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**Report of the Actuary on the Annual Valuation
of the Consolidated Retirement Plan for the Employees of the City of
Marietta, Georgia**

Prepared as of July 1, 2015





Cavanaugh Macdonald

CONSULTING, LLC

The experience and dedication you deserve

February 12, 2016

Board of Trustees
Consolidated Retirement Plan for the
Employees of the City of Marietta, Georgia
205 Lawrence Street
Marietta, GA 30060

Dear Members of the Board:

We are pleased to submit herewith the results of the annual actuarial valuation of the Consolidated Retirement Plan for the Employees of the City of Marietta ("Plan") prepared as of July 1, 2015. The purpose of this report is to provide a summary of the funded status of the Plan as of July 1, 2015 and to recommend actuarially determined employer contributions. The information needed for this Fund under the new Governmental Accounting Standards Board Statements No. 67 and 68 will be provided in separate reports. However, for informational purposes only, we have also provided accounting information under GASB 25 and 27 in Section VI of the report. While not verifying the data at source, the actuary performed tests for consistency and reasonability.

The promised benefits of the Plan are included in the actuarially calculated contribution rates which are developed using the entry age normal cost method. A ten-year smoothed market value of plan assets was used for the actuarial value of assets. Gains and losses are reflected in the unfunded accrued liability that is being amortized by regular annual contributions as a level percentage of payroll within a 27-year period, on the assumption that payroll will increase by 3.50% annually. The actuarially determined employer contribution rate is 16.62% of payroll for the fiscal year ending June 30, 2017. The assumptions recommended by the previous actuary and adopted by the Board are in the aggregate reasonably related to the experience under the Plan and to reasonable expectations of anticipated experience under the Plan.

There have been no changes to assumptions, methods, or plan provisions since the previous valuation. The valuation takes into account all plan provisions of the Plan through July 1, 2015.

We have prepared the Schedule of Active Member Valuation Data, Schedule of Retired Members and Beneficiaries Added to and Removed from Rolls, the Solvency Test and the Analysis of Financial Experience for the actuarial section of the Annual Report and the Schedule of Funding Progress and Trend Information for the financial section of the Annual Report.

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Members of the Board
February 12, 2016
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This is to certify that the independent consulting actuary is a Member of the American Academy of Actuaries and has experience in performing valuations for public retirement Plans, that the valuation was prepared in accordance with principles of practice prescribed by the Actuarial Standards Board, and that the actuarial calculations were performed by qualified actuaries in accordance with accepted actuarial procedures, based on the current provisions of the Plan and on actuarial assumptions that are internally consistent and reasonably based on the actual experience of the Plan.

In our opinion, in order for the Plan to operate in an actuarially sound manner, contributions equal to the actuarially determined contributions are necessary. Assuming that the actuarially determined employer contributions to the Plan are made by the City from year to year in the future at the rates recommended on the basis of the successive actuarial valuations, the continued sufficiency of the retirement fund to provide the benefits called for under the Plan may be safely anticipated.

Future actuarial results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Since the potential impact of such factors is outside the scope of a normal annual actuarial valuation, an analysis of the range of results is not presented herein.

We trust that the report will meet the approval of the Board and will furnish the desired information concerning the financial condition of the Plan.

Respectfully submitted,

A handwritten signature in blue ink that reads 'Edward J. Koebel'.

Edward J. Koebel, FCA, MAAA, EA
Principal and Consulting Actuary

A handwritten signature in blue ink that reads 'John J. Garrett'.

John J. Garrett, ASA, FCA, MAAA
Principal and Consulting Actuary

EJK/JJG:dmw



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**CONSOLIDATED RETIREMENT PLAN FOR THE
EMPLOYEES OF THE CITY OF MARIETTA
REPORT OF THE ACTUARY
ON THE ANNUAL VALUATION
PREPARED AS OF JULY 1, 2015**

SECTION I – SUMMARY OF PRINCIPAL RESULTS

1. For convenience of reference, the principal results of the current and preceding valuations are summarized below.

Valuation Date	July 1, 2015	July 1, 2013
Active members:		
Number	689	686
Annualized compensation	\$ 32,480,676	\$ 31,881,509
Retired members and beneficiaries:		
Number	489	443
Annual allowances	\$ 10,081,236	\$ 8,858,707
Number of terminated vested members	352	331
Assets:		
Market Value	\$ 97,314,941	\$ 84,994,208
Actuarial Value	95,046,107	87,436,880
Unfunded actuarial accrued liability	\$ 66,735,701	\$ 69,320,648
Funded Ratio on Actuarial Value Basis	58.7%	55.8%
Amortization Period	27 years	29 years
Fiscal Years Ending	June 30, 2017 & 2018	June 30, 2015 & 2016
City actuarially determined contribution rate (ADC):		
Normal (including expenses)	4.23%	4.32%
Accrued liability	<u>12.39</u>	<u>12.60</u>
Total	16.62%	16.92%



2. The major benefit and contribution provisions of the Plan as reflected in the valuation are summarized in Schedule G. There have been no changes since the previous valuation.
3. Schedule E of this report outlines the full set of actuarial assumptions and methods used in the valuation. There have been no changes since the previous valuation.
4. The entry age normal actuarial cost method was used to prepare the valuation. Schedule F contains a brief description of the actuarial cost method.
5. Comments on the valuation results as of July 1, 2015 are given in Section IV and further discussion of the contributions is set out in Section V.

SECTION II – MEMBERSHIP DATA

1. Data regarding the membership of the Plan for use as a basis of the valuation were furnished by the City. The valuation included 689 active members with annualized compensation totaling \$32,480,676.
2. The following table shows the number of retired members and beneficiaries as of July 1, 2015 together with the amount of their annual retirement benefits payable under the Plan as of that date.

THE NUMBER AND ANNUAL BENEFITS OF RETIRED MEMBERS AND BENEFICIARIES AS OF JULY 1, 2015

GROUP	NUMBER*	ANNUAL RETIREMENT BENEFITS
Service Retirements	433	\$ 9,127,177
Disability Retirements	24	522,123
Beneficiaries of Deceased Members	<u>32</u>	<u>431,936</u>
Total	489**	\$ 10,081,236

* In addition, there are 352 terminated members entitled to deferred vested benefits.

** Of the 489 total retirees, 106 are eligible for an annual cost of living increase under the 4022 Plan.



3. Table 1 of Schedule H shows the distribution by age and years of membership service of the number of active members included in the valuation, while Tables 2-5 shows the number and annual benefits of retired members and beneficiaries included in the valuation, distributed by age. Table 6 shows the schedule of active member valuation data and Table 7 shows the schedule of retired members and beneficiaries added to and removed from the rolls.

SECTION III – ASSETS

As of July 1, 2015, the total market value of assets amounted to \$97,314,941. The actuarial value of assets used for the current valuation was \$95,046,107. Schedule C shows the development of the actuarial value of assets as of July 1, 2015. The estimated investment return for the fiscal year ending June 30, 2015 on an actuarial value of assets basis was 7.32%, which can be compared to the investment return assumed for the period of 7.50%. Schedule D shows the allocation of the Plan's assets and the market value of assets for two years.

SECTION IV – COMMENTS ON VALUATION

1. Schedule B of this report contains the valuation balance sheet which shows the present and prospective assets and liabilities of the Plan as of July 1, 2015. The valuation was prepared in accordance with the actuarial assumptions set forth in Schedule E and the actuarial cost method which is described in Schedule F.
2. The valuation balance sheet shows that the Plan has total prospective liabilities of \$182,195,118 of which \$100,579,334 is for the prospective benefits payable on account of present retired members, beneficiaries of deceased members, and terminated members entitled to deferred benefits, and \$81,615,784 is for the prospective benefits payable on account of present active members. Against these liabilities, the Plan has a total present actuarial value of assets of \$95,046,107 as of July 1, 2015. The difference of \$87,149,011 between the total liabilities and the total present assets represents the present value of future contributions.



3. The contributions to the Plan consist of normal contributions and accrued liability contributions. The valuation indicates that normal contributions at the rate of 7.72% of payroll are required under the entry age method. Of this amount, 3.88% is paid by the members and the remaining 3.84% is required by the City.
4. Prospective normal contributions at the rate of 7.72% have a present value of \$20,413,310. When this amount is subtracted from \$87,149,011, which is the present value of the total future contributions to be made, there remains \$66,735,701 as the amount of unfunded accrued liability contributions. The development of the unfunded accrued liability is shown in Schedule A.
5. Overall, the experience of the Plan was favorable for the two year period ending June 30, 2015. The unfunded accrued liability decreased by \$2.6 million and the funding ratio increased from 55.8% to 58.7%. Gains were mainly due to salary increases and COLA increases being less than expected. These gains were offset by a small investment loss and retirement and mortality losses for the two year period. See Section VII for a complete breakdown of the experience of the Plan.

SECTION V – CONTRIBUTIONS PAYABLE

1. The contributions consist of a normal contribution and an accrued liability contribution as determined by actuarial valuation.
2. The normal contribution rate is calculated as the level percentage of payroll which, if applied for the average new member during the entire period of his anticipated covered service, would be required to meet the cost of all benefits payable on his behalf. On the basis of the valuation, the normal contribution rate was determined to be 7.72%.
3. Section 3 of Article IV of the City of Marietta Ordinance No. 4532 states that each member shall contribute an amount equal to the Member's Compensation multiplied by 4.00%. However, contributions are not required of active members still participating in the 4022 Plan. This year the weighted average contribution rate for all active members is 3.88%.
4. The City normal contribution rate is equal to the difference between the normal contribution rate of 7.72% and the member contribution rate of 3.88%, or 3.84% of payroll. An additional \$125,000



is required for administrative expenses, or 0.38% of payroll, making the total City normal rate 4.23% of payroll.

5. Section 1 of Article IV of the City of Marietta Ordinance No. 4532 states that the City of Marietta shall contribute an amount necessary to fund the Plan. The actuarially determined contribution (ADC) rate for the fiscal year ending June 30, 2017 is 16.62% of payroll.
6. Based on a total employer rate of 16.62%, the annual accrued liability contribution rate is determined to be 12.39% of payroll. This rate will be sufficient to amortize the unfunded actuarial accrued liability of \$66,735,701 within approximately 27 years following the valuation date, on the assumption that the payroll will increase by 3.50% each year.
7. The following table summarizes the employer contributions which were determined by the July 1, 2015 valuation and are recommended for use for the next two fiscal years following the valuation date. The results for the fiscal year ending June 30, 2018 assume a 3.50% annual growth in the compensation of active members.

**CITY ACTUARIALLY DETERMINED CONTRIBUTIONS (ADC)
FOR FISCAL YEARS ENDING JUNE 30, 2017 and JUNE 30, 2018**

Contribution for	As % of Active Pay	JUNE 30, 2017 Estimated Amount	JUNE 30, 2018 Estimated Amount
Normal (including expenses)	4.23%	\$1,374,000	\$1,422,000
Accrued Liability	<u>12.39</u>	<u>4,025,000</u>	<u>4,166,000</u>
Total	16.62%	5,399,000	5,588,000



SECTION VI – ACCOUNTING INFORMATION

Governmental Accounting Standards Board (GASB) has issued Statements No. 67 and 68 which replaced Statements No. 25 and 27 for plan years beginning after June 15, 2013. The information required under the new GASB Statements will be issued in separate reports. The following information is provided for informational purposes only.

1. The following is a distribution of the number of employees by type of membership, as follows:

**NUMBER OF ACTIVE AND RETIRED PARTICIPANTS
AS OF JULY 1, 2015**

GROUP	NUMBER
Retired participants and beneficiaries currently receiving benefits	489
Terminated participants and beneficiaries entitled to benefits but not yet receiving benefits	352
Active Participants	<u>689</u>
Total	1,530

2. Another such item is the schedule of funding progress as shown below.

SCHEDULE OF FUNDING PROGRESS
(dollar amounts in thousands)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b – a)	Funded Ratio (a / b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b – a) / c)
7/01/2009	\$73,352	\$138,252	\$64,900	53.1%	\$33,079	196.2%
7/01/2010	73,974	139,661	65,687	53.0	33,281	197.4
7/01/2011	81,426	147,636	66,210	55.2	33,654	196.7
7/01/2012	84,502	152,019	67,517	55.6	32,890	205.3
7/01/2013	87,437	156,758	69,321	55.8	31,882	217.4
7/01/2015	95,046	161,782	66,736	58.7	32,481	205.5

All figures prior to July 1, 2013 were reported by a prior actuarial firm.



3. Additional information as of July 1, 2015 follows:

Valuation date	7/01/2015
Actuarial cost method	Entry age
Amortization period	Level Percent of Pay, Closed
Remaining amortization period	27 years
Asset valuation method	Ten-year smoothed market value
Actuarial assumptions:	
Investment rate of return (includes inflation)	7.50%
Projected salary increases (includes inflation)	3.50%
Inflation	3.50%
Cost-of-living adjustments	3.00% for Plan 4022 Level 1



SECTION VII – EXPERIENCE

1. As an aid to the Board in adopting service and mortality tables, the previous actuary prepared an experience investigation for the five-year period ending June 30, 2009. The valuation was based on the assumptions adopted by the Board as a result of that investigation.
2. The following table shows the estimated change in the unfunded accrued liability from various factors that resulted in a decrease of \$2,584,947 in the unfunded accrued liability from \$69,320,648 to \$66,735,701 during the two year period ending June 30, 2015.

ANALYSIS OF FINANCIAL EXPERIENCE – CHANGE IN UNFUNDED ACCRUED LIABILITY (dollar amounts in thousands)

ITEM	AMOUNT OF INCREASE/(DECREASE)
Interest (7.50%) added to previous unfunded accrued liability for 2014	\$ 5,199
Accrued Liability Contribution in 2014	(4,663)
Interest (7.50%) added to previous unfunded accrued liability for 2015	5,239
Accrued Liability Contribution in 2015	(4,750)
Recognized Asset (Gain)/Loss	538
Liability (Gain)/Loss	(2,153)
Salary Increases	(1,995)
Amendments	0
Assumption and Method Changes	<u>0</u>
Increase/(Decrease) in Unfunded Accrued Liability	\$(2,585)



SCHEDULE A

**DEVELOPMENT OF THE UNFUNDED ACTUARIAL ACCRUED LIABILITY
AS OF JULY 1, 2015**

(1)	Present value of prospective benefits:	
(a)	Present active members	\$ 81,615,784
(b)	Present retired members, beneficiaries and former members entitled to deferred vested benefits and refunds	<u>100,579,334</u>
(c)	Total	\$ 182,195,118
(2)	Present value of future Plan and member normal contributions before expenses	<u>20,413,310</u>
(3)	Actuarial accrued liabilities 1(c) – (2)	\$ 161,781,808
(4)	Actuarial value of assets	<u>95,046,107</u>
(5)	Unfunded actuarial accrued liability (3) – (4)	\$ 66,735,701



SCHEDULE B

VALUATION BALANCE SHEET

The present and prospective assets and liabilities of the Plan as of July 1, 2015:

<u>ACTUARIAL LIABILITIES</u>		
Present value of prospective benefits payable on account of present retired members, beneficiaries of deceased members, and terminated members entitled to deferred benefits and refunds		\$ 100,579,334
Present value of prospective benefits payable on account of present active members		<u>81,615,784</u>
Total liabilities		<u>\$ 182,195,118</u>
<u>PRESENT AND PROSPECTIVE ASSETS</u>		
Actuarial value of assets		\$ 95,046,107
Present value of future contributions		
City and member normal contributions	\$ 20,413,310	
Unfunded accrued liability contributions	<u>66,735,701</u>	
Total prospective contributions		<u>87,149,011</u>
Total assets		<u>\$ 182,195,118</u>



SOLVENCY TEST
(dollar amounts in thousands)

Valuation Date	Aggregate Accrued Liabilities For			Reported Assets	Portion of Accrued Liabilities Covered by Reported Assets		
	(1) Active Member Contributions	(2) Retirees and Beneficiaries	(3) Active Members (Employer Financed Portion)		(1)	(2)	(3)
7/1/15	\$6,413.5	\$100,579.3	\$54,789.0	\$95,046.1	100%	88.1%	0%
7/1/13	5,389.9	94,635.8	56,731.9	87,436.9	100	86.7	0
7/1/12	4,219.2	85,394.7	62,405.0	84,501.4	100	94.0	0
7/1/11	3,006.1	83,062.7	61,567.4	81,425.8	100	94.4	0
7/1/10 ¹	1,760.7	81,196.3	56,703.8	73,973.7	100	88.9	0
7/1/09	568.4	84467.7	53,214.4	73,351.8	100	86.2	0

All figures prior to July 1, 2013 were reported by a prior actuarial firm.

¹Economic and demographic assumptions were changed as of July 1, 2010 due to an experience review.



SCHEDULE C

DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS

	7/01/2014 to 6/30/2015	7/01/2013 to 6/30/2014
(1) Actuarial Value of Assets Beginning of Year	\$ 91,220,824	\$ 87,436,880
(2) Market Value of Assets as of End of Year	\$ 97,314,941	\$ 97,324,102
(3) Market Value of Assets as of Beginning of Year	\$ 97,324,102	\$ 84,994,208
(4) Net Cash Flow During Plan Year		
(a) Contributions	\$ 7,011,002	\$ 6,929,571
(b) Benefit Payments	<u>9,766,323</u>	<u>9,262,318</u>
(c) Net Cash Flow (a) – (b)	\$ (2,755,321)	\$ (2,332,747)
(5) Investment Return (2) – (3) – (4c)	\$ 2,746,160	\$ 14,662,641
(6) Expected Investment Return [(3) x 7.50%] + [(4)c x 7.50% x 0.5]	\$ 7,195,983	\$ 6,287,088
(7) Investment Gain/(Loss) for Phased-In Recognition (5) – (6)	\$ (4,449,823)	\$ 8,375,553
(8) Recognized Amounts for Plan Year		
(a) Current Year 0.10 x (7)	\$ (444,982)	\$ 837,555
(b) First Prior Year	837,555	454,979
(c) Second Prior Year	454,979	(545,748)
(d) Third Prior Year	(545,748)	755,159
(e) Fourth Prior Year	755,159	138,271
(f) Fifth Prior Year	138,271	(1,044,787)
(g) Sixth Prior Year	(1,044,787)	(765,827)
(h) Seventh Prior Year	(765,827)	0
(i) Eighth Prior Year	0	0
(j) Ninth Prior Year	<u>0</u>	<u>0</u>
(k) Total Recognized Investment Gain/(Loss)	\$ (615,379)	\$ (170,397)
(9) Actuarial Value of Assets End of Year (1) + (4)(c) + (6) + (8)(k)	\$ 95,046,107	\$ 91,220,824
(10) Rate of Return on Actuarial Value	7.32%	7.09%



SCHEDULE D

RECONCILIATION OF MARKET VALUE OF ASSETS

	Years Ended June 30	
	2015	2014
Market Value of Assets - Beginning of Year	97,324,102	84,994,208
ADDITIONS:		
Contributions:		
Member	\$ 1,279,942	\$ 1,260,264
Employer	5,731,060	5,669,307
Total Contributions	7,011,002	6,929,571
Investment Income (loss):		
Net Appreciation (depreciation) in fair value of investments	1,555,848	14,019,050
Interest & Dividends	1,792,408	1,231,759
	3,348,256	15,250,809
Investment Fees	(602,096)	(588,168)
Net Investment Income (loss)	2,746,160	14,662,641
Total Additions (loss)	9,757,162	21,592,212
DEDUCTIONS:		
Benefits & Refunds	(9,654,868)	(9,118,269)
Administration	(111,455)	(144,049)
Total Deductions	(9,766,323)	(9,262,318)
Change in Net Assets	(9,161)	12,329,894
Market Value of Assets - End of Year	\$97,314,941	\$97,324,102
Rate of Return on Market Value of Assets	2.86%	17.49%



SCHEDULE E

OUTLINE OF ACTUARIAL ASSUMPTIONS AND METHODS

The assumptions and methods used in the valuation were selected by the Actuary and adopted by the Board following the most recent Experience Study from July 1, 2004 to July 1, 2009.

INVESTMENT RATE OF RETURN: 7.5% per year, compounded annually, net of investment expenses.

WAGE BASE GROWTH: The National Wage Base used to calculate Covered Compensation is expected to grow 3.5% per year.

SALARY INCREASES: Representative values of the assumed annual rates of salary increases are as follows:

Age	General Employees*	Uniformed Officers*
20	12.62%	6.50%
25	8.62	5.25
30	7.27	4.75
35	6.44	4.50
40	5.83	4.27
45	5.35	4.10
50	4.96	4.00
55	4.63	3.50
60	4.34	3.50

*Includes inflation of 3.50%

SEPARATIONS FROM ACTIVE SERVICE: For death rates, the RP 2000 Combined Healthy Mortality Table was used. Representative values of the assumed annual rates of separation from active service are as follows:

Annual Rates of			
Age	Disability	Death - Males	Death - Females
20	0.05%	0.04%	0.02%
25	0.05	0.04	0.02
30	0.05	0.07	0.04
35	0.07	0.10	0.06
40	0.14	0.14	0.10
45	0.23	0.20	0.16
50	0.37	0.32	0.24
55	0.60	0.59	0.44
60	0.90	1.13	0.86



Annual Rates of Withdrawal						
Service	General Employees With Less Than Seven Years Service			General Employees With Seven or More Years Service		Uniformed Officers*
	Male	Female	Age	Male	Female	Male/Female
0	21.00%	18.00%	20	8.00%	1.00%	16.67%
1	19.00	15.50	25	7.12	1.00	13.31
2	17.00	13.00	30	6.24	1.00	9.95
3	15.00	10.50	35	5.35	1.00	7.51
4	13.00	8.00	40	4.47	1.00	5.36
5	11.00	5.50	45	3.59	1.00	3.00
6	9.00	3.00	50	2.70	1.00	0.00
			55	0.00	0.00	0.00
			60	0.00	0.00	0.00

*For Uniformed Officers in the 4022 Plan, withdrawal rates are 1.00% for each year under age 50.

Annual Rates of Retirement*			
Age	4022 Plan Uniformed Officers	General Employees	Uniformed Officers
45-49	5%	0%	0%
50	12	0	0
51-53	20	0	0
54	60	0	0
55	60	10	20
56-59	60	3	10
60	100	3	100
61		12	
62-66		22	
67-69		10	
70		100	

*For Employees not yet eligible for Rule of 80

Annual Rate of Retirement for Rule of 80		
Age Plus Service	General Employees	Uniformed Officers
80	50%	40%
81	50	30
82-90	20	30



DEATHS AFTER RETIREMENT: The RP-2000 Combined Healthy Retiree Mortality Table set forward four years is used for the period after retirement and for dependent beneficiaries. The RP-2000 Disabled Retiree Mortality Table multiplied by 75% is used for the period after disability retirement.

ADMINISTRATIVE EXPENSES: \$125,000 payable monthly.

PERCENT MARRIED: 100% of active members are assumed to be married with the male three years older than his spouse.

COST OF LIVING: An automatic 3.00% cost of living adjustment is assumed for all Plan 4022 Level 1 members. No increases are assumed for the Consolidated Plan members.

ASSETS: Actuarial value, as developed in Schedule B. The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected actuarial value of assets, based on the assumed valuation rate of return. The amount recognized each year is 10% of the difference between market value and expected actuarial value.

VALUATION METHOD: Entry age actuarial cost method. See Schedule F for a brief description of this method.



SCHEDULE F

ACTUARIAL COST METHOD

1. The valuation is prepared on the projected benefit basis, under which the present value, at the interest rate assumed to be earned in the future (currently 7.50%), of each member's expected benefits at retirement or death is determined, based on age, service and sex. The calculations take into account the probability of a member's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of his terminating with a service, disability or survivor's benefit. The present value of the expected benefits payable on account of the active members is added to the present value of the expected future payments to retired members and beneficiaries to obtain the present value of all expected benefits payable from the Plan on account of the present group of members and beneficiaries.
2. The employer contributions required to support the benefits of the Plan are determined following a level funding approach, and consist of a normal contribution and an accrued liability contribution.
3. The normal contribution is determined using the entry age actuarial cost method. Under this method, a calculation is made to determine the level percentage of payroll which, if applied for the average new member during the entire period of his anticipated covered service, would be required in addition to the contributions of the member to meet the cost of all benefits payable on his behalf.
4. The unfunded accrued liability is determined by subtracting the present value of prospective employer normal contributions and member contributions, together with the current actuarial value of assets held, from the present value of expected benefits to be paid from the Plan.



SCHEDULE G

**SUMMARY OF MAIN PLAN PROVISIONS
AS INTERPRETED FOR VALUATION PURPOSES**

Member	An employee of the City of Marietta, hired after March 1, 1987.
Membership Service Credit	Full-time service for all periods of employment with the City of Marietta.
Final Average Salary	A member's average monthly compensation for the highest 3 consecutive years if hired before January 1, 2009, and highest 5 consecutive years if hired on or after January 1, 2009. For elected officials, amount is based on the average salary for all non-elected employees in the Consolidated Plan.
Accrued Benefit	The monthly amount of retirement benefits earned by a member as of any date computed from his Final Average Salary and Membership Service Credit at that date.
Service Retirement Benefit	
Eligibility	If hired prior to March 18, 2008, age 65 with at least 5 years of service. If hired between March 18, 2008 and January 1, 2009, age 65 with at least 7 years of service. If hired on or after January 1, 2009, age 65 with at least 10 years of service.
Benefit	Monthly benefit is 2.1% of final average salary multiplied by years of membership service credit. Maximum benefit amount limited to 35 years of service.
Early Retirement Benefit	
Eligibility	If hired prior to March 18, 2008, age 55 with at least 5 years of service. If hired between March 18, 2008 and January 1, 2009, age 55 with at least 7 years of service. If hired on or after January 1, 2009, age 55 with at least 10 years of service.
Benefit	Accrued benefit reduced by 3% per year before age 65 for members hired before January 1, 2009. Accrued benefit reduced by 5.004% per year before age 65 for members hired on or after January 1, 2009.



Unreduced early retirement is granted to members whose age plus service is at least 80. Members hired after March 18, 2008 must also be at least age 55.

Plan 4022 Level 1
Retirement Benefit

Eligibility

Normal Retirement at age 55 with 5 years of service.

Benefit

1 1/3% of final average earnings times years of service, not less than 1.1% of the highest consecutive 36 months of average earnings, up to the Covered Compensation Limit. Plus 2.1% of the highest consecutive 36 months of average earnings greater than this limit times years of service. Covered Compensation is determined as if the participant were 10 years older.

Early retirement available starting at age 45. Accrued benefit is reduced by 2.004% per year before age 55.

Plan 4022 members can choose an unreduced early retirement benefit under the Consolidated Plan when the sum of their age plus service is at least 80. Under this alternate retirement option, members will have their benefit calculated using the 2.1% multiplier for all years of service, up to the maximum 35 years, but will forfeit their cost of living increase and their beneficiary's death benefit under the 4022 Plan. Members can purchase the death benefit, by choosing one of the optional forms of payment.

Disability Retirement Benefit

Eligibility

1 year of service.

Benefit

The larger of the normal pension accrued and 50% of average monthly earnings in the year preceding disability. This amount is offset by the benefits received from Workers Compensation.

Deferred Vested
Retirement Benefit

Eligibility

If hired prior to March 18, 2008, 5 years of service.

If hired between March 18, 2008 and January 1, 2009, 7 years of service.

If hired on or after January 1, 2009, 10 years of service.

Benefit

Accrued benefit payable at earliest retirement age, with the appropriate reduction for early retirement. The assumption is made that members will defer payment until age 65.



Death Benefit

If a member dies in service, his beneficiary is entitled to receive a lump sum equal to the return of the member's accumulated contributions with zero interest.

Plan 4022 Death Benefit

If member dies while in active service, his beneficiary is entitled to the monthly benefit accrued at member's death.

Upon the death of a retiree, a monthly benefit shall be paid to his beneficiary in accordance with tables set forth in Plan 4022.

Optional Forms of Benefit

- (1) 100%, 75%, or 50% joint and survivor annuity.
- (2) Joint and survivor annuity with a pop-up provision.
- (3) Social Security option.

Contributions

Each member contributes 4.00% of pay. Upon termination, these contributions may be refunded to member with no interest.



SCHEDULE H

TABLE 1

**DISTRIBUTION OF ACTIVE MEMBERS BY AGE AND SERVICE GROUPS
AS OF JULY 1, 2015**

Attained Age	Completed Years of Service									Total
	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & Over	
Under 25	18	20								38
Average Pay	\$31,981	\$36,898								\$34,569
25 to 29	15	41	16	1						73
Average Pay	\$37,631	\$37,506	\$40,983	\$60,299						\$38,606
30 to 34	12	26	43	15						96
Average Pay	\$36,418	\$41,223	\$45,842	\$45,184						\$43,310
35 to 39	5	15	29	23	8					80
Average Pay	\$48,838	\$39,579	\$47,579	\$48,064	\$55,317					\$47,071
40 to 44	4	6	28	23	21	4	1			87
Average Pay	\$44,008	\$30,874	\$44,984	\$51,449	\$56,443	\$50,086	\$41,912			\$48,640
45 to 49	6	6	15	21	21	12	14	1		96
Average Pay	\$32,619	\$36,306	\$49,168	\$46,433	\$55,577	\$66,569	\$60,230	\$59,134		\$52,026
50 to 54	3	6	13	15	23	16	17	4		97
Average Pay	\$40,206	\$37,606	\$38,886	\$40,040	\$57,759	\$64,215	\$66,054	\$77,817		\$54,046
55 to 59	3	8	13	9	14	9	6	5	3	70
Average Pay	\$43,361	\$31,879	\$45,328	\$36,341	\$51,398	\$49,123	\$54,256	\$73,782	\$76,419	\$48,383
60 to 64		3	12	5	4	4	1	2	1	32
Average Pay		\$52,783	\$42,292	\$51,646	\$39,983	\$68,437	\$62,810	\$64,773	\$53,061	\$50,099
65 to 69		1	5	2	2	3	1		2	16
Average Pay		\$13,000	\$42,090	\$39,832	\$57,564	\$57,032	\$61,173		\$46,311	\$46,446
70 & up			1	1	1	1				4
Average Pay			\$30,597	\$107,182	\$44,803	\$40,997				\$55,895
Total Count	66	132	175	115	94	49	40	12	6	689
Average Pay	\$37,027	\$37,851	\$44,841	\$46,736	\$54,924	\$60,297	\$61,440	\$72,405	\$62,490	\$47,142

Average Age: 43.2
Average Service: 11.0



TABLE 2

NUMBER OF RETIRED MEMBERS AND THEIR BENEFITS BY AGE

<u>Attained Age</u>	<u>Number of Members</u>	<u>Total Annual Benefits</u>	<u>Average Annual Benefits</u>
Under 50	-	\$ -	\$ -
50 - 54	29	923,691	31,851
55 - 59	78	1,757,968	22,538
60 - 64	101	2,254,017	22,317
65 - 69	84	1,464,236	17,431
70 - 74	64	1,359,155	21,237
75 - 79	44	616,131	14,003
80 & Over	33	751,979	22,787
Total	433	\$ 9,127,177	\$ 21,079

TABLE 3

NUMBER OF DISABLED MEMBERS AND THEIR BENEFITS BY AGE

<u>Attained Age</u>	<u>Number of Members</u>	<u>Total Annual Benefits</u>	<u>Average Annual Benefits</u>
Under 50	2	\$ 40,107	\$ 20,054
50 - 54	3	62,351	20,784
55 - 59	4	93,496	23,374
60 - 64	4	109,790	27,448
65 - 69	4	105,645	26,411
70 - 74	3	49,130	16,377
75 - 79	1	19,535	19,535
80 & Over	3	42,069	14,023
Total	24	\$ 522,123	\$ 21,755

TABLE 4

NUMBER OF BENEFICIARIES AND THEIR BENEFITS BY AGE

<u>Attained Age</u>	<u>Number of Members</u>	<u>Total Annual Benefits</u>	<u>Average Annual Benefits</u>
Under 50	1	\$ 7,551	\$ 7,551
50 - 54	1	32,450	32,450
55 - 59	3	51,265	17,088
60 - 64	6	62,114	10,352
65 - 69	4	52,735	13,183
70 - 74	7	65,655	9,379
75 - 79	8	140,835	17,604
80 & Over	2	19,331	9,666
Total	32	\$ 431,936	\$ 13,498



TABLE 5

NUMBER OF DEFERRED VESTEDS AND THEIR BENEFITS BY AGE

<u>Attained Age</u>	<u>Number of Members</u>	<u>Total Annual Benefits</u>	<u>Average Annual Benefits</u>
Under 40	55	\$ 373,490	\$ 6,791
40 - 44	49	348,020	7,102
45 - 49	82	691,323	8,431
50 - 54	82	551,786	6,729
55 - 59	44	223,425	5,078
60 - 64	27	114,986	4,259
65 - 69	10	45,982	4,598
70 & Over	3	7,895	2,632
Total	352	\$ 2,356,907	\$ 6,696

TABLE 6

SCHEDULE OF ACTIVE MEMBER VALUATION DATA

<u>Valuation Date</u>	<u>Number Prior Year</u>	<u>Exits</u>	<u>New Entrants & Rehires</u>	<u>Number Current Year</u>	<u>Annual Payroll</u>	<u>Annual Average Pay</u>	<u>% Increase in Average Pay</u>
7/1/2015	702	79	66	689	\$32,480,676	\$47,142	3.8%
7/1/2014	686	68	84	702	31,881,508	45,415	-2.3%
7/1/2013	708	65	43	686	31,881,509	46,475	0.0%
7/1/2012	729	47	26	708	32,890,116	46,455	0.6%
7/1/2011	722	30	37	729	33,653,835	46,164	0.1%
7/1/2010	720	38	40	722	33,280,906	46,095	0.3%
7/1/2009	720			720	33,079,296	45,943	N/A

Results prior to the 7/1/13 valuation were reported by a prior actuarial firm.



TABLE 7

SCHEDULE OF RETIRED MEMBERS AND BENEFICIARIES
ADDED TO AND REMOVED FROM ROLLS

Year Ended	Rolls – Beginning of Year		Added to Rolls		Removed from		Cost of Living Adjustment	Rolls – End of Year		% Increase in Annual Allowances	Average Annual Allowances
	No.	Annual Allowances	No.	Annual Allowances	No.	Annual Allowances		No.	Annual Allowances		
7/1/2015	465	\$9,370,822	38	\$959,484	14	\$286,014	\$36,943	489	\$10,081,236	7.6%	\$20,616
7/1/2014	443	8,858,707	31	679,947	9	201,577	33,745	465	9,370,822	5.8%	20,152
7/1/2013	420	8,076,216	35	960,814	12	218,379	40,056	443	8,858,707	9.7%	19,997
7/1/2012	407	7,735,164	29	*	16	*	*	420	8,076,216	4.4%	19,229
7/1/2011	402	7,664,736	20	*	15	*	*	407	7,735,164	0.9%	19,005
7/1/2010	397	7,465,104	21	*	16	*	*	402	7,664,736	2.7%	19,067
7/1/2009	387							397	7,465,104	N/A	18,804

Results prior to the 7/1/13 valuation were reported by the prior actuarial firm.

*Amount not provided by prior actuary.