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June 13, 2012

Ms. Rosemary Booth Gallogly  
Director of Revenue  
Rhode Island Department of Revenue  
One Capitol Hill  
Providence, RI 02908

Re: Central Falls Pension Plans Viability Analysis

Dear Ms. Gallogly:

As requested, Sherman Actuarial Services, LLC has performed a comprehensive analysis of the assets and liabilities of the Central Falls Pension Plan and the Central Falls One Percent Pension Plan as set forth in our Report dated January, 2012. Under the pension plan modifications, the total Accrued Liability as of July 1, 2011 is \$29,421,723, the Funded Ratio is 18.6%, the Annual Required Contribution (ARC) is \$1,860,322 for FYE 2012 and the Pay-As-You-Go cost for FYE 2012 will be about \$2.223 million.

Under the redesigned Central Falls Pension Plan, the ARC is currently less than the Pay-As-You-Go cost. It is my understanding that the City intends to contribute the Pay-As-You-Go cost on an annual basis until the ARC payments exceed the Pay-As-You-Go cost at which time the City will pay the ARC payments. The forecast shows that the Pay-As-You-Go cost is expected to decrease over time, while the ARC is expected to increase. The ARC is expected to exceed the Pay-As-You-Go cost starting in FYE2021.

Based upon the actuarial assumptions set forth in the Report, and provided the City makes the payments as set forth above and in the Report, the annual payments required over the next 18 years will start at about \$2.2 million, increase slightly for 10 years and then slowly increase at a more rapid rate. It is likely that while the costs are relatively flat, the plan will become more affordable to the City. During the period that the City makes the Pay-as-you-go contributions, the assets of the plan will grow with investment returns, increasing the funded ratio.

In addition, the City portion of the Normal Cost for the redesigned Central Falls Pension Plan is forecasted to be about \$26,000 in 2033. Assuming the plan reaches full funded status in 2033, amortization of the unfunded liability will be \$0. Therefore, the total plan costs are expected to decrease to \$26,000 at that time.

Based on all of the assumptions described above, it is my opinion that the redesigned Central

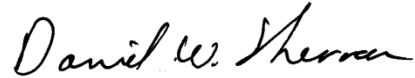
**DECEMBER 31, 2011  
ACTUARIAL VALUATION OF  
THE NEW PENSION PLAN  
OF  
THE CITY OF CENTRAL FALLS**

Ms. Rosemary Booth Gallogly  
June 13, 2012  
Page 2

Falls Pension Plan will be viable, become fully funded in 21 years, and be able to provide benefits to both current and future retirees. This opinion regarding the future viability of the redesigned Central Falls Pension Plan assumes that the current assets held and managed by John Hancock are not used in the immediate future to pay pension benefits.

Please let me know if you have any questions.

Best Regards,

A handwritten signature in black ink that reads "Daniel W. Sherman". The signature is written in a cursive, flowing style.

Daniel W. Sherman, ASA, MAAA, EA  
CEO

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**Report Summary:****Highlights****JH Plan & 1% Plan****July 1, 2010****December 31, 2011****Contributions**

Funding Schedule FY 2010

\$3,254,777

Funding Schedule FY 2012

\$1,860,322

**Funded Ratios**

GAS No. 25

14.3%

18.6%

**Participants**

Actives

76

70

Retirees and Beneficiaries

106

78

Vested

2

0

Inactives

0

0

Disabled

2863

Total

212

211

**Payroll**

Payroll of Active Members

\$3,289,330

\$3,620,778

Average Payroll

43,281

51,725

**Normal Cost**

Employer

666,792

68,109

Employee

262,217

325,316

Administrative Expenses

00

Total

929,009

393,425

**Actuarial Accrued Liabilities**

Actives

11,976,984

5,074,424

Retirees, Beneficiaries, Disabilities and Inactives

42,350,51124,347,299

Total

54,327,495

29,421,723

**Actuarial Value of Assets**7,768,8155,486,573**Unfunded Actuarial Accrued Liabilities**

\$46,558,680

\$23,935,150

## **Introduction**

This report presents the findings of an actuarial valuation as of December 31, 2011, of the Central Falls New Pension Plan.

The actuarial valuation is based on:

- Negotiated provisions with the Fire and Police unions as of December 31, 2011.
- Employee data provided by the City
- Asset information reported by the City of Central Falls
- Revised actuarial assumptions based on expectations and in compliance with ASOP #35

The actuarial valuation results are substantially different from and not practically comparable to the results as of July 1, 2010. The reasons for the changes include the following:

- The City filed for bankruptcy, cancelling the John Hancock Pension Plan and the 1% Plan
- The City negotiated substantial reductions in pension benefits for active employees, retirees, widows and alternate payees
- Eligibility for retirement and disability benefits were significantly changed
- New rules were implemented for determining continued eligibility for disability pension payments

## Actuarial Costs and Liabilities:

### Normal Costs

The normal cost is the sum of the individual normal costs determined for each member as if the assumptions underlying the cost determinations had been exactly realized. An individual normal cost represents that part of the cost of a member's future benefits which are assigned to the current year as if the costs are to remain level as a percentage of the member's pay. Benefits payable under all circumstances (i.e., retirement, death, disability, and terminations) are included in this calculation. Anticipated employee contributions to be made during the year are subtracted from the total normal cost to determine employer normal cost. The total normal cost is divided by total payroll to determine the normal cost as a percent of pay. The normal cost is shown in Table I.

**Table I**

	<u>July 1, 2010</u>	<u>December 31, 2011</u>
Superannuation	\$929,009	\$230,728
Termination	n/a	17,600
Death	n/a	22,853
Disability	n/a	122,244
Administrative Expenses	<u>0</u>	<u>0</u>
Total Normal Cost	929,009	393,425
% of Pay	28.2%	10.9%
Employee Contributions	262,217	325,316
% of Pay	8.0%	9.0%
Employer Normal Cost	\$666,792	\$68,109
% of Pay	20.3%	1.9%

**Present Value of Actuarial Accrued Liabilities**

The actuarial accrued liabilities (AAL) represents today's value of all benefits based on the past service of the actives and inactive. The AAL can be compared to the assets to determine the funded status of the Plan. The value of these earned benefits is shown in Table II below.

**Table II**

	<u>July 1, 2010</u>	<u>December 31, 2011</u>
Actives		
Superannuations	\$11,976,984	\$4,171,174
Termination	n/a	(102,393)
Death	n/a	95,301
Disability	n/a	910,342
Retirees and Inactives		
Retirees and Beneficiaries	29,518,556	10,756,026
Vested	118,050	0
Terminated (Refund)	0	0
Disabled	<u>12,713,905</u>	<u>13,591,273</u>
Total	\$54,327,495	\$29,421,723



### **Present Value of Future Benefits**

The present value of future benefits represents today's value of all benefits earned by the inactive participants as well as all benefits earned and expected to be earned in the coming years by the active participants. The difference between the present value of future benefits and the present value of actuarial accrued liabilities is the value of benefits to be earned in the coming years. The value of the total expected benefits is shown in Table III.

**Table III**

	<u>July 1, 2010</u>	<u>December 31, 2011</u>
Actives		
Superannuation	n/a	\$6,592,798
Termination	n/a	79,906
Death	n/a	333,211
Disability	n/a	2,192,742
Retirees and Inactives		
Retirees and Beneficiaries	29,518,556	10,756,026
Vested	118,050	0
Terminated (Refund)	0	0
Disabled	<u>12,713,905</u>	<u>13,591,273</u>
Total	n/a	\$33,545,956

## Funded Status and Appropriations:

### Market Value of Plan Assets

The trust fund composition on a market value basis is shown in Table IV.

**Table IV**

	<u>July 1, 2010</u>	<u>December 31, 2011</u>
Cash equivalents	\$0	\$23,024
JH GAC	7,768,815	4,902,299
JH NCU	0	544,478
Accounts receivable	0	16,771
Accounts payable	0	0
Accrued income	<u>0</u>	<u>0</u>
Total Market Value	\$7,768,815	\$5,486,573
Total Actuarial Value	\$7,768,815	\$5,486,573

## **Unfunded Actuarial Accrued Liabilities**

Under the Entry Age Normal Actuarial Cost Method, the Actuarial Accrued Liability represents what the accumulated assets would have been as of the valuation date if:

- current plan provisions and assumptions had always been in effect,
- experience conformed exactly to assumptions, and
- the normal cost had been contributed each year since inception.

The actuarial value of the Fund's assets as of the end of the prior year are subtracted from the Actuarial Accrued Liability (AAL) to determine the Unfunded Actuarial Accrued Liability (UAAL) as of the valuation date. Over time, annual pension contributions will accumulate Plan assets equal to the AAL, and the UAAL will be eliminated. Thereafter, annual contributions equal to the normal cost will keep the Plan's assets and liabilities in balance. The UAAL is developed in Table V.

**Table V**

	<u>July 1, 2010</u>	<u>December 31, 2011</u>
Actuarial Accrued Liability	\$54,327,495	\$29,421,723
Actuarial Assets	<u>7,768,815</u>	<u>5,486,573</u>
Unfunded Actuarial Accrued Liability	\$46,558,680	\$23,935,150
Funded Status	14.3%	18.6%

## **Appropriations**

The pension appropriation for the upcoming fiscal years have been calculated in accordance with the policy set forth in 2002. The pension appropriation is the sum of the:

- Employer normal cost,
- Increasing amortization of the unfunded actuarial accrued liability by June 30, 2032  
\$ 23,935,150 over 21 years with 3.0% increasing payments
- Interest adjustment for payments deposited at the middle of the fiscal year.

The pension appropriation is shown in Table VI.

**Table VI**

	<u>July 1, 2010</u>	<u>December 31, 2011</u>
Normal cost	\$929,009	\$68,109
Amortization payment of the unfunded accrued liability	<u>2,353,883</u>	<u>1,724,062</u>
Total cost	\$3,282,892	\$1,792,171
% of Pay	99.8%	49.5%
Fiscal 2010 cost	\$3,254,777	
Fiscal 2012 cost	n/a	\$1,860,322

### **Appropriation Forecast**

The following exhibit forecasts employer and employee contributions over the next 32 years under the adopted funding schedule.

Note that the forecast is based upon an "open group" method. This method assumes that sufficient employees will be hired each year to keep the number constant. The total payroll of the system is expected to increase 3% per year. The employee contribution rate is expected to increase to 10.5% by 2032 as members contributing base percentage of 9.5% are replaced by new members, whose base contribution is 10.5%. Payments are assumed to be made at the beginning of the year.

The employer total cost is expected to increase during the next 21 years until the unfunded liabilities are completely paid off, at which time only the normal cost will remain. The total cost represents 50% of payroll until the time the unfunded liabilities are fully paid off, leaving only a normal cost of .4% in 2033. The decrease in the cost as a percentage of payroll is a result of the increase in member deductions.

P:\Central Falls\Pension2011\2011\_Val.xls]Approp. Results

**Appropriation Forecast**

<u>Fiscal</u>			Employer	Amortization	Employer	Employer	
<u>Year</u>		Employee	Normal Cost	Payments	Total Cost	Total Cost	Funded
<u>Ending</u>	<u>Payroll*</u>	<u>Contribution</u>	<u>with Interest</u>	<u>with Interest</u>	<u>with Interest</u>	<u>% of Payroll</u>	<u>Ratio %**</u>
2012	\$3,620,778	\$325,316	\$70,699	\$1,789,623	\$1,860,322	51.4	18.6
2013	\$3,729,401	\$337,901	\$69,887	\$1,843,312	\$1,913,199	51.3	19.7
2014	\$3,841,283	\$350,948	\$68,963	\$1,898,611	\$1,967,574	51.2	21.1
2015	\$3,956,522	\$364,475	\$67,920	\$1,955,569	\$2,023,489	51.1	22.7
2016	\$4,075,218	\$378,496	\$66,752	\$2,014,236	\$2,080,988	51.1	24.5
2017	\$4,197,474	\$393,031	\$65,454	\$2,074,664	\$2,140,118	51.0	26.6
2018	\$4,323,398	\$408,098	\$64,017	\$2,136,903	\$2,200,920	50.9	29.0
2019	\$4,453,100	\$423,715	\$62,435	\$2,201,011	\$2,263,446	50.8	31.7
2020	\$4,586,693	\$439,901	\$60,701	\$2,267,041	\$2,327,742	50.7	34.6
2021	\$4,724,294	\$456,678	\$58,807	\$2,335,052	\$2,393,859	50.7	37.8
2022	\$4,866,023	\$474,065	\$56,744	\$2,405,104	\$2,461,848	50.6	41.3
2023	\$5,012,004	\$492,084	\$54,505	\$2,477,257	\$2,531,762	50.5	45.1
2024	\$5,162,364	\$510,758	\$52,080	\$2,551,574	\$2,603,654	50.4	49.2
2025	\$5,317,235	\$530,109	\$49,460	\$2,628,122	\$2,677,582	50.4	53.6
2026	\$5,476,752	\$550,162	\$46,637	\$2,706,965	\$2,753,602	50.3	58.3
2027	\$5,641,054	\$570,941	\$43,600	\$2,788,174	\$2,831,774	50.2	63.4
2028	\$5,810,286	\$592,471	\$40,338	\$2,871,820	\$2,912,158	50.1	68.7
2029	\$5,984,594	\$614,780	\$36,842	\$2,957,974	\$2,994,816	50.0	74.3
2030	\$6,164,132	\$637,893	\$33,099	\$3,046,713	\$3,079,812	50.0	80.2
2031	\$6,349,056	\$661,841	\$29,099	\$3,138,115	\$3,167,214	49.9	86.4
2032	\$6,539,528	\$686,650	\$24,828	\$3,232,258	\$3,257,086	49.8	93.0
2033	\$6,735,714	\$707,250	\$25,573	\$0	\$25,573	0.4	100.0
2034	\$6,937,785	\$728,467	\$26,341	\$0	\$26,341	0.4	100.0
2035	\$7,145,919	\$750,321	\$27,131	\$0	\$27,131	0.4	100.0
2036	\$7,360,296	\$772,831	\$27,945	\$0	\$27,945	0.4	100.0
2037	\$7,581,105	\$796,016	\$28,783	\$0	\$28,783	0.4	100.0
2038	\$7,808,538	\$819,897	\$29,646	\$0	\$29,646	0.4	100.0
2039	\$8,042,794	\$844,493	\$30,536	\$0	\$30,536	0.4	100.0
2040	\$8,284,078	\$869,828	\$31,452	\$0	\$31,452	0.4	100.0
2041	\$8,532,601	\$895,923	\$32,396	\$0	\$32,396	0.4	100.0
2042	\$8,788,579	\$922,801	\$33,367	\$0	\$33,367	0.4	100.0
2043	\$9,052,236	\$950,485	\$34,368	\$0	\$34,368	0.4	100.0

\* Calendar basis

\*\* Beginning of Fiscal Year

**GASB Statements No. 25 and No. 27**

Effective for periods beginning after June 15, 1997, the Governmental Accounting Standards Board (GASB) requires the disclosure of pension related liabilities for public employer financial statements in accordance with Statements 25 and 27. These statements, which replace GASB Statement No. 5, must be adhered to by any public employee retirement system that follows Generally Accepted Accounting Principles (GAAP).

These disclosures are intended to establish a reporting framework that distinguishes between:

- current financial information about plan assets and financial activities,
- actuarially determined information from a long-term perspective,
- the funded status of the plan, and
- progress being made in accumulating sufficient assets to pay benefits when due.

Footnote disclosures required by GASB Statement No. 25 and 27 include a description of the plan, a summary of significant accounting policies, and information about contributions, legally required reserves, and investment concentrations. Some of the required disclosure information is shown in Table VII.

**Table VII**

	<u>July 1, 2010</u>	<u>December 31, 2011</u>
(1) Actuarial Accrued Liability	\$54,327,495	\$29,421,723
(2) Actuarial Value of Assets	<u>7,768,815</u>	<u>5,486,573</u>
(3) Unfunded Actuarial Accrued Liability	46,558,680	23,935,150
(4) Funded Ratio (2)/(1)	14.3%	18.6%
(5) Covered Payroll	\$3,289,330	\$3,620,778
(6) UAAL as a percentage of payroll: (3)/(5)	1415.4%	661.0%

**ANNUAL STATEMENT  
GASB 25 AND 27  
ACTUARIAL VALUATION AND ASSUMPTIONS**

The most recent actuarial valuation of the System was prepared by Sherman Actuarial Services as of December 31, 2011.

The normal cost for employees on that date was:	\$325,316	9.0% of pay
The normal cost for the employer was:	68,109	1.9% of pay

The actuarial liability for active members was:	\$5,074,424
The actuarial liability for retired and inactive members was:	24,347,299
Total actuarial accrued liability:	29,421,723
System assets as of that date:	5,486,573
Unfunded actuarial accrued liability:	\$23,935,150

The ratio of system's assets to total actuarial liability was	18.6%
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The principal actuarial assumptions used in the valuation are as follows:

Investment Return:	7.75%
Rate of Salary Increase:	3.0%

**SCHEDULE OF FUNDING PROGRESS**

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued Liability	Funded Ratio	Covered Payroll	UAAL as a percent of Covered Payroll
	(a)	(b)	(b-a)	(a/b)	(c)	(b-a)/c
12/31/11	\$5,486,573	\$29,421,723	\$23,935,150	18.6%	\$3,620,778	661.0%
07/01/10	7,768,815	54,327,495	46,558,680	14.3%	3,289,330	1415.4%
07/01/08	12,002,382	50,739,300	38,736,918	23.7%	3,561,781	1087.6%
07/01/06	12,056,497	47,247,819	35,191,322	25.5%	3,439,867	1023.0%
07/01/04	11,298,856	43,225,235	31,926,379	26.1%	3,061,582	1042.8%
07/01/02	10,260,418	39,818,249	29,557,831	25.8%	2,701,836	1094.0%
07/01/98	7,857,460	34,304,806	26,447,346	22.9%	2,748,638	962.2%

Values prior to 2011 are a combination of the JH Pension Plan and the 1% Plan



## **EXHIBITS**

## Age/Service Distribution as of December 31, 2011

Attained Age	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
< 20	0	0	0	0	0	0	0	0	0	0
20-24	2	0	0	0	0	0	0	0	0	2
25-29	9	5	1	0	0	0	0	0	0	15
30-34	4	8	0	0	0	0	0	0	0	12
35-39	0	7	8	1	0	0	0	0	0	16
40-44	3	3	6	1	1	0	0	0	0	14
45-49	0	0	1	2	1	0	0	0	0	4
50-54	0	0	1	1	2	1	0	0	0	5
55-59	0	0	1	0	0	1	0	0	0	2
60-64	0	0	0	0	0	0	0	0	0	0
65+	0	0	0	0	0	0	0	0	0	0
Total	18	23	18	5	4	2	0	0	0	70

## Retiree Distribution as of December 31, 2011

Attained Age	Retirees and Beneficiaries	Disabled	Total
< 20	0	0	0
20-24	0	0	0
25-29	0	0	0
30-34	0	0	0
35-39	0	1	1
40-44	2	1	3
45-49	8	7	15
50-54	7	7	14
55-59	7	8	15
60-64	13	8	21
65-69	9	12	21
70-74	3	7	10
75-79	4	5	9
80-84	7	6	13
85-89	10	1	11
90-94	6	0	6
95-99	1	0	1
100+	1	0	1
Total	78	63	141

**EXHIBIT 3 - CASHFLOW FORECAST:**

The following is a 30 year forecast of benefit payments Contribution Income and Investment Returns.

Fiscal Year Ending	Benefit Payments	Employee Contributions	Employer Contributions	Investment Returns	Net change in plan assets
2012	\$2,223,020	\$325,316	\$1,860,322	\$436,629	\$399,247
2013	2,231,301	337,901	1,913,199	470,242	490,040
2014	2,245,319	350,948	1,967,574	510,765	583,968
2015	2,257,855	364,475	2,023,489	558,721	688,830
2016	2,268,469	378,496	2,080,988	614,976	805,990
2017	2,283,815	393,031	2,140,118	680,231	929,565
2018	2,321,128	408,098	2,200,920	754,333	1,042,224
2019	2,340,821	423,715	2,263,446	837,945	1,184,284
2020	2,362,793	439,901	2,327,742	932,591	1,337,441
2021	2,385,787	456,678	2,393,859	1,039,182	1,503,933
2022	2,409,383	474,065	2,461,848	1,158,773	1,685,302
2023	2,437,665	492,084	2,531,762	1,292,363	1,878,544
2024	2,464,274	510,758	2,603,654	1,441,119	2,091,258
2025	2,494,703	530,109	2,677,582	1,606,346	2,319,334
2026	2,551,538	550,162	2,753,602	1,788,378	2,540,605
2027	2,611,785	570,941	2,831,774	1,987,566	2,778,496
2028	2,672,272	592,471	2,912,158	2,205,326	3,037,682
2029	2,747,151	614,780	2,994,816	2,442,770	3,305,215
2030	2,815,609	637,893	3,079,812	2,701,345	3,603,442
2031	2,900,333	661,841	3,167,214	2,982,569	3,911,291
2032	2,987,607	686,650	3,257,086	3,287,717	4,243,846
2033	3,077,507	707,250	25,573	3,491,908	1,147,224
2034	3,170,112	728,467	26,341	3,578,969	1,163,665
2035	3,265,504	750,321	27,131	3,667,249	1,179,198
2036	3,363,766	772,831	27,945	3,756,676	1,193,686
2037	3,464,985	796,016	28,783	3,847,167	1,206,981
2038	3,569,250	819,897	29,646	3,938,627	1,218,920
2039	3,676,652	844,493	30,536	4,030,948	1,229,325
2040	3,787,286	869,828	31,452	4,124,012	1,238,006
2041	3,872,184	895,923	32,396	4,218,787	1,274,922

## EXHIBIT 4 - SUMMARY OF PLAN PROVISIONS:

This summary is prepared in accordance with Fire and Police union contracts as of December 31, 2011, and does not take into account any subsequent changes.

### 1. Administration

The New Pension Plan is administered by the City of Central Falls.

### 2. Participation

Participation is mandatory for all full-time employees whose employment.

### 3. Salary

Salary is defined as regular compensation plus Holiday Pay and Longevity. Salary does not include bonuses, overtime, severance pay, unused sick leave credit or other similar compensation.

### 4. Member Contributions

Member contributions vary depending upon date hired as follows:

<u>Date of Hire</u>	<u>Member Contribution Rate</u>
Up to November 23, 2011	9.5% of Salary
November 24, 2011 and Later	10.5% of Salary

### 5. Average Salary

Average salary is used to determine a participant's benefit. It is defined as the average salary during the five consecutive-year period within the final 10 years of employment that produces the highest average.

### 6. Creditable Service

In general, creditable service is awarded during the period in which a member contributes to the retirement system.

## 7. Service Retirement

### a. Eligibility:

Completion of 25 years of service

### b. Benefit Amount:

The retirement allowance is determined as a product of the participant's Benefit Rate times Average Salary times the Early Retirement Reduction Factor. At 25 years of credited service, the Benefit Rate is 50%. For each year after 25, up to 5 additional years, the Benefit Rate is increased 1%. The Early Retirement Reduction Factor based on the RP2000 Mortality Table and 7.5%. Factors at whole ages are shown in the following table:

<u>Age at Commencement</u>	<u>Factor</u>
57 or Over	1.000
56	.9120
55	.8327
54	.7613
53	.6967
52	.6382
51	.5852
50	.5370
49	.4932
48	.4533
47	.4169
46	.3836
45	.3532
44	.3254
43	.2999
42	.2766
41	.2551
40	.2354

**8. Deferred Vested Retirement****a. Eligibility:**

A participant who has completed five or more years of creditable service is eligible for a deferred vested retirement benefit.

**b. Benefit Amount:**

The participant's accrued benefit is based on 2% per year of credited service up to 25 years, plus 1% per year (up to 5 years) times the applicable Early Retirement Reduction Factor.

**b. Refund of Contributions:**

In lieu of the deferred pension benefit, a member may elect to receive a refund of their accumulated contributions with credited interest.

**9. Accidental Disability****a. Eligibility:**

Participants are eligible for an accidental disability benefit, regardless of service or age, if they become permanently and totally incapacitated for further duty as a result of personal injury sustained while in the performance of duties.

**b. Benefit Amount:**

The accidental disability amount is 66 2/3rd% of annual salary.

**10. Ordinary Disability****a. Eligibility:**

An ordinary disability occurs when a member becomes permanently and totally disabled due to sickness or injury that is not job related. In order to be eligible for an ordinary disability benefit, a member must have five years of service.

**b. Benefit Amount:**

The ordinary disability amount is based on 2% per year of credited service up to 25

years, plus 1% per year (up to 5 years) times the applicable Early Retirement Reduction Factor.

## **11. Survivor Benefits**

### **a. Occupational Death:**

The survivors of a firefighter who dies due to an occupational injury will be entitled to a one year's salary plus a one-year deferred pension benefit equal to 66 2/3rd% of the participant's annual Salary. The survivors of a police officer who dies due to an occupational injury will be entitled to a lump sum payment of \$10,000 plus a pension benefit equal to 66 2/3rd% of the participant's annual Salary.

### **b. Non-Occupational Death:**

Upon the death of a member not entitled to survivor benefits, the beneficiary is entitled to a refund of all member contributions with interest.

## **12. Cost-of-Living Increases**

The amount of annual increase will be 2% of the November 23, 2011 pension amount for those receiving a pension benefit at that time, or the initial amount of pension amount for those commencing pension payments after November 23, 2011.

## **13. Postretirement Death Benefits**

Any benefits following the death of a member after retirement are based upon the form of benefit the participant elected at the time of retirement.



## **EXHIBIT 5 - ACTUARIAL METHODS AND ASSUMPTIONS:**

The actuarial cost method, factors and assumptions used in determining cost estimates are presented below.

### **1. Member Data**

The member data used in the determination of cost estimates consist of pertinent information with respect to the active, inactive, retired and disabled members of the employer as supplied by the employer to the actuary.

### **2. Valuation Date**

December 31, 2011.

### **3. Actuarial Cost Method**

The costs of the Plan have been determined in accordance with the individual entry age normal actuarial cost method.

### **4. Rate of Investment Return**

It is assumed that the assets of the fund will accumulate at a compound annual rate of 7.75% per annum.

### **5. Cost-of-Living Increases**

Cost-of-living increases have been assumed to be 2.0% per year without compounding.

### **6. Salary Scale**

The assumed annual rates for salary increases including longevity and holiday pay is 3%.

### **7. Value of Investments**

Assets held by the fund are valued at market value as reported by the City. The actuarial value of assets is equal to the market value.

**8. Annual Rate of Withdrawal Prior to Retirement**

Based on the Rhode Island MERS termination rates for Class B. The assumed annual rates of withdrawal may best be illustrated by the following rates at the following ages:

<b><u>Service</u></b>	<b><u>Rates</u></b>
0	0.1000
5	0.0354
10	0.0191
15	0.0090
20	0.0000

**9. Annual Rate of Mortality**

It is assumed that both pre-retirement and post retirement mortality are represented by the 2011 IRS Static Mortality Table for males and females. Mortality for disabled members is represented by the RP-2000 Disabled Mortality Table.

## **10. Service Retirement**

Based on expected experience, the assumed annual retirement rates are illustrated at the following ages and years of service:

[illegible]

**11. Annual Rate of Disability Prior to Retirement**

Based on an analysis of experience, the assumed annual rates of disability may best be illustrated by the following rates at the following ages:

<u>Attained Age</u>	
20	0.0010
30	0.0030
40	0.0030
50	0.0125

In addition, it is assumed for the 10% of all disabilities are assumed to be ordinary and 90% are service connected.

**12. Family Composition**

It is assumed that 80% of all male members and 60% of all female members will be survived by a spouse and that females (males) are three years younger (older) than members.

**13. Administrative Expenses**

No provisions are made for administrative expenses.

## EXHIBIT 6 - GLOSSARY OF TERMS:

This glossary summarizes the technical terms contained in this report.

### 1. **Actuarial Accrued Liability**

That portion of the Actuarial Present Value of plan benefits that is not provided for by future employer Normal Costs or employee contributions.

### 2. **Actuarial Assumptions**

Assumptions as to the occurrence of future events affecting the Pension Plan such as:

- Rates of investment returns
- Increases in a member's salary
- Inflation
- The probability of mortality, turnover, disablement
- Retirement at each age and other relevant items

### 3. **Actuarial Cost Method**

A procedure for allocating the Actuarial Present Value of pension plan benefits between Normal Cost and Actuarial Accrued Liability.

### 4. **Actuarial Present Value**

The single sum amount required at the valuation date that is required to provide for anticipated future events based upon the terms of the plan and the Actuarial Assumptions.

### 5. **Forecast**

A projection of future benefit payments or contribution requirements based upon the terms of the plan, the current asset amounts, the Actuarial Assumptions and additional assumptions as to the replacement of terminating employees with new employees.

**6. Normal Cost**

That portion of the Actuarial Present Value of future benefits that is assigned to the current year.

**7. Unfunded Actuarial Accrued Liability**

That portion of the Actuarial Accrued Liability that is not provided for by current actuarial value of assets.

**8. Valuation Method**

The method used to divide the cost of future benefits among the Actuarial Accrued Liability, the current year's Normal Costs and future years' Normal Costs. The resulting current funding requirement is then determined as the current year's Normal Cost plus the payment necessary to amortize the Unfunded Actuarial Liability.

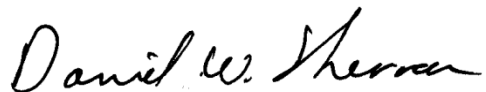
**9. Vested Liability**

That portion of the Actuarial Present Value of Accrued Benefits that a member would be entitled to if the member terminated employment with the employer as of the valuation date.

## **CERTIFICATION:**

This report fairly represents the actuarial position of the Central Falls New Pension Plan contributing as of December 31, 2011, in accordance with generally accepted actuarial principles applied consistently with the preceding valuation. In our opinion, each actuarial assumption used to compute actuarial accrued liability and normal cost are reasonably related to plan experience and to reasonable expectations, and represents our best estimate of anticipated plan experience.

Sherman Actuarial Services, LLC

A handwritten signature in black ink, reading "Daniel W. Sherman". The signature is written in a cursive, flowing style. Below the signature is a solid horizontal line.

Daniel W. Sherman, ASA, MAAA  
Enrolled Actuary No. 11-4086

January, 2012