Chicago Transit Authority
Retiree Health Care Trust

Actuarial Valuation as of January 1, 2017
Including Accounting Disclosures for
the Year Ended December 31, 2016

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September 25, 2017

Board of Trustees
Chicago Transit Authority Retiree Health Care Trust
Chicago, Illinois

Dear Trustees:

We are pleased to submit this valuation of the Retiree Health Care Trust as of January 1, 2017.

This report is based on information received from Group Administrators and the Retiree Health Care Trust. Segal Consulting does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. Segal, however, does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report and we have no reason to believe there are facts or circumstances that would affect the validity of these results.

The actuarial computations made are for purposes of determining compliance with certain requirements of the Illinois Pension Code, and accounting disclosures under the Governmental Accounting Standards Board Statement. Determinations for purposes other than meeting these requirements may be significantly different from the results reported here.

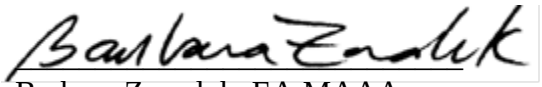
Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: retiree group benefits program experience differing from that anticipated by the assumptions; changes in assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in retiree group benefits program provisions or applicable law. Retiree group benefits models necessarily rely on the use of approximations and estimates, and are sensitive to changes in these approximations and estimates. Small variations in these approximations and estimates may lead to significant changes in actuarial measurements. The scope of the assignment did not include performing an analysis of the potential range of such future measurements.

To the best of our knowledge, this report is complete and accurate and in our opinion presents the information necessary to comply with Illinois Pension Code Section 22-101B(b)(3)(iii), Illinois Pension Code Section 22-101B(b)(5), and GASB Statement 43 with respect to the benefit obligations addressed. We are members of the Society of Actuaries, the American Academy of Actuaries, and other professional actuarial organizations, and collectively meet their “General Qualification Standards for Statements of Actuarial Opinions” to render the actuarial opinion contained herein.

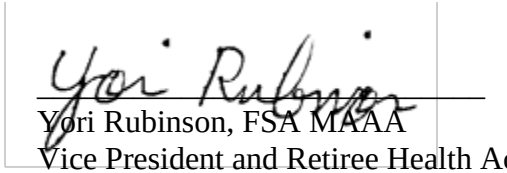
We look forward to discussing this material with you at your next meeting.

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.

By: 

Barbara Zaveduk, EA MAAA
Vice President and Actuary



Yori Rubinson, FSA MAAA
Vice President and Retiree Health Actuary

cc: Mr. John V. Kallianis
Ms. Ruth Donahue
Ms. Dorothy Stawiarski

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Chicago Transit Authority Retiree Health Care Trust
Actuarial Valuation as of January 1, 2017

Section 1: Introduction

Introduction

Prior to Public Act 095-0708, the Retirement Plan for CTA Employees reimbursed the CTA for healthcare benefits provided to retired members and their dependents.

Under Section 22-101B of Public Act 095-0708, the Retiree Health Care Trust was established. Since 2009, the Retiree Health Care Trust has been providing health care benefits to eligible retirees and their dependents and survivors.

Retiree health benefits are funded through a combination of active contributions, retiree self-pay contributions, proceeds from a sale of bonds, and investment return on assets.

This valuation report contains information required by the Trustees of the Retiree Health Care Trust in order to comply with various accounting and funding requirements.

The projected present value of income and payments shown in this report are contingent upon a variety of assumptions about future events. Actual experience is likely to vary from these assumptions.

Important Information About Actuarial Valuations

An actuarial valuation is an estimate of future uncertain obligations of a postretirement health plan. As such, it will never forecast the precise future stream of benefit payments. It is an estimated forecast – the actual cost of the plan will be determined by the benefits and expenses paid, not by the actuarial valuation.

In order to prepare a valuation, Segal Consulting ("Segal") relies on a number of input items. These include:

Plan of Benefits	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. For example, a plan may provide health benefits to post-65 retirees that coordinate with Medicare. If so, changes in the Medicare law or administration may change the plan's costs without any change in the terms of the plan itself. It is important for the Trustees to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Participant Data	An actuarial valuation for a plan is based on data provided to the actuary by the plan. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is not necessary to have perfect data for an actuarial valuation; the valuation is an estimated forecast, not a prediction. The uncertainties in other factors are such that even perfect data does not produce a "perfect" result. Notwithstanding the above, it is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Assets	Part of the cost of a plan will be paid from existing assets – the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, typically reported by the auditor. Some plans include assets, such as private equity holdings, real estate, or hedge funds that are not subject to valuation by reference to transactions in the marketplace. A snapshot as of a single date may not be an appropriate value for determining a single year's contribution requirement, especially in volatile markets. Plan sponsors often use an "actuarial value of assets" that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
Actuarial Assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants for the rest of their lives and the lives of their beneficiaries. To determine the future costs of benefits, Segal collects claims, premiums, and enrollment data in order to establish a baseline cost for the valuation measurement and then develop short- and long-term health care cost trend rates to project increases in costs in future years. This forecast also requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of each participant for each year, as well as forecasts of the plan's benefits for each of those events. The forecasted benefits are then discounted to a present value, typically based on a rate of return on high-quality fixed income investments. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions the actuary selects within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model necessarily uses approximations and estimates that may lead to significant changes in our results but will have no impact on the actual cost of the plan. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

Given the above, the user of Segal's actuarial valuation (or other actuarial calculations) needs to keep the following in mind:

- The actuarial valuation is prepared for use by the Trustees. It includes information for compliance with accounting standards. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement at a specific date – it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted.
- Sections of this report include actuarial results that are not rounded, but that does not imply precision.
- Critical events for a plan include, but are not limited to, decisions about changes in benefits and contributions. The basis for such decisions needs to consider many factors such as the risk of changes in plan enrollment, emerging claims experience and health care trend, not just the current valuation results.
- Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our understanding of applicable guidance in these areas and of the plan's provisions, but they may be subject to alternative interpretations. The Trustees should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by the Trustees upon delivery and review. Trustees should notify Segal immediately of any questions or concerns about the final content.

As Segal Consulting has no discretionary authority with respect to the management of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

Section 2: Illinois Pension Code Requirements

Funding Assessment

Section 22-101B (b)(3)(iii) of the Illinois Pension Code requires the Board of Trustees of the Retiree Health Care Trust to make an annual assessment of the funding levels of the Retiree Health Care Trust and to submit a report to the Auditor General at least 90 days prior to the end of the fiscal year (i.e. by October 2).

The report must demonstrate that the present value of projected benefits is exceeded by the present value of projected contributions and income plus assets in excess of the statutory reserve. If there is a shortfall, the report must describe a plan to eliminate the shortfall. As of January 1, 2017, projected income and assets exceed projected benefits, and no changes are necessary.

TABLE A: JANUARY 1, 2017 FUNDING ASSESSMENT

Actuarial Present Value of Projected Benefits			Actuarial Present Value of Projected Income and Assets	
Current Retirees				
Present Value of Benefits	$538,866,095		Present Value of Active Contributions	$177,712,873
Less: Retiree Self-Payments	(201,326,306)		Assets	750,573,139
Net Present Value		$337,539,789	Less: Statutory Reserve	(34,414,655)
Future Retirees			Total Income and Assets	$893,871,357
Present Value of Benefits	$739,767,499			
Less: Retiree Self-Payments	(277,023,339)			
Net Present Value		$462,744,160		
Present Value of HRA Benefits		57,820,402	Income and Assets in Excess of Projected Benefits	$35,767,006
Total Present Value of Projected Benefits		$858,104,351	Income and Assets as a Percentage of Projected Benefits	104.2%

This year's valuation includes a number of changes since last year's valuation. These include:

- Assets less than expected.
- Changes in the covered population, including more complete data regarding accumulated hours since 2008.
- Changes to per capita claims, based on updated claim experience, along with changes to retiree contribution rates.
- Other assumption changes: updated trend rates on future per capita health costs, and future assumed contribution service accruals were increased from 0.9 per year to one per year.

No plan changes were made for the 2017 plan year. On April 27, 2017, the Trustees voted to change eligibility requirements for retirements on or after January 1, 2018 to be (1) separate from service at or after age 55 with at least 20 years of eligibility service, or (2) separate with at least 10 years of service and are at least age 65 at the time they enroll. This change is not included in this valuation. The value of adding health benefits with little subsidy for this group of retirees is offset by the value of HRA benefits not provided, and the projected funding level would remain unchanged.

TABLE B: EFFECT OF CHANGES ON FUNDING LEVELS

	Actuarial Present Value of Projected Benefits	Actuarial Present Value of Projected Income and Assets	Income and Assets as a % of Projected Benefits
January 1, 2016 valuation	$811.2 million	$853.9 million	105.3%
Effect of expected changes	+23.2 million	+45.7 million	+2.5%
Effect of assets more or less than expected	--	-2.1 million	-0.2%
Effect of other gains/losses, including changes in census data	+32.8 million	-4.2 million	-4.6%
Effect of changes in per capita claims and retiree contribution rates	-8.0 million	+0.2 million	+1.0%
Effect of changes in other assumptions	-1.1 million	+0.4 million	+0.2%
Effect of plan changes	--	--	--
January 1, 2017 valuation	$858.1 million	$893.9 million	104.2%

Statutory Reserve

Section 22-101B (b)(3)(ii) of the Illinois Pension Code requires the Board of Trustees of the Retiree Health Care Trust to maintain an appropriate funding reserve level which shall not be less than the amount of incurred and unreported claims plus 12 months of expected claims and administrative expenses.

TABLE C: CALCULATION OF JANUARY 1, 2017 STATUTORY RESERVE

1. 12 months of expected claims and administrative expenses	$50,719,068
2. Less: 12 months of expected retiree and dependent contributions	(17,794,213)
3. 12 months of net expected claims and administrative expenses	32,924,855
4. Incurred and unreported claims*	1,489,800
5. Total statutory reserve: (3) + (4)	$34,414,655

* *Incurred but not reported claims represents the amount of claims that were incurred during a certain time period but have not yet been paid due to the timing difference between when the services were rendered and the day the claim was actually paid.*

45% Test

Section 22-101B (b)(5) of the Illinois Pension Code states that the Board of Trustees shall have the discretion to provide different contribution levels for retirees, dependents and survivors based on their years of service, level of coverage or Medicare eligibility, provided that the total contribution from all retirees, dependents and survivors shall not be more than 45% of the total cost of such benefits. The term "total cost of such benefits" is the total amount expended by the retiree health benefit program in the prior plan year.

According to the preliminary December 31, 2016 audit of the Chicago Transit Authority Retiree Health Care Trust, the aggregate amount of retiree, dependent, and survivor contributions for 2016 was $16.54 million. The total cost of retiree health benefits paid from the Health Care Trust in 2015 was $48.35 million. Dental benefits and contributions are excluded from these totals, since the Fund does not provide dental benefits, but only serves as a "pass-through" for dental premiums.

Aggregate retiree, dependent, and survivor contributions in 2016 were less than 45% of the total cost of benefits in 2015.

TABLE D: 45% TEST (RETIREE CONTRIBUTIONS VERSUS COST OF BENEFITS)

1. Aggregate retiree, dependent, and survivor contributions in 2016	$16,538,168
2. Total cost of benefits in 2015	$48,347,137
3. Retiree self-pay as a percentage of total cost of benefits: (1) / (2)	**34.21%**

Section 3: GASB 43 Disclosures

Accounting Requirements

The Governmental Accounting Standards Board (GASB) issued Statement Number 43 -- *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*. Under this statement, all state and local government entities that provide other post employment benefits (OPEB) are required to report the cost of these benefits on their financial statements. The accounting standards supplement cash accounting, under which the expense for postemployment benefits is equal to benefit and administrative costs paid on behalf of retirees and their dependents (*i.e.*, a pay-as-you-go basis).

The statements cover postemployment benefits of health, prescription drug, dental, vision and life insurance coverage for retirees; long-term care coverage, life insurance and death benefits that are not offered as part of a pension plan; and long-term disability insurance for employees. The benefits valued in this report are limited to those described in Exhibit 4 of Section 4, which are based on those provided under the terms of the substantive plan in effect at the time of the valuation and on the pattern of sharing costs between the plan and plan members. The projection of benefits is not limited to legal or contractual limits on funding unless those limits clearly translate into benefit limits on the substantive plan being valued.

The standard introduced an accrual-basis accounting requirement, thereby recognizing the employer cost of postemployment benefits over an employee's career. The standard also introduced a consistent accounting requirement for both pension and non-pension benefits.

The total cost of providing postemployment benefits is projected, taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions. These assumptions are summarized in Exhibit 3 of Section 4. This amount is then discounted to determine the actuarial present value of the total projected benefits (APB). The actuarial accrued liability (AAL) is the portion of the present value of the total projected benefits allocated to years of employment prior to the measurement date. The unfunded actuarial accrued liability (UAAL) is the difference between the AAL and actuarial value of assets in the Plan.

Once the UAAL is determined, the Annual Required Contribution (ARC) is determined as the normal cost (the APB allocated to the current year of service) and the amortization of the UAAL. This ARC is compared to actual contributions made. In addition, Required Supplementary Information (RSI) must be reported, including historical information about the UAAL and the progress in funding the Plan.

A new accounting standard, GASB Statement Number 74, will apply for fiscal years beginning after June 15, 2016.

The calculation of an accounting obligation does not, in and of itself, imply that there is any legal liability to provide the benefits valued, nor is there any implication that the Employer is required to implement a funding policy to satisfy the projected expense.

Actuarial calculations reflect a long-term perspective, and the methods and assumptions use techniques designed to reduce short term volatility in accrued liabilities and the actuarial value of assets, if any.

Actuarial valuations involve estimates of the value of reported amounts and assumptions about the probability of events far into the future, and the actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

Actuarial Accrued Liability (AAL) and Unfunded AAL (UAAL)

The actuarial accrued liability shows that portion of the actuarial present value of total projected benefits allocated to periods prior to the valuation date by the actuarial cost method. The chart below shows the portion covered by active and retiree contributions and the portion covered by accumulated plan assets.

Employers may accumulate assets to pay for future OPEB. In order to be treated as plan assets under GASB 43, the funds must be set aside in a trust fund or equivalent arrangement that has the following characteristics:

- Employer contributions are irrevocable;
- Plan assets are dedicated to OPEB only; and
- Plan assets are legally protected from the creditors of the employer and the plan administrator.

Chicago Transit Authority Retiree Health Care Trust has an arrangement that meets these requirements.

CHART 1: ACTUARIAL ACCRUED LIABILITY (AAL) AND UNFUNDED AAL (UAAL)

	December 31, 2016
Participant Category	
Current retirees, beneficiaries, and dependents	$337,539,789
Future retirees and dependents	202,279,494
HRA benefits	36,604,371
Total	$576,423,654
Effect of Active and Retiree Contributions	
Actuarial accrued liability before reduction for active and retiree contributions	$1,029,243,047
Less projected active contributions	82,968,166
Less projected retiree contributions	369,851,227
Net employer actuarial accrued liability	$576,423,654
Actuarial value of assets	750,573,139
Unfunded/(Overfunded) actuarial accrued liability	($174,149,485)

Annual Required Contribution (ARC)

The Annual Required Contribution (ARC) is the annual cost of the OPEB plan for accounting purposes *as if* the plan were being funded through contributions to a trust fund. The GASB standards do not require that the contributions are actually made to a trust fund. The ARC is simply a device used to measure annual plan costs on an accrual basis. The calculation consists of adding the Normal Cost of the plan, net of active and retiree contributions, to an amortization payment.

The unfunded actuarial accrued liability may be amortized over periods of up to 30 years. Amortization payments may be calculated as level dollar amounts or as amounts designed to remain level as a percent of a growing payroll base. The Chicago Transit Authority Retiree Health Care Trust has elected to amortize the unfunded actuarial accrued liability as a level dollar amount over a period of 30 years.

CHART 2: DETERMINATION OF ANNUAL REQUIRED CONTRIBUTION (ARC)

Cost Element	Fiscal Year Ending December 31, 2016	
	Amount	Percentage of Compensation
Normal cost (net of active and retiree contributions)	$7,234,742	1.1%
Amortization of the unfunded actuarial accrued liability (30 years)	(13,115,963)	(2.0%)
Total Annual Required Contribution (ARC): (1)+(2), not less than zero	$0	0.0%

Schedule of Employer Contributions

For GASB 43 (plan reporting) purposes, the schedule of employer contributions compares actual contributions to the ARC. For the fiscal year ending December 31, 2008, actual contributions include only bond proceeds. In all subsequent years, the only "employer contributions" are Medicare Part D reimbursements and payments from the Early Retiree Reinsurance Program.

CHART 3: SCHEDULE OF CONTRIBUTIONS FROM EMPLOYER(S) AND OTHER CONTRIBUTING ENTITIES

Fiscal Year Ended December 31,	Annual Required Contributions	Actual Contributions	Percentage Contributed
2008	$10,037,152	$528,800,000	5,268.4%
2009	10,699,065	0	0.0%
2010	0	3,925,041	N/A
2011	0	8,895,704	N/A
2012	0	652,568	N/A
2013	0	79,264	N/A
2014	0	0	N/A
2015	0	0	N/A
2016	0	0	N/A

Schedule of Funding Progress

This schedule of funding progress will present multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time relative to the actuarial accrued liability for benefits.

CHART 4: SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) – (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) – (a)] / (c)
December 31, 2008	$549,435,879	$605,639,395	$56,203,516	90.7%	$588,471,442	9.6%
December 31, 2009	533,264,932	622,939,043	89,674,111	85.6%	579,379,265	15.5%
December 31, 2010	586,961,435	485,221,881	(101,739,554)	121.0%	598,267,896	(17.0%)
December 31, 2011	581,484,747	481,348,984	(100,135,763)	120.8%	617,246,244	(16.2%)
December 31, 2012	643,201,032	455,088,976	(188,112,056)	141.3%	625,807,630	(30.1%)
December 31, 2013	722,928,591	588,433,780	(134,494,811)	122.9%	635,900,577	(21.2%)
December 31, 2014	732,599,705	546,685,683	(185,914,022)	134.0%	632,394,411	(29.4%)
December 31, 2015	716,956,102	546,751,665	(170,204,437)	131.1%	662,684,711	(25.7%)
December 31, 2016	750,573,139	576,423,654	(174,149,485)	130.2%	666,313,894	(26.1%)

CHART 5: NOTES TO REQUIRED SUPPLEMENTARY INFORMATION - SUMMARY OF ASSUMPTIONS AND METHODS

Valuation Date	December 31, 2016
Actuarial Cost Method	Projected Unit Credit
Amortization Method	Level dollar, open
Remaining Amortization Period	30 years remaining as of December 31, 2016
Asset Valuation Method	Market Value
Actuarial Assumptions	
Investment rate of return	7.00%
Projected salary increases	9% for 1 year of service, 11% for 2 years of service, 16% for 3 years of service, 5% for 4 years of service, and 4% thereafter
Inflation rate	3.25%
Healthcare costs trend rates	
PPO & HMO	7.75% graded down to 4.50% over 13 years
MAPD	10.00% in first year, then 8.20% graded down to 4.50% over 13 years
Administrative costs	5.00%
Participants (excluding dependent children) as of January 1, 2017	
Total Retirees, Spouses, and Surviving Spouses	8,795
Active Employees	10,329
Inactive Vested Participants	108

Definitions of Terms

The following list defines certain technical terms used in GASB Statements:

Assumptions or Actuarial Assumptions	The estimates on which the cost of the Plan is calculated including: (a) Investment return — the rate of investment yield that the Plan will earn over the long-term future; (b) Mortality rates — the death rates of employees and pensioners; life expectancy is based on these rates; (c) Retirement rates — the rate or probability of retirement at a given age; (d) Turnover rates — the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.
Actuarial Present Value of Total Projected Benefits (APB)	Present value of all future benefit payments for current retirees and active employees taking into account assumptions about demographics, turnover, mortality, disability, retirement, health care trends, and other actuarial assumptions.
Normal Cost	The amount of contributions required to fund the benefit allocated to the current year of service.
Actuarial Accrued Liability For Actives	The equivalent of the accumulated normal costs allocated to the years before the valuation date.
Actuarial Accrued Liability For Retirees	The single sum value of lifetime benefits to existing retirees. This sum takes account of life expectancies appropriate to the ages of the retirees and of the interest which the sum is expected to earn before it is entirely paid out in benefits.
Actuarial Value of Assets (AVA)	The value of assets used by the actuary in the valution. These may be at market value or some other method used to smooth variations in market value from one valuation to the next.
Funded Ratio	The ratio AVA/AAL.
Unfunded Actuarial Accrued Liability (UAAL)	The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.
Amortization of the Unfunded Actuarial Accrued Liability	Payments made over a period of years equal in value to the Plan's unfunded actuarial accrued liability.

Investment Return (discount rate)	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next. If the plan is funded on a pay-as-you-go basis, the discount rate is tied to the expected rate of return on day-to-day employer funds.
Health Care Cost Trend Rates	The annual rate of increase in net claims costs per individual benefiting from the Plan.
Annual Required Contribution (ARC)	The ARC is equal to the sum of the normal cost and the amortization of the unfunded actuarial accrued liability.

Section 4: Supporting Information

EXHIBIT 1 - SUMMARY OF PARTICIPANT DATA

	January 1, 2016	January 1, 2017
Retirees and Disableds		
• Number of retirees and disableds	6,306	6,191
• Average age of retirees and disableds	70.1	70.6
• Number of spouses (not including dependent children)	1,977	1,945
• Average age of spouses	67.4	67.9
Surviving Spouses		
• Number	661	659
• Average age	79.0	79.3
Active Employees (including those not yet accruing service under the Retirement Plan)		
• Number	10,234	10,329
• Average age	46.0	45.9
• Average years of service for contribution schedule	10.4	10.8
• Average salary	$69,196	$70,763
Inactive Vested Participants		
• Number	115	108
• Average age	56.6	56.7
Separated Participants Eligible for HRA		
• Number	4,203	4,903
• Average age	48.7	49.5

EXHIBIT 2 – SUMMARY OF INCOME AND EXPENSES

	Year Ended December 31, 2015	Year Ended December 31, 2016
Additions		
Employee contributions	$20,681,831	$21,037,631
Retiree contributions	18,533,549	18,607,424
Investment income (net of investment expenses)	(4,530,803)	44,065,642
Total Additions	$34,684,577	$83,710,697
Deductions		
Benefit payments (net of rebates)	$48,752,748	$48,705,621
Administrative expenses	1,575,432	1,388,039
Total Deductions	$50,328,180	$50,093,660
Net increase (decrease)	($15,643,603)	$33,617,037
Net assets available for benefits		
Beginning of year	$732,599,705	$716,956,102
End of year	$716,956,102	$750,573,139

EXHIBIT 3 – STATEMENT OF ACTUARIAL ASSUMPTIONS/METHODS

Valuation Date

January 1, 2017

Data

Claims experience and premiums were provided by the Retiree Health Care Trust and by vendors hired by the Trust. Detailed census data was provided by Group Administrators and the Trust.

Net Investment Return

7.00%

Salary Scale

Years of Service	Salary Increase
1	9.0%
2	11.0%
3	16.0%
4	5.0%
5+	4.0%

Decrements Prior to Retirement

	Rates (%)			
	Mortality*			
Age	Male	Female	Withdrawal**	Disability
20	0.03	0.02	9.50	0.10
25	0.04	0.02	7.00	0.10
30	0.07	0.03	5.10	0.10
35	0.10	0.05	4.10	0.20
40	0.13	0.08	2.90	0.30
45	0.17	0.13	2.40	0.40
50	0.23	0.19	1.90	0.50
55	0.40	0.26	0.00	0.60

* Rates shown are those applicable for the base rate table, before any generation projection.

** None for those with 25 or more years of service. 15% assumed in first year for non-full-time permanent employees.

Post-Retirement Mortality Rates	*Healthy*: RP-2000 Combined Healthy Blue Collar Mortality Tables projected to 2016 using Scale BB, then projected generationally from 2016 using Scale BB *Disabled:* RP-2000 Disabled Retiree Mortality Tables projected to 2016 using Scale BB, then projected generationally from 2016 using Scale BB
Active Retirement Rates	After meeting Pension eligibility (Normal Retirement: Age 65; Early Retirement if hired before 1/18/08: Age 55 with 3 years of service or any age with 25 years of service; Early Retirement if hired on or after 1/18/08: Age 55 with 10 years of service or age 64 with 25 years of service), the following rates apply:

	Rates (%)		
	Hired Before 1/18/08		
Age	Service < 25	Service >=25	Hired 1/18/08 or After
45-54	0.0	20.0	0.0
55	1.5	20.0	1.5
56	1.5	22.5	1.5
57	2.0	25.0	2.0
58	2.0	27.5	2.0
59	2.0	30.0	2.0
60	2.5	32.5	2.5
61	4.0	42.5	4.0
62	15.0	40.0	20.0
63	15.0	42.5	15.0
64	20.0	45.0	15.0
65	30.0	45.0	60.0
66	30.0	45.0	25.0
67	30.0	45.0	25.0
68	30.0	45.0	25.0
69	30.0	45.0	25.0
70-74	30.0	45.0	30.0
75	100.0	100.0	100.0

Retirement Age for Eligible Inactives	Age 65.
Participation	The percent of those eligible for coverage who are assumed to decline is equal to 50% of the percent of full cost paid by the retiree (based on contribution service at retirement). The resulting rates of retiree enrollment for January 1, 2017 are:

	Rate (%)	
Service	Pre-Medicare	Medicare
35-39	97.8	97.4
30-34	95.5	94.6
25-29	86.5	84.3
20-24	78.5	75.8
15-19	64.1	59.6
10-14	59.3	55.5
<10	52.1	49.7

Dependents

75% of future retirees are assumed to be married, with husbands assumed to be three years older than their wives. The percent of spouses assumed to decline coverage is equal to 80% of the percent of full cost paid by the spouse (based on retiree's contribution service at retirement). The resulting rates of spouse enrollment for January 1, 2017 are:

	Rate (%)	
Service	Pre-Medicare	Medicare
45+	96.4	95.8
40-44	87.8	85.4
35-39	74.8	69.5
30-34	65.4	57.9
25-29	53.0	45.0
20-24	46.3	40.2
15-19	42.5	35.3
10-14	34.8	28.8
<10	23.3	19.4

Plan Election	70% of future pre-Medicare retirees are assumed to elect BCBS PPO coverage, and the remaining 30% elect HMO Illinois coverage. All Medicare retirees are assumed to elect PPO coverage. Upon retirement, 50% of pre-65 disabled retirees are assumed to be eligible for Medicare, increasing to 90% eligible for Medicare two years after retirement. All pre-Medicare disabled retirees are assumed to elect BCBS PPO coverage.
Missing Participant Data	A missing census item for a given participant was assumed to equal the average value of that item over all other participants of the same status for whom the item is known. For those hired in 2016, salaries were annualized. For employees whose 2016 earnings were less than $20,000, an annual rate of $25,000 was assumed. Those currently in part-time status are assumed to attain full time permanent status at a salary of $43,000.
Service for Eligibility	Future accruals assumed to equal one credit per year.
Service for Contribution Schedule	Future accruals assumed to be equal to an average of 2015 and 2016 hours divided by 2,080 for non-salaried actives. If hired in 2015, only 2016 hours are used. If hired in 2016 or currently part-time, participants earn one credit in each future year. Salaried actives earn one year of service each year.
Per Capita Cost Development: ***HMO Illinois***	Based on January 1, 2017 premium rates. Actuarial factors were then applied to estimate individual retiree and spouse costs by age and by gender.
Per Capita Cost Development: ***PPO Medical***	Per capita claims costs were based on actual retiree paid claim experience for the period June 1, 2014 through May 31, 2016, including PPO fees. Claims were adjusted as follows: • total adjusted claims were divided by the number of adult members to yield a per capita claim; and • the per capita claim was trended to the midpoint of the valuation year at assumed trend rates. Per capita claims for each plan year were then combined by taking a weighted average. The weights used in this average account for a number of factors including each plan year's volatility of claims experience and distance to the valuation year. Actuarial factors were then applied to the weighted average cost to estimate individual retiree and spouse costs by age and by gender.
Per Capita Cost Development: ***PPO Prescription Drugs***	Per capita claims costs were based on actual retiree paid claim experience for the period June 1, 2014 through May 31, 2016. Claims were then adjusted as follows: • total adjusted claims were divided by the number of adult members to yield a per capita claim; • the per capita claim was trended to the midpoint of the valuation year at assumed trend rates; and • the per-capita prescription drug claims were decreased for estimated prescription drug rebates. Per capita claims for each plan year were then combined by taking a weighted average. The weights used in this average account for a number of factors including each plan year's volatility of claims experience and distance to the

	valuation year. Actuarial factors were then applied to the weighted average cost to estimate individual retiree and spouse costs by age and by gender.
Per Capita Cost Development: *MAPD*	Based on January 1, 2017 premium rates for Humana Medicare Advantage Prescription Drug (MAPD) plan. Actuarial factors were then applied to estimate individual retiree and spouse costs by age and by gender.
Per Capita Cost Development: *Administrative Expenses*	Administrative expenses were based on experience furnished by the Plan Administrator for the period January 1, 2014 through December 31, 2015. Expenses were separated by plan year and trended to the valuation date. Expenses were divided by the number of adult members to yield a per participant cost. Transitional Reinsurance and Patient Centered Outcomes Research Institute (PCORI) fees mandated by the Affordable Care Act were added to the expenses.
Per Capita Health Costs	Medical and prescription drug claims costs for the plan year beginning January 1, 2017 are shown in the table below for retirees at selected ages. These costs are net of deductibles and other benefit plan cost sharing provisions.

	PPO Medical				PPO Prescription Drug			
	Retiree		Spouse		Retiree		Spouse	
Age	Male	Female	Male	Female	Male	Female	Male	Female
55	$9,730	$10,046	$7,658	$8,674	$2,472	$2,552	$1,945	$2,203
60	11,556	10,828	10,252	10,060	2,935	2,750	2,604	2,555
64	13,257	11,487	12,942	11,322	3,367	2,918	3,287	2,876

	HMO Illinois				MAPD			
	Retiree		Spouse		Retiree		Spouse	
Age	Male	Female	Male	Female	Male	Female	Male	Female
55	$10,229	$10,561	$15,570	$17,635	$2,470	$2,470	$2,470	$2,470
60	12,148	11,384	20,844	20,454	2,470	2,470	2,470	2,470
64	13,937	12,076	26,313	23,021	2,470	2,470	2,470	2,470
65					2,600	2,210	2,600	2,210
70					3,013	2,382	3,013	2,382
75					3,247	2,564	3,247	2,564

Administrative Expenses	Administrative expenses of $216 per participant were added to projected incurred claims costs. An additional expense for ACA reinsurance fees of $2 in years 2017 through 2019 was added for PPO participants.
Medicare Part D Subsidy	Medicare benefits are provided through a fully insured MAPD plan, therefore, the Trust does not receive Medicare Part D subsidies.

Health Care Cost Trend Rates

Health care trend measures the anticipated overall rate at which health plan costs are expected to increase in future years. The rates shown below are "net" and are applied to the net per capita costs shown above.

Year Ending December 31	HMO & PPO	MAPD	Fees and Administrative Expenses
2017	7.75%	10.00%	5.00%
2018	7.50%	8.20%	5.00%
2019	7.25%	7.90%	5.00%
2020	7.00%	7.60%	5.00%
2021	6.75%	7.30%	5.00%
2022	6.50%	7.00%	5.00%
2023	6.25%	6.70%	5.00%
2024	6.00%	6.40%	5.00%
2025	5.75%	6.10%	5.00%
2026	5.50%	5.80%	5.00%
2027	5.25%	5.50%	5.00%
2028	5.00%	5.20%	5.00%
2029	4.75%	4.90%	5.00%
2030	4.50%	4.60%	5.00%
2031 & later	4.50%	4.50%	5.00%

All medical and prescription drug trend rates except for HMO Illinois and the first year MAPD trend were reduced by 0.3% to reflect the annual CPI adjustment of prescription drug copays, annual deductibles, and annual out-of-pocket maximums.

Retiree Contribution Increase Rate	Retiree and dependent contribution rates were assumed to increase at medical trend with adjustments.
Active Contributions	3.00% of pay in all future years.
Plan Design	Development of plan liabilities was based on the plan of benefits in effect as described in Exhibit 4. Cost of dental coverage was not included in this valuation since retirees and dependents pay the full cost for this coverage.
Lifetime Maximum Benefits	No information was available regarding accumulations toward lifetime maximum benefits and no such accumulations were assumed.

Health Care Reform	This is a retiree-only plan, and most aspects of the Patient Protection and Affordable Care Act (PPACA) and the Health Care and Education Reconciliation Act (HCERA) of 2010 do not apply. Any future aspects that do apply are assumed to have a *de minimis* effect. Beginning in 2020, the PPACA imposes a 40% excise tax on health plans if the cost of coverage exceeds certain thresholds. When estimating the potential effect of this excise tax, we assumed that the plan would elect to treat retirees who have not attained age 65 and retirees who have attained age 65 as similarly situated beneficiaries, which produces a cost of coverage that is below the threshold for the tax. Treating pre-65 and post-65 retirees as similarly situated beneficiaries, and assuming the excise tax threshold will increase at 2.5% per year after 2018, results in the average cost exceeding the single age 65+ threshold in 2040, and the average cost exceeding the single age 55-64 threshold in 2049. No federal regulations or guidance on the determination of the excise tax have been issued. Therefore, the actual tax applied to the benefits provided by this Trust may vary from those projected in this valuation. These projections do not take into account the potential adjustment for differences between the age and gender characteristics of this group compared to the age and gender characteristics of the national workforce, which may further increase this plan's threshold.
Rational for Actuarial Assumptions	Rates of mortality, termination, disability, and retirement, salary increases, and the rate of inflation were based on an experience study completed to determine assumptions for the January 1, 2014 through January 1, 2018 valuations of the Retirement Plan for CTA Employees. The analysis was based on historical data and projections for the five-year period ending December 31, 2012. The mortality tables were determined to reasonably provide for future mortality improvement. Using a more recently-published table, the Headcount-Weighted RP-2006 Blue Collar Mortality Tables projected generationally with MP-2016, instead of the current assumption, would have little effect on the funding measure shown in this report. Rates of retiree and spouse participation, plan election assumptions, the percent of disabled participants eligible for Medicare, and rates of termination for participants who are not full time permanent employees were based on an experience study completed to determine assumptions for the January 1, 2014 through January 1, 2018 valuations of the CTA RHCT. The analysis was based on historical data and projections for various periods ending December 31, 2013. The net investment return assumption is a long-term estimate derived from historical data, current and recent market expectations, and professional judgment. The analysis was based on an experience study completed to determine assumptions for the January 1, 2014 through January 1, 2018 valuations of the CTA RHCT. As part of the analysis, a building block approach was used that reflects inflation expectations and anticipated risk premiums for each of the portfolio's asset classes, as well as the Plan's target asset allocation. The trend rate assumptions were developed using data sources such as the Segal Health Trend Survey, internal client results, trends from other published surveys prepared by the S&P Dow Jones Indices, consulting firms and brokers, and CPI statistics published by the Bureau of Labor Statistics.

EXHIBIT 4 – SUMMARY OF PLAN

This exhibit summarizes the major benefit provisions as included in the valuation. To the best of our knowledge, the summary represents the substantive plans as of the valuation date. It is not intended to be, nor should it be interpreted as, a complete statement of all benefit provisions.

Active Contributions	3% of pay as of January 1, 2017.
HRA	The Trustees may establish a health reimbursement arrangement for retirees and former employees, and their survivors, who have contributed to the Retiree Health Care Trust but either (1) do not satisfy the eligibility requirements for retiree health coverage, or (2) satisfy the eligibility requirements but decline coverage prior to retirement. Upon reaching age 65, the health reimbursement arrangement may provide reimbursement for allowable expenses, not to exceed the retiree's total active contributions. As of January 1, 2017, Trustees have not yet adopted rules regarding this benefit.
Health Benefit Eligibility	Retirement: Age 55 with 20 years of service, or any age with 25 years of continuous service if hired prior to September 5, 2001 and retired before the full execution of the next collective bargaining agreements. Disability: ➢ 5 years of service if covered under Workmen's Compensation; or ➢ 10 years of service. Participants are not eligible for retiree health benefits if they cash-out their pension benefits.
Service for Eligibility Purposes	Pension service to January 18, 2008 plus RHCT service after January 17, 2008. After January 17, 2008, employees accrue one year of service for every plan year worked.
Service for Contribution Schedule	Pension service to January 18, 2008 plus RHCT service after January 17, 2008. After January 17, 2008, salaried employees accrue one year of service for every plan year worked, and non-salaried employees earn service based on the actual hours worked in the plan year divided by 2,080 hours.
Benefit Types	Medical and prescription drug. Dental is available at full cost.
Duration of Coverage	Lifetime.
Dependent Benefits	Medical and prescription drug. Dental is available at full cost.
Dependent Coverage	Eligible dependents covered during retirement may continue coverage after the death of the retiree.

Retiree Contributions

Self-pay rates depend on service at retirement and Medicare status. Self-pay rates for disabled retirees depend on Medicare status and service at time of disability. The monthly rates effective January 1, 2017 are shown below.

	Non-Medicare				Medicare			
	Retiree		Dependent(s) or Surviving Spouse		Retiree		Dependent(s) or Surviving Spouse	
Service	PPO	HMO	PPO	HMO	PPO	HMO	PPO	HMO
45+	$51	$42	$51	$42	$14	$8	$14	$8
40-44	51	42	172	144	14	8	47	29
35-39	51	42	355	296	14	8	98	60
30-34	101	85	487	406	28	17	136	84
25-29	304	254	659	548	81	50	178	109
20-24	485	450	754	699	125	77	193	119
15-19	808	749	808	749	209	128	209	128
10-14	916	849	916	849	230	141	230	141
Less than 10	1,078	999	1,078	999	260	160	260	160

Benefit Descriptions

Pre-Medicare				
	BCBS PPO		HMO Illinois	
Medical				
	In-Network	Out-of-Network		
Annual Deductible (indexed*)	$365 individual/$729 family		Not applicable	
Annual Out-of-Pocket Maximum (after deductible) (indexed*)	$3,646 individual/ $7,291 family	$4,861 individual/ $9,722 family	$1,500 individual/ $3,000 family	
Lifetime Maximum	$2,000,000 per person		Unlimited	
Coinsurance (after deductible)	90%	60%	100% after co-pays	
Prescription Drugs				
Copay** (indexed)	Retail* (30 day)	Mail* (90 day)	Retail	Mail
Generic	$12	$24	$5	$10
Brand Formulary if no Generic	$24	$49	$10	$20
Brand Non-Formulary or Brand with Generic	$61	$122	$25	$50

* Indexed each year to the CPI, Chicago-Gary Kenosha, IL-IN-WI CMSA

** Mandatory mail-order for 2nd refill

Medicare: Humana MAPD PPO**		
Medical		
Annual Deductible (indexed*)	$365 individual/$729 family	
Annual Out-of-Pocket Maximum (after deductible) (indexed*)	$3,646 individual/$7,291 family	
Lifetime Maximum	Unlimited	
Prescription Drugs		
Copay (indexed*)	Retail	Mail
Generic	$6	$12
Brand Formulary if no Generic	$12	$24
Brand Non-Formulary or Brand with Generic	$30	$61

* Indexed each year to the CPI, Chicago-Gary Kenosha, IL-IN-WI CMSA

**** Humana MAPD HMO** plan has the same provisions with a smaller network of providers.