Middlesex County Retirement System

Annual Report

For Year Ending December 31, 2022

Annual Statement for the Year Ended December 31, 2022 of the Conditions and Affairs of Middlesex County Retirement System
(Name of Retirement System)

Organized Under the Laws of the Commonwealth of Massachusetts to the Public Employee Retirement Administration Commission

Date of Certificate 10/5/1936 Effective Date 1/1/1937

ADMINISTRATIVE OFFICE

25 Linnell Circle	Billerica, MA 01865	(978) 439-3000
Street & Number	City/Town, State and Zip Code	Telephone Number

The certification process is now completely within PROSPER. Below is a screen shot of the certification page.

Retirement Board Member Certification

I, the undersigned, member of the State Board of Retirement certify under the penalties of perjury, that I am an official board member of said retirement system, and that on the thirty-first day of December last, all of the herein-described assets were the absolute property of said retirement system, free and clear from any liens or claims thereon, except as stated, and the following statements, with the schedules and explanations therein contained, annexed, or referred to, are a full and correct exhibit of all the assets, liabilities, income and disbursements, changes in fund balances, and of the conditions and affairs of the said retirement system on the said thirty-first day of December last, and for the year ended on that date, according to the best of my information, knowledge, and belief, respectively.

Retirement Board: State
Name: Board Member21990

By entering my name, checking the Electronic Signature box, and clicking on the buttons, I certify under the penalty of perjury that the information provided herein is true and complete to the best of my knowledge.

INVESTMENT MANAGERS

Please compile/ submit a complete list. Attach the list to this page.

(Name)	(Address)
(Name)	(Address)
(Name)	(Address)

INVESTMENT CONSULTANT

(Name)	(Address)

CUSTODIAN

State Street Bank & Trust Co.	1100 Main Street, Suite 400 Kansas City, MO 64105
(Name)	(Address)

INVESTMENT MANAGER LIST AS OF DECEMBER 31, 2022

CORE

PRIM	84 State Street, Suite 250, Boston, MA 02109

PRIVATE EQUITY

Boston Millennia Partners	30 Rowes Wharf, Boston, MA 02110
Globespan Capital Partners	One Boston Place, Suite 2810, Boston, MA 02108
North Atlantic Ventures	Two City Center, Portland, ME 04101

ALTERNATIVE

Global Forest Partners LP	67 Etna Road, Suite 500, Lebanon, NH 03766

ANNUAL STATEMENT BALANCE TESTS

1. ASSET BALANCE

Assets Previous Year	$	2,112,775,784.45
Income Current Year		(4,332,525.15)
Disbursements Current Year		(224,675,940.99)
Assets Current Year		1,883,767,318.31

2. ASSET DIFFERENCE

Assets Current Year	$	1,883,767,318.31
Assets Previous Year		(2,112,775,784.45)
Difference		(229,008,466.14)

3. INCOME DIFFERENCE

Income Current Year	$	(4,332,525.15)
Disbursements Current Year		(224,675,940.99)
Difference		(229,008,466.14)

4. FUND CHANGE DIFFERENCE - Add interfund transfer credits and debits respectively to Income and Disbursement activities.

Total Fund Change Credits Current Year	$	36,083,470.10
Total Fund Change Debits Current Year		(265,091,936.24)
Difference		(229,008,466.14)

NOTE: The difference as a result of tests 2,3, and 4 should be the same.

Annual Statement of the Middlesex County Retirement System for the Year Ended Dec. 31, 2022

ASSETS AND LIABILITIES

	2022	2021	2020
1. 1040-Cash	$ 31,868,459.11	$ 18,284,313.01	$ 40,933,649.98
2. 1100-short Term Investment			
3. 1180-Fixed Income Securities (Market Value)			
4. 1101-Pooled Short Term Funds			
5. 1170-Equities			
6. 1172-Pooled Domestic Equity Funds			
7. 1173-Pooled International Equity Funds			
8. 1174-Pooled Global Equity Funds			
9. 1181-Pooled Domestic Fixed Income Funds			
10. 1182-Pooled International Fixed Income Funds			
11. 1183-Pooled Global Fixed Income Funds			
12. 1193-Pooled Alternative Investments	2,165,484.00	4,863,412.00	4,436,774.45
13. 1194-Pooled Real Estate Funds	984.00	37,403.00	1,885,507.28
14. 1195-Pooled Domestic Balanced Funds			
15. 1196-Pooled International Balanced Funds			
16. 1197-Hedge Funds			
17. 1198-PRIT Cash Fund			
18. 1199-PRIT Core Fund	1,840,310,809.68	2,077,485,447.65	1,699,992,347.68
19. 1350-Prepaid Expenses			
20. 1398-Accounts Receivable (A)	5,482,503.15	4,942,788.54	4,428,407.75
21. 1550-Interest Due and Accrued	48,545.37	0.00	18.99
22. 2020-Accounts Payable (A)	(127,568.92)	(87,642.97)	(85,463.93)
2400-Prepaid Member Deductions			(49.94)
2530-Security Deposits	(26,555.70)		
23. 1200-Advance to MCRS Building		1,131,650.01	1,131,650.01
1800-25 Linnell circle	672,656.50		
1805-Building at 25 Linnell Circle	5,417,135.75		
1810-Building Improvements	1,209,616.39		
1920-3 Telephone System			
1920-Building-25 Linnell Circle / Tele System	27,619.21	6,127,619.21	6,857,189.21
1929-Accumulated Depreciation / Building & Impr.	(3,263,957.83)		
1929-Accumulated Depreciation / Equipment	(18,412.40)	(9,206.00)	(583,656.00)
TOTAL	$ 1,883,767,318.31	$ 2,112,775,784.45	$ 1,758,996,375.48

FUNDS			
1. 3293-Annuity Savings Fund	$ 531,161,980.43	$ 519,572,847.53	$ 509,240,228.77
2. 3294-Annuity Reserve Fund	155,564,556.94	146,850,400.04	135,488,065.30
3. 3295-Military Service Fund	351,407.49	320,170.75	324,133.63
4. 3296-Pension Fund	22,004,039.51	20,094,781.20	676,479.08
5. 3298-Expense Fund	0.00	0.00	0.00
6. 3297-Pension Reserve Fund	1,174,685,333.94	1,425,937,584.93	1,113,267,468.70
TOTAL	$ 1,883,767,318.31	$ 2,112,775,784.45	$ 1,758,996,375.48
TOTAL ASSETS AT MARKET VALUE	$ 1,883,767,318.31	$ 2,112,775,784.45	$ 1,758,996,375.48

(A) Specific details for Accounts Receivable and Accounts Payable are to be disclosed on Schedule A.

Annual Statement of the Middlesex County Retirement System for the Year Ended December 31, 2022

	Balance 12/31 Prior Year	Receipts	Interfund Transfers	Disbursements	Balance 12/31 Current Year
Annuity Savings Fund	519,572,847.53	64,913,200.66	(40,884,411.32)	(12,439,656.44)	$ 531,161,980.43
Annuity Reserve Fund	146,850,400.04	4,475,411.40	40,415,995.25	(36,177,249.75)	$ 155,564,556.94
Pension Fund	20,094,781.20	165,064,888.82	0.00	(163,155,630.51)	$ 22,004,039.51
Special Military Service Credit Fund	320,170.75	70,188.74	(38,952.00)	0.00	$ 351,407.49
Expense Fund		12,903,404.29	0.00	(12,903,404.29)	$ 0.00
Pension Reserve Fund	1,425,937,584.93	(251,759,619.06)	507,368.07	0.00	$ 1,174,685,333.94
TOTAL ALL FUNDS	$ 2,112,775,784.45	(4,332,525.15)	(0.00)	(224,675,940.99)	$ 1,883,767,318.31

List below all transfers:

Transfer from ASF to the ARF in the amount of	40,566,622.32	on account of New Retirees.
Transfer from ASF to the PRF in the amount of	875,760.84	on account of 10 Years No Deductions.
Transfer from PF to the PRF in the amount of		on account of correction
Transfer from ARF to the ASF in the amount of	3,584.14	on account of Recalculation for Retiree.
Transfer from ARF to the ASF in the amount of	151,958.38	on account of Retiree's Settlement & Re-instate.
Transfer from MSF to the ASF in the amount of	38,952.00	on account of Military Service to Retire
Transfer from PRF to the ASF in the amount of	370,511.98	on account of Reverse 10 years no Deductions-Transfer Out, Refunds & Ret.
Transfer from ASF to the ARF in the amount of	4,915.45	on account of Recalculation for Retiree.
Transfer from PRF to the ASF in the amount of		on account of re-instate & Retire
Transfer from ASF to the PRF in the amount of		on account of
Transfer from ASF to the PRF in the amount of	2,119.21	on account of Interest Posted Past Date of Retirement.
Transfer from PRF to the PF in the amount of	0.00	to meet the cost of benefits.

Annual Statement of the Middlesex County Retirement System for the Year Ended December 31, 2022

Receipts

	2022	2021	2020
1.Annuity Savings Fund			
(a) 4891-Members Deductions	$54,257,364.31	$51,747,945.70	$50,973,949.96
(b) 4892-Transfers From Other Systems	8,992,726.29	8,391,578.88	5,197,904.11
(c) 4893-Member Make Up Payments & Redeposits	906,649.05	1,000,846.56	859,009.69
(d) 4900-Member Payments from Rollovers			
(e) Investment Income Credited to Members Accounts	756,461.01	785,069.63	738,640.39
Subtotal	64,913,200.66	61,925,440.77	57,769,504.15
2. Annuity Reserve Fund:			
(a) 4750-Recovery of Annuity from Reinstatement			
(b) Investment Income Credited to Annuity Reserve Fund	4,475,411.40	4,158,050.15	3,892,320.53
Subtotal	4,475,411.40	4,158,050.15	3,892,320.53
3. Pension Fund:			
(a) 4898-3(8) (c) Reimbursements from Other Systems	8,142,164.53	4,620,023.52	614,954.45
(b) 4899-Received From Commonwealth For COLA and Survivor Benefits	612,143.80	556,170.13	375,345.57
(c) 4894-Pension Fund Appropriation	156,252,197.00	147,785,846.13	138,229,422.00
(d) 4840-Workers' Compensation Settlements	55,000.00	105,799.87	37,500.00
(e) 4751-Recovery of Pension from Reinstatement			
(f) 4841-Recovery of 91 A Overearnings	3,383.49	94,618.38	0.00
Subtotal	165,064,888.82	153,162,458.03	139,257,222.02
4. Military Service Fund:			
(a) 4890-Contributions Received from Municipality for Military Service	69,749.15	29,487.79	27,747.00
(b) Investment Income Credited	439.59	319.11	270.05
Subtotal	70,188.74	29,806.90	28,017.05
5. Expenses Fund:			
(a) Investment Income Credited to Expenses Fund	12,903,404.29	12,461,953.88	10,369,476.35
Subtotal	12,903,404.29	12,461,953.88	10,369,476.35
6. Pension Reserve Fund:			
(a) 4897-Federal Grant Reimbursement	44,920.99	34,348.88	33,067.91
(b) 4100-Rental	35,899.86		
(c) 4822-Interest Not Refunded	77,308.14	128,089.08	138,199.16
(d) Miscellaneous Income	(0.10)	1,310.48	5.60
(e) Excess Investment Income (from Page 6)	(251,917,747.95)	332,041,603.15	177,834,475.41
Subtotal	(251,759,619.06)	332,205,351.59	178,005,748.08
TOTAL RECEIPTS	$ (4,332,525.15)	$ 563,943,061.32	$ 389,322,288.18

Annual Statement of the Middlesex County Retirement System for the Year Ended December 31, 2022

Disbursements

		2022	2021	2020
1. Annuity Savings Fund:				
(a) 5757- Refunds to Member		$ 3,457,872.48	$ 3,937,206.49	$ 3,161,363.56
(b) 5756-Transfers to Other System		8,981,783.96	6,860,646.61	4,377,320.44
	Subtotal	12,439,656.44	10,797,853.10	7,538,684.00
2. Annuity Reserve Fund:				
(a) 5750-Annuities paid		36,006,142.94	32,995,022.31	30,208,951.18
(b) 5759-Option B refunded		171,106.81	164,667.15	467,761.40
	Subtotal	36,177,249.75	33,159,689.46	30,676,712.58
3. Pension Fund:				
(a) 5751-Pension Paid				
Regular Pension Payments		125,887,591.11	117,639,142.99	110,204,577.65
Survivorship Payments		6,668,627.21	6,239,960.64	5,801,484.84
Ordinary Disability Payments		794,034.61	902,489.89	1,005,333.28
Accidental Disability Payments		15,040,982.29	14,737,548.93	14,480,045.50
Accidental Death Payments		2,697,678.72	2,739,913.39	2,729,298.53
Section 101 Benefits		848,711.69	834,502.44	775,396.13
(b) 5755-3(8) (c)Reimbursement to Other System		8,407,214.06	7,861,127.82	11,982,966.29
(c) 5752-COLA's Paid		2,810,790.82	2,789,469.81	2,800,649.85
(d) 5753-Chapter 389 Beneficiary Increase Paid				
	Subtotal	163,155,630.51	153,744,155.91	149,779,752.07
4. Expense Fund:				
(a) 5118-Board Member Stipend		18,000.00	18,000.00	18,000.00
(b) 5119-Salaries		1,435,434.98	1,408,879.37	1,431,799.00
(c) 5120-Benefits		335,973.33	303,284.91	296,025.31
(d) 5304-Management Fees		9,631,797.04	9,374,179.81	7,388,278.85
(e) 5305-Custodial Fees		53,602.50	53,835.00	53,899.93
(f) 5307-Consultant Fees		0.00	0.00	0.00
(g) 5308-Legal Expenses		5,928.60	5,917.44	5,678.58
(h) 5309-Medical Expenses		832.45	1,280.07	341.75
(i) 5310-Fiduciary Insurance		170,105.00	169,765.00	165,114.00
(k) 5312-Rent Expenses		0.00	0.00	0.00
(l) 5315-Professional Service		55,991.15	59,204.08	83,132.07
(m) 5316-Actuarial Service		75,980.00	21,000.00	63,000.00
(n) 5317-GASB 67/68 Implement		61,000.00	61,000.00	60,000.00
(o) 5320-Eduction & Training		8,133.70	5,848.60	5,009.60
(p) 5589-Administrative Expenses		870,689.85	824,294.97	652,948.06
(q) 5599-Furniture, Equipment & IT		174,374.40	155,120.00	145,914.00
(r) 5719-Travel		5,561.29	344.63	335.20
	Subtotal	12,903,404.29	12,461,953.88	10,369,476.35
TOTAL DISBURSEMENTS		$ 224,675,940.99	$ 210,163,652.35	$ 198,364,625.00

Annual Statement of the Middlesex County Retirement System for the Year Ended December 31, 2022

Investment Income

	2022	2021	2020
Investment Income received from:			
(a) Cash(from schedule 1)	$ 157,036.62	$ 21,018.35	$ 239,590.21
(b) Short Term Investments (from schedule 2)	0.00	0.00	0.00
(c) Fixed Income Securities (from schedules 3A & 3C)	0.00	0.00	0.00
(d) Equities (from schedules 4A & 4C)	0.00	0.00	0.00
(e) Pooled Funds (from schedule 5)	48,999,252.26	43,754,348.39	34,241,248.37
(f) Commission Recapture/Securities Litigation	0.00	892.90	14,239.81
4821-TOTAL INVESTMENT INCOME	49,156,288.88	43,776,259.64	34,495,078.39
Plus:			
4884-Realized Gains (Profits)	18,004,767.93	146,008,438.85	74,058,931.15
4886-Unrealized Gains (Inc. in Market Value)	182,005,032.87	205,379,490.84	280,454,627.57
1550-Interest Due and Accrued - Current Year	48,545.37	0.00	18.99
Less:			
4823-Paid Accrued Interest on Fixed Income Securities	0.00	0.00	0.00
4885-Realized Losses	(6,466,401.80)	(184,470.08)	(9,817,091.84)
4887-Unrealized Losses(Decrease in Market Value)	(476,530,264.91)	(45,532,704.34)	(186,345,836.19)
1550-Interest Due and Accrued - Prior Year	0.00	(18.99)	(10,545.34)
Additional Adjustmnets:			
4701-Carried Interest Expenses	-		
4702-Equalization Expenses	-		
4703-Miscellaneous Investment Expenses	-		
NET INVESTMENT INCOME	(233,782,031.66)	349,446,995.92	192,835,182.73
Income Required:			
Annuity Savings Fund (from Supplementary schedule)	756,461.01	785,069.63	738,640.39
Annuity Reserve Fund	4,475,411.40	4,158,050.15	3,892,320.53
Special Military Service Credit Fund	439.59	319.11	270.05
Expense Fund	12,903,404.29	12,461,953.88	10,369,476.35
TOTAL INCOME REQUIRED	18,135,716.29	17,405,392.77	15,000,707.32
Net Investment Income	(233,782,031.66)	349,446,995.92	192,835,182.73
Less Income Required	(18,135,716.29)	(17,405,392.77)	(15,000,707.32)
EXCESS INCOME TO PENSION RESERVE FUND	$ (251,917,747.95)	$ 332,041,603.15	$ 177,834,475.41

Membership Counts for the as of 12/31/2022

MEMBERSHIP FOR CURRENT YEAR

ACTIVE MEMBERS	**Group 1**	**Group 2 & 4**	**TOTAL**
Active Membership, Dec. 31st, Previous Year	7,601	1,709	9,310
Inactive Membership, Dec. 31st, Previous Year	4,259	189	4,448
Enrolled During Current Year	1,639	183	1,822
Transfers Between Groups	0	0	0
Reinstatements of Disabled Members	0	0	0
SUBTOTAL	1,639	183	1,822
Deduct:			
Death	7	0	7
Withdrawals	563	63	626
Retirements	282	67	349
SUBTOTAL	852	130	982
Active Membership, Current Year	7,713	1,733	9,446
Inactive Membership, Current Year	4,934	218	5,152

RETIRED MEMBERS, BENEFICIARIES & SURVIVORS			
Retired, Beneficiary and Survivor Membership, Dec. 31st, Previous Year	4,907	1,464	6,371
Retirements During the Year			
Superannuation	273	56	329
Ordinary Disability	0	1	1
Accidental Disability	1	9	10
Termination Retirement Allowance	0	0	0
Beneficiary of Deceased Retiree	22	11	33
Survivor Benefits from Active Membership	6	0	6
SUBTOTAL	302	77	379
Deduct:			
Deaths of Retired Members	179	42	221
Termination of Survivor Benefits	24	9	33
Reinstatements of Disabled Pensions	0	0	0
SUBTOTAL	203	51	254
Retired Membership, Current Year			
Superannuation	4,408	1,033	5,441
Ordinary Disability	35	15	50
Accidental Disability	146	248	394
Termination	16	0	16
Beneficiaries from Accidental Deaths	13	53	66
Beneficiaries from Section 100	0	3	3
Beneficiaries from Section 101	17	46	63
Beneficiaries under Option C	223	67	294
Option (D) Survivor Allowance	147	25	175
Section 12B Survivor Allowance	1	0	1

Total Retired, Beneficiary and Survivor Membership, Current Year	5,006	1,490	6,503
TOTAL MEMBERSHIP			
Active, Inactive, Retired, Beneficiary and Survivor, Current Year	17,653	3,441	21,101

Annual Statement of the Middlesex County Retirement System for the year ended 12/31/22

Schedule A : Detail of Accounts Receivable and Accounts Payable

Accounts Receivable

	Amount	**Original Date**
4891-Members Deductions	$ 4,780,455.62	12/31/22
4893-Member Make Up Payments and Redeposit	316,705.80	2017-2022
4890- Military Service Contribution	42,035.42	fy2023
1398-15- Excess Earnings(91A)	16,276.28	4/11/17
1398-16- Utilities	1,270.81	12/19/22
4892- Transfer from Other System	325,759.22	12/31/22
TOTAL RECEIVABLES	**$ 5,482,503.15**	

Accounts Payable

	Amount	**Original Date**
4891-Members Deductions(Current Year)	1,050.55	12/31/22
1810 -Building Improvements	33,700.00	12/31/22
5118-Board Member Stipend		
5120-Benefits(Current Year)	$ 71,859.27	12/31/22
5315-Professional Services(Current Year)		
5316-Actuarial(Current Year)	9,980.00	12/31/22
5589-13 Office Supplies(Current Year)	2,179.87	12/31/22
5589-14 Postage(Current Year)		
5589-15-Telephone	66.36	12/31/22
5589-33 Electricity Charge(Current Year)		
5589-21 Computer & Office Maintenance(Current Year)	1,400.00	12/31/22
5589-56 Building Repairs & Maintenance	2,850.37	12/31/22
5719-1 Mileage & Parking(Current Year)		
5304-Management Fees/		
5305-Custodial / State Street / December 22	4,482.50	12/31/22
TOTAL PAYABLES	$ 127,568.92	

Schedule No. 1

Annual Statement of the Middlesex County Retirement System for the Year Ended December 31, 2022

Cash Account Activity During Year

Cash defined in ledger #1040 as Savings, Checking or Checking

Description: type of account, account number, interest rate list alphabetically	**(A)** Book Value at End of Previous Year	**(B)** Total Deposits this year	**(C)** Income Reinvested/ Redeposited into Account	**(D)** Withdrawals During Year	**(E)** =A+B+C-D Total Book Value December 31st This Year	**(F)** Cash Income paid to System not Re-invested or Redeposited	**(G)** Interest Due and Accrued December 31st
BELMONT BANK							
ENTERPRISE BANK							
Debit Card(#763017)	$ 4,480.93	$ 4,000.00	-	$ 3,660.73	$ 4,820.20		
Operating Account(#769053)	$ 9,365,890.04	$ 233,826,835.42	$ 1,829.49	$ 214,483,758.09	$ 28,710,796.86		
Retiree Payroll Account(#769082)	$ 194,726.63	$ 190,830,102.11	-	$ 190,956,316.56	$ 68,512.18		
Assessment Account(#841586)	$ 1,042,513.60	$ 156,294,491.50	$ 12,565.89	$ 155,747,119.00	$ 1,602,451.99		
STATE STREET BANK							
State Street Bank(RBHD-00019851)	$ 7,676,701.81	$ 160,222,372.68	$ 142,641.24	$ 166,559,837.85	$ 1,481,877.88		$ 48,545.37
TOTAL ACCOUNTS	**$ 18,284,313.01**	**$ 741,177,801.71**	**$ 157,036.62**	**$ 727,750,692.23**	**$ 31,868,459.11**	**$ -**	**$ 48,545.37**

Schedule 2

Annual Statement of the Middlesex County Retirement System for the Year ended December 31, 2022

Short Term Securities *Bought and Sold or Matured during the Year as well as Still Held on December 31st

***Short Term defined in ledger #1100 as U.S. Treasury Bills, Commercial Paper, Repurchase Agreements, CDs, Term Deposits, Money Market, Cooperative Shares, Savings and Loan Shares**

Description:	(A)	(B)	(C)	(D)	(E)	(F)	(G)
Including CUSIP or Account no., interest Rate, Maturity Date,(List alphabetically. Rolled over securities must be listed as sold and then repurchased)	Date Acquired	Par Value	Cost Including Commissions	Amount Received at Maturity (Expiration or Upon Liquidation) Less Commissions and Excluding Interest	Market Value December 31st Current Year	Interest Received During Year	Due and Accrued December 31st
N/A							

Schedule No. 3A
Annual Statement of the Middlesex County Retirement System for the Year Ended December 31, 2022

Domestic Fixed Income Securities Owned at End of Year
(Foreign Fixed Income Securities must be Listed on Schedule 5)

Description: including maturity date and interest rate, list alphabetically	(A) Cusip Number	(B) Cost or Market Value at End of P/Y	(C) Unrealized Gain	(D) Unrealized Loss	(E) Market Value	(F) Interest Received During Year	(G) Interest Due and Accrued December 31st
N/A							
Total		$ -	$ -	$ -	$ -	$ -	$ -

Schedule No. 3B
Annual Statement of the Middlesex County Retirement System for the Year Ended December 31, 2022

Domestic Fixed Income Securities Purchase During Year
(Foreign Fixed Income Securities must be Listed on Schedule 5)

Description: including date of maturity and interest rate, list alphabetically	(A) Cusip Number	(B) Par Value	(C) Date Acquired (Trade Date)	(D) Name of Broker	(E) Commissions Paid	(F) Paid Accrued Interest	(G) Cost excluding Accrued Interest , But Including Commissions
N/A							
Total						$ -	$ -

Schedule No. 3C
Annual Statement of the Middlesex County Retirement System for the Year Ended December 31, 2022

Domestic Fixed Income Securities Sold During Year
(Foreign Fixed Income Securities must be listed on Schedule 5)

Description: including date of maturity and interest rate, list alphabetically	(A) Cusip Number	(B) Par Value	(C) Date Sold or Matured (Trade Date)	(D) Name of Broker	(E) Commissions	(F) Market Value Previous Dec 31st or cost if purchased Current Year	(G) Amount Received on Sale Less Commissions Excl. Accrued Interest	(H) =G-F Realized Gain	(I) =G-F Realized Loss	(J) Interest Received During Year including Interest Sold
N/A										
Total						$ -	$ -	$ -	$ -	$ -

Schedule No. 4A
Annual Statement of the Middlesex County Retirement System for the Year Ended December 31, 2022

Equities Owned at End of Year
Equities defined as stocks or options (Pooled Funds must be listed on Schedule 5)

Description: Give complete description list alphabetically	(A) Cusip #	(B) Number of Shares	(C) Rate of share used to obtain Current Market Value	(D) Market Value at End of Previous Year	(E) Net Purchases and (Sales) at Book Value Current Year	(F) Market Value at end of Current Year	(G) =F-D-E Unrealized Gain	(H) =F-D-E Unrealized Loss	(I) Dividends Received During Year
N/A									
Total				$ -	$ -	$ -	$ -	$ -	$ -

Schedule No. 4B
Annual Statement of the Middlesex County Retirement System for the Year Ended December 31, 2022

Equities Purchased During Year
Equities defined as stocks or options (Pooled Funds must be Listed on Schedule 5)

Description: Give complete description list alphabetically	(A) Cusip Number	(B) Number of Shares	(C) Date Acquired (Trade Date)	(D) Name of Broker	(E) Commissions and Fees Paid	(F) Cost to System Including Commissions and Fees
N/A						
Total						$ -

Schedule No. 4C
Annual Statement of the Middlesex County Retirement System for the Year Ended December 31, 2022

Equities Sold During Year
Equities defined as stocks or options (Pooled Funds must be listed on Schedule 5)

Description: Give complete description list alphabetically	(A) Cusip #	(B) Number of Shares	(C) Name of Broker	(D) Date Sold	(E) Commissions Paid	(F) Proceeds From Sale	(G) Market Value at Prior Year-end or Cost if Purchases in Current Year	(H) =F-G Realized Gain	(I) =F-G Realized Loss	(J) Dividends Received During Year
N/A										
Total						$ -	$ -	$ -	$ -	$ -

Annual Statement of the Middlesex County Retirement System for the Year Ended December 31, 2022
Schedule 5
Pooled Fund Activity During Year

PERAC Ledger Number	Descrption	Market Value at End of Previous Year	Total Purchases this Year	Reinvested Investment Income	#4884 Realized Gain	#4885 Realized Loss	#4886 Unrealized Gain	#4887 Unrealized Loss	Total Sales Redemptions this Year	Cash Dividends/ Distributions this Year	Fees Paid	Market Value at End of Year	Market Value Updated Through
	Alternative/private Equity Funds												
1193-17	Boston Millennia II	41,166.00	-	(204.00)	-	-	-	-	-	-	483.00	40,479.00	12/31/2022
1193-26	North Atlantic Venture Fund III	1,039,962.00	-	245,077.88	-	(769,072.00)	680,774.00	(1,024,955.00)	-	171,786.88	-	(0.00)	12/31/2022
1193-30	Globespan IV	24,101.00	-	(388.63)	152.00	-	-	-	-	21,904.37	-	1,960.00	12/31/2022
1193-31	Globespan V	3,758,183.00	-	(3,095.44)	385,822.00	(26,010.00)	-	(1,528,294.00)	-	423,560.56	40,000.00	2,123,045.00	12/31/2022
	Subtotal	4,863,412.00	-	241,389.81	385,974.00	(795,082.00)	680,774.00	(2,553,249.00)	-	617,251.81	40,483.00	2,165,484.00	
	Real Estate Funds												
1194-11	GFP-World Timberfund	37,403.00	-	-	-	-	756.61	(1,421.56)	-	35,754.05	-	984.00	12/31/2022
	PRIT FUND												
1199-4	General Allocation account	2,077,485,447.65	147,347,119.00	48,757,862.45	17,618,793.93	(5,671,319.80)	181,323,502.26	(470,959,281.77)	146,000,000.00	-	9,591,314.04	1,840,310,809.68	12/31/2022
Schedule Totals		2,082,386,262.65	147,347,119.00	48,999,252.26	18,004,767.93	(6,466,401.80)	182,005,032.87	(473,513,952.33)	146,000,000.00	653,005.86	9,631,797.04	1,842,477,277.68	

ber, please add a row for that account number's subtotal and adjust the schedule total formula.

Schedule 6

Annual Statement of the Middlesex County Retirement System for the Year Ended December 31, 2022

Summary of Investments Owned

Category of Investment	Current Market Value	Interest Due and Accrued as of 12/31/22	Paid Accrued Interest on Purchases in Current year	Commissions Paid During Current Year	Unrealized Gains	Unrealized (Losses)	Realized Gains	Realized (Losses)	Investment Income Received During Year
1. 1040-Cash	$ 31,868,459.11	$ 48,545.37							157,036.62
Commission Recapture/Securities Litigation									
2. 1100-Short Term Securities									
3. 1180-Fixed Inc. Securities									
4. 1170-Equities									
5a.1101-Pooled Short Term Funds									
5b.1172-Pooled Domestic Equity Funds									
5c.1173-Pooled International Equity Funds									
5d.1174-Pooled Global Equity Funds									
5e. 1181-Pooled Domestic Fixed Income Funds									
5f. 1182-Pooled International Fixed Inc. Funds									
5g. 1183-Pooled Global Fixed Income Funds									
5h. 1193-Pooled Alt. Investment/Private Equity	2,165,484.00				680,774.00	(2,553,249.00)	385,974.00	(795,082.00)	241,389.81
5i. 1194-Pooled Real Estate Funds	984.00				756.61	(1,421.56)	0.00	0.00	0.00
5j. 1195-Pooled Domestic Balanced Funds									
5k. 1196-Pooled International Balanced Funds									
5l. 1197-Hedge Funds									
5m. 1198-PRIT Cash Fund									
5n. 1199-PRIT General Allocation Account	1,840,310,809.68				181,323,502.26	(470,959,281.77)	17,618,793.93	(5,671,319.80)	48,757,862.45
Merge MCRS Buildong / 1920-Other						(3,016,312.58)			
Total	$ 1,874,345,736.79	$ 48,545.37	$ -	$ -	$ 182,005,032.87	$ (476,530,264.91)	$ 18,004,767.93	$ (6,466,401.80)	$ 49,156,288.88

Schedule 7

Annual Statement of the Middlesex County Retirement System for the Year Ended December 31, 2022

Summary of Investment Related Fees

Manager/Vendor-All Managers/Vendors Must be Listed	1stQ	2ndQ	3rdQ	4thQ	Accrued Payabl at Year End	Total In 2022	Market Value as of 12/31/22	*Payment Method	#4701 Carried Interest Exp.	#4702 Equalization Expense	#4703 Investment Expense
5304-Management Fee											
Boston Millennia II	121.00	120.00	121.00	121.00	-	483.00	40,479.00		-	-	-
Globespan IV	-	-	-	-	-	-	1,960.00		-	-	-
Globespan VI	10,000.00	10,000.00	10,000.00	10,000.00	-	40,000.00	2,123,045.00		-	-	-
North Atlantic Venture III	-	-	-	-	-	-	(0.00)		-	-	-
GFP-World Timberfund	0.00	0.00	0.00	0.00	-	-	984.00	C	-	-	-
General-Allocation Account	2,845,717.79	2,336,928.86	2,271,963.52	2,136,703.87	-	9,591,314.04	1,840,310,809.68		-	-	-
	2,855,838.79	2,347,048.86	2,282,084.52	2,146,824.87	-	9,631,797.04	1,842,477,277.68		-	-	-
5305-Custodial Fee											
State Street Bank	13,342.50	13,365.00	13,492.50	13,402.50		53,602.50		C			
	13,342.50	13,365.00	13,492.50	13,402.50	-	53,602.50					
						9,685,399.54					

*N=Net / C=Check / W=Wire

Supplementary Schedule
Annual Statement of the Middlesex County Retirement System for the Year Ended December 31, 2022

Members' Balance in the Annuity Savings Account

Previous Balance	Total Additions Current Year	Total Interest Current Year	Reductions	Transfer to ASF	Transfers to ARF	Transfer to PF	Transfer to/from PRF	Balance Current Year
$ 519,298,128.19	$ 54,257,364.31	$ 756,461.01	$ (12,362,348.30)	$ 9,800,539.55	$ (40,415,995.25)	$ -	$ (584,676.21)	$ 530,749,473.30
Military Service/17								$ 23,079.55
Military Service/21								$ 33,769.78
Military Service/22								$ 38,952.00
Account Receivable/4893/page 8								$ 316,705.80
							3293-page 2>>	$ 531,161,980.43