

# ADAMS COUNTY RETIREMENT PLAN ACTUARIAL VALUATION REPORT AS OF JANUARY 1, 2014



May 28, 2014

Ms. Pamela Mathisen
Plan Administrator
Adams County
4430 South Adams County Parkway, Suite C3406
Brighton, CO 80601-8202

#### Re: Actuarial Valuation of the Adams County Retirement Plan as of January 1, 2014

Dear Pam:

We are pleased to present our Report on the actuarial valuation of the Adams County Retirement Plan as of January 1, 2014.

This Report presents the results of the January 1, 2014 actuarial valuation of the Adams County Retirement Plan. The Report describes the current actuarial condition of the Adams County Retirement Plan, determines the annual required contribution (ARC), and analyzes changes in these required rates. In addition, the Report provides information required in connection with Governmental Accounting Standards Board Statement No. 25 (GASB 25) and No. 27 (GASB 27), and it provides various summaries of the data.

We certify that the information included herein and contained in our January 1, 2014 Actuarial Valuation Report is accurate and fairly presents the actuarial position of the Adams County Retirement Plan as of the valuation date.

All of our work conforms with generally accepted actuarial principles and practices, and to the Actuarial Standards of Practice issued by the Actuarial Standards Board. In our opinion, our calculations also comply with the requirements of, where applicable, the Internal Revenue Code, ERISA, and the Statements of the Governmental Accounting Standards Board.

The valuation was based upon information, furnished by the Plan, concerning Plan benefits, financial transactions, active members, terminated members, retirees and beneficiaries. We checked for internal and year-to-year consistency, but did not otherwise audit the data. This letter and these calculations are not intended as legal or accounting advice, and we would recommend review by legal counsel for the compliance of these calculations with all relevant agreements.

The valuation results summarized in this report involve actuarial calculations that require assumptions about future events for the Pension Plan. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following:

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plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law.

We believe that the assumptions and methods used in this report are reasonable and appropriate for the purpose for which they have been used. However, other assumptions and methods could also be reasonable and could result in materially different results. In addition, because it is not possible or practical to consider every possible contingency, we may use summary information, estimates or simplifications of calculations to facilitate the modeling of future events. We may also exclude factors or data that are deemed to be immaterial.

The actuarial calculations were prepared for purposes of complying with the requirements of Statements No. 25 and No. 27 of the Governmental Accounting Standards Board (GASB). The calculations reported herein have been made on a basis consistent with our understanding of these accounting standards. Determinations of the liability associated with the benefits described in this report for purposes other than satisfying Adams County's financial reporting requirements may produce significantly different results. This report may be provided to parties other than Adams County only in its entirety and only with the permission of Adams County but should not be relied on for any purpose other than the purpose described within this report.

#### Certification

The undersigned are independent actuaries and consultants. Leslie Thompson and Diane Hunt are Enrolled Actuaries and are Members of the American Academy of Actuaries, and meet the Qualification Standards of the American Academy of Actuaries. Finally, both of the undersigned are experienced in performing valuations for large public retirement systems.

Respectfully submitted,

Gabriel, Roeder, Smith & Company

Leslie Thompson, FSA, FCA, EA, MAAA

Senior Consultant

Acrive L. Hunt

Diane Hunt, FSA, FCA, EA, MAAA

Consultant

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IMPACT OF BENEFIT AND ASSUMPTION CHANGES

I



#### **Actuarial Valuation**

Valuations are prepared annually, as of January 1 of each year, the first day of the fiscal year. The primary purposes of the valuation report are to measure the plan's liabilities, to determine the required contribution rate and to analyze changes in the Adams County Retirement Plan's actuarial position.

In addition, the report provides information in connection with Governmental Accounting Standards Board Statement Nos. 25 and 27 (GASB 25 and GASB 27), and it provides summaries of the member data, financial data, plan provisions, and actuarial assumptions and methods.

#### **Financing Objectives**

The Adams County Retirement Plan is supported by member contributions, employer contributions, and net earnings on the investments of the fund. Contribution rates are set in ordinance, currently at 8.75% and increasing to 9.00% in 2015, for members and employers.

The combined member and employer contributions are intended to be sufficient to pay the normal cost and to amortize the Unfunded Actuarial Accrued Liability (UAAL) over a period of 30 years from the valuation date.

#### **Progress toward Realization of Financing Objectives**

The UAAL/(surplus) and the funded ratio (ratio of the actuarial value of assets to the actuarial accrued liability) illustrate the progress toward the realization of certain financing objectives. Based on the actuarial valuation as of January 1, 2014, the Plan has an unfunded liability of \$165.66 million and a funded ratio of 56.4%. The funded ratio increased from 51.5% to 56.4% and the Net Employer Annual Required Contribution decreased, from 20.38% of pay, to 15.09% of pay.

The net employer Annual Required Contribution as a percentage of pay for the year beginning January 1, 2014 is 15.09%. The expected County contribution is 8.75% of pay which creates a contribution shortfall of 6.34% of pay.

#### **Experience During the Year**

The plan experienced a liability gain of \$1.54 million during fiscal year 2013 before the change due to the assumption and benefit provision changes. This gain was largely due to salary increases less than expected. The plan experienced an actuarial asset gain of \$3.56 million during fiscal year 2013. This gain was due to the actuarial value of assets earnings a return greater than the assumed 7.5% return. The overall result was an unfunded liability \$5.09 million less than expected at January 1, 2014.

#### **Assumptions and methods**

There have been several changes in actuarial assumptions since the prior valuation including updates to the mortality, decreases to individual salary increases, and changes to the retirement and termination rates. The assumptions have been selected by the Adams County Board of Retirement based upon the actuary's analysis and recommendations from the 2013 Experience Study.

The assumption changes increased the accrued liability by \$3.0 million and increased the total annual required contribution by 0.07%. These assumptions and methods are detailed in Section H of this Report and the impact is shown in Section I in more detail.

The results of any actuarial valuation are dependent upon the actuarial assumptions used. Actual results can and almost certainly will differ, as actual experience deviates from the assumptions. Even seemingly minor changes in the assumptions can materially change the liabilities, calculated contribution rates and funding periods. The actuarial calculations presented in this Report are intended to provide information for rational decision making.

#### **Benefit Provisions**

All of the benefit provisions reflected in this valuation are those which were in effect on January 1, 2014. Beginning January 1, 2014, employee and employer contribution rates were increased from 8.50% to 8.75%.

On December 19, 2012, the Adams County Retirement Board adopted a resolution effective January 1, 2014, with changes in benefit provisions to the plan. These changes affect prospective service only for Tier 1 and Tier 2 members:

- Benefit accruals of 1.75% of Career Compensation earned on or after January 1, 2014.
- For members taking a refund of contributions, the County match percentage will not apply to any contributions made on or after January 1, 2014.

The benefit changes reduced liabilities by \$30.2 million and reduced the Total Annual Required Contribution by 3.87% of pay.

Additional detail regarding the impact of these changes is shown in Section I.

The benefit provisions are summarized in Section D of our Report.

#### **Data**

Adams County staff supplied data for retired, active and inactive members as of January 1, 2014. We did not audit this data, but we did apply a number of tests to the data, and we have concluded

that the data is reasonable and consistent with the prior year's data. Adams County staff also supplied asset data as of January 1, 2014.

#### **Financial Position**

Due largely to the benefit changes enacted effective January 1, 2014 and to the investment gains on the actuarial value of assets, the funded ratio increased from January 1, 2013 to January 1, 2014. The market value returned investment gains and as a result the funded ratio on a market value basis increased as well.

| Funded Status Summary (\$ in millions) |                 |                 |  |  |  |  |  |
|--|-----------------|-----------------|--|--|--|--|--|
| Valuation Date                         | January 1, 2014 | January 1, 2013 |  |  |  |  |  |
|  |                 |                 |  |  |  |  |  |
| Accrued Liability                      | \$379.8         | \$386.8         |  |  |  |  |  |
| Actuarial Value of Assets (smoothed)   | 214.1           | 199.1           |  |  |  |  |  |
| Unfunded Accrued Liability             | \$165.7         | \$187.8         |  |  |  |  |  |
| Funded Ratio (AVA basis)               | 56.4%           | 51.5%           |  |  |  |  |  |
| Market Value of Assets                 | \$224.3         | \$199.7         |  |  |  |  |  |
| Unfunded Accrued Liability             | \$155.5         | \$187.1         |  |  |  |  |  |
| Funded Ratio (MVA basis)               | 59.1%           | 51.6%           |  |  |  |  |  |
| Market Value Rate of Return            | 14.1%           | 12.1%           |  |  |  |  |  |
| Actuarial Value Rate of Return         | 9.3%            | 0.4%            |  |  |  |  |  |

Investment gains reduced the Total Annual Required Contribution by roughly 0.27%. Liability gains reduced the Total Annual Required Contribution by approximately 0.12%. The Employer Net Annual Required Contribution of 20.38% of pay for Fiscal Year 2013 and 15.09% of pay for Fiscal Year 2014 are based on contributions being made throughout the year, consistent with the funding policy of the Plan.

| Contribution Requirement Summary All Numbers Reported Middle of Year, Percent of Pay  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|
| Fiscal Year Beginning January 1, 2014 January 1, 2013   |  |  |  |  |  |  |  |
| Total Annual Required Contribution Estimated Member Contribution Net Annual Required Contribution Mid-Year Estimated County Contribution Contribution Shortfall | 28.88%<br>8.50%<br>20.38%<br>8.50%<br>11.88% |  |  |  |  |  |  |

## Exhibit A.1 Adams County Retirement Plan Executive Summary

| 1. Annual Required Contribution a. Total \$ 24,338,999 \$           | y 1, 2013<br>27,856,681<br>19,659,013 |
|---|---------------------------------------|
| a. Total \$ 24,338,999 \$ 5 . Net Employer Contribution 15,406,279  | 19,659,013                            |
| a. Total \$ 24,338,999 \$ 5 5. Net Employer Contribution 15,406,279 | 19,659,013                            |
| b. Net Employer Contribution 15,406,279                             | 19,659,013                            |
| ÷ · 7   |                                       |
|   | 20.38%                                |
| 2. Funded Status  |                                       |
| a. Actuarial Accrued Liability \$ 379,802,962 \$ 3                  | 86,835,357                            |
| b. Actuarial Value of Assets (AVA) 214,140,815                      | 99,076,191                            |
| c. Unfunded Liability (AVA-basis) 165,662,147 1                     | 87,759,166                            |
| d. Funded Ratio (AVA-basis) 56.4%                                   | 51.5%                                 |
| e. Market Value of Assets (MVA) \$ 224,301,114 \$ 1                 | 99,741,510                            |
| f. Unfunded Liability (MVA-basis) 155,501,848 1                     | 87,093,847                            |
| g. Funded Ratio (MVA-basis) 59.1%                                   | 51.6%                                 |
| 3. Summary of Census Data   |                                       |
| a. Actives  |                                       |
| i. Counts 1,830   | 1,753                                 |
| ii. Total Annual Projected Compensation \$ 102,088,234 \$           | 96,443,158                            |
| iii. Average Projected Compensation 55,786                          | 55,016                                |
| iv. Average Age 44.4  | 44.5                                  |
| v. Average Service 9.4  | 9.7                                   |
| b. Members with Refunds Due Counts 128                              | 114                                   |
| c. Deferred Vested Member Counts 178                                | 156                                   |
| d. Retired Member Counts 747  | 697                                   |
| e. Beneficiary Counts 93  | 99                                    |
| f. Disabled Retiree Counts  | 27                                    |
| g. Total Members Included in Valuation 3,003                        | 2,846                                 |



| Exhibit B.1 Adams County Retirement Plan Actuarial Valuation Results Accrued Accrued Liability |     |               |     |               |  |  |  |
|--|-----|---------------|-----|---------------|--|--|--|
|  | Jan | nuary 1, 2014 | Jan | nuary 1, 2013 |  |  |  |
| 1. Active Members  |     |               |     |               |  |  |  |
| a. Retirement Benefits   | \$  | 175,993,199   | \$  | 205,089,684   |  |  |  |
| b. Withdrawal Benefits   |     | (1,052,546)   |     | (134,600)     |  |  |  |
| c. Refund Benefits   |     | (5,232,208)   |     | (6,733,059)   |  |  |  |
| d. Disability Benefits   |     | 8,130,131     |     | 9,029,761     |  |  |  |
| e. Death Benefits  |     | 2,638,154     |     | 2,531,371     |  |  |  |
| f. Total   | \$  | 180,476,730   | \$  | 209,783,157   |  |  |  |
| 2. Members with Deferred Benefits  | \$  | 9,313,722     | \$  | 8,592,964     |  |  |  |
| 3. Members Receiving Benefits  | \$  | 190,012,510   | _\$ | 168,459,236   |  |  |  |
| 4. Total   | \$  | 379,802,962   | \$  | 386,835,357   |  |  |  |
| 5. Actuarial Value of Assets   | \$  | 214,140,815   | \$  | 199,076,191   |  |  |  |
| 6. Unfunded Actuarial Accrued Liability  | \$  | 165,662,147   | \$  | 187,759,166   |  |  |  |

| Exhibit B.2 Adams County Retirement Plan Actuarial Valuation Results Normal Cost |     |                                  |          |                                  |  |  |  |
|--|-----|----------------------------------|----------|----------------------------------|--|--|--|
|  | Jan | uary 1, 2014                     | Jan      | uary 1, 2013                     |  |  |  |
| Total Dollar Normal Cost     a. Retirement Benefits     b. Withdrawal Benefits   | \$  | 7,358,876<br>2,458,128           | \$       | 8,527,095<br>3,057,465           |  |  |  |
| c. Disability Benefits d. Death Benefits e. Total                                |     | 452,901<br>234,891<br>10,504,796 |          | 563,006<br>184,463<br>12,332,029 |  |  |  |
| 2. Normal Cost as a Percentage of Pay  | Ψ   | 10.29%                           | <b>)</b> | 12.79%                           |  |  |  |
| 3. Normal Cost as a Percentage of Pay by Tier a. Tier 1 b. Tier 2 c. Tier 3      |     | 12.11%<br>10.40%<br>6.88%        |          | 14.19%<br>13.56%<br>6.67%        |  |  |  |

4. Total

#### Exhibit B.3 **Adams County Retirement Plan Actuarial Valuation Results Present Value of Projected Benefits** January 1, 2014 **January 1, 2013** 1. Active Members a. Retirement Benefits 232,655,990 275,551,315 \$ b. Withdrawal Benefits 14,393,304 19,238,336 c. Disability Benefits 11,298,442 13,188,120 d. Death Benefits 4,561,769 4,020,944 262,909,505 e. Total \$ \$ 311,998,715 2. Members with Deferred Benefits \$ 9,313,722 \$ 8,592,964 3. Members Receiving Benefits \$ 190,012,510 \$ 168,459,236

\$

462,235,737

\$

489,050,915

### Exhibit B.4 Adams County Retirement Plan Development of the Annual Required Contribution

| Fiscal Year Beginning January 1, 2014 January 1, 2013                  |      |  |        |               |                   |  |  |  |
|--|------|--|--------|---------------|-------------------|--|--|--|
| Fiscal Year Beginning  |      | January 1, 2014  Dollar Percent of Pay |        | Dollar        | Percent<br>of Pay |  |  |  |
| 1. Total Normal Cost   | \$   | 10,504,796                             | 10.29% | \$ 12,332,029 | 12.79%            |  |  |  |
| Amortization of Unfunded Actuarial     Accrued Liability Over 30 Years |      | 13,048,203                             | 12.78% | 14,788,652    | 15.33%            |  |  |  |
| 3. Assumed Administrative Expenses                                     |      | 786,000                                | 0.77%  | 736,000       | 0.76%             |  |  |  |
| 4. Annual Required Contribution (ARC)                                  | \$   | 24,338,999                             | 23.84% | \$ 27,856,681 | 28.88%            |  |  |  |
| 5. Estimated Member Contribution                                       |      | 8,932,720                              | 8.75%  | 8,197,668     | 8.50%             |  |  |  |
| 6. Net ARC Mid-Year  | \$   | 15,406,279                             | 15.09% | \$ 19,659,013 | 20.38%            |  |  |  |
| 7. Estimated County Contribution Mid-Year                              |      | 8,932,720                              | 8.75%  | 8,197,668     | 8.50%             |  |  |  |
| 8. Contribution Shortfall  | \$   | 6,473,559                              | 6.34%  | \$ 11,461,345 | 11.88%            |  |  |  |
| 9. Annual Projected Payroll  | \$ 1 | 102,088,234                            |        | \$ 96,443,158 |                   |  |  |  |

| Exhibit B.5 Adams County Retirement Plan Plan Experience for Fiscal Year 2013 |    |              |  |  |  |  |
|---|----|--------------|--|--|--|--|
| Liabilities   |    |              |  |  |  |  |
| 1. Actuarial Accrued Liability at January 1, 2013                             | \$ | 386,835,357  |  |  |  |  |
| 2. Normal Cost at January 1, 2013   |    | 12,332,029   |  |  |  |  |
| 3. Benefit Payments during Fiscal Year 2013                                   |    | 19,421,484   |  |  |  |  |
| 4. Interest on Items 1-3 to End of Year                                       |    | 28,746,797   |  |  |  |  |
| 5. Change in Actuarial Accrued Liability Due to Assumption Changes            |    | 3,017,216    |  |  |  |  |
| 6. Change in Actuarial Accrued Liability Due to Provision Changes             |    | (30,167,613) |  |  |  |  |
| 7. Expected Actuarial Accrued Liability at January 1, 2014                    |    | 381,342,302  |  |  |  |  |
| 8. Actual Actuarial Accrued Liability at January 1, 2014                      |    | 379,802,962  |  |  |  |  |
| 9. Liability Gain/(Loss)  |    | 1,539,340    |  |  |  |  |
| Assets  |    |              |  |  |  |  |
| 10. Actuarial Value of Assets at January 1, 2013                              | \$ | 199,076,191  |  |  |  |  |
| 11. Benefit Payments and Expenses during Fiscal Year 2013                     |    | 20,220,235   |  |  |  |  |
| 12. Contributions during Fiscal Year 2013                                     |    | 16,922,820   |  |  |  |  |
| 13. Interest on Items 10-12 to End of Year                                    |    | 14,807,061   |  |  |  |  |
| 14. Expected Actuarial Value of Assets at January 1, 2014                     |    | 210,585,837  |  |  |  |  |
| 15. Actual Actuarial Value of Assets at January 1, 2014                       |    | 214,140,815  |  |  |  |  |
| 16. Asset Gain/(Loss)   |    | 3,554,978    |  |  |  |  |
| Total   |    |              |  |  |  |  |
| 17. Total Gain/(Loss)   | \$ | 5,094,318    |  |  |  |  |

## SECTION C PLAN ASSETS

### Exhibit C.1 Adams County Retirement Plan Statement of Plan Net Assets

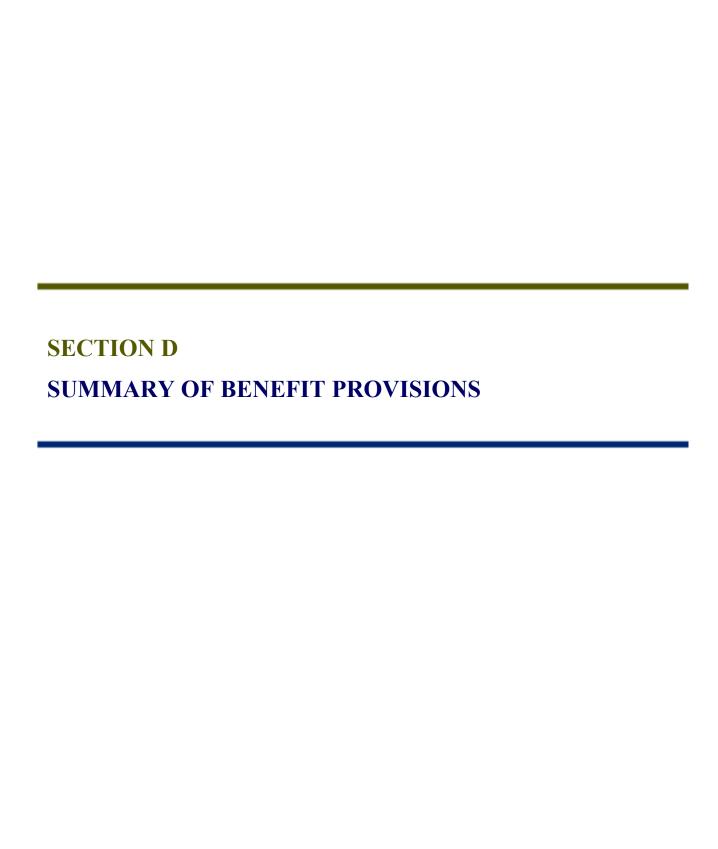
|   | Dogo | mbo # 21 2012 | Dogo | mbor 21 2012  |
|---|------|---------------|------|---------------|
| Assets  | Dece | mber 31, 2013 | Dece | mber 31, 2012 |
| Investments, at fair value:                           |      |               |      |               |
| Cash  | \$   | 20,966        | \$   | 18,987        |
| Money market funds and cash equivalents               | Ψ    | 3,983,373     | Ψ    | 3,672,428     |
| U.S. Government obligations                           |      | 3,937,065     |      | 7,054,887     |
| Foreign bonds   |      | 890,935       |      | 1,371,742     |
| Corporate bonds                                       |      | 8,314,515     |      | 14,605,081    |
| Municipal bonds                                       |      | 431,630       |      | 721,298       |
| Equity securities                                     |      | 20,863,820    |      | 16,209,745    |
| Foreign equity securities                             |      | 20,003,020    |      | 351,954       |
| Real estate   |      | 22,871,790    |      | 19,256,868    |
| Hedge funds of funds                                  |      | 30,589,860    |      | 28,378,723    |
| Partnerships/joint ventures                           |      | 17,566,276    |      | 6,753,848     |
| Mutual funds  |      | 114,856,270   |      | 101,286,005   |
| Total cash and investments                            | \$   | 224,326,500   | \$   | 199,681,566   |
| Receivables:  |      |               |      |               |
| Dividends and Interest                                |      | 143,749       |      | 246,704       |
| Other Assets:   |      |               |      |               |
| Prepaid insurance for retirees                        |      | -             |      | -             |
| Total assets  | \$   | 224,470,249   | \$   | 199,928,270   |
| Liabilities and net assets held in trust for benefits |      |               |      |               |
| Accrued liabilities                                   |      | 169,135       |      | 186,760       |
| Total payables  | \$   | 169,135       | \$   | 186,760       |
| Net assets held in trust for pension                  |      |               |      |               |
| benefits  | \$   | 224,301,114   | \$   | 199,741,510   |

### Exhibit C.2 Adams County Retirement Plan Statement of Changes in Plan Net Assets

|  | ear Ended<br>mber 31, 2013 | Year Ended<br>December 31, 2012 |             |
|--|----------------------------|---------------------------------|-------------|
| Additions to Net Assets Attributed to:         | <br>                       |                                 |             |
| Contributions:                                 |                            |                                 |             |
| Employer contributions                         | \$<br>8,289,767            | \$                              | 7,533,395   |
| Plan Members contributions                     | 8,289,767                  |                                 | 7,533,416   |
| Plan Members for Purchase of service           | <br>343,286                |                                 | 133,226     |
| Total contributions                            | \$<br>16,922,820           | \$                              | 15,200,037  |
| Investment Income:                             |                            |                                 |             |
| Net appreciation in fair value of investments  | 25,761,023                 |                                 | 18,923,817  |
| Interest                                       | 929,676                    |                                 | 922,589     |
| Dividends                                      | 2,076,824                  |                                 | 2,889,353   |
| Other  | <br>192,412                |                                 | 10,194      |
| Total Investment Income                        | \$<br>28,959,935           | \$                              | 22,745,953  |
| Less Investment expense                        | <br>(1,102,916)            |                                 | (981,500)   |
| Net investment income                          | \$<br>27,857,019           | \$                              | 21,764,453  |
| Total additions                                | \$<br>44,779,839           | \$                              | 36,964,490  |
| <b>Deductions to Net Assets Attributed to:</b> |                            |                                 |             |
| Benefit payments                               | 17,392,107                 |                                 | 16,095,266  |
| Refunds  | 2,029,377                  |                                 | 1,870,042   |
| Administrative expenses                        | <br>798,751                |                                 | 881,694     |
| Total deductions                               | \$<br>20,220,235           | \$                              | 18,847,002  |
| Change in net assets                           | 24,559,604                 |                                 | 18,117,488  |
| Net assets held in trust for benefits:         |                            |                                 |             |
| Beginning of year                              | 199,741,510                |                                 | 181,624,022 |
| End of year                                    | \$<br>224,301,114          | \$                              | 199,741,510 |

| Exhibit C.3 Adams County Retirement Plan Development of the Actuarial Value of Assets |  |                   |                            |                 |   |  |  |  |
|---|--|-------------------|----------------------------|-----------------|---|--|--|--|
|   | Year Ending Item December 31, 2013   |                   |                            |                 |   |  |  |  |
| 1.  | Actuarial value of assets,   | at beginning of y | ear (prior to corridor)    | \$              | 199,076,191                               |  |  |  |
| 2.  | Market value of assets, at   | beginning of year | nr                         |                 | 199,741,510                               |  |  |  |
| 3.  | Net new investments <ul><li>a. Contributions receive</li><li>b. Benefits paid and adr</li><li>c. Net</li></ul> |                   |                            | \$              | 16,922,820<br>(20,220,235)<br>(3,297,415) |  |  |  |
| 1   |  | and of year       |                            |                 |   |  |  |  |
| 4.  | Market value of assets, at   | ·                 |                            | \$              | 224,301,114                               |  |  |  |
| 5.  | Net MVA earnings [ (4)   |                   |                            | \$              | 27,857,019                                |  |  |  |
| 6.  | Assumed investment return  |                   |                            |                 | 7.50%                                     |  |  |  |
| 7.  | Expected return [ $(6)*(2)$ -  |                   | \$                         | 14,856,960      |   |  |  |  |
| 8. Excess return [ (5) - (7) ]  |  |                   |                            |                 | 13,000,059                                |  |  |  |
| 9.  | Expected actuarial value $[(1) + (3c) + (7)]$  | \$                | 210,635,736                |                 |   |  |  |  |
| 10.   | Deferred amounts for fisc  | al year ending D  | ecember 31,                |                 |   |  |  |  |
|   | <u>Year</u>  | Gain/(Loss)       | Percent Deferred           | Amount Deferred |   |  |  |  |
|   | a. 2013  | \$ 13,000,059     | 80%                        | \$              | 10,400,048                                |  |  |  |
|   | b. 2012  | 8,279,413         | 60%                        |                 | 4,967,648                                 |  |  |  |
|   | c. 2011  | (14,722,595)      | 40%                        |                 | (5,889,038)                               |  |  |  |
|   | d. 2010  | 3,408,205         | 20%                        |                 | 681,641                                   |  |  |  |
|   | e. 2009  | 7,560,313         | 0%                         |                 | 0   |  |  |  |
|   | f. Total   | \$ 17,525,395     |                            | \$              | 10,160,299                                |  |  |  |
| 11.   | Asset gain/(loss) to be re   | cognized as of D  | December 31, 2013          |                 | 3,505,079                                 |  |  |  |
| 12.   | 80% of Market Value  |                   |                            | \$              | 179,440,891                               |  |  |  |
| 13.   | 120% of Market Value   |                   |                            | \$              | 269,161,337                               |  |  |  |
| 14.   | Actuarial value of assets [(Item 9 - Item 11), but no  | ot more than Item | n 13 or less than Item 12] | \$              | 214,140,815                               |  |  |  |

| Exhibit C.4  Average Annual Rates of Investment Return |             |              |          |            |  |  |  |  |
|--|-------------|--------------|----------|------------|--|--|--|--|
| Fiscal Year<br>Ended                                   | Actuarial V | <b>Value</b> | Market V | alue       |  |  |  |  |
| December 31,   | Annual      | Cumulative   | Annual   | Cumulative |  |  |  |  |
| 1992   | 10.4 %      | 10.4 %       | 8.1 %    | 8.1 %      |  |  |  |  |
| 1993   | 11.4        | 10.9         | 12.2     | 10.1       |  |  |  |  |
| 1994   | 9.1         | 10.3         | (1.6)    | 6.1        |  |  |  |  |
| 1995   | 12.1        | 10.7         | 22.9     | 10.1       |  |  |  |  |
| 1996   | 11.6        | 10.9         | 12.0     | 10.4       |  |  |  |  |
| 1997   | 13.0        | 11.3         | 17.0     | 11.5       |  |  |  |  |
| 1998   | 12.2        | 11.4         | 9.0      | 11.1       |  |  |  |  |
| 1999   | 12.0        | 11.5         | 4.0      | 10.2       |  |  |  |  |
| 2000   | 8.7         | 11.2         | 2.6      | 9.4        |  |  |  |  |
| 2001   | 6.2         | 10.7         | (1.6)    | 8.2        |  |  |  |  |
| 2002   | (4.5)       | 9.2          | (10.9)   | 6.3        |  |  |  |  |
| 2003   | 9.7         | 9.2          | 22.4     | 7.6        |  |  |  |  |
| 2004   | 4.3         | 8.8          | 11.0     | 7.8        |  |  |  |  |
| 2005   | 4.4         | 8.5          | 6.2      | 7.7        |  |  |  |  |
| 2006   | 7.6         | 8.5          | 14.2     | 8.1        |  |  |  |  |
| 2007   | 11.1        | 8.6          | 8.2      | 8.1        |  |  |  |  |
| 2008   | (7.9)       | 7.6          | (26.2)   | 5.7        |  |  |  |  |
| 2009   | 11.6        | 7.8          | 12.5     | 6.1        |  |  |  |  |
| 2010   | 1.9         | 7.5          | 9.5      | 6.3        |  |  |  |  |
| 2011   | (0.1)       | 7.1          | (0.5)    | 5.9        |  |  |  |  |
| 2012   | 0.4         | 6.8          | 12.1     | 6.2        |  |  |  |  |
| 2013   | 9.3         | 6.9          | 14.1     | 6.6        |  |  |  |  |



#### **SUMMARY OF BENEFIT PROVISIONS**

BASED ON THE PLAN ORIGINALLY EFFECTIVE JULY 1, 1968 AND AMENDED AND RESTATED EFFECTIVE JANUARY 1, 2014

#### **Participation**

Any County Official and any person assigned to a full-time position as defined by Adams County or Rangeview Library District Personnel Policies and Procedures including job-sharing employees shall become a member of the Plan on the first day of the pay period coincident with or following date of employment.

#### **Member Contributions**

Effective January 1, 2014, each member contributes 8.75% of compensation on a monthly basis. The rate will continue to increase by 0.25% each year to 9.0% by 2015. Interest on contributions is credited at a rate of 3.0% per annum compounded monthly.

Pre-2014 Contributions are a member's aggregate contributions made before January 1, 2014 plus interest earned thereon. Post-2013 Contributions are a member's aggregate contributions made on or after January 1, 2014 plus interest.

After December 31, 1983 member contributions are picked up and paid by the County as provided in Code Section 414(h).

#### **County Contributions**

The County will match member contributions.

#### **Credited Service**

All service completed during the elapsed time from the member's date of employment, excluding any breaks in service, to the member's date of termination on the basis of  $1/365^{th}$  year for each day of employment after January 1, 1965, provided an employee joined the plan on the first date eligible. Service prior to January 1, 1970 will be included (up to five years) provided the employee became a Member on the first date of eligibility. Service is credited while a member is on long-term disability as long as no benefits are being paid from the plan.

Credited Service for Head Start employees commences on the later of joining the Plan and September 1, 1990.

#### Service Purchase ("air time")

Eligible members may purchase additional years of service credit for any full-time, non-vested previous employment with any public or private employer in the United States, subject to certain restrictions.

#### **Classification of Tiers**

- *Tier 1* Members hired prior to January 1, 2005
- Tier 2 Members hired on or after January 1, 2005 but before January 1, 2010
- *Tier 3* Members hired on or after January 1, 2010

#### **Compensation**

Compensation is the total regular compensation paid to the member, reflecting the normal regular salary or hourly wage rate, before any payroll deductions for income tax, Social Security, group insurance, or any other purpose, excluding bonuses, extra pay, overtime pay, workers' compensation, single-sum payments received in lieu of accrued vacation and sick leave upon termination of employment or during the course of employment, required contributions by the County under this Plan, or for Social Security, group insurance, retainers' fees under contract, or the like, but including compensation deferred under Sections 125, 403(b), 414(h), or 457 of the Internal Revenue Code.

#### **Final Average Monthly Compensation**

• Tier 1 - Members hired prior to January 1, 2005:

Average of the highest 36 consecutive calendar months of compensation during the last 120 months of employment.

Tier 2 - Members hired on or after January 1, 2005 but before January 1, 2010:

Average of the highest 60 consecutive calendar months of compensation during the last 120 months of employment.

#### **Career Compensation**

• Tier 3 - Members hired on or after January 1, 2010:

Pensionable Compensation from date of participation to retirement.

• Tiers 1 & 2 - Members hired prior to January 1, 2010:

Pensionable Compensation from January 1, 2014 to retirement.

#### **Career Monthly Compensation**

Career Compensation divided by Credited Service accrued during the period. If hired before January 1, 2010 and become disabled before January 1, 2014, special calculations apply.

#### **Accrued Benefit** (Monthly)

Effective January 1, 2014, the accrued benefit for Tier 1 and Tier 2 members is composed of "Component A" benefit plus a "Component B" benefit. Component A shall mean the benefit attributable to service credit earned prior to January 1, 2014. Component B shall mean the benefit attributable to service credit earned on or after January 1, 2014.

Tiers 1 & 2 - Members hired prior to January 1, 2010:

• Component A Benefit::

2.5% of Final Average Monthly Compensation multiplied by Credited Service prior to January 1, 2014 including purchased service.

• *Component B Benefit:* 

Greater of 1.75% of Career Compensation divided by 12, or 1.75% of Career Monthly Compensation times Credited Service earned on or after January 1, 2014.

*Tier 3 - Members hired on or after January 1, 2010:* 

• 1.75% of Career Compensation divided by 12 or 1.75% of Career Monthly Compensation times Credited Service, if greater.

The minimum monthly accrued benefit for all members is \$25 per month per year of Credited Service.

#### **Vested Accrued Benefit**

• Tiers 1 & 2 - Members hired prior to January 1, 2010:

Five years of Credited Service

• *Tier 3 - Members hired on or after January 1, 2010:* 

Ten years of Credited Service

#### Benefit:

100% of the Accrued Benefit determined as of the date of termination. The benefit may be reduced if payment commences before the Normal Retirement Date or the Special Early Retirement Date.

#### **Normal Retirement**

#### Eligibility:

Attainment of age 65.

#### Benefit:

Accrued Benefit up to a maximum of 80% of the members Final Average Monthly Compensation.

#### **Regular Early Retirement**

#### *Eligibility:*

• Tier 1 - Members hired prior to January 1, 2005:

Attainment of age 55 and 5 years of Credited Service.

• Tiers 2 & 3 - Members hired on or after January 1, 2005:

Attainment of age 55 and 10 years of Credited Service.

#### Benefit:

• *Tier 1 - Members hired prior to January 1, 2005:* 

Vested Accrued Benefit determined as of the Early Retirement Date, reduced by 1/6 of 1% for each of the first 36 months and 1/4 of 1% for each additional month payments commence prior to the Normal Retirement Date.

• Tiers 2 & 3 - Members hired on or after July 1, 2005:

Vested Accrued Benefit determined as of the Early Retirement Date, reduced by 1/3 of 1% for each of the first 36 months and 5/12 of 1% for each additional month payments commence prior to the Normal Retirement Date.

#### **Special Early Retirement**

#### *Eligibility:*

• Tier 1 - Members hired prior to January 1, 2005:

Attainment of any age and age plus credited service equals 70 or more at termination.

• Tier 2 - Members hired on or after January 1, 2005 and prior to January 1, 2010:

Attainment of age 50 and age plus credited service equals 70 or more at termination.

• Tier 3 - Members hired on or after January 1, 2010:

Attainment of age 55 and age plus credited service equals 80 or more at termination.

#### Benefit:

Vested Accrued Benefit determined as of the Special Early Retirement Date, unreduced for early payment.

#### **Disability Retirement**

#### *Eligibility:*

Total and permanent disability. Member qualifies for disability under the County's long-term disability plan or under Title II of the Social Security Act.

#### Benefit:

Normal Retirement Benefit considering annual rate of compensation at disability and Credited Service that would have accumulated if employment had continued uninterrupted to the later of the Normal Retirement Date or the date that the County's long-term disability benefits end. Benefits commence at Normal Retirement Date, or if later, the first day of the month after payments cease under the County's long-term disability insurance contract.

#### Termination Benefit

#### *Eligibility:*

• Tiers 1 & 2 - Members hired prior to January 1, 2010:

Members with less than five years of Credited Service receive a refund of the member's contributions. Members who have completed at least five years of Credited Service are eligible to receive their Vested Accrued Benefit payable at Normal Retirement Date.

• Tier 3 - Members hired on or after January 1, 2010:

Members with less than ten years of Credited Service receive a refund of the member's contributions. Members who have completed at least ten years of Credited Service are eligible to receive their Vested Accrued Benefit payable at Normal Retirement Date.

#### Benefit:

Vested Accrued Benefit determined as of the date of termination but not less than the actuarial equivalent value, determined as of the benefit commencement date, of the Accumulated Contributions as of the Normal Retirement Date.

#### **Refund of Accumulated Contributions**

Upon termination prior to any type of retirement, in lieu of a monthly pension benefit, the member may elect to receive a refund of a percentage of the Pre-2014 accumulated contributions (excluding service purchase contributions) according to the following schedule, plus 100% of the Post-2013 accumulated contributions:

|                  | Percent Vested of Pre-2014 Contributions Accumulated At Termination |                 |                   |  |  |  |
|------------------|---|-----------------|-------------------|--|--|--|
| Completed        | Hired Prior to<br>1/1/2005  | Hired 2005-2010 | Hired on or after |  |  |  |
| Years of Service |   |                 | January 1, 2010   |  |  |  |
| Less Than 5      | 100%  | 100%            | 100%              |  |  |  |
| 5                | 110%  | 100%            | 100%              |  |  |  |
| 6                | 125%  | 110%            | 100%              |  |  |  |
| 7                | 140%  | 120%            | 100%              |  |  |  |
| 8                | 155%  | 130%            | 100%              |  |  |  |
| 9                | 170%  | 140%            | 100%              |  |  |  |
| 10               | 185%  | 150%            | 100%              |  |  |  |
| 11               | 200%  | 160%            | 100%              |  |  |  |
| 12               | 200%  | 170%            | 100%              |  |  |  |
| 13               | 200%  | 180%            | 100%              |  |  |  |
| 14               | 200%  | 190%            | 100%              |  |  |  |
| 15 or more       | 200%  | 200%            | 100%              |  |  |  |

#### **Pre-Retirement Death Benefit**

• *Member is single:* 

Beneficiary receives two times member's accumulated contributions at date of death (excluding service purchase contributions).

#### • *Member is married:*

Spouse receives two times member's accumulated contributions at date of death (excluding service purchase contributions); or

A monthly benefit equal to 60% of the member's vested accrued benefit, commencing the first day of the month after the member's death or age 50 (55 for Terminated Vested Members) whichever is later.

#### **Normal Form**

- *Tier 1* 10-year certain and life
- Tier 2 10-year certain and life
- *Tier 3* Single life annuity

#### **Optional Forms**

- 100% joint and survivor annuity
- 50% joint and survivor annuity
- 66-2/3% last survivor annuity
- 100% joint and survivor annuity with pop up
- 50% joint and survivor annuity with pop up
- For members in Tier 1 and Tier 2 only: Single life annuity
- For members in Tier 3 only: 10-year certain and life

#### **Optional Form Conversion Factors**

Optional annuity forms are actuarially equivalent based on 7.50% interest and the 1983 Group Annuity Mortality table blended 50% male and 50% female.

#### **Payment Date**

Benefits are paid on the first of the month following eligibility for receipt.



## Exhibit E.1 Adams County Retirement Plan Summary of Census Data

|   | Jar | nuary 1, 2014 | Jan | January 1, 2013 |  |  |
|---|-----|---------------|-----|-----------------|--|--|
|   |     |               |     |                 |  |  |
| 1. Active Members                                 |     |               |     |                 |  |  |
| a. Counts   |     |               |     |                 |  |  |
| Tier 1  |     | 801           |     | 862             |  |  |
| Tier 2  |     | 481           |     | 546             |  |  |
| Tier 3  |     | 548           |     | 345             |  |  |
| Total   |     | 1,830         |     | 1,753           |  |  |
| b. Annual Projected Compensation                  | \$  | 102,088,234   | \$  | 96,443,158      |  |  |
| c. Average Annual Compensation                    | \$  | 55,786        | \$  | 55,016          |  |  |
| d. Average Age                                    |     | 44.4          |     | 44.5            |  |  |
| e. Average Service                                |     | 9.4           |     | 9.7             |  |  |
| f. Accumulated Member Contributions with Interest | \$  | 66,783,459    | \$  | 63,336,405      |  |  |
| 2. NonVested Members with Refunds Due             |     |               |     |                 |  |  |
| a. Counts   |     | 128           |     | 114             |  |  |
| b. Amount of Refunds Due                          | \$  | 461,119       | \$  | 446,645         |  |  |
| 3. Deferred Vested Members*                       |     |               |     |                 |  |  |
| a. Counts   |     | 178           |     | 156             |  |  |
| b. Annual Deferred Benefits                       | \$  | 2,032,141     | \$  | 1,785,090       |  |  |
| c. Average Benefit                                | \$  | 11,417        | \$  | 11,443          |  |  |
| 4. Retired Members                                |     |               |     |                 |  |  |
| a. Counts   |     | 747           |     | 697             |  |  |
| b. Annual Benefits                                | \$  | 16,515,723    | \$  | 14,987,374      |  |  |
| c. Average Benefit                                | \$  | 22,109        | \$  | 21,503          |  |  |
| 5. Beneficiaries                                  |     |               |     |                 |  |  |
| a. Counts   |     | 93            |     | 99              |  |  |
| b. Annual Benefits                                | \$  | 1,084,792     | \$  | 1,086,269       |  |  |
| c. Average Benefit                                | \$  | 11,664        | \$  | 10,972          |  |  |
| 6. Disabled Retirees                              |     |               |     |                 |  |  |
| a. Counts   |     | 27            |     | 27              |  |  |
| b. Annual Benefits                                | \$  | 487,264       | \$  | 474,807         |  |  |
| c. Average Benefit                                | \$  | 18,047        | \$  | 17,585          |  |  |
| 7. Total Members Included in Valuation            |     | 3,003         |     | 2,846           |  |  |

<sup>\*</sup>Includes 31 deferred disableds in 2014 and 27 deferred disableds in 2013.

Exhibit E.2 Summary of Changes in Participant Status During Fiscal Year 2013

|   | Active  | With Deferred         | With Refunds |          | Disabled |               |       |
|---|---------|-----------------------|--------------|----------|----------|---------------|-------|
|   | Members | Benefits <sup>1</sup> | Due          | Retirees | Retirees | Beneficiaries | Total |
| As of January 1, 2013                     | 1,753   | 156                   | 114          | 697      | 27       | 99            | 2,846 |
| Age retirements                           | (56)    | (5)                   |              | 61       |          |               | 0     |
| Disability retirements                    |         | (1)                   |              |          | 1        |               | 0     |
| Deferred disability                       | (6)     | 6                     |              |          |          |               | 0     |
| Deaths                                    | (1)     | (1)                   |              | (11)     | (1)      | (1)           | (15)  |
| Vested terminations                       | (40)    | 40                    |              |          |          |               | 0     |
| Rehires                                   | 6       | (3)                   | (3)          |          |          |               | 0     |
| Cashouts                                  | (66)    | (14)                  | (31)         | (1)      |          |               | (112) |
| Expiration of benefits                    |         |                       |              |          |          | (10)          | (10)  |
| Terminated nonvested with                 |         |                       |              |          |          |               |       |
| refunds due                               | (31)    |                       | 31           |          |          |               | 0     |
| New Beneficiary                           |         |                       |              |          |          | 5             | 5     |
| New entrants during the year <sup>2</sup> | 271     |                       | 17           | 1        |          |               | 289   |
| Net change                                | 77      | 22                    | 14           | 50       |          | (6)           | 157   |
| As of January 1, 2014                     | 1,830   | 178                   | 128          | 747      | 27       | 93            | 3,003 |

<sup>&</sup>lt;sup>1</sup> Includes 31 deferred disabled members at January 1, 2014.

<sup>&</sup>lt;sup>2</sup> Includes 17 members hired and terminated in 2013 with refunds due.

| Exhibit E.3 Active Member Counts by Age and Service as of January 1, 2014 |         |     |       |       |       |       |         |       |  |
|---|---------|-----|-------|-------|-------|-------|---------|-------|--|
| A 000   | Service |     |       |       |       |       |         |       |  |
| Age   | 0-4     | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | Over 30 | Total |  |
| Under 20  | 0       | 0   | 0     | 0     | 0     | 0     | 0       | -     |  |
| 20-24   | 30      | 2   | 0     | 0     | 0     | 0     | 0       | 32    |  |
| 25-29   | 147     | 22  | 1     | 0     | 0     | 0     | 0       | 170   |  |
| 30-34   | 126     | 98  | 27    | 0     | 0     | 0     | 0       | 251   |  |
| 35-39   | 90      | 91  | 53    | 9     | 0     | 0     | 0       | 243   |  |
| 40-44   | 86      | 81  | 80    | 30    | 8     | 0     | 0       | 285   |  |
| 45-49   | 53      | 56  | 77    | 47    | 17    | 5     | 1       | 256   |  |
| 50-54   | 34      | 41  | 44    | 35    | 25    | 22    | 8       | 209   |  |
| 55-59   | 35      | 41  | 49    | 24    | 25    | 18    | 11      | 203   |  |
| 60-64   | 20      | 26  | 30    | 17    | 15    | 18    | 11      | 137   |  |
| 65-69   | 7       | 8   | 11    | 1     | 2     | 2     | 1       | 32    |  |
| Over 70   | 0       | 1   | 3     | 0     | 2     | 2     | 4       | 12    |  |
| Total   | 628     | 467 | 375   | 163   | 94    | 67    | 36      | 1,830 |  |

| Exhibit E.4 Active Member Average Salary by Age and Service <sup>1</sup> |          |          |          |          |          |          |          |          |  |
|--|----------|----------|----------|----------|----------|----------|----------|----------|--|
| <b>A</b> = 0   | Service  |          |          |          |          |          |          |          |  |
| Age  | 0-4      | 5-9      | 10-14    | 15-19    | 20-24    | 25-29    | Over 30  | Total    |  |
| Under 20   |          |          |          |          |          |          |          |          |  |
| 20-24  | \$39,731 |          |          |          |          |          |          | \$39,545 |  |
| 25-29  | 49,401   | \$44,824 |          |          |          |          |          | 48,828   |  |
| 30-34  | 44,923   | 48,022   | \$51,296 |          |          |          |          | 46,818   |  |
| 35-39  | 47,396   | 54,824   | 58,069   | \$55,119 |          |          |          | 52,792   |  |
| 40-44  | 46,512   | 49,520   | 57,667   | 63,066   | \$76,010 |          |          | 53,069   |  |
| 45-49  | 50,270   | 52,686   | 60,087   | 63,483   | 65,354   | \$83,910 |          | 57,866   |  |
| 50-54  | 42,990   | 48,243   | 49,711   | 58,522   | 66,332   | 75,957   | \$62,439 | 55,043   |  |
| 55-59  | 48,995   | 48,066   | 52,218   | 62,279   | 61,944   | 80,184   | 70,037   | 56,656   |  |
| 60-64  | 45,010   | 55,544   | 48,329   | 61,176   | 59,622   | 62,239   | 74,889   | 56,004   |  |
| 65-69  | 43,730   | 40,922   | 65,767   |          |          |          |          | 56,136   |  |
| Over 70  |          | _        | _        |          |          |          |          | 59,680   |  |
| Total  | \$46,858 | \$50,274 | \$55,462 | \$61,502 | \$64,295 | \$74,862 | \$69,097 | \$53,156 |  |

<sup>&</sup>lt;sup>1</sup> Average Salary not shown if group contains less than five members

| Exhibit E.5 10-Year Projected Benefit Payments (Closed Group) |    |            |    |            |    |            |
|---|----|------------|----|------------|----|------------|
| Fiscal Year<br>Ended<br>December 31,                          |    | Actives    |    | Inactives  |    | Total      |
| 2014  | \$ | 1,652,732  | \$ | 18,242,054 | \$ | 19,894,786 |
| 2015  | Ψ  | 3,458,197  | Ψ  | 18,148,379 | Ψ  | 21,606,576 |
| 2016  |    | 5,025,975  |    | 18,051,515 |    | 23,077,490 |
| 2017  |    | 6,631,250  |    | 17,849,563 |    | 24,480,813 |
| 2018  |    | 8,331,810  |    | 17,667,399 |    | 25,999,210 |
| 2019  |    | 10,120,972 |    | 17,465,460 |    | 27,586,432 |
| 2020  |    | 11,938,343 |    | 17,279,152 |    | 29,217,495 |
| 2021  |    | 13,778,860 |    | 17,005,147 |    | 30,784,007 |
| 2022  |    | 15,590,391 |    | 16,749,965 |    | 32,340,356 |
| 2023  |    | 17,418,661 |    | 16,460,036 |    | 33,878,698 |

| Exhibit E.6<br>History of Refunds  |    |  |  |  |  |
|--|----|--|--|--|--|
| Fiscal Year<br>Ended<br>December 31,   |    | Refund<br>Amount   |  |  |  |
| 2002<br>2003<br>2004<br>2005<br>2006<br>2007<br>2008<br>2009<br>2010<br>2011<br>2012<br>2013 | \$ | 1,454,715<br>1,476,978<br>1,086,548<br>1,231,836<br>1,225,048<br>1,187,708<br>1,220,911<br>1,043,307<br>910,161<br>1,761,213<br>1,870,042<br>2,029,377 |  |  |  |



| Exhibit F.1 Adams County Retirement Plan Schedule of Funding Progress                        |   |   |   |  |  |  |
|--|---|---|---|--|--|--|
| Actuarial<br>Valuation<br>Date   | Actuarial<br>Value of<br>Assets   | Actuarial<br>Accrued<br>Liability (AAL)   | Unfunded<br>AAL<br>(UAAL)   | Funded<br>Ratio  | Covered<br>Payroll   | UAAL as a<br>Percentage of<br>Covered Payroll                                |
| (1)  | (2)   | (3)   | (4)=(3)-(2)   | (5)=(2)/(3)  | (6)  | (7)=(4)/(6)  |
| 1/1/2007<br>1/1/2008<br>1/1/2009<br>1/1/2010<br>1/1/2011<br>1/1/2012<br>1/1/2013<br>1/1/2014 | \$ 174,254,209<br>194,027,237<br>179,216,396<br>200,975,215<br>204,666,912<br>201,712,397<br>199,076,191<br>214,140,815 | \$ 264,910,496<br>287,832,266<br>316,117,270<br>340,984,767<br>356,275,436<br>371,702,160<br>386,835,357<br>379,802,962 | \$ 90,656,287<br>93,805,029<br>136,900,874<br>140,009,552<br>151,608,524<br>169,785,105<br>187,759,166<br>165,662,147 | 65.8%<br>67.4%<br>56.7%<br>58.9%<br>57.4%<br>54.3%<br>51.5%<br>56.4% | \$ 81,386,811<br>87,215,518<br>94,396,658<br>98,982,060<br>95,737,553<br>94,160,223<br>96,443,158<br>102,088,234 | 111.4%<br>107.6%<br>145.0%<br>141.4%<br>158.4%<br>180.3%<br>194.7%<br>162.3% |

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| Exhibit F,2 Adams County Retirement Plan Schedule of Employer Contributions          |    |   |    |  |   |
|--|----|---|----|--|---|
| Fiscal Year<br>Ended<br>December 31,   |    | Annual<br>Required<br>ontribution   | Co | Actual<br>County<br>ontribution  | Percentage<br>Contributed   |
| 2003<br>2004<br>2005<br>2006<br>2007<br>2008<br>2009<br>2010<br>2011<br>2012<br>2013 | \$ | 6,405,211<br>6,858,772<br>9,359,536<br>10,110,243<br>11,320,501<br>11,542,116<br>16,237,097<br>16,856,144<br>17,559,138<br>18,762,499<br>19,659,013<br>15,406,279 | \$ | 3,866,302<br>4,054,317<br>4,597,297<br>5,175,320<br>5,740,166<br>6,445,284<br>7,048,276<br>7,153,366<br>7,235,764<br>7,533,395<br>8,289,767<br>TBD | 60.4%<br>59.1%<br>49.1%<br>51.2%<br>50.7%<br>55.8%<br>43.4%<br>42.4%<br>41.2%<br>40.2%<br>TBD |

GRS F-2

| Exhibit F.3                         |  |  |  |  |
|-------------------------------------|--|--|--|--|
| <b>Adams County Retirement Plan</b> |  |  |  |  |
| Required Supplementary Information  |  |  |  |  |

Valuation Date January 1, 2014

Actuarial Cost Method Entry Age Normal

Amortization Method Level Dollar Open

Remaining Amortization Periods 30 Years

Asset Valuation Method 5-Year Smoothed Market

Actuarial Assumptions:

Investment Rate of Return 7.50%

Projected Salary Increases

Service-based increases
from 3.8% to 9.30%

Inflation 2.80%

Cost of Living Adjustments N/A

GRS F-3



The actuarial valuation for the Adams County Retirement Plan has historically included the accumulated plan benefits under Accounting Standards Codification 960, formerly Financial Accounting Standard No. 35. Although this particular measure is not typically used in public sector valuations and is not needed for public sector accounting, we have continued to include it for comparative purposes. Accumulated Plan Benefits represents the present value of benefits based on accrued service and current salary as of the valuation date.

| Exhibit G.1  Adams County Retirement Plan  Actuarial Valuation Results  Accumulated Plan Benefits |  |  |  |  |
|---|--|--|--|--|
| January 1, 2014   | January 1, 2013  |  |  |  |
| \$ 198,805,689<br>9,313,722<br>190,012,510<br>\$ 398,131,921                                      | \$ 137,605,380<br>8,592,964<br>168,459,236<br>\$ 314,657,580                   |  |  |  |
| \$ 224,301,114<br>56.3%   | \$ 199,741,510<br>63.5%  |  |  |  |
|   | \$ 198,805,689<br>9,313,722<br>190,012,510<br>\$ 398,131,921<br>\$ 224,301,114 |  |  |  |

**GRS** *G-1* 



### SUMMARY OF ACTUARIAL METHODS AND ASSUMPTIONS

### I. Valuation Date

The valuation date is January 1st of each plan year. This is the date as of which the actuarial present value of future benefits and the actuarial value of assets are determined.

### II. Actuarial Cost Method

The actuarial valuation uses the Entry Age Normal actuarial cost method. Under this method, the employer contribution rate is the sum of (i) the employer normal cost rate, and (ii) a rate that will amortize the unfunded actuarial liability.

- 1. The valuation is prepared on the projected benefit basis. The present value of each participant's expected benefit payable at retirement or termination is determined, based on age, service, sex, compensation, and the interest rate assumed to be earned in the future (7.50%). The calculations take into account the probability of a participant's death or termination of employment prior to becoming eligible for a benefit, as well as the possibility of terminating with a service benefit. Future salary increases are also anticipated. The present value of the expected benefits payable on account of the active participants is added to the present value of the expected future payments to retired participants and beneficiaries to obtain the present value of all expected benefits payable from the Plan on account of the present group of participants and beneficiaries.
- 2. The employer contributions required to support the benefits of the Plan are determined following a level funding approach, and consist of a normal cost contribution and an accrued liability contribution.
- 3. The normal contribution is determined using the Entry Age Normal cost method. Under this method, a calculation is made to determine the average uniform and constant percentage rate of employer contribution which, if applied to the compensation of each new participant during the entire period of anticipated covered service, would be required in addition to the contributions of the participant to meet the cost of all benefits payable on their behalf.
- 4. The unfunded accrued liability contributions are determined by subtracting the actuarial value of assets from the actuarial accrued liability and amortizing the result over 30 years from the valuation date as a level dollar. It is assumed that payments are made throughout the year.

### III. Actuarial Value of Assets

The actuarial value of assets is based on recognizing gains and losses over a five-year period where gains and losses are determined by comparing the projected market value of assets (based on the prior year's market value of assets, cash flows during the year and expected investment returns on those amounts) to the current year's market value of assets. The actuarial value of assets must be between 80% and 120% of market value.

# IV. <u>Actuarial Assumptions</u>

### A. Economic Assumptions

- 1. Investment return: 7.50% per annum, compounded annually, composed of an assumed 2.80% inflation rate and a 4.70% real rate of return. This rate represents the assumed return, net of all investment expenses.
- 2. Salary increase rate: Inflation rate of 2.80%, plus productivity component of 1.00%, plus step-rate/ promotional component as shown (adopted December 2013).

| Completed | Percentage Increase<br>in Salary |           |        |  |
|-----------|----------------------------------|-----------|--------|--|
| Years of  |                                  | Wage      |        |  |
| Service   | Merit                            | Inflation | Total  |  |
|           |                                  |           |        |  |
| 0         | 5.50 %                           | 3.80 %    | 9.30 % |  |
| 5         | 1.50                             | 3.80      | 5.30   |  |
| 10        | 0.25                             | 3.80      | 4.05   |  |
| 15        | 0.00                             | 3.80      | 3.80   |  |
| 20        | 0.00                             | 3.80      | 3.80   |  |
| 25        | 0.00                             | 3.80      | 3.80   |  |
| 30        | 0.00                             | 3.80      | 3.80   |  |
| 35        | 0.00                             | 3.80      | 3.80   |  |
| 40        | 0.00                             | 3.80      | 3.80   |  |
|           |                                  |           |        |  |

## B. <u>Demographic Assumptions</u>

1. Mortality rates (pre- and post-retirement) – The valuation assumes fully generational mortality. The base mortality table used is the RP-2000 Blue Collar Healthy Annuitant Generational Mortality Table. Future mortality improvements are assumed each year using Scale BB. Rates are set back one year for females for post-retirement mortality. The following are sample rates (adopted December 2013):

| Sample   | Probability of Death |        |  |
|----------|----------------------|--------|--|
| Attained | Pre-Retirement       |        |  |
| Ages     | Men                  | Women  |  |
|          |                      |        |  |
| 20       | 0.05 %               | 0.02 % |  |
| 25       | 0.06                 | 0.02   |  |
| 30       | 0.07                 | 0.03   |  |
| 35       | 0.10                 | 0.05   |  |
| 40       | 0.13                 | 0.08   |  |
| 45       | 0.17                 | 0.13   |  |
| 50       | 0.23                 | 0.19   |  |
| 55       | 0.33                 | 0.26   |  |
| 60       | 0.48                 | 0.34   |  |
| 65       | 0.66                 | 0.44   |  |
| 70       | 0.80                 | 0.57   |  |
| 75       | 0.00                 | 0.00   |  |
| 80       | 0.00                 | 0.00   |  |
| 85       | 0.00                 | 0.00   |  |
| 90       | 0.00                 | 0.00   |  |
|          |                      |        |  |

| Sample          | Probability of Death |        |  |  |
|-----------------|----------------------|--------|--|--|
| <b>Attained</b> | Post-Retirement      |        |  |  |
| Ages            | Men                  | Women  |  |  |
|                 |                      |        |  |  |
| 20              | 0.05 %               | 0.02 % |  |  |
| 25              | 0.06                 | 0.02   |  |  |
| 30              | 0.07                 | 0.03   |  |  |
| 35              | 0.10                 | 0.04   |  |  |
| 40              | 0.13                 | 0.08   |  |  |
| 45              | 0.17                 | 0.12   |  |  |
| 50              | 0.54                 | 0.18   |  |  |
| 55              | 0.69                 | 0.23   |  |  |
| 60              | 0.96                 | 0.45   |  |  |
| 65              | 1.40                 | 0.86   |  |  |
| 70              | 2.17                 | 1.42   |  |  |
| 75              | 3.49                 | 2.38   |  |  |
| 80              | 5.71                 | 3.75   |  |  |
| 85              | 9.31                 | 6.31   |  |  |
| 90              | 15.57                | 10.54  |  |  |
|                 |                      |        |  |  |

2. Mortality rates (post-disablement) – RP-2000 Disabled Male and Female No Collar Mortality Table. Sample rates shown below:

| Sample<br>Attained | Probability of Death<br>Post-Disability |                  |  |  |
|--------------------|---|------------------|--|--|
|                    | Post-D                                  | <b>isability</b> |  |  |
| Ages               | Men                                     | Women            |  |  |
|                    |   |                  |  |  |
| 20                 | 2.26 %                                  | 0.75 %           |  |  |
| 25                 | 2.26                                    | 0.75             |  |  |
| 30                 | 2.26                                    | 0.75             |  |  |
| 35                 | 2.26                                    | 0.75             |  |  |
| 40                 | 2.26                                    | 0.75             |  |  |
| 45                 | 2.26                                    | 0.75             |  |  |
| 50                 | 2.90                                    | 1.15             |  |  |
| 55                 | 3.54                                    | 1.65             |  |  |
| 60                 | 4.20                                    | 2.18             |  |  |
| 65                 | 5.02                                    | 2.80             |  |  |
| 70                 | 6.26                                    | 3.76             |  |  |
| 75                 | 8.21                                    | 5.22             |  |  |
| 80                 | 10.94                                   | 7.23             |  |  |
| 85                 | 14.16                                   | 10.02            |  |  |
| 90                 | 18.34                                   | 14.00            |  |  |
|                    |   |                  |  |  |

3. Disability rates. Sample rates shown below:

| Sample<br>Attained | Probability of Disablement<br>Next Year |        |  |  |
|--------------------|---|--------|--|--|
| Ages               | Men                                     | Women  |  |  |
|                    |   |        |  |  |
| 25                 | 0.04 %                                  | 0.04 % |  |  |
| 30                 | 0.06                                    | 0.06   |  |  |
| 35                 | 0.10                                    | 0.10   |  |  |
| 40                 | 0.16                                    | 0.16   |  |  |
| 45                 | 0.26                                    | 0.26   |  |  |
| 50                 | 0.45                                    | 0.45   |  |  |
| 55                 | 0.85 0.85                               |        |  |  |
| 60                 | 1.20                                    | 1.20   |  |  |

4. Termination rates (for causes other than death, disability or retirement): Termination rates are based on service. Termination rates are not applied after a member becomes eligible for a retirement benefit. Rates at selected ages are shown (adopted December 2013):

| Completed<br>Years of | Probability of Termination<br>Next Year |         |  |
|-----------------------|---|---------|--|
| Service               | Men                                     | Women   |  |
|                       |   |         |  |
| 0                     | 20.00 %                                 | 20.00 % |  |
| 5                     | 8.00                                    | 8.00    |  |
| 10                    | 3.00                                    | 3.00    |  |
| 15                    | 2.00                                    | 2.00    |  |
| 20                    | 1.00                                    | 1.00    |  |
| 25                    | 1.00                                    | 1.00    |  |
| 30                    | 1.00                                    | 1.00    |  |
| 35                    | 1.00                                    | 1.00    |  |
|                       |   |         |  |

5. Retirement rates (adopted December 2013).

|      | Tie       | er 1       | Tie       | er 2       | Tie       | er 3       |
|------|-----------|------------|-----------|------------|-----------|------------|
| Age  | Age-based | Rule-based | Age-based | Rule-based | Age-based | Rule-based |
| < 46 |           | 18.00%     |           |            |           |            |
| 46   |           | 18.00%     |           |            |           |            |
| 47   |           | 15.00%     |           |            |           |            |
| 48   |           | 12.00%     |           |            |           |            |
| 49   |           | 12.00%     |           |            |           |            |
| 50   |           | 8.00%      |           | 15.00%     |           |            |
| 51   |           | 8.00%      |           | 8.00%      |           |            |
| 52   |           | 8.00%      |           | 8.00%      |           |            |
| 53   |           | 8.00%      |           | 8.00%      |           |            |
| 54   |           | 8.00%      |           | 8.00%      |           |            |
| 55   | 2.00%     | 8.00%      | 2.00%     | 8.00%      | 2.00%     | 20.00%     |
| 56   | 2.00%     | 8.00%      | 2.00%     | 8.00%      | 2.00%     | 8.00%      |
| 57   | 2.00%     | 8.00%      | 2.00%     | 8.00%      | 2.00%     | 8.00%      |
| 58   | 2.00%     | 10.00%     | 2.00%     | 10.00%     | 2.00%     | 10.00%     |
| 59   | 6.00%     | 10.00%     | 6.00%     | 10.00%     | 6.00%     | 10.00%     |
| 60   | 8.00%     | 10.00%     | 8.00%     | 10.00%     | 8.00%     | 10.00%     |
| 61   | 8.00%     | 10.00%     | 8.00%     | 10.00%     | 8.00%     | 10.00%     |
| 62   | 9.00%     | 25.00%     | 9.00%     | 25.00%     | 9.00%     | 25.00%     |
| 63   | 9.00%     | 15.00%     | 9.00%     | 15.00%     | 9.00%     | 15.00%     |
| 64   | 9.00%     | 20.00%     | 9.00%     | 20.00%     | 9.00%     | 20.00%     |
| 65   | 9.00%     | 20.00%     | 9.00%     | 20.00%     | 9.00%     | 20.00%     |
| 66   | 9.00%     | 20.00%     | 9.00%     | 20.00%     | 9.00%     | 20.00%     |
| 67   | 15.00%    | 20.00%     | 15.00%    | 20.00%     | 15.00%    | 20.00%     |
| 68   | 15.00%    | 20.00%     | 15.00%    | 20.00%     | 15.00%    | 20.00%     |
| 69   | 15.00%    | 20.00%     | 15.00%    | 20.00%     | 15.00%    | 20.00%     |
| 70+  | 100.00%   | 100.00%    | 100.00%   | 100.00%    | 100.00%   | 100.00%    |

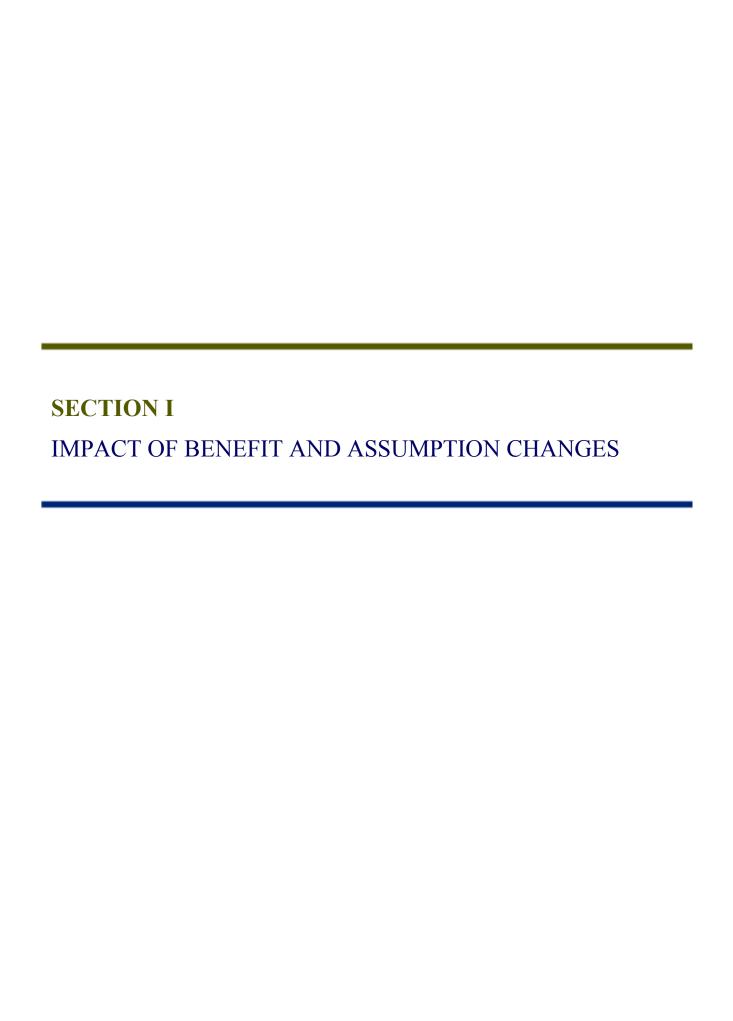
C. Expense Loading. Based on the prior three year average, rounded to the nearest \$1,000.

|      | Noninvestment |                      |
|------|---------------|----------------------|
| Year | Expenses      |                      |
| 2011 | \$678,094     |                      |
| 2012 | 881,694       |                      |
| 2013 | 798,751       |                      |
|      | \$2,358,539   | $\div 3 = \$786,180$ |

Average \$786,180 Loading \$786,000

### D. Other Assumptions

- 1. Percent married: 85% of employees are assumed to be married.
- 2. Age difference: Male members are assumed to be three years older than their spouses, and female members are assumed to be three years younger than their spouses.
- 3. Cost of living adjustment: None.
- 4. Optional forms: Members are assumed to elect the normal form of benefit.
- 5. Vested terminating members are assumed to elect a refund or a deferred benefit, whichever is more valuable at the time of termination.
- 6. Current and future deferred vested participants are assumed to retire at the earlier of age 55 or the age they meet special early retirement eligibility. Deferred disabled participants are assumed to commence benefits at age 65.
- 7. Pay increase timing: Middle of year.
- 8. Decrement timing: Decrements of all types are assumed to occur mid-year.
- 9. Eligibility testing: Eligibility for benefits is determined based upon the age nearest birthday and service nearest whole year on the date the decrement is assumed to occur.
- 10. Decrement relativity: Decrement rates are used directly, without adjustment for multiple decrement table effects.
- 11. Incidence of Contributions: Contributions are assumed to be received continuously throughout the year based upon the computed percent of payroll shown in this report, and the actual payroll payable at the time contributions are made.



| Exhibit I.1 Adams County Retirement Plan Impact of Benefit and Assumption Changes Effective January 1, 2014 |                                    |                               |                           |                           |
|---|------------------------------------|-------------------------------|---------------------------|---------------------------|
| Fiscal Year Beginning   | January 1, 2014                    | January 1, 2014               | January 1, 2014           | January 1, 2013           |
|   | After Benefit & Assumption Changes | After Benefit<br>Changes Only | Before Benefit<br>Changes | Before Benefit<br>Changes |
| 1. Actuarial Accrued Liability  | \$ 379,802,962                     | \$ 376,785,746                | \$ 406,953,359            | \$ 386,835,357            |
| 2. Actuarial Value of Assets  | 214,140,815                        | 214,140,815                   | 214,140,815               | 199,076,191               |
| 3. Unfunded Accrued Liability   | \$ 165,662,147                     | \$ 162,644,931                | \$ 192,812,544            | \$ 187,759,166            |
| 4. Funded Ratio   | 56.4%                              | 56.8%                         | 52.6%                     | 51.5%                     |
| 5. Normal Cost Rate   | 10.29%                             | 10.57%                        | 12.14%                    | 12.79%                    |
| 6. Amortization of Unfunded   | 12.78%                             | 12.43%                        | 14.73%                    | 15.33%                    |
| 7. Assumed Administrative Expenses  | 0.77%                              | 0.77%                         | 0.77%                     | 0.76%                     |
| 8. Total Annual Required Contribution   | 23.84%                             | 23.77%                        | 27.64%                    | 28.88%                    |

**GRS** *I-1*