



Cavanaugh Macdonald

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July 26, 2019

Ms. Cecelia Carter
Executive Director
Omaha School Employees Retirement System
3215 Cuming Street
Omaha, NE 68131

Re: Actuarial Cost Studies for Sustainability Study

Dear Ms. Carter:

At the Board's request, we have prepared eight actuarial projection studies which reflect four alternate plan design provisions, each under two different financing approaches. The four variations of plan designs were selected by the Board at their meeting on May 22, 2019, based on numerous individual cost studies previously performed for the Board of Trustees. For each plan design, there are two alternative approaches to financing the additional District contributions to the System:

- (1) Approach 1: Additional District contribution amounts that are level dollar amounts, and
- (2) Approach 2: Additional District contribution amounts that increase 2% per year.

Under both approaches, the additional District contribution amount for the next four years is set at a level expected to produce contributions equivalent to the actuarial rate over the next four years. The additional District contributions cannot be reduced until OSERS is at least 85% funded for three consecutive years on the lesser of the actuarial or market value of assets. In all scenarios, additional District contributions are assumed to be deposited into the Trust on August 31.

The resulting eight cost studies, are summarized below:

Plan Design A:

- ***Benefit provisions:*** Effective January 1, 2022, suspend the 2022 Cost-of-Living-Adjustment (COLA) for retirees, defer the COLA for future retirees to the later of age 62 or one year after retirement, and add a new optional form of payment, the Partial Lump Sum Option (PLSO), available only to active members who work at least one full year beyond their first unreduced retirement date.
- ***Financing provisions:*** Current statutory contributions plus \$25 million per year (or \$25 million increasing 2% per year), beginning in 2022.



Plan Design B:

- ***Benefit provisions:*** Same as Plan Design A except new hires after January 1, 2023 are covered by a different benefit tier (Tier 5), a Hybrid Plan which includes a defined benefit (DB) plan and a defined contribution (DC) plan. The DB plan includes a 1% benefit multiplier, final average salary over the highest five years, early retirement with actuarially reduced benefits at age 62 with 5 years of service, normal retirement at age 67 with 5 years of service and a 1% COLA commencing 36 months after retirement. The PLSO option is not available for Tier 5 members. Employees contribute 4% of pay to the DB Plan plus an additional employee contribution to the defined contribution plan. The employee contribution to the DC Plan would not impact the funding of the DB Plan, and so is excluded from analysis in this letter.
- ***Financing provisions:*** Current statutory contributions plus \$25 million per year (or \$25 million increasing 2% per year), beginning in 2022.

Plan Design C:

- ***Benefit provisions:*** Effective January 1, 2022, suspend the COLA for retirees for three years (2022 through 2024), defer the COLA for future retirees to the later of age 62 or three years after retirement, cap years of service for the calculation of benefits at 30 with a refund of employee contributions, with interest, for years not included in the benefit calculation, beginning with the earliest year of service.
- ***Financing provisions:*** Current statutory contributions plus \$30 million per year (or \$30 million increasing 2% per year), beginning in 2022.

Plan Design D:

- ***Benefit provisions:*** Effective January 1, 2022, suspend the 2022 COLA for retirees, defer the COLA for future retirees to one year after retirement and add a new optional form of payment, the PLSO, available only to active members who work at least one full year beyond their first unreduced retirement date.
- ***Financing provisions:*** Current statutory contributions plus \$25 million per year (or \$25 million increasing 2% per year), beginning in 2022.

Under several of the alternative plan designs, a Partial Lump Sum Option (PLSO) is provided as an optional form of payment for certain retirees. The basic design of the PLSO used in these studies is outlined below:

- (1) Only available to members who work beyond their first unreduced retirement age (Normal Retirement Age, NRA)
- (2) Members who work at least 12 months but less than 24 months beyond NRA may elect an annuity benefit that is 90% of their full monthly benefit and receive the remaining 10% present value of their benefit as a lump sum.
- (3) Members who work at least 24 months but less than 36 months beyond NRA may elect an annuity benefit that is 80% of their full monthly benefit and receive the remaining 20% present value of their benefit as a lump sum.
- (4) Members who work at least 36 months beyond NRA may elect an annuity benefit that is 70% of their full monthly benefit and receive the remaining 30% present value of their benefit as a lump sum.
- (5) The monthly retirement benefit payable to the member is reduced actuarially to reflect the PLSO payment. As with other actuarially equivalent optional forms of payment, the System is not expected to incur a cost if the member elects this optional form of payment.



To illustrate the long-term funding impact of the four alternate plan designs, A through D, and the two alternate financing methods (1 and 2), we used the projection model developed with the January 1, 2019 actuarial valuation to provide a more comprehensive analysis of the impact of the proposed changes on the System’s funding over time. It was assumed that all actuarial assumptions are met in the future, including a return of 7.50% on the market value of assets. In addition, the employee, employer, and state statutory contribution rates are also assumed to remain at their current levels, except in Plan Design B where members hired on or after January 1, 2023 contribute 4.0% of pay.

Eight sets of exhibits, showing contributions and funding results, are attached to this letter. In all cases, the current plan provisions with the current statutory financing, including additional District contributions, if necessary, to meet the Actuarial Contribution Rate is considered the “Baseline Scenario”. Each alternate plan design described earlier, labeled A through D, with each financing approaches (1 – level dollar and 2- amounts increasing 2% per year), are shown in the exhibits.

A summary comparison of the eight studies is shown below. In all but Plan Design C, the additional District contribution is \$25 million, either level or increasing 2% per year. For Plan Design C, the additional District contribution is \$30 million, either level or increasing 2% per year.

**Total District Contributions
 (Statutory and Additional Contributions)**

	<u>2022</u>	<u>2030</u>	<u>2038</u>	<u>2046</u>	<u>Total</u>	<u>Difference</u>
Baseline	\$63.5	\$87.4	\$111.9	\$142.6	\$3,068.0	
A1	62.0	83.4	101.3	118.2	2,807.6	\$(260.4)
A2	62.0	78.4	101.3	113.2	2,784.5	(283.5)
B1	62.0	83.0	104.4	106.4	2,723.7	(344.3)
B2	67.0	83.0	99.4	111.4	2,726.9	(341.1)
C1	67.0	78.0	90.7	79.6	2,422.9	(645.1)
C2	67.0	83.1	101.9	77.6	2,523.7	(544.3)
D1	62.0	83.4	106.3	128.2	2,907.6	(160.4)
D2	62.0	83.4	106.3	118.2	2,873.7	(194.3)

OSERS Funded Ratio

	<u>2022</u>	<u>2030</u>	<u>2038</u>	<u>2046</u>	<u>2049</u>	<u>Difference</u>
Baseline	59.9%	63.9%	74.6%	90.5%	98.3%	
A1	61.5%	65.9%	76.7%	92.3%	99.2%	0.9%
A2	61.5%	65.7%	75.9%	91.4%	97.9%	(0.4%)
B1	61.5%	64.8%	74.7%	90.8%	98.0%	(0.3%)
B2	61.5%	65.1%	74.9%	90.3%	97.9%	(0.4%)
C1	63.5%	70.4%	83.3%	98.7%	105.0%	6.7%
C2	63.5%	71.2%	86.6%	104.7%	111.7%	13.4%
D1	61.0%	65.1%	75.7%	91.5%	98.8%	0.5%
D2	61.0%	64.9%	75.5%	91.3%	98.0%	(0.3%)



With both financing approaches, the opportunity to recalibrate the contribution amount every four years, has a positive impact on OSERS' funding over the thirty-year projection period. In all plan design scenarios, the funded ratio is close to the projected funded ratio of 98% in the baseline scenario. For Plan Design C, the funded status in 2049 is noticeably higher than the other plan design scenarios due to a combination of the higher contributions in the early years as well as larger savings from the plan provision changes. In later years the statutory contribution rates exceed the actuarial contribution rate leading to funded ratios above 100%.

The projection results shown in this study are heavily dependent on the assumed future investment returns. While these projections assume the actuarial investment return assumption of 7.5% will be earned every year in the future, this specific scenario is unlikely to occur. Variability in the actual returns from year to year is expected, given the asset allocation of the portfolio. That variability will impact the actuarial contribution rate and the sufficiency of the proposed contribution stream in future years. This means the amount of the additional contributions by the District in the future is expected to vary from the amounts shown here, and the funded ratios will likewise vary from the projections shown. Additional analysis could be performed to demonstrate the potential range of results that may occur under alternate scenarios with varying investment returns.

Actuarial Assumptions

In general, the actuarial assumptions used in the January 1, 2019 actuarial valuation are also used in the cost studies. However, modifications to the OSERS' plan design could require an adjustment to some of the assumptions. In particular, the addition of the PLSO provision provides members with more flexibility in how they elect to receive their retirement benefit. The ability to receive part of their benefit as a lump sum tends to be well received by the members. The addition of the PLSO provision is expected to incent an extension of the retirement date for some members and, thus, provide for a longer period over which to fund the benefits to be received. For purposes of these studies, retirement assumptions were modified to reflect this expected change in the retirement behavior of current and future OSERS members. The current and adjusted retirement rates are shown in Exhibit I of this letter. The revised assumptions reflect an increase in the average retirement age of about 9 months for members who retire between ages 55 to 65.

The benefit to the System of offering the PLSO is a potential small cost savings, as well as a reduction to the future investment and mortality risk of the System because a smaller portion of the member's benefit is paid from the trust in the future. However, this may not unfold as expected and the actual experience for OSERS may vary, perhaps significantly. There is no way to know in advance what impact the addition of the PLSO will have on retirement behavior. We expect it will incent some of the members to retire at a later date, but if that does not occur, the associated cost savings reflected in some of these studies would not materialize. However, the addition of a PLSO option does not create any additional risk to the funding of OSERS beyond its potential impact on the net cash flows (contributions less benefit payments) so there would be no negative impact on costs if behavior does not change.



Disclaimers, Caveats, and Limitations

The results in this letter are based primarily on the January 1, 2019 valuation, the actuarial assumptions and methods used in that 2019 valuation (unless otherwise noted), and a projection model prepared by the System's actuary, Cavanaugh Macdonald Consulting, LLC. Significant items are noted below:

- The investment return assumed in all future years was assumed to be 7.5% on a market value basis, unless otherwise noted.
- The assumptions are those used in the January 1, 2019 actuarial valuation, unless otherwise noted, and are assumed to be met in all future years.
- Except as noted, the number of active members in the System in the future is assumed to remain level (neither grow nor decline). As current active members leave covered employment they are assumed to be replaced with new employees who have a similar demographic profile as recent new entrants to the System.
- Benefits are reflected as provided under current law for the baseline results, including the change in benefit structure for members hired on or after July 1, 2018, requiring a minimum age of 60 for retirement under the Rule of 85 ("Modified Rule of 85"). Alternate benefit structures are described earlier in this letter and on the attached exhibits. Further, we have not considered whether changes in the benefit structure would have a positive or negative effect on the System members.
- We relied on the membership data provided for the actuarial valuation. If there are material inaccuracies in the data, the results presented herein may be different and the projections may need to be revised.

Models are designed to identify anticipated trends and to compare various scenarios rather than predicting some future state of events. The projections model future events using one set of assumptions out of a range of many alternate assumption sets that may also be reasonable. A different set of assumptions would provide different results, which could vary significantly from those in this study. The projections are not intended to predict the System's financial condition or its ability to pay benefits in the future and do not provide any guarantee of future financial soundness of the System. Over time, a defined benefit plan's total cost will depend on a number of factors, including the amount of benefits paid, the number of people paid benefits, the duration of the benefit payments, plan expenses, and the amount of earnings on assets invested to pay benefits. These amounts and other variables are uncertain and unknowable at the time the projections were prepared. Because not all of the assumptions will unfold exactly as expected, actual results will differ from the projections. To the extent that actual experience deviates significantly from the assumptions, results could be significantly different, better or worse, than indicated in this study.

Restricted Distribution of Materials

This letter and the accompanying exhibits were prepared exclusively for the Board of Trustees of the Omaha School Employees Retirement System (OSERS). The exhibits attached to this letter contain important information about the expected patterns of the financing and funding of OSERS. However, they are highly complex and technical in nature, and therefore, potentially subject to misinterpretation or misunderstanding. Therefore, the exhibits should not be considered without this accompanying letter which includes a full description of the various plan designs that produce the liabilities shown in the projections, as well as the financing methodology and the actuarial assumptions and methods used.

Cavanaugh Macdonald Consulting's (CMC's) work is prepared solely for the internal use and benefit of OSERS. To the extent that CMC's work is not subject to disclosure under applicable public records laws,



Cecelia M. Carter
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CMC's work may not be provided to third parties without CMC's prior written consent. CMC does not intend to benefit or create a legal duty to any third party recipient of its work product and assumes no liability to other parties who receive this work product without CMC's written consent. CMC's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

- (a) OSERS may provide a copy of CMC's work, in its entirety, to OSERS' professional service advisors who are subject to a duty of confidentiality and who agree to not use CMC's work for any purpose other than to benefit OSERS, and
- (b) OSERS may provide a copy of CMC's work, in its entirety, to other governmental entities, if required by law.

No third party recipient of CMC's work product should rely upon CMC's work product. Such recipients should engage qualified professionals for advice appropriate to their specific needs.

I, Patrice A. Beckham, FSA am a consulting actuary with Cavanaugh Macdonald Consulting, LLC. I am a member of the American Academy of Actuaries, Fellow of the Society of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. Please let me know if there are additional questions that arise related to the information presented in this letter. I would be happy to provide additional analysis, if needed.

Sincerely,

A handwritten signature in blue ink that reads 'Patrice Beckham' in a cursive script.

Patrice A. Beckham, FSA, FCA, EA, MAAA
Principal and Consulting Actuary



Exhibit: Contributions - A1

Omaha School Employees Retirement System
Option: Plan Design A with Financing Approach 1

Comparison of Baseline (Current Provisions/Financing) Versus Plan Design A with Additional District Contributions at \$25 Million Per Year Until 85% Funded for Three Consecutive Years at the Lesser of Market or Actuarial Value of Assets

Year (1/1)	Baseline (Current Provisions/Financing)							Plan Design A with \$25M per year							Total Change to District Contribution Amount (\$M)
	Contribution Rates				Contribution Amounts (\$M)			Contribution Rates				Contribution Amounts (\$M)			
	Total Payroll (\$M)	Actuarial	Member & State	District Statutory	District Additional	District Additional	Total District	Total Payroll (\$M)	Actuarial	Member & State	District Statutory	Effective District Additional	District Additional	Total District	
2019	339.5	26.97%	11.78%	9.88%	5.31%	18.2	51.7	339.5	26.97%	11.78%	9.88%	5.31%	18.2	51.7	0.0
2020	350.6	27.70%	11.78%	9.88%	6.04%	21.4	56.0	350.6	27.70%	11.78%	9.88%	6.04%	21.4	56.0	0.0
2021	362.8	28.24%	11.78%	9.88%	6.58%	24.2	60.0	362.8	28.24%	11.78%	9.88%	6.58%	24.2	60.0	0.0
2022	375.0	28.65%	11.78%	9.88%	6.99%	26.5	63.5	375.0	26.71%	11.78%	9.88%	6.59%	25.0	62.0	(1.5)
2023	388.0	28.94%	11.78%	9.88%	7.28%	28.6	66.9	388.6	27.01%	11.78%	9.88%	6.36%	25.0	63.4	(3.5)
2024	401.2	29.14%	11.78%	9.88%	7.48%	30.4	70.0	402.4	27.24%	11.78%	9.88%	6.14%	25.0	64.7	(5.3)
2025	414.8	29.30%	11.78%	9.88%	7.64%	32.1	73.1	416.4	27.42%	11.78%	9.88%	5.93%	25.0	66.1	(7.0)
2026	428.8	29.41%	11.78%	9.88%	7.75%	33.6	76.0	430.8	27.56%	11.78%	9.88%	6.88%	30.0	72.6	(3.4)
2027	442.7	29.50%	11.78%	9.88%	7.84%	35.1	78.8	445.2	27.62%	11.78%	9.88%	6.66%	30.0	74.0	(4.8)
2028	457.1	29.56%	11.78%	9.88%	7.90%	36.5	81.7	460.0	27.65%	11.78%	9.88%	6.44%	30.0	75.4	(6.3)
2029	471.9	29.59%	11.78%	9.88%	7.93%	37.9	84.5	475.1	27.67%	11.78%	9.88%	6.24%	30.0	76.9	(7.6)
2030	486.2	29.66%	11.78%	9.88%	8.00%	39.4	87.4	489.9	27.72%	11.78%	9.88%	7.06%	35.0	83.4	(4.0)
2031	501.0	29.69%	11.78%	9.88%	8.03%	40.7	90.2	505.2	27.69%	11.78%	9.88%	6.85%	35.0	84.9	(5.3)
2032	516.5	29.72%	11.78%	9.88%	8.06%	42.1	93.1	521.0	27.66%	11.78%	9.88%	6.64%	35.0	86.5	(6.6)
2033	531.9	29.75%	11.78%	9.88%	8.09%	43.6	96.1	536.8	27.65%	11.78%	9.88%	6.44%	35.0	88.0	(8.1)
2034	548.0	29.77%	11.78%	9.88%	8.11%	45.0	99.1	553.1	27.64%	11.78%	9.88%	6.25%	35.0	89.6	(9.5)
2035	563.6	29.81%	11.78%	9.88%	8.15%	46.5	102.2	569.3	27.65%	11.78%	9.88%	6.07%	35.0	91.2	(11.0)
2036	580.0	29.84%	11.78%	9.88%	8.18%	48.0	105.3	586.0	27.67%	11.78%	9.88%	5.90%	35.0	92.9	(12.4)
2037	596.9	29.87%	11.78%	9.88%	8.21%	49.6	108.6	603.1	27.69%	11.78%	9.88%	5.73%	35.0	94.6	(14.0)
2038	614.3	29.89%	11.78%	9.88%	8.23%	51.2	111.9	620.7	27.73%	11.78%	9.88%	6.37%	40.0	101.3	(10.6)
2039	631.9	29.92%	11.78%	9.88%	8.26%	52.8	115.2	638.6	27.73%	11.78%	9.88%	6.19%	40.0	103.1	(12.1)
2040	651.0	29.94%	11.78%	9.88%	8.28%	54.6	118.9	657.7	27.74%	11.78%	9.88%	6.01%	40.0	105.0	(13.9)
2041	670.8	29.94%	11.78%	9.88%	8.28%	56.2	122.5	677.5	27.74%	11.78%	9.88%	5.83%	40.0	106.9	(15.6)
2042	692.5	29.91%	11.78%	9.88%	8.25%	57.8	126.2	698.9	27.75%	11.78%	9.88%	6.36%	45.0	114.0	(12.2)
2043	714.9	29.88%	11.78%	9.88%	8.22%	59.5	130.1	721.0	27.70%	11.78%	9.88%	6.17%	45.0	116.2	(13.9)
2044	737.8	29.86%	11.78%	9.88%	8.20%	61.2	134.1	743.8	27.68%	11.78%	9.88%	5.98%	45.0	118.5	(15.6)
2045	761.3	29.85%	11.78%	9.88%	8.19%	63.1	138.3	767.3	27.66%	11.78%	9.88%	5.79%	45.0	120.8	(17.5)
2046	785.3	29.84%	11.78%	9.88%	8.18%	65.0	142.6	791.3	27.67%	11.78%	9.88%	4.99%	40.0	118.2	(24.4)
2047	810.1	29.84%	11.78%	9.88%	8.18%	67.1	147.1	816.2	27.72%	11.78%	9.88%	4.84%	40.0	120.6	(26.5)
2048	836.5	29.81%	11.78%	9.88%	8.15%	69.0	151.6	842.4	27.77%	11.78%	9.88%	4.69%	40.0	123.2	(28.4)
2049	863.3	15.43%	11.78%	9.88%	0.00%	0.0	85.3	869.3	13.57%	11.78%	9.88%	4.55%	40.0	125.9	40.6
						1,336.9	3,068.0						1,063.8	2,807.6	(260.4)

Note: The projections are based on the January 1, 2019 actuarial valuation and assume that all assumptions are met in the future, including the 7.5% assumed rate of return. To the extent actual experience differs from that assumed, the actual valuation results in future years will also differ. Please see the January 1, 2019 valuation report for details on the actuarial methods and assumptions used in this study.

In Plan Design A, effective January 1, 2022, a Partial Lump Sum Option (PLSO) is offered to members who work beyond their normal retirement age (NRA). The addition of the PLSO was assumed to incent an extension of the retirement date, so the retirement assumptions were modified. If the addition of a PLSO does not change retirement behavior, there would be no cost saving due to this provision. In addition, for all actives at the time of the amendment, the Cost-of-Living-Adjustment (COLA) is changed to be the later of age 62 or a 1-year delay. For all retirees at January 1, 2022, the COLA is suspended for one year. The shaded row shows the first year affected by the plan provision changes.

In the baseline scenario, the System is funded with statutory contributions as well as additional contributions made by the District so the full actuarial rate is contributed. In Plan Design A, the System is funded with statutory contributions as well as additional District contributions of \$25 million per year. Every four years the additional District contribution amount is reviewed, and recalibrated, if necessary, to remain close to the actuarial contribution rate at that time. This policy remains in place until the funded ratio (on both a market value and actuarial value basis) has been at least 85% for three consecutive years. At that point, the additional District contributions may be reduced to a level determined to meet the actuarial rate over the next four years. The additional District contributions outlined with a black box show where recalibration was required. The effective additional district contribution rate is calculated by dividing the additional district contribution amount by total payroll.

This exhibit is an attachment to a letter that contains important information and explanations regarding the numbers shown. Therefore, it should only be considered with the accompanying letter from Cavanaugh Macdonald dated July 26, 2019.



Exhibit: Funding - A1

Omaha School Employees Retirement System

Option: Plan Design A with Financing Approach 1

Comparison of Baseline (Current Provisions/Financing) Versus Plan Design A with Additional District Contributions at \$25 Million Per Year Until 85% Funded for Three Consecutive Years at the Lesser of Market or Actuarial Value of Assets

Year (1/1)	Baseline (Current Provisions/Financing)					Plan Design A with \$25M per year				
	Market Value of Assets (\$M)	Actuarial Value of Assets (\$M)	Actuarial Liability (\$M)	Unfunded Actuarial Liability (\$M)	Funded Ratio	Market Value of Assets (\$M)	Actuarial Value of Assets (\$M)	Actuarial Liability (\$M)	Unfunded Actuarial Liability (\$M)	Funded Ratio
2019	1,193.8	1,378.8	2,192.9	814.1	62.9%	1,193.8	1,378.8	2,192.9	814.1	62.9%
2020	1,238.6	1,387.8	2,262.0	874.2	61.4%	1,238.6	1,387.8	2,262.0	874.2	61.4%
2021	1,291.1	1,411.4	2,336.5	925.2	60.4%	1,291.1	1,411.4	2,336.5	925.2	60.4%
2022	1,347.9	1,444.9	2,412.9	968.0	59.9%	1,347.9	1,444.9	2,350.8	905.9	61.5%
2023	1,409.0	1,487.2	2,491.2	1,004.0	59.7%	1,407.4	1,485.9	2,420.3	934.5	61.4%
2024	1,474.5	1,537.5	2,571.6	1,034.0	59.8%	1,471.8	1,535.2	2,494.2	958.9	61.6%
2025	1,544.7	1,595.5	2,654.4	1,058.9	60.1%	1,539.8	1,591.2	2,571.1	979.9	61.9%
2026	1,619.5	1,660.5	2,739.7	1,079.2	60.6%	1,611.3	1,653.0	2,651.0	998.0	62.4%
2027	1,699.0	1,732.0	2,827.2	1,095.2	61.3%	1,691.6	1,725.5	2,733.6	1,008.2	63.1%
2028	1,783.2	1,809.8	2,917.1	1,107.3	62.0%	1,775.6	1,803.2	2,818.8	1,015.6	64.0%
2029	1,872.5	1,894.0	3,009.5	1,115.5	62.9%	1,863.8	1,886.3	2,906.6	1,020.2	64.9%
2030	1,966.8	1,984.2	3,104.1	1,120.0	63.9%	1,956.0	1,974.5	2,996.7	1,022.3	65.9%
2031	2,066.2	2,080.2	3,200.7	1,120.5	65.0%	2,057.4	2,072.6	3,089.1	1,016.5	67.1%
2032	2,171.1	2,182.3	3,299.5	1,117.2	66.1%	2,163.4	2,176.0	3,183.8	1,007.8	68.3%
2033	2,281.7	2,290.8	3,400.5	1,109.7	67.4%	2,274.5	2,284.9	3,280.9	995.9	69.6%
2034	2,398.4	2,405.8	3,503.8	1,098.0	68.7%	2,390.8	2,399.5	3,380.4	980.8	71.0%
2035	2,521.5	2,527.4	3,609.1	1,081.7	70.0%	2,512.4	2,519.8	3,482.1	962.3	72.4%
2036	2,650.8	2,655.6	3,716.0	1,060.4	71.5%	2,639.4	2,645.6	3,585.7	940.0	73.8%
2037	2,787.0	2,790.9	3,824.6	1,033.8	73.0%	2,771.8	2,777.2	3,691.0	913.9	75.2%
2038	2,930.8	2,933.8	3,935.2	1,001.4	74.6%	2,910.2	2,914.9	3,798.5	883.6	76.7%
2039	3,082.2	3,084.7	4,047.6	962.9	76.2%	3,060.1	3,064.3	3,907.9	843.7	78.4%
2040	3,242.3	3,244.3	4,161.9	917.6	78.0%	3,217.2	3,220.9	4,019.5	798.6	80.1%
2041	3,412.3	3,414.0	4,278.8	864.8	79.8%	3,382.6	3,386.0	4,133.8	747.8	81.9%
2042	3,593.9	3,595.2	4,399.4	804.2	81.7%	3,557.7	3,560.8	4,251.8	691.0	83.7%
2043	3,788.4	3,789.4	4,524.2	734.8	83.8%	3,748.7	3,751.6	4,374.0	622.3	85.8%
2044	3,996.5	3,997.3	4,653.4	656.0	85.9%	3,951.8	3,954.5	4,500.5	546.0	87.9%
2045	4,219.1	4,219.7	4,786.7	567.0	88.2%	4,167.4	4,170.0	4,631.3	461.3	90.0%
2046	4,456.9	4,457.4	4,924.1	466.7	90.5%	4,396.1	4,398.7	4,766.3	367.6	92.3%
2047	4,711.1	4,711.5	5,065.8	354.3	93.0%	4,633.9	4,636.3	4,905.7	269.3	94.5%
2048	4,983.1	4,983.5	5,212.2	228.7	95.6%	4,886.4	4,888.7	5,049.7	161.0	96.8%
2049	5,274.6	5,274.8	5,363.7	88.9	98.3%	5,155.0	5,157.3	5,199.0	41.7	99.2%

Note: The projections are based on the January 1, 2019 actuarial valuation and assume that all assumptions are met in the future, including the 7.5% assumed rate of return. To the extent actual experience differs from that assumed, the actual valuation results in future years will also differ. Please see the January 1, 2019 valuation report for details on the actuarial methods and assumptions used in this study.

In Plan Design A, effective January 1, 2022, a Partial Lump Sum Option (PLSO) is offered to members who work beyond their normal retirement age (NRA). The addition of the PLSO was assumed to incite an extension of the retirement date, so the retirement assumptions were modified. If the addition of a PLSO does not change retirement behavior, there would be no cost saving due to this provision. In addition, for all actives at the time of the amendment, the Cost-of-Living-Adjustment (COLA) is changed to be the later of age 62 or a 1-year delay. For all retirees at January 1, 2022, the COLA is suspended for one year. The shaded row shows the first year affected by the plan provision changes.

In the baseline scenario, the System is funded with statutory contributions as well as additional contributions made by the District so the full actuarial rate is contributed. In Plan Design A, the System is funded with statutory contributions as well as additional District contributions of \$25 million per year. Every four years the additional District contribution amount is reviewed, and recalibrated, if necessary, to remain close to the actuarial contribution rate at that time. This policy remains in place until the funded ratio (on both a market value and actuarial value basis) has been at least 85% for three consecutive years. At that point, the additional District contributions may be reduced to a level determined to meet the actuarial rate over the next four years. The additional District contributions outlined with a black box show where recalibration was required. The effective additional district contribution rate is calculated by dividing the additional district contribution amount by total payroll.

This exhibit is an attachment to a letter that contains important information and explanations regarding the numbers shown. Therefore, it should only be considered with the accompanying letter from Cavanaugh Macdonald dated July 26, 2019.



Exhibit: Contributions - A2

Omaha School Employees Retirement System
Option: Plan Design A with Financing Approach 2

Comparison of Baseline (Current Provisions/Financing) Versus Plan Design A with Additional District Contributions at \$25 Million Increasing 2% Per Year Until 85% Funded for Three Consecutive Years at the Lesser of Market or Actuarial Value of Assets

Year (1/1)	Baseline (Current Provisions/Financing)							Plan Design A with \$25M with 2%/year increase and recalibration every 4 years							Total Change to District Contribution Amount (\$M)
	Contribution Rates			Contribution Amounts (\$M)				Contribution Rates			Contribution Amounts (\$M)				
	Total Payroll (\$M)	Actuarial	Member & State	District Statutory	District Additional	District Additional	Total District	Total Payroll (\$M)	Actuarial	Member & State	District Statutory	Effective District Additional	District Additional	Total District	
2019	339.5	26.97%	11.78%	9.88%	5.31%	18.2	51.7	339.5	26.97%	11.78%	9.88%	5.31%	18.2	51.7	0.0
2020	350.6	27.70%	11.78%	9.88%	6.04%	21.4	56.0	350.6	27.70%	11.78%	9.88%	6.04%	21.4	56.0	0.0
2021	362.8	28.24%	11.78%	9.88%	6.58%	24.2	60.0	362.8	28.24%	11.78%	9.88%	6.58%	24.2	60.0	0.0
2022	375.0	28.65%	11.78%	9.88%	6.99%	26.5	63.5	375.0	26.71%	11.78%	9.88%	6.59%	25.0	62.0	(1.5)
2023	388.0	28.94%	11.78%	9.88%	7.28%	28.6	66.9	388.6	27.01%	11.78%	9.88%	6.48%	25.5	63.9	(3.0)
2024	401.2	29.14%	11.78%	9.88%	7.48%	30.4	70.0	402.4	27.23%	11.78%	9.88%	6.39%	26.0	65.7	(4.3)
2025	414.8	29.30%	11.78%	9.88%	7.64%	32.1	73.1	416.4	27.39%	11.78%	9.88%	6.30%	26.5	67.6	(5.5)
2026	428.8	29.41%	11.78%	9.88%	7.75%	33.6	76.0	430.8	27.51%	11.78%	9.88%	6.21%	27.1	69.7	(6.3)
2027	442.7	29.50%	11.78%	9.88%	7.84%	35.1	78.8	445.2	27.61%	11.78%	9.88%	6.13%	27.6	71.6	(7.2)
2028	457.1	29.56%	11.78%	9.88%	7.90%	36.5	81.7	460.0	27.67%	11.78%	9.88%	6.05%	28.2	73.6	(8.1)
2029	471.9	29.59%	11.78%	9.88%	7.93%	37.9	84.5	475.1	27.72%	11.78%	9.88%	5.97%	28.7	75.6	(8.9)
2030	486.2	29.66%	11.78%	9.88%	8.00%	39.4	87.4	489.9	27.78%	11.78%	9.88%	6.05%	30.0	78.4	(9.0)
2031	501.0	29.69%	11.78%	9.88%	8.03%	40.7	90.2	505.2	27.82%	11.78%	9.88%	5.98%	30.6	80.5	(9.7)
2032	516.5	29.72%	11.78%	9.88%	8.06%	42.1	93.1	521.0	27.85%	11.78%	9.88%	5.92%	31.2	82.7	(10.4)
2033	531.9	29.75%	11.78%	9.88%	8.09%	43.6	96.1	536.8	27.89%	11.78%	9.88%	5.86%	31.8	84.8	(11.3)
2034	548.0	29.77%	11.78%	9.88%	8.11%	45.0	99.1	553.1	27.93%	11.78%	9.88%	6.25%	35.0	89.6	(9.5)
2035	563.6	29.81%	11.78%	9.88%	8.15%	46.5	102.2	569.3	27.96%	11.78%	9.88%	6.20%	35.7	91.9	(10.3)
2036	580.0	29.84%	11.78%	9.88%	8.18%	48.0	105.3	586.0	27.99%	11.78%	9.88%	6.14%	36.4	94.3	(11.0)
2037	596.9	29.87%	11.78%	9.88%	8.21%	49.6	108.6	603.1	28.02%	11.78%	9.88%	6.08%	37.1	96.7	(11.9)
2038	614.3	29.89%	11.78%	9.88%	8.23%	51.2	111.9	620.7	28.06%	11.78%	9.88%	6.37%	40.0	101.3	(10.6)
2039	631.9	29.92%	11.78%	9.88%	8.26%	52.8	115.2	638.6	28.08%	11.78%	9.88%	6.31%	40.8	103.9	(11.3)
2040	651.0	29.94%	11.78%	9.88%	8.28%	54.6	118.9	657.7	28.10%	11.78%	9.88%	6.25%	41.6	106.6	(12.3)
2041	670.8	29.94%	11.78%	9.88%	8.28%	56.2	122.5	677.5	28.11%	11.78%	9.88%	6.19%	42.4	109.3	(13.2)
2042	692.5	29.91%	11.78%	9.88%	8.25%	57.8	126.2	698.9	28.11%	11.78%	9.88%	6.36%	45.0	114.0	(12.2)
2043	714.9	29.88%	11.78%	9.88%	8.22%	59.5	130.1	721.0	28.09%	11.78%	9.88%	6.29%	45.9	117.1	(13.0)
2044	737.8	29.86%	11.78%	9.88%	8.20%	61.2	134.1	743.8	28.08%	11.78%	9.88%	6.22%	46.8	120.3	(13.8)
2045	761.3	29.85%	11.78%	9.88%	8.19%	63.1	138.3	767.3	28.08%	11.78%	9.88%	6.15%	47.8	123.6	(14.7)
2046	785.3	29.84%	11.78%	9.88%	8.18%	65.0	142.6	791.3	28.09%	11.78%	9.88%	4.37%	35.0	113.2	(29.4)
2047	810.1	29.84%	11.78%	9.88%	8.18%	67.1	147.1	816.2	28.20%	11.78%	9.88%	4.32%	35.7	116.3	(30.8)
2048	836.5	29.81%	11.78%	9.88%	8.15%	69.0	151.6	842.4	28.31%	11.78%	9.88%	4.27%	36.4	119.6	(32.0)
2049	863.3	15.43%	11.78%	9.88%	0.00%	0.0	85.3	869.3	14.16%	11.78%	9.88%	4.22%	37.1	123.0	37.7
						1,336.9	3,068.0						1,040.7	2,784.5	(283.5)

Note: The projections are based on the January 1, 2019 actuarial valuation and assume that all assumptions are met in the future, including the 7.5% assumed rate of return. To the extent actual experience differs from that assumed, the actual valuation results in future years will also differ. Please see the January 1, 2019 valuation report for details on the actuarial methods and assumptions used in this study.

In Plan Design A, effective January 1, 2022, a Partial Lump Sum Option (PLSO) is offered to members who work beyond their normal retirement age (NRA). The addition of the PLSO was assumed to incent an extension of the retirement date, so the retirement assumptions were modified. If the addition of a PLSO does not change retirement behavior, there would be no cost saving due to this provision. In addition, for all actives at the time of the amendment, the Cost-of-Living-Adjustment (COLA) is changed to be the later of age 62 or a 1-year delay. For all retirees at January 1, 2022, the COLA is suspended for one year. The shaded row shows the first year affected by the plan provision changes.

In the baseline scenario, the System is funded with statutory contributions as well as additional contributions made by the District so the full actuarial rate is contributed. In Plan Design A, the System is funded with statutory contributions as well as additional District contributions that start at \$25 million in 2022 and increase by 2% per year. Every four years the additional District contribution amount is reviewed, and recalibrated, if necessary, to remain close to the actuarial contribution rate at that time. This policy remains in place until the funded ratio (on both a market value and actuarial value basis) has been at least 85% for three consecutive years. At that point, the additional District contributions may be reduced to a level determined to meet the actuarial rate over the next four years. The additional District contributions outlined with a black box show where recalibration was required. The effective additional district contribution rate is calculated by dividing the additional district contribution amount by total payroll.

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Exhibit: Funding - A2

Omaha School Employees Retirement System

Option: Plan Design A with Financing Approach 2

Comparison of Baseline (Current Provisions/Financing) Versus Plan Design A with Additional District Contributions at \$25 Million Increasing 2% Per Year Until 85% Funded for Three Consecutive Years at the Lesser of Market or Actuarial Value of Assets

Year (1/1)	Baseline (Current Provisions/Financing)					Plan Design A with \$25M with 2%/year increase and recalibration every 4 years				
	Market Value of Assets (\$M)	Actuarial Value of Assets (\$M)	Actuarial Liability (\$M)	Unfunded Actuarial Liability (\$M)	Funded Ratio	Market Value of Assets (\$M)	Actuarial Value of Assets (\$M)	Actuarial Liability (\$M)	Unfunded Actuarial Liability (\$M)	Funded Ratio
2019	1,193.8	1,378.8	2,192.9	814.1	62.9%	1,193.8	1,378.8	2,192.9	814.1	62.9%
2020	1,238.6	1,387.8	2,262.0	874.2	61.4%	1,238.6	1,387.8	2,262.0	874.2	61.4%
2021	1,291.1	1,411.4	2,336.5	925.2	60.4%	1,291.1	1,411.4	2,336.5	925.2	60.4%
2022	1,347.9	1,444.9	2,412.9	968.0	59.9%	1,347.9	1,444.9	2,350.8	905.9	61.5%
2023	1,409.0	1,487.2	2,491.2	1,004.0	59.7%	1,407.4	1,485.9	2,420.3	934.5	61.4%
2024	1,474.5	1,537.5	2,571.6	1,034.0	59.8%	1,472.3	1,535.8	2,494.2	958.4	61.6%
2025	1,544.7	1,595.5	2,654.4	1,058.9	60.1%	1,541.4	1,592.8	2,571.1	978.3	61.9%
2026	1,619.5	1,660.5	2,739.7	1,079.2	60.6%	1,614.6	1,656.3	2,651.0	994.7	62.5%
2027	1,699.0	1,732.0	2,827.2	1,095.2	61.3%	1,692.1	1,726.0	2,733.6	1,007.7	63.1%
2028	1,783.2	1,809.8	2,917.1	1,107.3	62.0%	1,773.7	1,801.3	2,818.8	1,017.5	63.9%
2029	1,872.5	1,894.0	3,009.5	1,115.5	62.9%	1,859.8	1,882.3	2,906.6	1,024.2	64.8%
2030	1,966.8	1,984.2	3,104.1	1,120.0	63.9%	1,950.5	1,968.9	2,996.7	1,027.9	65.7%
2031	2,066.2	2,080.2	3,200.7	1,120.5	65.0%	2,046.3	2,061.4	3,089.1	1,027.7	66.7%
2032	2,171.1	2,182.3	3,299.5	1,117.2	66.1%	2,147.0	2,159.5	3,183.8	1,024.4	67.8%
2033	2,281.7	2,290.8	3,400.5	1,109.7	67.4%	2,252.9	2,263.3	3,280.9	1,017.6	69.0%
2034	2,398.4	2,405.8	3,503.8	1,098.0	68.7%	2,364.4	2,373.0	3,380.4	1,007.4	70.2%
2035	2,521.5	2,527.4	3,609.1	1,081.7	70.0%	2,484.1	2,491.3	3,482.1	990.7	71.5%
2036	2,650.8	2,655.6	3,716.0	1,060.4	71.5%	2,609.6	2,615.8	3,585.7	969.9	73.0%
2037	2,787.0	2,790.9	3,824.6	1,033.8	73.0%	2,741.2	2,746.5	3,691.0	944.5	74.4%
2038	2,930.8	2,933.8	3,935.2	1,001.4	74.6%	2,879.5	2,884.2	3,798.5	914.3	75.9%
2039	3,082.2	3,084.7	4,047.6	962.9	76.2%	3,027.1	3,031.3	3,907.9	876.6	77.6%
2040	3,242.3	3,244.3	4,161.9	917.6	78.0%	3,182.6	3,186.3	4,019.5	833.2	79.3%
2041	3,412.3	3,414.0	4,278.8	864.8	79.8%	3,347.1	3,350.4	4,133.8	783.4	81.0%
2042	3,593.9	3,595.2	4,399.4	804.2	81.7%	3,522.0	3,525.1	4,251.8	726.7	82.9%
2043	3,788.4	3,789.4	4,524.2	734.8	83.8%	3,710.3	3,713.2	4,374.0	660.7	84.9%
2044	3,996.5	3,997.3	4,653.4	656.0	85.9%	3,911.4	3,914.2	4,500.5	586.3	87.0%
2045	4,219.1	4,219.7	4,786.7	567.0	88.2%	4,125.8	4,128.5	4,631.3	502.8	89.1%
2046	4,456.9	4,457.4	4,924.1	466.7	90.5%	4,354.3	4,356.9	4,766.3	409.4	91.4%
2047	4,711.1	4,711.5	5,065.8	354.3	93.0%	4,583.8	4,586.2	4,905.7	319.4	93.5%
2048	4,983.1	4,983.5	5,212.2	228.7	95.6%	4,828.1	4,830.4	5,049.7	219.3	95.7%
2049	5,274.6	5,274.8	5,363.7	88.9	98.3%	5,088.8	5,090.9	5,199.0	108.0	97.9%

Note: The projections are based on the January 1, 2019 actuarial valuation and assume that all assumptions are met in the future, including the 7.5% assumed rate of return. To the extent actual experience differs from that assumed, the actual valuation results in future years will also differ. Please see the January 1, 2019 valuation report for details on the actuarial methods and assumptions used in this study.

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In the baseline scenario, the System is funded with statutory contributions as well as additional contributions made by the District so the full actuarial rate is contributed. In Plan Design A, the System is funded with statutory contributions as well as additional District contributions that start at \$25 million in 2022 and increase by 2% per year. Every four years the additional District contribution amount is reviewed, and recalibrated, if necessary, to remain close to the actuarial contribution rate at that time. This policy remains in place until the funded ratio (on both a market value and actuarial value basis) has been at least 85% for three consecutive years. At that point, the additional District contributions may be reduced to a level determined to meet the actuarial rate over the next four years. The additional District contributions outlined with a black box show where recalibration was required. The effective additional district contribution rate is calculated by dividing the additional district contribution amount by total payroll.

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Exhibit: Contributions - B1

Omaha School Employees Retirement System
Option: Plan Design B with Financing Approach 1

Comparison of Baseline (Current Provisions/Financing) Versus Plan Design B with Additional District Contributions at \$25 Million Per Year Until 85% Funded for Three Consecutive Years at the Lesser of Market or Actuarial Value of Assets

Year (1/1)	Baseline (Current Provisions/Financing)							Plan Design B with \$25M per year							Total Change to District Contribution Amount (\$M)
	Total Payroll (\$M)	Contribution Rates			Contribution Amounts (\$M)			Total Payroll (\$M)	Contribution Rates			Contribution Amounts (\$M)			
		Actuarial	Member & State	District Statutory	District Additional	District Additional	Total District		Actuarial	Member & State	District Statutory	Effective District	District Additional	Total District	
2019	339.5	26.97%	11.78%	9.88%	5.31%	18.2	51.7	339.5	26.97%	11.78%	9.88%	5.31%	18.2	51.7	0.0
2020	350.6	27.70%	11.78%	9.88%	6.04%	21.4	56.0	350.6	27.70%	11.78%	9.88%	6.04%	21.4	56.0	0.0
2021	362.8	28.24%	11.78%	9.88%	6.58%	24.2	60.0	362.8	28.24%	11.78%	9.88%	6.58%	24.2	60.0	0.0
2022	375.0	28.65%	11.78%	9.88%	6.99%	26.5	63.5	375.0	26.71%	11.78%	9.88%	6.59%	25.0	62.0	(1.5)
2023	388.0	28.94%	11.78%	9.88%	7.28%	28.6	66.9	388.6	26.59%	11.42%	9.51%	6.36%	25.0	62.0	(4.9)
2024	401.2	29.14%	11.78%	9.88%	7.48%	30.4	70.0	402.4	26.47%	11.10%	9.19%	6.14%	25.0	62.0	(8.0)
2025	414.8	29.30%	11.78%	9.88%	7.64%	32.1	73.1	416.4	26.35%	10.80%	8.89%	5.93%	25.0	62.0	(11.1)
2026	428.8	29.41%	11.78%	9.88%	7.75%	33.6	76.0	430.8	26.24%	10.54%	8.63%	8.03%	35.0	72.2	(3.8)
2027	442.7	29.50%	11.78%	9.88%	7.84%	35.1	78.8	445.2	26.00%	10.30%	8.38%	7.77%	35.0	72.3	(6.5)
2028	457.1	29.56%	11.78%	9.88%	7.90%	36.5	81.7	460.0	25.80%	10.08%	8.16%	7.52%	35.0	72.5	(9.2)
2029	471.9	29.59%	11.78%	9.88%	7.93%	37.9	84.5	475.1	25.61%	9.87%	7.95%	7.28%	35.0	72.8	(11.7)
2030	486.2	29.66%	11.78%	9.88%	8.00%	39.4	87.4	489.9	25.47%	9.67%	7.75%	9.07%	45.0	83.0	(4.4)
2031	501.0	29.69%	11.78%	9.88%	8.03%	40.7	90.2	505.2	25.22%	9.48%	7.55%	8.80%	45.0	83.2	(7.0)
2032	516.5	29.72%	11.78%	9.88%	8.06%	42.1	93.1	521.0	24.99%	9.30%	7.37%	8.53%	45.0	83.4	(9.7)
2033	531.9	29.75%	11.78%	9.88%	8.09%	43.6	96.1	536.9	24.80%	9.12%	7.19%	8.28%	45.0	83.6	(12.5)
2034	548.0	29.77%	11.78%	9.88%	8.11%	45.0	99.1	553.3	24.64%	8.96%	7.03%	9.82%	55.0	93.9	(5.2)
2035	563.6	29.81%	11.78%	9.88%	8.15%	46.5	102.2	569.6	24.40%	8.79%	6.86%	9.54%	55.0	94.1	(8.1)
2036	580.0	29.84%	11.78%	9.88%	8.18%	48.0	105.3	586.3	24.19%	8.62%	6.69%	9.27%	55.0	94.2	(11.1)
2037	596.9	29.87%	11.78%	9.88%	8.21%	49.6	108.6	603.4	24.01%	8.46%	6.52%	9.01%	55.0	94.4	(14.2)
2038	614.3	29.89%	11.78%	9.88%	8.23%	51.2	111.9	621.0	23.85%	8.29%	6.35%	10.34%	65.0	104.4	(7.5)
2039	631.9	29.92%	11.78%	9.88%	8.26%	52.8	115.2	638.9	23.63%	8.13%	6.19%	10.05%	65.0	104.6	(10.6)
2040	651.0	29.94%	11.78%	9.88%	8.28%	54.6	118.9	658.1	23.43%	7.98%	6.04%	9.76%	65.0	104.7	(14.2)
2041	670.8	29.94%	11.78%	9.88%	8.28%	56.2	122.5	677.9	23.26%	7.83%	5.89%	9.47%	65.0	104.9	(17.6)
2042	692.5	29.91%	11.78%	9.88%	8.25%	57.8	126.2	699.3	23.09%	7.70%	5.76%	10.60%	75.0	115.3	(10.9)
2043	714.9	29.88%	11.78%	9.88%	8.22%	59.5	130.1	721.5	22.87%	7.56%	5.62%	10.27%	75.0	115.5	(14.6)
2044	737.8	29.86%	11.78%	9.88%	8.20%	61.2	134.1	744.4	22.68%	7.43%	5.48%	9.95%	75.0	115.8	(18.3)
2045	761.3	29.85%	11.78%	9.88%	8.19%	63.1	138.3	768.0	22.51%	7.30%	5.35%	9.65%	75.0	116.1	(22.2)
2046	785.3	29.84%	11.78%	9.88%	8.18%	65.0	142.6	792.2	22.38%	7.17%	5.22%	8.11%	65.0	106.4	(36.2)
2047	810.1	29.84%	11.78%	9.88%	8.18%	67.1	147.1	817.4	22.35%	7.04%	5.09%	7.86%	65.0	106.6	(40.5)
2048	836.5	29.81%	11.78%	9.88%	8.15%	69.0	151.6	843.8	22.34%	6.92%	4.97%	7.61%	65.0	106.9	(44.7)
2049	863.3	15.43%	11.78%	9.88%	0.00%	0.0	85.3	870.9	8.12%	6.80%	4.85%	7.37%	65.0	107.2	21.9
						1,336.9	3,068.0						1,523.8	2,727.7	(344.3)

Note: The projections are based on the January 1, 2019 actuarial valuation and assume that assumptions are met in the future, including the 7.5% assumed rate of return. To the extent actual experience differs from that assumed, the actual valuation results in future years will also differ. Please see the January 1, 2019 valuation report for details on the actuarial methods and assumptions used in this study.

In Plan Design B, effective January 1, 2022, a Partial Lump Sum Option (PLSO) is offered to members who work beyond their normal retirement age (NRA). The addition of the PLSO was assumed to incent an extension of the retirement date, so the retirement assumptions were modified. If the addition of a PLSO does not change retirement behavior, there would be no cost saving due to this provision. In addition, for all actives at the time of the amendment, the Cost-of-Living-Adjustment (COLA) is changed to be the later of age 62 or a 1-year delay. For all retirees at the time of the amendment, their COLA is suspended for one year. Also, all members hired on or after January 1, 2023 are in a new Plan (Tier 5). This new tier has a benefit formula of 1% x Service x Average of 5 highest years of compensation. Early retirement eligibility is age 62 with 5 years of service while Normal Retirement eligibility is age 67 with 5 years of service. COLA is 1% starting 36 months after retirement. Employees contribute 4% of pay to the defined benefit plan. Additional employee contributions to a defined contribution plan could be included in the plan design. Tier 5 members are not eligible for the PLSO. The shaded row shows the first year affected by the plan provision changes.

In the baseline scenario, the System is funded with statutory contributions as well as additional contributions made by the District so the full actuarial rate is contributed. In Plan Design B, the System is funded with statutory contributions as well as additional District contributions of \$25 million per year. Every four years the additional District contribution amount is reviewed, and recalibrated, if necessary, to remain close to the actuarial contribution rate at that time. This policy remains in place until the funded ratio (on both a market value and actuarial value basis) has been at least 85% for three consecutive years. At that point, the additional District contributions may be reduced to a level determined to meet the actuarial rate over the next four years. The additional District contributions outlined with a black box show where recalibration was required. The effective additional district contribution rate is calculated by dividing the additional district contribution amount by total payroll.

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Exhibit: Funding - B1

Omaha School Employees Retirement System

Option: Plan Design B with Financing Approach 1

Comparison of Baseline (Current Provisions/Financing) Versus Plan Design B with Additional District Contributions at \$25 Million Per Year Until 85% Funded for Three Consecutive Years at the Lesser of Market or Actuarial Value of Assets

Year (1/1)	Baseline (Current Provisions/Financing)					Plan Design B with \$25M per year				
	Market Value of Assets (\$M)	Actuarial Value of Assets (\$M)	Actuarial Liability (\$M)	Unfunded Actuarial Liability (\$M)	Funded Ratio	Market Value of Assets (\$M)	Actuarial Value of Assets (\$M)	Actuarial Liability (\$M)	Unfunded Actuarial Liability (\$M)	Funded Ratio
2019	1,193.8	1,378.8	2,192.9	814.1	62.9%	1,193.8	1,378.8	2,192.9	814.1	62.9%
2020	1,238.6	1,387.8	2,262.0	874.2	61.4%	1,238.6	1,387.8	2,262.0	874.2	61.4%
2021	1,291.1	1,411.4	2,336.5	925.2	60.4%	1,291.1	1,411.4	2,336.5	925.2	60.4%
2022	1,347.9	1,444.9	2,412.9	968.0	59.9%	1,347.9	1,444.9	2,350.8	905.9	61.5%
2023	1,409.0	1,487.2	2,491.2	1,004.0	59.7%	1,407.4	1,485.9	2,420.6	934.7	61.4%
2024	1,474.5	1,537.5	2,571.6	1,034.0	59.8%	1,469.0	1,532.4	2,493.3	960.9	61.5%
2025	1,544.7	1,595.5	2,654.4	1,058.9	60.1%	1,531.4	1,582.8	2,567.6	984.8	61.6%
2026	1,619.5	1,660.5	2,739.7	1,079.2	60.6%	1,594.5	1,636.1	2,643.5	1,007.4	61.9%
2027	1,699.0	1,732.0	2,827.2	1,095.2	61.3%	1,668.5	1,702.5	2,720.8	1,018.3	62.6%
2028	1,783.2	1,809.8	2,917.1	1,107.3	62.0%	1,743.5	1,771.2	2,798.8	1,027.7	63.3%
2029	1,872.5	1,894.0	3,009.5	1,115.5	62.9%	1,819.5	1,842.1	2,877.7	1,035.5	64.0%
2030	1,966.8	1,984.2	3,104.1	1,120.0	63.9%	1,896.2	1,914.8	2,956.9	1,042.2	64.8%
2031	2,066.2	2,080.2	3,200.7	1,120.5	65.0%	1,983.5	1,998.9	3,036.3	1,037.4	65.8%
2032	2,171.1	2,182.3	3,299.5	1,117.2	66.1%	2,072.1	2,084.9	3,115.7	1,030.8	66.9%
2033	2,281.7	2,290.8	3,400.5	1,109.7	67.4%	2,161.8	2,172.6	3,195.1	1,022.4	68.0%
2034	2,398.4	2,405.8	3,503.8	1,098.0	68.7%	2,252.7	2,261.8	3,274.2	1,012.4	69.1%
2035	2,521.5	2,527.4	3,609.1	1,081.7	70.0%	2,355.0	2,362.8	3,352.8	990.0	70.5%
2036	2,650.8	2,655.6	3,716.0	1,060.4	71.5%	2,458.4	2,465.2	3,430.2	965.0	71.9%
2037	2,787.0	2,790.9	3,824.6	1,033.8	73.0%	2,562.8	2,568.8	3,506.1	937.3	73.3%
2038	2,930.8	2,933.8	3,935.2	1,001.4	74.6%	2,668.3	2,673.7	3,580.5	906.7	74.7%
2039	3,082.2	3,084.7	4,047.6	962.9	76.2%	2,785.2	2,790.1	3,653.0	862.8	76.4%
2040	3,242.3	3,244.3	4,161.9	917.6	78.0%	2,904.0	2,908.5	3,723.6	815.0	78.1%
2041	3,412.3	3,414.0	4,278.8	864.8	79.8%	3,025.2	3,029.5	3,792.4	762.9	79.9%
2042	3,593.9	3,595.2	4,399.4	804.2	81.7%	3,149.9	3,154.0	3,860.2	706.2	81.7%
2043	3,788.4	3,789.4	4,524.2	734.8	83.8%	3,288.9	3,292.9	3,927.0	634.1	83.9%
2044	3,996.5	3,997.3	4,653.4	656.0	85.9%	3,433.1	3,437.0	3,992.8	555.8	86.1%
2045	4,219.1	4,219.7	4,786.7	567.0	88.2%	3,582.3	3,586.2	4,057.0	470.8	88.4%
2046	4,456.9	4,457.4	4,924.1	466.7	90.5%	3,736.7	3,740.5	4,119.1	378.6	90.8%
2047	4,711.1	4,711.5	5,065.8	354.3	93.0%	3,886.3	3,889.9	4,179.0	289.1	93.1%
2048	4,983.1	4,983.5	5,212.2	228.7	95.6%	4,040.8	4,044.4	4,236.6	192.2	95.5%
2049	5,274.6	5,274.8	5,363.7	88.9	98.3%	4,201.2	4,204.7	4,291.9	87.1	98.0%

Note: The projections are based on the January 1, 2019 actuarial valuation and assume that assumptions are met in the future, including the 7.5% assumed rate of return. To the extent actual experience differs from that assumed, the actual valuation results in future years will also differ. Please see the January 1, 2019 valuation report for details on the actuarial methods and assumptions used in this study.

In Plan Design B, effective January 1, 2022, a Partial Lump Sum Option (PLSO) is offered to members who work beyond their normal retirement age (NRA). The addition of the PLSO was assumed to incent an extension of the retirement date, so the retirement assumptions were modified. If the addition of a PLSO does not change retirement behavior, there would be no cost saving due to this provision. In addition, for all actives at the time of the amendment, the Cost-of-Living-Adjustment (COLA) is changed to be the later of age 62 or a 1-year delay. For all retirees at the time of the amendment, their COLA is suspended for one year. Also, all members hired on or after January 1, 2023 are in a new Plan (Tier 5). This new tier has a benefit formula of 1% x Service x Average of 5 highest years of compensation. Early retirement eligibility is age 62 with 5 years of service while Normal Retirement eligibility is age 67 with 5 years of service. COLA is 1% starting 36 months after retirement. Employees contribute 4% of pay to the defined benefit plan. Additional employee contributions to a defined contribution plan could be included in the plan design. Tier 5 members are not eligible for the PLSO. The shaded row shows the first year affected by the plan provision changes.

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Exhibit: Contributions - B2

Omaha School Employees Retirement System
Option: Plan Design B with Financing Approach 2

Comparison of Baseline (Current Provisions/Financing) Versus Plan Design B with Additional District Contributions at \$25 Million Increasing 2% Per Year Until 85% Funded for Three Consecutive Years at the Lesser of Market or Actuarial Value of Assets

Year (1/1)	Baseline (Current Provisions/Financing)							Plan Design B with \$25M with 2%/year increase and recalibration every 4 years							Total Change to District Contribution Amount (\$M)
	Total Payroll (\$M)	Contribution Rates			Contribution Amounts (\$M)			Total Payroll (\$M)	Contribution Rates			Contribution Amounts (\$M)			
		Actuarial	Member & State	District Statutory	District Additional	District Additional	Total District		Actuarial	Member & State	District Statutory	Effective District Additional	District Additional	Total District	
2019	339.5	26.97%	11.78%	9.88%	5.31%	18.2	51.7	339.5	26.97%	11.78%	9.88%	5.31%	18.2	51.7	0.0
2020	350.6	27.70%	11.78%	9.88%	6.04%	21.4	56.0	350.6	27.70%	11.78%	9.88%	6.04%	21.4	56.0	0.0
2021	362.8	28.24%	11.78%	9.88%	6.58%	24.2	60.0	362.8	28.24%	11.78%	9.88%	6.58%	24.2	60.0	0.0
2022	375.0	28.65%	11.78%	9.88%	6.99%	26.5	63.5	375.0	26.71%	11.78%	9.88%	6.59%	25.0	62.0	(1.5)
2023	388.0	28.94%	11.78%	9.88%	7.28%	28.6	66.9	388.6	26.59%	11.42%	9.51%	6.48%	25.5	62.5	(4.4)
2024	401.2	29.14%	11.78%	9.88%	7.48%	30.4	70.0	402.4	26.47%	11.10%	9.19%	6.39%	26.0	63.0	(7.0)
2025	414.8	29.30%	11.78%	9.88%	7.64%	32.1	73.1	416.4	26.32%	10.80%	8.89%	6.30%	26.5	63.5	(9.6)
2026	428.8	29.41%	11.78%	9.88%	7.75%	33.6	76.0	430.8	26.19%	10.54%	8.63%	6.30%	35.0	72.2	(3.8)
2027	442.7	29.50%	11.78%	9.88%	7.84%	35.1	78.8	445.2	25.96%	10.30%	8.38%	7.92%	35.7	73.0	(5.8)
2028	457.1	29.56%	11.78%	9.88%	7.90%	36.5	81.7	460.0	25.74%	10.08%	8.16%	7.82%	36.4	73.9	(7.8)
2029	471.9	29.59%	11.78%	9.88%	7.93%	37.9	84.5	475.1	25.53%	9.87%	7.95%	7.72%	37.1	74.9	(9.6)
2030	486.2	29.66%	11.78%	9.88%	8.00%	39.4	87.4	489.9	25.35%	9.67%	7.75%	9.07%	45.0	83.0	(4.4)
2031	501.0	29.69%	11.78%	9.88%	8.03%	40.7	90.2	505.2	25.10%	9.48%	7.55%	8.98%	45.9	84.1	(6.1)
2032	516.5	29.72%	11.78%	9.88%	8.06%	42.1	93.1	521.0	24.86%	9.30%	7.37%	8.88%	46.8	85.2	(7.9)
2033	531.9	29.75%	11.78%	9.88%	8.09%	43.6	96.1	536.9	24.64%	9.12%	7.19%	8.79%	47.8	86.4	(9.7)
2034	548.0	29.77%	11.78%	9.88%	8.11%	45.0	99.1	553.3	24.44%	8.96%	7.03%	8.93%	50.0	88.9	(10.2)
2035	563.6	29.81%	11.78%	9.88%	8.15%	46.5	102.2	569.6	24.24%	8.79%	6.86%	8.85%	51.0	90.1	(12.1)
2036	580.0	29.84%	11.78%	9.88%	8.18%	48.0	105.3	586.3	24.06%	8.62%	6.69%	8.77%	52.0	91.2	(14.1)
2037	596.9	29.87%	11.78%	9.88%	8.21%	49.6	108.6	603.4	23.89%	8.46%	6.52%	8.69%	53.1	92.5	(16.1)
2038	614.3	29.89%	11.78%	9.88%	8.23%	51.2	111.9	621.0	23.75%	8.29%	6.35%	9.55%	60.0	99.4	(12.5)
2039	631.9	29.92%	11.78%	9.88%	8.26%	52.8	115.2	638.9	23.57%	8.13%	6.19%	9.46%	61.2	100.8	(14.4)
2040	651.0	29.94%	11.78%	9.88%	8.28%	54.6	118.9	658.1	23.40%	7.98%	6.04%	9.37%	62.4	102.1	(16.8)
2041	670.8	29.94%	11.78%	9.88%	8.28%	56.2	122.5	677.9	23.25%	7.83%	5.89%	9.28%	63.7	103.6	(18.9)
2042	692.5	29.91%	11.78%	9.88%	8.25%	57.8	126.2	699.3	23.09%	7.70%	5.76%	9.89%	70.0	110.3	(15.9)
2043	714.9	29.88%	11.78%	9.88%	8.22%	59.5	130.1	721.5	22.92%	7.56%	5.62%	9.78%	71.4	111.9	(18.2)
2044	737.8	29.86%	11.78%	9.88%	8.20%	61.2	134.1	744.4	22.75%	7.43%	5.48%	9.67%	72.9	113.7	(20.4)
2045	761.3	29.85%	11.78%	9.88%	8.19%	63.1	138.3	768.0	22.61%	7.30%	5.35%	9.56%	74.3	115.4	(22.9)
2046	785.3	29.84%	11.78%	9.88%	8.18%	65.0	142.6	792.2	22.49%	7.17%	5.22%	8.73%	70.0	111.4	(31.2)
2047	810.1	29.84%	11.78%	9.88%	8.18%	67.1	147.1	817.4	22.43%	7.04%	5.09%	8.63%	71.4	113.0	(34.1)
2048	836.5	29.81%	11.78%	9.88%	8.15%	69.0	151.6	843.8	22.38%	6.92%	4.97%	8.53%	72.8	114.7	(36.9)
2049	863.3	15.43%	11.78%	9.88%	0.00%	0.0	85.3	870.9	8.11%	6.80%	4.85%	8.43%	74.3	116.5	31.2
						1,336.9	3,068.0						1,527.0	2,726.9	(341.1)

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In Plan Design B, effective January 1, 2022, a Partial Lump Sum Option (PLSO) is offered to members who work beyond their normal retirement age NRA. The addition of the PLSO was assumed to incent an extension of the retirement date, so the retirement assumptions were modified. If the addition of a PLSO does not change retirement behavior, there would be no cost saving due to this provision. In addition, for all actives at the time of the amendment, the first Cost-of-Living-Adjustment (COLA) is changed to the later of age 62 or one year after retirement. For all retirees at January 1, 2022, the COLA is suspended for one year. Members hired on or after January 1, 2023 are covered by a Hybrid DB/DC Plan (Tier 5). This new tier has a benefit formula of 1% x Years of Service x Average of 5 highest years of compensation. Early retirement eligibility is age 62 with 5 years of service while Normal Retirement eligibility is age 67 with 5 years of service. The COLA is 1% starting 36 months after retirement. Employees contribute 4% of pay to the defined benefit plan. Additional employee contributions to a defined contribution plan could be included in the plan design, but have no impact on the District's cost shown here. Tier 5 members are not eligible for the PLSO. The shaded row shows the first year affected by the plan provision changes.

In the baseline scenario, the System is funded with statutory contributions as well as additional contributions made by the District so the full actuarial rate is contributed. In Plan Design B, the System is funded with statutory contributions as well as additional District contributions that start at \$25 million in 2022 and increase by 2% per year. Every four years the additional District contribution amount is reviewed, and recalibrated, if necessary, to remain close to the full actuarial contribution rate. This policy remains in place until the funded ratio (on both a market value and actuarial value basis) has been at least 85% for three consecutive years. At that point, the additional District contributions may be reduced to a level determined to meet the actuarial rate over the next four years. The additional District contributions outlined with a black box show where recalibration was required. The effective additional district contribution rate is calculated by dividing the additional district contribution amount by total payroll.

This exhibit is an attachment to a letter that contains important information and explanations regarding the numbers shown. Therefore, it should only be considered with the accompanying letter from Cavanaugh Macdonald dated July 26, 2019.



Exhibit: Funding - B2

Omaha School Employees Retirement System

Option: Plan Design B with Financing Approach 2

Comparison of Baseline (Current Provisions/Financing) Versus Plan Design B with Additional District Contributions at \$25 Million Increasing 2% Per Year Until 85% Funded for Three Consecutive Years at the Lesser of Market or Actuarial Value of Assets

Year (1/1)	Baseline (Current Provisions/Financing)					Plan Design B with \$25M with 2%/year increase and recalibration every 4 years				
	Market Value of Assets (\$M)	Actuarial Value of Assets (\$M)	Actuarial Liability (\$M)	Unfunded Actuarial Liability (\$M)	Funded Ratio	Market Value of Assets (\$M)	Actuarial Value of Assets (\$M)	Actuarial Liability (\$M)	Unfunded Actuarial Liability (\$M)	Funded Ratio
2019	1,193.8	1,378.8	2,192.9	814.1	62.9%	1,193.8	1,378.8	2,192.9	814.1	62.9%
2020	1,238.6	1,387.8	2,262.0	874.2	61.4%	1,238.6	1,387.8	2,262.0	874.2	61.4%
2021	1,291.1	1,411.4	2,336.5	925.2	60.4%	1,291.1	1,411.4	2,336.5	925.2	60.4%
2022	1,347.9	1,444.9	2,412.9	968.0	59.9%	1,347.9	1,444.9	2,350.8	905.9	61.5%
2023	1,409.0	1,487.2	2,491.2	1,004.0	59.7%	1,407.4	1,485.9	2,420.6	934.7	61.4%
2024	1,474.5	1,537.5	2,571.6	1,034.0	59.8%	1,469.5	1,532.9	2,493.3	960.3	61.5%
2025	1,544.7	1,595.5	2,654.4	1,058.9	60.1%	1,533.0	1,584.4	2,567.6	983.2	61.7%
2026	1,619.5	1,660.5	2,739.7	1,079.2	60.6%	1,597.8	1,639.4	2,643.5	1,004.1	62.0%
2027	1,699.0	1,732.0	2,827.2	1,095.2	61.3%	1,672.1	1,706.0	2,720.8	1,014.8	62.7%
2028	1,783.2	1,809.8	2,917.1	1,107.3	62.0%	1,748.0	1,775.7	2,798.8	1,023.1	63.4%
2029	1,872.5	1,894.0	3,009.5	1,115.5	62.9%	1,825.8	1,848.4	2,877.7	1,029.2	64.2%
2030	1,966.8	1,984.2	3,104.1	1,120.0	63.9%	1,905.1	1,923.8	2,956.9	1,033.2	65.1%
2031	2,066.2	2,080.2	3,200.7	1,120.5	65.0%	1,993.2	2,008.6	3,036.3	1,027.7	66.2%
2032	2,171.1	2,182.3	3,299.5	1,117.2	66.1%	2,083.3	2,096.2	3,115.7	1,019.5	67.3%
2033	2,281.7	2,290.8	3,400.5	1,109.7	67.4%	2,175.8	2,186.6	3,195.1	1,008.4	68.4%
2034	2,398.4	2,405.8	3,503.8	1,098.0	68.7%	2,270.6	2,279.7	3,274.2	994.5	69.6%
2035	2,521.5	2,527.4	3,609.1	1,081.7	70.0%	2,369.0	2,376.9	3,352.8	976.0	70.9%
2036	2,650.8	2,655.6	3,716.0	1,060.4	71.5%	2,469.4	2,476.2	3,430.2	954.1	72.2%
2037	2,787.0	2,790.9	3,824.6	1,033.8	73.0%	2,571.5	2,577.5	3,506.1	928.6	73.5%
2038	2,930.8	2,933.8	3,935.2	1,001.4	74.6%	2,675.8	2,681.1	3,580.5	899.3	74.9%
2039	3,082.2	3,084.7	4,047.6	962.9	76.2%	2,788.1	2,792.9	3,653.0	860.0	76.5%
2040	3,242.3	3,244.3	4,161.9	917.6	78.0%	2,903.2	2,907.7	3,723.6	815.9	78.1%
2041	3,412.3	3,414.0	4,278.8	864.8	79.8%	3,021.8	3,026.0	3,792.4	766.5	79.8%
2042	3,593.9	3,595.2	4,399.4	804.2	81.7%	3,144.8	3,148.8	3,860.2	711.5	81.6%
2043	3,788.4	3,789.4	4,524.2	734.8	83.8%	3,278.3	3,282.2	3,927.0	644.8	83.6%
2044	3,996.5	3,997.3	4,653.4	656.0	85.9%	3,418.0	3,421.7	3,992.8	571.0	85.7%
2045	4,219.1	4,219.7	4,786.7	567.0	88.2%	3,563.9	3,567.6	4,057.0	489.4	87.9%
2046	4,456.9	4,457.4	4,924.1	466.7	90.5%	3,716.1	3,719.8	4,119.1	399.3	90.3%
2047	4,711.1	4,711.5	5,065.8	354.3	93.0%	3,869.3	3,872.9	4,179.0	306.1	92.7%
2048	4,983.1	4,983.5	5,212.2	228.7	95.6%	4,029.1	4,032.7	4,236.6	203.8	95.2%
2049	5,274.6	5,274.8	5,363.7	88.9	98.3%	4,196.7	4,200.3	4,291.9	91.6	97.9%

Note: The projections are based on the January 1, 2019 actuarial valuation and assume that all assumptions are met in the future, including the 7.5% assumed rate of return. To the extent actual experience differs from that assumed, the actual valuation results in future years will also differ. Please see the January 1, 2019 valuation report for details on the actuarial methods and assumptions used in this study.

In Plan Design B, effective January 1, 2022, a Partial Lump Sum Option (PLSO) is offered to members who work beyond their normal retirement age NRA. The addition of the PLSO was assumed to incent an extension of the retirement date, so the retirement assumptions were modified. If the addition of a PLSO does not change retirement behavior, there would be no cost saving due to this provision. In addition, for all actives at the time of the amendment, the first Cost-of-Living-Adjustment (COLA) is changed to the later of age 62 or one year after retirement. For all retirees at January 1, 2022, the COLA is suspended for one year. Members hired on or after January 1, 2023 are covered by a Hybrid DB/DC Plan (Tier 5). This new tier has a benefit formula of 1% x Years of Service x Average of 5 highest years of compensation. Early retirement eligibility is age 62 with 5 years of service while Normal Retirement eligibility is age 67 with 5 years of service. The COLA is 1% starting 36 months after retirement. Employees contribute 4% of pay to the defined benefit plan. Additional employee contributions to a defined contribution plan could be included in the plan design, but have no impact on the District's cost shown here. Tier 5 members are not eligible for the PLSO. The shaded row shows the first year affected by the plan provision changes.

In the baseline scenario, the System is funded with statutory contributions as well as additional contributions made by the District so the full actuarial rate is contributed. In Plan Design B, the System is funded with statutory contributions as well as additional District contributions that start at \$25 million in 2022 and increase by 2% per year. Every four years the additional District contribution amount is reviewed, and recalibrated, if necessary, to remain close to the full actuarial contribution rate. This policy remains in place until the funded ratio (on both a market value and actuarial value basis) has been at least 85% for three consecutive years. At that point, the additional District contributions may be reduced to a level determined to meet the actuarial rate over the next four years. The additional District contributions outlined with a black box show where recalibration was required. The effective additional district contribution rate is calculated by dividing the additional district contribution amount by total payroll.

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Exhibit: Contributions - C1

**Omaha School Employees Retirement System
Option: Plan Design C with Financing Approach 1**

Comparison of Baseline (Current Provisions/Financing) Versus Plan Design C with Additional District Contributions at \$30 Million Per Year Until 85% Funded for Three Consecutive Years at the Lesser of Market or Actuarial Value of Assets

Year (1/1)	Baseline (Current Provisions/Financing)							Plan Design C with Level \$30M per year							Total Change to District Contribution Amount (\$M)
	Contribution Rates				Contribution Amounts (\$M)			Contribution Rates				Contribution Amounts (\$M)			
	Total Payroll (\$M)	Actuarial	Member & State	District Statutory	District Additional	District Additional	Total District	Total Payroll (\$M)	Actuarial	Member & State	District Statutory	Effective District Additional	District Additional	Total District	
2019	339.5	26.97%	11.78%	9.88%	5.31%	18.2	51.7	339.5	26.97%	11.78%	9.88%	5.31%	18.2	51.7	0.0
2020	350.6	27.70%	11.78%	9.88%	6.04%	21.4	56.0	350.6	27.70%	11.78%	9.88%	6.04%	21.4	56.0	0.0
2021	362.8	28.24%	11.78%	9.88%	6.58%	24.2	60.0	362.8	28.24%	11.78%	9.88%	6.58%	24.2	60.0	0.0
2022	375.0	28.65%	11.78%	9.88%	6.99%	26.5	63.5	375.0	25.61%	11.78%	9.88%	7.90%	30.0	67.0	3.5
2023	388.0	28.94%	11.78%	9.88%	7.28%	28.6	66.9	388.0	25.64%	11.78%	9.88%	7.64%	30.0	68.3	1.4
2024	401.2	29.14%	11.78%	9.88%	7.48%	30.4	70.0	401.2	25.62%	11.78%	9.88%	7.39%	30.0	69.6	(0.4)
2025	414.8	29.30%	11.78%	9.88%	7.64%	32.1	73.1	414.8	25.56%	11.78%	9.88%	7.15%	30.0	71.0	(2.1)
2026	428.8	29.41%	11.78%	9.88%	7.75%	33.6	76.0	428.8	25.45%	11.78%	9.88%	6.91%	30.0	72.4	(3.6)
2027	442.7	29.50%	11.78%	9.88%	7.84%	35.1	78.8	442.7	25.33%	11.78%	9.88%	6.70%	30.0	73.7	(5.1)
2028	457.1	29.56%	11.78%	9.88%	7.90%	36.5	81.7	457.1	25.20%	11.78%	9.88%	6.48%	30.0	75.2	(6.5)
2029	471.9	29.59%	11.78%	9.88%	7.93%	37.9	84.5	471.9	25.05%	11.78%	9.88%	6.28%	30.0	76.6	(7.9)
2030	486.2	29.66%	11.78%	9.88%	8.00%	39.4	87.4	486.2	24.91%	11.78%	9.88%	6.10%	30.0	78.0	(9.4)
2031	501.0	29.69%	11.78%	9.88%	8.03%	40.7	90.2	501.0	24.77%	11.78%	9.88%	5.92%	30.0	79.5	(10.7)
2032	516.5	29.72%	11.78%	9.88%	8.06%	42.1	93.1	516.5	24.61%	11.78%	9.88%	5.74%	30.0	81.0	(12.1)
2033	531.9	29.75%	11.78%	9.88%	8.09%	43.6	96.1	531.9	24.45%	11.78%	9.88%	5.57%	30.0	82.5	(13.6)
2034	548.0	29.77%	11.78%	9.88%	8.11%	45.0	99.1	548.0	24.29%	11.78%	9.88%	5.41%	30.0	84.1	(15.0)
2035	563.6	29.81%	11.78%	9.88%	8.15%	46.5	102.2	563.6	24.14%	11.78%	9.88%	5.26%	30.0	85.7	(16.5)
2036	580.0	29.84%	11.78%	9.88%	8.18%	48.0	105.3	580.0	23.97%	11.78%	9.88%	5.11%	30.0	87.3	(18.0)
2037	596.9	29.87%	11.78%	9.88%	8.21%	49.6	108.6	596.9	23.81%	11.78%	9.88%	4.97%	30.0	89.0	(19.6)
2038	614.3	29.89%	11.78%	9.88%	8.23%	51.2	111.9	614.3	23.63%	11.78%	9.88%	4.83%	30.0	90.7	(21.2)
2039	631.9	29.92%	11.78%	9.88%	8.26%	52.8	115.2	631.9	23.47%	11.78%	9.88%	4.69%	30.0	92.4	(22.8)
2040	651.0	29.94%	11.78%	9.88%	8.28%	54.6	118.9	651.0	23.28%	11.78%	9.88%	4.55%	30.0	94.3	(24.6)
2041	670.8	29.94%	11.78%	9.88%	8.28%	56.2	122.5	670.8	23.09%	11.78%	9.88%	4.42%	30.0	96.3	(26.2)
2042	692.5	29.91%	11.78%	9.88%	8.25%	57.8	126.2	692.5	22.87%	11.78%	9.88%	0.71%	5.0	73.4	(52.8)
2043	714.9	29.88%	11.78%	9.88%	8.22%	59.5	130.1	714.9	22.86%	11.78%	9.88%	0.69%	5.0	75.6	(54.5)
2044	737.8	29.86%	11.78%	9.88%	8.20%	61.2	134.1	737.8	22.86%	11.78%	9.88%	0.67%	5.0	77.9	(56.2)
2045	761.3	29.85%	11.78%	9.88%	8.19%	63.1	138.3	761.3	22.86%	11.78%	9.88%	0.65%	5.0	80.2	(58.1)
2046	785.3	29.84%	11.78%	9.88%	8.18%	65.0	142.6	785.3	22.86%	11.78%	9.88%	0.25%	2.0	79.6	(63.0)
2047	810.1	29.84%	11.78%	9.88%	8.18%	67.1	147.1	810.1	10.64%	11.78%	9.88%	0.24%	2.0	82.0	(65.1)
2048	836.5	29.81%	11.78%	9.88%	8.15%	69.0	151.6	836.5	9.96%	11.78%	9.88%	0.24%	2.0	84.6	(67.0)
2049	863.3	15.43%	11.78%	9.88%	0.00%	0.0	85.3	863.3	9.24%	11.78%	9.88%	0.23%	2.0	87.3	2.0
						1,336.9	3,068.0						691.8	2,422.9	(645.1)

Note: The projections are based on the January 1, 2019 actuarial valuation and assume that assumptions are met in the future, including the 7.5% assumed rate of return. To the extent actual experience differs from that assumed, the actual valuation results in future years will also differ. Please see the January 1, 2019 valuation report for details on the actuarial methods and assumptions used in this study.

In Plan Design C, effective January 1, 2022, service is capped at 30 years for all benefits. A refund of employee contributions is provided for years of service greater than 30. In addition, for all actives at the time of the amendment, the Cost-of-Living-Adjustment (COLA) is changed to be the later of age 62 or a 3-year delay. For all retirees at the time of the amendment, their COLA is suspended for three years. The shaded row shows the first year affected by the plan provision changes.

In the baseline scenario, the System is funded with statutory contributions as well as additional contributions made by the District so the full actuarial rate is contributed. In Plan Design C, the System is funded with statutory contributions as well as additional District contributions of \$30 million per year. Every four years the additional District contribution amount is reviewed, and recalibrated if necessary, to remain close to the full actuarial contribution rate. This policy remains in place until the funded ratio (on both a market value and actuarial value basis) has been at least 85% for three consecutive years. At that point, the additional District contributions may be reduced to a level determined to meet the actuarial rate over the next four years. The additional District contributions outlined with a black box show where recalibration was required. The effective additional district contribution rate is calculated by dividing the additional district contribution amount by total payroll.

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Exhibit: Funding - C1

Omaha School Employees Retirement System

Option: Plan Design C with Financing Approach 1

Comparison of Baseline (Current Provisions/Financing) Versus Plan Design C with Additional District Contributions at \$30 Million Per Year Until 85% Funded for Three Consecutive Years at the Lesser of Market or Actuarial Value of Assets

Year (1/1)	Baseline (Current Provisions/Financing)					Plan Design C with Level \$30M per year				
	Market Value of Assets (\$M)	Actuarial Value of Assets (\$M)	Actuarial Liability (\$M)	Unfunded Actuarial Liability (\$M)	Funded Ratio	Market Value of Assets (\$M)	Actuarial Value of Assets (\$M)	Actuarial Liability (\$M)	Unfunded Actuarial Liability (\$M)	Funded Ratio
2019	1,193.8	1,378.8	2,192.9	814.1	62.9%	1,193.8	1,378.8	2,192.9	814.1	62.9%
2020	1,238.6	1,387.8	2,262.0	874.2	61.4%	1,238.6	1,387.8	2,262.0	874.2	61.4%
2021	1,291.1	1,411.4	2,336.5	925.2	60.4%	1,291.1	1,411.4	2,336.5	925.2	60.4%
2022	1,347.9	1,444.9	2,412.9	968.0	59.9%	1,347.9	1,444.9	2,276.5	831.6	63.5%
2023	1,409.0	1,487.2	2,491.2	1,004.0	59.7%	1,412.8	1,491.2	2,340.7	849.5	63.7%
2024	1,474.5	1,537.5	2,571.6	1,034.0	59.8%	1,482.4	1,545.9	2,408.1	862.1	64.2%
2025	1,544.7	1,595.5	2,654.4	1,058.9	60.1%	1,557.4	1,608.9	2,478.8	869.9	64.9%
2026	1,619.5	1,660.5	2,739.7	1,079.2	60.6%	1,637.8	1,679.6	2,553.1	873.5	65.8%
2027	1,699.0	1,732.0	2,827.2	1,095.2	61.3%	1,722.3	1,756.2	2,629.1	872.9	66.8%
2028	1,783.2	1,809.8	2,917.1	1,107.3	62.0%	1,810.8	1,838.5	2,706.9	868.4	67.9%
2029	1,872.5	1,894.0	3,009.5	1,115.5	62.9%	1,904.0	1,926.6	2,786.7	860.1	69.1%
2030	1,966.8	1,984.2	3,104.1	1,120.0	63.9%	2,001.6	2,020.1	2,868.0	847.9	70.4%
2031	2,066.2	2,080.2	3,200.7	1,120.5	65.0%	2,103.5	2,118.7	2,950.7	831.9	71.8%
2032	2,171.1	2,182.3	3,299.5	1,117.2	66.1%	2,210.5	2,223.0	3,035.1	812.0	73.2%
2033	2,281.7	2,290.8	3,400.5	1,109.7	67.4%	2,322.7	2,333.0	3,120.9	787.9	74.8%
2034	2,398.4	2,405.8	3,503.8	1,098.0	68.7%	2,440.4	2,449.1	3,208.6	759.5	76.3%
2035	2,521.5	2,527.4	3,609.1	1,081.7	70.0%	2,563.9	2,571.2	3,297.6	726.4	78.0%
2036	2,650.8	2,655.6	3,716.0	1,060.4	71.5%	2,693.1	2,699.3	3,387.8	688.5	79.7%
2037	2,787.0	2,790.9	3,824.6	1,033.8	73.0%	2,828.7	2,833.9	3,479.2	645.4	81.5%
2038	2,930.8	2,933.8	3,935.2	1,001.4	74.6%	2,971.0	2,975.5	3,572.1	596.6	83.3%
2039	3,082.2	3,084.7	4,047.6	962.9	76.2%	3,120.5	3,124.4	3,666.2	541.8	85.2%
2040	3,242.3	3,244.3	4,161.9	917.6	78.0%	3,278.1	3,281.5	3,762.0	480.5	87.2%
2041	3,412.3	3,414.0	4,278.8	864.8	79.8%	3,444.8	3,447.8	3,859.9	412.1	89.3%
2042	3,593.9	3,595.2	4,399.4	804.2	81.7%	3,622.4	3,625.1	3,961.3	336.2	91.5%
2043	3,788.4	3,789.4	4,524.2	734.8	83.8%	3,786.5	3,788.7	4,066.4	277.6	93.2%
2044	3,996.5	3,997.3	4,653.4	656.0	85.9%	3,961.4	3,963.3	4,175.0	211.7	94.9%
2045	4,219.1	4,219.7	4,786.7	567.0	88.2%	4,147.6	4,149.2	4,287.1	138.0	96.8%
2046	4,456.9	4,457.4	4,924.1	466.7	90.5%	4,345.6	4,346.9	4,402.5	55.6	98.7%
2047	4,711.1	4,711.5	5,065.8	354.3	93.0%	4,553.0	4,554.1	4,521.3	(32.7)	100.7%
2048	4,983.1	4,983.5	5,212.2	228.7	95.6%	4,773.8	4,774.7	4,644.0	(130.7)	102.8%
2049	5,274.6	5,274.8	5,363.7	88.9	98.3%	5,009.4	5,010.1	4,770.7	(239.4)	105.0%

Note: The projections are based on the January 1, 2019 actuarial valuation and assume that assumptions are met in the future, including the 7.5% assumed rate of return. To the extent actual experience differs from that assumed, the actual valuation results in future years will also differ. Please see the January 1, 2019 valuation report for details on the actuarial methods and assumptions used in this study.

In Plan Design C, effective January 1, 2022, service is capped at 30 years for all benefits. A refund of employee contributions is provided for years of service greater than 30. In addition, for all actives at the time of the amendment, the Cost-of-Living-Adjustment (COLA) is changed to be the later of age 62 or a 3-year delay. For all retirees at the time of the amendment, their COLA is suspended for three years. The shaded row shows the first year affected by the plan provision changes.

In the baseline scenario, the System is funded with statutory contributions as well as additional contributions made by the District so the full actuarial rate is contributed. In Plan Design C, the System is funded with statutory contributions as well as additional District contributions of \$30 million per year. Every four years the additional District contribution amount is reviewed, and recalibrated if necessary, to remain close to the full actuarial contribution rate. This policy remains in place until the funded ratio (on both a market value and actuarial value basis) has been at least 85% for three consecutive years. At that point, the additional District contributions may be reduced to a level determined to meet the actuarial rate over the next four years. The additional District contributions outlined with a black box show where recalibration was required. The effective additional district contribution rate is calculated by dividing the additional district contribution amount by total payroll.

This exhibit is an attachment to a letter that contains important information and explanations regarding the numbers shown. Therefore, it should only be considered with the accompanying letter from Cavanaugh Macdonald dated July 26, 2019.



Exhibit: Contributions - C2

**Omaha School Employees Retirement System
Option: Plan Design C with Financing Approach 2
Comparison of Baseline (Current Provisions/Financing) Versus Plan Design C with Additional District Contributions at \$30 Million Increasing 2% Per Year Until 85%
Funded for Three Consecutive Years at the Lesser of Market or Actuarial Value of Assets**

Year (1/1)	Baseline (Current Provisions/Financing)							Plan Design C with \$30M with 2%/year increase and recalibration every 4 years							Total Change to District Contribution Amount (\$M)
	Contribution Rates			Contribution Amounts (\$M)				Contribution Rates			Contribution Amounts (\$M)				
	Total Payroll (\$M)	Actuarial	Member & State	District Statutory	District Additional	District Additional	Total District	Total Payroll (\$M)	Actuarial	Member & State	District Statutory	Effective District Additional	District Additional	Total District	
2019	339.5	26.97%	11.78%	9.88%	5.31%	18.2	51.7	339.5	26.97%	11.78%	9.88%	5.31%	18.2	51.7	0.0
2020	350.6	27.70%	11.78%	9.88%	6.04%	21.4	56.0	350.6	27.70%	11.78%	9.88%	6.04%	21.4	56.0	0.0
2021	362.8	28.24%	11.78%	9.88%	6.58%	24.2	60.0	362.8	28.24%	11.78%	9.88%	6.58%	24.2	60.0	0.0
2022	375.0	28.65%	11.78%	9.88%	6.99%	26.5	63.5	375.0	25.61%	11.78%	9.88%	7.90%	30.0	67.0	3.5
2023	388.0	28.94%	11.78%	9.88%	7.28%	28.6	66.9	388.0	25.64%	11.78%	9.88%	7.79%	30.6	68.9	2.0
2024	401.2	29.14%	11.78%	9.88%	7.48%	30.4	70.0	401.2	25.61%	11.78%	9.88%	7.69%	31.2	70.8	0.8
2025	414.8	29.30%	11.78%	9.88%	7.64%	32.1	73.1	414.8	25.53%	11.78%	9.88%	7.58%	31.8	72.8	(0.3)
2026	428.8	29.41%	11.78%	9.88%	7.75%	33.6	76.0	428.8	25.40%	11.78%	9.88%	7.48%	32.5	74.9	(1.1)
2027	442.7	29.50%	11.78%	9.88%	7.84%	35.1	78.8	442.7	25.24%	11.78%	9.88%	7.39%	33.1	76.8	(2.0)
2028	457.1	29.56%	11.78%	9.88%	7.90%	36.5	81.7	457.1	25.06%	11.78%	9.88%	7.30%	33.8	79.0	(2.7)
2029	471.9	29.59%	11.78%	9.88%	7.93%	37.9	84.5	471.9	24.86%	11.78%	9.88%	7.21%	34.4	81.0	(3.5)
2030	486.2	29.66%	11.78%	9.88%	8.00%	39.4	87.4	486.2	24.65%	11.78%	9.88%	7.14%	35.1	83.1	(4.3)
2031	501.0	29.69%	11.78%	9.88%	8.03%	40.7	90.2	501.0	24.43%	11.78%	9.88%	7.07%	35.9	85.4	(4.8)
2032	516.5	29.72%	11.78%	9.88%	8.06%	42.1	93.1	516.5	24.18%	11.78%	9.88%	7.00%	36.6	87.6	(5.5)
2033	531.9	29.75%	11.78%	9.88%	8.09%	43.6	96.1	531.9	23.92%	11.78%	9.88%	6.93%	37.3	89.8	(6.3)
2034	548.0	29.77%	11.78%	9.88%	8.11%	45.0	99.1	548.0	23.65%	11.78%	9.88%	6.86%	38.0	92.1	(7.0)
2035	563.6	29.81%	11.78%	9.88%	8.15%	46.5	102.2	563.6	23.37%	11.78%	9.88%	6.80%	38.8	94.5	(7.7)
2036	580.0	29.84%	11.78%	9.88%	8.18%	48.0	105.3	580.0	23.07%	11.78%	9.88%	6.74%	39.6	96.9	(8.4)
2037	596.9	29.87%	11.78%	9.88%	8.21%	49.6	108.6	596.9	22.75%	11.78%	9.88%	6.68%	40.4	99.4	(9.2)
2038	614.3	29.89%	11.78%	9.88%	8.23%	51.2	111.9	614.3	22.41%	11.78%	9.88%	6.62%	41.2	101.9	(10.0)
2039	631.9	29.92%	11.78%	9.88%	8.26%	52.8	115.2	631.9	22.06%	11.78%	9.88%	6.57%	42.0	104.4	(10.8)
2040	651.0	29.94%	11.78%	9.88%	8.28%	54.6	118.9	651.0	21.68%	11.78%	9.88%	6.50%	42.8	107.1	(11.8)
2041	670.8	29.94%	11.78%	9.88%	8.28%	56.2	122.5	670.8	21.28%	11.78%	9.88%	6.44%	43.7	110.0	(12.5)
2042	692.5	29.91%	11.78%	9.88%	8.25%	57.8	126.2	692.5	20.83%	11.78%	9.88%	0.00%	0.0	68.4	(57.8)
2043	714.9	29.88%	11.78%	9.88%	8.22%	59.5	130.1	714.9	20.74%	11.78%	9.88%	0.00%	0.0	70.6	(59.5)
2044	737.8	29.86%	11.78%	9.88%	8.20%	61.2	134.1	737.8	10.75%	11.78%	9.88%	0.00%	0.0	72.9	(61.2)
2045	761.3	29.85%	11.78%	9.88%	8.19%	63.1	138.3	761.3	10.07%	11.78%	9.88%	0.00%	0.0	75.2	(63.1)
2046	785.3	29.84%	11.78%	9.88%	8.18%	65.0	142.6	785.3	9.36%	11.78%	9.88%	0.00%	0.0	77.6	(65.0)
2047	810.1	29.84%	11.78%	9.88%	8.18%	67.1	147.1	810.1	8.64%	11.78%	9.88%	0.00%	0.0	80.0	(67.1)
2048	836.5	29.81%	11.78%	9.88%	8.15%	69.0	151.6	836.5	7.88%	11.78%	9.88%	0.00%	0.0	82.6	(69.0)
2049	863.3	15.43%	11.78%	9.88%	0.00%	0.0	85.3	863.3	7.09%	11.78%	9.88%	0.00%	0.0	85.3	0.0
						1,336.9	3,068.0						792.6	2,523.7	(544.3)

Note: The projections are based on the January 1, 2019 actuarial valuation and assume that assumptions are met in the future, including the 7.5% assumed rate of return. To the extent actual experience differs from that assumed, the actual valuation results in future years will also differ. Please see the January 1, 2019 valuation report for details on the actuarial methods and assumptions used in this study.

In Plan Design C, effective January 1, 2022, service is capped at 30 years for all benefits. A refund of employee contributions is provided for years of service greater than 30. In addition, for all actives at the time of the amendment, the Cost-of-Living-Adjustment (COLA) is changed to be the later of age 62 or a 3-year delay. For all retirees at the time of the amendment, their COLA is suspended for three years. The shaded row shows the first year affected by the plan provision changes.

In the baseline scenario, the System is funded with statutory contributions as well as additional contributions made by the District so the full actuarial rate is contributed. In Plan Design C, the System is funded with statutory contributions as well as additional District contributions that start at \$30 million in 2022 and increase by 2% per year. Every four years the additional District contribution amount is reviewed, and recalibrated if necessary, to remain close to the full actuarial contribution rate. This policy remains in place until the funded ratio (on both a market value and actuarial value basis) has been at least 85% for three consecutive years. At that point, the additional District contributions may be reduced to a level determined to meet the actuarial rate over the next four years. The additional District contributions outlined with a black box show where recalibration was required. The effective additional district contribution rate is calculated by dividing the additional district contribution amount by total payroll.

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Exhibit: Funding - C2

Omaha School Employees Retirement System

Option: Plan Design C with Financing Approach 2

Comparison of Baseline (Current Provisions/Financing) Versus Plan Design C with Additional District Contributions at \$30 Million Increasing 2% Per Year Until 85% Funded for Three Consecutive Years at the Lesser of Market or Actuarial Value of Assets

Year (1/1)	Baseline (Current Provisions/Financing)						Plan Design C with \$30M with 2%/year increase and recalibration every 4 years					
	Market Value of Assets (\$M)	Actuarial Value of Assets (\$M)	Actuarial Liability (\$M)	Unfunded Actuarial Liability (\$M)	Funded Ratio	Market Value of Assets (\$M)	Actuarial Value of Assets (\$M)	Actuarial Liability (\$M)	Unfunded Actuarial Liability (\$M)	Funded Ratio		
2019	1,193.8	1,378.8	2,192.9	814.1	62.9%	1,193.8	1,378.8	2,192.9	814.1	62.9%		
2020	1,238.6	1,387.8	2,262.0	874.2	61.4%	1,238.6	1,387.8	2,262.0	874.2	61.4%		
2021	1,291.1	1,411.4	2,336.5	925.2	60.4%	1,291.1	1,411.4	2,336.5	925.2	60.4%		
2022	1,347.9	1,444.9	2,412.9	968.0	59.9%	1,347.9	1,444.9	2,276.5	831.6	63.5%		
2023	1,409.0	1,487.2	2,491.2	1,004.0	59.7%	1,412.8	1,491.2	2,340.7	849.5	63.7%		
2024	1,474.5	1,537.5	2,571.6	1,034.0	59.8%	1,483.0	1,546.5	2,408.1	861.5	64.2%		
2025	1,544.7	1,595.5	2,654.4	1,058.9	60.1%	1,559.3	1,610.8	2,478.8	868.0	65.0%		
2026	1,619.5	1,660.5	2,739.7	1,079.2	60.6%	1,641.7	1,683.6	2,553.1	869.5	65.9%		
2027	1,699.0	1,732.0	2,827.2	1,095.2	61.3%	1,729.0	1,763.0	2,629.1	866.1	67.1%		
2028	1,783.2	1,809.8	2,917.1	1,107.3	62.0%	1,821.3	1,849.0	2,706.9	857.9	68.3%		
2029	1,872.5	1,894.0	3,009.5	1,115.5	62.9%	1,919.1	1,941.8	2,786.7	844.9	69.7%		
2030	1,966.8	1,984.2	3,104.1	1,120.0	63.9%	2,022.4	2,041.0	2,868.0	827.0	71.2%		
2031	2,066.2	2,080.2	3,200.7	1,120.5	65.0%	2,131.2	2,146.5	2,950.7	804.1	72.7%		
2032	2,171.1	2,182.3	3,299.5	1,117.2	66.1%	2,246.2	2,258.9	3,035.1	776.1	74.4%		
2033	2,281.7	2,290.8	3,400.5	1,109.7	67.4%	2,367.8	2,378.4	3,120.9	742.6	76.2%		
2034	2,398.4	2,405.8	3,503.8	1,098.0	68.7%	2,496.4	2,505.3	3,208.6	703.3	78.1%		
2035	2,521.5	2,527.4	3,609.1	1,081.7	70.0%	2,632.4	2,639.9	3,297.6	657.7	80.1%		
2036	2,650.8	2,655.6	3,716.0	1,060.4	71.5%	2,775.7	2,782.2	3,387.8	605.6	82.1%		
2037	2,787.0	2,790.9	3,824.6	1,033.8	73.0%	2,927.3	2,932.8	3,479.2	546.4	84.3%		
2038	2,930.8	2,933.8	3,935.2	1,001.4	74.6%	3,087.7	3,092.5	3,572.1	479.6	86.6%		
2039	3,082.2	3,084.7	4,047.6	962.9	76.2%	3,257.4	3,261.7	3,666.2	404.5	89.0%		
2040	3,242.3	3,244.3	4,161.9	917.6	78.0%	3,437.5	3,441.3	3,762.0	320.7	91.5%		
2041	3,412.3	3,414.0	4,278.8	864.8	79.8%	3,629.3	3,632.8	3,859.9	227.1	94.1%		
2042	3,593.9	3,595.2	4,399.4	804.2	81.7%	3,834.8	3,838.1	3,961.3	123.3	96.9%		
2043	3,788.4	3,789.4	4,524.2	734.8	83.8%	4,009.7	4,012.3	4,066.4	54.0	98.7%		
2044	3,996.5	3,997.3	4,653.4	656.0	85.9%	4,196.2	4,198.3	4,175.0	(23.4)	100.6%		
2045	4,219.1	4,219.7	4,786.7	567.0	88.2%	4,395.0	4,396.7	4,287.1	(109.5)	102.6%		
2046	4,456.9	4,457.4	4,924.1	466.7	90.5%	4,606.3	4,607.7	4,402.5	(205.2)	104.7%		
2047	4,711.1	4,711.5	5,065.8	354.3	93.0%	4,831.3	4,832.4	4,521.3	(311.0)	106.9%		
2048	4,983.1	4,983.5	5,212.2	228.7	95.6%	5,070.9	5,071.8	4,644.0	(427.8)	109.2%		
2049	5,274.6	5,274.8	5,363.7	88.9	98.3%	5,326.7	5,327.4	4,770.7	(556.7)	111.7%		

Note: The projections are based on the January 1, 2019 actuarial valuation and assume that assumptions are met in the future, including the 7.5% assumed rate of return. To the extent actual experience differs from that assumed, the actual valuation results in future years will also differ. Please see the January 1, 2019 valuation report for details on the actuarial methods and assumptions used in this study.

In Plan Design C, effective January 1, 2022, service is capped at 30 years for all benefits. A refund of employee contributions is provided for years of service greater than 30. In addition, for all actives at the time of the amendment, the Cost-of-Living-Adjustment (COLA) is changed to be the later of age 62 or a 3-year delay. For all retirees at the time of the amendment, their COLA is suspended for three years. The shaded row shows the first year affected by the plan provision changes.

In the baseline scenario, the System is funded with statutory contributions as well as additional contributions made by the District so the full actuarial rate is contributed. In Plan Design C, the System is funded with statutory contributions as well as additional District contributions that start at \$30 million in 2022 and increase by 2% per year. Every four years the additional District contribution amount is reviewed, and recalibrated if necessary, to remain close to the full actuarial contribution rate. This policy remains in place until the funded ratio (on both a market value and actuarial value basis) has been at least 85% for three consecutive years. At that point, the additional District contributions may be reduced to a level determined to meet the actuarial rate over the next four years. The additional District contributions outlined with a black box show where recalibration was required. The effective additional district contribution rate is calculated by dividing the additional district contribution amount by total payroll.

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Exhibit: Contributions - D1

**Omaha School Employees Retirement System
Option: Plan Design D with Financing Approach 1**

Comparison of Baseline (Current Provisions/Financing) Versus Plan Design D with Additional District Contributions at \$25 Million Per Year Until 85% Funded for Three Consecutive Years at the Lesser of Market or Actuarial Value of Assets

Year (1/1)	Baseline (Current Provisions/Financing)							Plan Design D with Level \$25M per year							Total Change to District Contribution Amount (\$M)
	Total Payroll (\$M)	Contribution Rates			Contribution Amounts (\$M)			Total Payroll (\$M)	Contribution Rates			Contribution Amounts (\$M)			
		Actuarial	Member & State	District Statutory	District Additional	District Additional	Total District		Actuarial	Member & State	District Statutory	Effective District Additional	District Additional	Total District	
2019	339.5	26.97%	11.78%	9.88%	5.31%	18.2	51.7	339.5	26.97%	11.78%	9.88%	5.31%	18.2	51.7	0.0
2020	350.6	27.70%	11.78%	9.88%	6.04%	21.4	56.0	350.6	27.70%	11.78%	9.88%	6.04%	21.4	56.0	0.0
2021	362.8	28.24%	11.78%	9.88%	6.58%	24.2	60.0	362.8	28.24%	11.78%	9.88%	6.58%	24.2	60.0	0.0
2022	375.0	28.65%	11.78%	9.88%	6.99%	26.5	63.5	375.0	27.08%	11.78%	9.88%	6.59%	25.0	62.0	(1.5)
2023	388.0	28.94%	11.78%	9.88%	7.28%	28.6	66.9	388.6	27.40%	11.78%	9.88%	6.36%	25.0	63.4	(3.5)
2024	401.2	29.14%	11.78%	9.88%	7.48%	30.4	70.0	402.4	27.65%	11.78%	9.88%	6.14%	25.0	64.7	(5.3)
2025	414.8	29.30%	11.78%	9.88%	7.64%	32.1	73.1	416.4	27.86%	11.78%	9.88%	5.93%	25.0	66.1	(7.0)
2026	428.8	29.41%	11.78%	9.88%	7.75%	33.6	76.0	430.8	28.02%	11.78%	9.88%	6.88%	30.0	72.6	(3.4)
2027	442.7	29.50%	11.78%	9.88%	7.84%	35.1	78.8	445.2	28.10%	11.78%	9.88%	6.66%	30.0	74.0	(4.8)
2028	457.1	29.56%	11.78%	9.88%	7.90%	36.5	81.7	460.0	28.17%	11.78%	9.88%	6.44%	30.0	75.4	(6.3)
2029	471.9	29.59%	11.78%	9.88%	7.93%	37.9	84.5	475.1	28.22%	11.78%	9.88%	6.24%	30.0	76.9	(7.6)
2030	486.2	29.66%	11.78%	9.88%	8.00%	39.4	87.4	489.9	28.30%	11.78%	9.88%	7.06%	35.0	83.4	(4.0)
2031	501.0	29.69%	11.78%	9.88%	8.03%	40.7	90.2	505.2	28.31%	11.78%	9.88%	6.85%	35.0	84.9	(5.3)
2032	516.5	29.72%	11.78%	9.88%	8.06%	42.1	93.1	521.0	28.32%	11.78%	9.88%	6.64%	35.0	86.5	(6.6)
2033	531.9	29.75%	11.78%	9.88%	8.09%	43.6	96.1	536.8	28.34%	11.78%	9.88%	6.44%	35.0	88.0	(8.1)
2034	548.0	29.77%	11.78%	9.88%	8.11%	45.0	99.1	553.1	28.38%	11.78%	9.88%	7.15%	40.0	94.6	(4.5)
2035	563.6	29.81%	11.78%	9.88%	8.15%	46.5	102.2	569.3	28.37%	11.78%	9.88%	6.94%	40.0	96.2	(6.0)
2036	580.0	29.84%	11.78%	9.88%	8.18%	48.0	105.3	586.0	28.39%	11.78%	9.88%	6.74%	40.0	97.9	(7.4)
2037	596.9	29.87%	11.78%	9.88%	8.21%	49.6	108.6	603.1	28.41%	11.78%	9.88%	6.55%	40.0	99.6	(9.0)
2038	614.3	29.89%	11.78%	9.88%	8.23%	51.2	111.9	620.7	28.43%	11.78%	9.88%	7.16%	45.0	106.3	(5.6)
2039	631.9	29.92%	11.78%	9.88%	8.26%	52.8	115.2	638.6	28.44%	11.78%	9.88%	6.96%	45.0	108.1	(7.1)
2040	651.0	29.94%	11.78%	9.88%	8.28%	54.6	118.9	657.7	28.44%	11.78%	9.88%	6.76%	45.0	110.0	(8.9)
2041	670.8	29.94%	11.78%	9.88%	8.28%	56.2	122.5	677.5	28.44%	11.78%	9.88%	6.56%	45.0	111.9	(10.6)
2042	692.5	29.91%	11.78%	9.88%	8.25%	57.8	126.2	698.9	28.43%	11.78%	9.88%	7.07%	50.0	119.0	(7.2)
2043	714.9	29.88%	11.78%	9.88%	8.22%	59.5	130.1	721.0	28.39%	11.78%	9.88%	6.85%	50.0	121.2	(8.9)
2044	737.8	29.86%	11.78%	9.88%	8.20%	61.2	134.1	743.8	28.37%	11.78%	9.88%	6.64%	50.0	123.5	(10.6)
2045	761.3	29.85%	11.78%	9.88%	8.19%	63.1	138.3	767.3	28.37%	11.78%	9.88%	6.44%	50.0	125.8	(12.5)
2046	785.3	29.84%	11.78%	9.88%	8.18%	65.0	142.6	791.3	28.37%	11.78%	9.88%	6.24%	50.0	128.2	(14.4)
2047	810.1	29.84%	11.78%	9.88%	8.18%	67.1	147.1	816.2	28.38%	11.78%	9.88%	6.05%	50.0	130.6	(16.5)
2048	836.5	29.81%	11.78%	9.88%	8.15%	69.0	151.6	842.4	28.41%	11.78%	9.88%	5.86%	50.0	133.2	(18.4)
2049	863.3	15.43%	11.78%	9.88%	0.00%	0.0	85.3	869.3	14.18%	11.78%	9.88%	5.68%	50.0	135.9	50.6
						1,336.9	3,068.0						1,163.8	2,907.6	(160.4)

Note: The projections are based on the January 1, 2019 actuarial valuation and assume that all assumptions are met in the future, including the 7.5% assumed rate of return. To the extent actual experience differs from that assumed, the actual valuation results in future years will also differ. Please see the January 1, 2019 valuation report for details on the actuarial methods and assumptions used in this study.

In Plan Design D, effective January 1, 2022, a Partial Lump Sum Option (PLSO) is offered to members who work beyond their normal retirement age NRA. The addition of the PLSO was assumed to incent an extension of the retirement date, so the retirement assumptions were modified. If the addition of a PLSO does not change retirement behavior, there would be no cost saving due to this provision. In addition, for all actives at the time of the amendment, the Cost-of-Living-Adjustment (COLA) is changed to require a 1-year delay. For all retirees at that time, the COLA is suspended for one year. The shaded row shows the first year affected by the plan provision changes.

In the baseline scenario, the System is funded with statutory contributions as well as additional contributions made by the District so the full actuarial rate is contributed. In Plan Design D, the System is funded with statutory contributions as well as additional District contributions of \$25 million per year. Every four years the additional District contribution amount is reviewed, and recalibrated, if necessary, to remain close to the full actuarial contribution rate. This policy remains in place until the funded ratio (on both a market value and actuarial value basis) has been at least 85% for three consecutive years. At that point, the additional District contributions may be reduced to a level determined to meet the actuarial rate over the next four years. The additional District contributions outlined with a black box show where recalibration was required. The effective additional district contribution rate is calculated by dividing the additional district contribution amount by total payroll.

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Exhibit: Funding - D1

Omaha School Employees Retirement System

Option: Plan Design D with Financing Approach 1

Comparison of Baseline (Current Provisions/Financing) Versus Plan Design D with Additional District Contributions at \$25 Million Per Year Until 85% Funded for Three Consecutive Years at the Lesser of Market or Actuarial Value of Assets

Year (1/1)	Baseline (Current Provisions/Financing)					Plan Design D with Level \$25M per year				
	Market Value of Assets (\$M)	Actuarial Value of Assets (\$M)	Actuarial Liability (\$M)	Unfunded Actuarial Liability (\$M)	Funded Ratio	Market Value of Assets (\$M)	Actuarial Value of Assets (\$M)	Actuarial Liability (\$M)	Unfunded Actuarial Liability (\$M)	Funded Ratio
2019	1,193.8	1,378.8	2,192.9	814.1	62.9%	1,193.8	1,378.8	2,192.9	814.1	62.9%
2020	1,238.6	1,387.8	2,262.0	874.2	61.4%	1,238.6	1,387.8	2,262.0	874.2	61.4%
2021	1,291.1	1,411.4	2,336.5	925.2	60.4%	1,291.1	1,411.4	2,336.5	925.2	60.4%
2022	1,347.9	1,444.9	2,412.9	968.0	59.9%	1,347.9	1,444.9	2,367.4	922.5	61.0%
2023	1,409.0	1,487.2	2,491.2	1,004.0	59.7%	1,407.4	1,485.9	2,438.7	952.8	60.9%
2024	1,474.5	1,537.5	2,571.6	1,034.0	59.8%	1,471.7	1,535.2	2,514.4	979.3	61.1%
2025	1,544.7	1,595.5	2,654.4	1,058.9	60.1%	1,539.5	1,590.9	2,593.3	1,002.4	61.3%
2026	1,619.5	1,660.5	2,739.7	1,079.2	60.6%	1,610.8	1,652.4	2,675.3	1,022.8	61.8%
2027	1,699.0	1,732.0	2,827.2	1,095.2	61.3%	1,690.6	1,724.5	2,760.1	1,035.6	62.5%
2028	1,783.2	1,809.8	2,917.1	1,107.3	62.0%	1,774.1	1,801.7	2,847.4	1,045.7	63.3%
2029	1,872.5	1,894.0	3,009.5	1,115.5	62.9%	1,861.5	1,884.0	2,937.4	1,053.4	64.1%
2030	1,966.8	1,984.2	3,104.1	1,120.0	63.9%	1,952.8	1,971.3	3,030.0	1,058.7	65.1%
2031	2,066.2	2,080.2	3,200.7	1,120.5	65.0%	2,053.1	2,068.3	3,124.7	1,056.5	66.2%
2032	2,171.1	2,182.3	3,299.5	1,117.2	66.1%	2,157.7	2,170.3	3,221.8	1,051.5	67.4%
2033	2,281.7	2,290.8	3,400.5	1,109.7	67.4%	2,267.1	2,277.6	3,321.4	1,043.8	68.6%
2034	2,398.4	2,405.8	3,503.8	1,098.0	68.7%	2,381.5	2,390.2	3,423.3	1,033.1	69.8%
2035	2,521.5	2,527.4	3,609.1	1,081.7	70.0%	2,506.0	2,513.4	3,527.5	1,014.1	71.3%
2036	2,650.8	2,655.6	3,716.0	1,060.4	71.5%	2,635.7	2,642.1	3,633.6	991.5	72.7%
2037	2,787.0	2,790.9	3,824.6	1,033.8	73.0%	2,770.9	2,776.4	3,741.3	964.9	74.2%
2038	2,930.8	2,933.8	3,935.2	1,001.4	74.6%	2,912.1	2,916.9	3,851.1	934.2	75.7%
2039	3,082.2	3,084.7	4,047.6	962.9	76.2%	3,064.7	3,069.0	3,962.8	893.8	77.4%
2040	3,242.3	3,244.3	4,161.9	917.6	78.0%	3,224.5	3,228.4	4,076.4	848.1	79.2%
2041	3,412.3	3,414.0	4,278.8	864.8	79.8%	3,392.4	3,395.9	4,192.6	796.7	81.0%
2042	3,593.9	3,595.2	4,399.4	804.2	81.7%	3,569.8	3,573.1	4,312.2	739.1	82.9%
2043	3,788.4	3,789.4	4,524.2	734.8	83.8%	3,763.1	3,766.2	4,435.7	669.5	84.9%
2044	3,996.5	3,997.3	4,653.4	656.0	85.9%	3,968.3	3,971.3	4,563.5	592.2	87.0%
2045	4,219.1	4,219.7	4,786.7	567.0	88.2%	4,186.0	4,188.8	4,695.3	506.4	89.2%
2046	4,456.9	4,457.4	4,924.1	466.7	90.5%	4,416.7	4,419.5	4,831.0	411.6	91.5%
2047	4,711.1	4,711.5	5,065.8	354.3	93.0%	4,661.4	4,664.1	4,971.0	306.8	93.8%
2048	4,983.1	4,983.5	5,212.2	228.7	95.6%	4,921.3	4,923.9	5,115.4	191.5	96.3%
2049	5,274.6	5,274.8	5,363.7	88.9	98.3%	5,197.5	5,200.1	5,264.7	64.6	98.8%

Note: The projections are based on the January 1, 2019 actuarial valuation and assume that all assumptions are met in the future, including the 7.5% assumed rate of return. To the extent actual experience differs from that assumed, the actual valuation results in future years will also differ. Please see the January 1, 2019 valuation report for details on the actuarial methods and assumptions used in this study.

In Plan Design D, effective January 1, 2022, a Partial Lump Sum Option (PLSO) is offered to members who work beyond their normal retirement age NRA. The addition of the PLSO was assumed to incent an extension of the retirement date, so the retirement assumptions were modified. If the addition of a PLSO does not change retirement behavior, there would be no cost saving due to this provision. In addition, for all actives at the time of the amendment, the Cost-of-Living-Adjustment (COLA) is changed to require a 1-year delay. For all retirees at that time, the COLA is suspended for one year. The shaded row shows the first year affected by the plan provision changes.

In the baseline scenario, the System is funded with statutory contributions as well as additional contributions made by the District so the full actuarial rate is contributed. In Plan Design D, the System is funded with statutory contributions as well as additional District contributions of \$25 million per year. Every four years the additional District contribution amount is reviewed, and recalibrated, if necessary, to remain close to the full actuarial contribution rate. This policy remains in place until the funded ratio (on both a market value and actuarial value basis) has been at least 85% for three consecutive years. At that point, the additional District contributions may be reduced to a level determined to meet the actuarial rate over the next four years. The additional District contributions outlined with a black box show where recalibration was required. The effective additional district contribution rate is calculated by dividing the additional district contribution amount by total payroll.

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Exhibit: Contributions - D2

Omaha School Employees Retirement System
Option: Plan Design D with Financing Approach 2

Comparison of Baseline (Current Provisions/Financing) Versus Plan Design D with Additional District Contributions at \$25 Million Increasing 2% Per Year Until 85% Funded for Three Consecutive Years at the Lesser of Market or Actuarial Value of Assets

Year (1/1)	Baseline (Current Provisions/Financing)							Plan Design D with \$25M with 2%/year increase and recalibration every 4 years							Total Change to District Contribution Amount (\$M)
	Contribution Rates				Contribution Amounts (\$M)			Contribution Rates				Contribution Amounts (\$M)			
	Total Payroll (\$M)	Actuarial	Member & State	District Statutory	District Additional	District Additional	Total District	Total Payroll (\$M)	Actuarial	Member & State	District Statutory	Effective District Additional	District Additional	Total District	
2019	339.5	26.97%	11.78%	9.88%	5.31%	18.2	51.7	339.5	26.97%	11.78%	9.88%	5.31%	18.2	51.7	0.0
2020	350.6	27.70%	11.78%	9.88%	6.04%	21.4	56.0	350.6	27.70%	11.78%	9.88%	6.04%	21.4	56.0	0.0
2021	362.8	28.24%	11.78%	9.88%	6.58%	24.2	60.0	362.8	28.24%	11.78%	9.88%	6.58%	24.2	60.0	0.0
2022	375.0	28.65%	11.78%	9.88%	6.99%	26.5	63.5	375.0	27.08%	11.78%	9.88%	6.59%	25.0	62.0	(1.5)
2023	388.0	28.94%	11.78%	9.88%	7.28%	28.6	66.9	388.6	27.40%	11.78%	9.88%	6.48%	25.5	63.9	(3.0)
2024	401.2	29.14%	11.78%	9.88%	7.48%	30.4	70.0	402.4	27.64%	11.78%	9.88%	6.39%	26.0	65.7	(4.3)
2025	414.8	29.30%	11.78%	9.88%	7.64%	32.1	73.1	416.4	27.83%	11.78%	9.88%	6.30%	26.5	67.6	(5.5)
2026	428.8	29.41%	11.78%	9.88%	7.75%	33.6	76.0	430.8	27.98%	11.78%	9.88%	6.21%	27.1	69.7	(6.3)
2027	442.7	29.50%	11.78%	9.88%	7.84%	35.1	78.8	445.2	28.10%	11.78%	9.88%	6.13%	27.6	71.6	(7.2)
2028	457.1	29.56%	11.78%	9.88%	7.90%	36.5	81.7	460.0	28.19%	11.78%	9.88%	6.05%	28.2	73.6	(8.1)
2029	471.9	29.59%	11.78%	9.88%	7.93%	37.9	84.5	475.1	28.27%	11.78%	9.88%	5.97%	28.7	75.6	(8.9)
2030	486.2	29.66%	11.78%	9.88%	8.00%	39.4	87.4	489.9	28.36%	11.78%	9.88%	7.06%	35.0	83.4	(4.0)
2031	501.0	29.69%	11.78%	9.88%	8.03%	40.7	90.2	505.2	28.38%	11.78%	9.88%	6.98%	35.7	85.6	(4.6)
2032	516.5	29.72%	11.78%	9.88%	8.06%	42.1	93.1	521.0	28.39%	11.78%	9.88%	6.91%	36.4	87.9	(5.2)
2033	531.9	29.75%	11.78%	9.88%	8.09%	43.6	96.1	536.8	28.40%	11.78%	9.88%	6.84%	37.2	90.2	(5.9)
2034	548.0	29.77%	11.78%	9.88%	8.11%	45.0	99.1	553.1	28.41%	11.78%	9.88%	6.77%	37.9	92.5	(6.6)
2035	563.6	29.81%	11.78%	9.88%	8.15%	46.5	102.2	569.3	28.43%	11.78%	9.88%	6.71%	38.7	94.9	(7.3)
2036	580.0	29.84%	11.78%	9.88%	8.18%	48.0	105.3	586.0	28.47%	11.78%	9.88%	6.65%	39.4	97.3	(8.0)
2037	596.9	29.87%	11.78%	9.88%	8.21%	49.6	108.6	603.1	28.49%	11.78%	9.88%	6.59%	40.2	99.8	(8.8)
2038	614.3	29.89%	11.78%	9.88%	8.23%	51.2	111.9	620.7	28.52%	11.78%	9.88%	7.16%	45.0	106.3	(5.6)
2039	631.9	29.92%	11.78%	9.88%	8.26%	52.8	115.2	638.6	28.53%	11.78%	9.88%	7.10%	45.9	109.0	(6.2)
2040	651.0	29.94%	11.78%	9.88%	8.28%	54.6	118.9	657.7	28.53%	11.78%	9.88%	7.03%	46.8	111.8	(7.1)
2041	670.8	29.94%	11.78%	9.88%	8.28%	56.2	122.5	677.5	28.52%	11.78%	9.88%	6.96%	47.7	114.6	(7.9)
2042	692.5	29.91%	11.78%	9.88%	8.25%	57.8	126.2	698.9	28.50%	11.78%	9.88%	6.89%	48.7	117.7	(8.5)
2043	714.9	29.88%	11.78%	9.88%	8.22%	59.5	130.1	721.0	28.47%	11.78%	9.88%	6.81%	49.7	120.9	(9.2)
2044	737.8	29.86%	11.78%	9.88%	8.20%	61.2	134.1	743.8	28.46%	11.78%	9.88%	6.73%	50.7	124.2	(9.9)
2045	761.3	29.85%	11.78%	9.88%	8.19%	63.1	138.3	767.3	28.45%	11.78%	9.88%	6.66%	51.7	127.5	(10.8)
2046	785.3	29.84%	11.78%	9.88%	8.18%	65.0	142.6	791.3	28.45%	11.78%	9.88%	4.99%	40.0	118.2	(24.4)
2047	810.1	29.84%	11.78%	9.88%	8.18%	67.1	147.1	816.2	28.54%	11.78%	9.88%	4.94%	40.8	121.4	(25.7)
2048	836.5	29.81%	11.78%	9.88%	8.15%	69.0	151.6	842.4	28.64%	11.78%	9.88%	4.88%	41.6	124.8	(26.8)
2049	863.3	15.43%	11.78%	9.88%	0.00%	0.0	85.3	869.3	14.48%	11.78%	9.88%	4.82%	42.4	128.3	43.0
						1,336.9	3,068.0						1,129.9	2,873.7	(194.3)

Note: The projections are based on the January 1, 2019 actuarial valuation and assume that all assumptions are met in the future, including the 7.5% assumed rate of return. To the extent actual experience differs from that assumed, the actual valuation results in future years will also differ. Please see the January 1, 2019 valuation report for details on the actuarial methods and assumptions used in this study.

In Plan Design D, effective January 1, 2022, a Partial Lump Sum Option (PLSO) is offered to members who work beyond their normal retirement age (NRA). The addition of the PLSO was assumed to incent an extension of the retirement date, so the retirement assumptions were modified. If the addition of a PLSO does not change retirement behavior, there would be no cost saving due to this provision. In addition, for all actives at January 1, 2022, the Cost-of-Living-Adjustment (COLA) is changed to a 1-year delay. For all retirees at that date, the COLA is suspended for one year. The shaded row shows the first year affected by the plan provision changes.

In the baseline scenario, the System is funded with statutory contributions as well as additional contributions made by the District so the full actuarial rate is contributed. In Plan Design D, the System is funded with statutory contributions as well as additional District contributions that start at \$25 million in 2022 and increase by 2% per year. Every four years the additional District contribution amount is reviewed, and recalibrated, if necessary, to remain close to the full actuarial contribution rate. This policy remains in place until the funded ratio (on both a market value and actuarial value basis) has been at least 85% for three consecutive years. At that point, the additional District contributions may be reduced to a level determined to meet the actuarial rate of the next four years. The additional District contributions outlined with a black box show where recalibration was required. The effective additional district contribution rate is calculated by dividing the additional district contribution amount by total payroll.

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Exhibit: Funding - D2

Omaha School Employees Retirement System

Option: Plan Design D with Financing Approach 2

Comparison of Baseline (Current Provisions/Financing) Versus Plan Design D with Additional District Contributions at \$25 Million Increasing 2% Per Year Until 85% Funded for Three Consecutive Years at the Lesser of Market or Actuarial Value of Assets

Year (1/1)	Baseline (Current Provisions/Financing)					Plan Design D with \$25M with 2%/year increase and recalibration every 4 years				
	Market Value of Assets (\$M)	Actuarial Value of Assets (\$M)	Actuarial Liability (\$M)	Unfunded Actuarial Liability (\$M)	Funded Ratio	Market Value of Assets (\$M)	Actuarial Value of Assets (\$M)	Actuarial Liability (\$M)	Unfunded Actuarial Liability (\$M)	Funded Ratio
2019	1,193.8	1,378.8	2,192.9	814.1	62.9%	1,193.8	1,378.8	2,192.9	814.1	62.9%
2020	1,238.6	1,387.8	2,262.0	874.2	61.4%	1,238.6	1,387.8	2,262.0	874.2	61.4%
2021	1,291.1	1,411.4	2,336.5	925.2	60.4%	1,291.1	1,411.4	2,336.5	925.2	60.4%
2022	1,347.9	1,444.9	2,412.9	968.0	59.9%	1,347.9	1,444.9	2,367.4	922.5	61.0%
2023	1,409.0	1,487.2	2,491.2	1,004.0	59.7%	1,407.4	1,485.9	2,438.7	952.8	60.9%
2024	1,474.5	1,537.5	2,571.6	1,034.0	59.8%	1,472.2	1,535.7	2,514.4	978.8	61.1%
2025	1,544.7	1,595.5	2,654.4	1,058.9	60.1%	1,541.1	1,592.5	2,593.3	1,000.8	61.4%
2026	1,619.5	1,660.5	2,739.7	1,079.2	60.6%	1,614.0	1,655.7	2,675.3	1,019.5	61.9%
2027	1,699.0	1,732.0	2,827.2	1,095.2	61.3%	1,691.1	1,725.0	2,760.1	1,035.1	62.5%
2028	1,783.2	1,809.8	2,917.1	1,107.3	62.0%	1,772.2	1,799.7	2,847.4	1,047.7	63.2%
2029	1,872.5	1,894.0	3,009.5	1,115.5	62.9%	1,857.6	1,880.1	2,937.4	1,057.4	64.0%
2030	1,966.8	1,984.2	3,104.1	1,120.0	63.9%	1,947.3	1,965.7	3,030.0	1,064.3	64.9%
2031	2,066.2	2,080.2	3,200.7	1,120.5	65.0%	2,047.1	2,062.3	3,124.7	1,062.5	66.0%
2032	2,171.1	2,182.3	3,299.5	1,117.2	66.1%	2,152.0	2,164.6	3,221.8	1,057.3	67.2%
2033	2,281.7	2,290.8	3,400.5	1,109.7	67.4%	2,262.4	2,272.9	3,321.4	1,048.5	68.4%
2034	2,398.4	2,405.8	3,503.8	1,098.0	68.7%	2,378.6	2,387.4	3,423.3	1,035.9	69.7%
2035	2,521.5	2,527.4	3,609.1	1,081.7	70.0%	2,500.8	2,508.2	3,527.5	1,019.3	71.1%
2036	2,650.8	2,655.6	3,716.0	1,060.4	71.5%	2,628.7	2,635.1	3,633.6	998.5	72.5%
2037	2,787.0	2,790.9	3,824.6	1,033.8	73.0%	2,762.8	2,768.3	3,741.3	973.1	74.0%
2038	2,930.8	2,933.8	3,935.2	1,001.4	74.6%	2,903.6	2,908.4	3,851.1	942.7	75.5%
2039	3,082.2	3,084.7	4,047.6	962.9	76.2%	3,055.6	3,059.9	3,962.8	902.9	77.2%
2040	3,242.3	3,244.3	4,161.9	917.6	78.0%	3,215.5	3,219.4	4,076.4	857.0	79.0%
2041	3,412.3	3,414.0	4,278.8	864.8	79.8%	3,384.6	3,388.2	4,192.6	804.4	80.8%
2042	3,593.9	3,595.2	4,399.4	804.2	81.7%	3,564.3	3,567.6	4,312.2	744.6	82.7%
2043	3,788.4	3,789.4	4,524.2	734.8	83.8%	3,755.9	3,759.0	4,435.7	676.7	84.7%
2044	3,996.5	3,997.3	4,653.4	656.0	85.9%	3,960.2	3,963.2	4,563.5	600.3	86.8%
2045	4,219.1	4,219.7	4,786.7	567.0	88.2%	4,177.9	4,180.8	4,695.3	514.4	89.0%
2046	4,456.9	4,457.4	4,924.1	466.7	90.5%	4,409.8	4,412.6	4,831.0	418.4	91.3%
2047	4,711.1	4,711.5	5,065.8	354.3	93.0%	4,643.8	4,646.4	4,971.0	324.6	93.5%
2048	4,983.1	4,983.5	5,212.2	228.7	95.6%	4,892.9	4,895.4	5,115.4	220.0	95.7%
2049	5,274.6	5,274.8	5,363.7	88.9	98.3%	5,158.4	5,160.8	5,264.7	103.9	98.0%

Note: The projections are based on the January 1, 2019 actuarial valuation and assume that all assumptions are met in the future, including the 7.5% assumed rate of return. To the extent actual experience differs from that assumed, the actual valuation results in future years will also differ. Please see the January 1, 2019 valuation report for details on the actuarial methods and assumptions used in this study.

In Plan Design D, effective January 1, 2022, a Partial Lump Sum Option (PLSO) is offered to members who work beyond their normal retirement age (NRA). The addition of the PLSO was assumed to incent an extension of the retirement date, so the retirement assumptions were modified. If the addition of a PLSO does not change retirement behavior, there would be no cost saving due to this provision. In addition, for all actives at January 1, 2022, the Cost-of-Living-Adjustment (COLA) is changed to a 1-year delay. For all retirees at that date, the COLA is suspended for one year. The shaded row shows the first year affected by the plan provision changes.

In the baseline scenario, the System is funded with statutory contributions as well as additional contributions made by the District so the full actuarial rate is contributed. In Plan Design D, the System is funded with statutory contributions as well as additional District contributions that start at \$25 million in 2022 and increase by 2% per year. Every four years the additional District contribution amount is reviewed, and recalibrated, if necessary, to remain close to the full actuarial contribution rate. This policy remains in place until the funded ratio (on both a market value and actuarial value basis) has been at least 85% for three consecutive years. At that point, the additional District contributions may be reduced to a level determined to meet the actuarial rate of the next four years. The additional District contributions outlined with a black box show where recalibration was required. The effective additional district contribution rate is calculated by dividing the additional district contribution amount by total payroll.

This exhibit is an attachment to a letter that contains important information and explanations regarding the numbers shown. Therefore, it should only be considered with the accompanying letter from Cavanaugh Macdonald dated July 26, 2019.