



BARTEL
ASSOCIATES, LLC

**Alaska Railroad Corporation
Post Retirement Health Care Plan**

**December 31, 2019
GASBS 74 & 75 Reporting**

March 5, 2020

**GASBS 74 and 75 Reporting
for the
Alaska Railroad Corporation
Post Retirement Healthcare Plan**

This report presents reporting and disclosure information for the Alaska Railroad Corporation (ARRC) Post Retirement Health Care Plan (“Plan”) for the fiscal year ending December 31, 2019 to assist ARRC in preparing financial statement information in accordance with Governmental Accounting Standards Board Statement Nos. 74 and 75 (GASBS 74 & 75), “Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans” and “Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions.” ARRC implemented GASBS 74 & 75 beginning fiscal year ending December 31, 2016.

This report is based on our January 1, 2019 actuarial valuation of the Plan for Calendar Year 2019 Funding and our report dated June 19, 2019 which contains complete details of that valuation and is to be considered a part of this report. Trust information including cash flow timing was provided by the employer.

The report provides information intended for reporting under GASBS 74 & 75, but may not be appropriate for other purposes. Information provided in this report may be useful to ARRC for the Plan’s financial management. Future results may differ significantly if the Plan’s experience differs from our assumptions or if there are changes in Plan design, actuarial methods, or actuarial assumptions. The project scope did not include an analysis of this potential variation.

To the best of our knowledge, this report is complete and accurate and has been conducted using generally accepted actuarial principles and practices. Additionally, in our opinion, actuarial methods and assumptions comply with GASBS 74 & 75. As members of the American Academy of Actuaries meeting the Academy Qualification Standards, we certify the actuarial results and opinions herein.

Respectfully submitted,



Mary Elizabeth Redding
FSA, MAAA, EA, FCA
Vice President
Bartel Associates, LLC
March 5, 2020



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March 5, 2020

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SECTION 1
GASBS 74 & 75 APPLICABLE DATES AND PERIODS

Applicable Dates and Periods

| Fiscal Year Ending | December 31, 2019 | |
|---|-------------------|---|
| Reporting Standards | GASBS 74 | GASBS 75 |
| ■ Reporting date ¹ | December 31, 2019 | December 31, 2019 |
| ■ Reporting period | Fiscal Year 2019 | Fiscal Year 2019 |
| ■ Measurement date ² | N/A | December 31, 2019 |
| ■ Measurement period | N/A | January 1, 2019 to December 31, 2019 |
| ■ Actuarial valuation date ³ | January 1, 2019 | January 1, 2019 |
| ■ Actuarial Valuation Roll-forward Date | December 31, 2019 | December 31, 2019 |

¹ Employer's fiscal year-end.

² No earlier than employer's prior fiscal year end.

³ Within 30 months of the employer's fiscal year end for GASBS 75 and 24 months of the Plan's fiscal year end for GASBS 74.

SECTION 2
GASBS 74 & 75 DISCOUNT RATE

Target Allocation and Expected Rate of Return
(Information provided by the Investment Advisor, The Hvas Group)

| | Target Allocation | Expected Real Rate of Return - Intermediate Term | Expected Real Rate of Return - Long Term |
|--------------------------|------------------------------|---|---|
| ■ Cash | 0.00% | n/a | n/a |
| ■ US TIPS | 5.00% | 2.80% | 1.94% |
| ■ Total Bond Return | 30.00% | 2.70% | 2.43% |
| ■ Global Bond | 5.00% | 3.05% | 2.43% |
| ■ High Yield Bond | 10.00% | 4.72% | 3.88% |
| ■ Domestic Large Cap | 15.00% | 4.87% | 6.80% |
| ■ Domestic Mid Cap | 5.00% | 5.60% | 7.77% |
| ■ Domestic Small Cap | 4.00% | 5.85% | 8.74% |
| ■ US Healthcare (Equity) | 5.00% | 5.26% | 7.28% |
| ■ International Equity | 6.00% | 5.36% | 7.04% |
| ■ Real Estate | 15.00% | 5.11% | 4.61% |

SECTION 3
GASBS 74 & 75 NOTE DISCLOSURES

Net OPEB Liability/(Asset)

| Net OPEB Liability | December 31, 2018 | December 31, 2019 |
|--------------------------------|--------------------------|--------------------------|
| Measurement Date | December 31, 2018 | December 31, 2019 |
| ■ Total OPEB liability (TOL) | \$ 15,332,156 | \$ 15,682,068 |
| ■ Fiduciary net position (FNP) | <u>45,248,167</u> | <u>50,914,797</u> |
| ■ Net OPEB liability (NOL) | \$ (29,916,011) | \$ (35,232,729) |
| ■ Funded status (FNP/TOL) | 295.1% | 324.7% |

Contribution Rates for 2019

- Employer rate (based on actuarially determined contribution payable at end of year) 0%
- Employee rate N/A

2019 Annual Money Weighted Rate of Return

- Annual Money Weighted Rate of Return, Net of Investment Expense 13.52%

SECTION 3
GASBS 74 & 75 NOTE DISCLOSURES

Changes in Net OPEB Liability/(Asset)

| | Total OPEB Liability (a) | Plan Fiduciary Net Position (b) | Net OPEB Liability/(Asset) (a) – (b) |
|--|---|--|---|
| ■ Balances at FYE 12/31/18 | \$ 15,332,156 | \$ 45,248,167 | \$ (29,916,011) |
| ■ Changes for the year: | | | |
| • Service cost | 529,350 | | 529,350 |
| • Interest | 1,003,334 | | 1,003,334 |
| • Change of benefit terms | 0 | | 0 |
| • Differences between expected and actual experience | (1,998,306) | | (1,998,306) |
| • Changes of assumptions | 1,186,467 | | 1,186,467 |
| • Contributions— employer | | 0 | 0 |
| • Contributions— employee | | 0 | 0 |
| • Net investment income | | 6,096,578 | (6,096,578) |
| • Benefit payments, net of retiree premiums | (370,933) | (370,933) | 0 |
| • Administrative expense | | (59,015) | 59,015 |
| • Other changes | <u>0</u> | <u>0</u> | <u>0</u> |
| ■ Net changes | 349,912 | 5,666,630 | (5,316,718) |
| ■ Balances at FYE 12/31/19 | \$ 15,682,068 | \$ 50,914,797 | \$ (35,232,729) |

Sensitivity of Net OPEB Liability to Changes in the Discount Rate

| | 1% Decrease (5.75%) | Discount Rate (6.75%) | 1% Increase (7.75%) |
|---|------------------------------------|--------------------------------------|------------------------------------|
| ■ Net OPEB Liability (Asset) at 12/31/19 | \$ (32,694,190) | \$ (35,232,729) | \$ (37,265,199) |

Sensitivity of Net OPEB Liability to Changes in the Medical Trend Rate

| | 1% Decrease | Medical Trend Rate | 1% Increase |
|---|------------------------|-------------------------------|------------------------|
| ■ Net OPEB Liability (Asset) at 12/31/19 | \$ (37,722,894) | \$ (35,232,729) | \$ (32,030,734) |



SECTION 3
GASBS 74 & 75 NOTE DISCLOSURES

OPEB Expense (Income)
GASBS 75 Note Disclosure

| | |
|-------------------------|----------------|
| | 2019 |
| ■ OPEB Expense (Income) | \$ (1,286,437) |

Deferred Outflows and (Inflows) of Resources
GASBS 75 Note Disclosures

| Deferred Outflows and Inflows of Resources | December 31, 2019 | |
|---|---------------------------------------|--|
| | Deferred Outflows of Resources | Deferred (Inflows) of Resources |
| ■ Differences between expected and actual experience | \$ 0 | \$ (6,502,668) |
| ■ Changes of assumptions | \$ 3,032,022 | 0 |
| ■ Net difference between actual and projected earnings on investments | 0 | (549,873) |
| ■ Employer contributions made subsequent to the Measurement Date | <u>N/A</u> | <u>N/A</u> |
| ■ Total | \$ 3,032,022 | \$ (7,052,541) |

Amounts reported as deferred outflows and (inflows) of resources will be recognized in OPEB expense as follows

| Year Ended December 31 | Total |
|-------------------------------|----------------|
| 2020 | \$ (532,368) |
| 2021 | (543,146) |
| 2022 | (258,335) |
| 2023 | (1,076,480) |
| 2024 | (465,114) |
| Thereafter | \$ (1,145,076) |

SECTION 3
GASBS 74 & 75 NOTE DISCLOSURES

Significant Actuarial Assumptions Used for Total OPEB Liability

| Actuarial Assumption | December 31, 2019 |
|--|--|
| ■ Discount Rate | ■ 6.75%, based on satisfaction of Crossover Test |
| ■ Long Term Rate of Return | ■ 6.75%, selected by ARRC. Bartel Associates estimates that a passively managed portfolio with a similar asset allocation would exceed the selected rate about 35%-40% of the time. |
| ■ Inflation | ■ 2.8% |
| ■ Salary Increases | ■ 2.8% salary inflation plus ■ Merit Increase Rate based on Alaska Railroad Corporation Pension and Post Retirement Health Care Plans 2010-2014 Experience Study. See rates below. |
| ■ Pre-Retirement Mortality | ■ Society of Actuaries RP-2014 employee mortality table ■ Mortality projected fully generational with Scale MP-2018 |
| ■ Post-Retirement Mortality | ■ Society of Actuaries RP-2014 healthy annuitant table adjusted 91% for males and 96% for females ■ Mortality projected fully generational with Scale MP-2018 |
| ■ Post-Retirement Disabled Mortality | ■ Society of Actuaries RP-2014 disabled retiree table ■ Mortality projected fully generational with Scale MP-2018 |
| ■ Retirement, Disablement, Termination | ■ Based on Alaska Railroad Corporation Pension and Post Retirement Health Care Plans 2010-2014 Experience Study. Rates of disablement were set equal to those used by Alaska PERS as there is little Plan experience. See below for detailed tables. |
| ■ Participation Rates | ■ After eligibility for a ARRC premium subsidy 45% ■ Before eligibility for a ARRC premium subsidy 35% ■ Disabled retirees 85% ■ Non-disabled retirees continuing coverage upon reaching Medicare eligibility 55% |
| ■ Per Capita Claims Costs | ■ Same as for Actuarially Determined Contribution |
| ■ Crossover Test Assumptions | ■ Administrative expenses: 0.15% of payroll, based on actual current year expense of \$59,015. ■ Employer contributions: None |
| ■ Health Care Trend | ■ Non-Medicare – 7.5% for 2020, decreasing to an ultimate rate of 4.0% in 2076+ ■ Medicare – 6.5% for 2020, decreasing to an ultimate rate of 4.0% in 2076+ See rates below. |

SECTION 3
GASBS 74 & 75 NOTE DISCLOSURES

| Health Care Trend (Increase from Prior Year) | | |
|---|---------------------|-----------------|
| Year | Non-Medicare | Medicare |
| 2019 | Actual Premiums | |
| 2020 | 7.50% | 6.50% |
| 2021 | 7.25% | 6.30% |
| 2022 | 7.00% | 6.10% |
| 2023 | 6.75% | 5.90% |
| 2024 | 6.50% | 5.70% |
| 2025 | 6.25% | 5.50% |
| 2026 | 6.00% | 5.30% |
| 2027 | 5.80% | 5.15% |
| 2028 | 5.60% | 5.00% |
| 2029 | 5.40% | 4.85% |
| 2030 | 5.20% | 4.70% |
| 2031-2035 | 5.05% | 4.60% |
| 2036-2045 | 4.90% | 4.50% |
| 2046-2055 | 4.75% | 4.45% |
| 2056-2065 | 4.60% | 4.40% |
| 2066-2075 | 4.30% | 4.20% |
| 2076+ | 4.00% | 4.00% |

SECTION 3
GASBS 74 & 75 NOTE DISCLOSURES

| Service | Salary "Merit" Increase | Termination Rates |
|----------------|--------------------------------|--------------------------|
| 0 | 8.00% | 34.00% |
| 1 | 2.00% | 28.00% |
| 2 | 6.50% | 18.00% |
| 3 | 6.50% | 15.00% |
| 4 | 6.50% | 12.00% |
| 5 | 2.50% | 10.00% |
| 6-7 | 1.50% | 8.00% |
| 8-10 | 1.50% | 6.00% |
| 11 | 1.25% | 6.00% |
| 12-15 | 1.25% | 5.00% |
| 16-17 | 1.10% | 5.00% |
| 18-19 | 1.10% | 3.00% |
| 20+ | 1.10% | 2.00% |

| Age | Retirement Rates Tier 1 | Retirement Rates Tier 2 |
|------------|--------------------------------|--------------------------------|
| 55 | 6.00% | N/A |
| 56 | 6.00% | N/A |
| 57 | 12.50% | N/A |
| 58 | 12.50% | N/A |
| 59 | 20.00% | N/A |
| 60 | 20.00% | 10.00% |
| 61 | 20.00% | 10.00% |
| 62 | 25.00% | 15.00% |
| 63 | 15.00% | 15.00% |
| 64 | 20.00% | 20.00% |
| 65 | 15.00% | 25.00% |
| 66 | 15.00% | 25.00% |
| 67 | 25.00% | 25.00% |
| 68 | 25.00% | 25.00% |
| 69 | 25.00% | 25.00% |
| 70 | 100.00% | 100.00% |

| Age | Disablement Male | Disablement Female |
|------------|-------------------------|---------------------------|
| 20 | 0.03% | 0.02% |
| 25 | 0.03% | 0.03% |
| 30 | 0.04% | 0.03% |
| 35 | 0.04% | 0.03% |
| 40 | 0.05% | 0.04% |
| 45 | 0.07% | 0.06% |
| 50 | 0.11% | 0.08% |
| 55 | 0.18% | 0.13% |
| 60 | 0.37% | 0.28% |

SECTION 3
GASBS 74 & 75 NOTE DISCLOSURES

Changes Since December 31, 2018 Measurement Date

| | December 31, 2019 |
|---|---|
| <ul style="list-style-type: none">■ Changes of Assumptions Since the Prior Measurement Date | <ul style="list-style-type: none">■ The mortality tables and mortality improvement projection were updated.■ The salary inflation was changed from 3.0% to 2.8%.■ The Affordable Care Act Excise Tax was removed. |

SECTION 4
GASBS 74 & 75 REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in Net OPEB Liability and Related Ratios⁴

| | 2019 |
|--|-------------------|
| ■ Changes in Total OPEB Liability | |
| ● Service cost | \$ 529,350 |
| ● Interest | 1,003,334 |
| ● Changes of benefit terms | 0 |
| ● Differences between expected and actual experience | (1,998,306) |
| ● Changes of assumptions | 1,186,467 |
| ● Benefit payments, net of retiree premiums | (370,933) |
| ■ Net changes | <u>349,912</u> |
| ■ Total OPEB Liability at beginning of year | 15,332,156 |
| ■ Total OPEB Liability at end of year | \$ 15,682,068 |
| | |
| ■ Changes in Plan Fiduciary Net Position | |
| ● Contributions—employer | \$ 0 |
| ● Contributions—employee | 0 |
| ● Net investment income | 6,096,578 |
| ● Benefit payments, net of retiree premiums | (370,933) |
| ● Administrative expense | (59,015) |
| ● Other changes | 0 |
| ■ Net changes | 5,666,630 |
| ■ Plan Fiduciary Net Position at beginning of year | <u>45,248,167</u> |
| ■ Plan Fiduciary Net Position at end of year | \$ 50,914,797 |
| | |
| ■ Net OPEB Liability (Asset) | \$ (35,232,729) |
| ■ Plan Fiduciary Net Position as percentage of Total OPEB Liability | 324.7% |
| | |
| ■ Covered employee payroll | \$ 32,153,711 |
| ■ Net OPEB Liability (Asset) as percentage of covered employee payroll | (109.6%) |

⁴ GASBS 74 & 75 require this information be reported in the employer's Required Supplementary Information for 10 years or as many years are available upon implementation

SECTION 4
GASBS 74 & 75 REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Employer Contributions⁵

| | 2019 |
|--|-------------|
| ■ Actuarially Determined Contribution | \$ 0 |
| ■ Contributions in relation to the actuarially determined contribution | <u>0</u> |
| ■ Contribution deficiency (excess) | 0 |
| ■ Covered employee payroll ⁶ | 32,153,711 |
| ■ Contributions as percentage of covered employee payroll | 0.0% |

Notes to Schedule of Employer Contributions

Significant Actuarial Assumptions Used for Actuarially Determined Contribution

| Assumption | 2019 |
|-----------------------------|---|
| ■ Actuarial valuation date | ■ January 1, 2019 |
| ■ Amortization period | ■ The Overfunded Actuarial Accrued Liability is amortized as a level dollar payment over a rolling (open) 6-year period |
| ■ Asset method | ■ Actuarial value of assets ■ 5-year smoothed market value: Gains/losses recognized over 5 years |
| ■ Inflation | ■ 2.8% |
| ■ Investment Rate of Return | ■ 6.75%, net of investment but not administrative expenses |
| ■ Administrative Expenses | ■ Assumed to equal the actual expenses paid in the prior year, increased 2.8% (same as wage inflation and productivity increases) |
| ■ ACA Excise Tax | ■ Estimated based on blended rates |
| ■ All Other Assumptions | ■ Same assumptions used to calculate the December 31, 2019 Total OPEB Liability |

⁵ GASBS 74 & 75 require this information be reported in the employer's Required Supplementary Information for 10 years or as many years are available upon implementation

⁶ GASBS 82 requires use of pensionable payroll for covered employees for all years

SECTION 5
GASBS 74 & 75 SUPPORTING CALCULATIONS

Recognition of Deferred Outflows and (Inflows)

Differences between Expected and Actual Experience

| Measurement Period: | 2016 | 2017 | 2018 | 2019 | Total |
|--|----------------|--------------|----------------|----------------|-------------|
| ■ Initial amount | \$ (1,832,116) | \$ (164,850) | \$ (4,510,838) | \$ (1,998,306) | |
| ■ Initial recognition period | 9.22 years | 9.55 years | 9.55 years | 9.42 years | |
| ■ Amount recognized in OPEB expense for fiscal year: | | | | | |
| ● 2019 | (198,711) | (17,262) | (472,339) | (212,134) | (900,446) |
| ● 2020 | (198,711) | (17,262) | (472,339) | (212,134) | (900,446) |
| ● 2021 | (198,711) | (17,262) | (472,339) | (212,134) | (900,446) |
| ● 2022 | (198,711) | (17,262) | (472,339) | (212,134) | (900,446) |
| ● 2023 | (198,711) | (17,262) | (472,339) | (212,134) | (900,446) |
| ● 2024 | (198,711) | (17,262) | (472,339) | (212,134) | (900,446) |
| ● Thereafter | (43,717) | (26,754) | (1,204,465) | (725,502) | (2,000,438) |
| ■ Deferred Outflows as of 12/31/19 | 0 | 0 | 0 | 0 | 0 |
| ■ Deferred (Inflows) as of 12/31/19 | (1,037,272) | (113,064) | (3,566,160) | (1,786,172) | (6,502,668) |

Changes of Assumptions

| Measurement Period: | 2016 | 2017 | 2018 | 2019 | Total |
|--|--------------|------------|--------------|--------------|-----------|
| ■ Initial amount | \$ 1,441,631 | \$ 0 | \$ 1,461,354 | \$ 1,186,467 | |
| ■ Initial recognition period | 9.22 years | 9.55 years | 9.55 years | 9.42 years | |
| ■ Amount recognized in OPEB expense for fiscal year: | | | | | |
| ● 2019 | 156,359 | 0 | 153,021 | 125,952 | 435,332 |
| ● 2020 | 156,359 | 0 | 153,021 | 125,952 | 435,332 |
| ● 2021 | 156,359 | 0 | 153,021 | 125,952 | 435,332 |
| ● 2022 | 156,359 | 0 | 153,021 | 125,952 | 435,332 |
| ● 2023 | 156,359 | 0 | 153,021 | 125,952 | 435,332 |
| ● 2024 | 156,359 | 0 | 153,021 | 125,952 | 435,332 |
| ● Thereafter | 34,400 | 0 | 390,207 | 430,755 | 855,362 |
| ■ Deferred Outflows as of 12/31/19 | 816,195 | 0 | 1,155,312 | 1,060,515 | 3,032,022 |
| ■ Deferred (Inflows) as of 12/31/19 | 0 | 0 | 0 | 0 | 0 |

SECTION 5
GASBS 74 & 75 SUPPORTING CALCULATIONS

Recognition of Deferred Outflows and (Inflows)

Projected Versus Actual Earnings on Investments

| Measurement Period: | 2015 | 2016 | 2017 | 2018 | 2019 | Total |
|--|-------------|----------|---------------|-------------|----------------------------|-----------|
| ■ Initial amount | \$3,469,874 | \$53,872 | \$(1,424,052) | \$4,090,739 | \$(3,056,838) ⁷ | |
| ■ Initial recognition period | 5 years | 5 years | 5 years | 5 years | 5 years | |
| ■ Amount recognized in OPEB expense for fiscal year: | | | | | | |
| ● 2019 | 693,974 | 10,774 | (284,810) | 818,148 | (611,368) | 626,718 |
| ● 2020 | 0 | 10,776 | (284,810) | 818,148 | (611,368) | (67,254) |
| ● 2021 | 0 | 0 | (284,812) | 818,148 | (611,368) | (78,032) |
| ● 2022 | 0 | 0 | 0 | 818,147 | (611,368) | 206,779 |
| ● 2023 | 0 | 0 | 0 | 0 | (611,366) | (611,366) |
| ● 2024 | 0 | 0 | 0 | 0 | 0 | 0 |
| ● Thereafter | 0 | 0 | 0 | 0 | 0 | 0 |
| ■ Deferred Outflows/(Inflows) as of 12/31/19 | 0 | 10,776 | (569,622) | 2,454,443 | (2,445,470) | (549,873) |

⁷ Projected earnings of \$3,039,740 (page 14) less actual earnings of \$6,096,578 (page 4) = \$ (3,056,838)

SECTION 5
GASBS 74 & 75 SUPPORTING CALCULATIONS

Components of GASBS 75 OPEB Expense (Income)

| | 2019 |
|--|----------------|
| ■ Service cost | \$ 529,350 |
| ■ Interest on the total OPEB liability including service cost | 1,003,334 |
| ■ Projected earnings on plan investments | (3,039,740) |
| ■ Employee contributions | 0 |
| ■ Administrative expense | 59,015 |
| ■ Change in benefit terms | 0 |
| ■ Recognition of deferred outflows and (inflows) of resources: | |
| ● Difference between expected and actual experience | (900,446) |
| ● Change in assumptions | 435,332 |
| ● Difference between actual and projected earnings on investment | <u>626,718</u> |
| ■ Total OPEB Expense (Income) | \$ (1,286,437) |

Calculation of Interest on the Total OPEB Liability

| | Dollar Amount | Discount Rate | Portion of Year | Interest |
|------------------------------------|--------------------------|--------------------------|----------------------------|-----------------|
| ■ Beginning total OPEB liability | \$ 15,332,156 | 6.75% | 100% | \$ 1,034,921 |
| ■ Plan experience (gain) loss | (1,998,306) | 6.75% | 100% | (134,886) |
| ■ Assumption changes (gain) loss | 1,186,467 | 6.75% | 100% | 80,087 |
| ■ Change in benefit terms | 0 | 6.75% | 100% | 0 |
| ■ Service cost | 529,350 | 6.75% | 100% | 35,731 |
| ■ Benefit payments | (370,933) | 6.75% | 50% | <u>(12,519)</u> |
| ■ Interest on total OPEB liability | | | | \$ 1,003,334 |

Calculation of Projected Earnings on OPEB Plan Investments

| | Dollar Amount | Expected Return | Portion of Year | Projected Earnings |
|-------------------------------------|--------------------------|----------------------------|----------------------------|-------------------------------|
| ■ Beginning fiduciary net position | \$ 45,248,167 | 6.75% | 100% | \$ 3,054,251 |
| ■ Employer contributions | 0 | 6.75% | 0% | 0 |
| ■ Employee contributions | 0 | 6.75% | 50% | 0 |
| ■ Benefit payments | (370,933) | 6.75% | 50% | (12,519) |
| ■ Administrative expenses | (59,015) | 6.75% | 50% | <u>(1,992)</u> |
| ■ Projected earnings on investments | | | | \$ 3,039,740 |

SECTION 5
GASBS 74 & 75 SUPPORTING CALCULATIONS

GASBS 75 Balance Equation

| | 12/31/18 | 12/31/19 | Change |
|----------------------------------|-------------------|-----------------|----------------|
| ■ Total OPEB Liability | \$ 15,332,156 | \$ 15,682,068 | \$ 349,912 |
| ■ Fiduciary Net Position | <u>45,248,167</u> | 50,914,797 | 5,666,630 |
| ■ Net OPEB Liability (Asset) | (29,916,011) | \$ (35,232,729) | \$ (5,316,718) |
| ■ Deferred inflows of resources | 5,404,808 | 7,052,541 | 1,647,733 |
| ■ Deferred outflows of resources | (5,414,570) | (3,032,022) | 2,382,548 |
| ■ Employer contributions | <u>0</u> | <u>0</u> | <u>0</u> |
| ■ Net impact on balance sheet | (29,925,773) | \$ (31,212,210) | \$ (1,286,437) |

Check:

OPEB expense (income) for year \$ (1,286,437)

SECTION 5
GASBS 74 & 75 SUPPORTING CALCULATIONS

Discount Rate Crossover Test
Projection of Contributions (Amounts in 000's)

| Year | Payroll | Employer Contributions for Current Employees | Employee Contributions for Current Employees | Contributions from Payroll of Future Employees | Total Contributions |
|-------------|----------------|---|---|---|----------------------------|
| 1 | \$ 38,197 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| 2 | 36,341 | 0 | 0 | 0 | 0 |
| 3 | 34,664 | 0 | 0 | 0 | 0 |
| 4 | 33,082 | 0 | 0 | 0 | 0 |
| 5 | 31,526 | 0 | 0 | 0 | 0 |
| 6 | 30,026 | 0 | 0 | 0 | 0 |
| 7 | 28,549 | 0 | 0 | 0 | 0 |
| 8 | 27,156 | 0 | 0 | 0 | 0 |
| 9 | 25,743 | 0 | 0 | 0 | 0 |
| 10 | 24,326 | 0 | 0 | 0 | 0 |
| 11 | 22,793 | 0 | 0 | 0 | 0 |
| 12 | 21,415 | 0 | 0 | 0 | 0 |
| 13 | 20,052 | 0 | 0 | 0 | 0 |
| 14 | 18,710 | 0 | 0 | 0 | 0 |
| 15 | 17,528 | 0 | 0 | 0 | 0 |
| 16 | 16,377 | 0 | 0 | 0 | 0 |
| 17 | 15,204 | 0 | 0 | 0 | 0 |
| 18 | 14,061 | 0 | 0 | 0 | 0 |
| 19 | 12,907 | 0 | 0 | 0 | 0 |
| 20 | 11,780 | 0 | 0 | 0 | 0 |
| * | * | * | * | * | * |
| 44 | 42 | 0 | 0 | 0 | 0 |
| 45 | 12 | 0 | 0 | 0 | 0 |
| 46 | 0 | 0 | 0 | 0 | 0 |
| 47 | 0 | 0 | 0 | 0 | 0 |
| 48 | 0 | 0 | 0 | 0 | 0 |
| * | * | * | * | * | * |
| 83 | 0 | 0 | 0 | 0 | 0 |
| 84 | 0 | 0 | 0 | 0 | 0 |
| 85 | 0 | 0 | 0 | 0 | 0 |
| 86 | 0 | 0 | 0 | 0 | 0 |
| 87 | 0 | 0 | 0 | 0 | 0 |
| 88 | 0 | 0 | 0 | 0 | 0 |
| 89 | 0 | 0 | 0 | 0 | 0 |
| 90 | 0 | 0 | 0 | 0 | 0 |
| 91 | 0 | 0 | 0 | 0 | 0 |
| 92 | 0 | 0 | 0 | 0 | 0 |

* Note: Years 21 to 43, 49 to 82, and 93+ omitted.

SECTION 5
GASBS 74 & 75 SUPPORTING CALCULATIONS

Discount Rate Crossover Test
Projection of Fiduciary Net Position (Amounts in 000's)

| Year | Projected Beginning Fiduciary Net Position | Projected Total Contributions | Projected Benefit Payments | Projected Administrative Expense | Projected Investment Earnings | Projected Ending Fiduciary Net Position |
|-------------|---|--|---|---|--|--|
| 1 | \$ 50,915 | \$ 0 | \$ 347 | \$ 56 | \$ 3,423 | \$ 53,935 |
| 2 | 53,935 | 0 | 450 | 53 | 3,624 | 57,056 |
| 3 | 57,056 | 0 | 593 | 51 | 3,830 | 60,242 |
| 4 | 60,242 | 0 | 687 | 48 | 4,041 | 63,548 |
| 5 | 63,548 | 0 | 774 | 46 | 4,262 | 66,990 |
| 6 | 66,990 | 0 | 859 | 44 | 4,491 | 70,578 |
| 7 | 70,578 | 0 | 956 | 42 | 4,730 | 74,310 |
| 8 | 74,310 | 0 | 1,000 | 40 | 4,981 | 78,251 |
| 9 | 78,251 | 0 | 1,069 | 38 | 5,245 | 82,389 |
| 10 | 82,389 | 0 | 1,214 | 36 | 5,519 | 86,658 |
| 11 | 86,658 | 0 | 1,310 | 33 | 5,804 | 91,119 |
| 12 | 91,119 | 0 | 1,326 | 31 | 6,105 | 95,867 |
| 13 | 95,867 | 0 | 1,388 | 29 | 6,423 | 100,873 |
| 14 | 100,873 | 0 | 1,444 | 27 | 6,759 | 106,161 |
| 15 | 106,161 | 0 | 1,532 | 26 | 7,113 | 111,716 |
| 16 | 111,716 | 0 | 1,582 | 24 | 7,487 | 117,597 |
| 17 | 117,597 | 0 | 1,619 | 22 | 7,882 | 123,838 |
| 18 | 123,838 | 0 | 1,616 | 21 | 8,304 | 130,505 |
| 19 | 130,505 | 0 | 1,644 | 19 | 8,753 | 137,595 |
| 20 | 137,595 | 0 | 1,736 | 17 | 9,229 | 145,071 |
| * | * | * | * | * | * | * |
| 44 | 543,681 | 0 | 1,925 | 0 | 36,633 | 578,389 |
| 45 | 578,389 | 0 | 1,914 | 0 | 38,977 | 615,452 |
| 46 | 615,452 | 0 | 1,894 | 0 | 41,479 | 655,037 |
| 47 | 655,037 | 0 | 1,866 | 0 | 44,152 | 697,323 |
| 48 | 697,323 | 0 | 1,830 | 0 | 47,007 | 742,500 |
| * | * | * | * | * | * | * |
| 83 | 6,705,164 | 0 | 17 | 0 | 452,598 | 7,157,745 |
| 84 | 7,157,745 | 0 | 12 | 0 | 483,147 | 7,640,880 |
| 85 | 7,640,880 | 0 | 8 | 0 | 515,759 | 8,156,631 |
| 86 | 8,156,631 | 0 | 6 | 0 | 550,572 | 8,707,197 |
| 87 | 8,707,197 | 0 | 4 | 0 | 587,736 | 9,294,929 |
| 88 | 9,294,929 | 0 | 2 | 0 | 627,408 | 9,922,335 |
| 89 | 9,922,335 | 0 | 2 | 0 | 669,758 | 10,592,091 |
| 90 | 10,592,091 | 0 | 1 | 0 | 714,966 | 11,307,056 |
| 91 | 11,307,056 | 0 | 1 | 0 | 763,226 | 12,070,281 |
| 92 | 12,070,281 | 0 | 0 | 0 | 814,744 | 12,885,025 |

* Note: Years 21 to 43, 49 to 82, and 93+ omitted.

SECTION 5
GASBS 74 & 75 SUPPORTING CALCULATIONS

Discount Rate Crossover Test
Present Values of Projected Benefit Payments (Amounts in 000's)

| Year | Proj. Begin. Fiduciary Net Position | Projected Benefit Payments | "Funded" Portion of Benefit Payments | "Unfunded " Portion of Benefit Payments | PV of "Funded" Benefit Payments | PV of "Unfunded" Benefit Payments | PV Benefit Payments @ 6.75% |
|-------------|--|---|---|--|--|--|--|
| 1 | \$ 50,915 | \$ 347 | \$ 347 | \$ 0 | \$ 305 | \$ 0 | \$ 305 |
| 2 | 53,935 | 450 | 450 | 0 | 370 | 0 | 370 |
| 3 | 57,056 | 593 | 593 | 0 | 456 | 0 | 456 |
| 4 | 60,242 | 687 | 687 | 0 | 495 | 0 | 495 |
| 5 | 63,548 | 774 | 774 | 0 | 523 | 0 | 523 |
| 6 | 66,990 | 859 | 859 | 0 | 544 | 0 | 544 |
| 7 | 70,578 | 956 | 956 | 0 | 567 | 0 | 567 |
| 8 | 74,310 | 1,000 | 1,000 | 0 | 555 | 0 | 555 |
| 9 | 78,251 | 1,069 | 1,069 | 0 | 556 | 0 | 556 |
| 10 | 82,389 | 1,214 | 1,214 | 0 | 592 | 0 | 592 |
| 11 | 86,658 | 1,310 | 1,310 | 0 | 598 | 0 | 598 |
| 12 | 91,119 | 1,326 | 1,326 | 0 | 567 | 0 | 567 |
| 13 | 95,867 | 1,388 | 1,388 | 0 | 556 | 0 | 556 |
| 14 | 100,873 | 1,444 | 1,444 | 0 | 542 | 0 | 542 |
| 15 | 106,161 | 1,532 | 1,532 | 0 | 539 | 0 | 539 |
| 16 | 111,716 | 1,582 | 1,582 | 0 | 521 | 0 | 521 |
| 17 | 117,597 | 1,619 | 1,619 | 0 | 500 | 0 | 500 |
| 18 | 123,838 | 1,616 | 1,616 | 0 | 467 | 0 | 467 |
| 19 | 130,505 | 1,644 | 1,644 | 0 | 445 | 0 | 445 |
| 20 | 137,595 | 1,736 | 1,736 | 0 | 440 | 0 | 440 |
| * | * | * | * | * | * | * | * |
| 44 | 543,681 | 1,925 | 1,925 | 0 | 102 | 0 | 102 |
| 45 | 578,389 | 1,914 | 1,914 | 0 | 95 | 0 | 95 |
| 46 | 615,452 | 1,894 | 1,894 | 0 | 88 | 0 | 88 |
| 47 | 655,037 | 1,866 | 1,866 | 0 | 81 | 0 | 81 |
| 48 | 697,323 | 1,830 | 1,830 | 0 | 75 | 0 | 75 |
| * | * | * | * | * | * | * | * |
| 83 | 6,705,164 | 17 | 17 | 0 | 0 | 0 | 0 |
| 84 | 7,157,745 | 12 | 12 | 0 | 0 | 0 | 0 |
| 85 | 7,640,880 | 8 | 8 | 0 | 0 | 0 | 0 |
| 86 | 8,156,631 | 6 | 6 | 0 | 0 | 0 | 0 |
| 87 | 8,707,197 | 4 | 4 | 0 | 0 | 0 | 0 |
| 88 | 9,294,929 | 2 | 2 | 0 | 0 | 0 | 0 |
| 89 | 9,922,335 | 2 | 2 | 0 | 0 | 0 | 0 |
| 90 | 10,592,091 | 1 | 1 | 0 | 0 | 0 | 0 |
| 91 | 11,307,056 | 1 | 1 | 0 | 0 | 0 | 0 |
| 92 | 12,070,281 | 0 | 0 | 0 | 0 | 0 | 0 |
| * | * | * | * | * | * | * | * |
| Total | | | | \$ 0 | \$ 17,046 | \$ 0 | \$ 17,046 |

* Note: Years 21 to 43, 49 to 82, and 93+ omitted.

