

NORFOLK COUNTY RETIREMENT SYSTEM

FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2016 AND 2015

NORFOLK COUNTY RETIREMENT SYSTEM

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Dorothy F. Di Pesa, CPA
John F. Oteri, CPA

INDEPENDENT AUDITOR'S REPORT

To the Board of the Norfolk County
Retirement System
Canton, Massachusetts

Report on Financial Statements

We have audited the accompanying financial statements of Norfolk County Retirement System (the System) as of and for the years ended December 31, 2016 and 2015, and the related notes to the financial statements, which collectively comprise the System's basic 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 audits. We conducted our audits 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 audits 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 fiduciary net position of Norfolk County Retirement System as of December 31, 2016 and 2015, and the changes in fiduciary net 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 the Management's Discussion and Analysis on pages 3 through 7 and the supplementary Schedule of Changes in Net Pension Liability and Related Ratios, Investment Return, and Contributions, and the notes to the required supplementary information on pages 27 through 30 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic 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 basic financial statements, and other knowledge we obtained during our audit of the basic 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 September 28, 2017 on our consideration of the System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and 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 System's internal control over financial reporting and compliance.

Respectfully submitted,
DI PESA & COMPANY

Di Pesa & Company

Certified Public Accountants
Quincy, Massachusetts
September 28, 2017

NORFOLK COUNTY RETIREMENT SYSTEM

REQUIRED SUPPLEMENTARY INFORMATION

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)

DECEMBER 31, 2016 AND 2015

The following discussion provides an overview and analysis of the fiduciary net position and changes in fiduciary net position of the Norfolk County Retirement System (the System or Plan) by management for the years ended December 31, 2016 and 2015.

Overview of the Financial Statements

The System's financial statements comprise a statements of fiduciary net position, statements of changes in fiduciary net position, notes to the financial statements and required supplementary information.

The Statement of Fiduciary Net Position presents information on the System's assets and liabilities and the resulting net position restricted for pension benefits. This statement reflects the System's investments at fair value, as well as cash, receivables, and other assets and liabilities.

The Statement of Changes in Fiduciary Net Position presents information showing how the System's net position restricted for pension benefits changed during the years ended December 31, 2016 and 2015. It reflects in total the contributions by members and participating employers, along with deductions for retirement benefits, refunds and withdrawals, and administrative expenses. Investment income from investing and securities lending activities is also presented.

The Notes to the Financial Statements provide additional information that is essential for the reader to gain a full understanding of the data provided in the financial statements.

The Required Supplementary Information includes management's discussion and analysis, schedules of changes in net pension liability and related ratios, schedule of investment return, schedules of contributions and related notes.

Financial Highlights and Analysis

- The net position restricted for pension benefits is available for payment of monthly retirement benefits and other qualified distributions to the System's participants. Net position restricted for pension benefits was \$836 million at December 31, 2016 compared to \$767 million at December 31, 2015. The increase in net position of \$69 million resulted primarily from an increase in the fair value of portfolio investments and investment income.
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NORFOLK COUNTY RETIREMENT SYSTEM

REQUIRED SUPPLEMENTARY INFORMATION

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) (Continued)

DECEMBER 31, 2016 AND 2015

The following tables present the current and prior year condensed data on the System's financial statements.

Fiduciary Net Position

| | <u>2016</u> | <u>2015</u> |
|--------------------------------------|----------------------|----------------------|
| Assets | | |
| Cash and cash equivalents | \$ 23,866,012 | \$ 13,354,698 |
| Investments | 805,742,748 | 749,046,880 |
| Receivables | <u>7,512,928</u> | <u>5,871,325</u> |
| Total assets | <u>837,121,688</u> | <u>768,272,903</u> |
| Liabilities | | |
| Accounts payable | <u>1,094,152</u> | <u>924,180</u> |
| Net Position | | |
| Net position restricted for pensions | <u>\$836,027,536</u> | <u>\$767,348,723</u> |

Changes in Fiduciary Net Position

| | | |
|---|----------------------|----------------------|
| Additions | | |
| Contributions | \$ 87,987,961 | \$ 80,121,080 |
| Net investment income | 68,848,066 | (11,383,452) |
| Other | <u>2,939,696</u> | <u>2,711,397</u> |
| Total additions | <u>159,775,723</u> | <u>71,449,025</u> |
| Deductions | | |
| Benefits paid | 87,838,207 | 82,783,951 |
| Other | <u>3,258,703</u> | <u>3,263,379</u> |
| Total deductions | <u>91,096,910</u> | <u>86,047,330</u> |
| Change in net position | 68,678,813 | (14,598,305) |
| Net position restricted for pension benefits – beginning of year | <u>767,348,723</u> | <u>781,947,028</u> |
| Net position restricted for pension benefits – end of year | <u>\$836,027,536</u> | <u>\$767,348,723</u> |

NORFOLK COUNTY RETIREMENT SYSTEM

REQUIRED SUPPLEMENTARY INFORMATION

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) (Continued)

DECEMBER 31, 2016 AND 2015

Norfolk County Retirement System 2016 Performance Summary

- The net performance for the Norfolk County Retirement System ("Norfolk") for 2016 was 8.59%. This performance was less than the Primary Investment Policy Benchmarks, which rose 9.72% and was ahead of the Secondary Investment Policy Benchmark, which rose 8.38%.
- Domestic Equity managers represented 32.2% of the portfolio as of December 31, 2016. Over half of the domestic equity assets were allocated to large capitalization equity mandates and the remaining assets were allocated to mid and small capitalization managers. Domestic equities had a 2016 net return of 14.80% and outperformed the Russell 3000 index that returned 12.74%.
- International Equity managers represented 16.2% of the portfolio as of December 31, 2016. Approximately 76% of the international equity assets were allocated to developed markets and the remaining to emerging markets. International equity managers' net return was 6.81%, which exceeded the MSCI AC World ex US (NET) benchmark return of 4.50%.
- Domestic Fixed Income Managers represented 21.2% of the portfolio as of December 31, 2016. The overall net return for these managers was 7.81% for the year. These managers outperformed the Domestic Fixed Income Index (68.5% Barclays Aggregate and 31.5% Barclays Corporate High Yield) that returned 7.06% for the year.
- Real Estate investment managers had a net return of 6.00% in 2016 and represented 10.5% of the total portfolio as of year-end 2016. Norfolk's real estate exposure is comprised of core, value-add and opportunistic investment strategies. The real estate portfolio underperformed the NCREIF Property Index that returned 7.97% in 2016.
- Private Equity had a net return of 5.12% in 2016 and represented 9.3% of the total portfolio as of year-end 2016. Norfolk's private equity portfolio underperformed the State Street Private Equity index, which returned 8.49%.
- Hedge Funds had a net return of 4.56% in 2016, which exceeded the 0.51% return of the HFRI Hedge Fund-of-Funds Composite Index. Hedge funds represented 7.4% of the plan assets as of year-end 2016.
- Real Assets represented 0.7% of the portfolio as of December 31, 2016. Norfolk's real asset investment managers had a net return of 8.54% in 2016, behind the Real Assets Index benchmark of 19.20%.

NORFOLK COUNTY RETIREMENT SYSTEM

REQUIRED SUPPLEMENTARY INFORMATION

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) (Continued)

DECEMBER 31, 2016 AND 2015

Norfolk County Retirement System 2015 Performance Summary

- The net performance for the Norfolk County Retirement System ("Norfolk") for 2015 was -0.75%. This performance was behind the Primary and Secondary Investment Policy Benchmarks, which had 2015 returns of -0.61% and 0.26%, respectively.
- Domestic Equity managers represented 35.0% of the portfolio as of December 31, 2015. Over half of the domestic equity assets were allocated to large capitalization equity mandates and the remaining assets were allocated to mid and small capitalization managers. Domestic equities had a 2015 net return of -1.59% behind the Russell 3000 index that returned 0.48% in 2015.
- International Equity managers represented 12.7% of the portfolio as of December 31, 2015. Approximately 65% of the international equity assets were allocated to developed markets and the remaining to emerging markets. International equity managers' net return was -8.37% behind the MSCI AC World ex US (NET) benchmark return of -5.66%.
- Domestic Fixed Income Managers represented 22.7% of the portfolio as of December 31, 2015. The overall net return for these managers was -0.32% for the year. These managers outperformed the Barclays Aggregate Bond Index that returned -1.01% for the year.
- Real estate investment managers had a net return of 9.63% in 2015 and represented 9.5% of the total portfolio as of year-end 2015. Norfolk's real estate exposure is a combination of core, value-add and opportunistic managers. The real estate allocation underperformed the NCREIF Property Index that returned 13.33% in 2015.
- Private equity had a net return of 9.28% in 2015 and represented 9.4% of the total portfolio as of year-end 2015. Norfolk's private equity exposure outperformed the private equity index, which returned 6.05%.
- Hedge funds had a net return of -1.83% for 2015. For the same period, the HFRI Hedge Fund-of-Funds Composite Index returned -0.33%. Hedge funds represented 7.2% of the plan assets as of year-end 2015.
- Real Assets represented 1.7% of the portfolio as of December 31, 2015. Norfolk's Real Asset investment managers had a net return of -19.35% in 2015, behind the Real Assets Index benchmark of -13.78%. Real Assets were significantly impacted by the decrease in oil prices during 2015.

NORFOLK COUNTY RETIREMENT SYSTEM

REQUIRED SUPPLEMENTARY INFORMATION

MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED) (Continued)

DECEMBER 31, 2016 AND 2015

Other Information

This financial report is designed to provide a general overview of the System's finances. Questions concerning the information provided in this report or requests for additional financial information should be addressed to the Norfolk County Retirement Board, 480 Neponset Street #15, Canton, MA 02021.

NORFOLK COUNTY RETIREMENT SYSTEM

STATEMENTS OF FIDUCIARY NET POSITION

DECEMBER 31, 2016 AND 2015

| <u>ASSETS</u> | <u>2016</u> | <u>2015</u> |
|--|------------------------------|------------------------------|
| <u>CASH AND CASH EQUIVALENTS</u> | <u>\$ 23,866,012</u> | <u>\$ 13,354,698</u> |
| <u>INVESTMENTS, AT FAIR VALUE:</u> | | |
| Equities | 212,135,179 | 226,725,747 |
| Fixed Income | 84,156,794 | 77,243,271 |
| Pooled Funds: | | |
| Equity | 204,277,866 | 159,224,202 |
| Fixed Income | 89,297,374 | 93,663,803 |
| Private Equity | 63,971,160 | 59,495,597 |
| Real Estate | 90,166,288 | 77,301,133 |
| Hedge | 61,738,087 | 55,393,127 |
| <u>TOTAL INVESTMENTS, AT FAIR VALUE</u> | <u>805,742,748</u> | <u>749,046,880</u> |
| <u>RECEIVABLES:</u> | | |
| Member Contributions | 2,260,961 | 2,369,394 |
| Intergovernmental | 3,965,663 | 2,136,871 |
| Interest and Dividend Income Due | 971,188 | 924,587 |
| Receivable for Investments Sold | 312,092 | 431,772 |
| Miscellaneous | 3,024 | 8,701 |
| <u>TOTAL RECEIVABLES</u> | <u>7,512,928</u> | <u>5,871,325</u> |
| <u>TOTAL ASSETS</u> | <u>837,121,688</u> | <u>768,272,903</u> |
| | | |
| <u>LIABILITIES</u> | | |
| <u>LIABILITIES:</u> | | |
| Accounts Payable | 910,090 | 912,069 |
| Payable for Investments Purchased | 184,062 | 12,111 |
| <u>TOTAL LIABILITIES</u> | <u>1,094,152</u> | <u>924,180</u> |
| <u>NET POSITION RESTRICTED FOR PENSION BENEFITS</u> | <u>\$ 836,027,536</u> | <u>\$ 767,348,723</u> |

The accompanying notes are an integral part of these financial statements.

NORFOLK COUNTY RETIREMENT SYSTEM

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

YEARS ENDED DECEMBER 31, 2016 AND 2015

| | <u>2016</u> | <u>2015</u> |
|---|------------------------------|------------------------------|
| <u>ADDITIONS:</u> | | |
| Contributions: | | |
| Employer | \$ 58,539,478 | \$ 53,201,068 |
| Member | <u>29,448,483</u> | <u>26,920,012</u> |
| Total Contributions | <u>87,987,961</u> | <u>80,121,080</u> |
| Investment Income: | | |
| Net Appreciation in Fair Value of Investments | 65,077,369 | (12,838,034) |
| Interest and Dividends | <u>9,991,733</u> | <u>7,744,096</u> |
| Total Investment Income | 75,069,102 | (5,093,938) |
| Less Investment Expenses | <u>6,221,036</u> | <u>6,289,514</u> |
| Net Investment Income | <u>68,848,066</u> | <u>(11,383,452)</u> |
| Other | <u>2,939,696</u> | <u>2,711,397</u> |
| <u>TOTAL ADDITIONS</u> | <u>159,775,723</u> | <u>71,449,025</u> |
| <u>DEDUCTIONS:</u> | | |
| Benefits Paid | 87,838,207 | 82,783,951 |
| Refunds of Contributions | 2,065,120 | 2,104,408 |
| Administrative Expenses | <u>1,193,583</u> | <u>1,158,971</u> |
| <u>TOTAL DEDUCTIONS</u> | <u>91,096,910</u> | <u>86,047,330</u> |
| <u>CHANGE IN NET POSITION</u> | 68,678,813 | (14,598,305) |
| <u>NET POSITION RESTRICTED FOR PENSION BENEFITS:</u> | | |
| <u>BEGINNING OF YEAR</u> | <u>767,348,723</u> | <u>781,947,028</u> |
| <u>END OF YEAR</u> | <u>\$ 836,027,536</u> | <u>\$ 767,348,723</u> |

The accompanying notes are an integral part of these financial statements.

NORFOLK COUNTY RETIREMENT SYSTEM

**NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016 AND 2015**

NOTE 1 – PLAN DESCRIPTION

The Norfolk County Retirement System (the System or the Plan) is a cost-sharing multiple-employer contributory defined benefit governmental pension plan established under Chapter 32 of the Massachusetts General Laws (“MGL”) covering all employees of governmental member units deemed eligible by the Norfolk County 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 Plan is mandatory immediately upon the commencement of employment for all non-teaching permanent, full time employees.

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 legislative body for the System is an Advisory Council consisting of full-time treasurers or other qualified officials of the member units. The Advisory Council meets at least twice annually and is responsible for supervising and certifying the procedures involved in the election of members to the retirement board.

As of December 31, 2016 and 2015, the Plan’s membership consisted of:

| | <u>2016</u> | <u>2015</u> |
|---|-------------|-------------|
| Retirees and beneficiaries | 3,252 | 3,190 |
| Active participants | 5,191 | 5,198 |
| Inactive with a vested right to benefits or to receive refund of their contributions | 2,907 | 2,634 |

The number of participating employers was 41 for both 2016 and 2015.

The System is a member of the Massachusetts Contributory Retirement System and is governed by Chapter 32 of MGL. The 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 System 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 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.

NORFOLK COUNTY RETIREMENT SYSTEM

NOTES TO FINANCIAL STATEMENTS DECEMBER 31, 2016 AND 2015

NOTE 1 – PLAN DESCRIPTION (Continued)

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.

Members become vested after ten years of creditable service. A superannuation retirement allowance may be received upon the completion of 20 years of service or upon reaching the age of 55 with 10 years of service if hired after 1978 and if classified in groups 1 or 2. A person who became a member on or after April 2, 2012 is eligible for a superannuation retirement allowance upon reaching the age of 60 with 10 years of service if in group 1, 55 years of age with 10 years of service if in group 2, and 55 years of age if hired prior to 1978 or if classified in group 4. Normal retirement for most employees occurs at age 65 (except for certain hazardous duty and public safety positions, whose normal retirement is at age 55).

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. The average retirement benefit is approximately 80-85% pension and 15-20% annuity.

Active members contribute between 5 and 9% of their gross regular compensation. Members joining the System after January 1, 1979 must contribute an additional 2% on regular compensation earned at a rate in excess of \$30,000. The percentage rate is keyed to the date upon which an employee's membership commences. These deductions are deposited in the Annuity Savings Fund and earn interest at a rate determined by the Public Employee Retirement Administration Commission's (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. In past years, retirement systems were paying only the actual retirement benefits that were due each year. Systems had no statutory authorization to put aside money for the future benefits of employees who are currently employed. Large unfunded liabilities resulted from operating under this pay-as-you-go basis. In 1977, legislation authorized local governments to appropriate funds to meet future pension obligations. In 1983, additional legislation was passed requiring the transfer of investment earnings (in excess of the amount credited to member accounts) into the Pension Reserve Fund. These initiatives have significantly reduced the rate of growth of the Retirement System's unfunded liabilities, and in some Systems have actually reduced such liability.

NORFOLK COUNTY RETIREMENT SYSTEM

NOTES TO FINANCIAL STATEMENTS DECEMBER 31, 2016 AND 2015

NOTE 1 – PLAN DESCRIPTION (Continued)

Administrative expenses, which were previously appropriated from the governmental entities whose employees are members of the system, are now paid from excess investment income.

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 and who are not eligible to receive a retirement allowance or are under the age of 55 are entitled to request a refund of their accumulated total deductions. In addition, with at least ten years of creditable service, such employees are entitled to receive one hundred (100%) percent of the regular interest which has accrued upon those 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

Basis of Accounting and Financial Statement Presentation

The financial statements have been prepared using the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America (GAAP). The Governmental Accounting Standards Board (GASB) is the standard-setting body for establishing governmental accounting and financial reporting principles. The significant accounting policies are described herein.

Reporting Entity

The System was established to provide retirement benefits to eligible employees of its member employers and their beneficiaries.

Cash and Cash Equivalents

Cash and cash equivalents are considered to cash on hand, demand deposits and short-term investments with an original maturity of three months or less from the date of acquisition.

Investments

Investments are reported at fair value. Fair values of securities held directly are based on quotations from national securities exchanges, except for pooled funds, alternative investments, real estate, and hedge funds, for which fair values are estimated as detailed below.

Pooled Equity and Fixed Income Funds – The fair value of shares in managed investment pools is based on unit values reported by the managers of those respective funds.

Pooled Private Equity Funds – Pooled private equity funds include holdings through equity interests in various limited partnerships. These investments are carried at the limited partnership interest or redemption value, the equivalent of net asset value, which approximates fair value. Values assigned to such investments are based on available information and do not necessarily represent amounts

NORFOLK COUNTY RETIREMENT SYSTEM

NOTES TO FINANCIAL STATEMENTS DECEMBER 31, 2016 AND 2015

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Investments (Continued)

that may ultimately be realized in liquidation. Liquidation values depend largely on future circumstances, including marketability, and frequently cannot reasonably be estimated until at, or near, the liquidation date.

Pooled Real Estate Funds – Real estate investments consist of interests in commercial properties held by various partnerships and other limited liability entities, some of which utilize debt financing. Fair values of such holdings are reported based on net asset values of the entities, which are estimated using third-party appraisals and other information provided by the property managers.

Pooled Hedge Funds – The fair value of shares in managed hedge funds is based on unit values reported by the managers of those respective funds.

Investments Sold and Investments Purchased

Receivables for investments sold represent amounts due from brokers for unsettled security sales transactions at year end. Liabilities for investments purchased represent amounts due to brokers for unsettled purchases at year end.

Revenue Recognition

Contributions are recognized as additions in the period when they become due pursuant to formal statutory obligations. Investment income is recognized when earned.

Benefit Payments and Refunds of Contributions

Benefits and refunds to Plan members and beneficiaries are recognized as expenses when due and payable in accordance with the terms of the Plan.

Intergovernmental, Reimbursements and Transfers to Other Systems

When members transfer to or from other Massachusetts public retirement systems, their cumulative contributions are transferred from the prior employer to the respective Massachusetts public retirement system, and are recognized as receipts or expenses when paid.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of additions and deductions during the reporting period. Actual results could differ from estimates. Fair values of real estate, alternative investment and hedge fund holdings are generally estimated absent readily available market values, and such estimates may be materially different from values that would have been used if a ready market existed.

Adoption of New Accounting Standard

GASB No. 72, *Fair Value Measurement and Application* (“GASB 72”) is effective for periods beginning after June 15, 2015 and has been implemented in the System’s financial statements for the year ended December 31, 2016. The statement addresses accounting and financial reporting related

NORFOLK COUNTY RETIREMENT SYSTEM

NOTES TO FINANCIAL STATEMENTS DECEMBER 31, 2016 AND 2015

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Adoption of New Accounting Standard (Continued)

to fair value measurements of assets and liabilities. The statement provides for expanded information about the assets and liabilities measured at fair value with required disclosures around the hierarchy of inputs in the valuation technique. Since the System's current practice is to value assets at fair value, the financial statement impact of the adoption was minimal, except for the expanded disclosures presented in Note 4.

NOTE 3 – PLAN ADMINISTRATION

The System is administered by a five-person Board of Retirement. 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 PERAC.

The Advisory Council consists of the full time treasurers, elected or appointed, for each town, unit or district within the System. The members of the Advisory Council elect the second member of the Board of Retirement as well as a Chair from among its members. The Advisory Council is required by statute to meet twice per year.

The investment of the System's funds is the responsibility of the Board. Disability retirement allowances must be approved by the Board and are then submitted to the PERAC Actuary for verification prior to payment. All expenses incurred by the System must be approved by a majority vote of the Board.

Board members and employees are bonded by an authorized agent representing a company licensed to do business in Massachusetts. The MACRS program for the System provides \$50,000,000 fiduciary protection for Trustees and employees, as well as a \$1,000,000 fidelity policy for crime coverage.

NOTE 4 – FAIR VALUE MEASUREMENTS OF INVESTMENTS

The System categorizes fair value measurements within the fair value hierarchy established by GASB 72. The fair value hierarchy categorizes the inputs to valuation techniques used for fair value measurement into three levels as follows:

- Level 1 – Inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets that can be accessed at the measurement date.
- Level 2 - Inputs other than quoted prices that are observable for an asset or liability either directly or indirectly, including inputs in markets that are not considered to be active.
- Level 3 - Unobservable inputs based on the best information available, using assumptions in determining the fair value of investments.

NORFOLK COUNTY RETIREMENT SYSTEM

**NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016 AND 2015**

NOTE 4 – FAIR VALUE MEASUREMENTS OF INVESTMENTS (Continued)

The fair value hierarchy gives the highest priority to Level 1 inputs and the lowest to Level 3 inputs.

In certain instances where the determination of the fair value measurement is based on inputs from different levels of the fair value hierarchy, the level in the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement.

Fair value of certain investments that do not have a readily determinable fair value is established using net asset value (or its equivalent) as a practical expedient. These investments are not categorized according to the fair value hierarchy.

The following table presents a summary of the fair value hierarchy of investments and short-term holdings that are measured at fair value on a recurring basis at December 31, 2016 (in thousands):

| <u>Investments by Fair Value Level</u> | <u>Total</u> | <u>Fair Value Measurements Using</u> | | |
|--|-------------------|---|--|--|
| | | <u>Quoted Prices in Active Markets for Identical Assets (Level 1)</u> | <u>Significant Other Observable Inputs (Level 2)</u> | <u>Significant Unobservable Inputs (Level 3)</u> |
| Short-Term Investment Funds | \$ <u>21,802</u> | \$ - | \$ <u>21,802</u> | \$ - |
| Equities: | | | | |
| Common Stock | 208,988 | 208,978 | 10 | - |
| Depository Receipts | 677 | 677 | - | - |
| Mutual Funds | 254 | 254 | - | - |
| Preferred Stock | 260 | 260 | - | - |
| Real Estate Investment Trusts | <u>1,956</u> | <u>1,956</u> | - | - |
| Total Equities | <u>212,135</u> | <u>212,125</u> | <u>10</u> | - |
| Fixed Income: | | | | |
| Collateralized Mortgage Obligations | 27,265 | - | 27,265 | - |
| Convertible Bonds | 1,314 | - | 1,314 | - |
| Corporate Bonds | 43,258 | - | 43,258 | - |
| Credit Card Receivable | 461 | - | 461 | - |
| Government Issues | 1,120 | - | 1,120 | - |
| Municipals | 2,381 | - | 2,381 | - |
| Other Asset Backed | <u>8,358</u> | - | <u>8,358</u> | - |
| Total Fixed Income | <u>84,157</u> | - | <u>84,157</u> | - |
| Pooled Funds: | | | | |
| Equity | 119,370 | 86,958 | 32,412 | - |
| Fixed Income | 84,922 | 2,196 | 82,110 | 616 |
| Private Equity | 3,041 | 344 | 15 | 2,682 |
| Real Estate | 39,860 | 4,485 | 45 | 35,330 |
| Hedge | <u>17,318</u> | <u>11,355</u> | <u>5,172</u> | <u>791</u> |
| Total Pooled Funds | <u>264,511</u> | <u>105,338</u> | <u>119,754</u> | <u>39,419</u> |
| Total Investments by Fair Value Level | <u>\$ 582,605</u> | <u>\$ 317,463</u> | <u>\$ 225,723</u> | <u>\$ 39,419</u> |

NORFOLK COUNTY RETIREMENT SYSTEM

**NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016 AND 2015**

NOTE 4 – FAIR VALUE MEASUREMENTS OF INVESTMENTS (Continued)

| | | |
|--|----|----------------|
| Investments Measured at Net Asset Value (NAV): | | |
| Pooled Equity Funds | \$ | 84,908 |
| Pooled Fixed Income Funds | | 4,375 |
| Pooled Private Equity Funds | | 60,930 |
| Pooled Real Estate Funds | | 50,307 |
| Pooled Hedge Funds | | <u>44,420</u> |
| Total Investments Measured at NAV | \$ | <u>244,940</u> |
| Total Investments Measured at Fair Value | \$ | <u>827,545</u> |

Reconciliation of Total Investments Measured at Fair Value (listed above) to the Statement of Fiduciary Net Position (in thousands):

| | |
|--|------------------|
| Total Investments Measured at Fair Value per above: | \$827,545 |
| Short-Term Investment Funds classified as Cash and Cash Equivalents on Statement of Fiduciary Net Position | <u>(21,802)</u> |
| Total Investments on Statement of Fiduciary Net Position | <u>\$805,743</u> |

NOTE 5 – DEPOSIT AND INVESTMENT RISK DISCLOSURES

The following disclosures represent essential risk information about the System's deposits and investments.

Custodial Credit Risk – Deposits

Custodial credit risk is the risk that in the event of bank failure, the System's deposits may not be returned. The System carries deposits that are insured by FDIC insurance up to \$250,000 per financial institution. The System evaluates each financial institution and assesses the level of risk of each institution and only uses those institutions with an acceptable level of risk. At December 31, 2016 and 2015, the System had cash balances at two financial institutions in excess of FDIC limits of approximately \$3,123,000 and \$2,442,000, respectively.

Investment Policy

The provisions of M.G.L. Chapter 32 § 23 (2) and the Plan's own investment policy govern the System's investment practice. The Board retains an investment consultant to assure that strategic investment diversification is attained, to employ investment managers with expertise in their respective asset classes, and to closely monitor the implementation and performance of the respective investment strategies. The System invests in stocks (domestic and foreign), fixed income securities (domestic and foreign), private equity, real estate and hedge funds.

Custodial Credit Risk - Investments

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, the System would not be able to recover the value of investment or securities. The System's investments are held by the System's custodian and registered in the System's name.

NORFOLK COUNTY RETIREMENT SYSTEM

**NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016 AND 2015**

NOTE 5 – DEPOSIT AND INVESTMENT RISK DISCLOSURES (Continued)

Custodial Credit Risk - Investments (Continued)

All of the System’s securities are held by the System’s custodial bank in the System’s name, except for investments in pooled funds, which by their nature, do not have securities that are used as evidence of the investment.

Interest Rate Risk

The following is a listing of the System’s fixed income investments (in thousands) and related maturity schedule (in years) as of December 31, 2016 and 2015:

| <u>2016</u> | | | | | |
|-------------------------|-------------------|--------------------|------------------|-----------------|---------------------|
| <u>Investment Type</u> | <u>Fair Value</u> | <u>Less than 1</u> | <u>1 – 5</u> | <u>6 – 10</u> | <u>More than 10</u> |
| U.S. Agencies | \$ 14,013 | \$ - | \$ 1,239 | \$ 86 | \$12,688 |
| Domestic Corporate | 60,646 | 1,091 | 19,984 | 7,814 | 31,757 |
| International Corporate | 7,118 | 1,000 | 4,804 | 1,163 | 151 |
| Domestic Government | <u>2,380</u> | <u>-</u> | <u>1,097</u> | <u>915</u> | <u>368</u> |
| | <u>\$ 84,157</u> | <u>\$ 2,091</u> | <u>\$27,124</u> | <u>\$ 9,978</u> | <u>\$44,964</u> |
| <u>2015</u> | | | | | |
| <u>Investment Type</u> | <u>Fair Value</u> | <u>Less than 1</u> | <u>1 – 5</u> | <u>6 – 10</u> | <u>More than 10</u> |
| U.S. Agencies | \$ 5,548 | \$ - | \$ 145 | \$ 134 | \$ 5,269 |
| Domestic Corporate | <u>71,695</u> | <u>725</u> | <u>23,475</u> | <u>13,387</u> | <u>34,108</u> |
| | <u>\$ 77,243</u> | <u>\$ 725</u> | <u>\$ 23,620</u> | <u>\$13,521</u> | <u>\$39,377</u> |

The System’s guidelines do not specifically address limits on maturities as a means of managing its exposure to fair value losses arising from increasing interest rates. The managers of each fixed income portfolio are responsible for determining the maturity and commensurate returns of their portfolio.

Credit Risk

The System allows investment managers to apply discretion under the Prudent Person rule. Investments are made, as a prudent person would be expected to act with discretion and intelligence, to seek reasonable income, preserve capital and, in general, avoid speculative investments.

The System’s fixed income investments as of December 31, 2016 and 2015 were rated by Standard & Poor’s and/or an equivalent national rating organization and the ratings are presented below (in thousands) using the Standard & Poor’s rating scale:

NORFOLK COUNTY RETIREMENT SYSTEM

**NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016 AND 2015**

NOTE 5 – DEPOSIT AND INVESTMENT RISK DISCLOSURES (Continued)

Credit Risk (Continued)

| <u>2016</u> | | | | | | | | | |
|------------------------|-------------------|-----------------|-----------------|-----------------|------------------|------------------|---------------|-----------------|-------------------|
| <u>Investment Type</u> | <u>Fair Value</u> | <u>AAA</u> | <u>AA</u> | <u>A</u> | <u>BBB</u> | <u>BB</u> | <u>B</u> | <u>CC to D</u> | <u>Not Rated</u> |
| U.S. Agencies | \$ 14,013 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 14,013 |
| Domestic | | | | | | | | | |
| Corporate | 60,646 | 5,133 | 1,504 | 4,748 | 28,083 | 10,642 | 857 | 3,406 | 6,273 |
| International | | | | | | | | | |
| Corporate | 7,118 | - | - | - | 5,467 | 1,651 | - | - | - |
| Domestic | | | | | | | | | |
| Government | 2,380 | - | 1,097 | - | 1,283 | - | - | - | - |
| Pooled Funds | 89,297 | - | - | - | - | - | - | - | 89,297 |
| | <u>\$173,454</u> | <u>\$ 5,133</u> | <u>\$ 2,601</u> | <u>\$ 4,748</u> | <u>\$ 34,833</u> | <u>\$ 12,293</u> | <u>\$ 857</u> | <u>\$ 3,406</u> | <u>\$ 109,583</u> |

| <u>2015</u> | | | | | | | | | |
|------------------------|-------------------|-----------------|-----------------|-----------------|------------------|------------------|---------------|-----------------|-------------------|
| <u>Investment Type</u> | <u>Fair Value</u> | <u>AAA</u> | <u>AA</u> | <u>A</u> | <u>BBB</u> | <u>BB</u> | <u>B</u> | <u>CC to D</u> | <u>Not Rated</u> |
| U.S. Agencies | \$ 5,548 | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 5,548 |
| Domestic | | | | | | | | | |
| Corporate | 71,695 | 2,619 | 6,882 | 7,163 | 30,933 | 12,703 | 223 | 3,557 | 7,615 |
| Pooled Funds | 93,664 | - | - | - | - | - | - | - | 93,664 |
| | <u>\$170,907</u> | <u>\$ 2,619</u> | <u>\$ 6,882</u> | <u>\$ 7,163</u> | <u>\$ 30,933</u> | <u>\$ 12,703</u> | <u>\$ 223</u> | <u>\$ 3,557</u> | <u>\$ 106,827</u> |

Concentration Risk

Other than investments in four and three pooled funds, respectively, the System has no individual investment at fair value that exceeds 5% of total investments at December 31, 2016 and 2015. The System adheres to the provisions of MGL Chapter 32 § 23, the rules and regulations of PERAC, and the Plan's own investment policy when managing concentration risk.

NORFOLK COUNTY RETIREMENT SYSTEM

**NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016 AND 2015**

NOTE 5 – DEPOSIT AND INVESTMENT RISK DISCLOSURES (Continued)

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. Similar to the investments in domestic equities, the System employs or encourages its investment advisor to employ diversification, asset allocation, and quality strategies. Risk of loss arises from changes in currency exchange rates. The System's exposure to foreign currency risk as of December 31, 2016 and 2015 is presented on the following tables (in thousands):

| | <u>2016</u> | | | | |
|--------------------------|--|---------------|-------------------------|-------------------------|--------------|
| <u>Currency</u> | <u>Cash and Cash Equivalents</u> | <u>Equity</u> | <u>Fixed Income</u> | <u>Pooled Funds</u> | <u>Total</u> |
| Argentine Peso | \$ - | \$ - | \$ - | \$ 603 | \$ 603 |
| Australian Dollar | - | 295 | - | 2,981 | 3,276 |
| Brazilian Real | - | - | - | 5,128 | 5,128 |
| British Pound Sterling | 15 | 9,508 | - | 6,324 | 15,847 |
| Canadian Dollar | 3 | 2,794 | - | 106 | 2,903 |
| Cayman Islands Dollar | - | - | - | 205 | 205 |
| Chinese Yuan Renminbi | - | - | - | 6,840 | 6,840 |
| Columbian Peso | - | - | - | 491 | 491 |
| Danish Kroner | - | 560 | - | 38 | 598 |
| Eastern Caribbean Dollar | - | - | - | 226 | 226 |
| Egyptian Pound | - | - | - | 382 | 382 |
| Euro Currency | 2 | 25,385 | - | 9,655 | 35,042 |
| Hong Kong Dollar | - | 1,906 | - | 184 | 2,090 |
| Hungarian Forint | - | - | - | 722 | 722 |
| Indian Rupee | - | - | - | 4,815 | 4,815 |
| Indonesian Rupiah | - | - | - | 3,171 | 3,171 |
| Israeli Shekel | - | - | - | 137 | 137 |
| Japanese Yen | - | 962 | - | 10,294 | 11,256 |
| Macanese Pataca | - | - | - | 127 | 127 |
| Malaysian Ringgit | - | - | - | 255 | 255 |
| Mexican Peso | - | - | - | 2,702 | 2,702 |
| New Russian Ruble | - | - | - | 3,866 | 3,866 |
| Norwegian Krone | - | - | - | 497 | 497 |
| Pakistani Rupee | - | - | - | 850 | 850 |
| Philippine Peso | - | - | - | 552 | 552 |
| Singapore Dollar | - | 1,373 | - | - | 1,373 |
| South African Rand | - | - | - | 3,501 | 3,501 |
| South Korean Won | - | - | - | 5,807 | 5,807 |

NORFOLK COUNTY RETIREMENT SYSTEM

**NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016 AND 2015**

NOTE 5 – DEPOSIT AND INVESTMENT RISK DISCLOSURES (Continued)

Foreign Currency Risk (Continued)

2016 (Continued)

| <u>Currency</u> | <u>Cash and Cash Equivalents</u> | <u>Equity</u> | <u>Fixed Income</u> | <u>Pooled Funds</u> | <u>Total</u> |
|--|--|-----------------|-------------------------|-------------------------|------------------|
| Swedish Krona | - | 794 | - | 449 | 1,243 |
| Swiss Franc | 1 | 1,268 | - | 561 | 1,830 |
| Thai Baht | - | - | - | 892 | 892 |
| Taiwan New Dollar | - | - | - | 2,451 | 2,451 |
| Turkish Lira | - | - | - | 1,827 | 1,827 |
| Total Securities Subject to Foreign Currency Risk | <u>\$21</u> | <u>\$44,845</u> | <u>\$ -</u> | <u>\$76,639</u> | <u>\$121,505</u> |

2015

| <u>Currency</u> | <u>Cash and Cash Equivalents</u> | <u>Equity</u> | <u>Fixed Income</u> | <u>Pooled Funds</u> | <u>Total</u> |
|------------------------|--|---------------|-------------------------|-------------------------|--------------|
| Argentine Peso | \$ - | \$ - | \$ - | \$ 347 | \$ 347 |
| Australian Dollar | - | 273 | - | 146 | 419 |
| Brazilian Real | - | 139 | - | 4,869 | 5,008 |
| British Pound Sterling | 11 | 13,350 | - | 214 | 13,575 |
| Canadian Dollar | 5 | 2,617 | - | - | 2,622 |
| Chilean Peso | - | - | - | 186 | 186 |
| Chinese Yuan Renminbi | - | - | - | 4,161 | 4,161 |
| Columbian Peso | - | - | - | 530 | 530 |
| Danish Krone | - | 374 | - | - | 374 |
| Egyptian Pound | - | - | - | 451 | 451 |
| Euro Currency | 8 | 24,097 | - | 174 | 24,279 |
| Hong Kong Dollar | - | 2,305 | - | 1,179 | 3,484 |
| Hungarian Forint | - | - | - | 451 | 451 |
| Indian Rupee | - | - | - | 3,947 | 3,947 |
| Indonesian Rupiah | - | - | - | 2,254 | 2,254 |
| Japanese Yen | - | 8,383 | - | - | 8,383 |
| Macanese Pataca | - | - | - | 243 | 243 |
| Malaysian Ringgit | - | - | - | 243 | 243 |
| Mexican Peso | - | - | - | 2,022 | 2,022 |
| New Russian Ruble | - | - | - | 2,566 | 2,566 |
| Norwegian Krone | - | 102 | - | - | 102 |
| Pakistani Rupee | - | - | - | 624 | 624 |

NORFOLK COUNTY RETIREMENT SYSTEM

**NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016 AND 2015**

NOTE 5 – DEPOSIT AND INVESTMENT RISK DISCLOSURES (Continued)

Foreign Currency Risk (Continued)

| | <u>2015</u> (Continued) | | | | |
|--|--|-----------------|-------------------------|-------------------------|-----------------|
| <u>Currency</u> | <u>Cash and Cash Equivalents</u> | <u>Equity</u> | <u>Fixed Income</u> | <u>Pooled Funds</u> | <u>Total</u> |
| Philippine Peso | | - | - | 589 | 589 |
| Singapore Dollar | - | 1,308 | - | - | 1,308 |
| South African Rand | - | - | - | 2,878 | 2,878 |
| South Korean Won | - | - | - | 4,473 | 4,473 |
| Swedish Krona | - | 831 | - | - | 831 |
| Swiss Franc | - | 9,074 | - | - | 9,074 |
| Thai Baht | - | - | - | 1,075 | 1,075 |
| Taiwan New Dollar | - | - | - | 1,768 | 1,768 |
| Turkish Lira | - | - | - | 1,491 | 1,491 |
| Total Securities Subject to Foreign Currency Risk | <u>\$24</u> | <u>\$62,853</u> | <u>\$ -</u> | <u>\$36,881</u> | <u>\$99,758</u> |

NOTE 6 – LEGALLY REQUIRED RESERVES

The System's legally required reserves are all funded at levels required by state statute and were as follows as of December 31:

| | <u>2016</u> | <u>2015</u> |
|-----------------------|----------------------|----------------------|
| Annuity Savings Fund | \$266,484,569 | \$254,602,849 |
| Annuity Reserve Fund | 71,576,996 | 69,322,823 |
| Military Service Fund | 37,840 | 37,802 |
| Pension Fund | 9,126,482 | 9,942,779 |
| Pension Reserve Fund | 488,801,649 | 433,442,470 |
| Expense Fund | - | - |
| | <u>\$836,027,536</u> | <u>\$767,348,723</u> |

NORFOLK COUNTY RETIREMENT SYSTEM

NOTES TO FINANCIAL STATEMENTS DECEMBER 31, 2016 AND 2015

NOTE 6 – LEGALLY REQUIRED RESERVES (Continued)

The *Annuity Savings Fund* is the fund in which member's contributions are deposited. Voluntary contributions, redeposits, and transfers to and from other systems are also accounted for in this fund. Members' contributions to the fund earn interest at a rate determined by PERAC. Interest for some members who withdraw from the System with less than 10 years of service is transferred to the Pension Reserve Fund. Upon retirement, a member's contributions and interest are transferred to the Annuity Reserve Fund. Dormant account balances must be transferred to the Pension Reserve Fund after a period of 10 years of inactivity.

The *Annuity Reserve Fund* is the fund to which a member's account is transferred upon retirement from the Annuity Savings Fund and the Military Service Fund. The annuity portion of the retirement allowance is paid from this fund. Interest is credited monthly to this fund at the rate of 3% annually on the previous month's balance.

The *Military Service Fund* contains contributions and interest for members while on military leave for service in the Armed Forces who will receive creditable service for the period of that leave. Creditable service is granted provided the member returns to the same governmental unit within two years of the date of discharge from the military. Upon retirement, a member's contributions and interest are transferred to the Annuity Reserve Fund.

The *Pension Fund* contains the amounts appropriated by the governmental units as established by PERAC to pay the pension portion of each retirement allowance.

The *Pension Reserve Fund* contains the amounts set aside by the system for the purpose of establishing a reserve to meet future pension liabilities. Any investment income in excess of the amount required to credit interest to the Annuity Savings Fund, Annuity Reserve Fund and Military Service Fund is credited to the Pension Reserve Fund. Any profit or loss realized on the sale or maturity of any investment or on the unrealized gain or loss of market valued investments as of the valuation date is credited to the Pension Reserve Fund.

The *Expense Fund* contains amounts transferred from investment income for the purpose of administering the System.

The *Investment Income Account* is credited with all interest and dividends derived from invested funds. At the end of the year, the interest credited to the Annuity Savings Fund, Annuity Reserve Fund, Special Military Credit Service Fund and Expense Fund is distributed from this account and the remaining balance is transferred to the Pension Reserve Fund.

NORFOLK COUNTY RETIREMENT SYSTEM

**NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016 AND 2015**

NOTE 7 – FUNDING POLICY

Participating employers are required to pay into the System their share of the remaining actuarially determined contribution and plan administration costs, which are apportioned among the participating employers based on an actuarial computation.

The participating employers' budgeted contributions to the System for the employer fiscal years ended June 30, 2017 and 2016 were as follows (in thousands):

| | <u>2017</u> | <u>2016</u> |
|--------------------------------------|-------------|-------------|
| Town of Avon | \$ 1,068 | \$ 969 |
| Avon Housing Authority | 21 | 19 |
| Town of Bellingham | 2,631 | 2,388 |
| Bellingham Housing Authority | 25 | 22 |
| Town of Canton | 4,481 | 4,070 |
| Canton Housing Authority | 100 | 91 |
| Town of Cohasset | 1,917 | 1,741 |
| Cohasset Housing Authority | 15 | 13 |
| Norfolk County | 3,322 | 3,094 |
| Charles River Pollution Control | 135 | 123 |
| Town of Dover | 1,152 | 1,044 |
| Dover-Sherborn Regional High School | 631 | 572 |
| Town of Foxboro | 3,728 | 3,385 |
| Foxboro Housing Authority | 42 | 38 |
| Town of Franklin | 4,438 | 4,026 |
| Franklin Housing Authority | 70 | 64 |
| Town of Holbrook | 1,867 | 1,695 |
| Holbrook Housing Authority | 32 | 29 |
| King Philip Regional School District | 660 | 599 |
| Town of Medfield | 2,125 | 1,927 |
| Medfield Housing Authority | 19 | 17 |
| Town of Medway | 2,140 | 1,941 |
| Medway Housing Authority | 78 | 71 |
| Town of Millis | 1,524 | 1,382 |
| Millis Housing Authority | 27 | 25 |
| Town of Norfolk | 1,846 | 1,678 |
| Norfolk Housing Authority | 28 | 25 |
| Norfolk Mosquito Control | 159 | 145 |
| Town of Plainville | 1,387 | 1,259 |
| Town of Randolph | 4,845 | 4,405 |
| Randolph Housing Authority | 83 | 76 |

NORFOLK COUNTY RETIREMENT SYSTEM

**NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016 AND 2015**

NOTE 7 – FUNDING POLICY (Continued)

| | | |
|--------------------------------|-----------------|-----------------|
| Town of Sharon | 3,760 | 3,409 |
| Sharon Housing Authority | 22 | 20 |
| Town of Stoughton | 4,526 | 4,109 |
| Stoughton Housing Authority | 80 | 73 |
| Town of Walpole | 4,461 | 4,051 |
| Walpole Housing Authority | 49 | 44 |
| Town of Westwood | 4,024 | 3,655 |
| Town of Wrentham | 1,600 | 1,451 |
| Wrentham Housing Authority | 16 | 15 |
| Dedham Westwood Water District | 494 | 448 |
| | <u>\$59,628</u> | <u>\$54,208</u> |

NOTE 8 – NET PENSION LIABILITY

The components of the net pension liability of the System as of December 31, 2016 and 2015, are as follows:

| | <u>2016</u> | <u>2015</u> |
|--------------------------------|-----------------------|-----------------------|
| Total Pension Liability | \$1,358,050,158 | \$1,310,561,438 |
| Fiduciary Net Position | <u>836,027,536</u> | <u>767,348,723</u> |
| System's Net Pension Liability | \$ <u>522,022,622</u> | \$ <u>543,212,715</u> |

| | | |
|---|-------|-------|
| Fiduciary Net Position as a percentage of total pension liability | 61.6% | 58.6% |
|---|-------|-------|

Actuarial Assumptions

The total pension liability was determined by an actuarial valuation as of January 1, 2016. The following actuarial assumptions were applied to all periods included in the measurement:

| | |
|----------------------------|---|
| Actuarial cost method: | Entry Age Normal Cost Method |
| Amortization method | Open-Level percent of payroll |
| Asset valuation method | Market value |
| Investment rate of return | 8.0% |
| Projected salary increases | 3.5% - 5.5% |
| Inflation | 4.0% |
| Cost of living increases | 3.0% of first \$15,000 of retirement income |
| Mortality: | The RP-2014 Blue Collar Mortality Table with Scale with MP-2014 |

NORFOLK COUNTY RETIREMENT SYSTEM

**NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016 AND 2015**

NOTE 8 – NET PENSION LIABILITY (Continued)

The long term expected rate of return on Plan investments was determined using a building-block method in which best-estimates ranges of expected future real rates of return (expected returns, net of 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. The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized as follows:

| <u>Asset Class</u> | <u>Target Allocation 2016 & 2015</u> | <u>Long-term Expected Real Rate of Return</u> | |
|------------------------|--|---|-------------|
| | | <u>2016</u> | <u>2015</u> |
| Domestic Equity | 32.0% | 8.6% | 9.4% |
| International Equities | 17.5 | 8.6% | 9.7% |
| Fixed Income | 19.0 | 4.5% | 3.4% |
| Real Estate | 9.0 | 5.1% | 7.7% |
| Private Equity | 8.5 | 10.3% | 13.6% |
| Hedge Funds | 9.0 | 13.1% | 7.9% |
| Real Assets | <u>5.0</u> | 7.5% | 7.9% |
| Total | <u>100.0%</u> | | |

The annual money-weighted rate of return on investments, net of investment expense was 8.59% and -0.75%% for the years ended December 31, 2016 and 2015, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. The above was the Board's adopted asset allocation policy and best estimates of real rates of return for each major asset class as of December 31, 2016 and 2015.

Discount Rate

The discount rate used to measure the total pension liability as of December 31, 2016 and 2015 was 8.0% for both years. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at contractually required rates, actuarially determined. Under Chapter 32 of the MGL, employers are required to make the necessary contributions such that the Plan reaches full funding status by 2040. Based on those assumptions, the 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 Plan investments was applied to all periods of projected benefit payments to determine total pension liability.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the System as of December 31, 2016 and 2015. For 2016 and 2015, the net pension liability was calculated using the discount rate of 8.0%, as well as what the System's net pension liability would be if it were calculated using a discount rate that is one-percentage point lower (7.0%) or one-percentage point higher (9.0%) that the current rate.

NORFOLK COUNTY RETIREMENT SYSTEM

**NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 2016 AND 2015**

NOTE 8 – NET PENSION LIABILITY (Continued)

Sensitivity of the Net Pension Liability to Changes in the Discount Rate (Continued)

| | <u>2016</u> | | |
|--------------------------------|---------------------------|--|---------------------------|
| | <u>1% Decrease (7.0%)</u> | Current Discount <u>Rate (8.0%)</u> | <u>1% Increase (9.0%)</u> |
| System's Net Pension Liability | \$660,490,285 | \$522,022,622 | \$403,327,015 |
| | <u>2015</u> | | |
| | <u>1% Decrease (7.0%)</u> | Current Discount <u>Rate (8.0%)</u> | <u>1% Increase (9.0%)</u> |
| System's Net Pension Liability | \$681,258,622 | \$543,212,715 | \$425,386,643 |

NOTE 9 – LEASE COMMITMENTS

The System leases office space under an operating lease that has been extended through August 2021. The lease also provides for the payment of common area costs, real estate taxes and utilities. Future minimum lease payments under the lease is as follows:

| <u>Year</u> | <u>Amount</u> |
|-------------|------------------|
| 2017 | \$ 46,500 |
| 2018 | 47,000 |
| 2019 | 48,000 |
| 2020 | 48,000 |
| 2021 | <u>32,000</u> |
| Total | <u>\$221,500</u> |

Rent expense for the years ended December 31, 2016 and 2015 was \$56,090 and \$57,568, respectively.

NOTE 10 – UNCERTAINTIES

The System is, from time to time, involved in legal matters arising in the normal course of its administration of member benefits that, in the opinion of management, will not have a material effect on the net assets of the System.

NOTE 11 – SUBSEQUENT EVENTS

The System has performed an evaluation of subsequent events through September 28, 2017, the date the basic financial statements were available to be issued. No material events were identified by the System.

NORFOLK COUNTY RETIREMENT SYSTEM

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULES OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

YEARS ENDED DECEMBER 31, 2014 - 2016

| | <u>2016</u> | <u>2015</u> | <u>2014</u> |
|---|-------------------------|-------------------------|-------------------------|
| <u>TOTAL PENSION LIABILITY:</u> | | | |
| Service Cost | \$ 33,401,927 | \$ 31,963,567 | \$ 31,799,628 |
| Interest on Liability and Service Cost | 103,990,120 | 106,603,992 | 102,271,303 |
| Difference Between Actual and Expected Experience | - | 13,828,826 | - |
| Assumption Changes | - | (57,518,820) | - |
| Benefit Payments, Including Refunds of Contributions | <u>(89,903,327)</u> | <u>(84,888,359)</u> | <u>(81,095,471)</u> |
| <u>NET CHANGE IN TOTAL PENSION LIABILITY</u> | 47,488,720 | 9,989,206 | 52,975,460 |
| <u>TOTAL PENSION LIABILITY - BEGINNING OF YEAR</u> | <u>1,310,561,438</u> | <u>1,300,572,232</u> | <u>1,247,596,772</u> |
| <u>TOTAL PENSION LIABILITY - END OF YEAR (a)</u> | <u>\$ 1,358,050,158</u> | <u>\$ 1,310,561,438</u> | <u>\$ 1,300,572,232</u> |
| <u>CHANGE IN FIDUCIARY NET POSITION</u> | | | |
| Contributions - Employer | \$ 58,539,478 | \$ 53,201,068 | \$ 48,383,549 |
| Contributions - Member | 29,448,483 | 26,920,012 | 26,322,747 |
| Net Investment Income | 68,848,066 | (11,383,452) | 34,539,916 |
| Benefit Payments, Including Refunds of Contributions | (89,903,327) | (84,888,359) | (81,095,471) |
| Administrative Expenses | (1,193,583) | (1,158,971) | (1,077,892) |
| Other | <u>2,939,696</u> | <u>2,711,397</u> | <u>2,021,260</u> |
| <u>NET CHANGE IN FIDUCIARY NET POSITION</u> | 68,678,813 | (14,598,305) | 29,094,109 |
| <u>FIDUCIARY NET POSITION - BEGINNING OF YEAR</u> | <u>767,348,723</u> | <u>781,947,028</u> | <u>752,852,919</u> |
| <u>FIDUCIARY NET POSITION - END OF YEAR (b)</u> | <u>\$ 836,027,536</u> | <u>\$ 767,348,723</u> | <u>\$ 781,947,028</u> |
| <u>NET PENSION LIABILITY - END OF YEAR (a) - (b)</u> | <u>\$ 522,022,622</u> | <u>\$ 543,212,715</u> | <u>\$ 518,625,204</u> |
| <u>FIDUCIARY NET POSITION as a PERCENTAGE OF TOTAL PENSION LIABILITY</u> | 61.6% | 58.6% | 60.1% |
| <u>COVERED EMPLOYEE PAYROLL</u> | \$ 279,489,744 | \$ 267,454,300 | \$ 246,722,941 |
| <u>NET PENSION LIABILITY as a PERCENTAGE OF COVERED EMPLOYEE PAYROLL</u> | 186.8% | 203.1% | 210.2% |

This schedule is intended to present 10 years of data. Additional years will be presented when available.

NORFOLK COUNTY RETIREMENT SYSTEM

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULE OF INVESTMENT RETURN

YEARS ENDED DECEMBER 31, 2014 - 2016

Annual Money-Weighted Rate of Return,
Net of Investment Expense:

| | |
|------|--------|
| 2016 | 8.59% |
| 2015 | -0.75% |
| 2014 | 5.07% |

This schedule is intended to present 10 years of data. Additional years will be presented when available.

NORFOLK COUNTY RETIREMENT SYSTEM

REQUIRED SUPPLEMENTARY INFORMATION

SCHEDULES OF CONTRIBUTIONS

YEARS ENDED DECEMBER 31, 2014 - 2016

| | <u>2016</u> | <u>2015</u> | <u>2014</u> |
|--|-------------------|-------------------|-------------------|
| Actuarially Determined Contribution | \$ 59,628,000 | \$ 54,208,000 | \$ 49,280,000 |
| Actual Contributions in Relation to Actuarially Determined Contribution | <u>59,628,000</u> | <u>54,208,000</u> | <u>49,280,000</u> |
| Contribution Deficiency (Excess) | <u>\$ -</u> | <u>\$ -</u> | <u>\$ -</u> |
| Covered-Employee Payroll | \$ 279,489,744 | \$ 267,454,300 | \$ 246,722,941 |
| Contributions as a Percentage of Covered-Employee Payroll | 21.3% | 20.3% | 20.0% |

This schedule is intended to present 10 years of data. Additional years will be presented when available.

NORFOLK COUNTY RETIREMENT SYSTEM

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

DECEMBER 31, 2016 AND 2015

1. SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS

The total pension liability presented in the schedule were provided by the System's actuarial consultant, Sherman Actuarial Services, LLC. The net pension liability is measured as the total pension liability less the amount of the fiduciary net position of the System. The related ratios show Plan net position as a percentage of the total pension liability and the net pension liability as a percentage of covered employee payroll.

2. SCHEDULE OF INVESTMENT RETURN

The annual money-weighted rate of return is calculated as the internal rate of return on Plan investments, net of Plan investment expense. A money-weighted rate of return expresses investment performance, net of Plan investment expense, adjusted for changing amounts actually invested.

3. SCHEDULE OF CONTRIBUTIONS

The actuarially determined contribution amount in the schedule of contributions was calculated as of January 1, 2016 (for 2016 and 2015) and as of January 1, 2015 for 2014. The following actuarial methods and assumptions were used to determine the contribution amount reported in that schedule:

| | |
|----------------------------|---|
| Actuarial Cost Method | Individual entry age normal actuarial cost method |
| Amortization Method | Open – Level percent of payroll Payroll assumed to grow 3.5%-5.5% per year (January 1, 2016) and 4% per year (January 1, 2015) |
| Asset Valuation Method | Market value as reported to PERAC |
| Inflation | 4.0% (January 1, 2016) 4.5% (January 1, 2015) |
| Investment Rate of Return | 8.0% (January 1, 2016) 8.25% (January 1, 2015) |
| Cost of Living Adjustments | 3.0% of first \$15,000 of retirement income |
| Mortality Table | RP-2014 Blue Collar Mortality Table with Scale with MP-2014 (January 1, 2016) RP-2000 Mortality Table adjusted with Scale AA (January 1, 2015) |



Dorothy F. Di Pesa, CPA
John F. Oteri, CPA

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

To the Board of the Norfolk County
Retirement System

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Norfolk County Retirement System, as of and for the years ended December 31, 2016 and 2015, and the related notes to the financial statements, which collectively comprise the Norfolk County Retirement System's basic financial statements, and have issued our report thereon dated September 28, 2017.

Internal Control Over Financial Reporting

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

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

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

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

Purpose of this Report

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

Respectfully submitted,

DI PESA & COMPANY

Di Pesa & Company

Certified Public Accountants
Quincy, Massachusetts

September 28, 2017