

***City of Grosse Pointe Woods
Retiree Health Plan***

Revised Actuarial Information for GASB Statements 74/75

June 30, 2020

September 22, 2020

Retiree Health Plan
Grosse Pointe Woods, Michigan

Dear Board Members:

This revised document contains actuarial information required for Plan reporting purposes pursuant to Governmental Accounting Standards Board Statements No. 74/75 effective for the Fiscal Year ended June 30, 2020.

Respectfully submitted,



Denise M. Jones
Senior Consultant



Sandra W. Rodwan
Member, American Academy of Actuaries

Net OPEB Liability

The components of the net OPEB liability at June 30, 2020 were as follows:

Total OPEB liability	\$36,386,478
Plan fiduciary net position	1,001,372
Plan’s net OPEB liability	\$35,385,106
Plan fiduciary net position as a percentage of the total OPEB liability	2.75%

Actuarial assumptions. The total OPEB liability was determined based on the data used for the OPEB Valuation as of June 30, 2020. The following actuarial assumptions were applied to compute the total OPEB liability:

Actuarial Cost Method	Entry Age
Inflation	6% for the year of valuation, graded down to 5% in 0.1% increments
Salary Increases	N/A
Mortality	Pub 2010 Mortality Tables with MP 2018

Discount rate. The discount rate used to measure the total OPEB liability was 7.0%, which is the assumed long-term rate for the plan.

Sensitivity of the Discount Rate

	1% Decrease 6.0%	GASB 74 Discount Rate 7.0%	1% Increase 8.0%
Plan's Net OPEB Liability	\$41,272,542	\$35,385,106	\$30,701,596

Medical Inflation Rate. The medical inflation rate used to measure the total OPEB liability was 6.0% the first year, decreasing in 0.1% increments over the following 10 years to an ultimate assumed rate of 5.0%.

Sensitivity of Medical Inflation Rate

	1% Decrease 5.00%-4.00%	GASB 74 Med. Inflation Rate 6.00%-5.00%	1% Increase 7.00%-6.00%
Plan's Net OPEB Liability	\$31,100,430	\$35,385,106	\$42,160,888

Schedule of Changes in the Plan's Net OPEB Liability and Related Ratios

	Year Ended <u>6/30/2020</u>
Total OPEB liability	
Service cost	\$416,661
Interest	2,428,098
Changes in benefit terms	-
Differences between expected and actual experience	(551,667)
Changes of assumptions	
Interest Assumption	-
Mortality Assumption	290,589
Total Assumptions	290,589
Benefit payments, including refunds of member contributions	(1,351,986)
Net change in total OPEB liability	\$1,231,695
Total OPEB liability-beginning	35,154,783
Total OPEB liability-ending (a)	36,386,478
Plan fiduciary net position	
Contributions-employer	1,401,986
Contributions-member	58,919
Net investment income	29,550
Benefit payments, including refunds of member contributions	(1,351,986)
Administrative Expense	-
Other	-
Net change in plan fiduciary net position	138,469
Plan fiduciary net position-beginning	862,903
Plan fiduciary net position-ending (b)	1,001,372
Plan's net OPEB liability-ending (a)-(b)	\$35,385,106
Plan fiduciary net position as a percentage of the total OPEB liability	2.75%

Additional Required Disclosures

Total expected remaining service lives	<u>06/30/2020</u>
Active Participants	354.2
Inactive Participants	0
(a) Total expected remaining service lives	354.2
Number of Participants	
Active	44
Inactive	111
(b) Total	155
(c) Average of expected remaining service lives of all active and inactive participants (a)/(b)	2.3
(d1) Difference between expected and actual demographic experience	(551,667)
(d2) Portion allocated to expense (d1)/(c)	(239,855)
(d3) Deferred portion (d1)-(d2)	(311,812)
(e1) Changes in assumptions	290,589
(e2) Portion allocated to expense (e1)/(c)	126,343
(e3) Deferred portion (e1)-(e2)	164,246
(f1) Difference between expected and actual investment experience	34,665
(f2) Portion allocated to expense (f1)/(5)	6,933
(f3) Deferred portion (f1)-(f2)	27,732
(g) Total Deferred Portion	(119,834)

**SCHEDULE OF PLAN CONTRIBUTIONS
LAST 10 FISCAL YEARS
Year Ended June 30**

	2020	2019	2018	2017
Actuarially determined contribution	\$3,125,991	\$3,020,281	\$3,230,383	\$3,121,143
Plan Contributions	\$1,401,986	\$1,557,027	\$1,628,411	\$1,472,713
Contribution excess (deficiency)	(1,724,005)	(1,463,254)	(1,601,972)	(1,648,430)
Covered employee payroll	\$3,247,655	\$3,618,888	\$3,333,571	\$4,493,845
Actual Contributions as a percentage of covered payroll	43.17%	43.03%	48.85%	32.77%

Notes to Schedule

Valuation date: June 30, 2018 June 30, 2018 June 30, 2016 June 30, 2016
Covered employee payroll is as of June 30 of the current fiscal year.

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry age
Amortization method	Level percentage of payroll, open
Remaining amortization period	30 years
Asset valuation method	Market
Salary increases	N/A
Investment rate of return	3.5%, net of plan investment expense
Mortality Table	RP 2014

Table 1
Projection of Total Contributions*
Assuming 30 Year Open Amortization of UAAL

Year Beg. 7/1	Projected Entry Age AAL	Projected Funding Value of Assets	UAAL	30 Year Open Amortization	Projected Employer Normal Cost	Employer Contribution	Employee Contribution	Total Contributions
2020	\$65,517,674	\$1,001,372	\$64,516,302	\$2,225,812	\$1,283,713	\$1,519,182	\$0	\$1,519,182
2021	67,565,626	1,071,468	66,494,158	2,216,472	1,249,305	1,614,490	0	1,614,490
2022	69,618,050	1,146,471	68,471,579	2,282,386	1,217,874	1,735,782	0	1,735,782
2023	71,593,551	1,226,724	70,366,827	2,345,561	1,198,227	1,821,540	0	1,821,540
2024	73,535,592	1,312,595	72,222,997	2,407,433	1,155,437	1,932,348	0	1,932,348
2025	75,395,629	1,404,477	73,991,152	2,466,371	1,120,805	2,070,490	0	2,070,490
2026	77,152,523	1,502,790	75,649,733	2,521,658	1,081,295	2,180,475	0	2,180,475
2027	78,825,005	1,607,985	77,217,020	2,573,900	988,796	2,354,483	0	2,354,483
2028	80,295,212	1,720,544	78,574,668	2,619,155	886,722	2,536,987	0	2,536,987
2029	81,538,268	1,840,982	79,697,286	2,656,576	806,416	2,682,224	0	2,682,224
2030	82,604,034	1,969,851	80,634,183	2,687,806	735,689	2,814,991	0	2,814,991
2031	83,507,954	2,107,741	81,400,213	2,713,340	617,763	2,987,259	0	2,987,259
2032	84,158,951	2,255,283	81,903,668	2,730,122	492,462	3,155,963	0	3,155,963
2033	84,544,246	2,413,153	82,131,093	2,737,703	380,154	3,299,467	0	3,299,467
2034	84,691,909	2,582,074	82,109,835	2,736,994	309,384	3,444,056	0	3,444,056
2035	84,634,107	2,762,819	81,871,288	2,729,043	232,660	3,583,550	0	3,583,550
2036	84,362,635	2,956,216	81,406,419	2,713,547	170,154	3,696,320	0	3,696,320
2037	83,910,067	3,163,151	80,746,916	2,691,564	127,398	3,782,248	0	3,782,248
2038	83,315,792	3,384,572	79,931,220	2,664,374	95,556	3,865,453	0	3,865,453
2039	82,588,383	3,621,492	78,966,891	2,632,229	72,880	3,954,742	0	3,954,742
2040	81,726,475	3,874,996	77,851,479	2,595,049	52,573	4,015,883	0	4,015,883
2041	80,754,953	4,146,246	76,608,707	2,553,623	37,335	4,044,204	0	4,044,204
2042	79,706,794	4,436,483	75,270,311	2,509,010	27,702	4,103,665	0	4,103,665
2043	78,554,796	4,747,037	73,807,759	2,460,258	20,621	4,156,832	0	4,156,832
2044	77,303,969	5,079,330	72,224,639	2,407,488	16,244	4,210,496	0	4,210,496

Table 1 (Continued)
Projection of Total Contributions*
Assuming 30 Year Open Amortization of UAAL

Year Beg. 7/1	Projected Entry Age AAL	Projected Funding Value of Assets	UAAL	30 Year Open Amortization	Projected Employer Normal Cost	Employer Contribution	Employee Contribution	Total Contributions
2045	\$75,953,083	\$5,434,883	\$70,518,200	\$2,350,606	\$11,126	\$4,210,307	\$0	\$4,210,307
2046	74,549,980	5,815,325	68,734,655	2,291,155	8,171	4,227,240	0	4,227,240
2047	73,078,438	6,222,398	66,856,040	2,228,534	5,356	4,235,591	0	4,235,591
2048	71,544,500	6,657,966	64,886,534	2,162,884	3,945	4,269,020	0	4,269,020
2049	69,923,117	7,124,024	62,799,093	2,093,303	2,982	4,265,400	0	4,265,400
2050	68,247,528	7,622,706	60,624,822	2,020,827	1,172	4,287,153	0	4,287,153
2051	66,490,446	8,156,295	58,334,151	1,944,471	767	4,302,560	0	4,302,560
2052	64,656,554	8,727,236	55,929,318	1,864,310	428	4,312,253	0	4,312,253
2053	62,748,769	9,338,143	53,410,626	1,780,354	216	4,316,047	0	4,316,047
2054	60,770,325	9,991,813	50,778,512	1,692,617	0	4,313,826	0	4,313,826
2055	58,724,566	10,691,240	48,033,326	1,601,111	0	4,305,194	0	4,305,194
2056	56,615,555	11,439,627	45,175,928	1,505,864	0	4,290,015	0	4,290,015
2057	54,447,410	12,240,401	42,207,009	1,406,900	0	4,268,038	0	4,268,038
2058	52,224,644	13,097,229	39,127,415	1,304,247	0	4,239,031	0	4,239,031
2059	49,952,137	14,014,035	35,938,102	1,197,937	0	4,202,710	0	4,202,710
2060	47,635,223	14,995,017	32,640,206	1,088,007	0	4,158,749	0	4,158,749
2061	45,279,743	16,044,668	29,235,075	974,502	0	4,106,847	0	4,106,847
2062	42,892,023	17,167,795	25,724,228	857,474	0	4,046,721	0	4,046,721
2063	40,478,888	18,369,541	22,109,347	736,978	0	3,978,059	0	3,978,059
2064	38,047,714	19,655,409	18,392,305	613,077	0	3,900,500	0	3,900,500
2065	35,606,473	21,031,288	14,575,185	485,839	0	3,813,667	0	3,813,667
2066	33,163,778	22,503,478	10,660,300	355,343	0	3,717,376	0	3,717,376
2067	30,728,732	24,078,721	6,650,011	221,667	0	2,177,810	0	2,177,810
2068	28,310,750	24,280,233	4,030,517	134,351	0	0	0	0
2069	25,919,464	22,360,936	3,558,528	118,618	0	0	0	0

Table 1 (Continued)
Projection of Total Contributions*
Assuming 30 Year Open Amortization of UAAL

Year Beg. 7/1	Projected Entry Age AAL	Projected Funding Value of Assets	UAAL	30 Year Open Amortization	Projected Employer Normal Cost	Employer Contribution	Employee Contribution	Total Contributions
2070	\$23,609,415	\$20,483,760	\$3,125,655	\$104,188	\$0	\$0	\$0	\$0
2071	21,453,849	18,726,995	2,726,854	90,895	0	0	0	0
2072	19,427,125	17,065,843	2,361,282	78,709	0	0	0	0
2073	17,483,786	15,453,537	2,030,249	67,675	0	0	0	0
2074	15,633,221	13,900,410	1,732,811	57,760	0	0	0	0
2075	13,883,701	12,415,990	1,467,711	48,924	0	0	0	0
2076	12,242,198	11,008,751	1,233,447	41,115	0	0	0	0
2077	10,714,235	9,685,977	1,028,258	34,275	0	0	0	0
2078	9,303,930	8,453,711	850,219	28,341	0	0	0	0
2079	8,013,825	7,316,631	697,194	23,240	0	0	0	0
2080	6,844,753	6,277,768	566,985	18,899	0	0	0	0
2081	5,795,874	5,338,577	457,297	15,243	0	0	0	0
2082	4,864,822	4,498,992	365,830	12,194	0	0	0	0
2083	4,047,555	3,757,256	290,299	9,677	0	0	0	0
2084	3,338,445	3,109,939	228,506	7,617	0	0	0	0
2085	2,730,373	2,551,975	178,398	5,947	0	0	0	0
2086	2,215,086	2,077,009	138,077	4,603	0	0	0	0
2087	1,783,565	1,677,714	105,851	3,528	0	0	0	0
2088	1,426,177	1,345,953	80,224	2,674	0	0	0	0
2089	1,133,088	1,073,156	59,932	1,998	0	0	0	0
2090	894,743	850,814	43,929	1,464	0	0	0	0
2091	702,359	671,009	31,350	1,045	0	0	0	0
2092	547,933	526,440	21,493	716	0	0	0	0
2093	424,479	410,677	13,802	460	0	0	0	0
2094	326,093	318,254	7,839	261	0	0	0	0

Table 1 (Continued)
Projection of Total Contributions*
Assuming 30 Year Open Amortization of UAAL

Year Beg. 7/1	Projected Entry Age AAL	Projected Funding Value of Assets	UAAL	30 Year Open Amortization	Projected Employer Normal Cost	Employer Contribution	Employee Contribution	Total Contributions
2095	\$248,029	\$244,789	\$3,240	\$108	\$0	\$0	\$0	\$0
2096	186,399	186,692	(293)	0	0	0	0	0
2097	137,966	140,956	(2,990)	0	0	0	0	0
2098	100,264	105,318	(5,054)	0	0	0	0	0
2099	71,347	77,995	(6,648)	0	0	0	0	0
2100	49,646	57,562	(7,916)	0	0	0	0	0
2101	33,640	42,605	(8,965)	0	0	0	0	0
2102	22,174	32,060	(9,886)	0	0	0	0	0
2103	14,096	24,831	(10,735)	0	0	0	0	0
2104	8,735	20,304	(11,569)	0	0	0	0	0
2105	5,211	17,628	(12,417)	0	0	0	0	0
2106	2,999	16,300	(13,301)	0	0	0	0	0
2107	1,670	15,907	(14,237)	0	0	0	0	0
2108	900	16,135	(15,235)	0	0	0	0	0
2109	468	16,769	(16,301)	0	0	0	0	0
2110	235	17,676	(17,441)	0	0	0	0	0
2111	112	18,773	(18,661)	0	0	0	0	0
2112	47	20,014	(19,967)	0	0	0	0	0
2113	13	21,377	(21,364)	0	0	0	0	0
2114	0	22,859	(22,859)	0	0	0	0	0
2115	0	24,459	(24,459)	0	0	0	0	0
2116	0	26,171	(26,171)	0	0	0	0	0
2117	0	28,003	(28,003)	0	0	0	0	0
2118	0	29,963	(29,963)	0	0	0	0	0
2119	0	32,060	(32,060)	0	0	0	0	0

*The Projection of Contributions uses the plan's actuarial valuation interest and mortality assumptions. Contributions are assumed to equal the benefit payout.

Table 2: Projection of the Pension Plan's Fiduciary Net Position

Year Beg. 7/1	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments** (c)	Projected Administrative Expense*** (d)	Projected Investment Earnings**** (e)	Projected Fiduciary Ending Net Position (a)+(b)+(c)+(d)+(e)
2020	\$1,001,372	\$1,519,182	\$(1,519,182)	\$0	\$70,096	\$1,071,468
2021	1,071,468	1,614,490	(1,614,490)	0	75,003	1,146,471
2022	1,146,471	1,735,782	(1,735,782)	0	80,253	1,226,724
2023	1,226,724	1,821,540	(1,821,540)	0	85,871	1,312,595
2024	1,312,595	1,932,348	(1,932,348)	0	91,882	1,404,477
2025	1,404,477	2,070,490	(2,070,490)	0	98,313	1,502,790
2026	1,502,790	2,180,475	(2,180,475)	0	105,195	1,607,985
2027	1,607,985	2,354,483	(2,354,483)	0	112,559	1,720,544
2028	1,720,544	2,536,987	(2,536,987)	0	120,438	1,840,982
2029	1,840,982	2,682,224	(2,682,224)	0	128,869	1,969,851
2030	1,969,851	2,814,991	(2,814,991)	0	137,890	2,107,741
2031	2,107,741	2,987,259	(2,987,259)	0	147,542	2,255,283
2032	2,255,283	3,155,963	(3,155,963)	0	157,870	2,413,153
2033	2,413,153	3,299,467	(3,299,467)	0	168,921	2,582,074
2034	2,582,074	3,444,056	(3,444,056)	0	180,745	2,762,819
2035	2,762,819	3,583,550	(3,583,550)	0	193,397	2,956,216
2036	2,956,216	3,696,320	(3,696,320)	0	206,935	3,163,151
2037	3,163,151	3,782,248	(3,782,248)	0	221,421	3,384,572
2038	3,384,572	3,865,453	(3,865,453)	0	236,920	3,621,492
2039	3,621,492	3,954,742	(3,954,742)	0	253,504	3,874,996
2040	3,874,996	4,015,883	(4,015,883)	0	271,250	4,146,246
2041	4,146,246	4,044,204	(4,044,204)	0	290,237	4,436,483
2042	4,436,483	4,103,665	(4,103,665)	0	310,554	4,747,037
2043	4,747,037	4,156,832	(4,156,832)	0	332,293	5,079,330
2044	5,079,330	4,210,496	(4,210,496)	0	355,553	5,434,883

Table 2: Projection of the Pension Plan's Fiduciary Net Position (Continued)

Year Beg. 7/1	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments** (c)	Projected Administrative Expense*** (d)	Projected Investment Earnings**** (e)	Projected Fiduciary Ending Net Position (a)+(b)+(c)+(d)+(e)
2045	\$5,434,883	\$4,210,307	\$(4,210,307)	\$0	\$380,442	\$5,815,325
2046	5,815,325	4,227,240	(4,227,240)	0	407,073	6,222,398
2047	6,222,398	4,235,591	(4,235,591)	0	435,568	6,657,966
2048	6,657,966	4,269,020	(4,269,020)	0	466,058	7,124,024
2049	7,124,024	4,265,400	(4,265,400)	0	498,682	7,622,706
2050	7,622,706	4,287,153	(4,287,153)	0	533,589	8,156,295
2051	8,156,295	4,302,560	(4,302,560)	0	570,941	8,727,236
2052	8,727,236	4,312,253	(4,312,253)	0	610,907	9,338,143
2053	9,338,143	4,316,047	(4,316,047)	0	653,670	9,991,813
2054	9,991,813	4,313,826	(4,313,826)	0	699,427	10,691,240
2055	10,691,240	4,305,194	(4,305,194)	0	748,387	11,439,627
2056	11,439,627	4,290,015	(4,290,015)	0	800,774	12,240,401
2057	12,240,401	4,268,038	(4,268,038)	0	856,828	13,097,229
2058	13,097,229	4,239,031	(4,239,031)	0	916,806	14,014,035
2059	14,014,035	4,202,710	(4,202,710)	0	980,982	14,995,017
2060	14,995,017	4,158,749	(4,158,749)	0	1,049,651	16,044,668
2061	16,044,668	4,106,847	(4,106,847)	0	1,123,127	17,167,795
2062	17,167,795	4,046,721	(4,046,721)	0	1,201,746	18,369,541
2063	18,369,541	3,978,059	(3,978,059)	0	1,285,868	19,655,409
2064	19,655,409	3,900,500	(3,900,500)	0	1,375,879	21,031,288
2065	21,031,288	3,813,667	(3,813,667)	0	1,472,190	22,503,478
2066	22,503,478	3,717,376	(3,717,376)	0	1,575,243	24,078,721
2067	24,078,721	2,177,810	(3,611,625)	0	1,635,327	24,280,233
2068	24,280,233	0	(3,496,535)	0	1,577,238	22,360,936
2069	22,360,936	0	(3,326,030)	0	1,448,854	20,483,760

Table 2: Projection of the Pension Plan's Fiduciary Net Position (Continued)

Year Beg. 7/1	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments** (c)	Projected Administrative Expense*** (d)	Projected Investment Earnings**** (e)	Projected Fiduciary Ending Net Position (a)+(b)+(c)+(d)+(e)
2070	\$20,483,760	\$0	\$(3,082,733)	\$0	\$1,325,968	\$18,726,995
2071	18,726,995	0	(2,871,538)	0	1,210,386	17,065,843
2072	17,065,843	0	(2,711,995)	0	1,099,689	15,453,537
2073	15,453,537	0	(2,545,773)	0	992,646	13,900,410
2074	13,900,410	0	(2,374,347)	0	889,927	12,415,990
2075	12,415,990	0	(2,199,380)	0	792,141	11,008,751
2076	11,008,751	0	(2,022,596)	0	699,822	9,685,977
2077	9,685,977	0	(1,845,685)	0	613,419	8,453,711
2078	8,453,711	0	(1,670,377)	0	533,297	7,316,631
2079	7,316,631	0	(1,498,577)	0	459,714	6,277,768
2080	6,277,768	0	(1,332,014)	0	392,823	5,338,577
2081	5,338,577	0	(1,172,256)	0	332,671	4,498,992
2082	4,498,992	0	(1,020,933)	0	279,197	3,757,256
2083	3,757,256	0	(879,541)	0	232,224	3,109,939
2084	3,109,939	0	(749,430)	0	191,466	2,551,975
2085	2,551,975	0	(631,502)	0	156,536	2,077,009
2086	2,077,009	0	(526,266)	0	126,971	1,677,714
2087	1,677,714	0	(434,011)	0	102,250	1,345,953
2088	1,345,953	0	(354,603)	0	81,806	1,073,156
2089	1,073,156	0	(287,404)	0	65,062	850,814
2090	850,814	0	(231,268)	0	51,463	671,009
2091	671,009	0	(185,062)	0	40,493	526,440
2092	526,440	0	(147,453)	0	31,690	410,677
2093	410,677	0	(117,073)	0	24,650	318,254
2094	318,254	0	(92,505)	0	19,040	244,789

Table 2: Projection of the Pension Plan's Fiduciary Net Position (Continued)

Year Beg. 7/1	Projected Beginning Fiduciary Net Position (a)	Projected Total Contributions* (b)	Projected Benefit Payments** (c)	Projected Administrative Expense*** (d)	Projected Investment Earnings**** (e)	Projected Fiduciary Ending Net Position (a)+(b)+(c)+(d)+(e)
2095	\$244,789	\$0	\$(72,688)	\$0	\$14,591	\$186,692
2096	186,692	0	(56,816)	0	11,080	140,956
2097	140,956	0	(43,966)	0	8,328	105,318
2098	105,318	0	(33,522)	0	6,199	77,995
2099	77,995	0	(25,017)	0	4,584	57,562
2100	57,562	0	(18,344)	0	3,387	42,605
2101	42,605	0	(13,070)	0	2,525	32,060
2102	32,060	0	(9,153)	0	1,924	24,831
2103	24,831	0	(6,053)	0	1,526	20,304
2104	20,304	0	(3,959)	0	1,283	17,628
2105	17,628	0	(2,475)	0	1,147	16,300
2106	16,300	0	(1,482)	0	1,089	15,907
2107	15,907	0	(856)	0	1,084	16,135
2108	16,135	0	(479)	0	1,113	16,769
2109	16,769	0	(258)	0	1,165	17,676
2110	17,676	0	(136)	0	1,233	18,773
2111	18,773	0	(71)	0	1,312	20,014
2112	20,014	0	(37)	0	1,400	21,377
2113	21,377	0	(14)	0	1,496	22,859
2114	22,859	0	0	0	1,600	24,459
2115	24,459	0	0	0	1,712	26,171
2116	26,171	0	0	0	1,832	28,003
2117	28,003	0	0	0	1,960	29,963
2118	29,963	0	0	0	2,097	32,060
2119	32,060	0	0	0	2,244	34,304

*From Table 1.

**Assumed Mortality for Benefit Payout Projection was based on the Publication 2010 Mortality Tables with MP 2018.

***Administrative expense was assumed to be 0.00% of pension payroll.

****Assumed rate of return used to project the Fiduciary Net Position was 7.00%.

Table 3: Actuarial Present Values of Projected Benefit Payments

Year (a)	Projected Beginning Fiduciary Net Position* (b)	Projected Benefit Payments* (c)	"Funded" Portion of Benefit Payments (d)	"Unfunded" Portion of Benefit Payments (e)	Present Value of "Funded" Benefits Payments** (f)	Present Value of "Unfunded" Benefit Payments*** (g)=(e)/(1+x.xx%)^(a)	Present Value Using the Single Discount Rate**** (h) = (c)/(1 + y.yy%)^(a)
1	\$1,001,372	\$1,519,182	\$1,001,372	\$517,810	\$935,862	\$505,427	\$1,426,771
2	1,071,468	1,614,490	1,071,468	543,022	935,862	517,361	1,424,047
3	1,146,471	1,735,782	1,146,471	589,311	935,862	548,035	1,437,901
4	1,226,724	1,821,540	1,226,724	594,816	935,862	539,927	1,417,154
5	1,312,595	1,932,348	1,312,595	619,753	935,862	549,109	1,411,914
6	1,404,477	2,070,490	1,404,477	666,013	935,862	575,985	1,420,825
7	1,502,790	2,180,475	1,502,790	677,685	935,862	572,063	1,405,280
8	1,607,985	2,354,483	1,607,985	746,498	935,862	615,082	1,425,122
9	1,720,544	2,536,987	1,720,544	816,443	935,862	656,626	1,442,179
10	1,840,982	2,682,224	1,840,982	841,242	935,862	660,391	1,431,992
11	1,969,851	2,814,991	1,969,851	845,140	935,862	647,585	1,411,455
12	2,107,741	2,987,259	2,107,741	879,518	935,862	657,811	1,406,720
13	2,255,283	3,155,963	2,255,283	900,680	935,862	657,529	1,395,761
14	2,413,153	3,299,467	2,413,153	886,314	935,862	631,568	1,370,464
15	2,582,074	3,444,056	2,582,074	861,982	935,862	599,541	1,343,503
16	2,762,819	3,583,550	2,762,819	820,731	935,862	557,198	1,312,884
17	2,956,216	3,696,320	2,956,216	740,104	935,862	490,444	1,271,824
18	3,163,151	3,782,248	3,163,151	619,097	935,862	400,445	1,222,227
19	3,384,572	3,865,453	3,384,572	480,881	935,862	303,606	1,173,132
20	3,621,492	3,954,742	3,621,492	333,250	935,862	205,367	1,127,222
21	3,874,996	4,015,883	3,874,996	140,887	935,862	84,746	1,075,021
22	4,146,246	4,044,204	4,044,204	0	912,830	0	1,016,748
23	4,436,483	4,103,665	4,103,665	0	865,655	0	968,940
24	4,747,037	4,156,832	4,156,832	0	819,505	0	921,790
25	5,079,330	4,210,496	4,210,496	0	775,780	0	876,894

Table 3: Actuarial Present Values of Projected Benefit Payments (Continued)

Year	Projected Beginning Fiduciary Net Position*	Projected Benefit Payments*	"Funded" Portion of Benefit Payments	"Unfunded" Portion of Benefit Payments	Present Value of "Funded" Benefits Payments**	Present Value of "Unfunded" Benefit Payments***	Present Value Using the Single Discount Rate****
(a)	(b)	(c)	(d)	(e)	(f)	(g)=(c)/(1+x.xx%)^(a)	(h) = (c)/(1 + y.yy%)^(a)
26	\$5,434,883	\$4,210,307	\$4,210,307	\$0	\$724,996	\$0	\$823,516
27	5,815,325	4,227,240	4,227,240	0	680,291	0	776,533
28	6,222,398	4,235,591	4,235,591	0	637,042	0	730,738
29	6,657,966	4,269,020	4,269,020	0	600,065	0	691,704
30	7,124,024	4,265,400	4,265,400	0	560,333	0	649,077
31	7,622,706	4,287,153	4,287,153	0	526,347	0	612,703
32	8,156,295	4,302,560	4,302,560	0	493,681	0	577,501
33	8,727,236	4,312,253	4,312,253	0	462,423	0	543,594
34	9,338,143	4,316,047	4,316,047	0	432,551	0	510,977
35	9,991,813	4,313,826	4,313,826	0	404,046	0	479,647
36	10,691,240	4,305,194	4,305,194	0	376,857	0	449,569
37	11,439,627	4,290,015	4,290,015	0	350,961	0	420,734
38	12,240,401	4,268,038	4,268,038	0	326,321	0	393,117
39	13,097,229	4,239,031	4,239,031	0	302,900	0	366,694
40	14,014,035	4,202,710	4,202,710	0	280,659	0	341,438
41	14,995,017	4,158,749	4,158,749	0	259,554	0	317,314
42	16,044,668	4,106,847	4,106,847	0	239,547	0	294,293
43	17,167,795	4,046,721	4,046,721	0	220,598	0	272,345
44	18,369,541	3,978,059	3,978,059	0	202,668	0	251,438
45	19,655,409	3,900,500	3,900,500	0	185,716	0	231,540
46	21,031,288	3,813,667	3,813,667	0	169,703	0	212,614
47	22,503,478	3,717,376	3,717,376	0	154,596	0	194,639
48	24,078,721	3,611,625	3,611,625	0	140,372	0	177,599
49	24,280,233	3,496,535	3,496,535	0	127,008	0	161,481
50	22,360,936	3,326,030	3,326,030	0	112,911	0	144,263

Table 3: Actuarial Present Values of Projected Benefit Payments (Continued)

Year (a)	Projected Beginning Fiduciary Net Position* (b)	Projected Benefit Payments* (c)	"Funded" Portion of Benefit Payments (d)	"Unfunded" Portion of Benefit Payments (e)	Present Value of "Funded" Benefits Payments** (f)	Present Value of "Unfunded" Benefit Payments*** (g)=(e)/(1+x.xx%)^(a)	Present Value Using the Single Discount Rate**** (h) = (c)/(1 + y.yy%)^(a)
51	\$20,483,760	\$3,082,733	\$3,082,733	\$0	\$97,805	\$0	\$125,576
52	18,726,995	2,871,538	2,871,538	0	85,145	0	109,858
53	17,065,843	2,711,995	2,711,995	0	75,153	0	97,443
54	15,453,537	2,545,773	2,545,773	0	65,932	0	85,906
55	13,900,410	2,374,347	2,374,347	0	57,469	0	75,248
56	12,415,990	2,199,380	2,199,380	0	49,752	0	65,463
57	11,008,751	2,022,596	2,022,596	0	42,760	0	56,539
58	9,685,977	1,845,685	1,845,685	0	36,467	0	48,455
59	8,453,711	1,670,377	1,670,377	0	30,844	0	41,185
60	7,316,631	1,498,577	1,498,577	0	25,861	0	34,702
61	6,277,768	1,332,014	1,332,014	0	21,483	0	28,969
62	5,338,577	1,172,256	1,172,256	0	17,670	0	23,943
63	4,498,992	1,020,933	1,020,933	0	14,382	0	19,584
64	3,757,256	879,541	879,541	0	11,580	0	15,846
65	3,109,939	749,430	749,430	0	9,221	0	12,680
66	2,551,975	631,502	631,502	0	7,262	0	10,035
67	2,077,009	526,266	526,266	0	5,656	0	7,854
68	1,677,714	434,011	434,011	0	4,359	0	6,083
69	1,345,953	354,603	354,603	0	3,329	0	4,668
70	1,073,156	287,404	287,404	0	2,521	0	3,553
71	850,814	231,268	231,268	0	1,896	0	2,685
72	671,009	185,062	185,062	0	1,418	0	2,018
73	526,440	147,453	147,453	0	1,056	0	1,510
74	410,677	117,073	117,073	0	784	0	1,126
75	318,254	92,505	92,505	0	579	0	836

Table 3: Actuarial Present Values of Projected Benefit Payments (Continued)

Year (a)	Projected Beginning Fiduciary Net Position* (b)	Projected Benefit Payments* (c)	"Funded" Portion of Benefit Payments (d)	"Unfunded" Portion of Benefit Payments (e)	Present Value of "Funded" Benefits Payments** (f)	Present Value of "Unfunded" Benefit Payments*** (g)=(e)/(1+x.xx%)^(a)	Present Value Using the Single Discount Rate**** (h) = (c)/(1 + y.yy%)^(a)
76	\$244,789	\$72,688	\$72,688	\$0	\$425	\$0	\$617
77	186,692	56,816	56,816	0	310	0	453
78	140,956	43,966	43,966	0	224	0	329
79	105,318	33,522	33,522	0	160	0	236
80	77,995	25,017	25,017	0	112	0	165
81	57,562	18,344	18,344	0	76	0	114
82	42,605	13,070	13,070	0	51	0	76
83	32,060	9,153	9,153	0	33	0	50
84	24,831	6,053	6,053	0	21	0	3
85	20,304	3,959	3,959	0	13	0	19
86	17,628	2,475	2,475	0	7	0	11
87	16,300	1,482	1,482	0	4	0	6
88	15,907	856	856	0	2	0	3
89	16,135	479	479	0	1	0	2
90	16,769	258	258	0	1	0	1
91	17,676	136	136	0	0	0	0
92	18,773	71	71	0	0	0	0
93	20,014	37	37	0	0	0	0
94	21,377	14	14	0	0	0	0
95	22,859	0	0	0	0	0	0
96	24,459	0	0	0	0	0	0
97	26,171	0	0	0	0	0	0
98	28,003	0	0	0	0	0	0
99	29,963	0	0	0	0	0	0
100	32,060	0	0	0	0	0	0
					\$32,670,842	\$10,975,846	\$43,646,688

* From Table 2.

**7.00% was the assumed rate of return used to project the plan's fiduciary net position and is the discount rate used for column (f).

***2.45% Municipal bond rate in the "Fidelity Index 20 Year GO AA Index" as of June 30, 2020.

****6.48% was the single discount rate that produces a total actuarial present value that equals the sum of the actuarial present values of "funded" and "unfunded" benefit payments in columns (f) and (g).