,396
4) Valuation Payroll	\$27,673,222
5) City Normal Cost Rate (% of pay): (3) ÷ (4)	14.2%
6) Amortization of Unfunded Actuarial Accrued Liability	\$8,560,382
7) Amortization Rate (% of Pay): (6) ÷ (4)	30.9%
8) Total Contribution Rate: (5) + (7)	45.1%
9) Projected Fiscal Payroll	\$28,461,908
10) Total City Contribution for FY2018: (8) x (9)	\$12,834,274

City of Lansing
Fiscal Year 2016/2017 Fund Financial Results
February 12, 2018 City Council Presentation

Submitted @-m+8

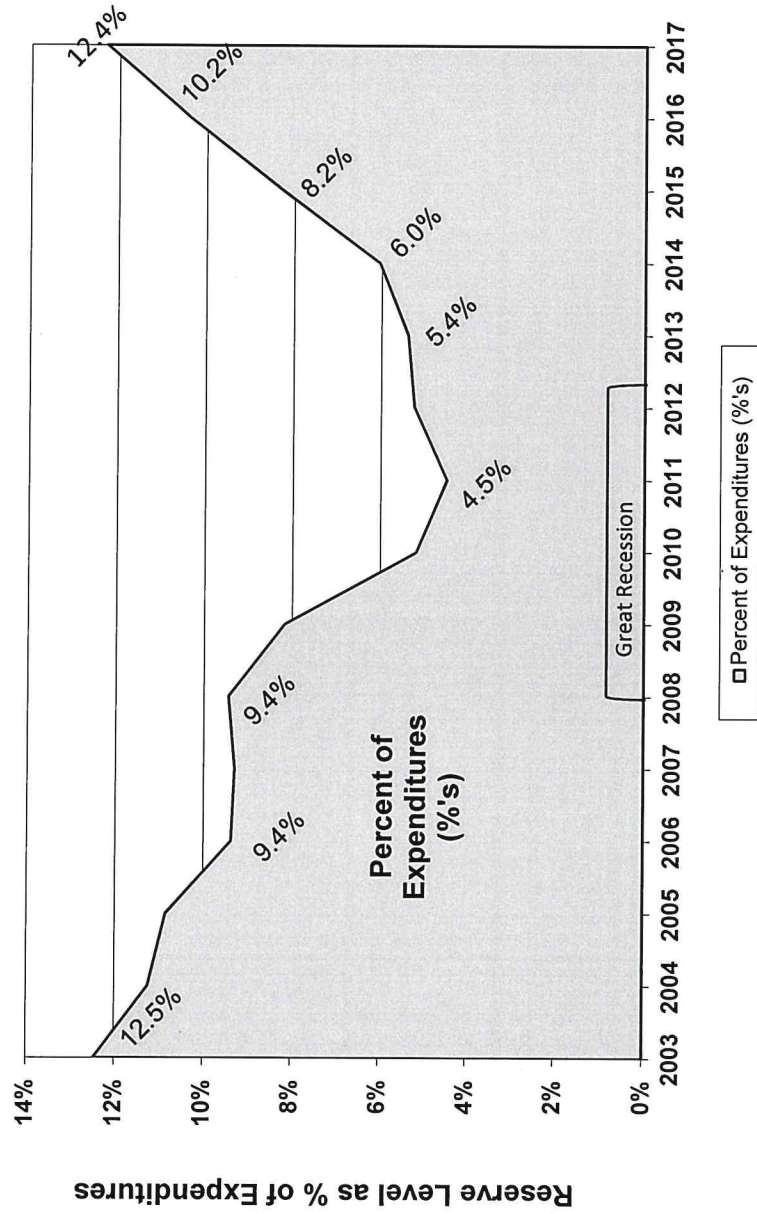
**FY 2017 Year-End Results - General Fund/Budget Stabilization Fund
(Includes Stadium Fund as displayed in CAFR)**

	Combined for Financial Reporting		
	<u>General Fund</u>	<u>Stadium Fund</u>	<u>Combined</u>
Revenues	\$ 126,206,941	\$ 1,055,032	\$ 127,261,973
Expenditures	123,738,084	1,155,026	124,893,110
Surplus/(Deficit) of Revenues over Expenditures	\$ 2,468,857	\$ (99,994)	\$ 2,368,863 ⁽¹⁾
Changes in Fund Balance Assignments	\$ (407,252)	(99,994)	(507,246)
Increase in <u>Unassigned</u> Fund Balance	\$ 2,876,109	\$ -	\$ 2,876,109 ⁽¹⁾

⁽¹⁾ Because the General Fund Statement of Revenues, Expenditures, and Changes in Fund Balances on page 38 of the CAFR does not document changes in fund balance restrictions, the Net Change in Fund Balance shows as \$2,368,863. However, due to the changes in fund balance assignments noted above, unassigned fund balance increased by \$2,876,109. That increase is demonstrated when the unassigned fund balance (page 36 of FY 2017 CAFR) is compared to the FY 2016 unassigned fund balance (page 36 of FY 2016 CAFR), and as indicated below.

Change in General Fund/Budget Stabilization Fund Balances	
<u>FY 2016 Available/"Unassigned" Fund Balance</u>	
General Fund	\$ 5,715,338
Budget Stabilization Fund	6,692,410
Total Combined Beginning Fund Balance	<u>\$ 12,407,748</u>
Surplus/(Deficit) (from above)	\$ 2,876,109
<u>FY 2017 Available/"Unassigned" Fund Balance</u>	
General Fund	\$ 7,933,565
Budget Stabilization Fund	7,350,292
Total Combined Ending Fund Balance	<u>\$ 15,283,857</u>
Total General Fund Reserves as a Percent of Expenditures - 6/30/2017	12.4%
Total General Fund Reserves as a Percent of Expenditures - Target	12.0% - 15.0%
Total General Fund Reserves as a Percent of Expenditures - 6/30/2016	10.2%

General Fund Reserve Levels Unreserved Balances; Includes Budget Stabilization Fund



Other Operating Funds - Unrestricted Fund Balances as of June 30, 2017

FY 2017 CAFR pages 146-147	
Special Revenue Funds	

Unrestricted ("Unassigned") Fund Balances as of June 30, 2017

Major Streets Fund	\$ 3,265,230
Local Streets Fund	1,327,990
State/Local Drug Enforcement Fund	463,968
Federal Drug Enforcement Fund	349,650
Tri-County Metro Drug Enforcement Fund	646,174
State & Local Grant Fund	0
Community Development Block Grant/Home Grant/ESG Grant Funds	0
Downtown Lansing, Inc.	31,811
Building Safety Fund	197,707

Enterprise Funds	
------------------	--

Unrestricted Fund Balances as of June 30, 2017	Cemeteries	Golf	Garbage & Rubbish	Recycling	Sewer	Parking
FY 2017 CAFR page	166	166	166	166	44	44
FY 2017 Ending Unrestricted Net Position <u>With</u> Pension Liability	\$ (889,812)	\$ (1,009,079)	\$ (2,219,382)	\$ (2,937,706)	\$ 26,965,398	\$ 5,506,028
Less: Pension Assets/Liabilities	1,012,268	1,066,633	2,471,654	3,978,081	12,342,759	3,331,326
FY 2017 Ending Unrestricted Net Position <u>Without</u> Pension Liability	\$ 122,456	\$ 57,554	\$ 252,272	\$ 1,040,375	\$ 39,308,157	\$ 8,837,354

INDEPENDENT AUDITORS' COMMUNICATION WITH THOSE CHARGED WITH GOVERNANCE

December 22, 2017

Honorable Mayor and
Members of the City Council
City of Lansing, Michigan

We have audited the financial statements of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information of the *City of Lansing, Michigan* (the "City") as of and for the year ended June 30, 2017, and have issued our report thereon dated December 22, 2017. Professional standards require that we advise you of the following matters relating to our audit.

Our Responsibility in Relation to the Financial Statement Audit

As communicated in our engagement letter dated July 19, 2017, our responsibility, as described by professional standards, is to form and express opinions about whether the financial statements that have been prepared by management with your oversight are fairly presented, in all material respects, in conformity with accounting principles generally accepted in the United States of America. Our audit of the financial statements does not relieve you or management of your respective responsibilities.

Our responsibility, as prescribed by professional standards, is to plan and perform our audit to obtain reasonable, rather than absolute, assurance about whether the financial statements are free of material misstatement. An audit of financial statements includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control over financial reporting. Accordingly, as part of our audit, we considered the internal control of the City solely for the purpose of determining our audit procedures and not to provide any assurance concerning such internal control.

We are also responsible for communicating significant matters related to the audit that are, in our professional judgment, relevant to your responsibilities in overseeing the financial reporting process. However, we are not required to design procedures for the purpose of identifying other matters to communicate to you.

We have provided our findings regarding internal control over financial reporting and compliance noted during our audit in a separate letter to you dated December 22, 2017. In addition, we noted certain other matters which are included in Attachment A to this letter.

Planned Scope and Timing of the Audit

We performed the audit according to the planned scope and timing previously communicated to you in our engagement letter and in our meeting about planning matters on October 10, 2017.



Compliance with All Ethics Requirements Regarding Independence

The engagement team, others in our firm, as appropriate, and our firm has complied with all relevant ethical requirements regarding independence.

Qualitative Aspects of the City's Significant Accounting Practices

Significant Accounting Policies

Management has the responsibility to select and use appropriate accounting policies. A summary of the significant accounting policies adopted by the City is included in Note 1 to the financial statements.

There have been no initial selections of accounting policies and no changes in significant accounting policies or their application during the year.

No matters have come to our attention that would require us, under professional standards, to inform you about (1) the methods used to account for significant unusual transactions and (2) the effect of significant accounting policies in controversial or emerging areas for which there is a lack of authoritative guidance or consensus.

Significant Accounting Estimates

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's current judgments. Those judgments are normally based on knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ markedly from management's current judgments.

The most sensitive accounting estimates affecting the financial statements were:

- Management's estimate of the useful lives of depreciable capital assets is based on the length of time it is believed that those assets will provide some economic benefit in the future.
- Management's estimate of the accrued compensated absences is based on current hourly rates and policies regarding payment of sick and vacation banks.
- Management's estimate of the allowance for uncollectible receivable balances is based on past experience and future expectation for collection of various account balances.
- Management's estimate of the insurance claims incurred but not reported is based on information provided by the entity's third party administrators and subsequent claims activity.
- The assumptions used in the actuarial valuations of the pension and other postemployment benefits plans are based on historical trends and industry standards.
- Management's estimate of the leases receivable balances is based on past experience and future estimates of lease collections.
- Management's estimate of the income tax receivable balance is based on past experience utilizing the first 45 days collections of income tax withholdings.

We evaluated the key factors and assumptions used to develop these estimates and determined that they are reasonable in relation to the basic financial statements taken as a whole and in relation to the applicable opinion units.

Significant Difficulties Encountered During the Audit

The timing of our audit procedures was delayed from the schedule agreed to during the planning stages of our engagement due to delays in the availability of supporting documentation and the ability of City staff to provide needed follow-up documentation in expected timeframes. This condition appears to largely be the result of limited staffing levels in the Finance Department.

Uncorrected and Corrected Misstatements

For purposes of this communication, professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that we believe are trivial, and communicate them to the appropriate level of management. Further, professional standards require us to also communicate the effect of uncorrected misstatements related to prior periods on the relevant classes of transactions, account balances or disclosures, and the financial statements as a whole and each applicable opinion unit. In addition, professional standards require us to communicate to you all material, corrected misstatements that were brought to the attention of management as a result of our audit procedures. The material misstatements detected as a result of audit procedures and corrected by management are described in the Schedule of Findings and Responses issued in connection with our report on internal control over financial reporting.

The schedule of adjustments passed is included with management's written representations in Attachment C to this letter, and summarizes uncorrected financial statement misstatements whose effects in the current and prior periods, as determined by management, are immaterial, both individually and in the aggregate, to the financial statements taken as a whole and each applicable opinion unit.

Disagreements with Management

For purposes of this letter, professional standards define a disagreement with management as a matter, whether or not resolved to our satisfaction, concerning a financial accounting, reporting, or auditing matter, which could be significant to the City's financial statements or the auditors' report. No such disagreements arose during the course of the audit.

Representations Requested from Management

We have requested certain written representations from management, which are included in Attachment C to this letter.

Management's Consultations with Other Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters. Management informed us that, and to our knowledge, there were no consultations with other accountants regarding auditing and accounting matters.

Other Significant Matters, Findings, or Issues

In the normal course of our professional association with the City, we generally discuss a variety of matters, including the application of accounting principles and auditing standards, operating and regulatory conditions affecting the entity, and operational plans and strategies that may affect the risks of material misstatement. None of the matters discussed resulted in a condition to our retention as the City's auditors.

Other Information in Documents Containing Audited Financial Statements

Our responsibility for the supplementary information accompanying the financial statements, as described by professional standards, is to evaluate the presentation of the supplementary information in relation to the financial statements as a whole and to report on whether the supplementary information is fairly stated, in all material respects, in relation to the financial statements as a whole. We made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America, the method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the supplementary information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.

Upcoming Changes in Accounting Standards

Generally accepted accounting principles (GAAP) are continually changing in order to promote the usability and enhance the applicability of information included in external financial reporting. While it would not be practical to include an in-depth discussion of every upcoming change in professional standards, Attachment B to this letter contains a brief overview of recent pronouncements of the Governmental Accounting Standards Board (GASB) and their related effective dates. Management is responsible for reviewing these standards, determining their applicability, and implementing them in future accounting periods.

This information is intended solely for the use of the governing body and management of the City of Lansing, Michigan and is not intended to be and should not be used by anyone other than these specified parties.

Very truly yours,

Rehmann Johnson LLC

CITY OF LANSING, MICHIGAN

■ ■ ■ ■ ■ Attachment A - Comments and Recommendations

For the June 30, 2017 Audit

During our audit, we became aware of certain other matters that are opportunities for strengthening internal control and/or improving operating efficiency. This memorandum summarizes our comments and recommendations regarding those matters. Our consideration of the City's internal control over financial reporting is described in our report, dated December 22, 2017 issued in accordance with *Government Auditing Standards*. This memorandum does not affect that report or our report dated December 22, 2017, on the financial statements of the City of Lansing, Michigan.

Stale Reconciling Items (Repeat Comment)

During our review of the City's bank reconciliations, we noted a number of reconciling items dating back as far as 1997. We continue to recommend the City review stale items and either void and reissue or escheat them to the State, as necessary.

End Control over Payroll Processing (Repeat Comment)

The City currently has procedures in place to ensure that employees are being paid at the correct rate and for the actual number of hours worked. Since the process of inputting timesheet data into the payroll system requires manual entry, we recommend that the City implement an "end control" over payroll disbursements. This could be done by having an employee independent of payroll processing review a preliminary payroll register by employee, or by having the payroll system generate exception reports for data outside certain parameters. In all instances, any independent review and approval should be documented and retained as evidence of the control.

Internal Controls over Manually Prepared Spreadsheets (Repeat Comment)

The City utilizes manual spreadsheets for documenting the composition of certain account balances for audit workpaper preparation which are not subjected to a documented review/approval process. We recommend that all documentation prepared by management, in whatever format is preferred, that supports financial statement balances, be reviewed and approved by a responsible member of management and that such review be documented by the signature/initials of the assigned reviewer and the date of the review.

Pension Plan Funding (Repeat Comment)

The City maintains pension plans for its qualified employees. With the implementation of GASB 67 and 68, the focus of pension plan reporting changed from a funding perspective to a net liability approach. Further, with the implementation of these standards, the comprehensive annual financial report now provides certain trend information regarding the City's funding progress for its employees' retirement system and police and fire retirement system. Based on the four years of trend data now available, we have observed that the scheduled contributions are not keeping pace with the interest on the outstanding total pension liability. In addition, the fiduciary net position as a percentage of the total pension liability has decreased in three of the previous four years presented (2017 did result in an increase), reflecting 55.3% and 67.1% for the employees' retirement system and police and fire retirement system, respectively. The pension plans showed improvement during the current fiscal year due to an increase in investment return. However, the contributions still are not exceeding the interest on the total pension liability for each plan. We recommend the City actively search for ways to reverse the negative trends and increase the funded status of the plans.

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CITY OF LANSING, MICHIGAN

■ Attachment B - Upcoming Changes in Accounting Standards / Regulations

For the June 30, 2017 Audit

The following pronouncements of the Governmental Accounting Standards Board (GASB) have been released recently and may be applicable to the City in the near future. We encourage management to review the following information and determine which standard(s) may be applicable to the City. For the complete text of these and other GASB standards, visit www.gasb.org and click on the "Standards & Guidance" tab. If you have questions regarding the applicability, timing, or implementation approach for any of these standards, please contact your audit team.

GASB 75 ■ Postemployment Benefits Other than Pensions

Effective 06/15/2018 (your FY 2018)

This standard builds on the requirements of GASB 74 by requiring employers that provide other postemployment benefits (OPEB) to recognize a net OPEB liability on their statements of net position. It mirrors the new accounting and financial reporting requirements of GASB 68 for pension benefits.

GASB 81 ■ Irrevocable Split-Interest Agreements

Effective 12/15/2017 (your FY 2018)

This standard addresses the accounting for split-interest agreements for which the government serves as the intermediary and/or the beneficiary. It requires governments to record assets, liabilities, and deferred inflows of resources at the inception of the agreement when serving as intermediary, or when the government controls the present service capacity of a beneficial interest. We do not expect this standard to have any significant effect on the City.

GASB 83 ■ Certain Asset Retirement Obligations

Effective 06/15/2019 (your FY 2019)

This standard addresses accounting and financial reporting for certain asset retirement obligations--legally enforceable liabilities associated with the retirement of a tangible capital asset. We do not expect this standard to have any significant effect on the City.

GASB 84 ■ Fiduciary Activities

Effective 12/15/2019 (your FY 2020)

This standard establishes new criteria for determining how to report fiduciary activities in governmental financial statements. The focus is on whether the government is controlling the assets, and who the beneficiaries are. Under this revised standard, certain activities previously reported in agency funds may be reclassified in future periods. Due to the number of specific factors to consider, we will continue to assess the degree to which this standard may impact the City.

GASB 85 ■ Omnibus 2017

Effective 06/15/2018 (your FY 2018)

This standard includes a variety of small technical revisions to previously issued GASB statements. We do not expect this standard to have any significant effect on the City.

CITY OF LANSING, MICHIGAN

■ Attachment B - Upcoming Changes in Accounting Standards / Regulations

For the June 30, 2017 Audit

GASB 86 ■ Certain Debt Extinguishment Issues

Effective 06/15/2018 (your FY 2018)

This standard provides guidance for reporting the in-substance defeasance of outstanding debt obligations using existing resources. Qualifying transactions will remove both the assets placed into trust and the related debt obligation from the government's statement of net position. We do not expect this standard to have any significant effect on the City.

GASB 87 ■ Leases

Effective 12/15/2020 (your FY 2021)

This standard establishes a single model for reporting all leases (including those previously classified as operating and capital). Lessees will now report offsetting intangible lease assets and lease liabilities equal to the present value of future lease payments. Lessors will report offsetting lease receivables and deferred inflows of resources.

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CITY OF LANSING, MICHIGAN

■ Attachment C - Management Representations

For the June 30, 2017 Audit

The following pages contain the written representations that we requested from management.



Virg Bernero, Mayor

December 22, 2017

Rehmann Robson
2330 East Paris Avenue, SE
Grand Rapids, Michigan 49546

This representation letter is provided in connection with your audit of the financial statements of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information of the *City of Lansing, Michigan* (the "City"), as of and for the year ended June 30, 2017, and the related notes to the financial statements, for the purpose of expressing opinions on whether the basic financial statements present fairly, in all material respects, the financial position, results of operations, and cash flows, where applicable, and the budgetary comparison for the General Fund of the City in conformity with accounting principles generally accepted for governments in the United States of America (U.S. GAAP).

Certain representations in this letter are described as being limited to matters that are material. Items are considered material, regardless of size, if they involve an omission or misstatement of accounting information that, in the light of surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would be changed or influenced by the omission or misstatement.

We confirm that, having made such inquiries as we considered necessary for the purpose of appropriately informing ourselves as of December 22, 2017:

Financial Statements

1. We have fulfilled our responsibilities, as set out in the terms of the audit engagement letter dated July 19, 2017, for the preparation and fair presentation of the financial statements of the various opinion units referred to above in accordance with U.S. GAAP. We have reviewed, approved, and taken responsibility for the financial statements and related notes.
2. We have reviewed and approved the various adjusting journal entries that were proposed by you for recording in our books and records and reflected in the financial statements.
3. We acknowledge our responsibility for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.
4. We acknowledge our responsibility for the design, implementation, and maintenance of internal control to prevent and detect fraud.
5. Significant assumptions used by us in making accounting estimates, including those measured at fair value, are reasonable.

6. Related party relationships and transactions have been appropriately accounted for and disclosed in accordance with the requirements of U.S. GAAP. For the purposes of this letter, related parties mean members of the governing body; board members; administrative officials; immediate families of administrative officials, board members, and members of the governing body; and any companies affiliated with or owned by such individuals.
7. All events subsequent to the date of the financial statements and for which U.S. GAAP requires adjustment or disclosure have been adjusted or disclosed.
8. The effects of uncorrected misstatements summarized in the attached schedule and aggregated by you during the current engagement are immaterial, both individually and in the aggregate, to the applicable opinion units and to the financial statements as a whole.
9. The effects of all known actual or possible litigation and claims have been accounted for and disclosed in accordance with U.S. GAAP.
10. With regard to items reported at fair value:
 - a. The underlying assumptions are reasonable and they appropriately reflect management's intent and ability to carry out its stated courses of action.
 - b. The measurement methods and related assumptions used in determining fair value are appropriate in the circumstances and have been consistently applied.
 - c. The disclosures related to fair values are complete, adequate, and in conformity with U.S. GAAP.
 - d. There are no subsequent events that require adjustments to the fair value measurements and disclosures included in the financial statements.
11. All component units, as well as joint ventures with an equity interest, are included and other joint ventures and related organizations are properly disclosed.
12. All funds and activities are properly classified.
13. All funds that meet the quantitative criteria in GASB Statement No. 34, *Basic Financial Statements—and Management's Discussion and Analysis—for State and Local Governments*, and GASB Statement No. 37, *Basic Financial Statements—and Management's Discussion and Analysis—for State and Local Governments: Omnibus*, for presentation as major are identified and presented as such and all other funds that are presented as major are considered important to financial statement users.
14. All components of net position and fund balance classifications have been properly reported.
15. All revenues within the statement of activities have been properly classified as program revenues, general revenues, contributions to term or permanent endowments, or contributions to permanent fund principal.
16. All expenses have been properly classified in or allocated to functions and programs in the statement of activities, and allocations, if any, have been made on a reasonable basis.
17. All interfund and intra-entity transactions and balances have been properly classified and reported.
18. Special items and extraordinary items have been properly classified and reported.
19. Deposit and investment risks have been properly and fully disclosed.
20. Capital assets, including infrastructure assets, are properly capitalized, reported, and if applicable, depreciated.
21. All required supplementary information is measured and presented within the prescribed guidelines.
22. We agree with the findings of the specialists in evaluating the workers' compensation liability and have adequately considered the qualifications of the specialist in determining the amounts and disclosures used in the financial statements and underlying accounting records. We did not give or cause any instructions to be given to specialists with respect to values or amounts derived in an attempt to bias their work, and we have not otherwise aware of any matters that have had an effect on the independence or objectivity of the specialists.

23. We believe that the actuarial assumptions and methods used to measure pension and other postemployment benefit liabilities and costs for financial accounting purposes are appropriate in the circumstances.

Information Provided

24. We have provided you with:
- Access to all information, of which we are aware that is relevant to the preparation and fair presentation of the financial statements of the various opinion units referred to above, such as records, documentation, meeting minutes, and other matters;
 - Additional information that you have requested from us for the purpose of the audit; and
 - Unrestricted access to persons within the entity from whom you determined it necessary to obtain audit evidence.
25. All transactions have been recorded in the accounting records and are reflected in the financial statements.
26. We have disclosed to you the results of our assessment of the risk that the financial statements may be materially misstated as a result of fraud.
27. We have no knowledge of any fraud or suspected fraud that affects the entity and involves:
- Management;
 - Employees who have significant roles in internal control; or
 - Others where the fraud could have a material effect on the financial statements.
28. We have no knowledge of any allegations of fraud, or suspected fraud, affecting the entity's financial statements communicated by employees, former employees, vendors, regulators, or others.
29. We are not aware of any pending or threatened litigation and claims whose effects should be considered when preparing the financial statements.
30. We have disclosed to you the identity of the entity's related parties and all the related party relationships and transactions of which we are aware.
31. There have been no communications from regulatory agencies concerning noncompliance with or deficiencies in accounting, internal control, or financial reporting practices.
32. The government has no plans or intentions that may materially affect the carrying value or classification of assets and liabilities.
33. We have disclosed to you all guarantees, whether written or oral, under which the government is contingently liable.
34. We have identified and disclosed to you the laws, regulations, and provisions of contracts and grant agreements that could have a direct and material effect on financial statement amounts, including legal and contractual provisions for reporting specific activities in separate funds.
35. There are no:
- Violations or possible violations of laws or regulations, or provisions of contracts or grant agreements whose effects should be considered for disclosure in the financial statements or as a basis for recording a loss contingency, including applicable budget laws and regulations.
 - Unasserted claims or assessments that our lawyer has advised are probable of assertion and must be disclosed in accordance with GASB-62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*.
 - Other liabilities or gain or loss contingencies that are required to be accrued or disclosed by GASB-62.
36. The government has satisfactory title to all owned assets, and there are no liens or encumbrances on such assets nor has any asset or future revenue been pledged as collateral, except as disclosed to you.

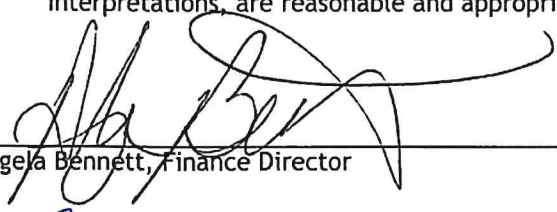
37. We have complied with all aspects of grant agreements and other contractual agreements that would have a material effect on the financial statements in the event of noncompliance.
38. We have disclosed to you all significant estimates and material concentrations known to management that are required to be disclosed in accordance with GASB-62. Significant estimates are estimates at the balance sheet date that could change materially within the next year. Concentrations refer to volumes of business, revenues, available sources of supply, or markets or geographic areas for which events could occur that would significantly disrupt normal finances within the next year.

Supplementary Information in Relation to the Financial Statements as a Whole

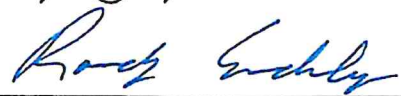
39. With respect to the supplementary information accompanying the financial statements:
 - a. We acknowledge our responsibility for the presentation of the supplementary information in accordance with accounting principles generally accepted in the United States of America.
 - b. We believe the supplementary information, including its form and content, is fairly presented in accordance with accounting principles generally accepted in the United States of America.
 - c. The methods of measurement or presentation have not changed from those used in the prior period.
 - d. We believe the significant assumptions or interpretations underlying the measurement or presentation of the supplementary information, and the basis for our assumptions and interpretations, are reasonable and appropriate in the circumstances.

Required Supplementary Information

40. With respect to the required supplementary information accompanying the financial statements:
 - a. We acknowledge our responsibility for the presentation of the required supplementary information in accordance with accounting principles generally accepted in the United States of America.
 - b. We believe the required supplementary information, including its form and content, is measured and fairly presented in accordance with accounting principles generally accepted in the United States of America.
 - c. The methods of measurement or presentation have not changed from those used in the prior period.
 - d. We believe the significant assumptions or interpretations underlying the measurement or presentation of the required supplementary information, and the basis for our assumptions and interpretations, are reasonable and appropriate in the circumstances.



Angela Bennett, Finance Director



Randy Endsley, Accounting Manager

CITY OF LANSING, MICHIGAN

Schedule of Adjustments Passed (SOAP)

For the June 30, 2017 Audit

In accordance with generally accepted auditing standards, we have prepared the following schedule of proposed audit adjustments, which we believe are immaterial both individually and in the aggregate. We are providing this schedule to both management and those charged with governance to receive their assurance that they agree that the amounts listed below are not material to the financial statements, either individually or in the aggregate, and do not need to be recorded.

	Effect of Passed Adjustment - Over(Under)Statement				
	Assets	Liabilities	Beginning Equity	Revenues	Expenses/Expenditures
General fund					
Nuisance fee revenue recorded for collections subsequent to the period of availability	\$ -	\$ (69,537)	\$ -	\$ 69,537	\$ -
Effect of unallocated bank charges	-	(76,726)	-	75,820	(906)
Total general fund	<u>\$ -</u>	<u>\$ (146,263)</u>	<u>\$ -</u>	<u>\$ 145,357</u>	<u>\$ (906)</u>
Misstatement as a percentage of total revenues - general fund	0.00%	-0.12%	0.00%	0.11%	0.00%
Governmental activities					
Cumulative effect of items reported above impacting governmental activities	\$ -	\$ (76,726)	\$ -	\$ 75,820	\$ (906)
Unreported estimated liability for potential Michigan Tax Tribunal settlement	-	(89,336)	134,003	-	44,667
Variance in accrued interest on long-term debt	-	(68,915)	-	-	(68,915)
Total governmental activities	<u>\$ -</u>	<u>\$ (234,977)</u>	<u>\$ 134,003</u>	<u>\$ 75,820</u>	<u>\$ (25,154)</u>
Misstatement as a percentage of total revenues - governmental activities	0.00%	-0.15%	0.09%	0.05%	-0.02%
Municipal parking system					
Overstated retainage liability	<u>\$ -</u>	<u>\$ 80,387</u>	<u>\$ (80,387)</u>	<u>\$ -</u>	<u>\$ -</u>
Misstatement as a percentage of total assets - municipal parking fund	0.00%	0.15%	-0.15%	0.00%	0.00%

CITY OF LANSING FISCAL YEAR 2017 AUDIT MANAGEMENT COMMENT RESPONSES

Stale Reconciling Items (Repeat Comment)

During our review of the City's bank reconciliations, we noted a number of reconciling items dating back as far as 1997. We continue to recommend the City review stale items and either void and reissue or escheat to the State, as necessary.

Response: The information needed to escheat those outstanding items has subsequently been obtained; however the escheating process has not yet been completed. The City anticipates that all items will be escheated before the end of the current fiscal year.

End Control over Payroll Processing (Repeat Comment)

The City currently has procedures in place to ensure that employees are being paid at the correct rate and for the actual number of hours worked. Since the process of inputting timesheet data into the payroll system requires manual entry, we recommend that the City implement an "end control" over payroll disbursements. This could be done by having an employee independent of payroll processing review a preliminary payroll register by employee, or by having the payroll system generate exception reports for data outside certain parameters. In all instances, any independent review and approval should be documented and retained as evidence of the control.

Response: The City is anticipating to address this in a comprehensive process and programming review during the current payroll system upgrade.

Internal Controls over Manually Prepared Spreadsheets (Repeat Comment)

The City utilizes manual spreadsheets for documenting the composition of certain account balances for audit work paper preparation which are not subjected to a documented review/approval process. We recommend that all documentation prepared by management, in whatever format is preferred, that supports financial statement balances, be reviewed and approved by a responsible member of management and that such review be documented by the signature/initials of the assigned reviewer and the date of the review.

Response: Time constraints with new staffing for the FY 2017 audit process precluded the ability to have 100% account review prior to auditor review without causing delays in the audit process. The process is anticipated to have complete review coverage in advance of auditor review for the fiscal year 2018 audit.

Pension Plan Funding (Repeat Comment)

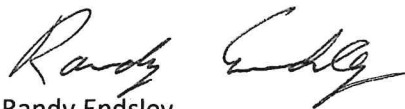
The City maintains pension plans for its qualified employees. With the implementation of GASB 67 and 68, the focus of pension plan reporting changed from a funding perspective to a net liability approach. Further, with the implementation of these standards, the comprehensive annual financial report now

provides certain trend information regarding the City's funding progress for its employees' retirement system and police and fire retirement system. Based on the four years of trend data now available, we have observed that the scheduled contributions are not keeping pace with the interest on the outstanding total pension liability. In addition, the fiduciary net position as a percentage of the total pension liability has decreased in three of the previous four years presented (2017 did result in an increase), reflecting 55.3% and 67.1% for the employees' retirement system and police and fire retirement system, respectively. The pension plans showed improvement during the current fiscal year due to an increase in investment return. However, the contributions still are not exceeding the interest on the total pension liability for each plan. We recommend the City actively search for ways to reverse the negative trends and increase the funded status of the plans.

Response: Addressing long-term financial challenges for pension, as well as retiree healthcare, liabilities continues to be a priority for the City. The City, employee unions, and pension boards have made great strides over the past several years to achieve significant reductions in future growth in liabilities. Where investment returns and life expectancy have accounted for the majority of the pension funding trend, some measures taken to reduce pension liabilities in the long-term, such as reductions in actuarially-assumed rates of returns for the plans, have resulted in some minor, short-term negative impact on funding level trends. In light the challenges presented by current and future liabilities, as well as long-term funding challenges presented by State constraints on municipal funding and infrastructure needs, the City, in conjunction with the mayoral-appointed Financial Health Team and funding from the State of Michigan, bid and awarded a contract to Segal Consulting for studies and recommendations for addressing long-term legacy cost challenges. Those studies were finalized in September, 2017 and are currently under review and consideration. Additionally, due to lesser-than-projected and budgeted annual required contributions (ARC) for the City's two pension plans, additional amounts were contributed in FY 2018 beyond the ARC payments.

We appreciate the service Rehmann Robson has provided in this audit and with these recommendations. If you have any questions, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Randy Endsley", written in a cursive style.

Randy Endsley

Accounting Manager



Rehmann Robson

2330 East Paris Ave., SE
Grand Rapids, MI 49546
Ph: 616.975.4100
Fx: 616.975.4400
rehmann.com

**INDEPENDENT AUDITORS' REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING
AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS
PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS***

December 22, 2017

Honorable Mayor and
Members of City Council
City of Lansing, Michigan

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information of the **City of Lansing, Michigan** (the "City"), as of and for the year ended June 30, 2017, and the related notes to the financial statements, which collectively comprise the City's basic financial statements, and have issued our report thereon dated December 22, 2017.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the City's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the City's internal control. Accordingly, we do not express an opinion on the effectiveness of the City's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that have not been identified. We did identify certain deficiencies in internal control, described in the accompanying schedule of findings and responses as items 2017-001 and -002, that we consider to be material weaknesses.

Handwritten signature: s. h. ste pmt

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the City's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

City of Lansing, Michigan's Response to Findings

The City's responses to the findings identified in our audit are described in the accompanying schedule of findings and responses. The City's responses were not subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on them.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the City's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Rehmann Lobson LLC

CITY OF LANSING, MICHIGAN

Schedule of Findings and Responses

For the Year Ended June 30, 2017

2017-001 - Material Audit Adjustments (Repeat Comment)

Finding Type. Material Weakness in Internal Control over Financial Reporting.

Criteria. Management is responsible for maintaining its accounting records in accordance with generally accepted accounting principles (GAAP).

Condition. During our audit, we identified and proposed material adjustments (which were approved and posted by management) to adjust the City's accounting records. In addition, we received several revisions to the City's trial balance (the final version was received on December 6, 2017), each of which contained material corrections to previous versions. Also, management identified and posted many smaller adjustments to a wide variety of funds and accounts throughout the audit process that collectively had a material effect on the City's financial reporting process.

Cause. Over the past several years, the City's finance department has reduced in size due to staffing reductions and staffing turnover. These changes have placed a significant burden on the year-end close process, and have resulted in reconciliation of account balances and adjustment of related accounts, and preparation of the schedule of expenditures of federal awards (SEFA), not being completed timely.

Effect. As a result of this condition, the City's financial information was initially misstated by amounts that were deemed to be quantitatively material to nearly every opinion unit, and numerous account balances were not adjusted timely throughout the year. Correcting entries were subsequently posted by management to the City's records and the appropriate balances are presented in the audited financial statements.

Recommendation. Management has already taken appropriate corrective action by posting correcting journal entries. However, we strongly recommend that the City critically assess the staffing levels in its Finance Department to ensure that there are an appropriate number of qualified/trained individuals available throughout the year to maintain the City's books and records in accordance with GAAP, and that balance sheet accounts for all funds be subject to periodic review and adjusted or reconciled to their underlying detail as soon as practical after fiscal year-end.

View of Responsible Officials. The City has filled previous vacancies. The corresponding training was still in process during the FY 2017 audit.

CITY OF LANSING, MICHIGAN

Schedule of Findings and Responses

For the Year Ended June 30, 2017

2017-002 - Timely and Accurate Preparation and Submission of Pension and OPEB Data (Repeat Comment)

Finding Type. Material Weakness in Internal Control over Financial Reporting.

Criteria. The City obtains actuarial valuations and other reports for its various pension and other postemployment benefit (OPEB) plans each year. Ideally, these valuations should be obtained far enough in advance to be used to calculate amounts to be included in the audited financial statements. The City is responsible for accurate and timely compilation of data necessary for actuarial professionals to process and complete reporting necessary for the proper reporting of pension and OPEB information in the annual financial statements.

Condition. Actuarial valuations for the pension and other postemployment benefit plans, the GASB 67 rollforward related to the defined benefit pension plans, and the GASB 74 rollforward related to the other postemployment benefit plans were not completed until December 2017, and the related account balances were not adjusted until late in audit fieldwork. In addition, when making analytical comparisons of census data, we noted several instances of inconsistency between the current year and prior year census data.

Cause. The City undertook a large study of its pension and retiree healthcare liabilities for addressing its legacy costs, which involved a substantial amount of effort by the City's actuary. Coupled with staffing transitions in the Finance Department, this resulted in the delayed delivery of necessary information to the actuary. In addition, the census data submitted to the actuary is not subject to independent review for accuracy prior to submission.

Effect. As a result of this condition, the City experienced an increased risk that misstatements in the accounting records, whether caused by error or fraud, would not be detected and corrected on a timely basis.

Recommendation. We strongly recommend that the City critically assess the activities of the finance staff to assure that required tasks are completed accurately and in a timely fashion. We further recommend that the City implement a review process to determine that census data submitted to the actuary is accurate and complete.

View of Responsible Officials. The above-mentioned pension and retiree healthcare study is now complete, and the staff training will be complete before the next audit. In addition, the City has implemented a pension tracking system to automate and store many data elements required for OPEB and pension valuations. As the former process consists of three computer databases and paper records, data validation and comparison is still ongoing.

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