



July 21, 2021

CONFIDENTIAL

Terry Thomas
Capital Metropolitan Transportation Authority
2910 East 5th Street
Austin, Texas 78702

Re: January 1, 2021 Actuarial Valuation Report

Dear Terry:

Enclosed is the January 1, 2021 actuarial valuation report for the Capital Metropolitan Transportation Authority Retirement Plan for Administrative Employees. The report covers the calculation of the minimum required contribution for the 2021 plan year and the employer's GASB disclosure as of December 31, 2020.

If you have any questions, please call me at (216) 875-1921.

Sincerely,

Findley, A Division of USI

Paul J. Gibbons

Enclosures

Capital Metropolitan Transportation Authority

Retirement Plan for Administrative Employees

Report for the Plan Year Beginning
January 1, 2021

July 21, 2021



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Summary of Key Results

Plan Years Beginning	1/01/2020	1/01/2021
Cash Contributions		
Annual Funding Contribution (January 1) amount per active valued	\$ 3,055,016 10,016	\$ 3,377,208 10,755
Annual Funding Contribution (December 31) amount per active valued	\$ 3,261,230 10,693	\$ 3,605,170 11,481
Net Pension Liability		
December 31		
Total Pension Liability	\$ 60,803,835	\$ 64,917,298
Fiduciary Positions	(37,818,736)	(45,554,310)
Net Pension Liability	\$ 22,985,099	\$ 19,362,988
Actuarial Accrued Liability	\$ 46,154,579	\$ 51,918,126
Actuarial Value of Assets	\$ 35,895,259	\$ 41,549,498
Normal Cost	\$ 2,022,697	\$ 2,288,651
Effective Interest Rate	6.75%	6.75%
Compensation		
Total Compensation	\$ 26,440,895	\$ 30,121,628
Valuation Compensation	24,700,473	28,185,358
Present Value of Future Compensation	214,946,892	243,790,890

Plan Year Highlights

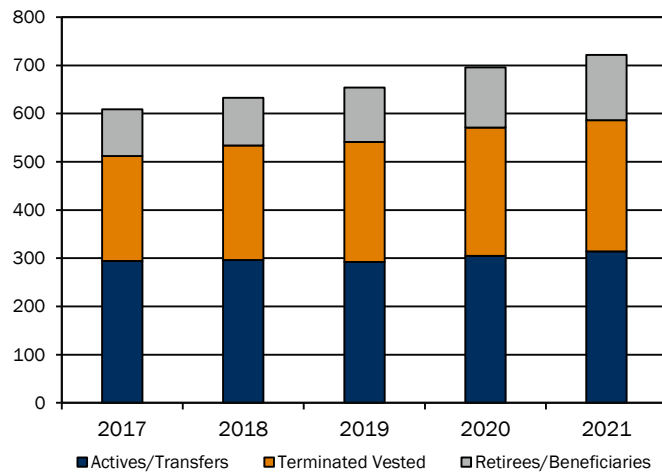
Plan Provisions

The Plan's liabilities have not changed due to plan amendment since the last valuation. The main provisions of the plan as of the valuation date are summarized in Appendix A.

Demographics

Data as of January 1, 2021 have been used for this valuation. Details regarding changes since the prior valuation can be found in Exhibit XV.

Participant Counts



Plan Liability Gains and Losses

The plan's liability was calculated using the Entry Age Normal method.

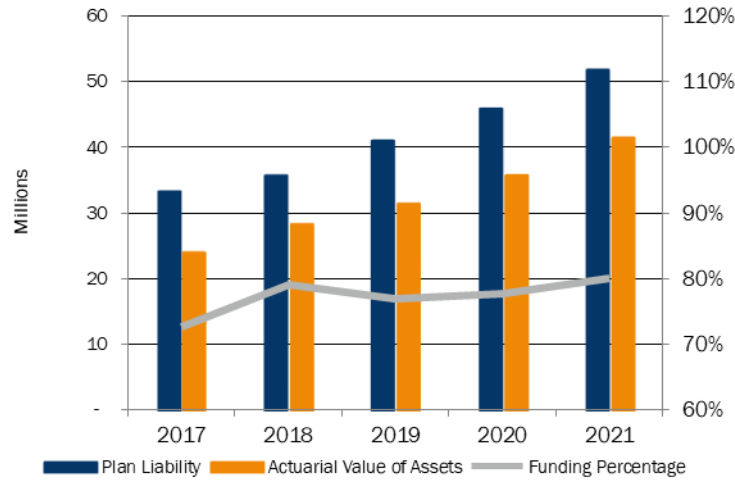
There was a loss of \$1,724,000 on the liability this year due to demographic changes. The actual valuation salary for continuing actives was 7.8% higher than expected, due to larger than expected salary increases. The difference in actual and expected valuation salary accounted for approximately \$1,678,000 of the demographic loss. The remaining loss was due to differences in actual and expected demographic experience.

Asset Performance

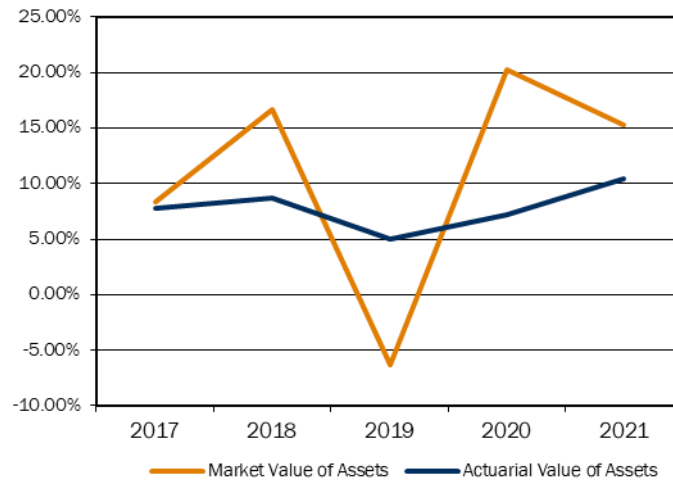
Due to the difference between the 6.75% expected rate of return in the prior year and the actual 15.29% return on the market value of assets, the assets increased by \$3,310,000. Since the plan uses a smoothing method, this return was not entirely reflected in the actuarial value of plan assets. The rate of return on the actuarial value of assets was 10.46%.

Plan Year Highlights (Continued)

Historical Plan Liability, Assets, and Funding Percentage



Historical Return on Assets



Accounting Assumptions and Methodologies

The discount rate was increased to 5.39% in accordance with GASB Statements Nos. 67 and 68. The mortality table was updated to Pri-2012 White Collar Dataset with improvement scale MP-2020. As of January 1, 2021 this increase in discount rate and change in mortality decreased the total pension liability by \$3,616,000.

Risk Discussion

Actuarial Standard of Practice No. 51

Effective November 1, 2018, actuarial funding valuation reports are required to include a discussion of the risk associated with measuring pension obligations and determining pension plan contributions. The risks that may reasonably be anticipated to significantly affect the plan's future financial condition are discussed below.

Investment Risk

Due to the plan's significant equity exposure, there is risk that the funded status of the plan could be volatile. The historical market value of asset returns in the chart on page 4 of report shows this historical volatility. We recommend a more detailed assessment be performed to provide the plan sponsor with a better understanding of this risk.

Inflation Risk

Inflation-driven pay increases will result in larger benefit increases for longer service participants. The current salary increase assumption is summarized on page 34 of the report. We recommend a more detailed assessment be performed to provide the plan sponsor with a better understanding of this risk.

Funded Status Risk

Since this plan uses the expected return of assets as the valuation interest rate there is significant risk of increased funding deficit. We recommend a more detailed assessment be performed to provide the plan sponsor with a better understanding of this risk.

Actuarial Statement

Primary Purposes of Actuarial Valuation

This report has been prepared for Capital Metropolitan Transportation Authority.

The primary purposes of the valuation are

- to determine the annual contribution calculation for the plan year ending December 31, 2021, and
- to determine the net pension liability as of December 31, 2020 under GASB Statement Nos. 67 and 68.

The report also documents the funded status of the plan, the provisions on which the valuation is based, and the actuarial assumptions and methods used in the calculations. The results of this report may not be applicable for other purposes.

Sources of Data

A census of eligible employees was supplied by the Findley, Inc. Defined Benefit Administrative Practice. We did not audit the census. Compensation for active employees was reviewed and confirmed by Capital Metropolitan Transportation Authority.

Assumptions

Each significant assumption used in this report represents a combination of a best estimate of future expectations and observed past experience as well as estimates inherent in related market data. Information regarding the basis for, and any changes to, the assumptions is in Appendix B.

Sources of Financial Information

Benefit Trust Company provided asset information. We did not audit the asset information, but all data were checked for internal consistency and for consistency with last year's information.

Future Measurements

Future actuarial measurements may differ significantly from the current measurements presented in this report due to many factors: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic trends and 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/contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

Actuarial Statement (Continued)

Certification of Compliance and Independence

The Funding Requirements and Financial Accounting Information set forth in this Report have been made in accordance with the interpretation of Plan provisions and the actuarial assumptions and funding method summarized, respectively, in Appendices A and B.

In our opinion, all calculations and procedures used in this report conform with generally accepted actuarial principles and practices and have been determined on the basis of actuarial assumptions and methods that are reasonable and that offer our best estimate of anticipated experience under the Plan. Therefore, we hereby certify that this valuation fairly represents the actuarial position of the Plan with respect to the primary purposes of this valuation.

There is no relationship between Capital Metropolitan Transportation Authority and Findley, A Division of USI that impacts our objectivity.

Prescribed Statement of Actuarial Opinion

I, Paul J. Gibbons, am a member of the American Academy of Actuaries and meet the Qualifications Standards of the American Academy of Actuaries to render actuarial opinions in connection with this plan. I am also an enrolled actuary under ERISA.

We will be pleased to review this report with you at your convenience.

Respectfully,

Findley, A Division of USI



Paul J. Gibbons, F.C.A., E.A., M.A.A.A.
Consulting Actuary



Adam N. Russo, A.S.A., E.A., M.A.A.A.
Consulting Actuary

July 21, 2021

Exhibit I

Market Value of Assets

Change in Market Value of Assets on an Accrual Basis

Market Value of Assets January 1, 2020 including accrued contributions	\$	37,818,736
Contributions during the plan year		3,261,231
Contributions after year end adjusted for interest		0
Benefit payments		(1,391,785)
Administrative Expenses		(62,527)
Investment return		5,928,655
Market Value of Assets on December 31, 2020 including accrued contributions	\$	<u>45,554,310</u>

Distribution of Market Value of Assets by Investment Class

Cash and Equivalents	\$	134,379
Debt Securities and Related Instruments		11,849,890
Equity Securities		30,145,572
Real Estate		3,451,276
Other		(16,535)
Accrued Income		0
Payables		(10,272)
Receivable Contributions discounted to year end		0
Market Value of Assets on December 31, 2020 including accrued contributions	\$	<u>45,554,310</u>

Rate of Return on Market Value of Assets 15.29%

Exhibit II

Development of Actuarial Value of Assets

Expected Value of Assets

Market Value of Assets January 1, 2020 including accrued contributions	\$	37,818,736
Interest on Market Value of Assets		2,552,765
Contributions during and for the plan year		3,261,231
Interest on contributions		113,252
Contributions made after year end, discounted to year end		0
Benefit payments		(1,391,785)
Interest on benefit payments		(46,206)
Administrative Expenses		(62,527)
Interest on Administrative Expenses		(1,315)
Expected Value of Assets at December 31, 2020	\$	42,244,151

Development of Unrecognized Gain/(Loss)

Gain/(Loss) for Plan Year ending December 31, 2020	\$	3,310,159
Unrecognized Gain/(Loss) as of January 1, 2021		

Plan Year Ending	Gain/ (Loss)	Unrecognized Portion	Unrecognized Amount
2020	\$ 3,310,159	80%	\$ 2,648,127
2019	4,127,954	60%	2,476,772
2018	(4,015,081)	40%	(1,606,032)
2017	2,429,723	20%	485,945
			\$ 4,004,812

Determination of Actuarial Value of Assets

Market Value of Assets including accrued contributions	\$	45,554,310
Unrecognized (Gain)/Loss		(4,004,812)
Actuarial Value of Assets before limits	\$	41,549,498
Limits on Actuarial Value of Assets		
a. 80% of Market Value including accruals	\$	36,443,448
b. 120% of Market Value including accruals		54,665,172
Actuarial Value of Assets after limits	\$	41,549,498

Change in Actuarial Value of Assets

Actuarial Value of Assets at January 1, 2020	\$	35,895,259
Contributions		3,261,231
Benefit payments		(1,391,785)
Administrative Expenses		(62,527)
Investment return		3,847,320
Actuarial Value of Assets at January 1, 2021	\$	41,549,498

Rate of Return on Actuarial Value of Assets

10.46%

Exhibit III

Reconciliation of Funded Status

Plan Year Beginning

1/01/2021

Reconciliation of Funded Status

Actuarial Accrued Liability as of January 1, 2020	\$ 46,154,579
Actuarial Value of Assets as of January 1, 2020	35,895,259
Unfunded Actuarial Liability as of January 1, 2020	\$ 10,259,320
Interest at 6.75%	692,504
Normal Cost With Interest	2,159,229
Contributions With Interest	(3,374,483)
Plan Amendment Change	0
Assumption Change	0
Expected Unfunded Actuarial Liability as of January 1, 2021	\$ 9,736,570
Actuarial Accrued Liability as of January 1, 2021	\$ 51,918,126
Actuarial Value of Assets as of January 1, 2021	41,549,498
Unfunded Actuarial Liability as of January 1, 2021	\$ 10,368,628
Total Gain/(Loss)	\$ (632,058)

Reconciliation of Gain/(Loss)

Actuarial Value of Assets January 1, 2020	\$ 35,895,259
Interest	2,422,930
Contributions during the Plan Year with interest	3,374,483
Benefits paid during the Plan Year with interest	(1,437,991)
Expenses paid during the Plan Year with interest	(63,842)
Expected Actuarial Value of Assets as of December 31, 2020	\$ 40,190,839
Gain/(Loss) for Plan Year ending December 31, 2020	\$ 1,358,659
Actuarial Accrued Liability as of January 1, 2020	\$ 46,154,579
Interest	3,115,434
Normal Cost with Interest	2,159,229
Benefits paid during the Plan Year with interest	(1,437,991)
Plan Amendment Change	0
Assumption Change	0
Expected Accrued Liability as of January 1, 2021	\$ 49,991,251
Gain/(Loss) for Plan Year ending December 31, 2020	\$ (1,926,875)
Administrative Expenses with Interest	\$ (63,842)

Exhibit IV

Schedule of Amortization Bases

Schedule Amortization

<u>Base</u>	<u>Date Established</u>	<u>Unfunded Balance</u>	<u>Years Remaining</u>	<u>Annual Payment</u>
Plan Amendment	1/01/2017	\$ 401,758	1	\$ 401,758
Assumption Change	1/01/2017	818,625	16	63,866
Assumption Change	1/01/2018	(771,470)	17	(57,454)
Assumption Change	1/01/2019	972,401	18	69,364
Assumption Change	1/01/2020	13,381	19	917
Loss	1/01/2020	<u>8,082,049</u>	19	<u>553,868</u>
Total		\$ 9,516,744		\$ 1,032,319

New Shortfall Amortization

Actuarial Accrued Liability	\$ 51,918,126
Actuarial Value of Assets	41,549,498
Unfunded Amortization Balances	1,434,695
Scheduled Funded Percentage	82.79%
New Shortfall Base	0
Amortization Period	10
Interest Rate	6.75%
Salary Scale	3.50%
Amortization Factor	8.735489
Shortfall Amortization	0
100% Unfunded Actuarial Liability	\$ 10,368,628
Outstanding Amortization Balance	9,516,744
Remaining Unfunded Balance	851,884
Amortization Period	20
Amortization Factor	15.147760
Amortization Amount	\$ 56,238
Total Amortization	\$ 1,088,557

Exhibit V

Determination of Annual Contribution Requirement

Normal Cost

Present Value of Future Benefits	\$ 71,706,903
Actuarial Accrued Liability	51,918,126
Actuarial Value of Assets	41,549,498
Present Value of Future Normal Costs	19,788,777
Unfunded Actuarial Liability as of January 1, 2021	10,368,628
Present Value of Future Compensation	243,790,890
Normal Cost Accrual Rate	8.12%
Valuation Compensation	28,185,358
Normal Cost	\$ 2,288,651

Annual Contribution Requirement

Normal Cost	\$ 2,288,651
Amortization	1,088,557
Annual Contribution Requirement as of January 1	<u>3,377,208</u>
Interest	<u>227,962</u>
Annual Contribution Requirement as of December 31	\$ 3,605,170

Exhibit VI

Statement of Fiduciary Net Pension

Change in Market Value on an Accrual Basis

Market Value of Assets January 1, 2020 excluding accrued contributions	\$ 37,818,736
Contributions during the plan year	3,261,231
Benefit payments	(1,391,785)
Expenses	(62,527)
Investment return	5,928,655
Market Value of Assets December 31, 2020 including accrued contributions	\$ 45,554,310

Distribution of Assets by Investment Class

Cash and Equivalents	\$ 134,379
Debt Securities and Related Instruments	11,849,890
Equity Securities	30,145,572
Real Estate	3,451,276
Other	(16,535)
Accrued Income	0
Payables	(10,272)
Receivable contributions	0
Total Market Value of Assets December 31, 2020 including discounted accrued contributions	\$ 45,554,310

Exhibit VII

Discount Rate – Projection of Contributions

Contributions based on Entry Age Normal (level % currently 8.12%) method plus 5-year amortization of the plan amendment, plus 20-year amortizations of the Unfunded Accrued Liability and Assumption Changes.

Year	Payroll for Current Employees	Total Employee Payroll	Employer Contributions for		
			Current Employees	Amortization Amount	Total Contributions
2021	\$30,121,628	\$ 30,121,628	\$ 2,445,876	\$1,088,557	\$3,534,433
2022	28,430,271	28,430,271	2,308,538	686,799	2,995,337
2023	27,131,243	27,131,243	2,203,057	686,799	2,889,856
2024	26,170,356	26,170,356	2,125,033	686,799	2,811,832
2025	25,071,590	25,071,590	2,035,813	686,799	2,722,612
2026	23,897,881	23,897,881	1,940,508	686,799	2,627,307
2027	22,944,136	22,944,136	1,863,064	686,799	2,549,863
2028	22,028,588	22,028,588	1,788,721	686,799	2,475,520
2029	20,719,443	20,719,443	1,682,419	686,799	2,369,218
2030	19,621,357	19,621,357	1,593,254	686,799	2,280,053
2031	18,535,496	18,535,496	1,505,082	686,799	2,191,881
2032	17,235,545	17,235,545	1,399,526	686,799	2,086,325
2033	16,432,957	16,432,957	1,334,356	686,799	2,021,155
2034	15,159,875	15,159,875	1,230,982	686,799	1,917,781
2035	14,097,781	14,097,781	1,144,740	686,799	1,831,539
2036	13,175,374	13,175,374	1,069,840	686,799	1,756,639
2037	12,064,946	12,064,946	979,674	622,933	1,602,607
2038	11,334,406	11,334,406	920,354	680,387	1,600,741
2039	10,416,315	10,416,315	845,805	611,023	1,456,828
2040	9,427,954	9,427,954	765,550	56,238	821,788
2041	8,658,878	8,658,878	703,101	0	703,101
2042	7,987,942	7,987,942	648,621	0	648,621
2043	7,141,593	7,141,593	579,897	0	579,897
2044	6,460,255	6,460,255	524,573	0	524,573
2045	5,672,540	5,672,540	460,610	0	460,610
2046	4,922,338	4,922,338	399,694	0	399,694
2047	4,391,051	4,391,051	356,553	0	356,553
2048	3,760,332	3,760,332	305,339	0	305,339
2049	3,207,769	3,207,769	260,471	0	260,471
2050	2,818,100	2,818,100	228,830	0	228,830
2051	2,258,085	2,258,085	183,356	0	183,356
2052	1,820,918	1,820,918	147,859	0	147,859

Exhibit VII (Continued)

Year	Payroll for	Total	Employer	Amortization	Total
	Current	Employee	Contributions for		
<u>Year</u>	<u>Employees</u>	<u>Payroll</u>	<u>Employees</u>	<u>Amount</u>	<u>Contributions</u>
2053	\$ 1,501,985	\$ 1,501,985	\$ 121,961	\$ 0	\$ 121,961
2054	1,188,649	1,188,649	96,518	0	96,518
2055	1,008,744	1,008,744	81,910	0	81,910
2056	786,341	786,341	63,851	0	63,851
2057	568,637	568,637	46,173	0	46,173
2058	456,483	456,483	37,066	0	37,066
2059	353,312	353,312	28,689	0	28,689
2060	248,071	248,071	20,143	0	20,143
2061	176,946	176,946	14,368	0	14,368
2062	126,907	126,907	10,305	0	10,305
2063	98,960	98,960	8,036	0	8,036
2064	70,107	70,107	5,693	0	5,693
2065	34,314	34,314	2,786	0	2,786
2066	25,079	25,079	2,036	0	2,036
2067	14,451	14,451	1,173	0	1,173
2068	8,815	8,815	716	0	716

Exhibit VIII

Discount Rate – Projection Fiduciary Net Position

Year	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2021	\$45,554,310	\$3,534,433	\$1,735,883	\$ 62,527	\$ 3,132,550	\$50,422,883
2022	50,422,883	2,995,337	1,892,276	63,778	3,438,048	54,900,214
2023	54,900,214	2,889,856	2,065,773	65,054	3,730,963	59,390,206
2024	59,390,206	2,811,832	2,332,144	66,355	4,022,561	63,826,100
2025	63,826,100	2,722,612	2,625,639	67,682	4,309,234	68,164,625
2026	68,164,625	2,627,307	2,950,389	69,036	4,588,094	72,360,601
2027	72,360,601	2,549,863	3,272,071	70,417	4,858,026	76,426,002
2028	76,426,002	2,475,520	3,627,393	71,825	5,118,130	80,320,434
2029	80,320,434	2,369,218	3,964,512	73,262	5,366,235	84,018,113
2030	84,018,113	2,280,053	4,367,223	74,727	5,599,450	87,455,666
2031	87,455,666	2,191,881	4,719,933	76,222	5,816,798	90,668,191
2032	90,668,191	2,086,325	5,091,101	77,746	6,017,767	93,603,436
2033	93,603,436	2,021,155	5,497,386	79,301	6,200,192	96,248,096
2034	96,248,096	1,917,781	5,908,713	80,887	6,361,567	98,537,844
2035	98,537,844	1,831,539	6,255,043	82,505	6,501,710	100,533,545
2036	100,533,545	1,756,639	6,699,290	84,155	6,619,130	102,125,869
2037	102,125,869	1,602,607	6,979,032	85,838	6,712,155	103,375,761
2038	103,375,761	1,600,741	7,317,564	87,555	6,785,165	104,356,548
2039	104,356,548	1,456,828	7,667,307	89,306	6,834,921	104,891,684
2040	104,891,684	821,788	8,016,203	91,092	6,838,318	104,444,495
2041	104,444,495	703,101	8,237,981	92,914	6,796,769	103,613,470
2042	103,613,470	648,621	8,485,182	94,772	6,730,598	102,412,735
2043	102,412,735	579,897	8,714,067	96,667	6,639,605	100,821,503
2044	100,821,503	524,573	8,993,336	98,600	6,521,024	98,775,164
2045	98,775,164	460,610	9,242,336	100,572	6,372,441	96,265,307
2046	96,265,307	399,694	9,420,546	102,583	6,195,020	93,336,892
2047	93,336,892	356,553	9,563,995	104,635	5,991,089	90,015,904
2048	90,015,904	305,339	9,661,465	106,728	5,761,917	86,314,967
2049	86,314,967	260,471	9,656,118	108,863	5,510,721	82,321,178
2050	82,321,178	228,830	9,697,680	111,040	5,238,638	77,979,926
2051	77,979,926	183,356	9,698,523	113,261	4,943,992	73,295,490

Exhibit VIII (Continued)

Year	Projected Beginning Fiduciary Net Position	Projected Total Contributions	Projected Benefit Payments	Projected Administrative Expenses	Projected Investment Earnings	Projected Ending Fiduciary Net Position
2052	\$73,295,490	\$ 147,859	\$9,614,892	\$ 115,526	\$ 4,629,315	\$ 68,342,246
2053	68,342,246	121,961	9,482,644	117,837	4,298,425	63,162,151
2054	63,162,151	96,518	9,253,019	120,194	3,955,469	57,840,925
2055	57,840,925	81,910	9,042,579	122,598	3,602,708	52,360,366
2056	52,360,366	63,851	8,819,231	125,050	3,239,504	46,719,440
2057	46,719,440	46,173	8,507,217	127,551	2,868,430	40,999,275
2058	40,999,275	37,066	8,176,542	130,102	2,492,910	35,222,607
2059	35,222,607	28,689	7,864,017	132,704	2,112,996	29,367,571
2060	29,367,571	20,143	7,518,000	135,358	1,728,897	23,463,253
2061	23,463,253	14,368	7,154,918	138,065	1,342,127	17,526,765
2062	17,526,765	10,305	6,777,054	140,826	953,733	11,572,923
2063	11,572,923	8,036	6,406,900	143,643	563,968	5,594,384
2064	5,594,384	5,693	6,036,621	146,516	172,536	-
2065	-	2,786	5,648,733	149,446	(192,401)	-
2066	-	2,036	5,268,505	152,435	(179,902)	-
2067	-	1,173	4,891,592	155,484	(167,518)	-
2068	-	716	4,526,095	158,594	(155,503)	-
2069	-	-	4,163,078	161,766	(143,580)	-
2070	-	-	3,810,836	165,001	(131,993)	-

Exhibit IX

Discount Rate – Actuarial Present Values of Benefit Payments

Year	Projected Beginning Fiduciary Net Position	Projected Net Benefit Payments	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments	Present Value of "Funded" Benefit Payments	Present Value of "Unfunded" Benefit Payments	Present Value of Benefit Payments Using the Single Discount Rate
2021	\$45,554,310	\$1,735,883	\$1,735,883	\$ 0	\$1,680,106	\$ 0	\$1,690,878
2022	50,422,883	1,892,276	1,892,276	0	1,715,665	0	1,748,879
2023	54,900,214	2,065,773	2,065,773	0	1,754,539	0	1,811,513
2024	59,390,206	2,332,144	2,332,144	0	1,855,529	0	1,940,429
2025	63,826,100	2,625,639	2,625,639	0	1,956,949	0	2,072,816
2026	68,164,625	2,950,389	2,950,389	0	2,059,946	0	2,209,981
2027	72,360,601	3,272,071	3,272,071	0	2,140,087	0	2,325,496
2028	76,426,002	3,627,393	3,627,393	0	2,222,468	0	2,446,082
2029	80,320,434	3,964,512	3,964,512	0	2,275,426	0	2,536,587
2030	84,018,113	4,367,223	4,367,223	0	2,348,067	0	2,651,239
2031	87,455,666	4,719,933	4,719,933	0	2,377,240	0	2,718,709
2032	90,668,191	5,091,101	5,091,101	0	2,402,044	0	2,782,417
2033	93,603,436	5,497,386	5,497,386	0	2,429,728	0	2,850,692
2034	96,248,096	5,908,713	5,908,713	0	2,446,394	0	2,907,170
2035	98,537,844	6,255,043	6,255,043	0	2,426,029	0	2,920,058
2036	100,533,545	6,699,290	6,699,290	0	2,434,034	0	2,967,382
2037	102,125,869	6,979,032	6,979,032	0	2,375,336	0	2,933,076
2038	103,375,761	7,317,564	7,317,564	0	2,333,074	0	2,917,953
2039	104,356,548	7,667,307	7,667,307	0	2,290,008	0	2,900,936
2040	104,891,684	8,016,203	8,016,203	0	2,242,823	0	2,877,713
2041	104,444,495	8,237,981	8,237,981	0	2,159,132	0	2,805,970
2042	103,613,470	8,485,182	8,485,182	0	2,083,299	0	2,742,250
2043	102,412,735	8,714,067	8,714,067	0	2,004,211	0	2,672,085
2044	100,821,503	8,993,336	8,993,336	0	1,937,651	0	2,616,578
2045	98,775,164	9,242,336	9,242,336	0	1,865,386	0	2,551,397
2046	96,265,307	9,420,546	9,420,546	0	1,781,128	0	2,467,493
2047	93,336,892	9,563,995	9,563,995	0	1,693,910	0	2,376,855
2048	90,015,904	9,661,465	9,661,465	0	1,602,973	0	2,278,190
2049	86,314,967	9,656,118	9,656,118	0	1,500,783	0	2,160,394
2050	82,321,178	9,697,680	9,697,680	0	1,411,937	0	2,058,647
2051	77,979,926	9,698,523	9,698,523	0	1,322,772	0	1,953,454
2052	73,295,490	9,614,892	9,614,892	0	1,228,446	0	1,837,492

Exhibit IX (Continued)

Year	Projected Beginning Fiduciary Net Position	Projected Net Benefit Payments	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments	Present Value of "Funded" Benefit Payments	Present Value of "Unfunded" Benefit Payments	Present Value of Benefit Payments Using the Single Discount Rate
2053	\$68,342,246	\$9,482,644	\$9,482,644	\$ 0	\$1,134,941	\$ 0	\$1,719,468
2054	63,162,151	9,253,019	9,253,019	0	1,037,431	0	1,591,958
2055	57,840,925	9,042,579	9,042,579	0	949,730	0	1,476,128
2056	52,360,366	8,819,231	8,819,231	0	867,703	0	1,365,985
2057	46,719,440	8,507,217	8,507,217	0	784,079	0	1,250,219
2058	40,999,275	8,176,542	8,176,542	0	705,950	0	1,140,123
2059	35,222,607	7,864,017	7,864,017	0	636,035	0	1,040,424
2060	29,367,571	7,518,000	7,518,000	0	569,601	0	943,738
2061	23,463,253	7,154,918	7,154,918	0	507,815	0	852,192
2062	17,526,765	6,777,054	6,777,054	0	450,582	0	765,874
2063	11,572,923	6,406,900	6,406,900	0	399,037	0	686,986
2064	5,594,384	6,036,621	5,594,384	442,237	326,399	209,711	614,154
2065	0	5,648,733	0	5,648,733	0	2,633,107	545,278
2066	0	5,268,505	0	5,268,505	0	2,414,103	482,545
2067	0	4,891,592	0	4,891,592	0	2,203,280	425,093
2068	0	4,526,095	0	4,526,095	0	2,003,983	373,200
2069	0	4,163,078	0	4,163,078	0	1,811,907	325,698
2070	0	3,810,836	0	3,810,836	0	1,630,394	282,882
2071	0	3,470,622	0	3,470,622	0	1,459,589	244,442
2072	0	3,143,528	0	3,143,528	0	1,299,546	210,072
2073	0	2,830,710	0	2,830,710	0	1,150,325	179,486
2074	0	2,533,496	0	2,533,496	0	1,012,037	152,419
2075	0	2,253,002	0	2,253,002	0	884,685	128,607
2076	0	1,990,196	0	1,990,196	0	768,199	107,791
2077	0	1,745,960	0	1,745,960	0	662,465	89,723
2078	0	1,520,806	0	1,520,806	0	567,223	74,153
2079	0	1,315,013	0	1,315,013	0	482,126	60,837
2080	0	1,128,617	0	1,128,617	0	406,751	49,541
2081	0	961,310	0	961,310	0	340,562	40,037
2082	0	812,591	0	812,591	0	282,980	32,111
2083	0	681,699	0	681,699	0	233,360	25,560
2084	0	567,573	0	567,573	0	190,989	20,192
2085	0	469,001	0	469,001	0	155,135	15,831

Exhibit IX (Continued)

Year	Projected Beginning Fiduciary Net Position	Projected Net Benefit Payments	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments	Present Value of "Funded" Benefit Payments	Present Value of "Unfunded" Benefit Payments	Present Value of Benefit Payments Using the Single Discount Rate
2086	\$ 0	\$384,652	\$ 0	\$384,652	\$ 0	\$125,071	\$ 12,319
2087	0	313,127	0	313,127	0	100,083	9,515
2088	0	252,997	0	252,997	0	79,489	7,295
2089	0	202,832	0	202,832	0	62,644	5,549
2090	0	161,307	0	161,307	0	48,972	4,187
2091	0	127,213	0	127,213	0	37,964	3,133
2092	0	99,428	0	99,428	0	29,168	2,323
2093	0	76,955	0	76,955	0	22,191	1,706
2094	0	58,923	0	58,923	0	16,702	1,240
2095	0	44,590	0	44,590	0	12,425	890
2096	0	33,306	0	33,306	0	9,123	631
2097	0	24,517	0	24,517	0	6,601	441
2098	0	17,757	0	17,757	0	4,700	303
2099	0	12,634	0	12,634	0	3,287	204
2100	0	8,815	0	8,815	0	2,254	135
2101	0	6,022	0	6,022	0	1,514	88
2102	0	4,022	0	4,022	0	994	56
2103	0	2,621	0	2,621	0	637	34
2104	0	1,665	0	1,665	0	398	21
2105	0	1,029	0	1,029	0	241	12
2106	0	618	0	618	0	142	7
2107	0	360	0	360	0	82	4
2108	0	204	0	204	0	45	2
2109	0	112	0	112	0	24	1
2110	0	60	0	60	0	13	1
2111	0	31	0	31	0	7	0
2112	0	16	0	16	0	3	0
2113	0	8	0	8	0	2	0
2114	0	4	0	4	0	1	0
2115	0	2	0	2	0	0	0
2116	0	1	0	1	0	0	0
2117	0	0	0	0	0	0	0
2118	0	0	0	0	0	0	0

Exhibit X

Changes in Net Pension Liability

	<u>Plan Year Ending</u>	
	12/31/2019	12/31/2020
Total Pension Liability		
Service Cost	\$ 2,938,855	\$ 3,545,963
Interest	2,694,810	3,061,945
Changes of Benefit Terms	0	0
Differences Expected and Actual Experience	1,231,398	2,513,864
Changes of Assumptions	5,792,670	(3,616,413)
Benefit Payments	<u>(1,117,525)</u>	<u>(1,391,896)</u>
Net Change in Pension Liability	\$ 11,540,208	\$ 4,113,463
Total Pension Liability – Beginning	<u>49,263,627</u>	<u>60,803,835</u>
Total Pension Liability – Ending	\$ 60,803,835	\$ 64,917,298
Plan Net Fiduciary Position		
Employer Contributions	\$ 3,046,377	\$ 3,261,231
Employee Contributions	0	0
Net Investment Income	6,195,576	5,928,766
Benefit Payments	(1,117,525)	(1,391,896)
Administrative Expense	(76,658)	(62,527)
Other	<u>0</u>	<u>0</u>
Net Change in Net Fiduciary Position	\$ 8,047,770	\$ 7,735,574
Plan Fiduciary Net Position – Beginning	<u>29,770,966</u>	<u>37,818,736</u>
Plan Fiduciary Net Position – Ending	\$ 37,818,736	\$ 45,554,310
Plan Fiduciary Net Position as a Percentage of Total Pension Liability	62.20%	70.17%
Net Pension Liability	\$ 22,985,099	\$ 19,362,988
Covered Employee Payroll	\$ 24,700,473	\$ 28,185,358
Net Pension Liability as a Percentage of Covered Employee Payroll	93.06%	68.70%
Net Pension Liability		
Net Pension Liability at 4.10%/4.39%	\$ 32,743,785	\$ 29,423,556
Net Pension Liability at 6.10%/6.39%	14,995,470	11,073,994

Exhibit X (Continued)
 Changes in Net Pension Liability

	Total Pension Liability	Plan Net Position	Net Pension Liability
December 31, 2019	\$60,803,835	\$ 37,818,736	\$ 22,985,099
Service Cost	3,545,963		3,545,963
Interest	3,061,945		3,061,945
Changes of Benefit Terms	0		0
Differences Expected and Actual Experience	2,513,864		2,513,864
Changes of Assumptions	(3,616,413)		(3,616,413)
Benefit Payments	(1,391,896)		(1,391,896)
Employer Contributions		3,261,231	(3,261,231)
Employee Contributions		0	0
Net Investment Income		5,928,766	(5,928,766)
Benefit Payments		(1,391,896)	1,391,896
Administrative Expenses		(62,527)	62,527
Other		<u>0</u>	<u>0</u>
December 31, 2020	<u>\$64,917,298</u>	<u>\$ 45,554,310</u>	<u>\$ 19,362,988</u>

Exhibit XI

Schedule of Employer's Net Pension Liability

<u>Year Ending December 31</u>	<u>Total Pension Liability</u>	<u>Plan Net Position</u>	<u>Net Pension Liability</u>	<u>Plan Net Position as a % of Total Pension Liability</u>	<u>Covered Payroll</u>	<u>Net Pension Liability as a % of Covered Payroll</u>	<u>Money Weighted Rate of Return</u>
2015	\$32,891,828	\$20,993,038	\$11,898,790	63.8%	\$18,663,437	63.8%	(0.1%)
2016	38,127,802	23,811,865	14,315,937	62.5%	23,116,717	61.9%	8.4%
2017	45,157,623	30,010,195	15,147,428	66.5%	20,966,199	72.2%	16.7%
2018	49,263,627	29,770,966	19,492,661	60.4%	22,758,461	85.7%	(6.3%)
2019	60,803,835	37,818,736	22,985,099	62.2%	24,700,473	93.0%	20.2%
2020	64,917,298	45,554,310	19,362,988	70.2%	28,185,358	68.7%	15.3%

Exhibit XII Contribution History

<u>Plan Year Ending December 31</u>	<u>Actuarially Determined Contribution</u>	<u>Actual Contribution</u>	<u>Contribution Deficiency (Excess)</u>	<u>Covered Payroll</u>	<u>Actual Contribution as a % Covered Payroll</u>
2009	1,836,212	1,380,002	456,210	18,995,763	7.26%
2010	2,029,276	2,545,542	(516,266)	17,330,101	14.69%
2011	1,453,308	1,448,542	4,766	16,565,032	8.74%
2012	1,659,488	1,704,070	(44,582)	18,347,486	9.29%
2013	1,393,056	1,393,490	(434)	15,021,918	9.28%
2014	1,588,278	1,600,159	(11,881)	16,183,596	9.89%
2015	1,894,044	1,882,377	11,667	18,663,437	10.09%
2016	1,974,970	1,974,973	(3)	23,116,717	8.54%
2017	3,106,831	3,106,829	2	20,966,199	14.82%
2018	2,692,422	2,692,422	0	22,758,461	11.83%
2019	3,046,676	3,046,377	299	24,700,473	12.33%
2020	3,261,230	3,231,231	(1)	28,185,358	11.57%

Exhibit XIII

Pension Expense

1/1/2020-12/31/2020

Service Cost	\$ 3,545,963
Interest	3,061,945
Changes of Benefit Terms	0
Administrative Expenses	(62,527)
Employee Contributions	0
Expected Investment Return	(2,604,903)
Recognition of Deferred (Inflows)/Outflows	
Experience	893,027
Changes of Assumptions	803,410
Investment (Gains)/Losses	(1,227,806)
Other	<u>0</u>
Pension Expense	\$ 4,409,109

Exhibit XIV

Deferred (Inflow)/Outflow Schedule

Year Established	Initial Amount	Remaining Amount	Remaining Period	Amortization Amount
Experience				
2016	\$ (86,781)	\$ (18,876)	1.39	\$ (13,581)
2017	(288,769)	(95,613)	1.98	(48,289)
2018	720,052	271,888	1.82	149,388
2019	1,231,398	706,282	2.69	262,558
2020	2,513,864	1,970,913	3.63	<u>542,951</u>
Total				\$ 893,027
Assumption				
2016	\$ 209,630	\$ 45,600	1.39	\$ 32,806
2017	3,035,050	1,004,918	1.98	507,533
2018	(920,415)	(347,544)	1.82	(190,957)
2019	5,792,670	3,322,448	2.69	1,235,111
2020	(3,616,413)	(2,835,330)	3.63	<u>(781,083)</u>
Total				\$ 803,410
Investment				
2016	\$ (293,442)	\$ 0	0.00	\$ (58,690)
2017	(2,407,449)	(481,489)	1.00	(481,490)
2018	4,016,296	1,606,519	2.00	803,259
2019	(4,130,560)	(2,478,336)	3.00	(826,112)
2020	(3,323,863)	(2,659,090)	4.00	<u>(664,773)</u>
Total				\$ (1,227,806)

Future Amortization

2021	\$527,322
2022	995,385
2023	(695,625)
2024	(814,792)
2025+	0

Exhibit XV Census Reconciliation and Statistics

	Active Plan Members	Inactive Plan Members Entitled to But Not Yet Receiving Benefits	Inactive Plan Members Currently Receiving Benefits		Total
			Retired	Beneficiary	
Census Count January 1, 2020	305	266	119	6	696
Changes by category:					
a. Terminated Non-Vested	0	0	0	0	0
b. Death without Beneficiary	(1)	0	0	0	(1)
c. Death with Beneficiary	0	0	(1)	1	0
d. Terminated Vested	(14)	14	0	0	0
e. Paid Lump Sum	(1)	(2)	0	0	(3)
f. Suspended	0	0	0	0	0
g. Expired	0	0	0	0	0
h. Retired	(5)	(6)	10	1	0
i. New Entrants	30	0	0	0	30
j. Corrections	0	0	0	0	0
k. Returned to Work	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Census Count January 1, 2021	314	272	128	8	722
Average age	49	52	69	66	
Average service	8				
Percent Male	53%	51%	57%	50%	

Exhibit XVI Age and Service Distribution

Age Near Year	Years of Service										Total
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
<25		3									3
25-29	2	5									7
30-34	7	13	5								25
35-39	2	16	9	1	2						30
40-44	2	15	16	4	3						40
45-49	2	19	11	7	7	1					47
50-54	4	18	17	2	5	5	2		1		54
55-59	3	12	11	13	5	4	2				50
60-64	2	6	20	4	6	2	1	3			44
65-69		3	2	1		3			1		10
70+		2	1	1							4
Total	24	112	92	33	28	15	5	3	2	0	314

Exhibit XVII

Distribution of Inactive Participants with Total Monthly Benefits

Age	Terminated Vested	Retired	Disabled	Beneficiary
<35	14 \$1,236			
35-39	32 \$5,242			
40-44	28 \$8,449			
45-49	37 \$13,513			1 \$301
50-54	38 \$17,558	1 \$277		
55-59	49 \$19,905	3 \$2,162		
60-64	46 \$18,440	20 \$22,659		3 \$599
65-69	23 \$13,179	53 \$44,510	1 \$1,168	2 \$1,312
70-74	4 \$2,695	31 \$22,629		
75-79	1 \$1,181	17 \$17,554		1 \$1,673
80+		2 \$1,681		1 \$80
Total	272 \$101,398	127 \$111,472	1 \$1,168	8 \$3,965

Appendix A

Summary of Principal Plan Provisions

Plan Sponsor	Capital Metropolitan Transportation Authority
Effective Date	January 1, 2005 as amended and restated effective January 1, 2010, last amended effective January 1, 2017.
Plan Year	The 12-month period beginning each January 1.
Participation	Full-time administrative employees of Capital Metropolitan Transportation Authority are eligible to become a participant on the first day of the month coincident with or next following their date of hire.
Earnings	The total amount of compensation paid to a Participant for services as a Covered Employee that is reported to the Internal Revenue Service for purposes of Federal income taxation, plus (1) any other compensation specified as being included under the Plan in an employment agreement with an Employer and (2) any discretionary employer contribution, as defined in the Capital Metropolitan Transportation Authority 401(k) Plan, made after January 1, 2007.
Average Annual Earnings	The highest average annual Earnings received for any 5 consecutive full Earnings Computation Periods during the 10 consecutive Earnings Computation Periods immediately preceding the date the Participant's employment terminates.
Covered Compensation	The average, without indexing, of the taxable wage bases under Section 230 of the Social Security Act in effect for each calendar year during the 35-year period ending on the last day of the calendar year in which the Employee attains (or will attain) Social Security Retirement Age.
Vesting Service	Vesting Service is the continuous service during which a participant is an employee of the employer.
Credited Service	Each person who is a Covered Employee on or after January 1, 2010, shall be credited with Service and Credited Service with respect to periods of employment on or after such date, for purposes of the Plan as follows. Covered Employees are also credited with credited service earned from January 1, 2005 through January 1, 2010. Certain eligible employees receive credit for service prior to January 1, 2005.

Appendix A (Continued)

Accrued Benefit

An eligible Participant's monthly normal retirement benefit shall be equal to 1/12th of the sum of the following:

- (a) 1.5 percent of the Participant's Average Annual Earnings multiplied by his number of years of Credited Service completed at retirement; plus
- (b) .5 percent of the Participant's Average Annual Earnings in excess of Covered Compensation multiplied by his number of years of Credited Service completed at retirement.

Employees credited with service prior to January 1, 2005 have a benefit offset as stated in the plan document.

In no event will the normal retirement benefit payable to a Participant be less than the amount that would have been payable to him under the same form of payment had he retired prior to his Normal Retirement Date when eligible for an early retirement benefit.

Normal Retirement Benefit

Eligibility:

The later of (i) the date on which he attains age 65 or (ii) the earlier of (A) the date he completes 5 year of Service or (B) the fifth anniversary of the date he commenced participation in the Plan. For all other purposes, Normal Retirement Date means the first day of the month coinciding with or immediately following the date determined above.

Monthly Benefit:

The Accrued Benefit.

Termination Benefit

Eligibility:

Each Participant who terminates employment with his Employer and all Affiliated Entities, who has a vested interest in his Accrued Benefit, and who is not eligible for a normal, early, or disability retirement benefit under the Plan shall be eligible for a deferred vested retirement benefit.

Monthly Benefit:

An eligible Participant's monthly deferred vested retirement benefit shall be equal to his vested Accrued Benefit on the date of his termination of employment; provided, however, that if the Participant is eligible to elect to begin benefit payments before his Normal Retirement Date as provided in Section 7.4 the amount of such benefit shall be reduced for early commencement in the same way as provided in Section 6.2 with respect to an early retirement benefit.

Appendix A (Continued)

Early Retirement Benefit

Eligibility:

Age 55 with 5 years of service.

Monthly Benefit:

An eligible Participant's monthly early retirement benefit shall be equal to his vested Accrued Benefit on the date of his early retirement; provided, however, that the amount of such benefit shall be adjusted for early commencement as follows:

- (a) If on the Participant's Annuity Starting Date his age plus his years of Service total at least 80, the amount of such benefit shall be reduced by 3 percent for each full year and $1/12^{\text{th}}$ of that amount for each full month by which his Annuity Starting Date precedes the first day of the month coinciding with or immediately following his attainment of age 62.
- (b) If the Participant does not satisfy the requirements in paragraph (a) above, the amount of such benefit shall be reduced by $1/15$ for each of the first 5 full years by which his Annuity Starting Date precedes his Normal Retirement Date and by $1/30$ for each additional full year by which his Annuity Starting Date precedes his Normal Retirement Date.

Disability Retirement Benefit

Eligibility:

Each Participant who terminates active employment with his Employer prior to his Normal Retirement Date due to permanent and total disability shall be eligible for a disability retirement benefit if all of the following requirements are met:

- (a) Such permanent and total disability arises after the Participant satisfied the requirements of Article IV to participate in the Plan;
- (b) The Participant is credited with at least 10 years of Service on the date his active employment terminates;
- (c) The Participant does not elect to receive an early retirement or a deferred vested retirement benefit prior to his Normal Retirement Date; and
- (d) The Participant's permanent and total disability continues to his Normal Retirement Date.

Monthly Benefit:

An eligible Participant's monthly disability retirement benefit shall be equal to his vested Accrued Benefit as of his Normal Retirement Date, determined

based on his Average Annual Earnings on the date his active employment terminated and his Credited Service as of his Normal Retirement Date.

Appendix A (Continued)

Death Benefit

Eligibility:

If a Participant dies before his Annuity Starting Date, his surviving Spouse shall be eligible for a Qualified Preretirement Survivor Annuity if all of the following requirements are met on the Participant's date of death:

- (a) The Participant has a Spouse as defined in Section 1.1.
- (b) The Participant has not waived the Qualified Preretirement Survivor Annuity and elected an optional form of payment that is given effect as provided in Section 9.8.
- (c) The Participant has a vested Accrued Benefit.

Monthly Benefit:

The monthly amount of the Qualified Preretirement Survivor Annuity payable to a surviving Spouse shall be equal to the survivor benefit that would have been payable to the Spouse if the Participant had:

- (a) separated from service on the earlier of his actual separation from service date or his date of death;
- (b) survived to the date as of which payment of the Qualified Preretirement Survivor Annuity to his surviving Spouse commences;
- (c) elected to commence retirement benefits as of the date described in paragraph (b) above in the form of a 50 percent Qualified Joint and Survivor Annuity; and
- (d) died on his Annuity Starting Date.

Optional Forms of Payments

Life Annuity
Joint & Survivor with 50%, 66 2/3%, 75% or 100% continuation
5 or 10 Year Certain and Continuous

The Actuarial Equivalent of a value means its equivalent value determined using the actuarial factors specified in the Plan. For purposes other than converting to a single sum payment, Actuarial Equivalence is determined using the 1983 Group Annuity Mortality Table blended 50 percent male and 50 percent female and an interest rate of 7 percent.

Benefits Available as Lump Sums

The conversion factors are based on the Applicable Mortality Table and Applicable Interest Rate as required under IRC Section 417(e)(3) for each November preceding the plan year of distribution.

Maximum Benefit Limit

The Internal Revenue Code Section 415 Maximum Benefit payable as a life annuity at Social Security Normal Retirement Age.

Plan Compensation Limit

The Section 401(a)(17) Maximum Compensation that can be recognized for benefit calculation purposes.

Changes in Plan Provisions

None.

Appendix B Statement of Actuarial Assumptions and Methods

Interest Rates

Funding: 6.75%

GASB Statement No's 67 and 68:

a.	Discount Rate (liabilities)	5.39%
b.	20-year municipal bond rate	1.73%
b.	Long-Term Rate (trust income)	6.75%

Rationale: Discount rate is developed using plan's expected benefit payments, expenses, contributions, investment return and 20-year annualized bond rate to determine the present value of the one rate that equals the sum of funded and unfunded benefit payments to equal the present value of expected benefit payments.

Annual Expected Return on Assets

Interest Rate for developing Actuarial Value of Assets: 6.75%

Rationale: As prescribed by the Plan Sponsor.

Salary Scale

3.50%

Rationale: As prescribed by the Plan Sponsor based on anticipated salary increases.

Mortality

Funding: Mortality as provided in Notice 2019-26, male and female, with separate rates for annuitants and nonannuitants (as prescribed by IRC 430).

Rationale: Selected by Plan Sponsor to match the updated IRS 430 mortality.

Accounting: Pri-2012 White Collar Dataset Amount-Weighted Mortality Projected with Scale MP-2020 with separate rates for employees, retirees and contingent survivors.

Rationale: Selected by the Plan Sponsor on the most current base mortality table published by the Society of Actuaries and the most recent projection scale.

Rates of Retirement

<u>Age</u>	<u>Rate</u>
60-61	5%
62-64	10%
65	50%
66-69	15%
70	100%

Rationale: As selected by the Plan Sponsor based on advice from plan actuary as a result of an experience study conducted in 2017.

Appendix B (Continued)

Rates of Disability None assumed.

Rates of Turnover Based on age and service, sample rates follow:

Age	Service					
	<1	1	2	3	4	5+
25	17%	14%	12%	9%	6%	6%
30	17%	14%	12%	9%	6%	6%
35	17%	14%	12%	9%	6%	6%
40	17%	14%	12%	9%	6%	5%
45	17%	14%	12%	9%	6%	5%
50+	17%	14%	12%	9%	6%	4%

Rationale: As selected by the Plan Sponsor based on advice from plan actuary as a result of an experience study conducted in 2018.

Assumptions Made In Valuing Spouse's Benefit 60% of male participants and 40% of female participants to be married. The wife is assumed to be three years younger than the husband.

Annual Increases to Maximum Benefits and Plan Compensation Limits 1.00%

Annual Increases to Social Security 1.00%

Provision for Expenses The expected administrative (i.e. non-investment) expenses that will be paid from plan assets. For discount rate determination, expenses are assumed to increase by 2% per annum.

GASB Measurement Date December 31

Fiscal Year The 12-month period ending each December 31.

Selection of Assumptions Information used in the analysis of selecting assumptions include: discount rate – as prescribed by GASB 67 and 68; expected return on assets – review of historical and expected returns on various asset categories held by the plan as well as information provided by the plan's investment advisor.

Appendix B (Continued)

Asset Method	<p>Funding: Market Value of Assets plus an adjustment to defer full recognition of investment losses and gains over a five-year period. The investment (gain)/loss for every year equals the market value at the beginning of the year projected to the end of the year using the interest rate above, minus the end of the year actual market value. The actuarial value of assets will be no less than 80% and no more than 120% of the market value.</p> <p>GASB: Market Value of Assets as Supplied by Trustee.</p>
Employees Valued	<p>Only participants as of the valuation date were valued.</p>
Actuarial Method	<p>Entry Age Normal Cost (Level Percent of Pay)</p>
Changes in Assumptions and Methods since the Last Actuarial Valuation	<p>The discount rate for year-end disclosure was 5.10%.</p> <p>The assumed 20-year municipal bond rate was 2.49%.</p> <p>The accounting mortality in the previous valuation was the Pri-2012 White Collar Dataset Amount-Weighted Mortality Projected with Scale MP-2019 with separate rates for employees, retirees and contingent survivors.</p>
Justification for Changes in Actuarial Assumptions	<p>The year-end disclosure discount rate was determined consistent with the provisions of GASB nos. 67 and 68.</p>