

July 12, 2013

ADDENDUM No. 1

To

REQUEST FOR PROPOSALS

For

**ACTUARY SERVICES
GP-0201-R01**

For the

SCHOOL CONSTRUCTION PROGRAM

ISSUED JUNE 25, 2013

By

THE NEW JERSEY SCHOOLS DEVELOPMENT AUTHORITY

PLEASE TAKE NOTICE:

PROPOSALS ARE DUE on Tuesday, July 23, 2013 by 5:00 PM Eastern Time, at the Main Office of the New Jersey Schools Development Authority located at 1 West State Street, Trenton, New Jersey 08625, and must be delivered in the manner set forth in the RFP.

This **ADDENDUM No. 1** includes questions submitted by 5 PM on Tuesday, July 09, 2013, and answers thereto, and a list of firms that submitted Mandatory Notices of Intent to Participate by 5 PM on Tuesday, July 9, 2013. Terms in this Addendum shall have the same meaning as provided in Section 1 of the Agreement, except as otherwise provided herein.

A. FIRMS THAT INTEND TO PROPOSE

Please see Attachment A.

B. CHANGES TO THE RFP:

1. **Proposal Package Mailing Instructions.** shall be revised as follows (additions in **bold and underlined** text; deletions in *strikethrough and italics*.

If submitting by hand or overnight delivery:

NEW JERSEY SCHOOLS DEVELOPMENT AUTHORITY
~~32 East Front Street—2nd Floor~~
1 West State Street
Trenton, New Jersey 08625-0991
Attention: Daryl Johnson, Procurement Analyst
Subject: Actuary Services Proposal – GP-0201-R01

If submitting by U.S. Mail, address packages to:

NEW JERSEY SCHOOLS DEVELOPMENT AUTHORITY
~~32 East Front Street—2nd Floor~~
1 West State Street
P.O. Box 991
Trenton, New Jersey 08625-0991
Attention: Daryl Johnson, Procurement Analyst

C. QUESTIONS & NJSDA ANSWERS

- C.1 **Question:** Please provide a copy of the latest GASB 45 actuarial valuation.

Answer: Please see Attachment B.

- C.2 **Question:** Would NJSDA be willing to add a Limitation of Liability clause to the contract to be awarded as a result of this RFP process?

An example of such a clause would be the following:

- a. Except for a judicial determination of fraud or willful misconduct, under no circumstances shall either party be liable to the other party, its agents, successors or assigns, for any lost revenue, lost profits, or any incidental, indirect, punitive, or consequential damages, even if that party has been advised of the possibility of such

damages, regardless of the theory of recovery. In addition, in no event will Consultant be liable for any damages claimed by SDA based on any third party claim, except for infringement of intellectual property, as provided in this Agreement. Some states do not allow certain limitations of liability, so the foregoing may not apply. In such states, liability is limited to the fullest extent permitted by law.

- b. Except for a judicial determination of fraud or willful misconduct, under no circumstances shall Consultant be liable in the aggregate to SDA, SDA agents, successors, or assigns for any damages of any kind (including attorneys' fees) in excess of the aggregate amount actually paid to Consultant under this Agreement.

However, we expect that the actual clause would be negotiated in good faith between NJSDA and the selected Consultant and may differ from the specific wording shown above.

Answer: No.

C.3 Question: May we have a copy of the most recent actuarial valuation report?

Answer: Please see answer to Question C.1 above.

C.4 Question: What were the fees associated with the prior valuation?

Answer:

Price for 2010: \$ 7,000 for Full GASB 45 Valuation

Price for 2011: \$ 2,000 for Roll Forward Calculation; \$6,500 if Full Valuation

Price for 2012: \$ 2,000 for Roll Forward Calculation; \$6,500 if Full Valuation

C.5 Question: May we have a copy of the proposal evaluation scoring sheet from the last RFP?

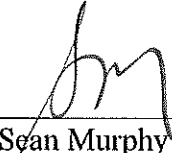
Answer: See below scoring results.

	Eval #1	Eval #2	Eval #3		
Firms	SCORE	SCORE	SCORE	SCORE	RANK
Aquarius Capital Solutions Group	79	79	89	247	1
United Health Actuarial Services	80	65	90	235	2

Total # of Firms 2

Any bidder attempting to contact government officials (elected or appointed), including NJSDA Board members, NJSDA Staff, and Selection Committee members in an effort to influence the selection process may be immediately disqualified.

Issued by:



Sean Murphy
Director Procurement

Issued: July 12, 2013

Addendum #1

NJSDA
1 West State Street
Trenton, NJ 08625
Phone: 609-341-5563
Fax: 609-656-4642

Date: July 12, 2013

PROJECT DESCRIPTION:

ACTUARY SERVICES GP-0201-R01

Addendum No. 1

Acknowledgement of Receipt of Addendum

Contractor must acknowledge the receipt of the Addendum by signing in the space provided below and returning via fax (609-656-4642) or E-mail (djohnson@njsda.gov). **Signed acknowledgement must be received prior to the Bid Due Date. Acknowledgement of the Addendum must also be made in the Proposal Submission.**

Signature

Print Name

Company Name

Date

ATTACHMENT A

Aquarius Capital

Michael L. Frank
110 Betsy Brown Road
Port Chester, NY 10573
914.933.0063 p
914.933.0064 f
Michael.frank@aquariuscapital.com

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Grady Catterall
4301 N. Fairfax Drive, Suite 600
Arlington, VA 22203
(703) 841-3165p
(703) 841-3113f
Grady.Catterall@haygroup.com

Lewis & Ellis, Inc.

Patrick Glenn
11225 College Blvd, Suite 320
Overland Park, KS 66210-2798
913-766-9179
913-642-9777 (fax)
pglenn@lewisellis.com
cmcalarney@lewisellis.com

Milliman

Richard L. Gordon
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Wayne, PA 19087-5572
610 975 8968p
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Tegrit Group

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ATTACHMENT B



AQUARIUS
CAPITAL

January 2, 2013

Mr. Sherman Cole
Controller
New Jersey Schools Development Authority
1 West State Street
3rd Floor
Trenton, NJ 08625-0991

Re: Report - GASB 43 & 45 for Fiscal Year January 1, 2012 to December 31, 2012

Dear Mr. Cole:

Enclosed is an analysis of estimated costs for post employment benefits valuation under Government Accounting Standards Board (GASB) No. 43 & 45 for the New Jersey Schools Development Authority. The valuation was done for fiscal year January 1, 2012 to December 31, 2012. The attached report was completed in accordance with generally accepted actuarial principles and practices.

Summary of Financial Results

Included in the analysis is a Table of Contents. Section I of the report, which is five pages, includes the financial forecast for GASB 45. As an example, the unfunded accrued liability (UAL), which is the accrued liability less assets, is approximately \$15.9 million as of January 1, 2012 and the projected annual other postemployment benefits (OPEB) cost is \$2.2 million for fiscal year 2012. Pages 1-2 of the report illustrate the financial projections for the plan as of yearend December 31, 2012 to assist your auditors with accounting for the respective plan year. Although the auditors may only require pages 1-2, we recommend forward the report in its entirety.

Results for this valuation were valued based on census information provided by your organization in September 2012. This is based on a total of 264 employees, reflecting the sum of 253 active and 11 retired employees. The active population reflects approximately 84.4% of the unfunded accrued liability (UAL) above.

On page 2 of the valuation, we illustrated the calculation of the Net OPEB Obligation through yearend December 31, 2012, which is approximately \$11.6 million. The beginning balances were based on balances reported in the audited financial statements as of yearend December 31, 2011. Since actual pay-as-you-go amount is not available yet for fiscal year 2012, results for yearend 2012 are based on expected pay-as-you-go amounts net of retiree contributions plus an estimated additional Medicare Part B premium reimbursement for retirees and their dependents eligible for Medicare.

As part of the report, we included ratios as a percentage of aggregate payroll information so that the company can use for budget planning purposes. Similarly, payroll information for fiscal year 2012 is not available as of today so illustrated payroll was based on an annualized snapshot based on the census file provided. This is consistent with the approach from the prior valuation report.



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Page 2

Overview of Actuarial Gain

On page 3 of the valuation report, we illustrate an actuarial gain of \$2.1 million, which is part of the calculation of OPEB costs. This reflects the decrease in the UAL as of January 1, 2012 as compared to the UAL roll forward from the prior actuarial valuation to yearend December 31, 2011. The primary driver of the actuarial gain is due to a decrease in employee headcounts. This gain is partial offset by changes in valuation assumptions for mortality (e.g., implementation of mortality improvement) and the impact of healthcare reform (e.g., excise tax). These assumption changes are consistent with changes made to the New Jersey State Health Benefits program. See page 3 for details.

Sensitivity Analysis

Section I of the report also includes sensitivity analysis based on varying the discount interest rate and healthcare cost inflation (trend). See pages 4-5 of the report for details. The discount rate used was 4.5%, which is similar to your company's prior year valuation report as requested by the company. Increasing the discount rate by 1% (a discount rate of 5.5%) would lower UAL by approximately 20.1%. A key driver for the increase is that the majority of employees are active and not yet eligible for benefits so the present value of benefits changes materially.

Also included is a sensitivity analysis on healthcare cost inflation (trend). A 1% trend factor increase would increase UAL by approximately 26.4%. Again, these percentages are high due to the large percentage of employees being active and also not yet eligible for retiree benefits. Details of these scenarios are also illustrated in Section I of the attached report. Please contact us if you desire additional scenarios.

Assumptions, Definitions & Demographic Information

As part of this report, we included supporting documentation such as a summary of assumptions and key definitions (glossary), which are provided in Sections II and III, respectively. Two assumption changes were made from the prior report released on October 8, 2012. Changes were made for mortality (e.g., implementation of mortality improvement) and the impact of healthcare reform (e.g., excise tax). These assumption changes are consistent with changes made to the New Jersey State Health Benefits program for 2012 and described further in this report. See pages 6-10 for details.

Section IV of the report illustrates additional information pertaining to underlying census information including age and sex analysis for active and retired employees along with summaries of the active population by age and years of service. We included a comparison of census information to the prior valuation report. See pages 11-13 for details. Some highlights of census information as of the January 1, 2012 valuation date are as follows:

- For retirees, the overall average age is 63.7 years, which reflects an average age of 58.7 for pre-65 retirees and 69.8 for post-65 retirees.
- For actives, the average age is 49.5 years and average years of service of 7.3.



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Page 3

- 57.3% actives and 45.5% retirees valued were male.
- Of the active population, 2.4% of the population (6 employees) is eligible to retire.

Page 13 of the report illustrates a comparison to the prior valuation report (i.e., January 1, 2011 valuation report).

Information Reviewed

We based our analysis on reviewing electronic census information (record-by-record review), retiree plan information, historical benefit cost information, contract summary information, yearend December 31, 2011 audited financial statements, and other summary information of retiree benefits and eligibility.

Premium rate information reflected is through 2012 based on retiree rate information available from the State. We also reflected regulations impacting retirement eligibility and contribution rates, which was implemented per the Company. Retiree contribution rates are illustrated in Section V of the report. (See page 14).

We also gathered additional information from the company through emails and other correspondence in order to obtain eligibility and retiree benefit information.

Data Reliance & Limitations

In our review, we have relied on the information provided by the company. We have not audited or verified the accuracy of the information provided. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.

This report and all attachments contained herein are for the internal use of the company. It may not be provided to other parties without prior consent. If consent is granted, the report must be provided in its entirety. We understand the company intends to distribute this letter and attachments to its auditor and fee accountant in connection with the reporting of results of this report for the sole use of preparation of audited financial statements. Aquarius consents to this distribution as long as the report is provided in its entirety and the auditor is advised to have an actuary review the work.

Actuarial Opinion

I, Michael L. Frank, ASA, FCA, MAAA, am President and Actuary of Aquarius Capital Solutions Group LLC. I am an Associate of the Society of Actuaries, Fellow of Conference of Consulting Actuaries, and Member of the American Academy of Actuaries and I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. The attached report was completed in accordance with generally accepted actuarial principles and practices.

We hope that this report is beneficial. When convenient, please contact me so that we can schedule a call or meeting to review report in more detail.



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In addition, please extend thanks to you and your team for assistance in the gathering of information to help us complete this analysis. Their assistance was much appreciated. We look forward to working with you in the future.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Frank".

Michael L. Frank, A.S.A., M.A.A.A., F.C.A.
President & Actuary

Cc: Donald Rusconi – Aquarius Capital

Enclosure



Client: New Jersey Schools Development Authority
Valuation Estimates under GASB No. 43 & 45 valued as of January 1, 2012

NEW JERSEY SCHOOLS DEVELOPMENT AUTHORITY

GASB NO. 43 & 45

VALUATION AS OF JANUARY 1, 2012

Prepared by: Aquarius Capital Solutions Group LLC
January 2, 2013



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SECTION I: FINANCIAL RESULTS AS OF JANUARY 1, 2012 VALUATION FOR YEAR END DISCLOSURE

(First Year of Implementation is Fiscal Year January 1, 2007 to December 31, 2007)

1 Discount Rate		4.50%
<u>Section 1: Development of Service Cost</u>		
2 Service Cost at Beginning of Year as of January 1, 2012	\$	1,548,051
3 Interest on Service Cost (2) x (1)	\$	69,662
4 Service Cost with Interest to Year End (2) + (3)	\$	1,617,713
<u>Section 2: Projected Unfunded Accrued Liability to Year End</u>		
5 Accrued Liability (AL) as of January 1, 2012	\$	15,905,032
6 Assets	\$	-
7 Unfunded Accrued Liability (UAL) as of January 1, 2012 (5) - (6)	\$	15,905,032
8 Service Cost with Interest to Year End (4)	\$	1,617,713
9 Projected Pay-As-You-Go Benefits - January 1, 2012 to December 31, 2012	\$	130,052
10 Interest on Unfunded Accrued Liability (7) x (1) - (9) x (1) / 2	\$	712,800
11 Projected Unfunded Accrued Liability (UAL) as of December 31, 2012 (7) + (8) - (9) + (10)	\$	18,105,493
<u>Section 3: Amortization of Initial Unfunded Accrued Liability (Implementation)</u>		
12 Initial Unfunded Accrued Liability at Implementation (January 1, 2007 Valuation Report) (Same as Prior Year Valuation)	\$	8,922,100
13 Number of Years of Amortization		30
14 Amortization of Initial Unfunded Accrued Liability as of January 1, 2007 - 30 Year Amortization: (12) / (13) (Revised to Reflect More Common Method Using Initial UAL)	\$	297,403
15 Interest on Unfunded Accrued Liability (1) x (14)	\$	13,383
16 Total Amortization of Initial Unfunded Accrued Liability w/ Interest (14) + (15)	\$	310,786
17 Number of Years of Amortization of Initial Unfunded Accrued Liability, including Current Valuation		6



SECTION I: FINANCIAL RESULTS AS OF JANUARY 1, 2012 VALUATION FOR YEAR END DISCLOSURE (CONTINUED)

Section 4: Adjustments to Annual Required Contribution (ARC)

18 Annualize Payroll Information based on Valuation Census File (Snapshot) - Estimate	\$ 18,788,600	
19 Unfunded Accrued Liability (UAL) as of January 1, 2012 (7)	\$ 15,905,032	<u>% Payroll</u> 84.7%
20 Projected Unfunded Accrued Liability as of December 31, 2011 (January 1, 2011 Valuation Report, Page 1, Line 11)	\$ 18,040,955	96.0%
21 Calculation of Experience (Gain)/Loss on Unfunded Accrued Liability as of January 1, 2012 (19) - (20)	\$ (2,135,923)	-11.4%
22 Net OPEB Obligation as of December 31, 2011 (Reported in Prior Year Financial Statements, Page 25)	\$ 9,545,523	50.8%
23 Total (Gain)/Loss since Prior Valuation (21)	\$ (2,135,923)	-11.4%
24 Amortization Period for (Gain)/Loss	15	
25 Adjustment to ARC - Amortization of (Gain)/Loss (23) / (24)	\$ (142,395)	-0.8%

Section 5: Summary of Annual OPEB Cost & Net OPEB Obligation as of December 31, 2012)

26 Unfunded Accrued Liability (UAL) as of January 1, 2012 (7)	\$ 15,905,032	84.7%
27 Total Service Cost with Interest - January 1, 2012 to December 31, 2012 (4)	\$ 1,617,713	8.6%
28 Total Amortization of Initial Unfunded Accrued Liability w/ Interest (16)	\$ 310,786	1.7%
29 Annual Required Contribution (ARC) (27) + (28)	\$ 1,928,499	10.3%
30 Interest on Net OPEB Obligation as of December 31, 2011 (1) x (22)	\$ 429,549	2.3%
31 Adjustment to ARC (25)	\$ (142,395)	-0.8%
32 Annual OPEB Cost (29) + (30) + (31)	\$ 2,215,653	11.8%
33 Contributions Made (Pay-As-You-Go Costs) - Illustrated as Projected (9)	\$ 130,052	0.7%
34 Net OPEB Expense Cost at December 31, 2012 (32) - (33)	\$ 2,085,601	11.1%
35 Net OPEB Obligation as of December 31, 2011 (22)	\$ 9,545,523	50.8%
36 Net OPEB Obligation as of December 31, 2012 (34) + (35)	\$ 11,631,124	61.9%



SECTION I: FINANCIAL RESULTS AS OF JANUARY 1, 2011 VALUATION FOR YEAR END DISCLOSURE (CONTINUED)

Section 6: Breakdown of Actuarial (Gain)/Loss as of January 1, 2012

37 Calculation of Experience (Gain)/Loss on Unfunded Accrued Liability as of January 1, 2012 (21)	\$	(2,135,923)	
38 Breakdown of Experience (Gain)/Loss			<u>% Total</u>
a. Impact due to Change in Headcount from the Prior Valuation	\$	(2,686,110)	125.8%
b. Impact due to Mortality Improvement - Projection Scale AA for 12 Years	\$	751,868	-35.2%
c. Impact of PPACA Excise (Cadillac) Tax	\$	279,350	-13.1%
d. Impact due to Changes in Census Demographics and Other Valuation Assumptions	\$	<u>(481,031)</u>	<u>22.5%</u>
e. Subtotal: (a) + (b) + (c) + (d)	\$	(2,135,923)	100.0%



SECTION I - SUMMARY OF FINANCIAL INFORMATION INCLUDING SENSITIVITY ANALYSIS (CONTINUED)

Summary of Financial Results as of Valuation Date w/ Variations in Discount Rate

Results illustrated as of January 1, 2012

	Val. Discount Rate of <u>4.50%</u>	Sensitivity Analysis Val. Discount Rate of <u>5.50%</u>
	<u>Total</u>	<u>Total</u>
1 Total Employee Lives		
a. Actives	253	253
b. Retirees	11	11
c. Subtotal	264	264
2 Present Value of Future Benefits (PVFB) as of January 1, 2012		
a. Actives	\$ 33,364,550	\$ 25,554,137
b. Retirees	\$ 2,487,717	\$ 2,210,782
c. Subtotal	\$ 35,852,267	\$ 27,764,919
d. % Actives	93.1%	92.0%
e. Ratio to Valuation Results for PVFB		77.4%
3 Accrued Liability (AL) as of January 1, 2012		
a. Actives	\$ 13,417,315	\$ 10,504,302
b. Retirees	\$ 2,487,717	\$ 2,210,782
c. Subtotal	\$ 15,905,032	\$ 12,715,084
d. % Actives	84.4%	82.6%
e. Ratio to Valuation Results for AL		79.9%
4 Assets as of January 1, 2012	\$ -	\$ -
5 Unfunded Accrued Liability (UAL) as of January 1, 2012 (3c) - (4)	\$ 15,905,032	\$ 12,715,084
6 Service Cost with Interest		
a. Service Cost at Year End:	\$ 1,617,713	\$ 1,240,147
b. Ratio to Valuation Results		76.7%
7 Projected Pay-As-You-Go Benefits during January 1, 2012 to December 31, 2012	\$ 130,052	\$ 130,052
8 Ratio of AL to Pay-As-You-Go: (3c) / (7)	122.30	97.77
9 Ratio of Service Cost to Pay-As-You-Go: (6a) / (7)	12.44	9.54
10 Average Annual Pay-As-You-Go Benefit per Retiree (7) / (1b)	\$ 11,823	\$ 11,823
11 Three Year Projection of Pay-As-You-Go Costs		
a. Year 1 - January 1, 2012 to December 31, 2012	\$ 130,052	\$ 130,052
b. Year 2 - January 1, 2013 to December 31, 2013	\$ 146,586	\$ 146,586
c. Year 3 - January 1, 2014 to December 31, 2014	\$ 173,268	\$ 173,268

Note: All costs are net of retiree contributions.



SECTION I - SUMMARY OF FINANCIAL INFORMATION INCLUDING SENSITIVITY ANALYSIS (CONTINUED)

Summary of Financial Results as of Valuation Date w/ Variations in Assumed Trend

Results illustrated as of January 1, 2012

	Valuation based on the above Trend Rates	Healthcare Cost Trend Rate Assumptions Increased 1%
	<u>Total</u>	<u>Total</u>
1 Total Employee Lives		
a. Actives	253	253
b. Retirees	11	11
c. Subtotal	264	264
2 Present Value of Future Benefits (PVFB) as of January 1, 2012		
a. Actives	\$ 33,364,550	\$ 43,900,719
b. Retirees	\$ 2,487,717	\$ 2,815,941
c. Subtotal	\$ 35,852,267	\$ 46,716,660
d. % Actives	93.1%	94.0%
e. Ratio to Valuation Results for PVFB		130.3%
3 Accrued Liability (AL) as of January 1, 2012		
a. Actives	\$ 13,417,315	\$ 17,280,562
b. Retirees	\$ 2,487,717	\$ 2,815,941
c. Subtotal	\$ 15,905,032	\$ 20,096,503
d. % Actives	84.4%	86.0%
e. Ratio to Valuation Results for AL		126.4%
4 Assets as of January 1, 2012	\$ -	\$ -
5 Unfunded Accrued Liability (UAL) as of January 1, 2012 (3c) - (4)	\$ 15,905,032	\$ 20,096,503
6 Annual Required Contributions (ARC) w/o interest on UAL		
a. Service Cost at Year End:	\$ 1,617,713	\$ 2,145,214
d. Ratio to Valuation Results		132.6%
7 Projected Pay-As-You-Go Benefits during January 1, 2012 to December 31, 2012	\$ 130,052	\$ 130,052
8 Ratio of Pay-As-You-Go Benefits to Valuation Assumptions (Line 7 Ratio)		100.0%
9 Ratio of AL to Pay-As-You-Go: (1c) / (7)	122.30	154.53
10 Ratio of Service Cost to Pay-As-You-Go: (6a) / (7)	12.44	16.50
11 Average Annual Pay-As-You-Go Benefit per Retiree (7) / (1b)	\$ 11,823	\$ 11,823
12 Three Year Projection of Pay-As-You-Go Costs		
a. Year 1 - January 1, 2012 to December 31, 2012	\$ 130,052	\$ 130,052
b. Year 2 - January 1, 2013 to December 31, 2013	\$ 146,586	\$ 147,919
c. Year 3 - January 1, 2014 to December 31, 2014	\$ 173,268	\$ 176,447

Note: All costs are net of retiree contributions.



SECTION II - SUMMARY OF ASSUMPTIONS

Valuation Date	January 1, 2012		
Initial Implementation Year	January 1, 2007 to December 31, 2007 per audited financial statements.		
Discount Rate	4.5%		
Purpose of Report	This report is provided to the Company for the purpose of calculation results under GASB 45. Information in this report may not be appropriate to use for other purposes. Aquarius does not intend to benefit from the overall results of the report and we assume no duty, liability or obligation to parties that use this work for other reasons other than its intention, i.e., reporting of GASB45 for financial statements.		
Retirement Assumptions	Valuation of Active and Retired Population		
Covered Benefits	Coverage for medical including prescription drug coverage as part of medical plan. Company does not subsidize dental, vision and life insurance coverage for retirees.		
Information for Valuation	Information was provided by Company.		
Retirement Benefits	Coverage for pre-65 and post-65 coverage.		
Insurance Coverage Funding Basis	Medical, including prescription drugs, are fully insured with the New Jersey State Health Benefits Program for Local Government Employer Groups. The state offers a variety of plan options for retirees.		
Assets	Not valued since benefit is unfunded. Assets are zero.		
Actuarial Cost Method	Projected Unit Credit.		
Health Care Cost Trend Assumption	The following assumptions are used for annual healthcare cost inflation (trend):		
	Year	Pre-65	Post 65
Initial Trend	January 1, 2013	10.0%	10.0%
Ultimate Trend	January 1, 2018 & Later	5.0%	5.0%
Grading Per Year		1.0%	1.0%
Retirement System	All employees participate in the Public Employees Retirement System of New Jersey (PERS).		
Projected Benefit Costs	All costs pre-65 are not adjusted for aging since underlying premium rates are assumed to be community rated, since underlying plan is fully insured for medical and prescription drugs and in the state plan. This is consistent with Actuarial Standards of Practice No. 6.		
Starting Claim Cost	Base plan costs are based on premium rates for calendar year 2012. Monthly cost assumptions by coverage tier and plan are as follows:		
	<u>Coverage Tier</u>	<u>Aetna</u>	<u>Cigna</u>
	Single - No Medicare	\$ 859.00	\$ 864.07
	Single - On Medicare	487.00	489.50
	Employee + Spouse (No Medicare)	1,873.00	1,883.70
	Employee + Spouse (One Medicare)	1,346.00	1,353.56
	Employee + Spouse (Two Medicare)	974.00	978.99
	Family - No Medicare	2,131.00	2,142.92
	Family - One Medicare	1,604.00	1,612.77
	Family - Two Medicare	1,212.00	1,218.26
	Employee + Child(ren) - No Medicare	1,203.00	1,209.72
	Employee + Child(ren) - Medicare	714.00	717.92



SECTION II - SUMMARY OF ASSUMPTIONS (CONTINUED)

Starting Claim Cost (Continued)	Coverage Tier	NJ Direct 10	NJ Direct 15
	Single - No Medicare	\$ 954.24	\$ 908.96
	Single - On Medicare	445.41	424.27
	Employee + Spouse (No Medicare)	2,080.31	1,981.53
	Employee + Spouse (One Medicare)	1,399.66	1,333.23
	Employee + Spouse (Two Medicare)	890.83	848.53
	Family - No Medicare	2,366.58	2,254.21
	Family - One Medicare	1,685.93	1,605.91
	Family - Two Medicare	1,155.08	1,100.22
	Employee + Child(ren) - No Medicare	1,335.96	1,272.55
	Employee + Child(ren) - Medicare	705.23	671.75

The above rates are based on the Local Retired Group - Local Government Employers. The above four plans illustrated are the most common plans shown above for illustrative purposes. The above costs are adjusted the current plan year based on healthcare inflation of 10% with all future years beginning 2013 and later are based on the above healthcare inflation rates.

Enrollees in Aetna, Cigna, NJ Direct 10 and NJ Direct 15 are assumed to enroll in the same coverages for pre-65 and post-65 retirement.

The above costs are based on 100% before retiree contributions. These costs are valued as fully insured equivalency premium rates and include administrative costs.

Impact of Healthcare Reform

The Patient Protection and Affordable Care Act (PPACA) enacted in March 2010 (Healthcare Reform) includes a 40% excise tax ("cadillac tax") on high cost plans that will be levied on insurers and third party administrators (TPA) beginning in 2018 and will not be tax deductible. It will be calculated separately for single and family coverage and will be equal to 40% of the excess of per employee plan costs, net of patient cost sharing, over the 2018 stated cost limits of:

- o - \$10,200 single / \$27,500 family
- o - \$11,850 single / \$30,950 family for retirees age 55-64

The 2018 limits above may be increased if higher than expected trends are realized from 2010 through 2018 in the benchmark plan. The benchmark plan is the Federal Employees Health Benefits Plan (FEHBP) Blue Cross/Blue Shield standard option. The limits will be adjusted to the extent per employee costs in the benchmark plan increase by more than 55% from 2010 to 2018 (for example, if the benchmark plan increase is 60% between 2010 and 2018, the cost limits will increase by the excess over 55% or 5%). The final 2018 limits will be increased by CPI + 1% for 2019 and by CPI thereafter. For this valuation, it is assumed that CPI will be 3% in 2019 and beyond.

For valuation purposes, it is assumed that adjustments to the cost limits in the benchmark plan (FEHBP) are equal to actual premium increases in the FEHBP plan for 2010 through 2013 and projected increases in costs from 2014 through 2018 as listed in the "Health Care Cost Trend Assumption" above.

For each year from 2018 and beyond, the excess projected future premiums over future adjusted cost limits are multiplied by 40% and then adjusted (grossed up) for the assumed marginal tax rate of 35%. It is assumed that any excise tax payable by an insurer/TPA will be passed on to the Company through increased premiums (whether billed separately or not).

Retirement Eligibility Assumptions

Eligibility for retirement is based on a minimum of age and/or years of service (YOS). Subsidized benefits are available for employees that obtain a minimum of twenty five (25) years of service. For new hires after June 28, 2011, retirement eligibility will be a minimum of age 65 with thirty (30) years of service.

Retiree Contribution Rates

Contribution rates were valued on an individual by individual basis for retiree coverage. If retired employees meet the minimum years of service, they are eligible for subsidized coverage. Retiree contribution rates are 0% (non-contributory) for current retirees, and based on the new state formula for future retirees, which was implemented per the Company. Eleven (11) individuals were identified by Company as eligible for grandfathering and valuation was reflected accordingly.



SECTION II - SUMMARY OF ASSUMPTIONS (CONTINUED)

Medicare Part B Premiums	The valuation reflects the reimbursement of Medicare Part B premium rates to retirees & spouses since this benefit coverage 65 is reimbursed by the company. This includes reimbursement for higher income adjustment premium rates to retirees and spouses.
% Current Retirees Opting Out	None, assume 100% participation for those covered as actives. All active and retiree employee records provided by client were valued.
Mortality	RP 2000 Healthy Male and Female Tables are based on the Combined Healthy Tables both pre and post-retirement projected with mortality improvements using Projection Scale AA for twelve (12) years, i.e., from date of table to valuation date. This is an update from the 2011 valuation report.
Turnover Assumptions	Reflects rate of separation from the active plan and excludes retirement and disability. Turnover table varies by age and years of service with rates of turnover based on Public Employees' Retirement System of New Jersey (PERS).
Disability Assumptions	Reflects ordinary and accidental disability assumptions from the active plan and is based on age. Disability rates based on the Public Employees' Retirement System of New Jersey (PERS).
Retirement Assumptions	This reflects rate of retirement from the active plan and is based on age for both disabled and non-disabled employees. Retirement increments based on Public Employees' Retirement System of New Jersey.
Payroll Information & Salary Increases	Payroll information was provided by employee for the valuation and reflected for the calculation of retiree contribution rates for future retirees (current actives) based on the new state retirement formula. Annual salary increases assumed to be 3% for valuation purposes. One individual missing salary information so assumed lowest level for conservative calculation of future retiree contribution rates.
Employee Contracts & Collective Bargaining Agreements	Employee contracts and collective bargaining agreements were not reviewed for this valuation. However client provided summary information so that results could be valued.
Plan Design Changes	Assuming no changes in future plan designs (e.g., deductibles, coinsurance, etc.) from current benefits offered for the current plan year.
Census Information	Participant data provided by client dated September 2012. We relied on information provided by client as being accurate and we have not conducted any data audits. A consolidated census file was provided for active and retirees. All data was provided by client.
Missing Census Information	
o Dates of Birth	No retired employees were missing date of birth, so no special adjustments were needed. One active employee was missing date of birth, so assumed to be age 49 (average age of group).
o Dates of Hire	No active employees was missing date of hire, so no special adjustments were needed.
o Gender	No employees were missing gender, so no special adjustments were needed.
Valuation of Spouses & Marital Status	Spouses are valued for benefits similar to retired employees for medical coverage. Members that are spouses are assumed to be married to those spouses at retirement. Members that are without spouses (or non-covering spouses) are assumed to be single at and throughout retirement.
Surviving Spouses & Surviving Dependents	Surviving dependents of retirees do receive subsidized health insurance.
Spouse Age Assumptions	It is assumed that female spouses are three years younger than male employees and male spouses are three years older than female employees unless actual spouse date of birth information was provided. Spouse dates of birth were included in the census for retirees.
Medical Coverage Tiers	Coverage election tiers were provided for all covered employees so no adjustments were required for this valuation.



SECTION II - SUMMARY OF ASSUMPTIONS (CONTINUED)

Future Contributions for Medical	Assume no future contribution changes or benefit cost cap changes other than increases due to inflation as projected in the valuation. See Healthcare Cost Trend Assumptions above for factors.
Excluded Populations	All active and retired employee lives eligible for a retirement system were valued.
New Hires	This valuation is based on a closed group and does not reflect the impact of future new entrants (e.g., new hires after date of data collection, i.e., September 2012) into the plan.
Opt Outs (Buy Outs)	Individuals that elected opt outs (i.e. buy outs) as actives are assumed to enroll in medical at retirement. Waivers are assumed to elect the Direct 15 plan (most common plan design).
Amortization of Initial UAL	Initial unfunded accrued liability (UAL) was amortized over thirty (30) years on a fixed dollar basis.
Medicare Tax Subsidy	The Medicare tax subsidy is not assumed to apply for this valuation.
Special Adjustments	No other special adjustments were provided since client data was complete for purposes of completing the valuation. All active and retired employees provided were valued. Two (2) employees were listed on active and retiree list since retired during 2012. Both were reflected on the retiree list and removed from active file. Terminated employees during 2012 were treated as actives as of January 1, 2012.
Rounding of Results	Results are illustrated to the nearest dollar. In using unrounded results (exact dollars), no implication is made as to the degree of precision in those results. Clients and their auditors should apply their own judgment as to the desirability of rounding when transferring results from this valuation report to the client's financial statements.
Initial Year of Recognition of GASB 43 & 45	We have not reviewed the audited financials of client so are not providing an opinion on when client should recognize and comply with GASB 43 & 45. We will rely on the opinion of the client and its auditor for his determination.
Other Comments	Actuarial methods, considerations, and analyses used in forming this certification conform to the appropriate Standards of Practice and guidelines of the Actuarial Standards Board (ASB).

SECTION III - DEFINITIONS & GLOSSARY

Actuarial Present Value of Future Benefits (PVFB)	Present value of all benefits expected to be paid by the employer, net of expected retiree contributions, based on actuarial assumptions used in the valuation. Assumptions are illustrated in Section II of this report.
Accrued Liability (AL)	This is the past service liability or present value of all benefits earned to date. Since retiree medical benefits are not accrued based on a specific formula like a pension plan, the accounting standard (GASB 45) requires the benefits to be earned ratably from date of hire to date of full eligibility for benefit. For retirees and actives that are immediately eligible to retire and receive full benefits, the AL equals the PVFB. For actives not yet eligible to retire, it equals a pro-rata portion of the PVFB based on past services to total service for that employee.
Unfunded Accrued Liability (UAL)	This is the excess of the AL over assets.
Annual Required Contribution (ARC)	The employer's periodic required contribution to a defined benefit OPEB plan. The portion, as determined by a particular Actuarial Method, of the Actuarial Present Value of the benefits and expenses, which is provided for by future Normal Costs.



SECTION III - DEFINITIONS & GLOSSARY (CONTINUED)

Normal Cost	The proportion of the PVFB of a plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method used in the valuation. This is the cost of OPEB attributed to the current year of service.
Amortization Payment	The portion of the pension plan contribution (ARC) which is designated to pay interest on and to amortize the Actuarial Unfunded Accrued Liability (UAL)
Pay-As-You-Go	This is a method of financing a postretirement benefit plan under which the contributions to the plan are generally made at about the same time and amount as benefits and expenses become due.
Decrement Rates	This is mortality, turnover, disability and retirement rate assumptions. This is used to determine likelihood of employee qualifying for OPEB and when benefits will commence. Mortality is also used to determine probability of individuals to live and continue to receive benefits.
Discount Rate	Assumption used for converting present value of future benefits less future contributions into today's dollar amounts.
Service Cost	Accounting terminology, which is the same as the Normal Cost.
Projected Unit Credit	This is an actuarial cost method whereby the costs of benefits earned is funded each year and the value of the accrued liability reflects the benefits earned to date.
Plan Members	The individuals covered by the terms of an OPEB plan. The plan membership generally includes employees in active service, terminated employees who have accumulated benefits but are not yet receiving them, and retired employees and beneficiaries currently receiving benefits.
Closed Group Valuation	This means that it does not consider the actuarial PVFB associated with future entrants.
Other Post Employment Benefits (OPEB)	Medical, dental, vision, life and other health benefits provided to terminated or retired employees including their dependents and beneficiaries.
Substantive Plan	The terms of the OPEB plan as understood by the employer and its plan members.
Recognition Year for GASB No. 43 & 45	2007-08 Fiscal Year: This impacts public agencies with total annual revenue of \$100 million or more must comply in the fiscal year after December 5, 2006. 2008-09 Fiscal Year: This impacts public agencies with total annual revenue between \$10 million and \$100 million must comply in the fiscal year after December 15, 2007. 2009-10 Fiscal Year: This impacts public agencies with total annual revenue less than \$10 million must comply in the fiscal year after December 5, 2008.



SECTION IV - SUMMARY OF CENSUS INFORMATION

Summary of Enrollment by Gender for Retirees, calculated as of January 1, 2012

<u>Age</u>	<u>Female</u>	<u>Male</u>	<u>Subtotal</u>	<u>% Female</u>	<u>% Male</u>
55	1	-	1	100.0%	0.0%
57	1	1	2	50.0%	50.0%
60	1	1	2	50.0%	50.0%
63	1	-	1	100.0%	0.0%
66	1	1	2	50.0%	50.0%
70	-	1	1	0.0%	100.0%
72	-	1	1	0.0%	100.0%
75	1	-	1	100.0%	0.0%
Total	6	5	11	54.5%	45.5%

Enrollment Counts

Pre-65	4	2	6	66.7%	33.3%
Post-65	2	3	5	40.0%	60.0%
Subtotal	6	5	11	54.5%	45.5%

Average Age

Pre-65	58.8	58.5	58.7
Post-65	70.5	69.3	69.8
Subtotal	62.7	65.0	63.7



SECTION IV - SUMMARY OF CENSUS INFORMATION (CONTINUED)

Summary of Census for Actives by Age and Years of Service, calculated as of January 1, 2012

Age Band	Years of Service								Subtotal	% Subtotal
	0 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 +		
Under 25	-	-	-	-	-	-	-	-	-	0.0%
25 to 29	4	-	-	-	-	-	-	-	4	1.6%
30 to 34	7	7	-	-	-	-	-	-	14	5.5%
35 to 39	13	11	2	-	-	-	-	-	26	10.3%
40 to 44	11	16	3	-	-	-	-	-	30	11.9%
45 to 49	12	24	10	2	-	-	-	-	48	19.0%
50 to 54	17	15	7	2	1	2	-	-	44	17.4%
55 to 59	11	16	12	2	2	2	1	-	46	18.2%
60 to 64	8	16	3	-	-	-	1	-	28	11.1%
Age 65 +	2	8	3	-	-	-	-	-	13	5.1%
Subtotal	85	113	40	6	3	4	2	-	253	100.0%
% Subtotal	33.6%	44.7%	15.8%	2.4%	1.2%	1.6%	0.8%	0.0%	100.0%	

Actives

Average Age: 49.5
Average Years of Service: 7.3

% by Gender

Female	108	42.7%
Male	145	57.3%
Total	253	100.0%

Actives by Service Category - Normal Retirement

Actives Not Yet Eligible for Benefits	247	97.6%
Actives Eligible for Benefits	6	2.4%
Total	253	100.0%



SECTION IV - SUMMARY OF CENSUS INFORMATION (CONTINUED)

Comparison of Census Information with Prior Valuation Report (January 1, 2011)

	<u>January 1, 2012</u>	<u>January 1, 2011</u>	<u>Difference</u>	<u>% Difference</u>
<u>Summary of Counts</u>				
Actives	253	303	(50)	-16.5%
Retirees (& Surviving Spouses)	<u>11</u>	<u>7</u>	<u>4</u>	<u>57.1%</u>
Total	264	310	(46)	-14.8%
Retiree Counts - % Pre-65	54.5%	42.9%	11.6%	27.0%
<u>Average Age</u>				
Actives	49.5	49.1	0.4	0.8%
Retirees				
o Pre-65	58.7	59.0	(0.3)	-0.5%
o Post-65	69.8	69.8	-	0.0%
o Total	63.7	65.1	(1.4)	-2.2%
<u>Average Years of Service</u>				
Actives - Average Years of Service	7.3	6.5	0.8	12.3%
Actives Eligible for Benefits	6	8	(2)	-25.0%
% Actives Eligible for Benefits	2.4%	2.6%	-0.2%	-7.7%
<u>Gender</u>				
% Male - Actives	57.3%	56.1%	1.2%	2.1%
% Male - Retirees	45.5%	57.1%	-11.6%	-20.3%



SECTION V - SUMMARY OF NEW RETIREE CONTRIBUTION RATES

Below is a summary of contribution rates for individuals with less than twenty years of service as of implementation. Individuals with more than twenty years of service will be grandfathered and retiree contribution rates will be equivalent to 1.5% of compensation. For individuals with less than twenty years of service as of implementation, will have the following contribution rates with a minimum contribution rate of 1.5% of compensation (base salary).

Section I - Single Coverage: Health Insurance Premium Rates as a Percentage of Premium

Salary Range	Year 1	Year 2	Year 3	Year 4
less than 20,000	1.13%	2.25%	3.38%	4.50%
20,000-24,999.99	1.38%	2.75%	4.13%	5.50%
25,000-29,999.99	1.88%	3.75%	5.63%	7.50%
30,000-34,999.99	2.50%	5.00%	7.50%	10.00%
35,000-39,999.99	2.75%	5.50%	8.25%	11.00%
40,000-44,999.99	3.00%	6.00%	9.00%	12.00%
45,000-49,999.99	3.50%	7.00%	10.50%	14.00%
50,000-54,999.99	5.00%	10.00%	15.00%	20.00%
55,000-59,999.99	5.75%	11.50%	17.25%	23.00%
60,000-64,999.99	6.75%	13.50%	20.25%	27.00%
65,000-69,999.99	7.25%	14.50%	21.75%	29.00%
70,000-74,999.99	8.00%	16.00%	24.00%	32.00%
75,000-79,999.99	8.25%	16.50%	24.75%	33.00%
80,000-94,999.99	8.50%	17.00%	25.50%	34.00%
95,000 and over	8.75%	17.50%	26.25%	35.00%

Section II - Family Coverage: Health Insurance Premium Rates as a Percentage of Premium

Salary Range	Year 1	Year 2	Year 3	Year 4
less than 25,000	0.75%	1.50%	2.25%	3.00%
25,000-29,999.99	1.00%	2.00%	3.00%	4.00%
30,000-34,999.99	1.25%	2.50%	3.75%	5.00%
35,000-39,999.99	1.50%	3.00%	4.50%	6.00%
40,000-44,999.99	1.75%	3.50%	5.25%	7.00%
45,000-49,999.99	2.25%	4.50%	6.75%	9.00%
50,000-54,999.99	3.00%	6.00%	9.00%	12.00%
55,000-59,999.99	3.50%	7.00%	10.50%	14.00%
60,000-64,999.99	4.25%	8.50%	12.75%	17.00%
65,000-69,999.99	4.75%	9.50%	14.25%	19.00%
70,000-74,999.99	5.50%	11.00%	16.50%	22.00%
75,000-79,999.99	5.75%	11.50%	17.25%	23.00%
80,000-84,999.99	6.00%	12.00%	18.00%	24.00%
85,000-89,999.99	6.50%	13.00%	19.50%	26.00%
90,000-94,999.99	7.00%	14.00%	21.00%	28.00%
95,000-99,999.99	7.25%	14.50%	21.75%	29.00%
100,000-109,999.99	8.00%	16.00%	24.00%	32.00%
110,000 and over	8.75%	17.50%	26.25%	35.00%

Section III - Member/Spouse/Partner Coverage: Health Insurance Premium Rates as a Percentage of Premium

Salary Range	Year 1	Year 2	Year 3	Year 4
less than 25,000	0.88%	1.75%	2.63%	3.50%
25,000-29,999.99	1.13%	2.25%	3.38%	4.50%
30,000-34,999.99	1.50%	3.00%	4.50%	6.00%
35,000-39,999.99	1.75%	3.50%	5.25%	7.00%
40,000-44,999.99	2.00%	4.00%	6.00%	8.00%
45,000-49,999.99	2.50%	5.00%	7.50%	10.00%
50,000-54,999.99	3.75%	7.50%	11.25%	15.00%
55,000-59,999.99	4.25%	8.50%	12.75%	17.00%
60,000-64,999.99	5.25%	10.50%	15.75%	21.00%
65,000-69,999.99	5.75%	11.50%	17.25%	23.00%
70,000-74,999.99	6.50%	13.00%	19.50%	26.00%
75,000-79,999.99	6.75%	13.50%	20.25%	27.00%
80,000-84,999.99	7.00%	14.00%	21.00%	28.00%
85,000-99,999.99	7.50%	15.00%	22.50%	30.00%
100,000 and over	8.75%	17.50%	26.25%	35.00%