Municipal Stability Board

REGULAR MEETING

Wednesday, July 18, 2018 at 10:00 a.m.
Austin Building
State Treasurer's Boardroom
430 W. Allegan Street
Lansing, MI 48922

I. <u>Call to Order</u>

A. Roll Call

B. Approval of June 20, 2018 Minutes

II. <u>Public Comment</u>

A. 2 minute limit

III. <u>Approval of Agenda</u>

IV. <u>Correspondence</u>

A. PA 202 Treasury Update

B. Responding to Board Questions

C. Withdrawal Request: Bloomfield Township Public Library Corrective Action Plan

V. <u>Old Business</u>

A. Approval of the Updated Meeting Schedule

VI. <u>New Business</u>

A. Best Practices and Corrective Action Plan Approval Criteria (Resolution 2018-7)

B. Receipt of Corrective Action Plans

i. Milan Public Library

C. Approvals and Denials of Corrective Action Plans

i. White Pine District Library (Resolution 2018-8)

ii. City of Ecorse (Resolution 2018-9)

VII. <u>Public Comment</u>

A. 2 minute limit

VIII. Board Comment

IX. **Adjournment**

Municipal Stability Board Minutes

Wednesday, June 20, 2018 at 10:00 a.m.
Austin Building
State Treasurer's Boardroom
430 W. Allegan Street
Lansing, MI 48922

Call to Order

Chairman Eric Scorsone called the meeting to order at 10:00 a.m.

Roll Call

Members Present – 3
Eric Scorsone
Daryl Delabbio
Barry Howard

Let the record show that 3 Board members eligible to vote were present. A quorum was present.

Approval of Minutes

Motion was made to approve the minutes regarding May 18, 2018 board meeting.

Motion moved by B. Howard to amend the meeting schedule to strike the September and November dates from the schedule due to scheduling conflicts, supported by D. Delabbio, the Board unanimously approved to amend the meeting schedule. 3 ayes, 0 nays.

Motion was made to approve the amended minutes regarding May 18, 2018 board meeting.

Motion moved by D. Delabbio and supported by B. Howard, the Board unanimously approved the amended minutes. 3 ayes, 0 nays.

Public Comment

No public comment.

Review of the Agenda

Kevin Kubacki reviewed the prepared agenda with the board. No questions were asked.

Old Business

There was no old business.

New Business

PA 202 Treasury Update

Kevin Kubacki and Dan Horn provided a Public Act 202 Treasury Update to the board. Mr. Kubacki and Mr. Horn addressed questions from the board. Additional information about the Waiver process will be provided at the July meeting.

Receipt of Corrective Action Plans

Kevin Kubacki and Dan Horn provided the corrective actions plans to the board. There were three corrective action plans. The board has 45 days from receipt to approve or deny the CAP's. The decision is to be made at the next board meeting on July 18, 2018.

Motion moved to receive the corrective action plans by D. Delabbio and supported by B. Howard, the Board unanimously approved the designation. 3 ayes, 0 nays.

Public Comment

No public comment.

Next Meeting

Next regular meeting will be on July 18, 2018 with hope to have a study session in July regarding the waiver process. No questions from the board.

Adjournment

Motion made to adjourn. Motion moved by B. Howard and supported by D. Delabbio, the Board approved to motion to adjourn.

There being no further business, the meeting adjourned at 10:30 a.m.

P.A. 202 of 2017 Status Update from Treasury

- Status Update (see Appendix A and B for additional graphs)
    - As of 7/2/2018

Retirement Reviews (Form 5572)	
Status Option	**Local Units**
Preliminary Underfunded	196
Not Preliminary Underfunded	515
Deficient Reporting	11
Total-Reviewed	**722**
Pending Treasury Review	143
Total-Submissions	**865**[1]

[1]There were approximately 900 submissions expected

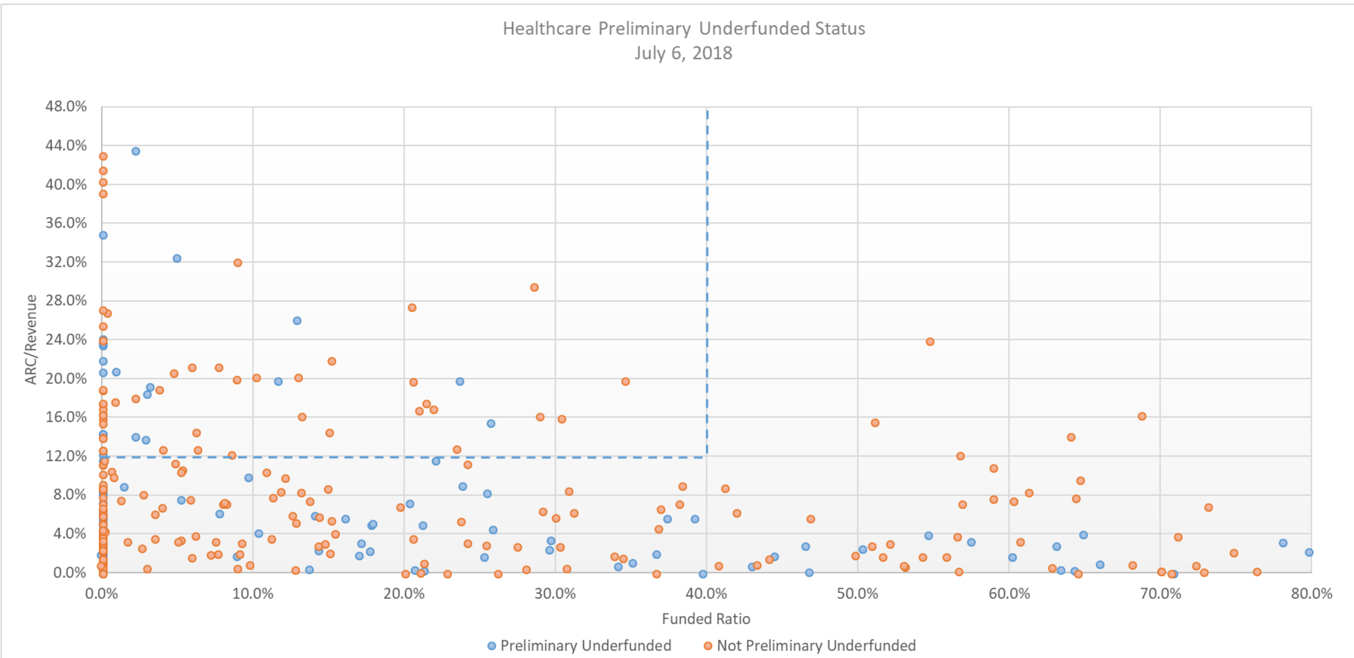
PA 202: Waiver Analysis FY 2017						
	Did Not File		**Waiver Applications**			
LOCAL UNIT TYPE	**Retirement Report – Form 5572**	**Waiver Application**	**Recommend Approve**	**Recommend Deny**	**Split**[1]	**Corrective Action Plan Required**
NON-PRIMARY	20	16	21	20	3	**59**
PRIMARY	3	13	10	65	7	**88**
TOTAL	**23**	**30**	**31**	**85**	**10**	**147**

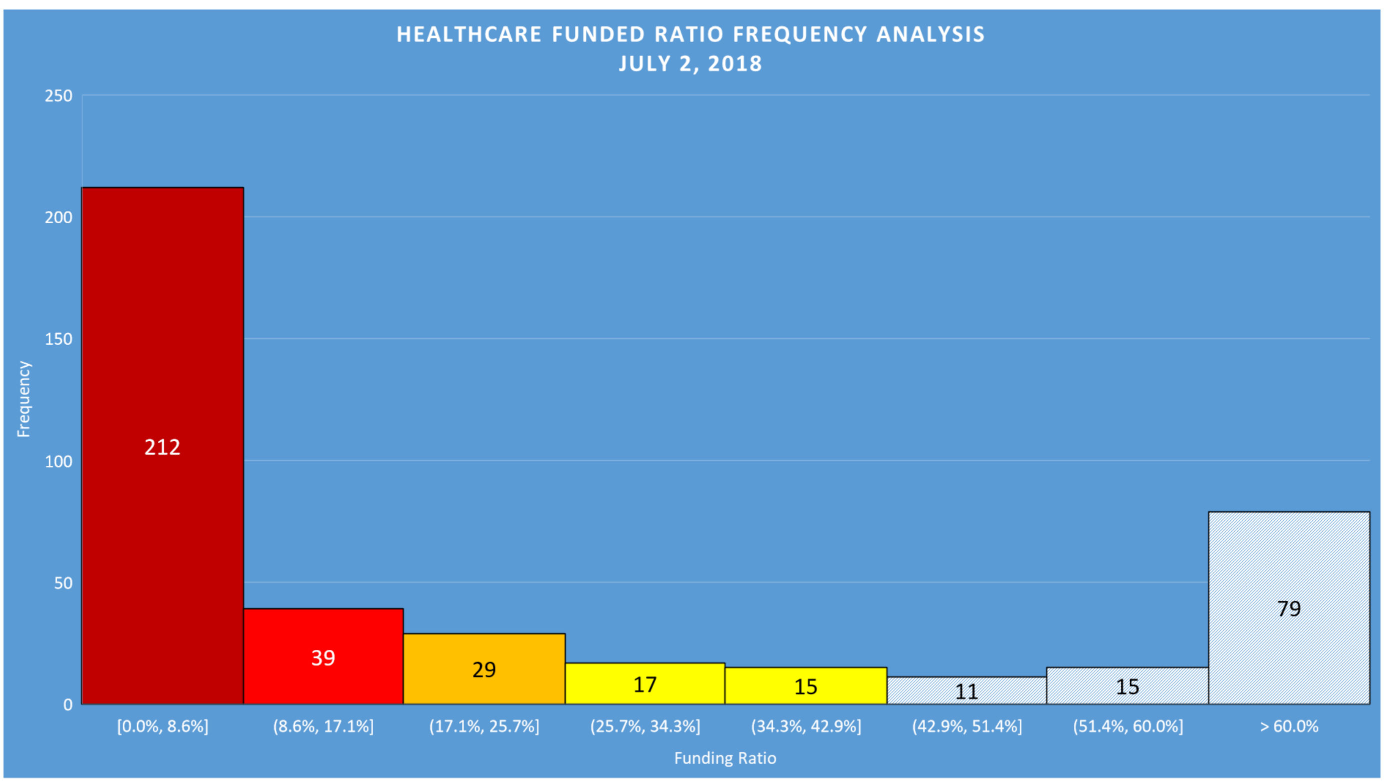
[1] Split units have at least one underfunded system requiring a corrective action plan and at least one system that was approved for a waiver.

Appendix A

Healthcare Graphs

All Local Unit Types as of July 2, 2018

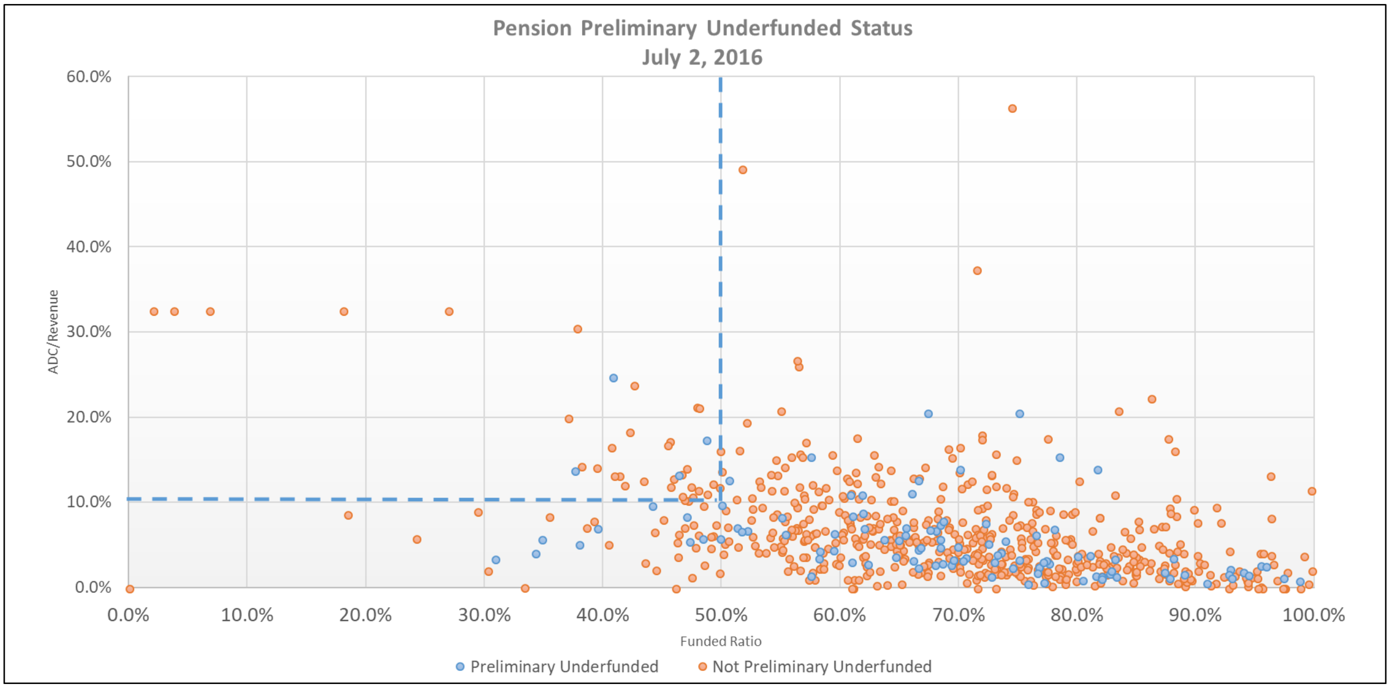


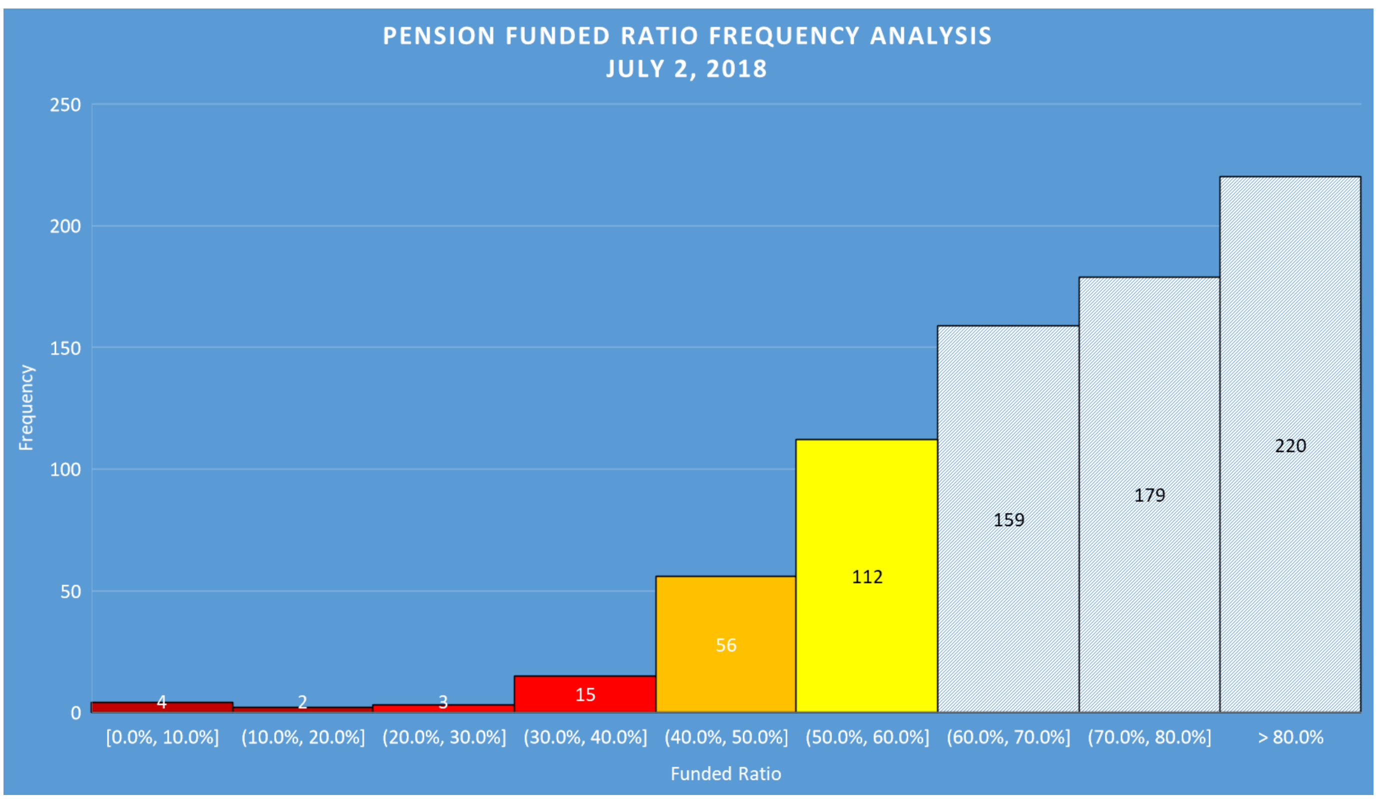


Appendix B

Pension Graphs

All Local Unit Types as of July 2, 2018





Municipal Stability Board
Q&A
July 18th, 2018

1. How does the waiver process work and ultimately what are the approval criteria based on?

   If a local unit is determined to be preliminary underfunded through its 5572 submission, PA202 allows the treasurer to grant a waiver if the State Treasurer determines that the underfunded status is adequately being addressed by the local unit of government.

   Local units are given an option to submit a waiver within 45 days after the determination of preliminary underfunded status. Successful waiver applications focus on the actions the local unit has taken to address its underfunded status. As general guidance, prospective actions and/or solutions are not granted merit in determining the outcome of a waiver application.

   The waivers were reviewed within a narrow scope. Approvals were granted to those with significant documented actions to address the underfunded status in the near term.

2. Who is the actuary for the board? The dates and the study? The factors in the calculations? Who is making the decisions of the underfunded.

   The board does not have a contracted actuary. Local units contract actuarial services as needed. The department expects that if an actuarial analysis is necessary that this be provided by the local unit and its actuary.

3. Are actuarial projections the same for all funds? Is there a range of actuarial projections or are they the same?

   Actuarial projections and the assumptions used in making those projections are typically performed at the retirement system level. Many of the local units (around 85% of all pension plans) participate in the Municipal Employees Retirement System (MERS). MERS is an independent professional retirement services company that was created to administer retirement plans for Michigan municipalities. For pension systems within MERS, these systems use the same actuarial assumptions. For non-MERS plans, these assumptions are set by the local unit's appropriate governing body.

   Public Act 202 does have a provision for the State Treasurer to set uniform assumptions to be reported on by all retirement plans in Michigan. These assumptions and procedures for implementation will be provided in the coming months.

4. Are there more than one actuarial used by various state funded plans?

   Gaberial, Roeder, Smith & Company (GRS) is currently performing the valuations for the State of Michigan retirement systems.

5. Will the best practice proposals be circulated to stake holders prior to the meeting?

   Yes

6. Will local communities have the chance to review the process and have input before a decision is made?

   Yes, the Department of Treasury has worked with its partners in local government and employee representative groups in formulating the best practices proposal which includes the discussion on model corrective action plans. Local units are also offered an individualized discussion by booking an appointment with us through the website. During these discussions, Treasury reviews the local government's waiver results and also provides general guidance on corrective action plan development.

STATE OF MICHIGAN
DEPARTMENT OF TREASURY
LANSING

RICK SNYDER
GOVERNOR

NICK A. KHOURI
STATE TREASURER

DATE: July 18, 2018

TO: The Municipal Stability Board (the Board)

FROM: Department of Treasury, Community Engagement and Finance Division

SUBJECT: Withdrawal Request: Bloomfield Township Public Library Corrective Action Plan

The Board officially received the corrective action plan (CAP) for Bloomfield Township Public Library at their June 2018 meeting. Bloomfield Township Public Library has requested to withdraw consideration of the CAP, so the library can provide supplemental information to the Board by November 13, 2018, which is within their allotted 180 days as provided in statue.

Brousseau, Nicholas (TREASURY)

From: Sandi Bird <birdsand@btpl.org>
Sent: Friday, July 6, 2018 8:44 AM
To: LocalRetirementReporting
Subject: Bloomfield Township Public Library MSB Delay Request

The Bloomfield Township Public Library is requesting that the Municipal Stability Board (MSB) delay action on their corrective action plan until we submit supplemental information by November 13, 2018 date. As a result of providing additional information, we request the MSB vote to approve or deny our corrective action plan the following month.

Sincerely,

Sandi Bird
Finance Coordinator, Bloomfield Township Public Library

Bloomfield Township Public
Library

Sandi Bird | Finance Coordinator | 248.642.5800

MUNICIPAL STABILITY BOARD

Austin Building • 430 W. Allegan Street • Lansing, MI 48922

2018 NOTICE OF REGULAR MEETINGS

The **Municipal Stability Board** will hold its regular meetings during the calendar year ending December 31, 2018, on the following times at the Austin Building, 430 W. Allegan Street, Lansing, MI 48922.

Date	Austin Building Room	Meeting Time	Meeting Type
Friday, May 18, 2018	State Treasurer's Boardroom	10:00am	Board Meeting
~~Wednesday, June 20, 2018~~	~~State Treasurer's Boardroom~~	~~8:00am~~	~~Workshop~~
Wednesday, June 20, 2018	State Treasurer's Boardroom	10:00am	Board Meeting
Wednesday, July 18, 2018	State Treasurer's Boardroom	10:00am	Board Meeting
Wednesday, August 15, 2018	State Treasurer's Boardroom	10:00am	Board Meeting
Wednesday, September 12, 2018	State Treasurer's Boardroom	10:30am	Board Meeting
~~Wednesday, September 19, 2018~~	~~State Treasurer's Boardroom~~	~~10:00am~~	~~Board Meeting~~
Wednesday, October 17, 2018	State Treasurer's Boardroom	10:30am	Board Meeting
Wednesday, November 14, 2018	State Treasurer's Boardroom	10:30am	Board Meeting
~~Wednesday, November 21, 2018~~	~~State Treasurer's Boardroom~~	~~10:00am~~	~~Board Meeting~~
Wednesday, December 19, 2018	State Treasurer's Boardroom	10:30am	Board Meeting

The meeting is open to the public and this notice is provided under the Open Meetings Act, 1976 PA 267, MCL 15.261 to 15.275.

The meeting location is barrier-free and accessible to individuals with special needs. Individuals needing special accommodations or assistance to attend or address the Municipal Stability Board should contact Kristin Brown at (517) 373-3269 prior to the meeting to assure compliance with Subtitle A of Title II of the Americans with Disabilities Act of 1990, Public Law 101-336, 42 USC 12131 to 12134.

A copy of the proposed minutes of the meeting will be available for public inspection at the principal office of the Board within 8 business days. A copy of the approved minutes of the meeting, including any corrections, will be available for public inspection at the principal office of the Board within 7 business days after approval by the Board.

The Board may hold special meetings, in addition to the regular meetings above. Special meetings are also open to the public and separate notice will be posted in advance of special meetings.

MUNICIPAL STABILITY BOARD
RESOLUTION 2018-7

APPROVAL AND ADOPTION OF BEST PRACTICES
AND CORRECTIVE ACTION PLAN APPROVAL CRITERIA

WHEREAS, the Michigan legislature passed the Protecting Local Government Retirement and Benefits ACT, MCL 38.2801 et. seq. (the "Act"), creating the Municipal Stability Board (the "MSB") for the purpose of reviewing and approving Corrective Action Plans submitted by municipalities addressing the underfunded status of their municipal retirement systems; and

WHEREAS, the Act requires the MSB to review and annually update a list of best practices and strategies that will assist an underfunded local unit of government in developing a corrective action plan;

WHEREAS, the Michigan Department of Treasury ("Treasury") provides administrative services to the MSB;

WHEREAS, Treasury staff has developed the initial Best Practices and Corrective Action Plan Approval Criteria for the MSB, as detailed in memorandum attached to this Resolution (the "Best Practices");

WHEREAS, Treasury staff recommends the approval and adoption of the Best Practices; and

WHEREAS, the MSB concurs in that recommendation and wishes to approve and adopt the Best Practices.

NOW, THEREFORE, BE IT RESOLVED, the Municipal Stability Board approves and adopts the Best Practices attached to this Resolution.

Ayes:
Nays:
Recused:
Lansing, Michigan
July 18, 2018

MUNICIPAL STABILITY BOARD

CORRECTIVE ACTION PLAN DEVELOPMENT: *BEST PRACTICES AND STRATEGIES*

Issued Under Authority of Michigan's Public Act 202 of 2017

July 2018

Goal:
To provide best practice options to Michigan's local units of government so they may sustain fiscally stable retirement systems, protect benefits for retirees, and provide high-quality public services to residents. Underfunded local units are encouraged to utilize this information to assist in developing a Corrective Action Plan (CAP) in compliance with Sec. 8 (*MCL 38.2808*) of Public Act 202 of 2017 (the Act). Each local unit and their governing body will have to agree on a uniquely constructed plan to *address their underfunded status* for retirement pension and/or retirement health systems.

Best Practice Principles:
The following three principles may be utilized in developing a CAP for local units of government with an underfunded retirement pension system and/or retirement health system[1] :

1.) Plan Funding
2.) Modern Plan Design
3.) Effective Plan Administration

Best Practice Options:
Corrective options may include, but are not limited to, the options listed below. This list is also inclusive of the corrective options outlined in Sec. 10(7) of the Act (*MCL 38.2810*).

1. Plan Funding

- Below are funding options to sustain legacy costs and future retirement benefits.
  - Fund the annual required contribution, which pays the expected cost of all promised benefits for both pension and retirement health systems (i.e. fund the annual service cost of active employee benefits plus any unfunded actuarial accrued liabilities)
  - Add funding into the annual budget in addition to the annual required contribution(s). This practice will reduce the unfunded liability and allow for potential increased earning interest or investment income.
  - Dedicate additional revenue sources to pay for retirement benefits (e.g. Public Act 345 of 1937 millage, increased operating millage, other special millage)
  - Establish a qualified medical trust designated for retirement health system funding
  - Transfer funds from reserves to increase retirement assets, earning interest, and investment income
  - Add or increase employee/retiree contributions

2. Modern Plan Design

- The goal of a retirement system is its ability to attract and retain a talented workforce while providing a secure retirement for beneficiaries. To accomplish this goal, local units can develop modern plan solutions that can adapt alongside a changing work environment.
- Below are modern plan design options for defined benefit pension systems.
  - Implement a "bridged multiplier" for active employees
  - Implement Final Average Compensation (FAC) standards
  - Reduce or eliminate future defined benefit accruals and enroll active employees into a defined contribution plan or hybrid plan
  - Limit defined benefit options for newly hired employees, including multipliers, cost of living increases, retirement age, and benefit vesting periods
  - Close the current defined benefit plan

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[1] As defined in the Act, retirement health benefit means an annuity, allowance, payment, or contribution to, for, or on behalf of a former employee or dependent of a former employee to pay for any components: (i) Expenses related to medical, drugs, dental, hearing, or vision care. (ii) Premiums for insurance covering medical, drugs, dental, hearing, or vision care. (iii) Expenses or premiums for life, disability, long-term care, or similar welfare benefits for a former employee. These benefits are also commonly referred to as Other Post-Employment Benefits (OPEB).

        - Enroll new hires into a defined contribution plan or a hybrid plan
        - Evaluate the financial implications of any early retirement incentive buyouts
        - Limit the dual payment of both a pension and a salary to any employee who is rehired after retirement by the same employer
    - Below are modern plan design options for retirement health systems
        - Require cost sharing of premiums and sufficient copays
        - Implement a cap on employer retiree health care costs
        - Require use of Medicare as primary insurance for retirees 65 and older
        - Require mirroring of retiree health care plans within the same local unit
        - Require retirees to use health plans of current employers if available, and spouses to utilize benefits from their employer, if available
        - Enroll new hires in a defined contribution retiree health care plan
        - Do not offer incentive packages for early separation without first considering the costs of the separation on the retirement health system
        - Raise the eligibility age for retiree health care
        - Implement vesting rules that provide levels of benefits based on years of service
        - Use a market driven approach to evaluate benefit offerings and carriers

3. **Effective Plan Administration**
    - Local units should use a variety of options to ensure that their retirement benefits are being administered as effectively as possible. Below are administration options to maintain fiscally stable retirement systems.
        - Work with system providers to determine appropriate solutions for each local unit
        - Require all retirement systems to be 100 percent funded before any benefit increases can take effect
        - Require an experience study by the plan's actuary at least every five years
        - Require a peer actuarial audit to be conducted by an actuary that is not the plan actuary at least every eight years, or replace the actuary
        - Obtain frequent annual required contributions for all retirement systems
        - Diversify the investment portfolio in consultation with the system provider
        - Ensure proper assumptions are utilized according to actuarial standards of practice
        - Ensure management and oversight boards have proper experience, skills, and training to administer pension and retirement health systems
        - Use of asset smoothing in the valuation to reduce the impact of significant investment losses on required contribution amounts
        - Implement a closed amortization period of no more than twenty years
        - Calculate amortization payments based on a "level-dollar" amortization schedule
        - Create a committee consisting of all stakeholders (employees, retirees, and employer representation) to evaluate options for benefit offerings

CAP Approval Criteria:
To further assist local units in developing their CAP, the Municipal Stability Board (the Board) has created the approval criteria listed below, which the Board will be considering in their review of each CAP. Local units are encouraged to use a balanced approach from one or more of the best practice principles outlined above to address their underfunded status. However, it is ultimately the responsibility of the local unit to determine the components of their CAP. At a minimum, a successful CAP will demonstrate the following:

1. Funding Ratios

- The CAP must demonstrate through distinct supporting documentation how and when the retirement system will reach a sixty percent funded ratio for pension systems and/or a forty percent funded ratio for retirement health systems. These minimum funding ratio percentages are determined by Sec. 5(4)(a) and Sec. 5(4)(b) of the Act.
    - Supporting documentation must include an actuarial projection, an actuarial valuation, or an internally developed analysis, which illustrates how and when the local unit will reach the minimum funding ratio percentages.

2. Reasonable Timeframe

- The corrective actions listed will address the underfunded status within a reasonable timeframe. Because all local units and their circumstances are unique, a reasonable timeframe will be determined on a case by case basis for each local unit.
    - As general guidance, a local unit with a severely underfunded pension system (45% or less) should reach a funded ratio of sixty percent within twenty years. A local unit with a severely underfunded retirement health system (25% or less) should reach a funded ratio of forty percent within thirty years.
    - The prospective actions listed in a CAP should have a date assigned, which will indicate when implementation will begin for that action. After approval by the Board, the local unit has up to 180 days to begin to implement the corrective actions, unless a legal or contractual obligation prevents implementation within this timeframe.

3. Legal and Feasible

- A CAP must follow all applicable local, state, and federal laws.
- **The governing body of the local unit must approve the CAP**, and the local unit must attach proof of the governing body approval with the submission of their CAP.
- The local unit's administrative officer or designee certifies that it will implement the CAP.
- The local unit must demonstrate that prospective actions are feasible. In other words, are the proposals in the CAP reasonably achievable? Examples of reasonably achievable actions are as follows:
    - A proposed millage rate increase must be within the local unit's charter or statutory requirements.
    - A proposed modification in benefit levels must consider the collective bargaining process, if applicable.
    - A funding option to create a separate revenue stream through a new tax, such as a Public Act 345 millage, should include a detailed implementation plan.
    - A proposed change to enact a retiree health care stipend should include the cost-savings associated with the stipend option, as well as the plan for adoption and implementation.

4. Affordability

- The local unit must confirm that corrective actions listed in the CAP allow for the local unit to make, at a minimum, the annual required contribution payment for pension plans and/or the retiree healthcare premium payment, as well as the normal cost payment for new hires for retirement health benefits (*Sec. 4(1) of the Act, MCL 38.2804*). This section confirms that a local unit has linked long-term future payment expectations with revenue expectations and has concluded that the local unit can afford those payments now and into the future without additional changes to their CAP.
- The practice of affordability means the ability to meet a local unit's current and future obligations, without using a significant percentage of the annual budget. Affordability is defined as follows:
  - In accordance with the Act, annual required contributions should remain less than 10 percent of general fund operating revenues for pension systems and less than 12 percent of general fund operating revenues for retirement health systems.
  - The ability of a local unit to offer residents critical public services while paying for legacy obligations.
  - The ability of a local unit to prefund retirement benefits, earn interest or investment income, and build savings to afford future payments.
  - Affordability is reached through plan funding, modern plan design, and effective plan administration.

Implementation:

Approved corrective action plans will be monitored by the Board for compliance. As a local unit implements prospective changes, there is a recognition that specific solutions may need to be adjusted to address its underfunded status.

Glossary of Terms

Actuarial Standards of Practice: The Actuarial Standards Board sets standards for appropriate actuarial practice in the United States through the development and promulgation of Actuarial Standards of Practice. These standards describe the procedures an actuary should follow when performing actuarial services and identify what the actuary should disclose when communicating the results of those services.

Annual Required Contribution (ARC): The sum of the normal cost payment and the annual amortization payment for past service costs to fund the unfunded actuarial accrued liability (*MCL 38.2803*).

Bridged Multiplier: An active employees' multiplier remains at the previous multiplier, but all future service accrues at the new, reduced multiplier.

Closed Amortization: A closed or fixed period to amortize any unfunded actuarial accrued liability.

Defined Benefit Systems: A retirement plan in which an employer promises a specified payment, lump-sum (or combination thereof) on retirement that is predetermined by a formula based on the employee's earnings history, tenure of service and age, rather than depending directly on individual investment returns. In these types of plans, investment and longevity risk are generally carried by the employer.

Defined Contribution Systems: A retirement savings plan where the employer and employee contributions are defined and known in advance, but the benefit to be paid out is not known in advance. In these types of plans, investment and longevity risk are generally carried by the employee.

Dual Payment: Payments of both a pension and a salary to an active employee who returned to employment for the organization s/he retired from.

Final Average Compensation (FAC): FAC reflects the average salary used for determining pension payments in a defined benefit plan. The period for which salary is averaged and the type of salary used in the calculation is generally determined through state law or plan terms.

Funded Ratio: The value of assets expressed as a percentage of the liability. The funding ratio is reported in the most recent audited financial statement reporting a local unit of government's retirement pension benefits and retirement health benefits.

Level Dollar Amortization: This amortization method amortizes the unfunded actuarial accrued liability into equal dollar amounts to be paid over a given number of years.

Minimum Funding Ratio: As determined by Public Act 202 of 2017, the actuarial accrued liability of a pension plan according to the most recent set of audited financial statements is less than 60% funded for pension systems, and less than 40% funded for retirement health systems.

Normal Cost: The annual service cost of retirement health benefits as they are earned during active employment of employees of the local unit of government in the applicable fiscal year, using an individual entry-age normal and level percent of pay actuarial cost method.

Prefund: The practice of funding a defined benefit during an employee's working lifetime.

Qualified Medical Trust: A tax exempt investment vehicle designed to set aside money to pay for retiree healthcare.

Underfunded Status: The State Treasurer has determined that the local unit of government is underfunded under the review provided in Section 5 of Public Act 202 of 2017 (*MCL 38.2805*) and the local unit of government does not have a waiver under Section 6.

Unfunded Actuarial Accrued Liabilities (UAAL): The UAAL is the difference between actuarial accrued liability and valuation asset.

References

American Academy of Actuaries. (2017, February). *Issue Brief*. Retrieved from American Academy of Actuaries: http://www.actuary.org/files/Public-Plans_IB-Funding-Policy_02-18-2014.pdf

Breen, D., Carter, B., Allen, J., Ciaramitaro, N., Cook, M., Currie, S., . . . Walsh, J. (2017, July). *Responsible Retirement Reform for Local Government Task Force: Report of Findings and Recommendations for Action*. Retrieved from Michigan.gov: https://www.michigan.gov/documents/snyder/R3_Task_Force_Report_579101_7.pdf

GFOA. (2016, September). *Core Elements of a Funding Policy*. Retrieved from Government Finance Officers Association (GFOA): http://www.gfoa.org/core-elements-funding-policy

GFOA. (2016, September). *Establishing and Administering an OPEB Trust*. Retrieved from Government Finance Officers Association: http://www.gfoa.org/establishing-and-administering-opeb-trust

Munnell, A. H., Jean-Pierre, A., & Crawford, C. V. (2016, March). How Big a Burden are State and Local OPEB Benefits? Chestnut Hill: Center for Retirement Research at Boston.

Norcross, E., & Washington, E. (2015). The Crisis in State and Local Pensions. Arlington: Mercatus Center, George Mason University.

Protecting Local Government Retirement and Benefits Act of 2017. MCL 38.2803.

Segal Consulting. (2011, November). *Public Sector Letter*. Retrieved from Segal Consulting: http://archive.segalco.com/publications/publicsectorletters/nov2011.pdf

Segal Consulting. (2014, October). *Public Sector Letter*. Retrieved from Segal Consulting: https://www.nasra.org/files/Topical%20Reports/Funding%20Policies/SegalLetteroct2014.pdf

William, G. G., & Krupkin, A. (2016). Financing State and Local Pension Obligations: Issues and Options. Washington, DC: Retirement Security Project, Brookings Institute.

Protecting Local Government Retirement and Benefits Act Corrective Action Plan:

Defined Benefit Pension Retirement Systems

Issued under authority of Public Act 202 of 2017.

1. MUNICIPALITY INFORMATION

Local Unit Name: MILAN PUBLIC LIBRARY Six-Digit Muni Code: 818007

Defined Benefit Pension System Name: MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM OF MICHIGAN

Contact Name (Administrative Officer): SUSAN WESS

Title if not Administrative Officer: DIRECTOR

Email: susan.wess@milanlibrary.org Telephone Number: (734) 439-1240

2. GENERAL INFORMATION

Corrective Action Plan: An underfunded local unit of government shall develop and submit for approval a corrective action plan for the local unit of government. The local unit of government shall determine the components of the corrective action plan. This Corrective Action Plan shall be submitted by any local unit of government with at least one defined benefit pension retirement system that has been determined to have an underfunded status. Underfunded status for a defined benefit pension system is defined as being less than 60% funded according to the most recent audited financial statements, and, if the local unit of government is a city, village, township, or county, the annually required contribution for all of the defined benefit pension retirement systems of the local unit of government is greater than 10% of the local unit of government's annual governmental fund revenues, based on the most recent fiscal year.

Due Date: The local unit of government has **180 days from the date of notification** to submit a corrective action plan to the Municipal Stability Board (the Board). The Board may extend the 180-day deadline by up to an additional 45 days if the local unit of government submits a reasonable draft of a corrective action plan and requests an extension.

Filing: Per Sec. 10(1) of PA 202 of 2017 (the Act), this Corrective Action Plan must be approved by the local government's administrative officer and its governing body. ***You must provide proof of your governing body approving this Corrective Action Plan and attach the documentation as a separate PDF document.*** Per Sec. 10(4) of the Act, failure to provide documentation that demonstrates approval from your governing body will result in a determination of noncompliance by the Board.

The completed plan must be submitted via email to Treasury at LocalRetirementReporting@michigan.gov for review by the Board. **If you have multiple underfunded retirement systems, you are required to complete separate plans and send a separate email for each underfunded system.** Please attach each plan as a separate PDF document in addition to all applicable supporting documentation.

The subject line of the email(s) should be in the following format: **Corrective Action Plan-2017, Local Unit Name, Retirement System Name** (e.g. Corrective Action Plan-2017, City of Lansing, Employees' Retirement System Pension Plan). Treasury will send an automatic reply acknowledging receipt of the email. Your individual email settings must allow for receipt of Treasury's automatic reply. This will be the only notification confirming receipt of the application(s).

Municipal Stability Board: The Municipal Stability Board shall review and vote on the approval of a corrective action plan submitted by a local unit of government. If corrective action is approved, the Board will monitor the corrective action for the following two years, and the Board will report on the local unit of government's compliance with the Act not less than every two years.

Review Process: Following receipt of the email by Treasury, the Board will accept the corrective action plan submission at the next scheduled meeting of the Board. The Board shall then approve or reject the corrective action plan within 45 days from the date of the meeting.

Considerations for Approval: A successful corrective action plan will demonstrate the actions for correcting underfunded status as set forth in Sec. 10(7) of the Act (listed below), as well as any additional solutions to address the underfunded status. Please also include steps already taken to address your underfunded status as well as the date prospective actions will be taken. A local unit of government may also include in its corrective action plan, a review of the local unit of government's budget and finances to determine any alternative methods available to address its underfunded status. A corrective action plan under this section may include the development and implementation of corrective options for the local unit of government to address its underfunded status. The corrective options as described in Sec. 10(7) may include, but are not limited to, any of the following:

(i) Closing the current defined benefit plan.

(ii) Implementing a multiplier limit.

(iii) Reducing or eliminating new accrued benefits.

(iv) Implementing final average compensation standards.

Implementation: The local unit of government has up to 180 days after the approval of a corrective action plan to begin to implement the corrective action plan to address its underfunded status. The Board shall monitor each underfunded local unit of government's compliance with this act and any corrective action plan. The Board shall adopt a schedule, not less than every 2 years, to certify that the underfunded local unit of government is in substantial compliance with the act. If the Board determines that an underfunded local unit of government is not in substantial compliance under this subsection, the Board shall within 15 days provide notification and report to the local unit of government detailing the reasons for the determination of noncompliance with the corrective action plan. The local unit of government has 60 days from the date of the notification to address the determination of noncompliance.

3. DESCRIPTIONS OF PRIOR ACTIONS

Prior actions are separated into three categories below: System Design Changes, Additional Funding, and Other Considerations. Please provide a brief description of the prior actions implemented by the local government to address the retirement system's underfunded status within the appropriate category section. Within each category are sample statements that you may choose to use to indicate the changes to your system that will positively affect your funded status. For retirement systems that have multiple divisions, departments, or plans within the same retirement system, please indicate how these changes impact the retirement **system** as a whole.

- **Please Note:** If applicable, prior actions listed within your waiver application(s) may also be included in your corrective action plan.

Please indicate where in the attached supporting documentation these changes are described and the impact of those changes (i.e. what has the local unit of government done to improve its underfunded status, and where can we find the proof of these changes in the supporting documentation?).

Note: Please provide the name of the system impacted, the date you made the change, the relevant page number(s) within the supporting documentation, and the resulting change to the system's funded ratio.

Category of Prior Actions:

☒ **System Design Changes** - System design changes may include the following: Lower tier of benefits for new hires, final average compensation limitations, freeze future benefit accruals for active employees in the defined benefit system, defined contribution system for new hires, hybrid system for new hires, bridged multiplier for active employees, etc.

Sample Statement: The system's multiplier for current employees was lowered from 2.5X to 2X for the ***General Employees' Retirement System*** on ***January 1, 2017***. On page ***8*** of the attached actuarial supplemental valuation, it shows our funded ratio will be ***60%*** by fiscal year ***2020.***

The system's multiplier for current employees was raised from 19.37% to 22.90% effective 5/1/18. This is reflected in Invoice 00082847-1, dated and paid 5/31/18 (attachment 7a).
Effective as of the Milan Public Library Board meeting on April 10, 2018, MPL policy requires that new employees work 40 hours per week and with a 10 year vesting period in order to be eligible for pension and other benefits.

☒ **Additional Funding –** Additional funding may include the following: Voluntary contributions above the actuarially determined contribution, bonding, millage increases, restricted funds, etc.

Sample Statement: The local unit provided a lump sum payment of ***$1 million*** to the ***General Employees' Retirement System*** on ***January 1, 2017***. This lump sum payment was in addition to the actuarially determined contribution (ADC) of the system. The additional contribution will increase the retirement system's funded ratio to ***61% by 2025***. Please see page ***10*** of the attached enacted budget, which highlights this contribution of ***$1 million***.

The local unit provided a lump sum payment of $10,000 to the General Employees' Retirement System on 04/20/2018. (attachment 4a, MERS invoice 00081639-1, payment processed 04/25/2018). We also submitted a Voluntary Contribution of $298.58 on 04/20/2018 as a supplement to effectively bring our contribution for April 2018 to a total of 22.90% of wages. (attachment 4b, MERS invoice 00081611-1, payment processed 4/20/18).

☐ **Other Considerations** – Other considerations may include the following: outdated Form 5572 information, actuarial assumption changes, amortization policy changes, etc.

Sample Statement: The information provided on the Form 5572 from the audit used actuarial data from ***2015***. Attached is an updated actuarial valuation for ***2017*** that shows our funded ratio has improved to ***62%*** as indicated on page ***13***.

4. DESCRIPTION OF PROSPECTIVE ACTIONS

The corrective action plan allows you to submit a plan of prospective actions which are separated into three categories below: System Design Changes, Additional Funding, and Other Considerations. Please provide a brief description of the additional actions the local government is planning to implement to address the retirement system's underfunded status within the appropriate category section. Within each category are sample statements that you may choose to use to indicate the changes to your system that will positively affect your funded status. For retirement systems that have multiple divisions, departments, or plans within the same retirement system, please indicate how these changes impact the retirement **system** as a whole.

Please indicate where in the attached supporting documentation these changes are described and the impact of those changes (i.e. what will the local unit of government do to improve its underfunded status, and where can we find the proof of these changes in the supporting documentation?).

Category of Prospective Actions:

☒ **System Design Changes** - System design changes may include the following: Lower tier of benefits for new hires, final average compensation limitations, freeze future benefit accruals for active employees in the defined benefit system, defined contribution system for new hires, hybrid system for new hires, bridged multiplier for active employees, etc.

Sample Statement: Beginning with ***summer 2018*** contract negotiations, the local unit will seek to lower the system's multiplier for current employees from 2.5X to 2X for the ***General Employees' Retirement System***. On page ***8*** of the attached actuarial supplemental valuation, it shows our funded ratio would be ***60%*** funded by ***fiscal year 2020*** if these changes were adopted and implemented by ***fiscal year 2019.***

Beginning with the 2018-19 Fiscal Year, new employees must work 40 hours per week n order to be eligible for pension benefits. The vesting period will remain at 10 years (as approved by the MPL Board of Trustees at the April 10, 2018 meeting - attachment 1a, page 2, #14, item "a")

☐ **Additional Funding –** Additional funding may include the following: voluntary contributions above the actuarially determined contribution, bonding, millage increases, restricted funds, etc.

Sample Statement: Beginning in **fiscal year 2019,** the local unit will provide a lump sum payment of ***$1 million*** to the ***General Employees' Retirement System***. This lump sum payment will be in addition to the actuarially determined contribution (ADC) of the system. The additional contribution will increase the retirement system's funded ratio to ***61% by 2025***. Please see page ***10*** of the attached enacted budget, which highlights this contribution of ***$1 million***. Please see page ***12*** of the attached supplemental actuarial valuation showing the projected change to the system's funded ratio with this additional contribution.

☒ **Other Considerations** – Other considerations may include the following: outdated Form 5572 information, actuarial assumption changes, amortization policy changes, etc.

Sample Statement: Beginning in ***fiscal year 2019***, the local unit will begin amortizing the unfunded portion of the pension liability using a ***level-dollar amortization method over a closed period of 10 years***. This will allow the retirement system to reach a funded status of ***62%*** by ***2022*** as shown in the attached actuarial analysis on page ***13***.

MPL will continue in FY 2018-19 to pay a Voluntary Contribution of $5,000 (or more, up to a maximum of $10,000) and in each each fiscal year until the deficit is corrected. See attachment 1b, page 2, #13, item "e", MPL Board of Trustees meeting minutes from June 12, 2018.

5. CONFIRMATION OF FUNDING

Please check the applicable answer:

Do the corrective actions listed in this plan allow for (insert local unit name) MILAN PUBLIC LIBRARY to make, at a minimum, the annual required contribution payment for the defined benefit pension system according to your long-term budget forecast?

☒ **Yes**
☐ **No**
If No, Explain:

6. DOCUMENTATION ATTACHED TO THIS CORRECTIVE ACTION PLAN

Documentation should be attached as a .pdf to this Corrective Action Plan. The documentation should detail the corrective action plan that would be implemented to adequately address the local unit of government's underfunded status. Please check all documents that are included as part of this plan and attach in successive order as provided below:

Naming convention: when attaching documents please use the naming convention shown below. If there is more than one document in a specific category that needs to be submitted, include a, b, or c for each document. For example, if you are submitting two supplemental valuations, you would name the first document "Attachment 2a" and the second document "Attachment 2b".

Naming Convention	Type of Document
☒ Attachment – 1	**This Corrective Action Plan Form (Required)**
☒ Attachment – 1a	**Documentation from the governing body approving this Corrective Action Plan (Required)**
☐ Attachment – 2a	Actuarial Analysis (annual valuation, supplemental valuation, projection)
☐ Attachment – 3a	Internally Developed Projection Study
☒ Attachment – 4a	Documentation of additional payments in past years that is not reflected in your audited financial statements (e.g. enacted budget, system provided information).
☐ Attachment – 5a	Documentation of commitment to additional payments in future years (e.g. resolution, ordinance)
☐ Attachment – 6a	A separate corrective action plan that the local unit has approved to address its underfunded status, which includes documentation of prior actions, prospective actions, and the positive impact on the system's funded ratio
☒ Attachment – 7a	Other documentation, not categorized above

7. LOCAL UNIT OF GOVERNMENT'S ADMINISTRATIVE OFFICER APPROVAL OF CORRECTIVE ACTION PLAN

I, SUSAN WESS, as the government's administrative officer (enter title) DIRECTOR (Ex: City/Township Manager, Executive director, and Chief Executive Officer, etc.) approve this Corrective Action Plan and will implement the prospective actions contained in this Corrective Action Plan.

Signature ______________ Date 6-15-18

Attachment 1a

From the April 10, 2018 board minutes for the Milan Public Library Board of Trustees:

14 a. Retirement Funding – The State recently notified the Library that our retirement liability is underfunded, and gave us two different options for catching up. MOTION to approve a one-time payment of $10,000 into the fund, plus a monthly contribution increase of $763, and to change the pension vesting period from 6 years to 10 years by Chidester/Sorensen, approved unanimousl

Attachment 1b

From the June 12, 2018 board minutes for the Milan Public Library Board of Trustees:

13 **e. Corrective Action Plan (Retirement Funding)** – The Library has prepared a Corrective Action Plan for its retirement funding: "*Category of Prior Actions / System Design Changes:* The system's multiplier for current employees was raised from 19.37% to 22.90% effective 5/1/18. This is reflected in Invoice 00082847-1, dated and paid 5/31/18. Effective as of the Milan Public Library Board meeting on April 10, 2018, MPL policy requires that new employees work 40 hours per week and with a 10 year vesting period in order to be eligible for pension and other benefits. *Additional Funding:* The local unit provided a lump sum payment of $10,000 to the General Employees' Retirement System on 4/20/2018 (MERS Invoice 00081639-1, payment processed 04/25/2018). We also submitted a Voluntary Contribution of $298.58 on 4/20/2018 as a supplement to effectively bring our contribution for April 2018 to a total of 22.90% of wages (MERS Invoice 0081611-1, payment processed 4/20/18. *Category of Prospective Actions / System Design Changes:* Beginning with the 2018-19 Fiscal Year, new employees must work 40 hours per week in order to be eligible for pension benefits. The vesting period will remain at 10 years (as approved by the MPL Board of Trustees at the April 10, 2018 meeting – see attached). *Other Considerations:* MPL will continue in FY 2018-19 to pay a Voluntary Contribution of $5,000 (or more, up to a maximum of $10,000) in each fiscal year until the deficit is corrected. meeting minutes from MOTION to approve the Corrective Action Plan for Retirement Funding by Biederman/Middleton, approved unanimously.

MERS
Municipal Employees' Retirement System

MERS
1134 Municipal Way
Lansing, MI 48917
www.mersofmich.com

Invoice	00081639-1
Date	4/30/2018
Customer	580601
Due Date	5/20/2018
Page	1 / 1

Bill To:

Edie Herrold
Milan Library
151 Wabash St.
Milan, MI 48160-0000

Billing Questions? **Email: servicecenter@mersofmich.com** **Phone: 1.800.767.6377** **Fax: 517.703.9711**

Invoice Details	Division Number	Billing Period	Division Name	MERS Wages Reported Through Defined Benefit Reporting	Employer Contribution Percentage or Flat Amount	Contribution Amount Employer	Contribution Amount Employee	Employer Voluntary
00081639-01	580601S1	2018-04	Surplus Associated	$10,000.00	1.00	$0.00	$0.00	$10,000.00
					Subtotal:	$0.00	$0.00	$10,000.00
						Total		$10,000.00

Log onto ePayment to pay your invoice.

Municipal Employees' Retirement System

MERS
1134 Municipal Way
Lansing, MI 48917
www.mersofmich.com

Invoice	00082847-1
Date	5/31/2018
Customer	580601
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Invoice Details	Division Number	Billing Period	Division Name	MERS Wages Reported Through Defined Benefit Reporting	Employer Contribution Percentage or Flat Amount	Contribution Amount Employer	Employee	Employer Voluntary
00082847-01	58060107	2018-05	General	$10,180.40	22.90%	$2,331.31	$0.00	$0.00
					Subtotal:	$2,331.31	$0.00	$0.00
						Total		$2,331.31

Log onto ePayment to pay your invoice.

Municipal Employees' Retirement System

MERS
1134 Municipal Way
Lansing, MI 48917
www.mersofmich.com

Invoice	00081611-1
Date	4/30/2018
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Billing Questions? **Email: servicecenter@mersofmich.com** **Phone: 1.800.767.6377** **Fax: 517.703.9711**

Invoice Details	Division Number	Billing Period	Division Name	MERS Wages Reported Through Defined Benefit Reporting	Employer Contribution Percentage or Flat Amount	Contribution Amount Employer	Employee	Employer Voluntary
00081611-01	58060107	2018-04	General	$8,458.41	3.53%	$0.00	$0.00	$298.58
					Subtotal:	$0.00	$0.00	$298.58
						Total		$298.58

Log onto ePayment to pay your invoice.

MUNICIPAL STABILITY BOARD
RESOLUTION 2018-8

APPROVAL OF THE WHITE PINE DISTRICT LIBRARY
CORRECTIVE ACTION PLAN

WHEREAS, the Michigan legislature passed the Protecting Local Government Retirement and Benefits ACT, MCL 38.2801 et. seq., creating the Municipal Stability Board (the "MSB") for the purpose of reviewing and approving Corrective Action Plans submitted by municipalities addressing the underfunded status of their municipal retirement systems (the "Corrective Action Plan");

WHEREAS, the Michigan Department of Treasury ("Treasury") provides administrative services to the MSB for purposes of reviewing Corrective Action Plans;

WHEREAS, on July 18, 2018, by Resolution 2018-7, the MSB adopted the Corrective Action Plans Best Practices and Strategies ("Best Practices") and Corrective Action Plans Approval Criteria ("Approval Criteria") pursuant to MCL 38.2808;

WHEREAS, the Best Practices generally require that a plan (i) will sustain legacy costs and future retirement benefits; (ii) utilizes modern plan design; and (iii) is administered as effectively as possible to maintain a fiscally stable retirement system;

WHEREAS, the Approval Criteria generally requires that a plan (i) demonstrate how and when a retirement system will reach a sixty percent funded ratio for pension systems and/or a forty percent funded ratio for retirement health systems; (ii) address the underfunded status within a reasonable timeframe; (iii) is legal and feasible; and (iv) is affordable;

WHEREAS, on June 20, 2018 the MSB received the White Pine District Library's (the "Municipality") Corrective Action Plan, attached to this Resolution;

WHEREAS, Treasury and the MSB have reviewed the Municipality's Corrective Action Plan pursuant to the Best Practices and Approval Criteria; and

WHEREAS, Treasury is recommending the MSB approve the Corrective Action Plan.

NOW THEREFORE, BE IT RESOLVED, the MSB determines that the Municipality's Corrective Action Plan sufficiently meets the Best Practices and Approval Criteria;

BE IT FURTHER RESOLVED, the MSB approves the Municipality's Corrective Action Plan; and

BE IT FURTHER RESOLVED, that Treasury is directed to oversee that the Corrective Action Plan is implemented pursuant to MCL 38.2810 and to report to the MSB the status of the implementation on a regular basis.

Ayes:
Nays:
Recused:
Lansing, Michigan
July 18, 2018

Treasury Recommendation
White Pine District Library
Pension Corrective Action Plan (CAP)
Non- Primary Unit 598015

Name of Systems	Type of System	Assets	Liabilities	Funded Ratio	ADC	Revenues	ADC/Revenue	CAP required?
MERS	Pension	$122,888	$253,262	48.5%	$7,000	$256,852	2.7%	Yes

Source: Retirement Report 2017, Audited Financial Statements

Staff Recommendation: Approval of the corrective action plan submitted by White Pine District Library, which was received by the Board on June 20, 2018. If approved by the Municipal Stability Board (MSB), Treasury and the MSB will continue to monitor them for compliance per Public Act 202 of 2017 and implementation of their corrective action plan.

Changes Made:

- **Modern Plan Design:**
  - White Pine District Library closed their pension plan on May 1, 2018.
- **Plan Funding:**
  - White Pine District Library increased their funding in 2015, 2016, and 2017.

Prospective Changes:

- **Plan Funding:**
  - White Pine District Library plans to contribute additional money in 2018.

Path to Funding:

- White Pine District Library is currently 48.5% funded and they plan on continuing to increase their funding.
- Their MERS valuation estimates they will reach 60% funded between 2032 and 2034.

Corrective Action Characteristics:

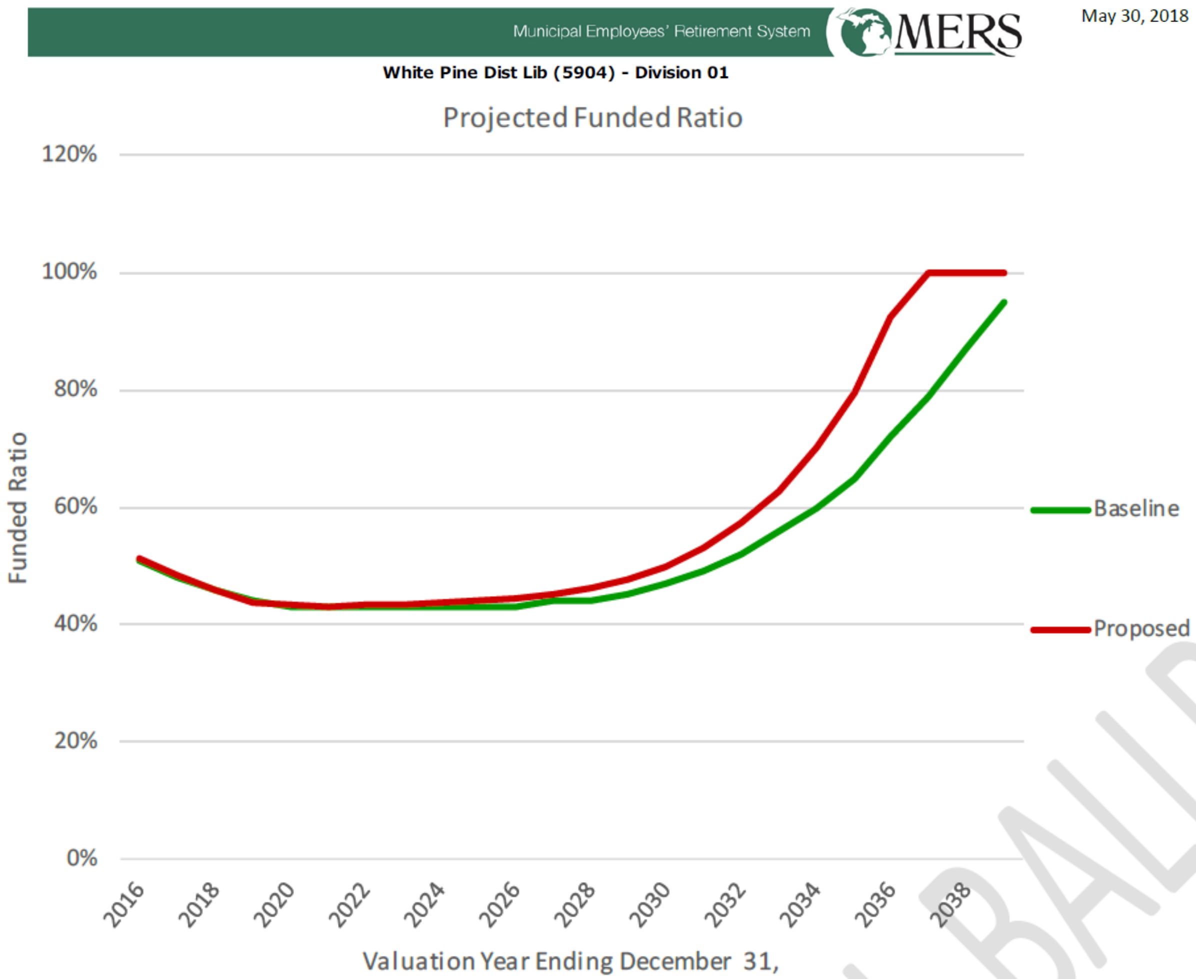
White Pine District Library follows these corrective action characteristics:

1. It is legal and feasible because it complies with local, state, and federal laws; is approved by their governing body; and addresses underfunded status though closing their system.
2. It is affordable because of their section 5 certification, confirming annual payments.
3. Their corrective action plan reaches funding in a reasonable timeframe, if they increase their funding as planned.

Supplemental Information:

White Pine District Library's corrective action plan includes additional funding and modern system design updates. White Pine District Library has closed their defined benefits plan as May 1, 2018. New workers will now be offered a Defined Contribution plan, if applicable. They have also made several lump sum payments to MERS in a surplus account. Their supplemental information shows that as of 12/31/2017 the White Pine District Library has paid a total $28,304, which is more than double their annual required contribution. They plan on continuing increase the funding and intend to use another

CD when it is due to make another lump sum payment. Their MERS valuation estimates they will reach 60% funded between 2032 and 2034. Below is their funding percentage from their most recent ballpark projection for the underfunded system.



Michigan Department of Treasury
5598 (05-18)

Protecting Local Government Retirement and Benefits Act Corrective Action Plan:
Defined Benefit Pension Retirement Systems

Issued under authority of Public Act 202 of 2017.

1. MUNICIPALITY INFORMATION

Local Unit Name: White Pine District Library Six-Digit Muni Code: 590401

Defined Benefit Pension System Name: MERS

Contact Name (Administrative Officer): Patty Rockafellow

Title if not Administrative Officer: Director

Email: whitepinelibrary1@hotmai.com Telephone Number: (989) 831-4327

2. GENERAL INFORMATION

Corrective Action Plan: An underfunded local unit of government shall develop and submit for approval a corrective action plan for the local unit of government. The local unit of government shall determine the components of the corrective action plan. This Corrective Action Plan shall be submitted by any local unit of government with at least one defined benefit pension retirement system that has been determined to have an underfunded status. Underfunded status for a defined benefit pension system is defined as being less than 60% funded according to the most recent audited financial statements, and, if the local unit of government is a city, village, township, or county, the annually required contribution for all of the defined benefit pension retirement systems of the local unit of government is greater than 10% of the local unit of government's annual governmental fund revenues, based on the most recent fiscal year.

Due Date: The local unit of government has **180 days from the date of notification** to submit a corrective action plan to the Municipal Stability Board (the Board). The Board may extend the 180-day deadline by up to an additional 45 days if the local unit of government submits a reasonable draft of a corrective action plan and requests an extension.

Filing: Per Sec. 10(1) of PA 202 of 2017 (the Act), this Corrective Action Plan must be approved by the local government's administrative officer and its governing body. ***You must provide proof of your governing body approving this Corrective Action Plan and attach the documentation as a separate PDF document.*** Per Sec. 10(4) of the Act, failure to provide documentation that demonstrates approval from your governing body will result in a determination of noncompliance by the Board.

The completed plan must be submitted via email to Treasury at **LocalRetirementReporting@michigan.gov** for review by the Board. **If you have multiple underfunded retirement systems, you are required to complete separate plans and send a separate email for each underfunded system.** Please attach each plan as a separate PDF document in addition to all applicable supporting documentation.

The subject line of the email(s) should be in the following format: **Corrective Action Plan-2017, Local Unit Name, Retirement System Name** (e.g. Corrective Action Plan-2017, City of Lansing, Employees' Retirement System Pension Plan). Treasury will send an automatic reply acknowledging receipt of the email. Your individual email settings must allow for receipt of Treasury's automatic reply. This will be the only notification confirming receipt of the application(s).

Municipal Stability Board: The Municipal Stability Board shall review and vote on the approval of a corrective action plan submitted by a local unit of government. If corrective action is approved, the Board will monitor the corrective action for the following two years, and the Board will report on the local unit of government's compliance with the Act not less than every two years.

Review Process: Following receipt of the email by Treasury, the Board will accept the corrective action plan submission at the next scheduled meeting of the Board. The Board shall then approve or reject the corrective action plan within 45 days from the date of the meeting.

Considerations for Approval: A successful corrective action plan will demonstrate the actions for correcting underfunded status as set forth in Sec. 10(7) of the Act (listed below), as well as any additional solutions to address the underfunded status. Please also include steps already taken to address your underfunded status as well as the date prospective actions will be taken. A local unit of government may also include in its corrective action plan, a review of the local unit of government's budget and finances to determine any alternative methods available to address its underfunded status. A corrective action plan under this section may include the development and implementation of corrective options for the local unit of government to address its underfunded status. The corrective options as described in Sec. 10(7) may include, but are not limited to, any of the following:

(i) Closing the current defined benefit plan.

(ii) Implementing a multiplier limit.

(iii) Reducing or eliminating new accrued benefits.

(iv) Implementing final average compensation standards.

Implementation: The local unit of government has up to 180 days after the approval of a corrective action plan to begin to implement the corrective action plan to address its underfunded status. The Board shall monitor each underfunded local unit of government's compliance with this act and any corrective action plan. The Board shall adopt a schedule, not less than every 2 years, to certify that the underfunded local unit of government is in substantial compliance with the act. If the Board determines that an underfunded local unit of government is not in substantial compliance under this subsection, the Board shall within 15 days provide notification and report to the local unit of government detailing the reasons for the determination of noncompliance with the corrective action plan. The local unit of government has 60 days from the date of the notification to address the determination of noncompliance.

3. DESCRIPTIONS OF PRIOR ACTIONS

Prior actions are separated into three categories below: System Design Changes, Additional Funding, and Other Considerations. Please provide a brief description of the prior actions implemented by the local government to address the retirement system's underfunded status within the appropriate category section. Within each category are sample statements that you may choose to use to indicate the changes to your system that will positively affect your funded status. For retirement systems that have multiple divisions, departments, or plans within the same retirement system, please indicate how these changes impact the retirement **system** as a whole.

> **Please Note:** If applicable, prior actions listed within your waiver application(s) may also be included in your corrective action plan.

Please indicate where in the attached supporting documentation these changes are described and the impact of those changes (i.e. what has the local unit of government done to improve its underfunded status, and where can we find the proof of these changes in the supporting documentation?).

Note: Please provide the name of the system impacted, the date you made the change, the relevant page number(s) within the supporting documentation, and the resulting change to the system's funded ratio.

Category of Prior Actions:

☒ **System Design Changes** - System design changes may include the following: Lower tier of benefits for new hires, final average compensation limitations, freeze future benefit accruals for active employees in the defined benefit system, defined contribution system for new hires, hybrid system for new hires, bridged multiplier for active employees, etc.

Sample Statement: *The system's multiplier for current employees was lowered from 2.5X to 2X for the* ***General Employees' Retirement System*** *on* ***January 1, 2017****. On page* ***8*** *of the attached actuarial supplemental valuation, it shows our funded ratio will be* ***60%*** *by fiscal year* ***2020.***

As of May 1, 2018 no new employees will be entered into Defined Benefit. New workers, if qualifying for retirement benefits by the hours (120+) will be entered into Defined Contribution. They are to receive 1% from the employer in DC.

☒ **Additional Funding –** Additional funding may include the following: Voluntary contributions above the actuarially determined contribution, bonding, millage increases, restricted funds, etc.

Sample Statement: *The local unit provided a lump sum payment of* ***$1 million*** *to the* ***General Employees' Retirement System*** *on* ***January 1, 2017****. This lump sum payment was in addition to the actuarially determined contribution (ADC) of the system. The additional contribution will increase the retirement system's funded ratio to* ***61% by 2025****. Please see page* ***10*** *of the attached enacted budget, which highlights this contribution of* ***$1 million.***

Several lump sums have been sent in to MERS. MERS has finally created a surplus division so that we can add monthly as well. We do this every month. Refer to table 5 page 19 of MERS Annual actuarial report for 2014,15 and 16. Refer to the quarterly reports to indicate 2017 and 2018. See Board minutes which indicate boosts in funding.

☐ **Other Considerations** – Other considerations may include the following: outdated Form 5572 information, actuarial assumption changes, amortization policy changes, etc.

Sample Statement: *The information provided on the Form 5572 from the audit used actuarial data from* ***2015****. Attached is an updated actuarial valuation for* ***2017*** *that shows our funded ratio has improved to* ***62%*** *as indicated on page* ***13****.*

4. DESCRIPTION OF PROSPECTIVE ACTIONS

The corrective action plan allows you to submit a plan of prospective actions which are separated into three categories below: System Design Changes, Additional Funding, and Other Considerations. Please provide a brief description of the additional actions the local government is planning to implement to address the retirement system's underfunded status within the appropriate category section. Within each category are sample statements that you may choose to use to indicate the changes to your system that will positively affect your funded status. For retirement systems that have multiple divisions, departments, or plans within the same retirement system, please indicate how these changes impact the retirement **system** as a whole.

Please indicate where in the attached supporting documentation these changes are described and the impact of those changes (i.e. what will the local unit of government do to improve its underfunded status, and where can we find the proof of these changes in the supporting documentation?).

Category of Prospective Actions:

☒ **System Design Changes -** System design changes may include the following: Lower tier of benefits for new hires, final average compensation limitations, freeze future benefit accruals for active employees in the defined benefit system, defined contribution system for new hires, hybrid system for new hires, bridged multiplier for active employees, etc.

Sample Statement: *Beginning with* ***summer 2018*** *contract negotiations, the local unit will seek to lower the system's multiplier for current employees from 2.5X to 2X for the* ***General Employees' Retirement System.*** *On page* ***8*** *of the attached actuarial supplemental valuation, it shows our funded ratio would be* ***60%*** *funded by* ***fiscal year 2020*** *if these changes were adopted and implemented by* ***fiscal year 2019.***

As of May 1, 2018 no new employees will be entered into Defined Benefit. New workers, if qualifying for retirement benefits by the hours (120+) will be entered into Defined Contribution. They are to receive 1% from the employer in DC.

☒ **Additional Funding –** Additional funding may include the following: voluntary contributions above the actuarially determined contribution, bonding, millage increases, restricted funds, etc.

Sample Statement: Beginning in **fiscal year 2019,** *the local unit will provide a lump sum payment of* ***$1 million*** *to the* ***General Employees' Retirement System.*** *This lump sum payment will be in addition to the actuarially determined contribution (ADC) of the system. The additional contribution will increase the retirement system's funded ratio to* ***61% by 2025.*** *Please see page* ***10*** *of the attached enacted budget, which highlights this contribution of* ***$1 million.*** *Please see page* ***12*** *of the attached supplemental actuarial valuation showing the projected change to the system's funded ratio with this additional contribution.*

Refer to the quarterly reports to indicate 2017 and 2018. See Board minutes which indicate boosts in funding. And although we do not have documentation yet, the Board in intent upon using another CD when it becomes due, to add another large lump sum to the surplus category of MERS.

☒ **Other Considerations** – Other considerations may include the following: outdated Form 5572 information, actuarial assumption changes, amortization policy changes, etc.

Sample Statement: *Beginning in* ***fiscal year 2019,*** *the local unit will begin amortizing the unfunded portion of the pension liability using a* ***level-dollar amortization method over a closed period of 10 years.*** *This will allow the retirement system to reach a funded status of* ***62%*** *by* ***2022*** *as shown in the attached actuarial analysis on page* ***13****.*

We have a hard time documenting what level we will reach as we can get no firm answer from MERS. However, we are making every effort to fund the retirement of the 5 people on our MERS retirement system and the 1 employee who is still working and will retire in approx. 5-10 years.

5. CONFIRMATION OF FUNDING

Please check the applicable answer:

Do the corrective actions listed in this plan allow for (*insert local unit name*) White Pine District Library to make, at a minimum, the annual required contribution payment for the defined benefit pension system according to your long-term budget forecast?

☒ **Yes**
☐ **No**
If No, Explain:

6. DOCUMENTATION ATTACHED TO THIS CORRECTIVE ACTION PLAN

Documentation should be attached as a .pdf to this Corrective Action Plan. The documentation should detail the corrective action plan that would be implemented to adequately address the local unit of government's underfunded status. Please check all documents that are included as part of this plan and attach in successive order as provided below:

Naming convention: when attaching documents please use the naming convention shown below. If there is more than one document in a specific category that needs to be submitted, include a, b, or c for each document. For example, if you are submitting two supplemental valuations, you would name the first document "Attachment 2a" and the second document "Attachment 2b".

Naming Convention	Type of Document
☒ Attachment – 1	**This Corrective Action Plan Form (Required)**
☒ Attachment – 1a	**Documentation from the governing body approving this Corrective Action Plan (Required)** Board Minutes March 14, 2018
☒ Attachment – 2a	Actuarial Analysis (annual valuation, supplemental valuation, projection) and quarterly Statements
☐ Attachment – 3a	Internally Developed Projection Study
☒ Attachment – 4a	Documentation of additional payments in past years that is not reflected in your audited financial statements (e.g. enacted budget, system provided information).
☒ Attachment – 5a	Documentation of commitment to additional payments in future years (e.g. resolution, ordinance) see Board minutes
☐ Attachment – 6a	A separate corrective action plan that the local unit has approved to address its underfunded status, which includes documentation of prior actions, prospective actions, and the positive impact on the system's funded ratio
☒ Attachment – 7a	Other documentation, not categorized above MERS Defined Contribution Plan Adoption - No new employees added to DB

7. LOCAL UNIT OF GOVERNMENT'S ADMINISTRATIVE OFFICER APPROVAL OF CORRECTIVE ACTION PLAN

I, Patricia Rockafellow, as the government's administrative officer (*enter title*) Director (Ex: City/Township Manager, Executive director, and Chief Executive Officer, etc.) approve this Corrective Action Plan and will implement the prospective actions contained in this Corrective Action Plan.

Signature [signature] Date 5/25/18

A Resent - First Send Waiver on 3/22/18

White Pine District Library Minutes for March 14, 2018
Meeting called to order by Michelle W. @3:30.

Board Members in attendance Michelle W, Michelle C, Kris, Jen, Kim, Amy and Jackie.

The secretary's report from the February meeting was read and approved. The motion was made by Kris and seconded by Michelle C. Motioned carried.

The treasurer's report was given and approved. The motion was made by Kim and seconded by Jackie. Motion carried

The librarians report was read by Patty.

The bills were approved. The motion was made by Jen and seconded by Michelle C. Motion carried.

Old Business:
The director evaluation is to be complete by April. Kim brought in an example of a form to use. The board agreed to use this form with the option to add to it. Patty will email the new form out to all the board members to be filled out and returned by the April meeting.

The strategic plan was tabled for the month of March – QSAC – we will discuss this again at the April meeting.

The new security camera is up and running. Patty can view everything from her phone. There are plans to eventually to view it from a computer.

Still no news about the house next door. Patty is still trying to make contact with the home owner.

We tabled the grant for another time.

Patty got a quote from Tim Parr on painting the outside of the library. $3,327.00 for the entire building and an extra $525.00 for the eaves. It was suggested that she get 2 more quotes for comparison.

New Business:
Motion by Jen Rolston, Seconded by Michelle Coe to allow for the application for a waiver and plan because we were underfunded in our retirement plan with MERS. We were flagged for being underfunded and now need this waiver that explains how we have been trying to catch up. Motion approved.

There will be a budget meeting May 9th at 3:25. This information needs to be printed in the paper and an affidavit returned. It will also be posted on Facebook and within the library. Amy made a motion to put the notice in the paper Jackie seconded the motion. The motion carried.

Michelle W and Michelle C along with Patty attended the personnel budget meeting. It was discussed a wage increase for the library employees. They discussed a 1%, 2% 3% and merit pay. A motion was made by Kim and seconded by Jen for a 2% wage increase and merit pay for the new fiscal year. The motion carried.

Michelle C is resigning from the board of directors. She has hired in as a library employee. We are now searching for a person to replace her vacancy.

Tesha Peterman was invited by Michelle W to sit in on the board meeting. She was invited to join the board as Michelle C replacement. She has accepted the position. Welcome to the board Tesha!!!!

Kris Thwaites is attending the RLC. She will be representing the board and attending board member meeting.

No public comment.

A motion was made by Jen and seconded by Kris to adjourn the meeting. The motion carried.

Next month's meeting is April 11th.

New Business:

A motion was made by Kris and Seconded by Jackie to have the board meeting dates for 2018 be printed in the paper. Patty will do an affidavit to change the dates. This motion was approved.

The Ernest Rogers family made a memorial donation to the library. The funds can be used for anything the library needs. A few ideas are scanners installed on the adult computers, and music cd's for the adult section.

Patty was informed that the house next door to the library might go up for sale. She opened it up for discussion as a possible purchase in the future so the library will have room to expand.

December 14th is the Holiday Happening Reindeer Games party at the library.

Kim checked on the CD rates with Sidney State Bank.

A motion was made by Jackie and seconded by Jen to adjourn the meeting. The motion was carried.

Special Meeting of the WPDL

7/3/2018

Motion made by Amy Stedman, Second by Jackie Kemler to accept the corrective plan established by the director of WPDL to mend the underfunded retirement issue.

We will continue to monitor this problem and repair as necessary.

Approved 7/3/18

Patty will supply this information to the Local Retirement Reporting agency.

Municipal Employees' Retirement System

MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM OF MICHIGAN

ANNUAL ACTUARIAL VALUATION REPORT DECEMBER 31, 2016

WHITE PINE DISTRICT LIBRARY (5904)

Spring, 2017

White Pine District Library

In care of:
Municipal Employees' Retirement System of Michigan
1134 Municipal Way
Lansing, Michigan 48917

This report presents the results of the Annual Actuarial Valuation, prepared as of December 31, 2016. The report includes the determination of liabilities and contribution rates resulting from the participation of White Pine District Library (5904) in the Municipal Employees' Retirement System of Michigan ("MERS"). MERS is a nonprofit organization, independent from the State, that has provided retirement plans for municipal employees for 70 years. White Pine District Library is responsible for the employer contributions needed to provide MERS benefits for its employees and former employees under the Michigan Constitution and the MERS Plan Document.

The purpose of the December 31, 2016 annual actuarial valuation is to:

- Measure funding progress
- Establish contribution requirements for the fiscal year beginning July 1, 2018
- Provide actuarial information in connection with applicable Governmental Accounting Standards Board (GASB) statements

This valuation report should not be relied upon for any other purpose. Reliance on information contained in this report by anyone for anything other than the intended purpose could be misleading.

The valuation uses financial data, plan provision data, and participant data as of December 31, 2016 furnished by MERS. In accordance with Actuarial Standards of Practice No. 23, the data was checked for internal and year to year consistency as well as general reasonableness, but was not otherwise audited. CBIZ Retirement Plan Services does not assume responsibility for the accuracy or completeness of the data used in this valuation.

The actuarial assumptions and methods are adopted by the MERS Retirement Board, and are reviewed every five years in an Experience Study. The most recent study was completed in 2015. Please refer to the division-specific assumptions described in table(s) in this report, and to the Appendix on the MERS website at:
www.mersofmich.com/Portals/0/Assets/Resources/AAV-Appendix/MERS-2016AnnualActuarialValuation-Appendix.pdf.

The actuarial assumptions used for this valuation produce results that we believe are reasonable.

To the best of our knowledge, this report is complete and accurate, was prepared in conformity with generally recognized actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board, and is in compliance with Act No. 220 of the Public Acts of 1996, as amended, and the MERS Plan Document as revised. All of the undersigned are members of the American Academy of Actuaries (MAAA), and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The Retirement Board of the Municipal Employees' Retirement System of Michigan confirms that the System provides for payment of the required employer contribution as described in Section 20m of Act No. 314 of 1965 (MCL 38.1140m).

This information is purely actuarial in nature. It is not intended to serve as a substitute for legal, accounting or investment advice.

This report was prepared at the request of the Retirement Board and may be provided only in its entirety by the municipality to other interested parties (MERS customarily provides the full report on request to associated third parties such as the auditor for the municipality). CBIZ Retirement Plan Services is not responsible for the consequences of any unauthorized use.

You should notify MERS if you disagree with anything contained in the report or are aware of any information that would affect the results of the report that have not been communicated to us. If you have reason to believe that the plan provisions are incorrectly described, that important plan provisions relevant to this valuation are not described, that conditions have changed since the calculations were made, that the information provided in this report is inaccurate or is in anyway incomplete, or if you need further information in order to make an informed decision on the subject matter in this report, please contact your Regional Manager at 1.800.767.MERS(6377).

Sincerely,

Cathy Nagy, MAAA, FSA
Jim Koss, MAAA, ASA
Curtis Powell, MAAA, EA

TABLE OF CONTENTS

Executive Summary

Actuarial Assumptions and Methods Adopted with the December 31, 2015 Valuations

The actuarial assumptions and methods are adopted by the MERS Retirement Board, and are reviewed every five years in an Experience Study. The Experience Study is a comprehensive, detailed analysis that reviews MERS' funding policy and compares actual experience with the current actuarial assumptions; the study recommends adjustments as necessary. The most recent study was completed in 2015 and changes to the assumptions and methods based on the 2015 Experience Study were first reflected in the December 31, 2015 valuations. The impact of these changes is being phased-in over a 5 year period. The phase-in allows the employer to spread the impact of the new assumptions over 5 fiscal years. This report continues to provide contributions both with and without the phase-in adjustments.

The assumptions and methods are described in the Appendix on the MERS website.

As part of the recent Experience Study, the following changes are first reflected in the December 31, 2016 annual valuation:

- The asset smoothing was changed from 10 to 5 years. The gain (loss) recognized each year will be 20% of the current year's gain (loss) plus 20% of the gain (loss) from each of the 4 preceding years. The cumulative difference between the market value and valuation assets as of December 31, 2015 will be recognized over 4 years.
- Annual changes in Unfunded Accrued Liability (UAL) will be amortized over fixed periods, creating "layers" of UAL. This will require removing and creating "layers" of UAL on an annual basis.
  - Once the amortization period drops below 15 years (10 years for closed divisions), any future liability and asset gains or losses will be spread over a 15-year fixed period for open divisions and a 10-year fixed period for closed divisions — creating "layers" of UAL on an annual basis.
  - This transparent method allows tracking of what changed your UAL, and sets a fixed period in time in which that UAL change will be fully funded.

MERS created a dedicated resource page on their website for additional information on these topics (http://www.mersofmich.com/Employer/Work-Scenarios/Unfunded-Liability).

Funded Ratio and Required Employer Contributions

The MERS Defined Benefit Plan is an agent multiple-employer plan, meaning that assets are pooled for investment purposes but separate accounts are maintained for each individual employer. Each municipality is responsible for their own plan liabilities; MERS does not borrow from one municipality's account to pay for another.

The funded ratio of a plan is the percentage of the dollar value of the accrued benefits that is covered by the actuarial value of assets.

Your Funded Ratio:

	12/31/2016	12/31/2015
Funded Ratio	51%	54%

Michigan Law requires that pension plans be pre-funded, meaning money is set aside now to pay for future benefits. Pension plans are usually funded by employer and employee contributions, and investment income.

How quickly a plan attains the 100% funding goal depends on many factors such as:

- The current funded ratio
- The future experience of the plan
- The amortization period

It is more important to look at the trend in the funded ratio over a period of time than at a particular point in time.

Your Required Employer Contributions:

Your computed employer contributions are shown in the following table. Employee contributions, if any, are in addition to the computed employer contributions. Changes to the assumptions and methods based on the 2015 Experience Study were first reflected in the December 31, 2015 valuations. The impact of these changes is being phased-in over a 5 year period. The phase-in allows the employer to spread the impact of the new assumptions over 5 fiscal years. This valuation reflects the second year of the phase-in.

Your minimum required contribution is the amount in the “Phase-in” columns. By default, MERS will invoice you the phased-in contribution amount, but strongly encourages you to contribute more than the minimum required contribution. If for 2017 your municipality is making employer contributions based on rates without the phase-in applied, contact MERS to ensure this rate is used again for 2018 and not the defaulted phase-in rates.

	Percentage of Payroll				Monthly $ Based on Projected Payroll			
	Phase-in	No Phase-in	Phase-in	No Phase-in	Phase-in	No Phase-in	Phase-in	No Phase-in
Valuation Date:	12/31/2016	12/31/2016	12/31/2015	12/31/2015	12/31/2016	12/31/2016	12/31/2015	12/31/2015
Fiscal Year Beginning:	July 1, 2018	July 1, 2018	July 1, 2017	July 1, 2017	July 1, 2018	July 1, 2018	July 1, 2017	July 1, 2017
Division								
01 - General	21.51%	23.18%	20.18%	22.52%	$ 771	$ 831	$ 690	$ 770
Municipality Total					**$ 771**	**$ 831**	**$ 690**	**$ 770**

Employee contribution rates reflected in the valuations are shown below:

	Employee Contribution Rate	
Valuation Date:	12/31/2016	12/31/2015
Division		
01 - General	3.00%	3.00%

The employer may contribute more than the minimum required contributions, as these additional contributions will earn investment income and may result in lower future contribution requirements. **MERS strongly encourages employers to contribute more than the minimum contribution shown above.**

Assuming that experience of the plan meets actuarial assumptions:

- To accelerate to a 100% funding ratio in 10 years, estimated monthly employer contributions for the entire employer would be $ 1,414, instead of $ 831.
- To accelerate to a 100% funding ratio in 20 years, estimated monthly employer contributions for the entire employer would be $ 879, instead of $ 831.

If you are interested in making additional contributions, please contact MERS and they can assist you with evaluating your options.

How and Why Do These Numbers Change?

In a defined benefit plan contributions vary from one annual actuarial valuation to the next as a result of the following:

- Changes in benefit provisions (see Table 2)
- Changes in actuarial assumptions and methods (see the Appendix)
- Experience of the plan (investment experience and demographic experience); this is the difference between actual experience of the plan and the actuarial assumptions. For example:
  - Lower actual investment returns would result in higher required employer contributions, and vice-versa.
  - Smaller than assumed pay increases would lower required employer contributions.
  - Reductions in the number of active employees would lower required contribution dollars, but would usually increase the contribution rate expressed as a percentage of (the now lower) payroll.
  - Retirements at earlier ages than assumed would usually increase required employer contributions.
  - More non-vested terminations of employment than assumed would decrease required contributions.
  - More disabilities or survivor (death) benefits than assumed would increase required contributions.
  - Longer lifetimes after retirement than assumed would increase required employer contributions.

Actuarial valuations do not affect the ultimate cost of the plan; the benefit payments (current and future) determine the cost of the plan. Actuarial valuations only affect the timing of the contributions into the plan. Because assumptions are for the long term, plan experience will not match the actuarial assumptions in any given year (except by coincidence). Each annual actuarial valuation will adjust the required employer contributions up or down based on the prior year's actual experience.

Comments on Asset Smoothing

The actuarial value of assets, used to determine both your funded ratio and your required employer contribution, is based on a smoothed value of assets (10-year smoothing prior to 2016; 5-year smoothing beginning in 2016). A smoothing method reduces the volatility of the valuation results, which affects your required employer contribution and funded ratio. The smoothed actuarial rate of return for 2016 was 5.14%.

As of December 31, 2016 the actuarial value of assets is 108% of market value. This means that meeting the actuarial assumption in the next few years will require average annual market returns that exceed the 7.75% investment return assumption.

If the December 31, 2016 valuation results were based on market value on that date instead of smoothed funding value: i) the funded percent of your entire municipality would be 48% (instead of 51%); and ii) your total employer contribution requirement for the fiscal year starting July 1, 2018 would be $ 10,692 (instead of $ 9,972).

The asset smoothing method is a powerful tool for reducing the volatility of your required employer contributions. **However, if the current 8% difference between the smoothed value and the market value of assets is not made up, the result would be gradual increases in your employer contribution requirement over the next few years (to around the levels described above).**

Risk Characteristics of Defined Benefit Plans

It is important to understand that Defined Benefit retirement plans, the plan sponsor, and the plan participants are exposed to certain risks. While risks cannot be eliminated entirely, they can be managed through various strategies. Below are a few examples of risk (this is not an all-inclusive list):

- Economic - investment return, wage inflation, etc.
- Demographic - longevity, disability, retirement, etc.
- Plan Sponsor and Employees - contribution volatility, attract/retain employees, etc.

The MERS Retirement Board adopts certain assumptions and methods to manage the economic and demographic risks, and the contribution volatility risks. For example, the investment risk is the largest economic risk and is managed by having a balanced portfolio and a clearly defined investment strategy. Demographic risks are managed by preparing special studies called experience studies on a regular basis to determine if the assumptions used are reasonable compared to the experience. Risk may be managed through a plan design that provides benefits that are sustainable in the long run. An Experience Study is completed every five years to review the assumptions and methods. The next Experience Study will be completed in 2020.

Alternate Scenarios to Estimate the Potential Volatility of Results ("What If Scenarios")

The calculations in this report are based on assumptions about long-term economic and demographic behavior. These assumptions will never materialize in a given year, except by coincidence. Therefore the results will vary from one year to the next. The volatility of the results depends upon the characteristics of the plan. For example:

- Open divisions that have substantial assets compared to their active employee payroll will have more volatile employer contribution rates due to investment return fluctuations.
- Open divisions that have substantial accrued liability compared to their active employee payroll will have more volatile employer contribution rates due to demographic experience fluctuations.
- Small divisions will have more volatile contribution patterns than larger divisions because statistical fluctuations are relatively larger among small populations.
- Shorter amortization periods result in more volatile contribution patterns.

The analysis in this section is intended to review the potential volatility of the actuarial valuation results. It is important to note that calculations in this report are mathematical estimates based upon assumptions regarding future events, which may or may not materialize. Actuarial calculations can and do vary from one valuation to the next, sometimes significantly depending on the group's size.

Many assumptions are important in determining the required employer contributions. In the table below, we show the impact of varying one actuarial assumption: the future annual rate of investment return. Lower investment returns would result in higher required employer contributions, and vice-versa.

The relative impact of each investment return scenario below will vary from year to year, as the participant demographics change. The impact of each scenario should be analyzed for a given year, not from year to year. The results in the table are based on the December 31, 2016 valuation, and are for the municipality in total, not by division. These results do not reflect a 5-year phase in of the impact of the new actuarial assumptions.

	Assumed Future Annual Smoothed Rate of Investment Return			
	Lower Future Annual Returns		Valuation Assumption	Higher Returns
12/31/2016 Valuation Results	**5.75%**	**6.75%**	**7.75%**	**8.75%**
Accrued Liability	$ 306,707	$ 280,900	$ 258,425	$ 238,746
Valuation Assets	$ 132,361	$ 132,361	$ 132,361	$ 132,361
Unfunded Accrued Liability	$ 174,346	$ 148,539	$ 126,064	$ 106,385
Funded Ratio	43%	47%	51%	55%
Monthly Normal Cost	$ 203	$ 143	$ 97	$ 61
Monthly Amortization Payment	$ 854	$ 799	$ 734	$ 676
Total Employer Contribution[1]	$ 1,057	$ 942	$ 831	$ 737

[1] If assets exceed accrued liabilities for a division, the division’s amortization payment is negative and is used to reduce the division’s employer contribution requirement. If the overfunding credit is larger than the normal cost, the division’s full credit is included in the municipality’s amortization payment above but the division’s total contribution requirement is zero. This can cause the displayed normal cost and amortization payment to not add up to the displayed total employer contribution.

Projection Scenarios

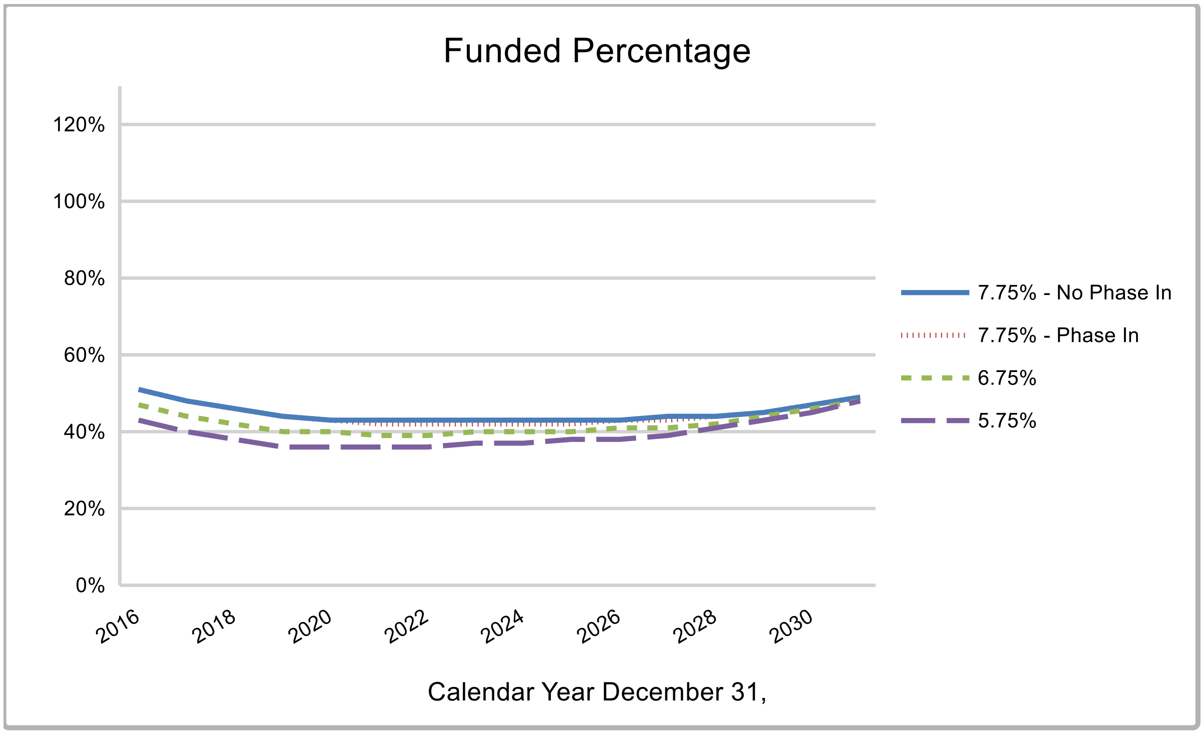
The next two pages show projections of the plan's funded ratio and computed employer contributions under the actuarial assumptions used in the valuation and alternate assumed long-term investment return scenarios. All four projections take into account the past investment losses that will continue to affect the smoothed rate of return in the short term. Under the 7.75% scenarios, two sets of projections are shown:

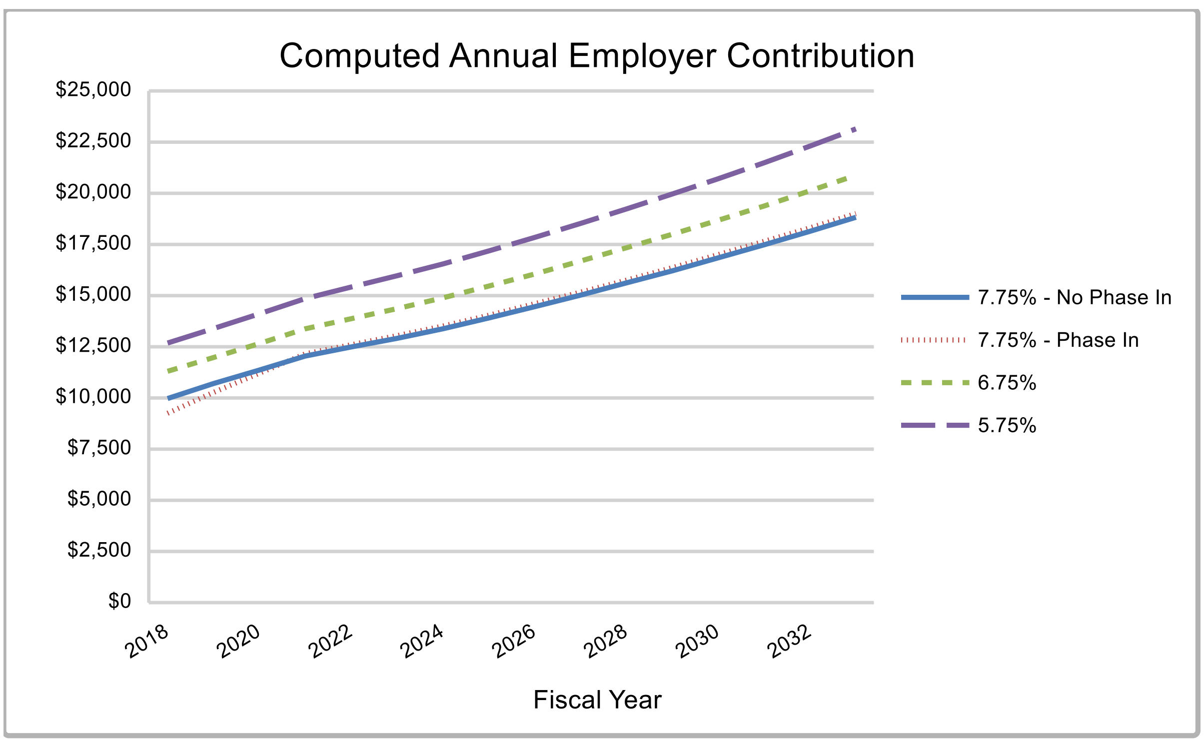
- Based on the phase-in over 5 fiscal years (beginning in 2017) of the increased contribution requirements associated with the new actuarial assumptions. This projects your minimum required contribution.
- Based on no phase-in of the increased contribution requirements.

The 7.75% scenarios provide an estimate of computed employer contributions based on current actuarial assumptions, and a projected 7.75% market return. The other two scenarios may be useful if the municipality chooses to budget more conservatively, and make contributions in addition to the minimum requirements. The 6.75% and 5.75% projections provide an indication of the potential required employer contribution if MERS were to realize investment returns of 6.75% and 5.75% over the long-term.

The projections are shown both in tabular and graphical form in total for the employer. The tables show projections for six years. The graphs show projections for fifteen years.

Valuation Year Ending 12/31	Fiscal Year Beginning 7/1	Actuarial Accrued Liability	Valuation Assets	Funded Percentage	Computed Annual Employer Contribution
7.75% Assumed Interest Discount Rate and Future Annual Market Rate of Return					
WITH 5-YEAR PHASE-IN					
2016	2018	$ 258,425	$ 132,361	51%	$ 9,252
2017	2019	257,000	124,000	48%	10,300
2018	2020	256,000	117,000	46%	11,200
2019	2021	255,000	111,000	44%	12,200
2020	2022	254,000	108,000	43%	12,600
2021	2023	253,000	107,000	42%	13,000
NO 5-YEAR PHASE-IN					
2016	2018	$ 258,425	$ 132,361	51%	$ 9,972
2017	2019	257,000	124,000	48%	10,700
2018	2020	256,000	118,000	46%	11,400
2019	2021	255,000	112,000	44%	12,000
2020	2022	254,000	110,000	43%	12,500
2021	2023	253,000	109,000	43%	12,900
6.75% Assumed Interest Discount Rate and Future Annual Market Rate of Return					
NO 5-YEAR PHASE-IN					
2016	2018	$ 280,900	$ 132,361	47%	$ 11,304
2017	2019	279,000	123,000	44%	12,000
2018	2020	277,000	116,000	42%	12,700
2019	2021	276,000	110,000	40%	13,400
2020	2022	274,000	108,000	40%	13,900
2021	2023	273,000	108,000	39%	14,400
5.75% Assumed Interest Discount Rate and Future Annual Market Rate of Return					
NO 5-YEAR PHASE-IN					
2016	2018	$ 306,707	$ 132,361	43%	$ 12,684
2017	2019	304,000	122,000	40%	13,400
2018	2020	302,000	114,000	38%	14,100
2019	2021	300,000	109,000	36%	14,900
2020	2022	298,000	107,000	36%	15,400
2021	2023	297,000	107,000	36%	16,000


Funded Percentage
120%
100%
80%
60%
40%
20%
0%
2016
2018
2020
2022
2024
2026
2028
2030
Calendar Year December 31,
7.75% - No Phase In
7.75% - Phase In
6.75%
5.75%


Computed Annual Employer Contribution
$25,000
$22,500
$20,000
$17,500
$15,000
$12,500
$10,000
$7,500
$5,000
$2,500
$0
2018
2020
2022
2024
2026
2028
2030
2032
Fiscal Year
7.75% - No Phase In
7.75% - Phase In
6.75%
5.75%

Employer Contribution Details For the Fiscal Year Beginning July 1, 2018

Table 1

Division	Employer Contributions[1]			Computed Employer Contribut. With Phase-In	Blended ER Rate No Phase-In[5]	Blended ER Rate With Phase-In[5]	Employee Contribut. Rate	Employee Contribut. Conversion Factor[2]
	Normal Cost	Payment of the Unfunded Accrued Liability[4]	Computed Employer Contribut. No Phase-In					
Percentage of Payroll								
01 - General	2.70%	20.48%	23.18%	21.51%			3.00%	0.83%
Estimated Monthly Contribution[3]								
01 - General	$ 97	$ 734	$ 831	$ 771				
Total Municipality	**$ 97**	**$ 734**	**$ 831**	**$ 771**				
Estimated Annual Contribution[3]	**$ 1,164**	**$ 8,808**	**$ 9,972**	**$ 9,252**				

1 The above employer contribution requirements are in addition to the employee contributions, if any.

2 If employee contributions are increased/decreased by 1.00% of pay, the employer contribution requirement will decrease/increase by the Employee Contribution Conversion Factor. The conversion factor is usually under 1%, because employee contributions may be refunded at termination of employment, and not used to fund retirement pensions. Employer contributions will all be used to fund pensions.

3 For divisions that are open to new hires, estimated contributions are based on projected fiscal year payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts. For divisions that will have no new hires (ie closed divisions), invoices will be based on the above dollar amounts which are based on projected fiscal year payroll. See description of Open Divisions and Closed Divisions in the Appendix.

4 If projected assets exceed projected liabilities as of the beginning of the July 1, 2018 fiscal year, the negative unfunded accrued liability is treated as overfunding credit and is used to reduce the contribution. This amortization is used to reduce the employer contribution rate. Note that if the overfunding credit is larger than the normal cost, the full credit is shown above but the total contribution requirement is zero. This will cause the displayed normal cost and unfunded accrued liability contributions to not add across.

5 For linked divisions, the employer will be invoiced the Computed Employer Contribution with Phase-in rate shown above for each linked division (a contribution rate for the open division; a contribution dollar for the closed-but-linked division), unless the employer elects to contribute the Blended Employer Contribution rate shown above, by contacting MERS at 800-767-2308.

Please see the Comments on Asset Smoothing in the Executive Summary of this report.

Benefit Provisions

Table 2

01 - General: Open Division

	2016 Valuation	2015 Valuation
Benefit Multiplier:	1.30% Multiplier (no max)	1.30% Multiplier (no max)
Normal Retirement Age:	60	60
Vesting:	10 years	10 years
Early Retirement (Unreduced):	-	-
Early Retirement (Reduced):	50/25 55/15	50/25 55/15
Final Average Compensation:	5 years	5 years
Employee Contributions:	3%	3%
Act 88:	No	No

Participant Summary

Table 3

	2016 Valuation		2015 Valuation		2016 Valuation		
Division	Number	Annual Payroll[1]	Number	Annual Payroll[1]	Average Age	Average Benefit Service[2]	Average Eligibility Service[2]
01 - General							
Active Employees	2	$ 39,225	2	$ 37,427	58.8	18.1	18.1
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	4	22,864	4	22,864	76.3		
Total Municipality							
Active Employees	**2**	**$ 39,225**	**2**	**$ 37,427**	**58.8**	**18.1**	**18.1**
Vested Former Employees	**0**	**0**	**0**	**0**	**0.0**	**0.0**	**0.0**
Retirees and Beneficiaries	**4**	**22,864**	**4**	**22,864**	**76.3**		
Total Participants	**6**		**6**				

1 Annual payroll for active employees; annual deferred benefits payable for vested former employees; annual benefits being paid for retirees and beneficiaries.

2 Description can be found under Miscellaneous and Technical Assumptions in the Appendix.

Reported Assets (Market Value)

Table 4

Division	2016 Valuation		2015 Valuation	
	Employer and Retiree[1]	Employee[2]	Employer and Retiree[1]	Employee[2]
01 - General	$ 103,833	$ 19,054	$ 102,919	$ 17,811
Municipality Total	**$ 103,833**	**$ 19,054**	**$ 102,919**	**$ 17,811**
Combined Reserves	**$ 122,887**		**$ 120,730**	

1 Reserve for Employer Contributions and Benefit Payments

2 Reserve for Employee Contributions

The December 31, 2016 valuation assets are equal to 1.077095 times the reported market value of assets (compared to 1.135382 as of December 31, 2015). The derivation of valuation assets is described, and detailed calculations of valuation assets are shown, in the Appendix.

Flow of Valuation Assets

Table 5

Year Ended 12/31	Employer Contributions Required	Employer Contributions Additional	Employee Contributions	Investment Income	Benefit Payments	Employee Contribution Refunds	Net Transfers	Valuation Asset Balance
2006	$ 5,570		$ 1,638	$ 8,640	$ (12,127)	$ 0	$ 0	$ 113,351
2007	5,803		1,688	9,151	(12,127)	0	0	117,866
2008	6,571		1,864	5,215	(12,127)	0	0	119,389
2009	7,273		1,941	4,981	(12,127)	0	0	121,457
2010	8,135		1,996	6,593	(12,127)	0	0	126,054
2011	8,635	$ 0	1,946	6,707	(12,127)	0	0	131,215
2012	8,537	0	1,631	6,130	(12,127)	0	0	135,386
2013	4,385	0	1,418	6,724	(19,285)	0	0	128,628
2014	4,252	22,297	1,213	7,676	(22,864)	0	57	141,259
2015	6,213	5,154	1,123	6,190	(22,864)	0	0	137,075
2016	7,806	3,248	1,092	6,004	(22,864)	0	0	132,361

Notes:

Transfers in and out are usually related to the transfer of participants between municipalities, and to employer and employee payments for service credit purchases (if any) that the governing body has approved.

Additional employer contributions, if any, are shown separately starting in 2011. Prior to 2011, additional contributions are combined with the required employer contributions.

In the actuarial valuation additional employer contributions are combined with required contributions and used to reduce computed future required employer contributions.

The investment income column reflects the recognized investment income based on the smoothed value of assets. It does not reflect the market value investment return in any given year.

Actuarial Accrued Liabilities and Valuation Assets
As of December 31, 2016

Table 6

Division	Actuarial Accrued Liability	Valuation Assets[1]	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
01 - General				
Active Employees	$ 76,637	$ 19,054	24.9%	$ 57,583
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	181,788	113,307	62.3%	68,481
Pending Refunds	0	0	0.0%	0
Total	**$ 258,425**	**$ 132,361**	**51.2%**	**$ 126,064**
Total Municipality				
Active Employees	**$ 76,637**	**$ 19,054**	**24.9%**	**$ 57,583**
Vested Former Employees	**0**	**0**	**0.0%**	**0**
Retirees and Beneficiaries	**181,788**	**113,307**	**62.3%**	**68,481**
Pending Refunds	**0**	**0**	**0.0%**	**0**
Total Participants	**$ 258,425**	**$ 132,361**	**51.2%**	**$ 126,064**

1 Includes both employer and employee assets.

Please see the Comments on Asset Smoothing in the Executive Summary of this report.

See Section 46 of the Plan Document for MERS Fiscal Responsibility policy, on the MERS website at: https://employerportal.mersofmich.com/SharePointFormsService/Default.aspx?Publication=MERSPlanDocument.pdf.

Actuarial Accrued Liabilities - Comparative Schedule

Table 7

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2002	$ 169,161	$ 107,846	64%	$ 61,315
2003	173,967	107,982	62%	65,985
2004	172,143	108,453	63%	63,690
2005	174,558	109,630	63%	64,928
2006	186,454	113,351	61%	73,103
2007	193,422	117,866	61%	75,556
2008	207,588	119,389	58%	88,199
2009	204,010	121,457	60%	82,553
2010	211,841	126,054	60%	85,787
2011	215,292	131,215	61%	84,077
2012	215,495	135,386	63%	80,109
2013	241,552	128,628	53%	112,924
2014	246,607	141,259	57%	105,348
2015	255,915	137,075	54%	118,840
2016	258,425	132,361	51%	126,064

Notes: Actuarial assumptions were revised for the 2004, 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

Division 01 - General

Table 8-01: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2006	$ 128,093	$ 117,715	92%	$ 10,378
2007	136,306	125,236	92%	11,070
2008	151,752	129,500	85%	22,252
2009	149,494	134,737	90%	14,757
2010	158,691	141,878	89%	16,813
2011	163,846	148,748	91%	15,098
2012	215,495	135,386	63%	80,109
2013	241,552	128,628	53%	112,924
2014	246,607	141,259	57%	105,348
2015	255,915	137,075	54%	118,840
2016	258,425	132,361	51%	126,064

Notes: Actuarial assumptions were revised for the 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

Table 9-01: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees Number	Active Employees Annual Payroll	Computed Employer Contribution[1]	Employee Contribution Rate[2]
2006	3	$ 54,611	3.97%	3.00%
2007	3	56,273	3.97%	3.00%
2008	3	62,138	4.79%	3.00%
2009	3	64,698	3.92%	3.00%
2010	3	66,547	4.14%	3.00%
2011	3	64,857	4.04%	3.00%
2012	3	56,950	11.65%	3.00%
2013	2	36,775	21.85%	3.00%
2014	2	40,455	17.97%	3.00%
2015	2	37,427	22.52%	3.00%
2016	2	39,225	23.18%	3.00%

1 For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

2 For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 for the 12/31/2015 through 12/31/2019 valuations do **not** reflect the phase-in of the increased contribution requirements associated with the new actuarial assumptions. The full contribution without

Division 01 - General

Table 10-01: Layered Amortization Schedule

				Amounts for Fiscal Year Beginning 7/1/2018		
Type of UAL	Date Established	Original Balance	Original Amortiza-tion Period**	Outstanding UAL Balance*	Amortiza-tion Period**	Amortization Payment
Initial	12/31/2015	$ 118,840	23	$ 123,711	22	$ 8,436
Gain/Loss	12/31/2016	4,937	22	5,522	22	372
Total				**$ 129,233**		**$ 8,808**

* This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

** Please see the Appendix on the MERS website for a description of the amortization policy.

The unfunded accrued liability as of December 31, 2016 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2016 valuation to take into account the expected future contributions that are based on past valuations. The projected unfunded accrued liability is amortized over the appropriate period.

GASB 68 Information

The following information has been prepared to provide some of the information necessary to complete GASB Statement No. 68 disclosures. Statement 68 is effective for fiscal years beginning after June 15, 2014. Additional resources, including an Implementation Guide, are available at www.mersofmich.com.

Actuarial Valuation Date:		12/31/2016
Measurement Date of Total Pension Liability (TPL):		12/31/2016
At 12/31/2016, the following employees were covered by the benefit terms:		
Inactive employees or beneficiaries currently receiving benefits:		4
Inactive employees entitled to but not yet receiving benefits:		0
Active employees:		2
		6
Total Pension Liability as of 12/31/2015 measurement date:	$	250,754
Total Pension Liability as of 12/31/2016 measurement date:	$	253,262
Service Cost for the year ending on the 12/31/2016 measurement date:	$	2,130
Change in the Total Pension Liability due to:		
- Benefit changes[1]:	$	0
- Differences between expected and actual experience[2]:	$	4,011
- Changes in assumptions[2]:	$	0

[1] A change in liability due to benefit changes is immediately recognized when calculating pension expense for the year.

[2] Changes in liability due to differences between actual and expected experience, and changes in assumptions, are recognized in pension expense over the average remaining service lives of all employees.

Average expected remaining service lives of all employees (active and inactive):		2
Covered employee payroll: (Needed for Required Supplementary Information)	$	39,225

Sensitivity of the Net Pension Liability to changes in the discount rate:

	1% Decrease (7.00%)	Current Discount Rate (8.00%)	1% Increase (9.00%)
Change in Net Pension Liability as of 12/31/2016:	$ 21,729	-	$ (19,051)

Note: The current discount rate shown for GASB 68 purposes is higher than the MERS assumed rate of return. This is because for GASB 68 purposes, the discount rate must be gross of administrative expenses, whereas for funding purposes it is net of administrative expenses.

Benefit Provision History

The following benefit provision history is provided by MERS. Any corrections to this history or discrepancies between this information and information displayed elsewhere in the valuation report should be reported to MERS. All provisions are listed by date of adoption.

01 - General

12/1/2016	Service Credit Purchase Estimates - Yes
1/1/1998	E 2% COLA Adopted (01/01/1998)
3/1/1987	Benefit FAC-5 (5 Year Final Average Compensation)
3/1/1987	10 Year Vesting
3/1/1987	Benefit C (New)
3/1/1987	Member Contribution Rate 3.00%
3/1/1987	Fiscal Month - July

Plan Provisions, Actuarial Assumptions, and Actuarial Funding Method

Details on MERS plan provisions, actuarial assumptions, and actuarial methodology can be found in the Appendix. Some actuarial assumptions are specific to this municipality and its divisions. These are listed below.

Increase in Final Average Compensation

Division	FAC Increase Assumption
All Divisions	1.00%

Withdrawal Rate Scaling Factor

Division	Withdrawal Rate Scaling Factor
All Divisions	100%

Miscellaneous and Technical Assumptions

Loads – None.

MERS Defined Contribution Plan Adoption Agreement

MERS
Municipal Employees' Retirement System

1134 Municipal Way Lansing, MI 48917 | 800.767.MERS (6377) | Fax 517.703.9711 | www.mersofmich.com

The Employer, a participating municipality or court within the state of Michigan that has adopted MERS coverage, hereby establishes the following Defined Contribution Plan provided by MERS of Michigan, as authorized by 1996 PA 220 in accordance with the MERS Plan Document.

I. Employer Name White Pine District Library **Municipality #:** 5904

If new to MERS, provide your municipality's/court's fiscal year: ________ (Month) through ________ (Month).

II. Effective Date

Check one:

A. ☐ If this is the **initial** Adoption Agreement for this group, the effective date shall be the first day of ____________, 20___.

☐ This municipality or division is new to MERS, so vesting credit prior to the **initial** MERS effective date by each eligible participant shall be credited as follows (choose one):

☐ Vesting credit from date of hire ☐ No vesting credit

☐ This division is for new hires, rehires, and transfers of current Defined Benefit* division #__________ and/or current Hybrid division #__________

Closing this division will change future invoices to a flat dollar amount instead of a percentage of payroll, as provided in your most recent annual actuarial valuation. (The amount may be adjusted for any benefit modifications that may have taken place since then.)

Current active (defined benefit or hybrid) employees (select one of the following and see *Plan Document, Section 64* for more information):

☐ Will have a one-time opportunity to convert the value of their current defined benefit from the existing defined benefit or hybrid plan into the new Defined Contribution Plan as a lump sum, or continue accruing service in the Defined Benefit. (Complete *MERS Defined Contribution Conversion Addendum*.)

☐ Will have a one-time opportunity to cease service accrual in the current plan and transfer to the new Defined Contribution plan for future service accrual, or continue accruing service in the Defined Benefit. The deadline for participants to make their election is: ___/___/_____

☐ Will be required to cease service accrual in Defined Benefit and will transfer to Defined Contribution for future service accrual.

** By completing the section above, the Employer acknowledges receiving Projection Study results and understands the municipality's obligation to continue funding the liability associated with the closed Defined Benefit division.*

B. ■ If this is an **amendment** of an existing Adoption Agreement (existing division number 110278), the effective date shall be the first day of May. 1, 2018

Note: You only need to mark ***changes*** to your plan throughout the remainder of this Agreement.

C. ☐ If this is to **separate employees** *from an existing Defined Contribution division* (existing division number(s) ______________________________) into a new division, the effective date shall be the first day of ________________, 20____.

D. ☐ If this is to **merge division(s)**________________ into division(s) ________________, the effective date shall be the first of ________________, 20____.

III. Eligible Employees

Only those Employees eligible for MERS membership may participate in the MERS Defined Contribution Plan. A copy of ALL employee enrollment forms must be submitted to MERS. The following groups of employees are eligible to participate:

Library Director & anyone hired after 12/31/14 who works at least 30 hrs/week

(Name of Defined Contribution division - e.g. All Full Time Employees, or General After 7/01/13)

To further define eligibility, (check all that apply):

☐ **Probationary periods** are allowed in one-month increments, no longer than 12 months. During this introductory period the Employer will not report or make contributions for this period, including retroactively. Service will begin after the probationary period has been satisfied.

The probationary period will be ______ month(s).

☐ **Temporary employees** in a position normally requiring less than a total of 12 whole months of work in the position may be *excluded* from membership. These employees must be notified in writing by the participating municipality that they are excluded from membership within 10 business days of date of hire or execution of this Agreement.

The temporary exclusion period will be ______ month(s).

IV. Provisions

1. Vesting (Check one):
   - ☐ Immediate
   - ☐ Cliff Vesting (fully vested after below number years of service)
     ☐ 1 year ☐ 2 years ☐ 3 years ☐ 4 years ☐ 5 years
   - ☐ Graded Vesting
     _____ % after 1 year of service
     _____ % after 2 years of service
     _____ % after 3 years of service (min 25%)
     _____ % after 4 years of service (min 50%)
     _____ % after 5 years of service (min 75%)
     _____ % after 6 years of service (min 100%)

   Vesting will be credited using (check one):
   - ☐ Elapsed time method – Participants will be credited with one vesting year for each 12 months of continuous employment from the date of hire.
   - ☐ Hours reported method – Participants will be credited with one vesting year for each calendar year in which _____ hours are worked

In the event of disability or death, a participant's (or his/her beneficiary's) entire employer contribution account shall be 100% vested, to the extent that the balance of such account has not previously been forfeited.

Normal Retirement Age (presumed to be age 60 unless otherwise specified) __________

If an employee is still employed with the municipality at the age specified here, their entire employer contribution balance will become 100% vested regardless of years of service.

2. Contributions
   a. Will be remitted (check one):
   - ☐ Weekly
   - ☐ Bi-Weekly (every other week)
   - ☐ Semi-Monthly (twice each month)
   - ☐ Monthly
   - ☐ Other (must specify) ________________________________

   b. Employee/Employer contribution structure (subject to limitations of Section 415(c) of the Internal Revenue Code)

	Enter % or $ for contribution amounts					
Employee Contribution						
Employer Contribution						

   ☐ Direct mandatory employee contributions as pre-tax

   c. Voluntary employee contributions may be made after-tax, subject to the Section 415(c) limitations of the Internal Revenue Code

3. Compensation:

   Employers may designate the definition of compensation per division participating in Defined Contribution pursuant to section 49 of the MERS Plan Document (check one):

   - ☐ Medicare taxable wages reported in Box 5 of Form W-2
   - ☐ All income subject to income tax reported in Box 1 of Form W-2, plus elective deferrals
   - ☐ Compensation, for retirement purposes, is defined as base wages. Any of the following may be included:
     - ☐ Longevity pay
     - ☐ Overtime pay
     - ☐ Shift differentials
     - ☐ Pay for periods of absence from work by reason of vacation, holiday, and sickness
     - ☐ Workers' compensation weekly benefits (if reported and are higher than regular earnings)
     - ☐ A member's pre-tax contributions to a plan established under Section 125 of the IRC
     - ☐ Transcript fees paid to a court reporter
     - ☐ A taxable car allowance
     - ☐ Short term or long term disability payments
     - ☐ Payments for achievement of established annual (or similar period) performance goals
     - ☐ Payment for attainment of educational degrees from accredited colleges, universities, or for acquisition of job-related certifications
     - ☐ Lump sum payments attributable to the member's personal service rendered during the FAC period
     - ☐ Other: ____________________
     - ☐ Other 2: ____________________

   NOTE: In either of the above elections, an employee's compensation shall not exceed the annual limit under section 401(a)(17) of the Internal Revenue Code.

4. **Loans:** ☐ shall be permitted ☐ shall not be permitted
   If Loans are elected, please complete and attach the *MERS Defined Contribution Loan Addendum*.

5. Rollovers from qualified plans are permitted and the plan will account separately for pre-tax and post-tax contributions and earnings thereon.

V. Appointing MERS as the Plan Administrator

The Employer hereby agrees to the provisions of this *MERS Defined Contribution Plan Adoption Agreement* and appoints MERS as the Plan Administrator pursuant to the terms and conditions of the Plan. The Employer also agrees that in the event of any conflict between the MERS Plan Document and the MERS Defined Contribution Plan Adoption Agreement, the provisions of the Plan Document control.

VI. Modification of the terms of the Adoption Agreement

If the Employer desires to amend any of its elections contained in this Adoption Agreement, including attachments, the Governing Body or Chief Judge, by resolution or official action accepted by MERS, must adopt a new Adoption Agreement. The amendment of the new Agreement is not effective until approved by MERS.

MERS Defined Contribution Plan Adoption Agreement

VII. Enforcement

1. The Employer acknowledges that the Michigan Constitution of 1963, Article 9, Section 24, provides that accrued financial benefits arising under a public Employer's retirement plan are a contractual obligation of the Employer that may not be diminished or impaired.
2. The Employer agrees that, pursuant to the Michigan Constitution, its obligations to pay required contributions are contractual obligations to its employees and to MERS and may be enforced in a court of competent jurisdiction;
3. The Employer acknowledges that employee contributions (if any) and employer contributions must be submitted in accordance with the *MERS Reporting and Contribution Enforcement Policy*, the terms of which are incorporated herein by reference;
4. The Employer acknowledges that late or missed contributions will be required to be made up, including any applicable gains, pursuant to the Internal Revenue Code;
5. Should the Employer fail to make its required contribution(s) when due, MERS may implement any applicable interest charges and penalties pursuant to the *MERS Reporting and Contribution Enforcement Policy* and Plan Document Section 79, and take any appropriate legal action, including but not limited to filing a lawsuit and reporting the entity to the Treasurer of the State of Michigan in accordance with MCL 141.1544(d), Section 44 of PA 436 of 2012, as may be amended.
6. It is expressly agreed and understood as an integral and non-severable part of this Agreement that Section 43 of the Plan Document shall not apply to this Agreement and its administration or interpretation. In the event any alteration of the terms or conditions of this Agreement is made or occurs, under Section 43 or other plan provision or law, MERS and the Retirement Board, as sole trustee and fiduciary of the MERS plan and its trust reserves, and whose authority is non-delegable, shall have no obligation or duty to administer (or to have administered) the MERS Defined Contribution Plan, to authorize the transfer of any defined benefit assets to the MERS Defined Contribution Plan, or to continue administration by MERS or any third-party administrator of the MERS Defined Contribution Plan.

VIII. Execution

Authorized Designee of Governing Body of Municipality or Chief Judge of Court

The foregoing Adoption Agreement is hereby approved by White Pine Dist Lib. Board on
(Name of Approving Employer)
the 15 day of May, 2018.

Authorized signature: [signature]

Title: Director

Witness signature: [signature]

Received and Approved by the Municipal Employees' Retirement System of Michigan

Dated: ____________, 20____ Signature: ____________
(Authorized MERS Signatory)

MERS Municipal Employees' Retirement System
1134 Municipal Way
Lansing, MI 48917
(800) 767-6377

Patricia Rockafellow
White Pine Library
106 E. Walnut St.
Stanton, MI 48888

Customer Number: 590401

Statement of Fiduciary Net Position
For the Year Ending 12/31/2016

Reserve for Employee Contributions

Bargaining Unit	Balance as of 12/31/2015	Invoiced & Other Contributions	Transfers	EE Refunds	Interest on EE Balance	Balance as of 12/31/2016
59040101	$17,811.46	$1,091.51	$0.00	$0.00	$151.40	$19,054.37
Total	$17,811.46	$1,091.51	$0.00	$0.00	$151.40	$19,054.37

Reserve for Employer Contributions and Benefit Payments

Bargaining Unit	Balance as of 12/31/2015	Invoiced & Other Contributions	Transfers & Fees	Benefits Paid	Net Investment Income	Admin Expenses	Balance as of 12/31/2016
59040101	$102,919.22	$11,053.07	$0.00	($22,863.60)	$12,984.35	($259.81)	$103,833.23
Total	$102,919.22	$11,053.07	$0.00	($22,863.60)	$12,984.35	($259.81)	$103,833.23

Combined Reserves

	Balance as of 12/31/2015	Invoiced & Other Contributions	Transfers	Benefits Paid	Net Investment Income	Admin Expenses	Balance as of 12/31/2016
Total	$120,730.68	$12,144.58	$0.00	($22,863.60)	$13,135.75	($259.81)	$122,887.60

Outstanding Accounts Receivable at 12/31/2016: $1,000.00

MERS Municipal Employees' Retirement System

1134 Municipal Way
Lansing, MI 48917
(800) 767-6377

Patricia Rockafellow
White Pine Library
106 E. Walnut St.
Stanton, MI 48888

Customer Number: 590401

Statement of Fiduciary Net Position
For the Year Ending 12/31/2016

Reserve for Employee Contributions

Bargaining Unit	Balance as of 12/31/2015	Invoiced & Other Contributions	Transfers	EE Refunds	Interest on EE Balance	Balance as of 12/31/2016
59040101	$17,811.46	$1,091.51	$0.00	$0.00	$151.40	$19,054.37
Total	$17,811.46	$1,091.51	$0.00	$0.00	$151.40	$19,054.37

Reserve for Employer Contributions and Benefit Payments

Bargaining Unit	Balance as of 12/31/2015	Invoiced & Other Contributions	Transfers & Fees	Benefits Paid	Net Investment Income	Admin Expenses	Balance as of 12/31/2016
59040101	$102,919.22	$11,053.07	$0.00	($22,863.60)	$12,984.35	($259.81)	$103,833.23
Total	$102,919.22	$11,053.07	$0.00	($22,863.60)	$12,984.35	($259.81)	$103,833.23

Combined Reserves

	Balance as of 12/31/2015	Invoiced & Other Contributions	Transfers	Benefits Paid	Net Investment Income	Admin Expenses	Balance as of 12/31/2016
Total	$120,730.68	$12,144.58	$0.00	($22,863.60)	$13,135.75	($259.81)	$122,887.60

Outstanding Accounts Receivable at 12/31/2016: $1,000.00

MERS Municipal Employees' Retirement System
1134 Municipal Way
Lansing, MI 48917
(800) 767-6377

Patricia Rockafellow
White Pine Library
106 E. Walnut St.
Stanton, MI 48888

Statement of Fiduciary Net Position
For the Year Ending 12/31/2017

Customer Number: 590401

Reserve for Employee Contributions

Bargaining Unit	Balance as of 12/31/2016	Invoiced & Other Contributions	Transfers	EE Refunds	Interest on EE Balance	Balance as of 12/31/2017
59040101	$19,054.37	$1,186.49	$0.00	$0.00	$335.36	$20,576.22
Total	$19,054.37	$1,186.49	$0.00	$0.00	$335.36	$20,576.22

Reserve for Employer Contributions and Benefit Payments

Bargaining Unit	Balance as of 12/31/2016	Invoiced & Other Contributions	Transfers & Fees	Benefits Paid	Net Investment Income	Admin Expenses	Balance as of 12/31/2017
59040101	$103,833.23	$8,612.38	($31,285.09)	($22,863.60)	$14,207.42	($235.49)	$72,268.85
590401S1	$0.00	$19,692.02	$31,285.09	$0.00	$2,655.14	($35.80)	$53,596.45
Total	$103,833.23	$28,304.40	$0.00	($22,863.60)	$16,862.56	($271.29)	$125,865.30

Combined Reserves

	Balance as of 12/31/2016	Invoiced & Other Contributions	Transfers	Benefits Paid	Net Investment Income	Admin Expenses	Balance as of 12/31/2017
Total	$122,887.60	$29,490.89	$0.00	($22,863.60)	$17,197.92	($271.29)	$146,441.52

Outstanding Accounts Receivable at 12/31/2017: $1,200.00

MERS Municipal Employees' Retirement System
1134 Municipal Way
Lansing, MI 48917
(800) 767-6377

Patricia Rockafellow
White Pine Library
106 E. Walnut St.
Stanton, MI 48888

Statement of Fiduciary Net Position
For the Quarter Ended 03/31/2017

Customer Number: 590401

Reserve for Employee Contributions

Bargaining Unit	Balance as of 12/31/2016	Invoiced & Other Contributions	Transfers	EE Refunds	Interest on EE Balance	Balance as of 3/31/2017
59040101	$19,054.37	$318.76	$0.00	$0.00	$0.00	$19,373.13
Total	$19,054.37	$318.76	$0.00	$0.00	$0.00	$19,373.13

Reserve for Employer Contributions and Benefit Payments

Bargaining Unit	Balance as of 12/31/2016	Invoiced & Other Contributions	Transfers & Fees	Benefits Paid	Net Investment Income	Admin Expenses	Balance as of 3/31/2017
59040101	$103,833.23	$2,495.50	($586.17)	($5,715.90)	$3,439.82	($68.68)	$103,397.80
590401S1	$0.00	$785.74	$586.17	$0.00	$21.51	($0.40)	$1,393.02
Total	$103,833.23	$3,281.24	$0.00	($5,715.90)	$3,461.33	($69.08)	$104,790.82

Combined Reserves

	Balance as of 12/31/2016	Invoiced & Other Contributions	Transfers	Benefits Paid	Net Investment Income	Admin Expenses	Balance as of 3/31/2017
Total	$122,887.60	$3,600.00	$0.00	($5,715.90)	$3,461.33	($69.08)	$124,163.95

Outstanding Accounts Receivable at 3/31/2017: $1,200.00

MERS Municipal Employees' Retirement System
1134 Municipal Way
Lansing, MI 48917
(800) 767-6377

Patricia Rockafellow
White Pine Library
106 E. Walnut St.
Stanton, MI 48888

Customer Number: 590401

Statement of Fiduciary Net Position
For the Quarter Ended 06/30/2017

Reserve for Employee Contributions

Bargaining Unit	Balance as of 3/31/2017	Invoiced & Other Contributions	Transfers	EE Refunds	Interest on EE Balance	Balance as of 6/30/2017
59040101	$19,373.13	$270.57	$0.00	$0.00	$0.00	$19,643.70
Total	$19,373.13	$270.57	$0.00	$0.00	$0.00	$19,643.70

Reserve for Employer Contributions and Benefit Payments

Bargaining Unit	Balance as of 3/31/2017	Invoiced & Other Contributions	Transfers & Fees	Benefits Paid	Net Investment Income	Admin Expenses	Balance as of 6/30/2017
59040101	$103,397.80	$1,620.76	$0.00	($5,715.90)	$2,872.21	($58.42)	$102,116.45
590401S1	$1,393.02	$16,708.67	$0.00	$0.00	$389.47	($7.92)	$18,483.24
Total	$104,790.82	$18,329.43	$0.00	($5,715.90)	$3,261.68	($66.34)	$120,599.69

Combined Reserves

	Balance as of 3/31/2017	Invoiced & Other Contributions	Transfers	Benefits Paid	Net Investment Income	Admin Expenses	Balance as of 6/30/2017
Total	$124,163.95	$18,600.00	$0.00	($5,715.90)	$3,261.68	($66.34)	$140,243.39

Outstanding Accounts Receivable at 6/30/2017: $1,200.00

MERS Municipal Employees' Retirement System
1134 Municipal Way
Lansing, MI 48917
(800) 767-6377

Patricia Rockafellow
White Pine Library
106 E. Walnut St.
Stanton, MI 48888

Statement of Fiduciary Net Position
For the Quarter Ended 09/30/2017

Customer Number: 590401

Reserve for Employee Contributions

Bargaining Unit	Balance as of 6/30/2017	Invoiced & Other Contributions	Transfers	EE Refunds	Interest on EE Balance	Balance as of 9/30/2017
59040101	$19,643.70	$318.40	$0.00	$0.00	$0.00	$19,962.10
Total	$19,643.70	$318.40	$0.00	$0.00	$0.00	$19,962.10

Reserve for Employer Contributions and Benefit Payments

Bargaining Unit	Balance as of 6/30/2017	Invoiced & Other Contributions	Transfers & Fees	Benefits Paid	Net Investment Income	Admin Expenses	Balance as of 9/30/2017
59040101	$102,116.45	$2,141.86	$0.00	($5,715.90)	$4,426.72	($66.46)	$102,902.67
590401S1	$18,483.24	$1,230.63	$0.00	$0.00	$690.05	($10.36)	$20,393.56
Total	$120,599.69	$3,372.49	$0.00	($5,715.90)	$5,116.77	($76.82)	$123,296.23

Combined Reserves

	Balance as of 6/30/2017	Invoiced & Other Contributions	Transfers	Benefits Paid	Net Investment Income	Admin Expenses	Balance as of 9/30/2017
Total	$140,243.39	$3,690.89	$0.00	($5,715.90)	$5,116.77	($76.82)	$143,258.33

Outstanding Accounts Receivable at 9/30/2017: $1,200.00

May 30, 2018

White Pine Dist Lib (5904) – Division 01

Request Summary

Our understanding of the purpose of the employer's request is to estimate the projected employer cost, funding levels, and recommended amortization schedule if the employer were to close the DB plan of Division 01 to a DC plan for new hires only. Please note that contributions made to the surplus division were not reflected in the funding levels of either the Baseline or Proposed scenarios. The scenarios in this document are as follows:

- Baseline – DB Participants and Benefits as of the valuation date
- Scenario 1 – Same as the Baseline, except Close DB to DC for new hires only with 1.00% of payroll Employer Contribution to DC Plan - Accelerated to 15-Year Amortization

Conclusions and Recommendations

- Based on the projected funding levels under the proposed scenario, we are recommending the Accelerate to 15-Year Amortization schedule.

Important Comments

- Actuarial calculations are mathematical estimates of future events that may or may not materialize. Actuarial calculations can and do vary from one valuation year to the next, and the actual impact of the proposed plan change(s) will change over time as the assumptions about future events are replaced by actual experience.
- The impacts of disparate scenarios should not be summed together to determine their combined impact due to interdependencies.
- The results are based on the same financial, plan provisions (other than the proposed change(s)), and demographic data underlying the December 31, 2017 Annual Actuarial Valuation. Employer contributions through the start of the applicable fiscal year were not adjusted or recalculated as a result of the proposed change(s).
- The results are based on the same actuarial assumptions and methods as in the December 31, 2017 Annual Actuarial Valuation.
- For a detailed description of the actuarial assumptions and funding methods used in the annual valuation please refer to its Appendix on the MERS website. In addition, the MERS Retirement Board adopted the Actuarial Policy effective May 1, 2018.

Ballpark Estimate Disclosure Statement

This document is not an actuarial report nor are the contribution amounts or rates certified by an actuary. The contribution amounts and rates in this document are estimates (not actual contribution amounts or rates) and are for illustrative purposes only. Neither the employer, nor any other party receiving or reviewing this document may rely on these calculations as indicative of future contribution amounts or rates. By requesting and accepting this document, the employer agrees that MERS shall have no liability arising out of the provision of these amounts and rates, and agrees to indemnify MERS for any liability arising from same due to the provision of this letter or any information therein to any other party or individual. Pursuant to MCL 38.1140h and Section 46 of the MERS Plan Document, there must be a supplemental actuarial analysis conducted before any proposed benefit change is implemented for any currently active or prior employees.

White Pine Dist Lib (5904) - Division 01
Estimated Projected Employer Contributions and Funded Ratios

		Baseline - Current Participants, Current Benefits				Proposed - Close DB to DC for new hires only with 1.00% of payroll Employer Contribution to DC Plan - Accelerated to 15-Year Amortization					
Valuation Year Ending 12/31	Fiscal Year Beginning in Year	Actuarial Accrued Liability	Valuation Assets	Funded %	Required Annual Employer Contribution	Actuarial Accrued Liability	Valuation Assets	Funded %	Required Annual DB Employer Contribution	Employer DC Contrib.	Total Annual Employer Contribution
2016	2018	258,425	132,361	51%	$9,972	258,425	132,361	51%	$9,780	$68	$9,848
2017	2019	257,104	124,200	48%	$10,704	257,003	124,159	48%	$10,740	$102	$10,842
2018	2020	255,846	117,541	46%	$11,364	255,433	117,102	46%	$11,736	$135	$11,871
2019	2021	254,663	111,766	44%	$12,048	253,714	110,959	44%	$12,888	$177	$13,065
2020	2022	253,556	109,823	43%	$12,492	251,828	108,795	43%	$13,248	$229	$13,477
2021	2023	252,613	108,645	43%	$12,912	249,859	107,696	43%	$13,608	$277	$13,885
2022	2024	251,365	107,714	43%	$13,380	247,195	106,887	43%	$13,980	$328	$14,308
2023	2025	249,832	106,947	43%	$13,908	243,831	106,016	43%	$14,412	$385	$14,797
2024	2026	247,923	106,257	43%	$14,460	239,690	104,996	44%	$14,868	$436	$15,304
2025	2027	245,111	105,197	43%	$15,024	234,121	103,296	44%	$15,360	$483	$15,843
2026	2028	241,780	104,238	43%	$15,624	227,501	101,380	45%	$15,888	$526	$16,414
2027	2029	238,146	103,666	44%	$16,212	220,036	99,537	45%	$16,440	$567	$17,007
2028	2030	234,411	103,758	44%	$16,848	211,907	98,046	46%	$17,004	$606	$17,610
2029	2031	230,747	104,762	45%	$17,484	203,261	97,157	48%	$17,616	$643	$18,259
2030	2032	227,311	106,914	47%	$18,144	194,221	97,090	50%	$18,252	$679	$18,931
2031	2033	224,261	110,471	49%	$18,828	184,908	98,088	53%	$18,912	$721	$19,633
2032	2034	221,756	115,680	52%	$19,548	175,439	100,401	57%	$19,560	$767	$20,327
2033	2035	219,941	122,796	56%	$20,292	165,911	104,262	63%	$20,280	$804	$21,084
2034	2036	218,373	131,493	60%	$21,072	155,752	109,253	70%	$21,048	$834	$21,882
2035	2037	217,222	142,074	65%	$21,864	145,077	115,651	80%	$0	$866	$866
2036	2038	217,348	155,550	72%	$22,680	134,765	124,508	92%	$0	$898	$898
2037	2039	218,837	172,156	79%	$23,520	124,826	124,692	100%	$24	$932	$956
2038	2040	221,784	192,138	87%	$2,640	115,271	115,113	100%	$24	$967	$991
2039	2041	226,289	215,766	95%	$2,724	106,108	105,938	100%	$24	$1,003	$1,027

Notes: The phase-in was excluded for ballpark and comparison purposes.
The amortization schedule in the proposed scenario is different from the baseline. A description of the amortization policy can be found on page 24 of the annual valuation appendix:
http://www.mersofmich.com/Portals/0/Assets/Resources/AAV-Appendix/MERS-2016AnnualActuarialValuation-Appendix.pdf
The assumed future annual investment return is 7.75%.
The long term cost of benefits is the employer normal cost of 2.70% of payroll in the baseline, and the employer DC contribution rate of 1.00% of payroll in the proposed scenario.
Please note that the employer will be flat billed rather than billed on a percentage of payroll basis for the DB division should the employer elect to close the division to a DC plan.
It was deemed appropriate to accelerate the amortization schedule for Division 01 in the proposed scenario due to its current and projected funding levels.

Ballpark Estimate Disclosure Statement

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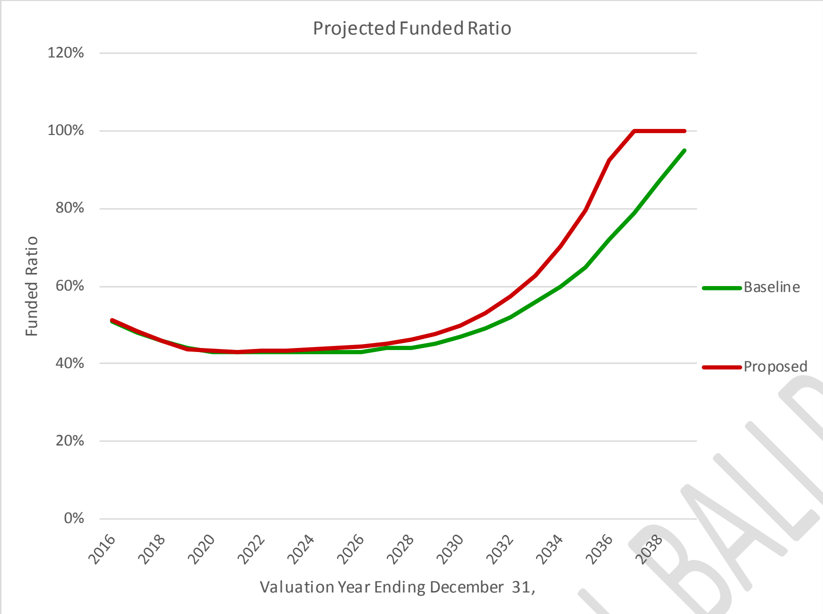
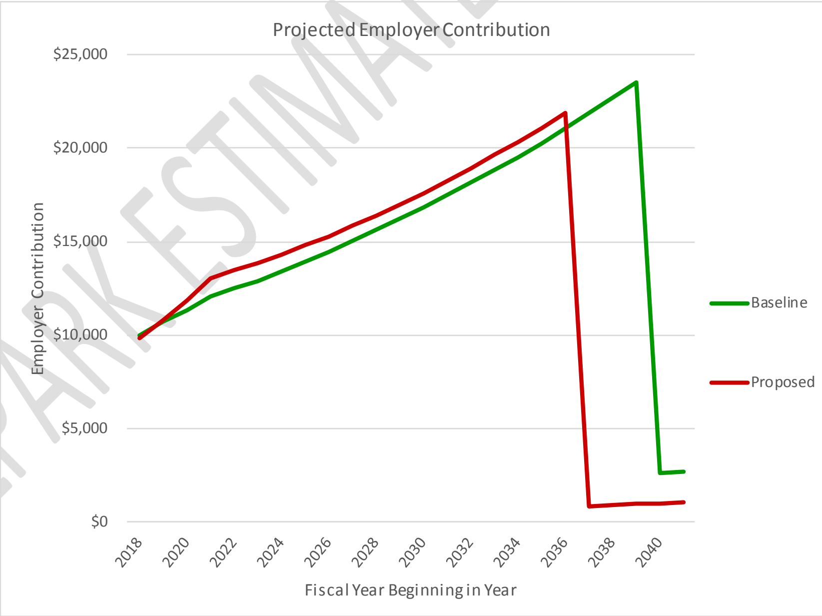
White Pine Dist Lib (5904) - Division 01
Estimated Projected Employer Contributions and Funded Ratios





Baseline - Current Participants, Current Benefits
Proposed - Close DB to DC for new hires only with 1.00% of payroll Employer Contribution to DC Plan - Accelerated to 15-Year Amortization

Ballpark Estimate Disclosure Statement

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Defined Benefit Plan Surplus Division Adoption Addendum

MERS® Municipal Employees' Retirement System

1134 Municipal Way Lansing, MI 48917 | 800.767.MERS (6377) | Fax 517.703.9711 www.mersofmich.com

The Municipal Employees' Retirement System of Michigan ("MERS")

and White Pine District Library, # 5904
(Municipality name) (Municipality number)

entered into an Adoption Agreement effective January 2017; and
(Month, Year)

Employer wishes from time to time to remit Employer Contributions to its reserve account with MERS in excess of the annual required Employer Contributions as determined by MERS' actuary, or in excess of the amount currently due from Employer, without such amounts being immediately attributable to the reserve of any of its employee divisions ("Surplus Contributions"). MERS has advised Employer that in order to accomplish this, MERS must establish a division to account such Surplus Contributions ("Surplus Division").

To establish the Surplus Division(s) and memorialize the terms and conditions agreed to by MERS and Employer concerning their establishment, Employer and MERS hereby enter into this Surplus Contribution Addendum to Employer's Adoption Agreement ("Addendum"), to be effective as of the date set out below.

I **MERS Establishment of Surplus Division:** Commencing on the effective date of this Addendum, MERS shall establish the following Surplus Division(s) for Employer:

Associated Surplus Divisions:

a) Surplus Division ________________, to be associated with ________________.

b) Surplus Division ________________, to be associated with ________________.

c) Surplus Division ________________, to be associated with ________________.

Unassociated Surplus Divisions:

d) Surplus Division S1, to be unassociated with any Employee Division.

e) Surplus Division ________________, to be unassociated with any Employee Division.

f) Surplus Division ________________, to be unassociated with any Employee Division.

II **Employer Remittance of Surplus Contributions:** From time to time, at Employer's sole and exclusive discretion (which shall include Employer's obligations under terms agreed to by Employer in the course of collective bargaining, if any), Employer may remit contributions to MERS that Employer expressly designates as Surplus Contributions, specifying the appropriate Surplus Division to which they are to be credited. It is understood by Employer that, once remitted to MERS, Surplus Contributions are not and shall never be refundable to Employer, nor used for any purpose other than the funding of its obligations for MERS benefits accrued by employees of Employer.

III MERS' Crediting of Surplus Contributions: Upon receipt from Employer of Employer Contributions designated as Surplus Contributions, MERS shall credit such amounts to the Surplus Division designated by Employer.

IV Treatment of Surplus Contributions for Actuarial Purposes: Surplus Contributions reflected in one or more Surplus Division established by MERS as directed by Employer shall be treated as follows for actuarial purposes:

a) They shall not be included in the determination of the annual Employer Contributions requirement for any Employee Division, and

b) They shall be included in the determination of the Employer's overall funded status.

V Employer Use of Surplus Contributions: At any time, upon 30 days' advance written notice to MERS, Employer may direct MERS to use the Surplus Contributions currently reflected in one or more established Surplus Division(s) be used by Employer as follows:

a) Employer may transfer Surplus Contributions reflected in an Unassociated Surplus Division to one or more Employee Division(s).

b) Employer may transfer Surplus Contributions reflected in an Assigned Surplus Division to such Employee Division.

c) Employer may redesignate any Surplus Division (whether Associated or Unassociated) to either an Associated Surplus Division or to an Unassociated Surplus Division, as applicable.

Employer is solely responsible for any decision(s) it makes under this Section V, and Employer agrees that by entering into this Addendum, it shall indemnify and hold MERS harmless from any claim, challenge, or litigation arising from its actions under this Section V, including costs and attorneys' fees.

Once Surplus Contributions are transferred to an Employee Division, they may not thereafter be recharacterized as Surplus Contributions or transferred back to a Surplus Division.

VI Recharacterization of Contributions: By written notice to MERS, Employer may make a one-time election to transfer Employer Contributions it remitted prior to the effective date of this Addendum that were in excess of the amount then due from Employer from an Employer Division to one or more Surplus Division(s) established by this Addendum, and recharacterize those amounts as Surplus Contributions. Employer may make the election described herein only once.

VII Rights of MERS: At any time following the occurrence of any or all of the following, MERS reserves the right to transfer some or all of the Surplus Contributions reflected in an Employer's Reserves to one or more Employee Division(s) of such Employer:

a) Employer has defaulted on some or all of its contribution obligations to MERS.

b) Employer has filed for or is otherwise subject to bankruptcy protection or receivership.

c) An emergency manager or similar oversight authority has been appointed to conduct Employer's financial affairs.

VIII Continuation of Adoption Agreement: Except for the terms and conditions of this Addendum, all other terms and conditions of the Adoption Agreement, as it may be or may have been amended from time to time, shall continue unchanged.

IN WITNESS WHEREOF, this Addendum is entered into by MERS and Employer by signature of the authorized parties below:

Employer Approving Authority

Signature: ______________________________ on ________________
(Name of approving representative) (Date)

Employer Printed Name: ______________________________

Employer Title: ______________________________

MERS Approving Authority

Signature: ______________________________ on ________________
(Date)

MERS Printed Name: ______________________________

MERS Title: ______________________________

MUNICIPAL STABILITY BOARD
RESOLUTION 2018-9

APPROVAL OF THE CITY OF ECORSE
CORRECTIVE ACTION PLAN

WHEREAS, the Michigan legislature passed the Protecting Local Government Retirement and Benefits ACT, MCL 38.2801 et. seq., creating the Municipal Stability Board (the “MSB”) for the purpose of reviewing and approving Corrective Action Plans submitted by municipalities addressing the underfunded status of their municipal retirement systems (the “Corrective Action Plan”);

WHEREAS, the Michigan Department of Treasury (“Treasury”) provides administrative services to the MSB for purposes of reviewing Corrective Action Plans;

WHEREAS, on July 18, 2018, by Resolution 2018-7, the MSB adopted the Corrective Action Plans Best Practices and Strategies (“Best Practices”) and Corrective Action Plans Approval Criteria (“Approval Criteria”) pursuant to MCL 38.2808;

WHEREAS, the Best Practices generally require that a plan (i) will sustain legacy costs and future retirement benefits; (ii) utilizes modern plan design; and (iii) is administered as effectively as possible to maintain a fiscally stable retirement system;

WHEREAS, the Approval Criteria generally requires that a plan (i) demonstrate how and when a retirement system will reach a sixty percent funded ratio for pension systems and/or a forty percent funded ratio for retirement health systems; (ii) address the underfunded status within a reasonable timeframe; (iii) is legal and feasible; and (iv) is affordable;

WHEREAS, on June 20, 2018 the MSB received the City of Ecorse’s (the “Municipality”) Corrective Action Plan, attached to this Resolution;

WHEREAS, Treasury and the MSB have reviewed the Municipality’s Corrective Action Plan pursuant to the Best Practices and Approval Criteria; and

WHEREAS, Treasury is recommending the MSB approve the Corrective Action Plan.

NOW THEREFORE, BE IT RESOLVED, the MSB determines that the Municipality’s Corrective Action Plan sufficiently meets the Best Practices and Approval Criteria;

BE IT FURTHER RESOLVED, the MSB approves the Municipality’s Corrective Action Plan; and

BE IT FURTHER RESOLVED, that Treasury is directed to oversee that the Corrective Action Plan is implemented pursuant to MCL 38.2810 and to report to the MSB the status of the implementation on a regular basis.

Ayes:
Nays:
Recused:
Lansing, Michigan
July 18, 2018

Treasury Recommendation
City of Ecorse
Pension Corrective Action Plan (CAP)
Primary Unit 822060

Name of Systems	Type of System	Assets	Liabilities	Funded Ratio	ADC	Revenues	ADC/ Revenue	CAP required?
MERS	Pension	$15,734,253	$41,661,704	37.8%	$4,907,707	$16,076,526	30.5%	Yes
SELF FUNDED	OPEB	$0	$22,623,093	0%	$1,522,195		9.5%	No
Total:		**$15,734,253**	**$64,284,797**	**24.5%**	**$6,429,902**	**$16,076,526**	**40%**	**Yes**

Source: Retirement Report 2017, Audited Financial Statements

Staff Recommendation: Approval of the corrective action plan submitted by City of Ecorse, which was received by the Board on June 20, 2018. If approved by the Municipal Stability Board (MSB), Treasury and the MSB will continue to monitor them for compliance per Public Act 202 of 2017 and implementation of their corrective action plan.

Changes Made:

- **Modern Plan Design:**
  - The City of Ecorse closed the pension plan as of June 30, 2017.
- **Plan Funding:**
  - The City of Ecorse made a one-time lumpsum payment of $800,000 to MERS Defined Pension Plan on February 14, 2018.

Prospective Changes:

- The City of Ecorse does not list any additional modern plan designs or plan funding.

Path to Funding:

- 60% funded ratio by 2032 according to the most recent valuation.
- Even with a high ADC/Revenue, the City of Ecorse confirms their ability to make the annual required payments, in Section 5 of the CAP.

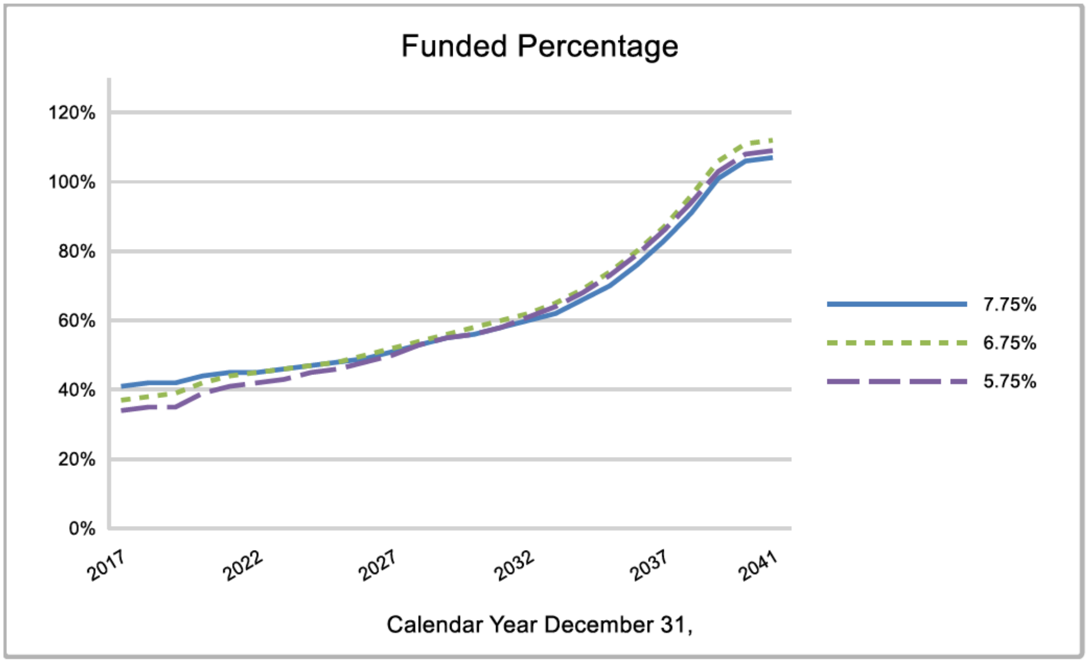
Corrective Action Characteristics

- The City of Ecorse follows these corrective action characteristics:
  1. It is legal and feasible because it complies with local, state, and federal laws; is approved by their governing body; and addresses underfunded status though closing their system.
  2. It is affordable because of their section 5 certification, confirming annual payments.
  3. Their corrective action plan reaches funded status in a reasonable timeframe, according to the most recent valuation.

Treasury Recommendation
City of Ecorse
Pension Corrective Action Plan (CAP)
Primary Unit 822060

Supplemental Information:

The City of Ecorse's CAP did not include any prospective changes. The CAP is signed and approved by the legislative body. The supplemental information shows that as of 3/31/2018 their assets have increase to $17,481,888. This changes their funded ratio to approximately 41%. Below is their funding percentage from their most recent valuation for the underfunded system.



Notes:

All projected funded percentages are shown with no phase-in.

Protecting Local Government Retirement and Benefits Act Corrective Action Plan:
Defined Benefit Pension Retirement Systems

Issued under authority of Public Act 202 of 2017.

1. MUNICIPALITY INFORMATION

Local Unit Name: CITY OF ECORSE Six-Digit Muni Code: 822060

Defined Benefit Pension System Name: MERS DEFINED BENEFIT PENSION PLAN

Contact Name (Administrative Officer): RICHARD MARSH

Title if not Administrative Officer: CITY ADMINISTRATOR

Email: RMARSH@ECORSEMI.GOV Telephone Number: (313) 436-4005

2. GENERAL INFORMATION

Corrective Action Plan: An underfunded local unit of government shall develop and submit for approval a corrective action plan for the local unit of government. The local unit of government shall determine the components of the corrective action plan. This Corrective Action Plan shall be submitted by any local unit of government with at least one defined benefit pension retirement system that has been determined to have an underfunded status. Underfunded status for a defined benefit pension system is defined as being less than 60% funded according to the most recent audited financial statements, and, if the local unit of government is a city, village, township, or county, the annually required contribution for all of the defined benefit pension retirement systems of the local unit of government is greater than 10% of the local unit of government's annual governmental fund revenues, based on the most recent fiscal year.

Due Date: The local unit of government has **180 days from the date of notification** to submit a corrective action plan to the Municipal Stability Board (the Board). The Board may extend the 180-day deadline by up to an additional 45 days if the local unit of government submits a reasonable draft of a corrective action plan and requests an extension.

Filing: Per Sec. 10(1) of PA 202 of 2017 (the Act), this Corrective Action Plan must be approved by the local government's administrative officer and its governing body. ***You must provide proof of your governing body approving this Corrective Action Plan and attach the documentation as a separate PDF document.*** Per Sec. 10(4) of the Act, failure to provide documentation that demonstrates approval from your governing body will result in a determination of noncompliance by the Board.

The completed plan must be submitted via email to Treasury at **LocalRetirementReporting@michigan.gov** for review by the Board. **If you have multiple underfunded retirement systems, you are required to complete separate plans and send a separate email for each underfunded system.** Please attach each plan as a separate PDF document in addition to all applicable supporting documentation.

The subject line of the email(s) should be in the following format: **Corrective Action Plan-2017, Local Unit Name, Retirement System Name** (e.g. Corrective Action Plan-2017, City of Lansing, Employees' Retirement System Pension Plan). Treasury will send an automatic reply acknowledging receipt of the email. Your individual email settings must allow for receipt of Treasury's automatic reply. This will be the only notification confirming receipt of the application(s).

Municipal Stability Board: The Municipal Stability Board shall review and vote on the approval of a corrective action plan submitted by a local unit of government. If corrective action is approved, the Board will monitor the corrective action for the following two years, and the Board will report on the local unit of government's compliance with the Act not less than every two years.

Review Process: Following receipt of the email by Treasury, the Board will accept the corrective action plan submission at the next scheduled meeting of the Board. The Board shall then approve or reject the corrective action plan within 45 days from the date of the meeting.

Considerations for Approval: A successful corrective action plan will demonstrate the actions for correcting underfunded status as set forth in Sec. 10(7) of the Act (listed below), as well as any additional solutions to address the underfunded status. Please also include steps already taken to address your underfunded status as well as the date prospective actions will be taken. A local unit of government may also include in its corrective action plan, a review of the local unit of government's budget and finances to determine any alternative methods available to address its underfunded status. A corrective action plan under this section may include the development and implementation of corrective options for the local unit of government to address its underfunded status. The corrective options as described in Sec. 10(7) may include, but are not limited to, any of the following:

(i) Closing the current defined benefit plan.

(ii) Implementing a multiplier limit.

(iii) Reducing or eliminating new accrued benefits.

(iv) Implementing final average compensation standards.

Implementation: The local unit of government has up to 180 days after the approval of a corrective action plan to begin to implement the corrective action plan to address its underfunded status. The Board shall monitor each underfunded local unit of government's compliance with this act and any corrective action plan. The Board shall adopt a schedule, not less than every 2 years, to certify that the underfunded local unit of government is in substantial compliance with the act. If the Board determines that an underfunded local unit of government is not in substantial compliance under this subsection, the Board shall within 15 days provide notification and report to the local unit of government detailing the reasons for the determination of noncompliance with the corrective action plan. The local unit of government has 60 days from the date of the notification to address the determination of noncompliance.

3. DESCRIPTIONS OF PRIOR ACTIONS

Prior actions are separated into three categories below: System Design Changes, Additional Funding, and Other Considerations. Please provide a brief description of the prior actions implemented by the local government to address the retirement system's underfunded status within the appropriate category section. Within each category are sample statements that you may choose to use to indicate the changes to your system that will positively affect your funded status. For retirement systems that have multiple divisions, departments, or plans within the same retirement system, please indicate how these changes impact the retirement **system** as a whole.

- **Please Note:** If applicable, prior actions listed within your waiver application(s) may also be included in your corrective action plan.

Please indicate where in the attached supporting documentation these changes are described and the impact of those changes (i.e. what has the local unit of government done to improve its underfunded status, and where can we find the proof of these changes in the supporting documentation?).

Note: Please provide the name of the system impacted, the date you made the change, the relevant page number(s) within the supporting documentation, and the resulting change to the system's funded ratio.

Category of Prior Actions:

☒ **System Design Changes** - System design changes may include the following: Lower tier of benefits for new hires, final average compensation limitations, freeze future benefit accruals for active employees in the defined benefit system, defined contribution system for new hires, hybrid system for new hires, bridged multiplier for active employees, etc.

Sample Statement: *The system's multiplier for current employees was lowered from 2.5X to 2X for the* ***General Employees' Retirement System*** *on* ***January 1, 2017****. On page* ***8*** *of the attached actuarial supplemental valuation, it shows our funded ratio will be* ***60%*** *by fiscal year* ***2020****.*

The system's defined benefit plan was closed June 30, 2017 as negotiated in the collective bargaining agreements with the AFSCME, POAM and IAFO. New hires after 7/1/2017 are eligible for defined contribution with AXA Equitable.

☒ **Additional Funding** – Additional funding may include the following: Voluntary contributions above the actuarially determined contribution, bonding, millage increases, restricted funds, etc.

Sample Statement: *The local unit provided a lump sum payment of* ***$1 million*** *to the* ***General Employees' Retirement System*** *on* ***January 1, 2017****. This lump sum payment was in addition to the actuarially determined contribution (ADC) of the system. The additional contribution will increase the retirement system's funded ratio to* ***61% by 2025****. Please see page* ***10*** *of the attached enacted budget, which highlights this contribution of* ***$1 million****.*

The City of Ecorse provided a lump sum payment of $800,000 to the MERS Defined Benefit Pension Plan on February 14, 2018. The additional contribution will increase the retirement system's Net Position to $17,481,887. Please see the Statement of Fiduciary Net Position for the Quarter Ended 03/31/2018.

☐ **Other Considerations** – Other considerations may include the following: outdated Form 5572 information, actuarial assumption changes, amortization policy changes, etc.

Sample Statement: *The information provided on the Form 5572 from the audit used actuarial data from* ***2015****. Attached is an updated actuarial valuation for* ***2017*** *that shows our funded ratio has improved to* ***62%*** *as indicated on page* ***13****.*

4. DESCRIPTION OF PROSPECTIVE ACTIONS

The corrective action plan allows you to submit a plan of prospective actions which are separated into three categories below: System Design Changes, Additional Funding, and Other Considerations. Please provide a brief description of the additional actions the local government is planning to implement to address the retirement system's underfunded status within the appropriate category section. Within each category are sample statements that you may choose to use to indicate the changes to your system that will positively affect your funded status. For retirement systems that have multiple divisions, departments, or plans within the same retirement system, please indicate how these changes impact the retirement **system** as a whole.

Please indicate where in the attached supporting documentation these changes are described and the impact of those changes (i.e. what will the local unit of government do to improve its underfunded status, and where can we find the proof of these changes in the supporting documentation?).

Category of Prospective Actions:

☐ **System Design Changes** - System design changes may include the following: Lower tier of benefits for new hires, final average compensation limitations, freeze future benefit accruals for active employees in the defined benefit system, defined contribution system for new hires, hybrid system for new hires, bridged multiplier for active employees, etc.

Sample Statement: *Beginning with **summer 2018** contract negotiations, the local unit will seek to lower the system's multiplier for current employees from 2.5X to 2X for the **General Employees' Retirement System**. On page **8** of the attached actuarial supplemental valuation, it shows our funded ratio would be **60%** funded by **fiscal year 2020** if these changes were adopted and implemented by **fiscal year 2019.***

☐ **Additional Funding –** Additional funding may include the following: voluntary contributions above the actuarially determined contribution, bonding, millage increases, restricted funds, etc.

Sample Statement: Beginning in **fiscal year 2019,** *the local unit will provide a lump sum payment of **$1 million** to the **General Employees' Retirement System**. This lump sum payment will be in addition to the actuarially determined contribution (ADC) of the system. The additional contribution will increase the retirement system's funded ratio to **61% by 2025**. Please see page **10** of the attached enacted budget, which highlights this contribution of **$1 million**. Please see page **12** of the attached supplemental actuarial valuation showing the projected change to the system's funded ratio with this additional contribution.*

☐ **Other Considerations –** Other considerations may include the following: outdated Form 5572 information, actuarial assumption changes, amortization policy changes, etc.

Sample Statement: *Beginning in **fiscal year 2019**, the local unit will begin amortizing the unfunded portion of the pension liability using a **level-dollar amortization method over a closed period of 10 years**. This will allow the retirement system to reach a funded status of **62%** by **2022** as shown in the attached actuarial analysis on page **13**.*

5. CONFIRMATION OF FUNDING

Please check the applicable answer:

Do the corrective actions listed in this plan allow for (*insert local unit name*) City of Ecorse to make, at a minimum, the annual required contribution payment for the defined benefit pension system according to your long-term budget forecast?

☒ **Yes**
☐ **No**
If No, Explain:

6. DOCUMENTATION ATTACHED TO THIS CORRECTIVE ACTION PLAN

Documentation should be attached as a .pdf to this Corrective Action Plan. The documentation should detail the corrective action plan that would be implemented to adequately address the local unit of government's underfunded status. Please check all documents that are included as part of this plan and attach in successive order as provided below:

Naming convention: when attaching documents please use the naming convention shown below. If there is more than one document in a specific category that needs to be submitted, include a, b, or c for each document. For example, if you are submitting two supplemental valuations, you would name the first document "Attachment 2a" and the second document "Attachment 2b".

Naming Convention	Type of Document
☒ Attachment – 1	**This Corrective Action Plan Form (Required)**
☒ Attachment – 1a	**Documentation from the governing body approving this Corrective Action Plan (Required)**
☐ Attachment – 2a	Actuarial Analysis (annual valuation, supplemental valuation, projection)
☐ Attachment – 3a	Internally Developed Projection Study
☒ Attachment – 4a	Documentation of additional payments in past years that is not reflected in your audited financial statements (e.g. enacted budget, system provided information).
☐ Attachment – 5a	Documentation of commitment to additional payments in future years (e.g. resolution, ordinance)
☐ Attachment – 6a	A separate corrective action plan that the local unit has approved to address its underfunded status, which includes documentation of prior actions, prospective actions, and the positive impact on the system's funded ratio
☐ Attachment – 7a	Other documentation, not categorized above

7. LOCAL UNIT OF GOVERNMENT'S ADMINISTRATIVE OFFICER APPROVAL OF CORRECTIVE ACTION PLAN

I, RICHARD MARSH, as the government's administrative officer (*enter title*) CITY ADMINISTRATOR (Ex: City/Township Manager, Executive director, and Chief Executive Officer, etc.) approve this Corrective Action Plan and will implement the prospective actions contained in this Corrective Action Plan.

Signature Richard Marsh Date 6-7-18

CITY OF ECORSE
COUNTY OF WAYNE
STATE OF MICHIGAN

AN EXCERPT TAKEN FROM THE REGULAR MEETING OF THE MAYOR AND COUNCIL OF THE CITY OF ECORSE HELD UNDER DATE OF MAY 22, 2018. MAYOR LAMAR TIDWELL, PRESIDING.

PRESENT: COUNCILMEN: SAMMONS, AGEE, BANKS, ELEM, MAYOR PRO TEM HELLAR, MAYOR TIDWELL
ABSENT: COUNCILMAN PARKER

RESOLUTION 830.18

Moved by Councilman Sammons, Supported by Councilman Agee,

RESOLVED, that pursuant to the request of the City Administrator and the City Controller, the City Council hereby approves and adopts the 2017 Corrective Action Plan for Defined Benefit Pension Retirement Systems that are less than 60% funded and greater than 10% Annual Determined Contribution (ADC) of Governmental fund revenues.

Yeas:	Councilmen Sammons, Agee, Banks, Elem, Mayor Pro Tem Hellar, Mayor Tidwell
Nays:	None
Excused:	Councilman Parker

I HEREBY CERTIFY THAT THE FOREGOING IS A TRUE AND COMPLETE COPY OF THE RESOLUTION ADOPTED BY THE CITY COUNCIL OF THE CITY OF ECORSE, COUNTY OF WAYNE, SAID MEETING WAS CONDUCTED AND PUBLIC NOTICE OF THE SAID MEETING WAS GIVEN, PURSUANT TO AND IN FULL COMPLIANCE WITH THE OPEN MEETINGS ACT, BEING 1976 PUBLIC ACT 267, AND THAT THE MINUTE WERE KEPT AND WILL BE OR HAVE BEEN MADE AVAILABLE AS REQUIRED BY SAID ACT.

Dana Hughes
CITY CLERK

DATED: June 1, 2018
Ecorse, Michigan

MERS
Municipal Employees' Retirement System

MERS
1134 Municipal Way
Lansing, MI 48917
www.mersofmich.com

Invoice	00079298-3
Date	2/28/2018
Customer	820601
Due Date	3/20/2018
Page	1 / 1

Bill To:

Timothy Sadowski
City of Ecorse
3869 W Jefferson Ave
Ecorse, MI 48229

Billing Questions? **Email: servicecenter@mersofmich.com** **Phone: 1.800.767.6377** **Fax: 517.703.9711**

Invoice Details	Division Number	Billing Period	Division Name	MERS Wages Reported Through Defined Benefit Reporting	Employer Contribution Percentage or Flat Amount	Contribution Amount Employer	Employee	Employer Voluntary
00079298-01	82060102	2018-02	Police	$300,000.00	1.00	$0.00	$0.00	$300,000.00
00079298-02	82060120	2018-02	PolFire Retiree	$250,000.00	1.00	$0.00	$0.00	$250,000.00
00079298-03	82060112	2018-02	Pol/Fire Cmd	$250,000.00	1.00	$0.00	$0.00	$250,000.00
					Subtotal:	$0.00	$0.00	$800,000.00
						Total		$800,000.00

Log onto ePayment to pay your invoice.

Download PDF

MERS
1134 Municipal Way
Lansing, MI 48917

Customer Number: 820601
Customer Name: City of Ecorse

Payment Number: WEBPMT0000065388
Created Date: 2/14/2018
Status: Processed
Process Date: 2/14/2018
Amount: $800,000.00

Transaction Details

Capture Amount: $800,000.00
Type: ECheck
Card / Account Number: XXXXXX1635
Billing Address: CITY OF ECORSE
3869 W Jefferson Ave
Ecorse, MI 48229
United States

Status: Approved
Origination ID: 1845683960
Authorization Code: AQASYK

Paid Invoice List

CORE INVOICE #	INVOICE #	REPORTING PERIOD	DIVISION NUMBER	DIVISION NAME	AMOUNT APPLIED
00079298-3	00079298-02	201802	20	PolFire Retiree	$250,000.00
00079298-3	00079298-03	201802	12	Pol/Fire Cmd	$250,000.00
00079298-3	00079298-01	201802	02	Police	$300,000.00
					Total: $800,000.00

MERS Municipal Employees' Retirement System
1134 Municipal Way
Lansing, MI 48917
(800) 767-6377

Timothy Sadowski
City of Ecorse
3869 W Jefferson Ave
Ecorse, MI 48229

Statement of Fiduciary Net Position
For the Quarter Ended 03/31/2018

Customer Number: 820601

Reserve for Employee Contributions

Bargaining Unit	Balance as of 12/31/2017	Invoiced & Other Contributions	Transfers	EE Refunds	Interest on EE Balance	Balance as of 3/31/2018
82060101	$13,855.02	$492.45	$0.00	($1,793.56)	$0.00	$12,553.91
82060102	$338,170.17	$14,369.96	($16,450.10)	$0.00	$0.00	$336,090.03
82060105	$113,583.08	$4,261.76	$0.00	$0.00	$0.00	$117,844.84
82060110	$50,925.10	$1,069.37	$0.00	$0.00	$0.00	$51,994.47
82060113	$3,950.33	$0.00	$0.00	$0.00	$0.00	$3,950.33
Total	$520,483.70	$20,193.54	($16,450.10)	($1,793.56)	$0.00	$522,433.58

Reserve for Employer Contributions and Benefit Payments

Bargaining Unit	Balance as of 12/31/2017	Invoiced & Other Contributions	Transfers & Fees	Benefits Paid	Net Investment Income	Admin Expenses	Balance as of 3/31/2018
82060101	$1,037,465.71	$120,621.00	$0.00	($118,448.52)	$4,526.37	($550.98)	$1,043,613.58
82060102	$4,526,911.17	$457,008.00	$16,450.10	($244,057.40)	$20,965.69	($2,675.28)	$4,774,602.28
82060105	$3,143,831.74	$81,376.26	$0.00	($186,138.63)	$14,027.32	($1,725.06)	$3,051,371.63
82060110	$557,067.55	$150,453.00	$0.00	($86,833.89)	$2,618.40	($323.41)	$622,981.65
82060112	$2,195,934.90	$394,561.00	$0.00	($105,105.51)	$9,469.37	($1,247.40)	$2,493,612.36
82060113	$152,467.25	$11,730.00	$0.00	($14,279.19)	$673.37	($81.48)	$150,509.95
82060120	$4,698,681.35	$293,011.00	$0.00	($187,438.44)	$20,246.74	($2,571.81)	$4,821,928.84
820601HA	$0.00	$833.74	$0.00	$0.00	$0.01	($0.04)	$833.71
Total	$16,312,359.67	$1,509,594.00	$16,450.10	($942,301.58)	$72,527.27	($9,175.46)	$16,959,454.00

Combined Reserves

	Balance as of 12/31/2017	Invoiced & Other Contributions	Transfers	Benefits Paid	Net Investment Income	Admin Expenses	Balance as of 3/31/2018
Total	$16,832,843.37	$1,529,787.54	$0.00	($944,095.14)	$72,527.27	($9,175.46)	$17,481,887.58

Outstanding Accounts Receivable at 3/31/2018: $248,559.22

MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM OF MICHIGAN

ANNUAL ACTUARIAL VALUATION REPORT DECEMBER 31, 2017

ECORSE, CITY OF (8206)

Spring, 2018

Ecorse, City of

In care of:
Municipal Employees' Retirement System of Michigan
1134 Municipal Way
Lansing, Michigan 48917

This report presents the results of the Annual Actuarial Valuation, prepared as of December 31, 2017. The report includes the determination of liabilities and contribution rates resulting from the participation of Ecorse, City of (8206) in the Municipal Employees' Retirement System of Michigan ("MERS"). MERS is an independent, professional retirement services company that was created to administer retirement plans for Michigan municipalities on a not-for-profit basis. This report contains the minimum actuarially determined contribution requirement, in alignment with the MERS Plan Documents, funding policy and Michigan Constitution. Ecorse, City of is responsible for the employer contributions needed to provide MERS benefits for its employees and former employees under the Michigan Constitution and the MERS Plan Document.

The purpose of the December 31, 2017 annual actuarial valuation is to:

- Measure funding progress
- Establish contribution requirements for the fiscal year beginning July 1, 2019
- Provide actuarial information in connection with applicable Governmental Accounting Standards Board (GASB) statements

This valuation report should not be relied upon for any other purpose. Reliance on information contained in this report by anyone for anything other than the intended purpose could be misleading.

The valuation uses financial data, plan provision data, and participant data as of December 31, 2017 furnished by MERS. In accordance with Actuarial Standards of Practice No. 23, the data was checked for internal and year to year consistency as well as general reasonableness, but was not otherwise audited. CBIZ Retirement Plan Services does not assume responsibility for the accuracy or completeness of the data used in this valuation.

The actuarial assumptions and methods are adopted by the MERS Retirement Board, and are reviewed every five years in an Experience Study. The most recent study was completed in 2015. Please refer to the division-specific assumptions described in table(s) in this report, and to the Appendix on the MERS website at:
www.mersofmich.com/Portals/0/Assets/Resources/AAV-Appendix/MERS-2017AnnualActuarialValuation-Appendix.pdf.

The actuarial assumptions used for this valuation produce results that we believe are reasonable.

To the best of our knowledge, this report is complete and accurate, was prepared in conformity with generally recognized actuarial principles and practices, with the Actuarial Standards of Practice issued by the Actuarial Standards Board, and is in compliance with Act No. 220 of the Public Acts of 1996, as amended, and the MERS Plan Document as revised. All of the undersigned are members of the American Academy of Actuaries (MAAA), and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The Retirement Board of the Municipal Employees' Retirement System of Michigan confirms that the System provides for payment of the required employer contribution as described in Section 20m of Act No. 314 of 1965 (MCL 38.1140m).

This information is purely actuarial in nature. It is not intended to serve as a substitute for legal, accounting or investment advice.

This report was prepared at the request of the Retirement Board and may be provided only in its entirety by the municipality to other interested parties (MERS customarily provides the full report on request to associated third parties such as the auditor for the municipality). CBIZ Retirement Plan Services is not responsible for the consequences of any unauthorized use.

You should notify MERS if you disagree with anything contained in the report or are aware of any information that would affect the results of the report that have not been communicated to us. If you have reason to believe that the plan provisions are incorrectly described, that important plan provisions relevant to this valuation are not described, that conditions have changed since the calculations were made, that the information provided in this report is inaccurate or is in anyway incomplete, or if you need further information in order to make an informed decision on the subject matter in this report, please contact your Regional Manager at 1.800.767.MERS (6377).

Sincerely,

Cathy Nagy, MAAA, FSA
Jim Koss, MAAA, ASA
Curtis Powell, MAAA, EA

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Executive Summary

Funded Ratio and Required Employer Contributions

The MERS Defined Benefit Plan is an agent multiple-employer plan, meaning that assets are pooled for investment purposes but separate accounts are maintained for each individual employer. Each municipality is responsible for their own plan liabilities; MERS does not borrow from one municipality's account to pay for another.

The funded ratio of a plan is the percentage of the dollar value of the accrued benefits that is covered by the actuarial value of assets.

Your Funded Ratio:

	12/31/2017 *	12/31/2016
Funded Ratio	41%	40%

* Reflects assets from Surplus divisions, if any.

Michigan Law requires that pension plans be pre-funded, meaning money is set aside now to pay for future benefits. Pension plans are usually funded by employer and employee contributions, and investment income.

How quickly a plan attains the 100% funding goal depends on many factors such as:

- The current funded ratio
- The future experience of the plan
- The amortization period

It is more important to look at the trend in the funded ratio over a period of time than at a particular point in time.

Your Required Employer Contributions:

Your computed employer contributions are shown in the following table. Employee contributions, if any, are in addition to the computed employer contributions. Changes to the assumptions and methods based on the 2015 Experience Study were first reflected in the December 31, 2015 valuations. The impact of these changes is being phased-in over a 5 year period. The phase-in allows the employer to spread the impact of the new assumptions over 5 fiscal years. This valuation reflects the third year of the phase-in.

Your minimum required contribution is the amount in the “Phase-in” columns. By default, MERS will invoice you the phased-in contribution amount, but strongly encourages you to contribute more than the minimum required contribution. If for 2018 your municipality is making employer contributions based on rates without the phase-in applied, contact MERS to ensure the No Phase-in rate is used again for 2019 and not the defaulted phase-in rates.

	Percentage of Payroll				Monthly $ Based on Projected Payroll			
	Phase-in	No Phase-in	Phase-in	No Phase-in	Phase-in	No Phase-in	Phase-in	No Phase-in
Valuation Date:	12/31/2017	12/31/2017	12/31/2016	12/31/2016	12/31/2017	12/31/2017	12/31/2016	12/31/2016
Fiscal Year Beginning:	July 1, 2019	July 1, 2019	July 1, 2018	July 1, 2018	July 1, 2019	July 1, 2019	July 1, 2018	July 1, 2018
Division								
01 - Gnrl NonUnion	-	-	-	-	$ 28,935	$ 29,023	$ 25,041	$ 25,173
02 - Police	-	-	55.33%	58.86%	58,772	61,200	57,152	60,794
05 - Fire	114.50%	119.43%	106.41%	113.94%	36,726	38,308	33,530	35,903
10 - Gnrl Union	139.59%	139.59%	102.95%	102.95%	13,336	13,336	8,559	8,559
11 - Housing Commsn	-	-	-	-	0	0	0	0
12 - Pol/Fire Cmd	-	-	-	-	56,275	58,589	51,942	55,413
13 - Gnrl-Union Court	-	-	-	-	4,687	4,825	4,180	4,387
20 - PolFire Retiree	-	-	-	-	14,096	15,758	9,551	12,044
HA - FT Police Officers	6.58%	6.58%			1,314	1,314		
Municipality Total					**$ 214,141**	**$ 222,353**	**$ 189,955**	**$ 202,273**

Employee contribution rates reflected in the valuations are shown below:

	Employee Contribution Rate			
	Phase-in	No Phase-in	Phase-in	No Phase-in
Valuation Date:	**12/31/2017**	**12/31/2017**	**12/31/2016**	**12/31/2016**
Fiscal Year Beginning:	**July 1, 2019**	**July 1, 2019**	**July 1, 2018**	**July 1, 2018**
Division				
01 - Gnrl NonUnion	4.00%	4.00%	4.00%	4.00%
02 - Police	5.00%	5.00%	5.00%	5.00%
05 - Fire	5.00%	5.00%	5.00%	5.00%
10 - Gnrl Union	4.00%	4.00%	4.00%	4.00%
11 - Housing Commsn	3% < ; 5% >	3% < ; 5% >	3% < ; 5% >	3% < ; 5% >
12 - Pol/Fire Cmd	0.00%	0.00%	0.00%	0.00%
13 - Gnrl-Union Court	4.00%	4.00%	4.00%	4.00%
20 - PolFire Retiree	0.00%	0.00%	0.00%	0.00%
HA - FT Police Officers	0.00%	0.00%	0.00%	0.00%

Allocation of the phase-in contributions between the employer and members was done in a manner which the actuaries believe to be equitable, based on information provided by MERS. The actuaries assume no responsibility if the allocation method conflicts with any particular employer cap agreement.

The employer may contribute more than the minimum required contributions, as these additional contributions will earn investment income and may result in lower future contribution requirements. Employers making contributions in excess of the minimum requirements may elect to apply the excess contribution immediately to a particular division, or segregate the excess into one or more of what MERS calls ”Surplus” divisions. An election in the first case would immediately reduce any unfunded accrued liability and lower the amortization payments throughout the remaining amortization period. An election to set up Surplus divisions would not immediately lower future contributions, however the assets from the Surplus divisions could be transferred to an unfunded division in the future to reduce the unfunded liability in future years, or to be used to pay all or a portion of the minimum required contribution in a future year. For purposes of this report, the assets in any Surplus division have been included in the municipality’s total assets, unfunded accrued liability and funded status, however, these assets are not used in calculating the minimum required contribution.

MERS strongly encourages employers to contribute more than the minimum contribution shown above.

Assuming that experience of the plan meets actuarial assumptions:

- To accelerate to a 100% funding ratio in 10 years, estimated monthly employer contributions for the fiscal year beginning in 2019 for the entire employer would be $249,890, instead of $222,353.

If you are interested in making additional contributions, please contact MERS and they can assist you with evaluating your options.

How and Why Do These Numbers Change?

In a defined benefit plan, contributions vary from one annual actuarial valuation to the next as a result of the following:

- Changes in benefit provisions (see Table 2)
- Changes in actuarial assumptions and methods (see the Appendix)
- Experience of the plan (investment experience and demographic experience); this is the difference between actual experience of the plan and the actuarial assumptions. For example:
    - Lower actual investment returns would result in higher required employer contributions, and vice-versa.
    - Smaller than assumed pay increases would lower required employer contributions.
    - Reductions in the number of active employees would lower required contribution dollars, but would usually increase the contribution rate expressed as a percentage of (the now lower) payroll.
    - Retirements at earlier ages than assumed would usually increase required employer contributions.
    - More non-vested terminations of employment than assumed would decrease required contributions.
    - More disabilities or survivor (death) benefits than assumed would increase required contributions.
    - Longer lifetimes after retirement than assumed would increase required employer contributions.

Actuarial valuations do not affect the ultimate cost of the plan; the benefit payments (current and future) determine the cost of the plan. Actuarial valuations only affect the timing of the contributions into the plan. Because assumptions are for the long term, plan experience will not match the actuarial assumptions in any given year (except by coincidence). Each annual actuarial valuation will adjust the required employer contributions up or down based on the prior year's actual experience.

Comments on Investment Return Assumption and Asset Smoothing

A defined benefit plan is funded by employer contributions, participant contributions, and investment earnings. Investment earnings have historically provided **more than half** of the funding. The larger the share of benefits being provided from investment returns, the smaller the required contributions, and vice versa. Determining the contributions required to prefund the promised retirement benefits requires an assumption of what investment earnings are expected to add to the fund over a long period of time. This is called the **Investment Return Assumption**.

The MERS Investment Return Assumption is **7.75%** per year. This, along with all of our other actuarial assumptions, is reviewed every five years in an Experience Study that compares the assumptions used against actual experience and recommends adjustments if necessary. If your municipality would like to explore contributions at lower investment return assumptions, please review the budget projection scenarios later in this report.

To avoid dramatic spikes and dips in annual contribution requirements due to short term fluctuations in asset markets, MERS applies a technique called **asset smoothing**. This spreads out each year's investment gains or losses over the prior year and the following four years. This smoothing method is used to determine your actuarial value of assets (valuation assets), which is then used to determine both your funded ratio and your required contributions. The (smoothed) **actuarial rate of return for 2017 was 6.08%, while the actual market rate of return was 13.07%**. To see historical details of the market rate of return, compared to the smoothed actuarial rate of return, refer to this report's Appendix, or visit our Defined Benefit resource page on the MERS website.

As of December 31, 2017 the actuarial value of assets is 101% of market value due to asset smoothing. This means that meeting the actuarial assumption in the next few years will require average annual market returns that exceed the 7.75% investment return assumption, or contribution requirements will continue to increase.

If the December 31, 2017 valuation results were based on market value instead of the actuarial value:

- The funded percent of your entire municipality would be 40% (instead of 41%); and
- Your total employer contribution requirement for the fiscal year starting July 1, 2019 would be $2,688,072 (instead of $2,668,236).

Risk Characteristics of Defined Benefit Plans

It is important to understand that Defined Benefit retirement plans, the plan sponsor, and the plan participants are exposed to certain risks. While risks cannot be eliminated entirely, they can be managed through various strategies. Below are a few examples of risk (this is not an all-inclusive list):

- Economic - investment return, wage inflation, etc.
- Demographic - longevity, disability, retirement, etc.
- Plan Sponsor and Employees - contribution volatility, attract/retain employees, etc.

The MERS Retirement Board adopts certain assumptions and methods to manage the economic and demographic risks, and the contribution volatility risks. For example, the investment risk is the largest economic risk and is managed by having a balanced portfolio and a clearly defined investment strategy. Demographic risks are managed by preparing special studies called experience studies on a regular basis to determine if the assumptions used are reasonable compared to the experience. An Experience Study is completed every five years to review the assumptions and methods. The next Experience Study will be completed in 2020.

Risk can also be managed through a plan design that provides benefits that are sustainable in the long run.

The Actuarial Standards Board has issued Actuarial Standards of Practice (ASOP) No. 51. This standard will be effective for any actuarial work with a measurement date on or after November 1, 2018. This means, the December 31, 2018 and later annual actuarial valuation reports for MERS will have to comply with this standard. This standard will require the actuary to identify risks that, in the actuary’s professional judgment may significantly impact the plan’s future financial condition. The actuary will have to assess the potential effects of the identified risks on the plan’s future financial condition. The assessment may or may not be based on numerical calculations. However, the assessment should reflect the specifics of the plan (i.e. funded status, plan demographics, funding policy, etc.). If the actuary concludes that numerical calculations are necessary to assess the risk, the actuary can use various methods to quantify the risk such as scenario tests, sensitivity tests, stress tests, etc.

Some of these risk assessment measures have already been incorporated in the MERS annual valuation reports. For example, the projections of funded percentage and employer contributions shown on the following pages could be used to gauge the risk associated with long term investment rates of return different than the assumed 7.75% annual rate. A history of the municipality’s funded percentage as shown in Table 7, could indicate the trend in funded status over time.

Alternate Scenarios to Estimate the Potential Volatility of Results ("What If Scenarios")

The calculations in this report are based on assumptions about long-term economic and demographic behavior. These assumptions will never materialize in a given year, except by coincidence. Therefore the results will vary from one year to the next. The volatility of the results depends upon the characteristics of the plan. For example:

- Open divisions that have substantial assets compared to their active employee payroll will have more volatile employer contribution rates due to investment return fluctuations.
- Open divisions that have substantial accrued liability compared to their active employee payroll will have more volatile employer contribution rates due to demographic experience fluctuations.
- Small divisions will have more volatile contribution patterns than larger divisions because statistical fluctuations are relatively larger among small populations.
- Shorter amortization periods result in more volatile contribution patterns.

The analysis in this section is intended to review the potential volatility of the actuarial valuation results. It is important to note that calculations in this report are mathematical estimates based upon assumptions regarding future events, which may or may not materialize. Actuarial calculations can and do vary from one valuation to the next, sometimes significantly depending on the group's size.

Many assumptions are important in determining the required employer contributions. In the table below, we show the impact of varying the Investment Return Assumption. Lower investment returns would result in higher required employer contributions, and vice-versa.

The relative impact of each investment return scenario below will vary from year to year, as the participant demographics change. The impact of each scenario should be analyzed for a given year, not from year to year. The results in the table are based on the December 31, 2017 valuation, and are for the municipality in total, not by division. These results do not reflect a 5-year phase in of the impact of the new actuarial assumptions.

	Assumed Future Annual Smoothed Investment Return Assumption			
	Lower Future Annual Returns		**Valuation Assumption**	**Higher Returns**
12/31/2017 Valuation Results	**5.75%**	**6.75%**	**7.75%**	**8.75%**
Accrued Liability	$ 50,475,964	$ 46,067,225	$ 42,289,949	$ 39,029,054
Valuation Assets[1]	$ 17,163,671	$ 17,163,671	$ 17,163,671	$ 17,163,671
Unfunded Accrued Liability	$ 33,312,293	$ 28,903,554	$ 25,126,278	$ 21,865,383
Funded Ratio	34%	37%	41%	44%
Monthly Normal Cost	$ 20,878	$ 15,116	$ 10,717	$ 7,385
Monthly Amortization Payment	$ 308,605	$ 279,158	$ 210,201	$ 182,749
Total Employer Contribution[2,3]	$ 330,789	$ 295,641	$ 222,353	$ 191,625

1 The Valuation Assets include assets from Surplus divisions, if any.

2 If assets exceed accrued liabilities for a division, the division's amortization payment is negative and is used to reduce the division's employer contribution requirement. If the overfunding credit is larger than the normal cost, the division's full credit is included in the municipality's amortization payment above but the division's total contribution requirement is zero. This can cause the displayed normal cost and amortization payment to not add up to the displayed total employer contribution.

3 The above total employer contributions for the 5.75%, 6.75% and 8.75% scenarios do not reflect the changes in the employee contribution rates due to the impact of a cap, if any, on employer contributions. Those scenarios are based on the same employee contribution rates as the 7.75% scenario.

Projection Scenarios

The next two pages show projections of the plan's funded ratio and computed employer contributions under the actuarial assumptions used in the valuation and alternate assumed long-term investment return assumption scenarios. All four projections take into account the past investment losses that will continue to affect the actuarial rate of return in the short term. Under the 7.75% scenarios in the table on the next page, two sets of projections are shown:

- Based on the phase-in over 5 fiscal years (beginning in 2017) of the increased contribution requirements associated with the new actuarial assumptions. This projects your minimum required contribution.
- Based on no phase-in of the increased contribution requirements.

The 7.75% scenarios provide an estimate of computed employer contributions based on current actuarial assumptions, and a projected 7.75% market return. The other two scenarios may be useful if the municipality chooses to budget more conservatively, and make contributions in addition to the minimum requirements. The 6.75% and 5.75% projections provide an indication of the potential required employer contribution if MERS were to realize annual investment returns of 6.75% and 5.75% over the long-term.

The projections are shown both in tabular and graphical form in total for the employer. The tables show projections for six years. The graphs show projections for twenty five years.

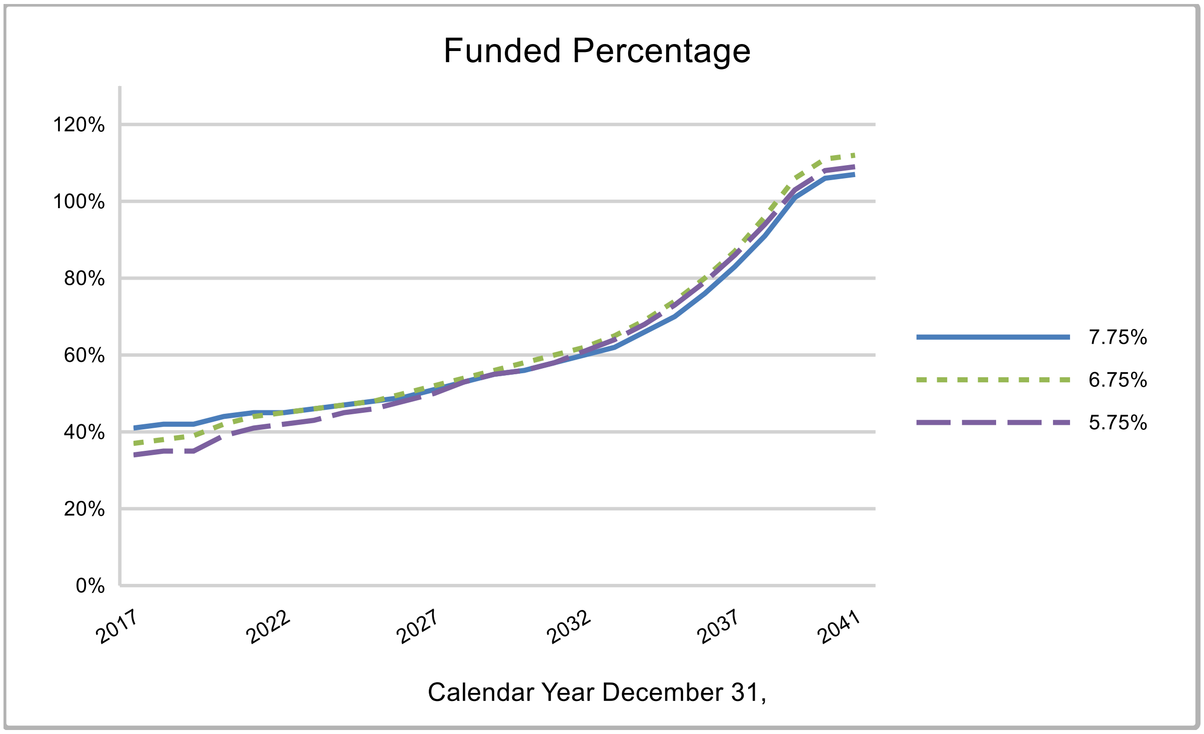
Please note that one or more of your divisions trigger the 3 times benefit payout minimum contribution requirement during the projection period (see table following the projections and the graphs). This contribution requirement was designed so that a plan does not run out of money. This means that if assets in the plan are not enough to pay 3 years of benefit payouts, a minimum contribution is required to raise the level of the assets to be equal to at least 3 years of benefit payments. For a full description of this contribution requirement see the Appendix on the MERS website.

Valuation Year Ending 12/31	Fiscal Year Beginning 7/1	Actuarial Accrued Liability	Valuation Assets[2]	Funded Percentage	Computed Annual Employer Contribution [3]
7.75%[1]					
WITH 5-YEAR PHASE-IN					
2017	2019	$ 42,289,949	$ 17,163,671	41%	$ 2,569,692
2018	2020	41,800,000	17,600,000	42%	2,770,000
2019	2021	41,200,000	17,300,000	42%	2,230,000
2020	2022	40,700,000	17,700,000	44%	2,300,000
2021	2023	40,000,000	17,900,000	45%	2,430,000
2022	2024	39,400,000	17,700,000	45%	2,370,000
NO 5-YEAR PHASE-IN					
2017	2019	$ 42,289,949	$ 17,163,671	41%	$ 2,668,236
2018	2020	41,800,000	17,600,000	42%	2,810,000
2019	2021	41,200,000	17,300,000	42%	2,210,000
2020	2022	40,700,000	17,800,000	44%	2,290,000
2021	2023	40,000,000	18,000,000	45%	2,410,000
2022	2024	39,400,000	17,900,000	45%	2,360,000
6.75%[1]					
NO 5-YEAR PHASE-IN					
2017	2019	$ 46,067,225	$ 17,163,671	37%	$ 3,547,692
2018	2020	45,500,000	17,500,000	38%	3,580,000
2019	2021	44,800,000	17,400,000	39%	2,360,000
2020	2022	44,100,000	18,600,000	42%	2,460,000
2021	2023	43,400,000	19,200,000	44%	2,600,000
2022	2024	42,700,000	19,100,000	45%	2,500,000
5.75%[1]					
NO 5-YEAR PHASE-IN					
2017	2019	$ 50,475,964	$ 17,163,671	34%	$ 3,969,468
2018	2020	49,800,000	17,300,000	35%	4,040,000
2019	2021	49,000,000	17,300,000	35%	2,610,000
2020	2022	48,200,000	18,800,000	39%	2,740,000
2021	2023	47,400,000	19,600,000	41%	2,890,000
2022	2024	46,500,000	19,600,000	42%	2,720,000

1 Represents both the interest rate for discounting liabilities and the future investment return assumption on the Market Value of assets.

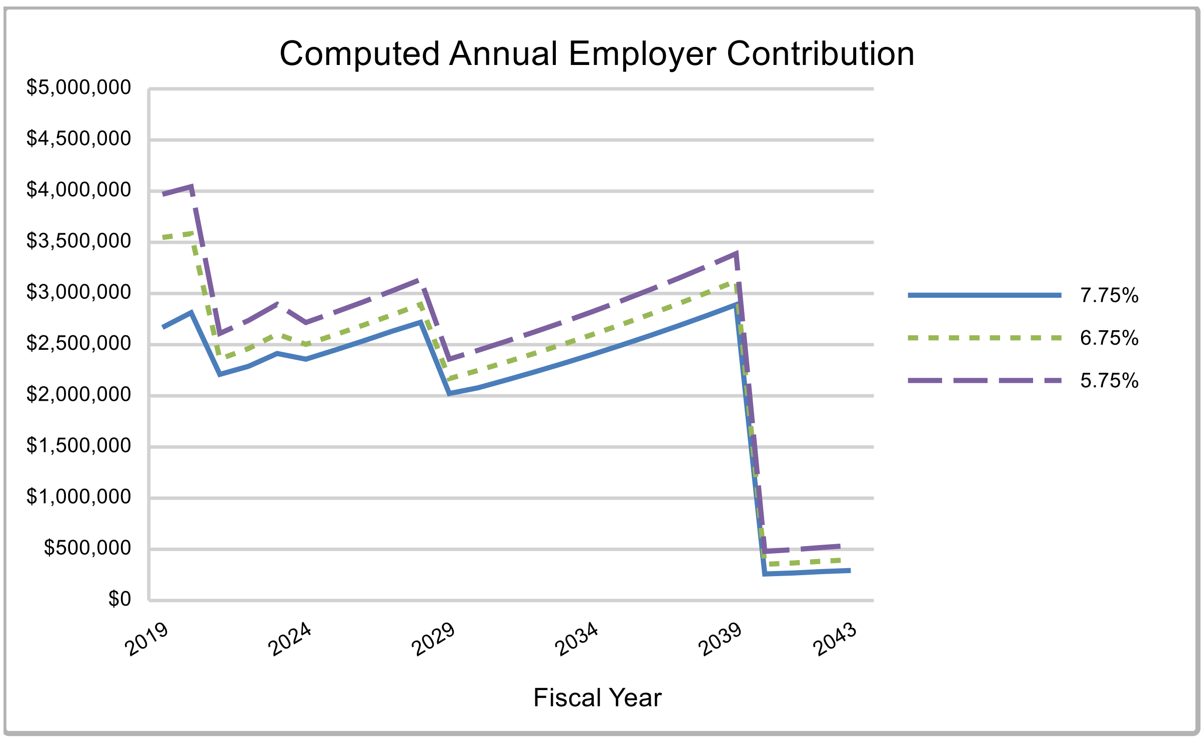
2 Valuation Assets do not include assets from Surplus divisions, if any.

3 The above required annual employer contribution does not reflect future changes in the employee contribution rates due to the impact of a cap, if any, on employer contributions.



Notes:

All projected funded percentages are shown with no phase-in.



Notes:

All projected contributions are shown with no phase-in.

The above required annual employer contribution does not reflect future changes in the employee contribution rates due to the impact of a cap, if any, on employer contributions.

Valuation Year Ending 12/31	Fiscal Year Beginning 7/1	7.75% Phase-In	7.75% No Phase-In	6.75% No Phase-In	5.75% No Phase-In
2017	2019	01	01	01	01
2018	2020	01	01	01	01
2019	2021	01	01	01	01
2020	2022	No	No	No	No
2021	2023	No	No	No	No
2022	2024	No	No	No	No

This table shows in any given year which division(s) are impacted by the 3 times benefit payout minimum required contribution. If “No” appears in the table, it means none of the divisions are impacted.

Employer Contribution Details For the Fiscal Year Beginning July 1, 2019

Table 1

Division	Total Normal Cost	Employee Contribut. Rate	Employer Contributions[1]				Blended ER Rate No Phase-In[5]	Blended ER Rate With Phase-In[5]	Employee Contribut. Conversion Factor[2]
			Employer Normal Cost	Payment of the Unfunded Accrued Liability[4]	Computed Employer Contribut. No Phase-In	Computed Employer Contribut. With Phase-In			
Percentage of Payroll									
01 - Gnrl NonUnion	12.37%	4.00%	-	-	-	-			
02 - Police	12.14%	5.00%	-	-	-	-	59.60%	57.29%	
05 - Fire	12.12%	5.00%	7.12%	112.31%	119.43%	114.50%			0.81%
10 - Gnrl Union	12.73%	4.00%	8.73%	130.86%	139.59%	139.59%			0.83%
11 - Housing Commsn	0.00%	3% < ; 5% >	-	-	-	-			
12 - Pol/Fire Cmd	0.00%	0.00%	-	-	-	-			
13 - Gnrl-Union Court	0.00%	4.00%	-	-	-	-			
20 - PolFire Retiree	0.00%	0.00%	-	-	-	-			
HA - FT Police Officers	6.58%	0.00%	6.58%	0.00%	6.58%	6.58%	59.60%	57.29%	0.90%
Estimated Monthly Contribution[3]									
01 - Gnrl NonUnion			$ 222	$ 28,801	$ 29,023	$ 28,935			
02 - Police			6,063	55,137	61,200	58,772			
05 - Fire			2,284	36,024	38,308	36,726			
10 - Gnrl Union			834	12,502	13,336	13,336			
11 - Housing Commsn			0	(1,435)	0	0			
12 - Pol/Fire Cmd			0	58,589	58,589	56,275			
13 - Gnrl-Union Court			0	4,825	4,825	4,687			
20 - PolFire Retiree			0	15,758	15,758	14,096			
HA - FT Police Officers			1,314	0	1,314	1,314			
Total Municipality			**$ 10,717**	**$ 210,201**	**$ 222,353**	**$ 214,141**			
Estimated Annual Contribution[3]			**$ 128,604**	**$ 2,522,412**	**$ 2,668,236**	**$ 2,569,692**			

1 The above employer contribution requirements are in addition to the employee contributions, if any.

2 If employee contributions are increased/decreased by 1.00% of pay, the employer contribution requirement will decrease/increase by the Employee Contribution Conversion Factor. The conversion factor is usually under 1%, because employee contributions may be refunded at termination of employment, and not used to fund retirement pensions. Employer contributions will all be used to fund pensions.

3 For divisions that are open to new hires, estimated contributions are based on projected fiscal year payroll. Actual contributions will be based on actual reported monthly pays, and will be different from the above amounts. For divisions that will have no new hires (i.e. closed divisions), invoices will be based on the above dollar amounts which are based on projected fiscal year payroll. See description of Open Divisions and Closed Divisions in the Appendix.

4 If projected assets exceed projected liabilities as of the beginning of the July 1, 2019 fiscal year, the negative unfunded accrued liability is treated as overfunding credit and is used to reduce the contribution. This amortization is used to reduce the employer contribution rate. Note that if the overfunding credit is larger than the normal cost, the full credit is shown above but the total contribution requirement is zero. This will cause the displayed normal cost and unfunded accrued liability contributions to not add across.

5 For linked divisions, the employer will be invoiced the Computed Employer Contribution with Phase-in rate shown above for each linked division (a contribution rate for the open division; a contribution dollar for the closed-but-linked division), unless the employer elects to contribute the Blended Employer Contribution rate shown above, by contacting MERS at 800-767-MERS (6377).

Note that employer contribution caps are in effect for Division(s): HA. For these divisions the employee contribution rates in Table 1 do **not** reflect phase-in over 5 fiscal years (beginning in 2017) of the increased employee contribution requirements associated with the new actuarial assumptions. The full employee contribution rate without phase-in is shown in Table 1 above. The contribution

Please see the Comments on Asset Smoothing in the Executive Summary of this report.

Benefit Provisions

Table 2

01 - Gnrl NonUnion: Closed to new hires

	2017 Valuation	2016 Valuation
Benefit Multiplier:	2.35% Multiplier (80% max)	2.35% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	10 years	10 years
Early Retirement (Unreduced):	50/25 55/15	50/25 55/15
Early Retirement (Reduced):	-	-
Final Average Compensation:	3 years	3 years
Employee Contributions:	4%	4%
Act 88:	Yes (Adopted 1/30/1996)	Yes (Adopted 1/30/1996)

02 - Police: Closed to new hires, linked to Division HA

	2017 Valuation	2016 Valuation
Benefit Multiplier:	Bridged Benefit: 2.35% Multiplier (80% max) Frozen FAC; to 2.25% Multiplier (80% max)	Bridged Benefit: 2.35% Multiplier (80% max) Frozen FAC; to 2.25% Multiplier (80% max)
Bridged Benefit Date:	09/30/2014	09/30/2014
Normal Retirement Age:	60	60
Vesting:	10 years	10 years
Early Retirement (Unreduced):	55/15 25 and Out	55/15 25 and Out
Early Retirement (Reduced):	-	-
Final Average Compensation:	3 years	3 years
Employee Contributions:	5%	5%
Act 88:	Yes (Adopted 1/30/1996)	Yes (Adopted 1/30/1996)

05 - Fire: Open Division

	2017 Valuation	2016 Valuation
Benefit Multiplier:	Bridged Benefit: 2.35% Multiplier (80% max) Frozen FAC; to 2.25% Multiplier (80% max)	Bridged Benefit: 2.35% Multiplier (80% max) Frozen FAC; to 2.25% Multiplier (80% max)
Bridged Benefit Date:	08/31/2013	08/31/2013
Normal Retirement Age:	60	60
Vesting:	10 years	10 years
Early Retirement (Unreduced):	55/15 25 and Out	55/15 25 and Out
Early Retirement (Reduced):	-	-
Final Average Compensation:	3 years	3 years
Employee Contributions:	5%	5%
Act 88:	Yes (Adopted 1/30/1996)	Yes (Adopted 1/30/1996)

Table 2 (continued)

10 - Gnrl Union: Open Division

	2017 Valuation	2016 Valuation
Benefit Multiplier:	2.35% Multiplier (80% max)	2.35% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	10 years	10 years
Early Retirement (Unreduced):	50/25 55/15	50/25 55/15
Early Retirement (Reduced):	-	-
Final Average Compensation:	3 years	3 years
Employee Contributions:	4%	4%
Act 88:	Yes (Adopted 1/30/1996)	Yes (Adopted 1/30/1996)

11 - Housing Commsn: Closed to new hires

	2017 Valuation	2016 Valuation
Benefit Multiplier:	2.25% Multiplier (80% max)	2.25% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	10 years	10 years
Early Retirement (Unreduced):	50/25 55/15	50/25 55/15
Early Retirement (Reduced):	-	-
Final Average Compensation:	3 years	3 years
Employee Contributions:	3% under $4,200; 5% over $4,200	3% under $4,200; 5% over $4,200
Act 88:	Yes (Adopted 1/30/1996)	Yes (Adopted 1/30/1996)

12 - Pol/Fire Cmd: Closed to new hires

	2017 Valuation	2016 Valuation
Benefit Multiplier:	2.50% Multiplier (80% max)	2.50% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	10 years	10 years
Early Retirement (Unreduced):	50/25 55/15	50/25 55/15
Early Retirement (Reduced):	-	-
Final Average Compensation:	3 years	3 years
COLA for Future Retirees:	2% (Non-Compound)	2% (Non-Compound)
Employee Contributions:	0%	0%
RS50% Percentage:	100%	100%
Act 88:	Yes (Adopted 1/30/1996)	Yes (Adopted 1/30/1996)

Table 2 (continued)

13 - Gnrl-Union Court: Closed to new hires

	2017 Valuation	2016 Valuation
Benefit Multiplier:	2.35% Multiplier (80% max)	2.35% Multiplier (80% max)
Normal Retirement Age:	60	60
Vesting:	10 years	10 years
Early Retirement (Unreduced):	50/25 55/15	50/25 55/15
Early Retirement (Reduced):	-	-
Final Average Compensation:	3 years	3 years
Employee Contributions:	4%	4%
Act 88:	Yes (Adopted 1/30/1996)	Yes (Adopted 1/30/1996)

20 - PolFire Retiree: Closed to new hires

	2017 Valuation	2016 Valuation
Benefit Multiplier:	Old Plan Benefits	Old Plan Benefits
Normal Retirement Age:	-	-
Vesting:	-	-
Early Retirement (Unreduced):	-	-
Early Retirement (Reduced):	-	-
Final Average Compensation:	-	-
Employee Contributions:	-	-
Act 88:	No	No

HA - FT Police Officers: Open Division, linked to Division 02

	2017 Valuation	2016 Valuation
Benefit Multiplier:	Hybrid Plan - 1.50% Multiplier	-
Normal Retirement Age:	60	-
Vesting:	6 years	-
Early Retirement (Unreduced):	55/25	-
Early Retirement (Reduced):	-	-
Final Average Compensation:	3 years	-
Employee Contributions:	0%	-
Act 88:	Yes (Adopted 1/30/1996)	

Note that employer contribution caps are in effect for Division(s): HA. For these divisions the employee contribution rates in Table 2 do **not** reflect phase-in over 5 fiscal years of the increased employee contribution requirements associated with the new actuarial assumptions. The full employee contribution rate without phase-in is shown in Table 2 above. The contribution requirements including

Participant Summary

Table 3

Division	2017 Valuation Number	2017 Valuation Annual Payroll[1]	2016 Valuation Number	2016 Valuation Annual Payroll[1]	2017 Valuation Average Age	2017 Valuation Average Benefit Service[2]	2017 Valuation Average Eligibility Service[2]
01 - Gnrl NonUnion							
Active Employees	1	$ 46,719	1	$ 46,232	61.5	18.5	18.5
Vested Former Employees	1	9,202	1	9,202	55.9	11.9	11.9
Retirees and Beneficiaries	34	473,794	34	471,880	79.2		
02 - Police							
Active Employees	16	$ 1,126,034	16	$ 1,130,320	46.8	15.7	15.7
Vested Former Employees	5	88,594	6	88,763	46.5	9.7	18.4
Retirees and Beneficiaries	21	989,160	20	978,954	67.2		
05 - Fire							
Active Employees	4	$ 350,998	4	$ 344,828	47.1	19.3	19.3
Vested Former Employees	2	18,949	2	18,949	44.1	7.1	15.8
Retirees and Beneficiaries	17	744,555	17	740,829	64.1		
10 - Gnrl Union							
Active Employees	3	$ 104,544	3	$ 90,977	50.2	11.8	11.8
Vested Former Employees	4	42,881	4	42,881	45.8	13.9	14.6
Retirees and Beneficiaries	19	347,336	20	349,837	75.6		
11 - Housing Commsn							
Active Employees	0	$ 0	0	$ 0	0.0	0.0	0.0
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	0	0	1	10,103	0.0		
12 - Pol/Fire Cmd							
Active Employees	0	$ 0	0	$ 0	0.0	0.0	0.0
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	6	420,422	6	413,588	70.2		
13 - Gnrl-Union Court							
Active Employees	0	$ 0	0	$ 0	0.0	0.0	0.0
Vested Former Employees	1	24,371	1	24,371	46.2	20.5	24.5
Retirees and Beneficiaries	2	57,117	2	57,117	55.9		
20 - PolFire Retiree							
Active Employees	0	$ 0	0	$ 0	0.0	0.0	0.0
Vested Former Employees	0	0	0	0	0.0	0.0	0.0
Retirees and Beneficiaries	35	754,587	36	758,080	81.7		
HA - FT Police Officers							
Active Employees	1	$ 21,775		$	25.4	0.1	0.4
Vested Former Employees	0	0			0.0	0.0	0.0
Retirees and Beneficiaries	0	0			0.0		

Table 3 (continued)

Division	2017 Valuation		2016 Valuation		2017 Valuation		
	Number	Annual Payroll[1]	Number	Annual Payroll[1]	Average Age	Average Benefit Service[2]	Average Eligibility Service[2]
Total Municipality							
Active Employees	25	$ 1,650,070	24	$ 1,612,357	47.0	15.3	15.3
Vested Former Employees	13	183,997	14	184,166	46.6	11.6	16.8
Retirees and Beneficiaries	134	3,786,971	136	3,780,388	74.8		
Total Participants	172		174				

1 Annual payroll for active employees; annual deferred benefits payable for vested former employees; annual benefits being paid for retirees and beneficiaries.

2 Description can be found under Miscellaneous and Technical Assumptions in the Appendix.

Reported Assets (Market Value)

Table 4

Division	2017 Valuation		2016 Valuation	
	Employer and Retiree[1]	Employee[2]	Employer and Retiree[1]	Employee[2]
01 - Gnrl NonUnion	$ 1,037,466	$ 13,855	$ 786,448	$ 13,169
02 - Police	4,526,911	338,170	4,363,676	275,556
05 - Fire	3,143,832	113,583	3,193,197	94,372
10 - Gnrl Union	557,068	50,925	327,859	45,946
11 - Housing Commsn	138,539	154	122,403	151
12 - Pol/Fire Cmd	2,195,935	0	1,750,619	0
13 - Gnrl-Union Court	152,467	3,950	144,884	3,882
20 - PolFire Retiree	4,698,681	0	4,734,646	0
HA - FT Police Officers	0	0		
Municipality Total	**$ 16,450,899**	**$ 520,637**	**$ 15,423,732**	**$ 433,076**
Combined Assets	**$16,971,536**		**$15,856,808**	

1 Reserve for Employer Contributions and Benefit Payments

2 Reserve for Employee Contributions

The December 31, 2017 valuation assets (actuarial value of assets) are equal to 1.011321 times the reported market value of assets (compared to 1.077095 as of December 31, 2016). The derivation of valuation assets is described, and detailed calculations of valuation assets are shown, in the Appendix.

Flow of Valuation Assets

Table 5

Year Ended 12/31	Employer Contributions Required	Employer Contributions Additional	Employee Contributions	Investment Income (Valuation Assets)	Benefit Payments	Employee Contribution Refunds	Net Transfers	Valuation Asset Balance
2007	$ 2,187,635		$ 0	$ 2,062,152	$ (3,338,692)	$ 0	$ 0	$ 26,025,070
2008	1,259,397		0	995,792	(3,254,462)	(23,172)	0	25,002,625
2009	1,282,781		0	480,297	(3,301,712)	0	0	23,463,991
2010	1,248,886		0	760,035	(3,490,740)	0	0	21,982,172
2011	1,148,804	$ 0	8,658	729,707	(3,506,808)	0	11,619	20,374,152
2012	1,049,335	300,000	98,066	585,890	(3,779,096)	0	46,553	18,674,900
2013	1,318,485	0	94,862	800,770	(3,820,376)	0	0	17,068,641
2014	1,616,616	25	84,791	824,969	(3,763,874)	(6,664)	0	15,824,504
2015	2,037,000	400,000	85,425	704,903	(3,770,648)	0	0	15,281,184
2016	2,569,468	2,115,000	86,225	819,344	(3,791,283)	(650)	0	17,079,288
2017	2,809,525	0	81,354	963,186	(3,768,282)	(1,400)	0	17,163,671

Notes:

Transfers in and out are usually related to the transfer of participants between municipalities, and to employer and employee payments for service credit purchases (if any) that the governing body has approved.

Additional employer contributions, if any, are shown separately starting in 2011. Prior to 2011, additional contributions are combined with the required employer contributions.

The investment income column reflects the recognized investment income based on Valuation Assets. It does not reflect the market value investment return in any given year.

The Valuation Assets include assets from Surplus divisions, if any.

Actuarial Accrued Liabilities and Valuation Assets
As of December 31, 2017

Table 6

Division	Actuarial Accrued Liability	Valuation Assets[1]	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
01 - Gnrl NonUnion				
Active Employees	$ 186,629	$ 12,061	6.5%	$ 174,568
Vested Former Employees	72,192	0	0.0%	72,192
Retirees And Beneficiaries	4,127,353	1,049,368	25.4%	3,077,985
Pending Refunds	1,794	1,794	100.0%	0
Total	**$ 4,387,968**	**$ 1,063,223**	**24.2%**	**$ 3,324,745**
02 - Police				
Active Employees	$ 3,537,472	$ 306,753	8.7%	$ 3,230,719
Vested Former Employees	785,785	31,417	4.0%	754,368
Retirees And Beneficiaries	9,892,925	4,581,989	46.3%	5,310,936
Pending Refunds	0	0	0.0%	0
Total	**$ 14,216,182**	**$ 4,920,159**	**34.6%**	**$ 9,296,023**
05 - Fire				
Active Employees	$ 1,323,074	$ 101,064	7.6%	$ 1,222,010
Vested Former Employees	56,308	12,519	22.2%	43,789
Retirees And Beneficiaries	7,971,311	3,180,709	39.9%	4,790,602
Pending Refunds	0	0	0.0%	0
Total	**$ 9,350,693**	**$ 3,294,292**	**35.2%**	**$ 6,056,401**
10 - Gnrl Union				
Active Employees	$ 284,398	$ 19,433	6.8%	$ 264,965
Vested Former Employees	191,390	31,492	16.5%	159,898
Retirees And Beneficiaries	3,021,985	563,951	18.7%	2,458,034
Pending Refunds	0	0	0.0%	0
Total	**$ 3,497,773**	**$ 614,876**	**17.6%**	**$ 2,882,897**
11 - Housing Commsn				
Active Employees	$ 0	$ 140,109	0.0%	$ (140,109)
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	0	0	0.0%	0
Pending Refunds	154	154	100.0%	0
Total	**$ 154**	**$ 140,263**	**91,079.9%**	**$ (140,109)**
12 - Pol/Fire Cmd				
Active Employees	$ 0	$ 0	0.0%	$ 0
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	4,449,218	2,220,795	49.9%	2,228,423
Pending Refunds	0	0	0.0%	0
Total	**$ 4,449,218**	**$ 2,220,795**	**49.9%**	**$ 2,228,423**

Table 6 (continued)

Division	Actuarial Accrued Liability	Valuation Assets[1]	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
13 - Gnrl-Union Court				
Active Employees	$ 0	$ 0	0.0%	$ 0
Vested Former Employees	142,848	3,950	2.8%	138,898
Retirees And Beneficiaries	670,235	154,238	23.0%	515,997
Pending Refunds	0	0	0.0%	0
Total	**$ 813,083**	**$ 158,188**	**19.5%**	**$ 654,895**
20 - PolFire Retiree				
Active Employees	$ 0	$ 0	0.0%	$ 0
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	5,574,869	4,751,875	85.2%	822,994
Pending Refunds	0	0	0.0%	0
Total	**$ 5,574,869**	**$ 4,751,875**	**85.2%**	**$ 822,994**
HA - FT Police Officers				
Active Employees	$ 9	$ 0	0.0%	$ 9
Vested Former Employees	0	0	0.0%	0
Retirees And Beneficiaries	0	0	0.0%	0
Pending Refunds	0	0	0.0%	0
Total	**$ 9**	**$ 0**	**0.0%**	**$ 9**
Total Municipality				
Active Employees	**$ 5,331,582**	**$ 579,420**	**10.9%**	**$ 4,752,162**
Vested Former Employees	**1,248,523**	**79,378**	**6.4%**	**1,169,145**
Retirees and Beneficiaries	**35,707,896**	**16,502,925**	**46.2%**	**19,204,971**
Pending Refunds	**1,948**	**1,948**	**100.0%**	**0**
Total	**$ 42,289,949**	**$ 17,163,671**	**40.6%**	**$ 25,126,278**
The following results show the combined accrued liabilities and assets for each set of linked divisions. These results are already included in the table above.				
Linked Divisions HA, 02				
Active Employees	$ 3,537,481	$ 306,753	8.7%	$ 3,230,728
Vested Former Employees	785,785	31,417	4.0%	754,368
Retirees and Beneficiaries	9,892,925	4,581,989	46.3%	5,310,936
Pending Refunds	0	0	0.0%	0
Total	**$ 14,216,191**	**$ 4,920,159**	**34.6%**	**$ 9,296,032**

[1] Includes both employer and employee assets.

Please see the Comments on Asset Smoothing in the Executive Summary of this report.

Actuarial Accrued Liabilities - Comparative Schedule

Table 7

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2003	$ 27,971,284	$ 15,060,268	54%	$ 12,911,016
2004	29,616,292	15,196,324	51%	14,419,968
2005	30,556,313	15,260,412	50%	15,295,901
2006	40,679,577	25,113,975	62%	15,565,602
2007	41,396,012	26,025,070	63%	15,370,942
2008	41,634,379	25,002,625	60%	16,631,754
2009	41,885,022	23,463,991	56%	18,421,031
2010	42,715,362	21,982,172	51%	20,733,190
2011	42,346,758	20,374,152	48%	21,972,606
2012	42,814,884	18,674,900	44%	24,139,984
2013	41,601,897	17,068,641	41%	24,533,256
2014	40,684,625	15,824,504	39%	24,860,121
2015	42,689,754	15,281,184	36%	27,408,570
2016	42,541,712	17,079,288	40%	25,462,424
2017	42,289,949	17,163,671	41%	25,126,278

Notes: Actuarial assumptions were revised for the 2004, 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

The Valuation Assets include assets from Surplus divisions, if any.

Division 01 - Gnrl NonUnion

Table 8-01: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	$ 5,537,838	$ 3,453,996	62%	$ 2,083,842
2008	5,239,637	3,240,261	62%	1,999,376
2009	5,205,926	2,610,896	50%	2,595,030
2010	4,922,323	2,145,649	44%	2,776,674
2011	4,776,975	1,742,973	37%	3,034,002
2012	4,719,588	1,336,827	28%	3,382,761
2013	4,669,906	957,567	21%	3,712,339
2014	4,556,620	653,784	14%	3,902,836
2015	4,627,762	609,425	13%	4,018,337
2016	4,451,871	861,263	19%	3,590,608
2017	4,387,968	1,063,223	24%	3,324,745

Notes: Actuarial assumptions were revised for the 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

Table 9-01: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution[1]	Employee Contribution Rate[2]
	Number	Annual Payroll		
2007	9	$ 284,585	49.79%	0.00%
2008	11	438,363	33.17%	0.00%
2009	6	217,220	75.93%	0.00%
2010	5	151,146	110.40%	0.00%
2011	2	68,320	259.05%	0.00%
2012	2	74,087	284.60%	0.00%
2013	1	44,657	$ 51,468	4.00%
2014	1	44,841	$ 61,547	4.00%
2015	1	44,719	$ 40,383	4.00%
2016	1	46,232	$ 25,173	4.00%
2017	1	46,719	$ 29,023	4.00%

1 For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

2 For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 for the 12/31/2015 through 12/31/2019 valuations do **not** reflect the phase-in of the increased contribution requirements associated with the new actuarial assumptions. The full contribution without

Division 02 - Police

Table 8-02: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	$ 12,564,242	$ 6,138,130	49%	$ 6,426,112
2008	12,963,184	6,259,835	48%	6,703,349
2009	11,860,207	5,808,925	49%	6,051,282
2010	12,451,252	5,718,877	46%	6,732,375
2011	12,723,617	5,579,300	44%	7,144,317
2012	13,099,059	5,469,559	42%	7,629,500
2013	13,246,424	5,312,422	40%	7,934,002
2014	12,786,603	5,208,060	41%	7,578,543
2015	13,777,225	5,114,162	37%	8,663,063
2016	14,168,938	4,996,894	35%	9,172,044
2017	14,216,182	4,920,159	35%	9,296,023

Notes: Actuarial assumptions were revised for the 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

Table 9-02: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution[1]	Employee Contribution Rate[2]
	Number	Annual Payroll		
2007	22	$ 1,547,255	31.22%	0.00%
2008	26	1,730,354	30.99%	0.00%
2009	23	1,413,171	33.55%	0.00%
2010	20	1,423,814	36.36%	0.00%
2011	20	1,295,831	41.35%	0.00%
2012	18	1,139,179	47.48%	5.00%
2013	18	1,177,473	47.67%	5.00%
2014	18	1,153,942	45.70%	5.00%
2015	18	1,198,730	52.21%	5.00%
2016	16	1,130,320	58.86%	5.00%
2017	16	1,126,034	$ 61,200	5.00%

1 For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

2 For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 for the 12/31/2015 through 12/31/2019 valuations do **not** reflect the phase-in of the increased contribution requirements associated with the new actuarial assumptions. The full contribution without

Division 05 - Fire

Table 8-05: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	$ 6,957,856	$ 4,349,431	63%	$ 2,608,425
2008	8,076,872	4,950,558	61%	3,126,314
2009	7,663,560	4,755,323	62%	2,908,237
2010	8,314,350	4,902,402	59%	3,411,948
2011	8,359,963	4,930,537	59%	3,429,426
2012	8,689,318	4,664,836	54%	4,024,482
2013	8,646,050	4,393,094	51%	4,252,956
2014	8,670,066	4,151,002	48%	4,519,064
2015	9,282,898	3,854,036	42%	5,428,862
2016	9,297,982	3,541,024	38%	5,756,958
2017	9,350,693	3,294,292	35%	6,056,401

Notes: Actuarial assumptions were revised for the 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

Table 9-05: Computed Employer Contributions - Comparative Schedule

Valuation Date	Active Employees		Computed Employer	Employee Contribution
December 31	Number	Annual Payroll	Contribution[1]	Rate[2]
2007	16	$ 872,458	25.89%	0.00%
2008	18	1,079,597	26.12%	0.00%
2009	17	1,002,381	26.24%	0.00%
2010	16	1,283,053	25.31%	0.00%
2011	6	516,820	48.61%	0.00%
2012	6	377,833	69.42%	8.00%
2013	6	494,431	56.93%	5.00%
2014	6	414,880	71.72%	5.00%
2015	5	342,674	108.26%	5.00%
2016	4	344,828	113.94%	5.00%
2017	4	350,998	119.43%	5.00%

1 For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

2 For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 for the 12/31/2015 through 12/31/2019 valuations do **not** reflect the phase-in of the increased contribution requirements associated with the new actuarial assumptions. The full contribution without

Division 10 - Gnrl Union

Table 8-10: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	$ 4,300,373	$ 1,687,021	39%	$ 2,613,352
2008	4,486,711	1,476,207	33%	3,010,504
2009	4,494,912	944,097	21%	3,550,815
2010	4,537,312	726,271	16%	3,811,041
2011	3,554,714	285,498	8%	3,269,216
2012	3,522,875	(12,903)	0%	3,535,778
2013	3,485,312	(255,570)	-7%	3,740,882
2014	3,315,285	(490,827)	-15%	3,806,112
2015	3,527,320	(767,283)	-22%	4,294,603
2016	3,516,591	402,623	11%	3,113,968
2017	3,497,773	614,876	18%	2,882,897

Notes: Actuarial assumptions were revised for the 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

Table 9-10: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution[1]	Employee Contribution Rate[2]
	Number	Annual Payroll		
2007	11	$ 392,962	44.00%	0.00%
2008	14	488,022	42.86%	0.00%
2009	13	453,994	52.53%	0.00%
2010	9	312,353	77.09%	0.00%
2011	5	141,239	136.75%	4.00%
2012	5	138,462	161.82%	4.00%
2013	5	139,986	167.63%	4.00%
2014	2	54,377	445.15%	4.00%
2015	4	102,302	1622.80%	4.00%
2016	3	90,977	102.95%	4.00%
2017	3	104,544	139.59%	4.00%

1 For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

2 For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 for the 12/31/2015 through 12/31/2019 valuations do **not** reflect the phase-in of the increased contribution requirements associated with the new actuarial assumptions. The full contribution without

Division 11 - Housing Commsn

Table 8-11: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	$ 393,995	$ 22,782	6%	$ 371,213
2008	296,580	174,745	59%	121,835
2009	291,150	172,466	59%	118,684
2010	285,564	163,053	57%	122,511
2011	280,079	143,222	51%	136,857
2012	274,214	123,280	45%	150,934
2013	60,085	121,033	201%	(60,948)
2014	57,666	131,885	229%	(74,219)
2015	58,409	135,957	233%	(77,548)
2016	55,698	132,002	237%	(76,304)
2017	154	140,263	91080%	(140,109)

Notes: Actuarial assumptions were revised for the 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

Table 9-11: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution[1]	Employee Contribution Rate[2]
	Number	Annual Payroll		
2007	0	$ 0	$ 2,066	0.00%
2008	0	0	$ 567	0.00%
2009	0	0	$ 706	0.00%
2010	0	0	$ 856	0.00%
2011	0	0	$ 1,051	0.00%
2012	0	0	$ 1,295	0.00%
2013	0	0	$ 0	0.00%
2014	0	0	$ 0	0.00%
2015	0	0	$ 0	0.00%
2016	0	0	$ 0	3% < ; 5% >
2017	0	0	$ 0	3% < ; 5% >

1 For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

2 For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 for the 12/31/2015 through 12/31/2019 valuations do **not** reflect the phase-in of the increased contribution requirements associated with the new actuarial assumptions. The full contribution without

Division 12 - Pol/Fire Cmd

Table 8-12: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	$ 1,992,254	$ 501,155	25%	$ 1,491,099
2008	2,176,828	388,756	18%	1,788,072
2009	4,292,150	893,209	21%	3,398,941
2010	4,392,621	645,573	15%	3,747,048
2011	4,396,515	523,069	12%	3,873,446
2012	4,387,317	636,838	15%	3,750,479
2013	4,352,842	710,223	16%	3,642,619
2014	4,328,363	845,938	20%	3,482,425
2015	4,521,963	1,539,369	34%	2,982,594
2016	4,488,389	1,885,583	42%	2,602,806
2017	4,449,218	2,220,795	50%	2,228,423

Notes: Actuarial assumptions were revised for the 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

Table 9-12: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution[1]	Employee Contribution Rate[2]
	Number	Annual Payroll		
2007	0	$ 0	$ 9,846	0.00%
2008	0	0	$ 12,674	0.00%
2009	0	0	$ 27,296	0.00%
2010	0	0	$ 32,517	0.00%
2011	0	0	$ 37,633	0.00%
2012	0	0	$ 42,726	0.00%
2013	0	0	$ 51,773	0.00%
2014	0	0	$ 55,111	0.00%
2015	0	0	$ 52,815	0.00%
2016	0	0	$ 55,413	0.00%
2017	0	0	$ 58,589	0.00%

1 For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

2 For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 for the 12/31/2015 through 12/31/2019 valuations do **not** reflect the phase-in of the increased contribution requirements associated with the new actuarial assumptions. The full contribution without

Division 13 - Gnrl-Union Court

Table 8-13: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2011	$ 1,185,362	$ 164,553	14%	$ 1,020,809
2012	1,291,392	142,378	11%	1,149,014
2013	834,355	95,431	11%	738,924
2014	841,728	112,598	13%	729,130
2015	824,003	142,889	17%	681,114
2016	808,884	160,235	20%	648,649
2017	813,083	158,188	20%	654,895

Notes: Actuarial assumptions were revised for the 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

Table 9-13: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution[1]	Employee Contribution Rate[2]
	Number	Annual Payroll		
2011	2	$ 87,800	69.67%	4.00%
2012	2	101,176	75.60%	4.00%
2013	0	0	$ 6,923	0.00%
2014	0	0	$ 3,880	0.00%
2015	0	0	$ 4,186	0.00%
2016	0	0	$ 4,387	4.00%
2017	0	0	$ 4,825	4.00%

1 For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

2 For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 for the 12/31/2015 through 12/31/2019 valuations do **not** reflect the phase-in of the increased contribution requirements associated with the new actuarial assumptions. The full contribution without

Division 20 - PolFire Retiree

Table 8-20: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2007	$ 9,649,454	$ 9,872,555	102%	$ (223,101)
2008	8,394,567	8,512,263	101%	(117,696)
2009	8,077,117	8,279,075	103%	(201,958)
2010	7,811,940	7,680,347	98%	131,593
2011	7,069,533	7,005,000	99%	64,533
2012	6,831,121	6,314,085	92%	517,036
2013	6,306,923	5,734,441	91%	572,482
2014	6,128,294	5,212,064	85%	916,230
2015	6,070,174	4,652,629	77%	1,417,545
2016	5,753,359	5,099,664	89%	653,695
2017	5,574,869	4,751,875	85%	822,994

Notes: Actuarial assumptions were revised for the 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

Table 9-20: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution[1]	Employee Contribution Rate[2]
	Number	Annual Payroll		
2007	0	$ 0	$ 0	0.00%
2008	0	0	$ 0	0.00%
2009	0	0	$ 0	0.00%
2010	0	0	$ 927	0.00%
2011	0	0	$ 417	0.00%
2012	0	0	$ 4,324	0.00%
2013	0	0	$ 5,038	0.00%
2014	0	0	$ 9,374	0.00%
2015	0	0	$ 17,661	0.00%
2016	0	0	$ 12,044	0.00%
2017	0	0	$ 15,758	0.00%

1 For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

2 For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 for the 12/31/2015 through 12/31/2019 valuations do **not** reflect the phase-in of the increased contribution requirements associated with the new actuarial assumptions. The full contribution without

Division HA - FT Police Officers

Table 8-HA: Actuarial Accrued Liabilities - Comparative Schedule

Valuation Date December 31	Actuarial Accrued Liability	Valuation Assets	Percent Funded	Unfunded (Overfunded) Accrued Liabilities
2017	$ 9	$ 0	0%	$ 9

Notes: Actuarial assumptions were revised for the 2008, 2009, 2010, 2011, 2012 and 2015 actuarial valuations.

Table 9-HA: Computed Employer Contributions - Comparative Schedule

Valuation Date December 31	Active Employees		Computed Employer Contribution[1]	Employee Contribution Rate[2]
	Number	Annual Payroll		
2017	1	$ 21,775	6.58%	0.00%

1 For open divisions, a percent of pay contribution is shown. For closed divisions, a monthly dollar contribution is shown.

2 For each valuation year, the computed employer contribution is based on the employee rate. If the employee rate changes during the applicable fiscal year, the computed employer contribution will be adjusted.

Note: The contributions shown in Table 9 for the 12/31/2015 through 12/31/2019 valuations do **not** reflect the phase-in of the increased contribution requirements associated with the new actuarial assumptions. The full contribution without

Division 01 - Gnrl NonUnion

Table 10-01: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance[1]	Original Amortization Period[2]	Amounts for Fiscal Year Beginning 7/1/2019: Outstanding UAL Balance[3]	Remaining Amortization Period[2]	Annual Amortization Payment
Initial	12/31/2015	$ 4,018,337	19	$ 3,089,265	15	$ 340,596
(Gain)/Loss	12/31/2016	(39,916)	17	(44,342)	15	(3,948)
(Gain)/Loss	12/31/2017	90,024	15	100,689	15	8,964
Total				**$ 3,145,612**		**$ 345,612**

1 For each type of UAL (layer), this is the original balance as of the date the layer was established.

2 According to the MERS amortization policy, each type of UAL (layer) is amortized over a specific period (see Appendix on MERS website).

3 This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

The unfunded accrued liability (UAL) as of December 31, 2017 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2017 valuation to take into account the expected future contributions that are based on past valuations. Each type of UAL (layer) is amortized over the appropriate period. Please see the Appendix on the MERS website for a detailed description of the amortization policy.

Division 02 - Police

Table 10-02: Layered Amortization Schedule

				Amounts for Fiscal Year Beginning 7/1/2019		
Type of UAL	Date Established	Original Balance[1]	Original Amortization Period[2]	Outstanding UAL Balance[3]	Remaining Amortization Period[2]	Annual Amortization Payment
Initial	12/31/2015	$ 8,663,063	23	$ 9,051,463	21	$ 636,156
(Gain)/Loss	12/31/2016	368,538	22	414,954	21	29,160
(Gain)/Loss	12/31/2017	(46,674)	21	(52,204)	21	(3,672)
Total				**$ 9,414,213**		**$ 661,644**

[1] For each type of UAL (layer), this is the original balance as of the date the layer was established.

[2] According to the MERS amortization policy, each type of UAL (layer) is amortized over a specific period (see Appendix on MERS website).

[3] This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

The unfunded accrued liability (UAL) as of December 31, 2017 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2017 valuation to take into account the expected future contributions that are based on past valuations. Each type of UAL (layer) is amortized over the appropriate period. Please see the Appendix on the MERS website for a detailed description of the amortization policy.

Division 05 - Fire

Table 10-05: Layered Amortization Schedule

				Amounts for Fiscal Year Beginning 7/1/2019		
Type of UAL	**Date Established**	**Original Balance[1]**	**Original Amortization Period[2]**	**Outstanding UAL Balance[3]**	**Remaining Amortization Period[2]**	**Annual Amortization Payment**
Initial	12/31/2015	$ 5,428,862	23	$ 5,824,040	21	$ 409,332
(Gain)/Loss	12/31/2016	121,845	22	137,186	21	9,648
(Gain)/Loss	12/31/2017	169,236	21	189,286	21	13,308
Total				**$ 6,150,512**		**$ 432,288**

1 For each type of UAL (layer), this is the original balance as of the date the layer was established.

2 According to the MERS amortization policy, each type of UAL (layer) is amortized over a specific period (see Appendix on MERS website).

3 This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

The unfunded accrued liability (UAL) as of December 31, 2017 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2017 valuation to take into account the expected future contributions that are based on past valuations. Each type of UAL (layer) is amortized over the appropriate period. Please see the Appendix on the MERS website for a detailed description of the amortization policy.

Division 10 - Gnrl Union

Table 10-10: Layered Amortization Schedule

				Amounts for Fiscal Year Beginning 7/1/2019		
Type of UAL	Date Established	Original Balance[1]	Original Amortization Period[2]	Outstanding UAL Balance[3]	Remaining Amortization Period[2]	Annual Amortization Payment
Initial	12/31/2015	$ 4,294,603	23	$ 2,689,397	21	$ 189,012
(Gain)/Loss	12/31/2016	(1,156,245)	22	(1,301,893)	21	(91,500)
(Gain)/Loss	12/31/2017	668,061	21	747,209	21	52,512
Total				**$ 2,134,713**		**$ 150,024**

1 For each type of UAL (layer), this is the original balance as of the date the layer was established.

2 According to the MERS amortization policy, each type of UAL (layer) is amortized over a specific period (see Appendix on MERS website).

3 This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

The unfunded accrued liability (UAL) as of December 31, 2017 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2017 valuation to take into account the expected future contributions that are based on past valuations. Each type of UAL (layer) is amortized over the appropriate period. Please see the Appendix on the MERS website for a detailed description of the amortization policy.

Division 11 - Housing Commsn

Table 10-11: Layered Amortization Schedule

				Amounts for Fiscal Year Beginning 7/1/2019		
Type of UAL	Date Established	Original Balance[1]	Original Amortization Period[2]	Outstanding UAL Balance[3]	Remaining Amortization Period[2]	Annual Amortization Payment
Initial	12/31/2015	$ (77,548)	10	$ (78,411)	10	$ (9,588)
(Gain)/Loss	12/31/2016	7,263	10	7,719	9	1,032
(Gain)/Loss	12/31/2017	(63,344)	10	(70,849)	10	(8,664)
Total				**$ (141,541)**		**$ (17,220)**

1 For each type of UAL (layer), this is the original balance as of the date the layer was established.

2 According to the MERS amortization policy, each type of UAL (layer) is amortized over a specific period (see Appendix on MERS website).

3 This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

The unfunded accrued liability (UAL) as of December 31, 2017 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2017 valuation to take into account the expected future contributions that are based on past valuations. Each type of UAL (layer) is amortized over the appropriate period. Please see the Appendix on the MERS website for a detailed description of the amortization policy.

Division 12 - Pol/Fire Cmd

Table 10-12: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance[1]	Original Amortization Period[2]	Amounts for Fiscal Year Beginning 7/1/2019: Outstanding UAL Balance[3]	Remaining Amortization Period[2]	Annual Amortization Payment
Initial	12/31/2015	$ 2,982,594	4	$ 1,290,320	2	$ 682,200
(Gain)/Loss	12/31/2016	54,128	10	57,546	9	7,680
(Gain)/Loss	12/31/2017	96,415	10	107,838	10	13,188
Total				**$ 1,455,704**		**$ 703,068**

1 For each type of UAL (layer), this is the original balance as of the date the layer was established.

2 According to the MERS amortization policy, each type of UAL (layer) is amortized over a specific period (see Appendix on MERS website).

3 This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

The unfunded accrued liability (UAL) as of December 31, 2017 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2017 valuation to take into account the expected future contributions that are based on past valuations. Each type of UAL (layer) is amortized over the appropriate period. Please see the Appendix on the MERS website for a detailed description of the amortization policy.

Division 13 - Gnrl-Union Court

Table 10-13: Layered Amortization Schedule

Type of UAL	Date Established	Original Balance[1]	Original Amortization Period[2]	Amounts for Fiscal Year Beginning 7/1/2019: Outstanding UAL Balance[3]	Remaining Amortization Period[2]	Annual Amortization Payment
Initial	12/31/2015	$ 681,114	19	$ 663,434	15	$ 59,028
(Gain)/Loss	12/31/2016	(17,648)	17	(19,599)	15	(1,740)
(Gain)/Loss	12/31/2017	6,181	15	6,913	15	612
Total				**$ 650,748**		**$ 57,900**

1 For each type of UAL (layer), this is the original balance as of the date the layer was established.

2 According to the MERS amortization policy, each type of UAL (layer) is amortized over a specific period (see Appendix on MERS website).

3 This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

The unfunded accrued liability (UAL) as of December 31, 2017 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2017 valuation to take into account the expected future contributions that are based on past valuations. Each type of UAL (layer) is amortized over the appropriate period. Please see the Appendix on the MERS website for a detailed description of the amortization policy.

Division 20 - PolFire Retiree

Table 10-20: Layered Amortization Schedule

				Amounts for Fiscal Year Beginning 7/1/2019		
Type of UAL	**Date Established**	**Original Balance[1]**	**Original Amortization Period[2]**	**Outstanding UAL Balance[3]**	**Remaining Amortization Period[2]**	**Annual Amortization Payment**
Initial	12/31/2015	$ 1,417,545	8	$ 1,169,171	5	$ 261,372
(Gain)/Loss	12/31/2016	(785,091)	10	(834,647)	9	(111,432)
(Gain)/Loss	12/31/2017	286,252	10	320,165	10	39,156
Total				**$ 654,689**		**$ 189,096**

1 For each type of UAL (layer), this is the original balance as of the date the layer was established.

2 According to the MERS amortization policy, each type of UAL (layer) is amortized over a specific period (see Appendix on MERS website).

3 This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

The unfunded accrued liability (UAL) as of December 31, 2017 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2017 valuation to take into account the expected future contributions that are based on past valuations. Each type of UAL (layer) is amortized over the appropriate period. Please see the Appendix on the MERS website for a detailed description of the amortization policy.

Division HA - FT Police Officers

Table 10-HA: Layered Amortization Schedule

				Amounts for Fiscal Year Beginning 7/1/2019		
Type of UAL	**Date Established**	**Original Balance[1]**	**Original Amortization Period[2]**	**Outstanding UAL Balance[3]**	**Remaining Amortization Period[2]**	**Annual Amortization Payment**
(Gain)/Loss	12/31/2017	$ 9	15	$ 10	15	$ 0
Total				**$ 10**		**$**

1 For each type of UAL (layer), this is the original balance as of the date the layer was established.

2 According to the MERS amortization policy, each type of UAL (layer) is amortized over a specific period (see Appendix on MERS website).

3 This is the remaining balance as of the valuation date, projected to the beginning of the fiscal year shown above.

The unfunded accrued liability (UAL) as of December 31, 2017 (see Table 6) is projected to the beginning of the fiscal year for which the contributions are being calculated. This allows the 2017 valuation to take into account the expected future contributions that are based on past valuations. Each type of UAL (layer) is amortized over the appropriate period. Please see the Appendix on the MERS website for a detailed description of the amortization policy.

GASB 68 Information

The following information has been prepared to provide some of the information necessary to complete GASB Statement No. 68 disclosures. Statement 68 is effective for fiscal years beginning after June 15, 2014. Additional resources, including an Implementation Guide, are available at www.mersofmich.com.

Actuarial Valuation Date:		12/31/2017
Measurement Date of Total Pension Liability (TPL):		12/31/2017
At 12/31/2017, the following employees were covered by the benefit terms:		
Inactive employees or beneficiaries currently receiving benefits:		134
Inactive employees entitled to but not yet receiving benefits:		13
Active employees:		25
		172
Covered employee payroll: (Needed for Required Supplementary Information)	$	1,650,070
Average expected remaining service lives of all employees (active and inactive):		1
Total Pension Liability as of 12/31/2016 measurement date:	$	41,661,704
Total Pension Liability as of 12/31/2017 measurement date:	$	41,430,127
Service Cost for the year ending on the 12/31/2017 measurement date:	$	189,305
Change in the Total Pension Liability due to:		
- Benefit changes[1]:	$	0
- Differences between expected and actual experience[2]:	$	160,460
- Changes in assumptions[2]:	$	0

[1] A change in liability due to benefit changes is immediately recognized when calculating pension expense for the year.

[2] Changes in liability due to differences between actual and expected experience, and changes in assumptions, are recognized in pension expense over the average remaining service lives of all employees.

Sensitivity of the Net Pension Liability to changes in the discount rate:

	1% Decrease (7.00%)	Current Discount Rate (8.00%)	1% Increase (9.00%)
Change in Net Pension Liability as of 12/31/2017:	$ 3,638,614	-	$ (3,146,374)

Note: The current discount rate shown for GASB 68 purposes is higher than the MERS assumed rate of return. This is because for GASB 68 purposes, the discount rate must be gross of administrative expenses, whereas for funding purposes it is net of administrative expenses.

Benefit Provision History

The following benefit provision history is provided by MERS. Any corrections to this history or discrepancies between this information and information displayed elsewhere in the valuation report should be reported to MERS. All provisions are listed by date of adoption.

01 - Gnrl NonUnion

12/1/2016	Service Credit Purchase Estimates - Yes
7/1/2011	Member Contribution Rate 4.00%
1/30/1996	Covered by Act 88
1/1/1995	E2 2% Window COLA for future retirees (03/01/1994) to (11/02/1994)
9/1/1994	2.35% Multiplier (80% max)
10/1/1991	Member Contribution Rate 0.00%
1/1/1989	Benefit FAC-3 (3 Year Final Average Compensation)
1/1/1989	Benefit B-3 (80% max)
1/1/1989	Benefit F55 (With 15 Years of Service)
7/1/1988	Benefit F50 (With 25 Years of Service)
1/1/1988	Flexible E 2% COLA Adopted (01/01/1988)
1/1/1987	Flexible E 2% COLA Adopted (01/01/1987)
7/1/1985	Benefit C-2/Base C-1 (Old)
1/1/1969	Benefit C-1 (Old)
7/1/1949	Member Contribution Rate 3.00% Under $4,200.00 - Then 5.00%
1/1/1949	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/1949	10 Year Vesting
1/1/1949	Benefit C (Old)
1/1/1949	Fiscal Month - July
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years

02 - Police

12/1/2016	Service Credit Purchase Estimates - Yes
10/1/2014	Benefit B-3 (80% max)
9/30/2014	Frozen FAC
1/1/2012	Member Contribution Rate 5.00%
1/1/2002	E2 2% Window COLA for future retirees (11/06/2000) to (04/03/2001)
11/6/2000	Temporary Benefit RS 100 (100% Post-Ret. Spouse Benefits) (11/06/2000 - 04/03/2001)
11/6/2000	Temporary Benefit B-4 (80% max) (11/06/2000 - 04/03/2001)
1/30/1996	Covered by Act 88
1/1/1995	E2 2% Window COLA for future retirees (03/01/1994) to (11/02/1994)
9/1/1994	2.35% Multiplier (80% max)
7/1/1991	25 Years & Out
1/1/1990	Benefit F50 (With 25 Years of Service)
1/1/1989	Benefit FAC-3 (3 Year Final Average Compensation)
1/1/1989	Benefit B-3 (80% max)
1/1/1989	Benefit F55 (With 15 Years of Service)
1/1/1989	Member Contribution Rate 0.00%
1/1/1988	Flexible E 2% COLA Adopted (01/01/1988)

02 - Police

1/1/1987	Flexible E 2% COLA Adopted (01/01/1987)
1/1/1969	Benefit C-1 (Old)
7/1/1949	Benefit FAC-5 (5 Year Final Average Compensation)
7/1/1949	10 Year Vesting
7/1/1949	Benefit C (Old)
7/1/1949	Member Contribution Rate 3.00% Under $4,200.00 - Then 5.00%
1/1/1949	Fiscal Month - July
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years

05 - Fire

12/1/2016	Service Credit Purchase Estimates - Yes
9/1/2013	Benefit B-3 (80% max)
8/31/2013	Frozen FAC
12/1/2012	Member Contribution Rate 5.00%
12/1/2011	Member Contribution Rate 8.00%
5/1/2011	Sick Eligibility - 960 Hours
1/30/1996	Covered by Act 88
1/1/1995	E2 2% Window COLA for future retirees (03/01/1994) to (11/02/1994)
9/1/1994	2.35% Multiplier (80% max)
2/1/1994	25 Years & Out
1/1/1990	Benefit F50 (With 25 Years of Service)
1/1/1989	Member Contribution Rate 0.00%
1/1/1989	Benefit FAC-3 (3 Year Final Average Compensation)
1/1/1989	Benefit B-3 (80% max)
1/1/1989	Benefit F55 (With 15 Years of Service)
1/1/1988	Flexible E 2% COLA Adopted (01/01/1988)
1/1/1987	Flexible E 2% COLA Adopted (01/01/1987)
1/1/1969	Benefit C-1 (Old)
7/1/1949	Member Contribution Rate 3.00% Under $4,200.00 - Then 5.00%
7/1/1949	Benefit FAC-5 (5 Year Final Average Compensation)
7/1/1949	10 Year Vesting
7/1/1949	Benefit C (Old)
1/1/1949	Fiscal Month - July
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years
	Defined Benefit Normal Retirement Age - 60

10 - Gnrl Union

12/1/2016	Service Credit Purchase Estimates - Yes
7/1/2011	Member Contribution Rate 4.00%
1/1/2011	Member Contribution Rate 2.00%
1/1/1999	E2 2% Window COLA for future retirees (01/01/1998) to (10/02/1998)
1/30/1996	Covered by Act 88
1/1/1995	E2 2% Window COLA for future retirees (03/01/1994) to (10/02/1994)
9/1/1994	2.35% Multiplier (80% max)

10 - Gnrl Union

1/1/1989	Benefit F50 (With 25 Years of Service)
1/1/1989	Benefit F55 (With 15 Years of Service)
1/1/1989	Member Contribution Rate 0.00%
1/1/1989	Benefit FAC-3 (3 Year Final Average Compensation)
1/1/1989	Benefit B-3 (80% max)
1/1/1988	Flexible E 2% COLA Adopted (01/01/1988)
1/1/1987	Flexible E 2% COLA Adopted (01/01/1987)
12/1/1970	10 Year Vesting
1/1/1949	Fiscal Month - July
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years
	Defined Benefit Normal Retirement Age - 60

11 - Housing Commsn

12/1/2016	Service Credit Purchase Estimates - Yes
3/1/2001	Temporary 25 Years & Out (03/01/2001 - 05/03/2001)
1/30/1996	Covered by Act 88
1/1/1989	Benefit FAC-3 (3 Year Final Average Compensation)
1/1/1989	10 Year Vesting
1/1/1989	Benefit B-3 (80% max)
1/1/1989	Benefit F50 (With 25 Years of Service)
1/1/1989	Benefit F55 (With 15 Years of Service)
1/1/1989	Member Contribution Rate 3.00% Under $4,200.00 - Then 5.00%
1/1/1989	Fiscal Month - July
1/1/1988	Flexible E 2% COLA Adopted (01/01/1988)
1/1/1987	Flexible E 2% COLA Adopted (01/01/1987)
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years

12 - Pol/Fire Cmd

12/1/2016	Service Credit Purchase Estimates - Yes
1/1/2002	E2 2% COLA for future retirees (07/01/2001)
7/1/2001	Benefit FAC-3 (3 Year Final Average Compensation)
7/1/2001	Benefit RS 100 (100% Post-Ret. Spouse Benefits)
7/1/2001	10 Year Vesting
7/1/2001	Benefit B-4 (80% max)
7/1/2001	Benefit F50 (With 25 Years of Service)
7/1/2001	Benefit F55 (With 15 Years of Service)
7/1/2001	Member Contribution Rate 0.00%
1/30/1996	Covered by Act 88
1/1/1949	Fiscal Month - July
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years

13 - Gnrl-Union Court

12/1/2016	Service Credit Purchase Estimates - Yes

13 - Gnrl-Union Court

7/1/2011	Member Contribution Rate 4.00%
1/1/2011	Day of work defined as 8 Hours a Day for All employees.
1/1/2011	Benefit FAC-3 (3 Year Final Average Compensation)
1/1/2011	10 Year Vesting
1/1/2011	2.35% Multiplier (80% max)
1/1/2011	Benefit F50 (With 25 Years of Service)
1/1/2011	Benefit F55 (With 15 Years of Service)
1/1/2011	Member Contribution Rate 0.00%
1/30/1996	Covered by Act 88
1/1/1949	Fiscal Month - July
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years

20 - PolFire Retiree

12/1/2016	Service Credit Purchase Estimates - Yes
1/1/2006	Benefit FAC-5 (5 Year Final Average Compensation)
1/1/2006	10 Year Vesting
1/1/2006	Benefit B
1/1/2006	Member Contribution Rate 0.00%
1/1/1949	Fiscal Month - July
	Defined Benefit Normal Retirement Age - 60
	Early Reduced (.5%) at Age 50 with 25 Years or Age 55 with 15 Years

HA - FT Police Officers

6/1/2017	Day of work is defined as 10 - 12 hr days
6/1/2017	Benefit FAC-3 (3 Year Final Average Compensation)
6/1/2017	Non Standard Compensation Definition
6/1/2017	6 Year Vesting
6/1/2017	Defined Benefit Normal Retirement Age - 60
6/1/2017	All Income plus Elective Deferrals
6/1/2017	1.5% Multiplier
6/1/2017	Benefit F55 (With 25 Years of Service)
6/1/2017	No Early Reduced Conditions
6/1/2017	Participant Contribution Rate 0%
1/30/1996	Covered by ACT 88
1/1/1949	Fiscal Month - July

Plan Provisions, Actuarial Assumptions, and Actuarial Funding Method

Details on MERS plan provisions, actuarial assumptions, and actuarial methodology can be found in the Appendix. Some actuarial assumptions are specific to this municipality and its divisions. These are listed below.

Increase in Final Average Compensation

Division	FAC Increase Assumption
01 - Gnrl NonUnion	5.00%
02 - Police	5.00%
05 - Fire	8.00%
10 - Gnrl Union	5.00%
HA - FT Police Officers	5.00%

Withdrawal Rate Scaling Factor

Division	Withdrawal Rate Scaling Factor
All Divisions	100%

Miscellaneous and Technical Assumptions

Loads – None.

Amortization Policy for Closed Divisions

Closed Division	Amortization Option
All Closed Divisions	Accelerated to 5-Year Amortization

Please see the Appendix on the MERS website for a detailed description of the amortization options available for closed divisions within an open municipality.