

**Town of Little Compton Pension Plan**

**Actuarial Valuation**

**as of July 1, 2020**

**For the Fiscal Year Beginning July 1, 2020**

**and Ending June 30, 2021**

**Prepared By:**

**The Angell Pension Group, Inc.**

**88 Boyd Avenue**

**East Providence, RI 02914**

**Telephone (401) 438-9250**

**December 2020**

## TABLE OF CONTENTS

SECTION I	Introduction	1
SECTION II	Summary of Plan Provisions	2
SECTION III	Actuarial Cost Methods	6
SECTION IV	Actuarial Assumptions	7
SECTION V	Plan Assets as of July 1, 2020	10
SECTION VI	Actuarial Present Value of Accumulated Plan Benefits	11
SECTION VII	Development of Total Normal Cost on Entry Age Method	14
SECTION VIII	Development of Unfunded Actuarial Accrued Liability	15
SECTION IX	Development of Alternative Pension Costs	16
SECTION X	Reconciliation of Plan Participants	17
SECTION XI	Expected Future Benefit Payments	18
APPENDIX	Additional Actuarial Disclosures	
	Supplementary Information:	
	• Schedule of Active Employee Contributions	
	• Historical Rates of Return	

## I. INTRODUCTION

This report presents the results of the actuarial valuation as of July 1, 2020 of the Town of Little Compton Pension Plan. The purpose of the report is to:

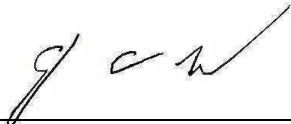
Illustrate the current actuarial position of the plan.

Provide a summary of participant census and benefit detail.

Present information which will assist the plan sponsor in determining the appropriate contribution for the plan year. Section IX of this report illustrates three alternative contributions for this plan year. The first contribution figure represents the Town's pension cost under the plan, without considering any amortization of the unfunded actuarial accrued liability. The second figure represents the Town's pension cost, plus a 30-year amortization of the unfunded actuarial accrued liability. The third figure represents the Town's pension cost, plus a 10-year amortization of the unfunded actuarial accrued liability. All contribution amounts assume payment is made on June 30, 2021.

Outline the actuarial assumptions and methods used.

This valuation was prepared on the basis of information submitted to The Angell Pension Group, Inc. in the form of payroll and asset data, as well as ancillary material pertaining to the plan and the plan sponsor, and was prepared in accordance with current federal statutes and regulations. We have not independently verified, nor do we make any representations as to, the accuracy of such information.



---

Jeffrey C. Liter, Ph.D., E.A., M.A.A.A.  
Enrolled Actuary

12/09/2020

---

Date

## II. SUMMARY OF PLAN PROVISIONS

- Plan Effective Date:* January 1, 1972
- Eligible Employees:* All full time employees of the bargaining unit of the Little Compton Municipal Employees Association, permanent members of the Fire and Police Departments, members of the Educational Support Personnel Union, the Town Clerk, the Town Treasurer, the Police Chief, the Fire Chief, the Building Official, the Librarian and the Deputy Librarian.
- Plan Entry Date:* All Eligible Employees will enter the plan on the first day of the plan year coincident with or next following the employee's date of hire.
- Year of Service:* 12-consecutive-month computation period in which an employee is credited with 1,000 or more hours of service.
- Benefit Accrual: Computation period commences July 1st.
- Vesting: Computation period commences July 1st.
- Normal Retirement Date:* A Participant's 62nd birthday or, if later, the fifth anniversary of his initial Employment Date.
- Effective July 1, 1992, in the case of a Participant who is a member of (a) the Police Officers Union and is employed by the Town of Little Compton Police Department or (b) the Firefighters Union and is employed by the Town of Little Compton Fire Department, "Normal Retirement Age" shall mean the earlier of (1) his 62nd birthday or, if later, the fifth anniversary of his initial Employment Date, or (2) the date he completes twenty-five (25) Years of Service.
- Compensation:* The basic rate of pay in effect on the July 1st of each plan year exclusive of overtime pay and bonuses.
- Average Compensation:* Compensation of a Participant averaged over the five (5) consecutive calendar years in his last ten (10) calendar years as an Employee producing the highest average prior to the earlier of (1) his termination of Service or (2) termination of the Plan. Effective July 1, 2000, "Average Compensation" shall mean the Compensation of a Participant averaged over the three (3)

consecutive calendar years in his last ten (10) calendar years as an Employee producing the highest average prior to the earlier of (1) his termination of Service or (2) termination of the Plan.

For members of the Fire and Police Departments, the highest annualized rate of pay will be used.

*Employee Contributions:*

Commencing July 1, 1995 and ending June 30, 1997, each participant who is a member of the Fire Department (other than the Fire Chief) shall contribute to the Plan an amount equal to four and one-half percent (4.5%) of his compensation.

Effective July 1, 1997, employee contributions for Fire Department members are no longer required.

Commencing July 1, 1994 and ending June 30, 2000, any police officer hired after July 1, 1994 must contribute two and one-half percent (2.5%) of his base annual compensation.

Effective July 1, 2000, employee contributions for Police Department members are no longer required.

Effective July 1, 2012, any Fire, Police or Municipal employee hired after July 1, 2012 shall contribute to the Plan an amount equal to seven percent (7.0%) of compensation.

*Normal Retirement Benefit:*

The product of (a) times (b):

(a) 1.65% of Average Compensation, and (b) Years of Service

Effective July 1, 1992, members of the Police and Fire Departments may retire after 25 years of service at fifty percent of their highest annual salary. Commencing July 1, 1994 and ending June 30, 2009, a police officer must have attained age 55 with 25 years of service before retiring with fifty percent of highest annual salary.

Effective July 1, 1997, members of the Police and Fire

Departments will receive an additional 2% of salary for each year of service in excess of 25 years, subject to a maximum of 5 additional years.

The minimum annual benefit shall be \$100 multiplied by the number of Years of Service.

Effective July 1, 2000, participants in pay status will receive an annual cost-of-living increase of 2% per year, effective as of each July 1st for participants in pay status as of July 1, 2000, and effective each anniversary date of retirement for participants retiring after July 1, 2000. Effective July 1, 2005, the annual cost-of-living increase will be effective each July 1st for all participants in pay status, except for those in pay status due to occupational disability described below.

Effective July 1, 2016, the 2% per year cost-of-living increase shall apply only to the first \$25,000 of a retiree's pension for Fire Department participants hired on or after July 1, 2012, and for Municipal participants who retire after July 1, 2012.

Effective July 1, 2018, the 2% per year cost-of-living increase shall apply only to the first \$25,000 of a retiree's pension for Police Department participants hired on or after July 1, 2018.

*Normal Form of Benefit:*

Life Annuity. Other forms of benefit, including a Qualified Joint & Survivor Annuity, are available on an actuarially equivalent basis.

*Accrued Benefit:*

The Normal Retirement Benefit based on Average Compensation and Years of Service to date.

*Early Retirement:*

A Participant who separates from Service on or after the later of his attainment of age fifty (50) and the completion of at least twenty (20) Years of Service shall be entitled to elect to receive his monthly retirement benefit either (a) commencing on his Normal Retirement Date in an amount equal to the product of one and one-half percent (1.5%) of his Average Compensation and the number of his Years of Service, or (b) commencing on the first day of the month following his satisfaction of the age

and service requirements for Early Retirement in an amount equal to the product of one and twenty-five hundredths percent (1.25%) of his Average Compensation and the number of his Years of Service.

*Death Benefit:* If a participant should die while in the employ of the Employer and is survived by an eligible spouse, such spouse shall be entitled to receive a qualified pre-retirement survivor annuity, as defined in the Plan.

*Disability Benefit:* A participant who has been credited with ten or more Years of Service becomes totally and permanently disabled shall be entitled to payment of the Accrued Benefit.

If a participant who is a member of the Fire or Police Department separates from service by reason of occupational disability, the participant shall be entitled to a monthly benefit equal to 68% of the participant's compensation at the time of occupational disability. A participant receiving an occupational disability shall not be eligible for the cost of living increases.

*Vesting:* A participant will become 100% vested in his Accrued Benefit upon the completion of ten Years of Service. Notwithstanding this vesting schedule, a participant will become 100% vested upon reaching the Normal Retirement Date.

### **III. ACTUARIAL COST METHODS**

#### **A. Actuarial Cost Method**

Costs have been computed in accordance with the Entry Age Normal Cost Method.

The normal cost is the sum of the normal costs for all active participants who have not reached the assumed retirement age. For each such participant, the individual normal cost is the participant's normal cost accrual rate multiplied by the participant's current compensation. The normal cost accrual rate equals (a) the actuarial present value of future benefits as of the participant's entry age divided by (b) the actuarial present value of future compensation as of the participant's entry age. For other participants, the normal cost equals zero.

The accrued liability is the sum of the individual accrued liabilities for all participants. The individual accrued liability is equal to the actuarial present value of future benefits less the normal cost accrual rate multiplied by the actuarial present value of future compensation.

#### **B. Asset Valuation Method**

The actuarial value of the plan assets used in determining plan costs is equal to the fair market value.

#### **C. Changes in Actuarial Methods**

No changes in actuarial methods have occurred since the prior plan year.



## IV. ACTUARIAL ASSUMPTIONS

### A. Assumptions Used For The Current Plan Year

Actuarial assumptions are estimates as to the occurrence of future events affecting the costs of the plan such as mortality rates, withdrawal rates, changes in compensation level, retirement ages, rates of investment earnings, expenses, etc. The assumptions have been chosen to anticipate the long-range experience of the plan.

*Investment Return:* 7.25%

*Discount Rate:* 7.25%

*Mortality:* Pub-2010 Below Median Weighted 30% Teacher / 40% Safety / 30% General Government with Scale MP-2020 Generational Improvements (Male/Female); separate tables are used for Employees, Healthy Retirees, Contingent Survivors, and Disabled Annuitants.

*Withdrawal Rate:* None

*Salary Scale:* 3.00% per annum

*Assumed Retirement Age:* Members of the Fire and Police Departments are assumed to retire at the earlier of age 62, or the completion of 30 Years of Service.

Participants who are not members of the Fire and Police Departments are assumed to retire at age 62.

Participants who are beyond their assumed retirement ages are assumed to retire immediately.

*Expenses:* The investment return assumption is net of expenses.

*Employee Contributions:* Effective July 1, 2012, any Fire, Police or Municipal employee hired after July 1, 2012 shall contribute to the Plan an amount equal to 7.00% of compensation.

### B. Changes In Actuarial Assumptions

*Mortality:* The mortality tables were changed from the Pub-2010 Below Median Weighted 30% Teacher / 40% Safety / 30% General Government with Scale MP-2019 Generational Improvements (Male/Female) to the Pub-2010 Below Median Weighted 30% Teacher / 40% Safety / 30% General Government with Scale MP-2020 Generational Improvements (Male/Female).

**SELECTION OF ACTUARIAL ASSUMPTIONS**

<b>Assumption</b>		<b>Entity Who Selects Assumption</b>	<b>Basis for Assumption Selection</b>	<b>Change in Assumption</b>
Discount Rate	7.25%	The Angell Pension Group, Inc.	The assumed long-term rate of return on assets is developed based on the allocation of the Plan's assets by investment class and the capital market outlook for each investment class. This information is provided by the Plan's investment advisor.	None
Inflation Rate	3.00%	The Angell Pension Group, Inc.	Long-term CPI-U experience.	None
Salary Scale	3.00%	The Angell Pension Group, Inc.	This assumption was set based on a review of experience under the Plan, and negotiated future salary increases.	None
Pre-Retirement Mortality	Pub-2010 Below Median Employee Weighted 30% Teacher / 40% Safety / 30% General Government with Scale MP-2020 Generational Improvements (Male/Female)	The Angell Pension Group, Inc.	The Society of Actuaries published a study of retirement experience in January, 2019. The Pub-2010 tables presented in the study represent the most current and complete benchmarks of U.S. public pension plan mortality experience. The tables include generational projections of mortality improvement via Scale MP-2020.	The mortality tables changed from the Pub-2010 Below Median Employee Weighted 30% Teacher / 40% Safety / 30% General Government with Scale MP-2019 Generational Improvements (Male/Female) as of the prior measurement date, June 30, 2019. The change was made to reflect the best estimate of future experience under the plan. This change, together with the change in post-retirement and disability mortality, decreased the Entry Age Normal Accrued Liability as of the current measurement date, June 30, 2020, by 0.89%.
Post-Retirement Mortality	Pub-2010 Below Median Healthy Retiree and Contingent Survivor Weighted 30% Teacher / 40% Safety / 30% General Government with Scale MP-2020 Generational Improvements (Male/Female)	The Angell Pension Group, Inc.	The Society of Actuaries published a study of retirement experience in January, 2019. The Pub-2010 tables presented in the study represent the most current and complete benchmarks of U.S. public pension plan mortality experience. The tables include generational projections of mortality improvement via Scale MP-2020.	The mortality tables changed from the Pub-2010 Below Median Healthy Retiree Weighted 30% Teacher / 40% Safety / 30% General Government with Scale MP-2019 Generational Improvements (Male/Female) as of the prior measurement date, June 30, 2019. The change was made to reflect the best estimate of future experience under the plan. This change, together with the change in pre-retirement and disability mortality, decreased the Entry Age Normal Accrued Liability as of the current measurement date, June 30, 2020, by 0.89%.
Disability Mortality	Pub-2010 Disabled Retiree Weighted 30% Teacher / 40% Safety / 30% General Government with Scale MP-2020 Generational Improvements (Male/Female)	The Angell Pension Group, Inc.	The Society of Actuaries published a study of retirement experience in January, 2019. The Pub-2010 tables presented in the study represent the most current and complete benchmarks of U.S. public pension plan mortality experience. The tables include generational projections of mortality improvement via Scale MP-2020.	The mortality tables changed from the Pub-2010 Disabled Retiree Weighted 30% Teacher / 40% Safety / 30% General Government with Scale MP-2019 Generational Improvements (Male/Female) as of the prior measurement date, June 30, 2019. The change was made to reflect the best estimate of future experience under the plan. This change, together with the change in pre-retirement and post-retirement mortality, decreased the Entry Age Normal Accrued Liability as of the current measurement date, June 30, 2020, by 0.89%.
Disability Rates	None	The Angell Pension Group, Inc.	The incidence of disability under the Plan is negligible.	None

**SELECTION OF ACTUARIAL ASSUMPTIONS**

<b>Assumption</b>		<b>Entity Who Selects Assumption</b>	<b>Basis for Assumption Selection</b>	<b>Change in Assumption</b>
Withdrawal Rates	None	The Angell Pension Group, Inc.	The incidence of withdrawal under the Plan is negligible.	None
Retirement Rates	Members of the Fire and Police Departments are assumed to retire at the earlier of age 62, or the completion of 30 years of Service. Participants who are not members of the Fire and Police Departments are assumed to retire at age 62.	The Angell Pension Group, Inc.	This assumption was set based on a review of experience under the Plan.	None
Percent Married	80% of males and 80% of females are assumed to be married.	The Angell Pension Group, Inc.	This assumption was set based on a review of experience under the Plan.	None
Age of Spouse	The female spouse is assumed to be the same age as the male spouse.	The Angell Pension Group, Inc.	This assumption was set based on a review of experience under the Plan and general experience from similarly situated plans.	None

## V. PLAN ASSETS AS OF JULY 1, 2020

### A. Market Value of Plan Assets

Fixed Income	\$ 3,923,867
Domestic Equities	5,450,111
International Equities	1,760,853
Real Estate	273,482
Cash and Equivalents	<u>24,050</u>
 TOTAL MARKET VALUE OF PLAN ASSETS:	 \$ 11,432,363

### B. Actuarial Value of Plan Assets

Total Market Value of Plan Assets	\$ 11,432,363
 Plus: Receivable Town Contribution (FYE June 30, 2020)	 <u>433,569</u>
 TOTAL ACTUARIAL VALUE OF PLAN ASSETS:	 \$ 11,865,932

### C. Contributions for the Prior Plan Year

<u>Date</u>	<u>Amount</u>
September 3, 2020	\$433,569
 <b>Total</b>	 <b>\$433,569</b>

## VI. ACTUARIAL PRESENT VALUE OF ACCUMULATED PLAN BENEFITS

### A. Present Values as of July 1, 2020

	Number of Lives	Vested Benefits	Non-Vested Benefits	Total Present Value
Actives:				
Police:	9	\$ 397,349	\$ 60,166	\$ 457,515
Fire:	10	576,152	19,398	595,550
School:	11	1,044,233	127,742	1,171,975
Town:	<u>17</u>	<u>1,656,800</u>	<u>58,329</u>	<u>1,715,129</u>
Sub-Totals:	47	\$ 3,674,534	\$ 265,635	\$ 3,940,169
Retirees:				
Police:	9	\$ 3,273,483	\$0	\$ 3,273,483
Fire:	8	2,281,170	0	2,281,170
School:	11	1,524,368	0	1,524,368
Town:	<u>9</u>	<u>1,104,725</u>	<u>0</u>	<u>1,104,725</u>
Sub-Totals:	37	\$ 8,183,746	\$0	\$ 8,183,746
Vested Terminations and Inactive Lives:	11	\$ 439,378	\$0	\$439,378
<b>TOTALS:</b>	<b>95</b>	<b>\$12,297,658</b>	<b>\$ 265,635</b>	<b>\$12,563,293</b>

## **B. Basis of Determination**

The actuarial assumptions used in calculating the Actuarial Present Value of Accumulated Plan Benefits are the same as stated in Section IV, except as follows:

### *Assumed Benefit*

#### *Commencement Date:*

Benefits for members of the Fire and Police Departments who have completed 30 or more Years of Service are assumed to commence immediately. All other participants are assumed to begin to receive benefit payments at age 62.

#### *Basis of Calculation of Accumulated Plan Benefits for Fire and Police Departments:*

Members of the Fire and Police Departments who have not completed 25 Years of Service are assumed to accrue benefits at a rate of 1.65% of Average Compensation multiplied by Years of Service.

### C. Effect of Earlier Benefit Commencement

If benefits for members of the Fire and Police Department who have not completed 30 years of service are assumed payable upon completion of 30 years of service (rather than age 62), the present values would be as follows:

#### Present Values as of July 1, 2020

	Number of Lives	Vested Benefits	Non-Vested Benefits	Total Present Value
Actives:				
Police:	9	\$ 491,814	\$ 103,346	\$ 595,160
Fire:	10	572,211	32,560	604,771
School:	11	1,044,233	127,742	1,171,975
Town:	<u>17</u>	<u>1,656,800</u>	<u>58,329</u>	<u>1,715,129</u>
Sub-Totals:	47	\$ 3,765,058	\$ 321,977	\$ 4,087,035
Retirees:				
Police:	9	\$ 3,273,483	\$ 0	\$ 3,273,483
Fire:	8	2,281,170	0	2,281,170
School:	11	1,524,368	0	1,524,368
Town:	<u>9</u>	<u>1,104,725</u>	<u>0</u>	<u>1,104,725</u>
Sub-Totals:	37	\$ 8,183,746	\$ 0	\$ 8,183,746
Vested Terminations and Inactive Lives:	11	\$439,378	\$ 0	\$ 439,378
<b>TOTALS:</b>	<b>95</b>	<b>\$12,388,182</b>	<b>\$ 321,977</b>	<b>\$12,710,159</b>

## VII. DEVELOPMENT OF TOTAL NORMAL COST ON ENTRY AGE METHOD

1.	Entry Age Normal Cost for Police Department	\$ 80,047
2.	Entry Age Normal Cost for Fire Department	77,862
3.	Entry Age Normal Cost for School Employees	59,803
4.	Entry Age Normal Cost for Town Employees	74,150
5.	Total Normal Cost as of July 1, 2020	
	[(1) + (2) + (3) + (4)]	\$ 291,862



## VIII. DEVELOPMENT OF UNFUNDED ACTUARIAL ACCRUED LIABILITY

### Actuarial Accrued Liability as of July 1, 2020

	<u>Actuarial Accrued Liability</u>
Police:	\$ 4,641,800
Fire:	3,303,607
School:	2,964,157
Town:	<u>3,255,783</u>
Total:	\$ 14,165,347

### Unfunded Actuarial Accrued Liability as of July 1, 2020

1. Actuarial Accrued Liability as of July 1, 2020	\$ 14,165,347
2. Actuarial Value of Assets as of July 1, 2020	11,865,932
3. Unfunded Actuarial Accrued Liability as of July 1, 2020 [(1) – (2), but not less than zero]	\$ 2,299,415

## IX. DEVELOPMENT OF ALTERNATIVE PENSION COSTS

### A. Pension Cost Without Amortization of Unfunded Actuarial Accrued Liability

1. Total Normal Cost	\$291,862
2. Interest on (1) to the end of Plan Year	21,160
3. Total Pension Cost [(1) + (2)]	313,022
4. Total Payroll as of July 1, 2020	2,270,980
5. Total Pension Cost as a Percentage of Payroll [(3)/(4)]	13.78%
6. Expected Employee Contributions	\$40,650
7. Total Pension Cost (Without Amortization) [(3) - (6)]	\$272,372

### B. Pension Cost With 30-Year Amortization of Unfunded Actuarial Accrued Liability

1. Total Normal Cost	\$291,862
2. 30-Year Amortization of Unfunded Actuarial Accrued Liability	177,135
3. Interest on (1) and (2) to the end of the Plan Year	34,002
4. Total Pension Cost (30-Year Amortization) [(1) + (2) + (3)]	502,999
5. Total Payroll as of July 1, 2020	2,270,980
6. Total Pension Cost (30-Year Amort.) as a Percentage of Payroll [(4) / (5)]	22.15%
7. Expected Employee Contributions	\$40,650
8. Town's Pension Cost with 30 Year Amortization [(4) - (7)]	\$462,349

### C. Pension Cost With 10-Year Amortization of Unfunded Actuarial Accrued Liability

1. Total Normal Cost	\$291,862
2. 10-Year Amortization of Unfunded Actuarial Accrued Liability	308,791
3. Interest on (1) and (2) to the end of the Plan Year	43,547
4. Total Pension Cost (10-Year Amortization) [(1) + (2) + (3)]	644,200
5. Total Payroll as of July 1, 2020	2,270,980
6. Total Pension Cost (10-Year Amort. as a Percentage of Payroll [(4) / (5)]	28.37%
7. Expected Employee Contributions	\$40,650
8. Town's Pension Cost with 10 Year Amortization [(4) - (7)]	\$603,550

## X. RECONCILIATION OF PLAN PARTICIPANTS

	<b>Active</b>	<b>Inactive*</b>	<b>Retired**</b>	<b>Total</b>
Participants included in the July 1, 2019 valuation	46	11	37	94
Data corrections	0	0	0	0
Terminated vested	0	0	0	0
Retired	0	0	0	0
Died with beneficiary	0	0	0	0
Died without beneficiary	0	0	0	0
Transferred out	0	0	0	0
Lump sum	0	0	0	0
Terminated non-vested	-2	0	0	-2
Rehired	0	0	0	0
Transferred in	0	0	0	0
New participants	3	0	0	3
Participants included in the July 1, 2020 valuation	47	11	37	95

\* Includes:

- One Town employee who retains benefits previously accrued as a School employee
- Two Alternate Payees, as per the terms of Qualified Domestic Relations Orders

\*\* Includes two separate records for one participant formerly employed by both the Police Department and Town

## XI. EXPECTED FUTURE BENEFIT PAYMENTS

<b>Year</b>	<b>Expected Benefit Payments</b>
2020	\$ 809,721
2021	836,822
2022	884,335
2023	906,708
2024	944,192
2025	980,213
2026	990,299
2027	1,042,600
2028	1,113,201
2029	1,132,520
2030	1,134,382
2031	1,203,119
2032	1,197,900
2033	1,248,459
2034	1,310,212

# Appendix

## Additional Actuarial Disclosures

Actuarial Standards of Practice require an actuary to identify risks that may be reasonably expected to impact the Plan's financial stability. The following risks have been identified by the Plan's actuary as potential risks that may have a material impact on the Plan's funding, including future contribution requirements and the ability to pay benefits when due, if experience varies from that expected in the valuation.

The identification of the risks below does not imply that the Plan *will* experience adverse consequences. Rather, the identification of the specific risks is intended to equip the Plan Sponsor with qualitative information regarding the environment in which the Plan is currently operating, and the potential risks inherent in the environment. Although the provision of quantitative analysis with respect to the risks below is outside of the scope of the annual valuation, we are available to provide additional analysis with respect to any or all of the risks identified below, including stochastic modeling, forecasting, and cash flow projections, at your request, to better assist your organization with understanding these risks. Please contact your plan administrator or actuary at The Angell Pension Group, Inc. ("Angell") for more information.

### **I. Identification and Measurement of Risk:**

- **Investment Risk** – Pension plans are subject to the inherent risks associated with the various investment classes that comprise the asset portfolio. Plans with higher allocation toward equities may be subject to higher risk, both positive and negative. To the extent that the Plan's investments return a rate less than necessary to maintain certain asset levels, there is a risk that the Plan could become underfunded, and additional cash contributions would be required from the Plan sponsor to make benefit payments when they become due.
- **Asset/Liability Mismatch Risk** – Pension plan investments have a "duration" over which investments are expected to mature. Similarly, pension plan liabilities have a duration based on the length of time over which benefits are expected to be paid. To the extent that the duration of the assets is different from the liabilities, changes in asset values may not be matched by changes in plan liabilities. We recommend you consult with your financial advisor to discuss the Plan's asset duration. Additional information regarding the Plan's liability duration is presented below in the Plan Maturity Measures section.
- **Interest Rate Risk** – Pension plan liabilities are calculated using various assumptions, including a defined set of interest rates. As the interest rates for valuing pension liabilities decrease, the liability increases. As liabilities increase, the funded status of the Plan may decrease. Government plans are subject to an interest discount rate based on the allocation of the Plan's assets, and the capital market outlook for each investment class in the portfolio. If the actual investment returns are lower than the assumed return, the Plan may experience funding shortfall, and higher required contributions in future years.
- **Mortality/Longevity Risk** – Pension plans provide benefits payable for the lifetimes of Plan participants. To the extent participants live longer than expected, the Plan may become

underfunded as a result of higher benefit payments than expected over the life of the Plan. For funding purposes, the mortality tables are selected by the Plan actuary and used to calculate the Plan liability for cash contribution purposes. We continue to monitor that the tables are appropriate based on the specific demographics of your Plan.

- Retirement/Demographic Risk – Pension plan participants may be assumed to retire at various ages. The assumption is based on prior experience of the Plan, and industry-wide retirement trends. To the extent actual retirements deviate from the expected retirements, the Plan may experience liability gains or losses. Plans with actively accruing benefit formulas may be subject to additional risk of underfunding as participants continue to age and earn benefit accruals, particularly if accruals continue after the Plan's Normal Retirement Age.
- Other Demographic Risk – To the extent that demographic experience varies from that assumed in the funding calculations, the Plan may experience funding shortfalls and higher contributions in future years. We monitor the demographic experience under the Plan each year, and recommend changes to the demographic assumptions as necessary. We are available to provide specific demographic analysis upon request.
- Contribution Risk – The continued funding of the Plan depends on the Plan Sponsor maintaining certain levels of funding that are sufficient to pay benefits as they become due. To the extent the Plan Sponsor does not make sufficient contributions, the Plan may be subject to underfunding. The continued funding of government pension plans depends on the ongoing required employee contributions. The enclosed funding results are based on the assumption that employee contributions will continue as required, in the amount required. To the extent employee contributions are not made as required, or not made in the amount required, the Plan Sponsor may be responsible for any resulting shortfall.

## **II. Plan Maturity Measures**

As identified above, pension plans have inherent longevity risks. Plan maturity measures provide qualitative guidance on the longevity risks of a specific plan. We are including the following maturity measures and are available to consult with you regarding the impact that various decisions may have on your Plan's maturity and the ability of your Plan to meet future benefit obligations.

The duration of the actuarial present value of accumulated plan benefits as of the measurement date is 12 years.

The duration of the Plan's liabilities provides a measure of the sensitivity of the liability to changes in the interest rate. A higher duration value implies a higher sensitivity to interest rate changes. As outlined in the risk identification disclosures, your Plan is exposed to Interest Rate Risk, and with the duration measure of 12 years, the liability can be reasonably expected to change by approximately 1.2% for every 10 basis point shift in the effective interest rate.

The Plan's liability duration also provides numerical information with respect to the longevity of the Plan, by outlining the period over which the Plan may reasonably expect to make distributions. If participants live longer than expected, the Plan's exposure to longevity/mortality risk may increase, as a result of making payments longer than expected.

Finally, the duration is also relevant for measuring the balance of the Plan liabilities compared to the Plan assets. As outlined in the risk identification disclosures, your Plan may be exposed to asset/liability mismatch if the duration measures are not aligned. You may wish to discuss the Plan's asset duration with your investment advisor, to better assess this identified risk. We are available to provide you with additional information for mitigating the risks presented, as they relate to your Plan's duration. Please contact your consultant at Angell for more information.

### III. Historical Plan Values

The following historical values are included to provide additional background regarding the Plan.

- Actual Asset Rate of Return/Discount Rate - The Plan's historical asset rate of return is shown below for the current and prior measurement dates, based on asset information provided by the Plan Sponsor.

The discount rate corresponds to the liability value as of the measurement date. The discount rate can be used as a benchmark for the growth in the Plan's liability from the beginning of the Plan year to the end of the Plan year. To the extent the actual rate of return on Plan assets does not keep pace with the discount rate, the Plan may experience a funding shortfall, which may increase the required minimum contributions in future years.

Year Ending June 30	2020	2019	2018	2017	2016
Approximate Rate of Return on Assets	2.64%	6.65%	7.93%	12.29%	0.50%
Assumed Rate of Return	7.25%	7.25%	7.25%	7.25%	7.25%

- Actual contributions compared to actuarially recommended contributions - The Plan's actual contributions compared to actuarially recommended contributions are shown below for the current and prior measurement dates, based on asset information provided by the Plan Sponsor.

Valuation Date	7/1/2020	7/1/2019	7/1/2018	7/1/2017	7/1/2016	7/1/2015
Actual Contributions	TBD	\$433,569	\$442,000	\$391,670	\$492,988	\$434,295
Actuarially Recommended Contributions	\$462,349	\$433,569	\$391,779	\$391,670	\$492,988	\$434,295
Ratio of Actual to Recommended	TBD	100.00%	112.82%	100.00%	100.00%	100.00%

## SCHEDULE OF ACTIVE EMPLOYEE CONTRIBUTIONS

Name	Date of Hire	Vested Percent	6/30/2019 Balance	Interest at 5.00%	Employee Contributions	6/30/2020 Balance	Accumulated Employee Contributions
<b>FIRE:</b>							
BEDNARZ, JONATHAN	05/11/2020	0%	\$0.00	\$0.00	\$447.59	\$447.59	\$447.59
CONDON, CHRISTOPHER	05/14/2017	0%	8,082.46	404.12	305.84	8,792.42	8,169.08
HUSSEY, SAMUEL	03/10/2014	100%	20,697.08	1,034.85	3,823.00	25,554.93	22,474.94
JOHNSON, WEST	03/25/2019	0%	901.74	45.09	3,253.56	4,200.39	4,155.30
TEIXEIRA, JUSTIN	05/12/2016	0%	9,687.00	484.35	3,823.00	13,994.35	13,127.46
TURNER, SAMUEL	03/23/2020	0%	0.00	0.00	895.16	895.16	895.16
<b>TOWN:</b>							
BRASWELL-CRONIN, SARA	12/08/2014	100%	12,689.55	634.48	2,747.57	16,071.60	14,405.05
COOK, HEATHER	10/22/2018	0%	1,495.80	74.79	2,443.25	4,013.84	3,939.05
MANCHESTER-WILKIE, STEPHANIE	01/06/2014	100%	14,730.99	736.55	2,517.25	17,984.79	15,723.74
MARION, NICOLE	06/07/2018	0%	1,330.29	66.51	2,517.25	3,914.05	3,847.54
MARTIN, SEAN	03/17/2018	0%	3,471.84	173.59	2,833.75	6,479.18	6,272.24
MOTTRAM, SHAWN	09/10/2018	0%	2,052.89	102.64	2,833.75	4,989.28	4,886.64
<b>POLICE:</b>							
LECLARE, RYAN C.	07/23/2012	100%	29,799.76	1,489.99	4,066.75	35,356.50	29,972.34
POMERLEAU, JON	12/16/2015	0%	15,544.44	777.22	4,066.75	20,388.41	18,578.81
THURSTON, MARK	01/09/2017	0%	8,909.37	445.47	4,075.45	13,430.29	12,682.42
<b>Totals:</b>			<b>\$129,393.21</b>	<b>\$6,469.65</b>	<b>\$40,649.92</b>	<b>\$176,512.78</b>	<b>\$159,577.36</b>



## HISTORICAL RATES OF RETURN

<b>Year Ending</b>	<b>Market Value of Assets as of Beginning of Year</b>	<b>Contributions</b>	<b>Distributions</b>	<b>Net Earnings</b>	<b>Market Value of Assets as of End of Year</b>	<b>Approximate Rate of Return</b>
06/30/1998	\$ 2,367,704	\$ 136,912	\$ (36,703)	\$ 513,153	\$ 2,981,066	21.04%
06/30/1999	2,981,066	132,098	(39,978)	527,132	3,600,318	17.30%
06/30/2000	3,600,318	126,952	(43,212)	518,474	4,202,532	14.16%
06/30/2001	4,202,532	168,230	(67,503)	(450,413)	3,852,846	-10.53%
06/30/2002	3,852,846	170,431	(108,393)	(471,417)	3,443,467	-12.06%
06/30/2003	3,443,467	201,480	(112,665)	112,473	3,644,755	3.20%
06/30/2004	3,644,755	213,750	(141,488)	313,922	4,030,939	8.46%
06/30/2005	4,030,939	325,765	(210,905)	305,868	4,451,667	7.50%
06/30/2006	4,451,667	281,263	(235,325)	385,141	4,882,746	8.63%
06/30/2007	4,882,746	303,154	(239,296)	816,573	5,763,177	16.65%
06/30/2008	5,763,177	358,331	(252,348)	(357,684)	5,511,476	-6.16%
06/30/2009	5,511,476	338,040	(292,131)	(991,488)	4,565,897	-17.95%
06/30/2010	4,565,897	424,375	(289,714)	639,021	5,339,579	13.83%
06/30/2011	5,339,579	507,896	(295,930)	1,192,988	6,744,533	21.96%
06/30/2012	6,744,533	414,405	(303,946)	89,318	6,944,310	1.32%
06/30/2013	6,944,310	341,771	(381,129)	778,892	7,683,844	11.27%
06/30/2014	7,683,844	428,479	(399,323)	1,153,203	8,866,203	15.01%
06/30/2015	8,866,203	412,141	(472,018)	310,446	9,116,772	3.52%
06/30/2016	9,116,772	412,141	(478,818)	45,383	9,095,478	0.50%
06/30/2017	9,095,478	434,295	(503,890)	1,111,264	10,137,147	12.29%
06/30/2018	10,137,147	492,988	(543,497)	799,825	10,886,463	7.93%
06/30/2019	10,886,463	391,670	(653,465)	713,153	11,337,821	6.65%
06/30/2020	11,337,821	442,000	(682,810)	335,352	11,432,363	3.00%