LAWRENCE CONTRIBUTORY RETIREMENT SYSTEM

FINANCIAL STATEMENTS

YEAR ENDED DECEMBER 31, 2018

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Financial Section

Powers & Sullivan, LLC
Certified Public Accountants

100 Quannapowitt Parkway
Suite 101
Wakefield, MA 01880
T. 781-914-1700
F. 781-914-1701
www.powersandsullivan.com

Independent Auditor's Report

To the Honorable Lawrence Retirement Board
Lawrence Contributory Retirement System
Lawrence, Massachusetts

Report on the Financial Statements

We have audited the accompanying financial statements of Lawrence Contributory Retirement System (System) as of and for the year ended December 31, 2018, and the related notes to the financial statements, which collectively comprise the Lawrence Contributory Retirement Systems' financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Lawrence Contributory Retirement System as of December 31, 2018 and the results of its operations and changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that Management's Discussion and Analysis, the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Returns be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated October 8, 2019, on our consideration of the Lawrence Contributory Retirement System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Lawrence Contributory Retirement System's internal control over financial reporting and compliance.

Restriction on Use

This report is intended solely for the information and use of the Lawrence Contributory Retirement System, the Public Employee Retirement Administration Commission and all member units and is not intended to be and should not be used by anyone other than these specified parties.

Powers & Sullivan LLC

October 8, 2019

Management's Discussion and Analysis

As management of the Lawrence Contributory Retirement System, we offer readers of these financial statements this narrative overview and analysis of the financial activities for the year ended December 31, 2018. The System complies with financial reporting requirements issued by the Governmental Accounting Standards Board (GASB).

The GASB is the authoritative standard setting body that provides guidance on how to prepare financial statements in conformity with generally accepted accounting principles (GAAP). Users of these financial statements rely on the GASB to establish consistent reporting standards for all governments in the United States. This consistent application is the only way users can assess the financial condition of a public retirement system compared to others.

Financial Highlights

- The System's assets exceeded its liabilities at the close of the most recent year by $220.7 million (net position).
- The System's net position decreased by $6.8 million for the year ended December 31, 2018.
- Total investment loss was $4.1 million; investment expenses were $1.2 million; and net investment loss was $5.3 million.
- Total contributions were $28.9 million including $20.8 million from employers, $6.8 million from members, and $1.3 million from other transfers in and settlements.
- Retirement benefits, refunds and transfers to other systems amounted to $30.0 million.
- Administrative expenses were $502,000.
- The Total Pension Liability is $455.3 million as of December 31, 2018 while the Net Pension Liability is $234.7 million.
- The Plan fiduciary net position as a percentage of the total pension liability is 48.46%.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to the System fiduciary financial statements. These fiduciary financial statements comprise of four components: 1) management's discussion and analysis, 2) fiduciary financial statements, 3) notes to the financial statements and 4) required supplementary information.

Fiduciary Financial Statements

The *statement of fiduciary net position* presents information on all assets and deferred outflows less deferred inflows and liabilities with the difference reported as *net position.* Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position is improving or deteriorating.

The *statement of changes in fiduciary net position* presents information showing how the System's net position changed during the most recent year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, *regardless of the timing of related cash flows.* Thus, additions and deductions are reported in this statement for some items that will only result in cash flows in future periods.

Notes to the financial statements

The notes provide additional information that is essential to a full understanding of the data provided in the fiduciary financial statements.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Schedule of Changes in the Net Pension Liability and Related Ratios; the Schedule of Contributions; and the Schedule of Investment Return be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context.

Financial Analysis

As noted earlier, net position may serve over time as a useful indicator of the System's financial position. The System's assets exceeded liabilities by $220.7 million at the close of 2018.

The assets accumulated are held to provide pension benefits for qualified retirees along with active and inactive employees of the member units. At year end the System's net position include investments of $220.4 million, cash of $1.5 million, accounts receivable of $525,000 and other assets of $11,000.

In 2018 the System's contributions were $28.9 million while deductions were $30.5 million which resulted in a current decrease of ($1.5) million. In 2017 the System's contributions were $28.2 million while deductions were $29.3 million which resulted in a prior year decrease of ($1.1) million. For these two years the System was not able to sustain operations independent of investment income.

The primary change in net position when comparing the 2018 and 2017 results relates to each year's investment performance. Net investment loss was $5.3 million 2018, as compared to net investment income of $33.1 million in 2017. The annual money weighted rate of return was a loss of (2.29%) and 17.06% in 2018 and 2017 respectively. Fluctuations in the System's annual investment returns are expected.

The following tables present summarized financial information for the past two years.

	2018	2017
Statement of Fiduciary Net Position		
Assets:		
Cash	$ 1,530,539	$ 1,731,759
Investments	220,395,627	226,646,366
Receivables	524,992	387,998
Other assets	11,332	12,938
Total assets	222,462,490	228,779,061
Liabilities:		
Accounts payable	1,801,001	1,336,530
Net Position Restricted for Pension Benefits	$ 220,661,489	$ 227,442,531

	2018	2017
Statement of Changes in Fiduciary Net Position		
Additions:		
Contributions:		
Member contributions	$ 6,843,880	$ 6,781,214
Employer contributions	20,798,277	20,605,965
Other contributions	1,289,969	802,266
Total contributions	28,932,126	28,189,445
Net investment income (loss)	(5,258,484)	33,087,835
Total additions	23,673,642	61,277,280
Deductions:		
Administration	502,442	503,253
Retirement benefits, refunds and transfers	29,952,242	28,797,406
Total deductions	30,454,684	29,300,659
Net increase (decrease) in fiduciary net position	(6,781,042)	31,976,621
Fiduciary net position at beginning of year	227,442,531	195,465,910
Fiduciary net position at end of year	$ 220,661,489	$ 227,442,531

Requests for Information

This financial report is designed to provide a general overview of the System's finances for all those with an interest in the System's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the System's Board, 350 Merrimack Street, Suite 302, Lawrence, MA 01843.

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STATEMENT OF FIDUCIARY NET POSITION

DECEMBER 31, 2018

Assets		
Cash and cash equivalents	$	1,530,539
Investments:		
Investments in Pension Reserve Investment Trust		220,395,627
Receivables, net of allowance for uncollectibles:		
Other accounts receivable		524,992
Other assets		11,332
Total Assets		222,462,490
Liabilities		
Warrants payable		1,801,001
Net Position Restricted for Pensions	$	220,661,489

See notes to financial statements.

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

YEAR ENDED DECEMBER 31, 2018

Additions:		
Contributions:		
Employer pension appropriation	$	20,798,277
Member contributions		6,843,880
Transfers from other systems		538,085
3(8)(c) contributions from other systems		288,733
Workers' compensation settlements		21,000
State COLA reimbursements		440,391
Interest not refunded		1,760
Total contributions		28,932,126
Net investment income:		
Investment income (loss)		(4,060,145)
Less: investment expense		(1,198,339)
Net investment income (loss)		(5,258,484)
Total additions		23,673,642
Deductions:		
Administration		502,442
Retirement benefits and refunds		26,778,061
Transfers to other systems		1,575,874
3(8)(c) transfer to other systems		1,598,307
Total deductions		30,454,684
Net increase (decrease) in fiduciary net position		(6,781,042)
Fiduciary net position at beginning of year		227,442,531
Fiduciary net position at end of year	$	220,661,489

See notes to financial statements.

NOTE 1 – PLAN DESCRIPTION

The Lawrence Contributory Retirement System is a multiple-employer, cost-sharing, contributory defined benefit pension plan covering all employees of the governmental member units deemed eligible by the Lawrence Retirement Board (the Board), with the exception of school department employees who serve in a teaching capacity. The pensions of such school employees are administered by the Commonwealth of Massachusetts' Teachers Retirement System. Membership in the System is mandatory immediately upon the commencement of employment for all permanent employees. The System has four participating employers.

The System is governed by a five-member Board who establish the policies under which the System operates. Board members also approve all of the System's financial transactions, including the approval of retirement benefits to members. The day-to-day operations of the System are managed by the Executive Director.

The System is a member of the Massachusetts Contributory Retirement System and is governed by Chapter 32 of the Massachusetts General Laws (MGL). Public Employee Retirement Administration Commission (PERAC) is the state agency responsible for oversight of the Commonwealth's public retirement systems.

Massachusetts contributory retirement system benefits are, with certain exceptions, uniform from system to system. The Plan provides for retirement allowance benefits up to a maximum of 80% of a member's highest three-year average annual rate of regular compensation for those hired prior to April 2, 2012. For persons who became members on or after April 2, 2012, average salary is the average annual rate of regular compensation received during the five consecutive years that produce the highest average, or, if greater, during the last five years (whether or not consecutive) preceding retirement. Benefit payments are based upon a member's age, length of creditable service, level of compensation, and group classification.

There are three classes of membership in the retirement System; Group 1, Group 2 and Group 4. Group 1 consists of general employees which includes clerical and administrative positions. Group 2 consists of positions that have been specified as hazardous. Lastly, Group 4 consists of police officers, firefighters, and other hazardous positions.

Any individual in Group 1 or Group 2 whose membership began before January 1, 1978, and who maintains an annuity savings fund account, is eligible to receive a superannuation retirement allowance at age 55 or later, regardless of how many years of credible service he or she has completed.

There are no minimum vesting requirements for individuals in Group 4.

Members in Groups 1 and 2, hired after January 1, 1978 and prior to April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 20 years of service or upon the completion of 10 years of service and upon reaching the age of 55.

Members in Groups 1 and 2, hired on or after April 2, 2012, are eligible to receive a superannuation retirement allowance upon the completion of 10 years of service and upon reaching the age of 60 (Group 1) or age 55 (Group 2).

A retirement allowance consists of two parts: an annuity and a pension. A member's accumulated total deductions and the interest they generate constitute the annuity. The differential between the total retirement benefit and the annuity is the pension.

Active members contribute between 5% and 9% of their gross regular compensation. The percentage rate is keyed to the date upon which an employee's membership commences. Members hired on or after January 1, 1979, contribute an additional 2% of annual regular compensation in excess of $30,000. Deductions are deposited in the Annuity Savings Fund and earn interest at a rate determined by the PERAC actuary. When a member's retirement becomes effective, his/her deductions and related interest are transferred to the Annuity Reserve Fund. Any cost-of-living adjustments granted between 1981 and 1997 and any increase in other benefits imposed by the Commonwealth of Massachusetts' state law during those years are borne by the Commonwealth and are deposited into the Pension Fund. Cost-of-living adjustments granted after 1997 must be approved by the System and all costs are borne by the System.

The pension portion of any retirement benefit is paid from the Pension Fund of the System. The governmental unit employing the member must annually appropriate and contribute the amount of current-year pension assessment. Chapter 32 of the MGL requires Massachusetts retirement systems to adopt funding schedules designed to reduce the unfunded actuarial liability of the system to zero by no later than June 30, 2040. The System adopted Section 22d of Chapter 32 in April of 1989. The System's current funding schedule is designed to reduce the unfunded actuarial liability to zero by 2036.

Members who become permanently and totally disabled for further duty may be eligible to receive a disability retirement allowance. The amount of benefits to be received in such cases is dependent on several factors, including whether or not the disability is work related, the member's age, years of creditable service, level of compensation, veterans' status and group classification.

Employees who resign from service are entitled to request a refund of their accumulated total deductions.

Survivor benefits are extended to eligible beneficiaries of members whose death occurs prior to or following retirement.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The accompanying financial statements of the Lawrence Contributory Retirement System have been prepared in accordance with accounting principles generally accepted in the United States of America (GAAP). The Governmental Accounting Standards Board (GASB) is the recognized standard-setting body for establishing governmental accounting and financial reporting principles.

The System is a special-purpose government engaged only in fiduciary activities. Accordingly, the financial statements are reported using the flow of economic resources measurement focus and use the accrual basis of accounting. Under this method, additions are recorded when earned and deductions are recorded when the liabilities are incurred.

Cash and Investments

Cash and cash equivalents are considered to be cash on hand, demand deposits and short-term investments with an original maturity of three months or less from the date of acquisition. Investments are carried at fair value. The fair values were determined by the closing price for those securities traded on national stock exchanges and at the average bid-and-asked quotation for those securities traded in the over-the-counter market. The fair value of private equities are based on management's valuation of estimates and assumptions from information and representations provided by the respective general partners, in the absence of readily ascertainable market values. Real estate assets are reported at fair value utilizing an income approach to valuation along with independent appraisals and estimates by management.

Fair Value Measurements

The Retirement System reports required types of financial instruments in accordance with the fair value standards. These standards require an entity to maximize the use of observable inputs (such as quoted prices in active markets) and minimize the use of unobservable inputs (such as appraisals or valuation techniques) to determine fair value. Fair value standards also require the government to classify these financial instruments into a three-level hierarchy, based on the priority of inputs to the valuation technique or in accordance with net asset value practical expedient rules, which allow for either Level 2 or Level 3 depending on lock up and notice periods associated with the underlying funds.

Instruments measured and reported at fair value are classified and disclosed in one of the following categories:

Level 1 – Quoted prices are available in active markets for identical instruments as of the reporting date. Instruments, which are generally included in this category, include actively traded equity and debt securities, U.S. government obligations, and mutual funds with quoted market prices in active markets.

Level 2 – Pricing inputs are other than quoted in active markets, which are either directly or indirectly observable as of the reporting date, and fair value is determined through the use of models or other valuation methodologies. Certain fixed income securities, primarily corporate bonds, are classified as Level 2 because fair values are estimated using pricing models, matrix pricing, or discounted cash flows.

Level 3 – Pricing inputs are unobservable for the instrument and include situations where there is little, if any, market activity for the instrument. The inputs into the determination of fair value require significant management judgment or estimation.

In some instances the inputs used to measure fair value may fall into different levels of the fair value hierarchy and is based on the lowest level of input that is significant to the fair value measurement.

Market price is affected by a number of factors, including the type of instrument and the characteristics specific to the instrument. Instruments with readily available active quoted prices generally will have a higher degree of market price observability and a lesser degree of judgment used in measuring fair value. It is reasonably possible that change in values of these instruments will occur in the near term and that such changes could materially affect amounts reported in these financial statements. For more information on the fair value of the Retirement Administration's financial instruments, see Note 4 – Cash and Investments.

Accounts Receivable

Accounts receivable consist of member deductions, federal grant reimbursements, and 3(8)c reimbursements due from other systems. These receivables are considered 100% collectible and therefore do not report an allowance for uncollectibles.

Deferred Outflows/Inflows of Resources

In addition to assets, the statement of fiduciary net position will sometimes report a separate section for deferred outflows of resources. This separate financial statement element, *deferred outflows of resources*, represents a consumption of fiduciary net position that applies to a future period(s) and so will not be recognized as an outflow of resources (deduction) until then. The System did not have any items that qualify for reporting in this category.

In addition to liabilities, the statement of fiduciary net position will sometimes report a separate section for deferred inflows of resources. This separate financial statement element, *deferred inflows of resources,* represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (addition) until that time. The System did not have any items that qualify for reporting in this category.

NOTE 3 – PLAN ADMINISTRATION

The System is administered by a five-person Board of Retirement consisting of the Lawrence City Comptroller, who shall be a member ex-officio, a second member appointed by the Mayor of Lawrence, a third and fourth member who shall be elected by the members in or retired from the service of such System, and a fifth member appointed by the other members.

Chairman	William Bateman	Term Expires:	1/28/2022
Elected Member	Kevin Loughlin	Term Expires:	7/1/2019
Elected Member	Gina Rizzo	Term Expires:	10/15/2021
Appointed Member	Thomas M. Cuddy	Term Expires:	Indefinate
Ex-officio Member	Ramona Ceballos	Term Expires:	Indefinate

Board members are required to meet at least once a month. The Board must keep a record of all of its proceedings. The Board must annually submit to the appropriate authority an estimate of the expenses of administration and cost of operation of the System. The Board must annually file a financial statement of condition for the System with the Executive Director of PERAC.

The investment of the System's funds is the responsibility of the Board. All retirement allowances must be approved by the Retirement Board. The PERAC Actuary performs verification prior to payment, unless the System has obtained a waiver for superannuation calculations allowing them to bypass this requirement. All expenses incurred by the System must be approved by a majority vote of the Board. Payments shall be made only upon vouchers signed by three persons designated by the Board.

The following retirement board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts as follows:

Treasurer-Custodian:	)	MACRS Blanket Policy
Ex-Officio Member:	)	$50,000,000 Fiduciary Liability
Elected Members:	)	$1,000,000 Fidelity (ERISA) Bond
Appointed Members:	)	St. Paul Travelers Insurance Company
Staff Employees:	)	National Union Fire Arch Insurance Company

NOTE 4 – CASH AND INVESTMENTS

Custodial Credit Risk - Deposits

At December 31, 2018, the carrying amount of the System's deposits totaled $1,530,539 and the bank balance totaled $1,642,068, all of which was covered by Federal Depository Insurance.

Investments

The System's investments as of December 31, 2018 consist of $220,395,627 in PRIT pooled funds.

100% of the Retirement System's investments are in Pension Reserve Investment Trust (PRIT), which meets the criteria of an external investment pool. This investment pool was established by the Treasurer of the Commonwealth of Massachusetts, who serves as Trustee. PRIT is administered by the Pension Reserves Investment Management Board. The fair values of the positions in each investment Pool are the same as the value of each Pool's shares. The Administration does not have the ability to control any of the investment decisions relative to its funds in PRIT. PRIT investments are valued using the net asset value (NAV) method.

The Administration's annual money-weighted rate of return on pension plan investments was a loss of (2.29%). The money–weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested, measured monthly.

Fair Value of Investments

The plan holds significant amounts of investments that are measured at fair value on a recurring basis. Because investing is a key part of the plan's activities, the plan shows greater disaggregation in its disclosures.

The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles.

PRIT Investments are valued using the net asset value (NAV) method. This investment pool was established by the Treasurer of the Commonwealth of Massachusetts, who serves as Trustee. PRIT is administered by the Pension Reserves Investment Management Board (PRIM). The fair values of the positions in each investment Pool are the same as the value of each Pool's shares. The System does not have the ability to control any of the investment decisions relative to its funds in PRIT.

NOTE 5 – MEMBERSHIP

The following table represents the System's membership at December 31, 2018:

Retirees and beneficiaries currently receiving benefits..........	904
Inactive members..	444
Active members..	1,737
Total..	3,085

NOTE 6 – ACTUARIAL VALUATION

Components of the net pension liability as of December 31, 2018 were as follows:

Total pension liability	$ 455,327,151
The pension plan's fiduciary net position	(220,661,489)
The net pension liability	$ 234,665,662
The pension plan's fiduciary net position as a percentage of the total pension liability	48.46%

The total pension liability was determined by an actuarial valuation as of January 1, 2018, using the following actuarial assumptions, applied to all periods included in the measurement that was updated back to December 31, 2018:

Valuation date	January 1, 2018
Actuarial cost method	Entry Age Normal.
Amortization method	3.24% amortization increase.
Remaining amortization period	17 years for the fresh start base.
Asset valuation method	Market value adjusted by accounts payable and receivables.
Projected salary increases	3.75% ultimate rate, plus 4.00% steps for the first five years of service.
Cost of living adjustments	3% of first $12,000 of a member's retirement allowance.
Rates of retirement	Groups 1 and 2; Ages 50 - 70. Group 4; Ages 50 - 65.
Rates of disability	Groups 1 and 2, ages 50 - 70. Group 4, ages 50 - 65.
Mortality Rates	RP-2014 adjusted to 2006 and projected generationally using MP-2016. For members retired under and Accidental Disability (job-related), 40% of deaths are assumed to be from the same cause as the disability. Disabled mortality RP-2014 adjusted to 2006 and projected generationally using MP-2016, ages set forward two years. (Prior valuation used RP-2000 mortality table projected with generational mortality, scale BB, and a base year of 2000).
Investment rate of return/Discount rate	7.50% (7.75% in prior valuation).

Investment policy: The pension plan's policy in regard to the allocation of invested assets is established by PRIT. Plan assets are managed on a total return basis with a long-term objective of achieving a fully funded status for the benefits provided through the pension plan.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation of 3.0%. Best estimates of geometric real rates of return for each major asset class included in the pension plan's target asset allocation as of January 1, 2018 are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Domestic Equities	13.00%	5.25%
International Equities	13.00%	5.43%
Emerging Markets Equities	5.00%	6.90%
Hedged Equities	8.00%	4.54%
Core Fixed Income	6.00%	2.07%
Short-Term Fixed Income	2.00%	1.72%
20+ Year Treasury Strips	3.00%	1.22%
TIPS	4.00%	1.71%
Value-Added Fixed Income	8.00%	5.21%
Private Equity	13.00%	8.70%
Real Estate	10.00%	4.09%
Timberland	4.00%	4.65%
Portfolio Completion	11.00%	4.41%
	100.00%	

Discount rate: The discount rate used to measure the total pension liability was 7.50%. The projection of cash flows used to determine the discount rate assumed plan member contributions will be made at the current contribution rate and that contributions will be made at rates equal to the actuarially determined contribution rate. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the net position liability to changes in the discount rate. The following presents the net position liability, calculated using the discount rate of 7.50%, as well as what the net position liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.50%) or 1-percentage-point higher (8.50%) than the current rate:

	1% Decrease (6.50%)	Current Discount (7.50%)	1% Increase (8.50%)
Lawrence Retirement System's net pension liability as of December 31, 2018	$ 284,626,809	$ 234,665,663	$ 191,814,511

Contributions: Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the System's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE 7 – COMMITMENTS AND CONTINGENCIES

Various legal actions and claims are pending against the System. Litigation is subject to many uncertainties, and the outcome of individual litigated matters is not always predictable. Although the amount of liability, if any, at December 31, 2018 cannot be ascertained, management believes any resulting liability should not materially affect the financial position at December 31, 2018.

NOTE 8 – IMPLEMENTATION OF GASB PRONOUNCEMENTS

During 2018, the following GASB pronouncements were implemented:

- The GASB issued Statement #85, Omnibus 2017. The basic financial statements and related notes were updated to be in compliance with this pronouncement.
- The GASB issued Statement #86, Certain Debt Extinguishment Issues. The basic financial statements and related notes were updated to be in compliance with this pronouncement.

The following GASB pronouncements will be implemented in the future:

- The GASB issued Statement #83, Certain Asset Retirement Obligations, which is required to be implemented in 2019.
- The GASB issued Statement #84, Fiduciary Activities, which is required to be implemented in 2020.
- The GASB issued Statement #87, Leases, which is required to be implemented in 2021.
- The GASB issued Statement #88, Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements, which is required to be implemented in 2019.
- The GASB issued Statement #89, Accounting for Interest Cost Incurred Before the End of a Construction Period, which is required to be implemented in 2020.
- The GASB issued Statement #90, Majority Equity Interest – An Amendment of GASB Statements No. 14 and No. 61, which is required to be implemented in 2019.

Management is currently assessing the impact the implementation of these pronouncements will have on the basic financial statements.

NOTE 10 – SUBSEQUENT EVENTS

Management has evaluated subsequent events through October 8, 2019, which is the date the financial statements were available to be issued.

Required Supplementary Information

SCHEDULE OF CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017	December 31, 2018
Total pension liability:					
Service cost	$ 8,469,461	$ 8,829,413	$ 8,737,363	$ 9,108,701	$ 9,495,821
Interest	29,607,284	30,713,326	31,842,170	32,023,014	32,766,855
Changes in benefit terms	-	-	-	-	-
Differences between expected and actual experience	-	-	(11,573,571)	1,144,844	-
Changes in assumptions	-	-	-	9,356,284	-
Benefit payments	(24,653,000)	(23,677,370)	(26,092,541)	(27,995,140)	(28,662,273)
Net change in total pension liability	13,423,745	15,865,369	2,913,421	23,637,703	13,600,403
Total pension liability - beginning	385,886,510	399,310,255	415,175,624	418,089,045	441,726,748
Total pension liability - ending (a)	$ 399,310,255	$ 415,175,624	$ 418,089,045	$ 441,726,748	$ 455,327,151
Plan fiduciary net position:					
Employer pension appropriation	$ 17,323,139	$ 18,508,811	$ 19,329,195	$ 20,605,965	$ 20,798,277
Member contributions	6,950,852	6,706,412	6,851,473	6,781,214	6,843,880
Net investment income (loss)	12,432,925	1,013,895	13,190,264	33,087,835	(5,258,484)
Administrative expenses	(454,640)	(470,218)	(472,754)	(503,253)	(502,442)
Retirement benefits and refunds	(24,653,000)	(23,677,370)	(26,092,541)	(27,995,140)	(28,662,273)
Net increase (decrease) in fiduciary net position	11,599,276	2,081,530	12,805,637	31,976,621	(6,781,042)
Fiduciary net position - beginning of year	168,979,467	180,578,743	182,660,273	195,465,910	227,442,531
Fiduciary net position - end of year (b)	$ 180,578,743	$ 182,660,273	$ 195,465,910	$ 227,442,531	$ 220,661,489
Net pension liability - ending (a)-(b)	**$ 218,731,512**	**$ 232,515,351**	**$ 222,623,135**	**$ 214,284,217**	**$ 234,665,662**
Plan fiduciary net position as a percentage of the total pension liability	45.22%	44.00%	46.75%	51.49%	48.46%
Covered payroll	$ 71,253,430	$ 74,624,910	$ 73,741,641	$ 77,421,566	$ 75,251,536
Net pension liability as a percentage of covered payroll	306.98%	311.58%	301.90%	276.78%	311.84%

Note: this schedule is intended to present information for 10 years.
Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

SCHEDULE OF CONTRIBUTIONS

	December 31, 2014	December 31, 2015	December 31, 2016	December 31, 2017	December 31, 2018
Actuarially determined contribution.............	$ 17,714,868	$ 18,515,120	$ 19,320,161	$ 20,684,393	$ 20,756,572
Contributions in relation to the actuarially determined contribution........................	(17,714,868)	(18,508,911)	(19,162,742)	(19,958,286)	(20,798,277)
Settlement of M.V.R.T.A. past service cost....	-	-	(166,453)	(647,679)	-
Contribution deficiency (excess)............	$ -	$ 6,209	$ (9,034)	$ 78,428	$ (41,705)
Covered payroll.......................................	$ 71,253,430	$ 74,624,910	$ 73,741,641	$ 77,421,566	$ 75,251,536
Contributions as a percentage of covered payroll....................................	24.86%	24.80%	25.99%	26.62%	27.64%

Note: this schedule is intended to present information for 10 years.
Until a 10-year trend is compiled, information is presented for those years for which information is available.

See notes to required supplementary information.

SCHEDULE OF INVESTMENT RETURNS

Year	Annual money-weighted rate of return, net of investment expense
December 31, 2018…………………………	-2.29%
December 31, 2017…………………………	17.07%
December 31, 2016…………………………	7.53%
December 31, 2015…………………………	0.59%
December 31, 2014…………………………	7.39%

Note: this schedule is intended to present information for 10 years.
Until a 10-year trend is compiled, information is presented for those
years for which information is available.

See notes to required supplementary information.

NOTE A – CHANGES IN THE NET PENSION LIABILITY AND RELATED RATIOS

The Schedule of Changes in the Net Pension Liability and Related Ratios includes the detailed changes in the Systems total pension liability, changes in the Systems net position, and the ending net pension liability. It also demonstrates the plan's net position as a percentage of the total pension liability and the net pension liability as a percentage of covered payroll.

NOTE B – CONTRIBUTIONS

Governmental employers are required to pay an annual appropriation as established by PERAC. The total appropriation includes the amounts to pay the pension portion of each member's retirement allowance, an amount to amortize the actuarially determined unfunded liability to zero in accordance with the System's funding schedule, and additional appropriations in accordance with adopted early retirement incentive programs. The total appropriations are payable on July 1 and January 1. Employers may choose to pay the entire appropriation in July at a discounted rate. Accordingly, actual employer contributions may be less than the "total appropriation". The pension fund appropriations are allocated amongst employers based on covered payroll.

NOTE C – MONEY WEIGHTED RATE OF RETURN

The money weighted rate of return is calculated as the internal rate of return on pension plan investments, net of pension plan investment expense. A money weighted rate of return expresses investment performance, net of pension plan investment expense, adjusted for the changing amounts actually invested. Inputs to the money weighted rate of return calculation are determined monthly.

NOTE D – CHANGES IN ASSUMPTIONS AND PLAN PROVISIONS

Changes in Assumptions

None.

Changes in Plan Provisions

None.

Audit of Specific Elements, Accounts and Items of Financial Statements

100 Quannapowitt Parkway
Suite 101
Wakefield, MA 01880
T. 781-914-1700
F. 781-914-1701
www.powersandsullivan.com

Independent Auditor's Report

To the Honorable Lawrence Retirement Board
Lawrence Contributory Retirement System
Lawrence, Massachusetts

We have audited the accompanying schedule of employer allocations of the Lawrence Contributory Retirement System (System) as of and for the year ended December 31, 2018, and the related notes. We have also audited the total for all entities of the rows titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense included in the accompanying schedule of pension amounts by employer of the System Pension Plan as of and for the year ended December 31, 2018, and the related notes.

Management's Responsibility for the Schedules

Management is responsible for the preparation and fair presentation of these schedules in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the schedules that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the schedule of employer allocations and specified row totals included in the schedule of pension amounts by employer are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the schedule of employer allocations and the specified row totals included in the schedule of pension amounts by employer.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and net pension liability, total deferred outflows of resources, total deferred inflows of resources, total contributions and total pension expense for the total of all participating entities for the Lawrence Contributory Retirement System as of and for the year ended December 31, 2018, in accordance with accounting principles generally accepted in the United States of America.

Other Matter

We have audited, in accordance with auditing standards generally accepted in the United States of America, the financial statements of the Lawrence Contributory Retirement System as of and for the year ended December 31, 2018, and our report thereon, dated October 8, 2019, expressed an unmodified opinion on those financial statements.

Restriction on Use

This report is intended solely for the information and use of the Lawrence Contributory Retirement System management, the Lawrence Contributory Retirement System employers and their auditors and is not intended to be and should not be used by anyone other than these specified parties.

October 8, 2019

SCHEDULE OF EMPLOYER ALLOCATIONS

FOR THE YEAR ENDED DECEMBER 31, 2018

Employer		FY2019 Pension Fund Appropriation		Direct Appropriation E.R.I.		FY2019 Total Appropriation		Share of Net Pension Liability	Percent of Total Net Pension Liability
City of Lawrence………………………………………	$	17,898,321	$	925,969	$	18,824,290	$	212,650,874	90.62%
Greater Lawrence Regional Vocational Tech……….		921,921		41,810		963,731		10,908,478	4.65%
Lawrence Housing Authority…………………………		888,288		5,085		893,373		10,242,798	4.36%
M.V.R.T.A………………………………………………		75,178		-		75,178		863,513	0.37%
Total………………………………………………	$	19,783,708	$	972,864	$	20,756,572	$	234,665,663	100.00%

See notes to schedule of employer allocations and schedule of pension amounts by employer.

SCHEDULE OF PENSION AMOUNTS BY EMPLOYER

FOR THE YEAR ENDED DECEMBER 31, 2018

	City of Lawrence	Greater Lawrence Regional Vocational Tech	Lawrence Housing Authority	M.V.R.T.A	Totals
Net Pension Liability					
Beginning net pension liability	$ 193,980,472	$ 10,040,042	$ 9,540,920	$ 722,785	$ 214,284,219
Ending net pension liability	$ 212,650,874	$ 10,908,478	$ 10,242,798	$ 863,513	$ 234,665,663
Deferred Outflows of Resources					
Differences between expected and actual experience	$ 697,297	$ 35,770	$ 33,587	$ 2,832	$ 769,486
Net difference between projected and actual investment earnings on pension plan investments	8,947,587	458,990	430,980	36,334	9,873,891
Changes of assumptions	5,698,690	292,329	274,490	23,141	6,288,650
Changes in proportion and differences between employer contributions and proportionate share of contributions	248,532	973,554	35,226	486,040	1,743,352
Total Deferred Outflows of Resources	$ 15,592,106	$ 1,760,643	$ 774,283	$ 548,347	$ 18,675,379
Deferred Inflows of Resources					
Differences between expected and actual experience	$ 5,927,895	$ 304,087	$ 285,530	$ 24,071	$ 6,541,583
Changes in proportion and differences between employer contributions and proportionate share of contributions	1,075,160	166,375	501,817	-	1,743,352
Total Deferred Inflows of Resources	$ 7,003,055	$ 470,462	$ 787,347	$ 24,071	$ 8,284,935
Pension Expense					
Proportionate share of plan pension expense	$ 20,541,181	$ 1,053,712	$ 989,412	$ 83,410	$ 22,667,715
Net amortization of deferred amounts from changes in proportion and differences between employer contributions and proportionate share of contributions	(211,714)	195,922	(105,085)	120,877	-
Total Employer Pension Expense	$ 20,329,467	$ 1,249,634	$ 884,327	$ 204,287	$ 22,667,715
Contributions					
Statutory required contribution	$ 18,824,290	$ 963,731	$ 893,373	$ 75,178	$ 20,756,572
Contribution in relation to statutory required contribution	(18,862,020)	(965,674)	(895,246)	(75,336)	(20,798,276)
Contribution deficiency/(excess)	$ (37,730)	$ (1,943)	$ (1,873)	$ (158)	$ (41,704)
Contributions as a percentage of covered payroll	27.61%	26.98%	27.84%	26.51%	27.58%
Deferred Outflows/(Inflows) Recognized in Future Pension Expense					
June 30, 2019	$ 3,089,446	$ 365,263	$ 53,922	$ 134,283	$ 3,642,914
June 30, 2020	729,314	244,194	(59,759)	124,699	1,038,448
June 30, 2021	577,365	239,849	(68,190)	124,091	873,115
June 30, 2022	4,008,447	434,845	92,756	127,767	4,663,815
June 30, 2023	180,815	7,393	(28,393)	12,337	172,152
Thereafter	3,664	(1,363)	(3,400)	1,099	-
Total Deferred Outflows/(Inflows) Recognized in Future Pension Expense	$ 8,589,051	$ 1,290,181	$ (13,064)	$ 524,276	$ 10,390,444
Discount Rate Sensitivity					
1% decrease (6.5%)	$ 257,850,750	$ 13,236,668	$ 12,486,055	$ 1,053,336	$ 284,626,809
Current discount rate (7.5%)	$ 212,650,874	$ 10,908,478	$ 10,242,798	$ 863,513	$ 234,665,663
1% increase (8.5%)	$ 173,883,437	$ 8,911,614	$ 8,318,781	$ 700,679	$ 191,814,511
Covered Payroll	$ 68,188,086	$ 3,571,409	$ 3,208,439	$ 283,601	$ 75,251,535

See notes to schedule of employer allocations and schedule of pension amounts by employer.

NOTE I – Schedule of Employer Allocations

Governmental Accounting Standards Board (GASB) Statement #68 requires employers participating in a cost-sharing pension plan to recognize pension liabilities as employees provide services to the government and earn their pension benefits. Employers participating in cost-sharing plans are required to recognize their proportionate share of the plan's collective pension amounts for all benefits provided through the plan including the net pension liability, deferred outflows of resources, deferred inflows of resources, contributions and pension expense.

GASB Statement #68 requires the allocation of the collective pension amounts be consistent with the manner in which contributions to the plan are determined. As permissible under GASB Statement #68, The Schedule of Employer Allocations is used to demonstrate the allocation of Lawrence Contributory Retirement System's collective pension amounts.

Massachusetts General Law (MGL) Chapter 32 Section 22 Paragraph 7c dictates that Massachusetts cost sharing defined benefit pension plans allocate the annual required pension fund appropriation to employer units based on their proportionate share of the aggregate of the annual rates of regular compensation of all members in service of the System who are employees of any government unit at the close of business on the September 30th immediately preceding the fiscal year. Accordingly, the proportionate aggregate rates of regular compensation as of the close of business on September 30, 2016 were applied to allocate the System's December 31, 2018 pension fund appropriation by member unit.

When a member unit accepts an Early Retirement Incentive Program (E.R.I. or ERIP), PERAC complete an analysis of the costs and liabilities attributable to the additional benefits payable in accordance with the ERIP. The accrued liability for the members who accept the ERIP as retirees including the ERIP less the accrued liability for the members as active employees excluding the ERIP represents the increase in accrued liability due to the ERIP. The net increase is amortized for each member unit accepting the ERIP and is separately identified in the System's funding schedule.

NOTE II – Schedule of Pension Amounts by Employer

The Schedule of Pension Amounts by Employer presents the net pension liability, the various categories of deferred outflows of resources and deferred inflows of resources, contributions and pension expense for all participating employers including differences between expected and actual economic experience; differences between projected and actual investment earnings, net; and changes of assumptions.

Changes in Assumptions

None.

Changes in Plan Provisions

None.