RESOLUTION AUTHORIZING SUBMISSION OF EAST PROVIDENCE FUNDING IMPROVEMENT PLAN TO THE LOCALLY ADMINISTERED PENSION PLANS STUDY COMMISSION

WHEREAS, Chapter 45-65 of the General Laws, the "Retirement Security Act for Locally

Administered Pension Funds" (the "Act") required the City of East Providence (the "City") to complete an Actuarial Valuation and an Experience Study as of October 31, 2011 for its Police and Fire Fighters Retirement Plan (the "Retirement Plan").

WHEREAS, Based on the results of the valuation and the study and after the adoption of new

actuarial assumptions and methods, the funded status of the Retirement Plan was determined to be 33.6% as of October 31, 2011, causing the Retirement Plan to be considered in "critical status" under the Act, as the Retirement Plan is under 60%

funded; and

WHEREAS, Section 45-65-6(2) of the Act requires that for plans in critical status, the

municipality shall submit to the Locally Administered Pension Plan Study Commission (the "Study Commission") a reasonable alternative funding

improvement plan to cause the plan to emerge from critical status; and

WHEREAS, The City engaged Fallon Pension Actuaries, Inc. to prepare a Funding Improvement

Plan dated November 12, 2012, attached hereto, which outlines five (5) options for

improving the funding status of the Retirement Plan; and

WHEREAS, After considering the options presented, the Budget Commission of the City (the

"Budget Commission") has determined that the most reasonable alternative for bringing the Retirement Plan out of critical status is a combination of Option 2 - "Payment of Annual Required Contribution Beginning in 2012-2013 Fiscal Year"

and Option 3 - "Inclusion of Benefit Changes - Union Contract Negotiations".

NOW THEREFORE, BE IT

RESOLVED: That the Budget Commission hereby approves the implementation of Option 2 -

"Payment of Annual Required Contribution Beginning in 2012-2013", AND BEIT

FURTHER

RESOLVED: That the Budget Commission also hereby approves the implementation of Option

3 - "Inclusion of Benefit Changes - Union Contract Negotiations" for the purpose of reducing the Annual Required Contributions and the budgetary impact of

implementing Option 2, AND BE IT FURTHER RESOLVED

RESOLVED: That the City Manager, working with Counsel for the City of East Providence,

undertake steps to implement Option 3 and report back to the Budget Commission

regarding progress in implementing Option 3, AND BE IT FURTHER

RESOLVED: That this Resolution shall take effect upon its passage.

CITY OF EAST PROVIDENCE RHODE ISLAND

POLICE AND FIRE FIGHTERS RETIREMENT SYSTEM

Funding Improvement Plan – 2012

Prepared by:

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November 12, 2012

City of East Providence, Rhode Island Police and Fire Fighters Retirement Plan Funding Improvement Plan for 2012

Table of Contents

A.	Introd	luction and Summary 1
В.	Curre	nt Funding Levels and Funded Status 1
C.	Option	ns Considered for Funding Improvement Plan
	2. 3. 4.	Google Repayment
D.	Exhib	its
	1.	Summary of Actuarial Valuation Results as of October 31, 201210
	2.	Option 2 – Projection of Funded Status of Pension Plan – 2012 Through 2050 A. Based on Investment Return of 7.00% Per Year
	3.	Option 3 – Projection of Funded Status of Pension Plan – 2012 Through 2050 A. Based on Investment Return of 7.00% Per Year
	4.	Summary of Actuarial Assumptions20
	5.	Summary of Pension Plan Provisions22
	6.	Request Letter to US DOJ (Dated July 28, 2012)25
	7.	Police and Fire Department Budgets 2012 – 2013 Fiscal Year28
	8.	Option 1 – Projection of Funded Status After DOJ Waiver Transfer32

A. Introduction and Summary

In accordance with Rhode Island General Laws Section 45-65-6, the City of East Providence is submitting this Funding Improvement Plan (the "Plan") to the Rhode Island Locally Administered Pension Plans Study Commission.

The City of East Providence has previously completed an Actuarial Valuation and an Experience Study as of October 31, 2011. Based on the results of these studies, and after the adoption of new actuarial assumptions and methods, the funded status of the pension plan was determined to be 33.6% as of October 31, 2011. Thus, since the Plan is under 60.0% funded, this requires the Plan to be considered in "Critical Status".

In the pages following, the strategy of the City of East Providence to improve the funded status will be described. Under the requirements of the new pension law in Rhode Island, the funded status must be improved to 60.0% or more in the next 20 years.

B. Current Funding Levels and Funded Status

As mentioned, the City of East Providence previously completed an Experience Study of the actuarial assumptions and methods to be employed in the annual actuarial valuation. Certain new actuarial assumptions and methods have now been included to determine the funded status of the Plan. These include an interest rate of 7.5% per annum, new RP2000 mortality table, and revised rates of retirement, disability and employment termination. The new actuarial cost method is the entry age normal level percentage of pay method. The unfunded actuarial accrued liability is amortized over 30 years, with annual payments that are determined to increase at the rate of 3.75% per year.

Based on the new assumptions and methods, the funded status as of October 31, 2011 was equal to 33.6%. The Annual Required Contribution determined as of October 31, 2011 was determined to be \$7,525,388, which represented about 61.1% of the annual compensation of the active members covered by the Plan.

The City of East Providence has completed the initial results for the 2012 actuarial valuation. The funded status of the Plan as of October 31, 2012 has been determined to be 31.6%. The Annual Required Contribution for the 2013-2014 fiscal year is \$7,955,473, which represents 63.4% of the annual payroll of the active members covered by the Plan.

Exhibit 1 on page 7 provides a summary of the key elements of the annual actuarial valuations completed in 2011 and 2012. For purposes of the October 31, 2012 market value of assets, this amount has been estimated based on the September 30, 2012 value of \$51.5 million and a return on investments for the year 2011 – 2012 of 10.0%.

C. Options Considered for Funding Improvement Plan

Option 1. Google Investigation and Enforcement Payment - Transfer to Pension Fund

The U.S. Department of Justice is currently holding \$ 60.0 million as part of an equitable distribution and settlement, following the investigation of Google, Inc. for online prescription drug activity from Canada to the U.S.

A petition has been directed to the Assistant Deputy Chief of the Asset Forfeiture and Money Laundering Section to allocate funds due to the Police Department of East Providence to the City's Police and Fire Fighters Retirement Plan. (See copy of attached letter dated July 28, 2012 in Section D.6. following.)

In the event this request is favorably answered, the funded status of the City of East Providence Police and Fire Fighters Retirement Plan would immediately increase to above the 60.0% level and emerge from Critical Status. It is intended that the requested allocation of the distribution available would be sufficient to increase the funded status to 60.0% or more.

The requested amount to be made under the waiver transfer to the Police and Fire Fighters Pension Plan is \$49.2 million. If this amount is transferred, the funded status of the Plan as of October 31, 2012 changes as follows:

	\$\$ in Millions
Actuarial Accrued Liability	\$ 164.8
MV Plan Assets before Transfer	\$ 52.0
DOJ Waiver Transfer	\$ 49.2
MV Plan Assets after Transfer	\$ 101.2
Funded Percentage before Transfer	31.6%
Funded Percentage after Transfer	61.4%

This option would clearly be the most effective method to improve the funded status and move out of Critical Status. However, the outcome remains uncertain at this time and is being monitored closely by the City of East Providence and the Police Department.

The originally requested waiver transfer amount of \$ 49.2 million was determined to be the unfunded actuarial accrued liability as of October 31, 2011 for the Police portion of the pension plan. As of October 31, 2012, this unfunded actuarial accrued liability has increased to \$ 52.7 million. The following table expands the determination shown above, to provide details on the impact if a waiver transfer is made based on the October 31, 2012 results.

Option 1. Google Investigation and Enforcement Payment – Transfer to Pension Fund (Continued)

In this case, the waiver transfer request is to be increased to the 2012 unfunded actuarial accrued liability, which was determined to be \$ 52.7 million, as shown in the expanded table below.

		\$\$ in Millions						
	Police	Fire Fighters	Plan Total					
Actuarial Accrued Liability	\$ 77.2	\$ 87.6	\$ 164.8					
MV Plan Assets before Transfer	\$ 24.5	\$ 27.5	\$ 52.0					
DOJ Waiver Transfer	\$ 52.7	\$ 0	\$ 52.7					
MV Plan Assets after Transfer	\$ 77.2	\$ 27.5	\$ 104.7					
Funded Percentage before Transfer	31.7%	31.4%	31.6%					
Funded Percentage after Transfer	100.0%	31.4%	63.5%					

If the waiver transfer request is favorably decided by the DOJ, the City of East Providence has indicated that the total resources to be made available for future funding of the Police and Fire Fighters Pension Plan would remain at the level determined for the total ARC amounts before a waiver transfer is made. The City would concentrate additional funding toward the Fire Fighters portion of the Plan, with Police contributions at the level of normal cost only, since this portion would be 100% fully funded.

A projection of the funded status of the Plan is included as Exhibit 8 on page 32, assuming the transfer is made at \$52.7 million and that the City funding is the same as ARC amounts, with differences funded toward the Fire Fighters portion of the Plan. In this scenario, the Plan becomes fully funded 100% in 2024, with payment of full ARC amounts for 12 years.

Option 2. Payment of Annual Required Contribution ("ARC" Payments) Beginning in 2012 – 2013 Fiscal Year

For several years prior to 2012, the City of East Providence did not contribute the Annual Required Contribution (the "ARC" contribution) as suggested by the Governmental Accounting Standards Board Statement No. 27. The City of East Providence has completed the 2012 - 2013 Annual Budget process with commitments to begin annual funding with fully 100% of the ARC amounts determined as of October 31 of the previous year.

The budget summaries in Section D.7. indicate the following amounts will be contributed in 2012 – 2013 fiscal year to the Police and Fire Fighters Retirement Plan:

Police	\$ 3,642,258.
Fire Fighters	\$ 3,883,130.
Total City Amount	\$ 7,525,388.

The above annual contribution amounts represent about 61.1% of the total payroll of currently active Police and Fire Fighter personnel included in the annual actuarial valuation as of October 31, 2011. For the 2013 – 2014 fiscal year, the actuarial valuation results suggest that the following amounts should be budgeted:

Police	\$ 3,773,094.
Fire Fighters	\$ 4,182,379.
Total City Amount	\$ 7,955,473.

The above annual contribution amounts represent about 63.4% of the total payroll of currently active Police and Fire Fighter personnel included in the annual actuarial valuation as of October 31, 2012.

In order to gauge the future impact of the City funding of ARC amounts, projections of the pension fund have been completed. For the projections included to assess this option, the first step is to calculate future annual ARC amounts using the assumed interest rate of 7.50%. If this interest rate is assumed, and then, in fact, the actual investment return is achieved at the 7.50% annual level each year, the pension fund would be 56.0% funded in 20 years, and would be 100.2% funded in 30 years. The determination of ARC payments under GASB 27 is based on the amortization of the initial unfunded actuarial accrued liability over 30 years.

In order to gauge the impact of actual investment return on the eventual funded status of the pension fund, projections at lower and higher actual annual investment return levels have been completed as well. It appears that the actual investment return would have to be a little higher, at the 7.80% level per year, for the ARC payments under a 7.50% assumption to attain the 60.0% funded status in 20 years.

Option 2. Payment of Annual Required Contribution ("ARC" Payments) Beginning in 2012 – 2013 Fiscal Year (Continued)

In actual practice, the annual ARC payments determined each year will increase automatically to higher levels, if the actual investment return is less than the assumed rate, or if other actuarial assumptions are overly optimistic. In the projections for the pension fund, and assuming that the fund earns at 7.50% each year, the ARC amounts would have to eventually be increased by an additional 6%-8% per year in order to reach the 60.0% funded status after 20 years. This result is shown in Exhibit 2E.

The projection results for 30 year ARC payments can be summarized as follows:

Exhibit	Determination Of Annual ARC	Actual Investment <u>Return</u>	Funded % In 20 Years	Funded % In 30 Years
2A	ARC at 7.50%	7.00%	49.8%	86.3%
2B	ARC at 7.50%	7.50%	56.0%	100.2%
2C	ARC at 7.50%	7.80%	60.1%	109.6%
2D	ARC at 7.50%	8.00%	62.9%	116.3%
2E	Higher ARC	7.50%	60.5%	114.3%

The projections of Option 2 assume that the plan of benefits provided and currently in place does not change during the period of projection. Exhibit 5 outlines the plan of current benefit provisions.

Option 3. Inclusion of Benefit Changes - Union Contract Negotiations

The City of East Providence, Rhode Island maintains collective bargaining agreements with the respective units of the Police and Fire Fighters. The current contracts expired on October 31, 2012 for the Police, and extend to October 31, 2014 for the Fire Fighters.

These contracts contain certain provisions for the pension benefits that are to be provided to the respective member groups. Changes to the contracts require negotiations under collective bargaining rules.

There are a number of pension plan benefit provisions which might become subject to discussions. These include:

- Automatic 3% annual COLA (indexing %, commencement date, duration)
- Final average pay definition (final average for X years)
- Definition of annual pay included in pension (Base, Holiday, Longevity, Overtime)
- Annual benefit accrual rate (2.5%/24 yrs, 2.0%/4 yrs, 1.0%/2 yrs)
- Service periods for benefits (maximum 30 years)
- Form of monthly benefit payment (spouses, family continuation, options)
- Retirement ages for benefits (eligibility, early retirement reductions)

The results of collective bargaining could assist the City of East Providence in moderating the annual cost and future contributions to the Police and Fire Fighters Retirement Plan. It is conceivable that the possible changes to various benefit provisions could reduce the City's annual contribution (ARC payment) by as much as 25-30%, or more.

It is the intention of the City of East Providence to prioritize these possible changes and begin the dialogue with the respective Police and Fire Fighter representation units. With lower levels of promised benefits, it will be possible to achieve the 60% funded status at an earlier date.

As an example, if the following changes were reflected in the plan provisions, the eventual annual ARC payments would be reduced by up to a range of 15% - 20%, and the actuarial accrued liability would be reduced by up to a range of 12% - 15%. All changes would be made on a prospective basis only, applicable only to benefit accruals after the change date.

- COLA at 2.50% per year, or actual US index, if less
- COLA to begin not earlier than attainment of age 55, or retirement if later
- COLA application is made at January 1 following at least one year of retirement
- Final average pay is 3 year average at retirement
- Annual accrual rate for 30 years 2.5% first 20 years, 2.0% next 10 years
- Actuarial reduction for "early" retirement payments commencing prior to age 50
 (Approximate reductions: age 50 100%, age 45 65%, age 40 45%)

Option 3. Inclusion of Benefit Changes - Union Contract Negotiations (Continued)

With the example changes included, the projection results for 30 year ARC payments can be summarized as follows:

Exhibit	Determination Of Annual ARC	Actual Investment <u>Return</u>	Funded % In 20 Years	Funded % In 30 Years
3A	ARC at 7.50%	7.00%	53.3%	85.3%
3B	ARC at 7.50%	7.50%	60.2%	100.8%
3C	ARC at 7.50%	7.80%	64.7%	111.2%
3D	ARC at 7.50%	8.00%	67.9%	118.7%

In this way, the City of East Providence would reduce the eventual liabilities for the Police and Fire Fighters Pension Plan, immediately improve the funded status of the plan, reduce the level of ARC payments required, and attain the 60% funded status within 20 years.

As noted, the changes suggested as an example would only apply to benefit accruals that occur after the change date. Other changes, again as an example, such as existing COLA payments to currently retired members, could be reviewed and discussed, but would be subject to separate negotiations with the existing retired employees' group.

Option 4. Defined Benefit Plan / Defined Contribution Plan - "Hybrid" Approach

The Rhode Island State pension system has been revised in 2011-2012 to provide a new defined contribution plan ("DC" plan) with major changes made to the existing defined benefit plan ("DB" plan). The new DC plan is added to a revised DB plan to form a new combination plan or "hybrid" pension plan approach.

The City of East Providence recognizes the State's revised pension plan design and structure and will have many of it's non-public safety employees covered under the new structure.

As with the benefit changes mentioned in the previous Section, the pension benefits for Police and Fire Fighter employees are subject to the collective bargaining process. Consideration of the hybrid plan approach will be made part of the City's strategy to control pension cost in the future.

Option 5. Move to RI Municipal Employees Retirement System ("MERS")

The City of East Providence also understands that it would be possible to eventually move its public safety units to the Rhode Island Municipal Employees Pension System ("MERS"). There are currently several public safety units participating in this State program. There have been discussions during the 2011- 2012 Rhode Island pension change process at the State level about this possibility, and this has included the details, steps and concerns for making these possible movements.

It has been suggested that such movement might only be allowed where the joining unit is at or near fully 100% funded status. While certainly another consideration for the City of East Providence in its strategy to control pension plan contributions, it will be important to have further State clarifications of the conversion requirements and details for ongoing study of this option in the future.

Exhibit 1

City of East Providence, Rhode Island

Police and Fire Fighters Retirement Plan

Summary of Actuarial Valuation Results for 2011 and 2012

	October 31, 2011	October 31, 2012
Police	88	92
Fire	<u>100</u>	<u>96</u>
Total Active	188	188
Total Active Annual Payroll	\$12,325,700	\$12,542,173
Total Inactive	247	245
Total Annual Benefit Payments	\$8,829,640	\$9,001,438
Annual City Normal Cost	\$1,893,623	\$1,950,978
Percentage of Annual Payroll	15.36%	15.56%
Annual City ARC Contribution	\$7,525,388	\$7,955,473
Percentage of Annual Payroll	61.05%	63.43%
Actuarial Accrued Liability	\$159,321,987	\$164,802,828
Valuation Assets	\$53,521,413	\$52,047,080
Unfunded Actuarial Accd Liability	\$105,800,574	\$112,755,748
UAAL – Police Portion	\$ 49,243,208	\$ 52,645,219
UAAL – Fire Fighters Portion	\$ 56,557,366	\$ 60,110,529
MV of Assets	\$53,438,852	\$52,047,080
AAL Funded Percentage	33.5%	31.6%

Option 2 - Exhibit A

Assumed Interest Rate for Actuarial Valuation

7.50%

Actual Investment Return Realized

7.00%

Year	Payment										Actuarial				Contribution
Ending October 31	Against The ARC	Employer Normal Cost	Amortization	ARC	Actual City Contribution	Annual % Increase	Payroll	Contribution as % of Payroll	Benefit Payments	Assets	Accrued Liability	Unfunded Act'l Accrued Liability	Funded Ratio	Revenue Forecast	as a %
2001					297,830	0.404			(4,888,271)	71,447,029					
2002					316,867	6.4%			(5,102,499)	63,246,850					
2003					325,051	2.6%			(5,467,561)	67,129,154					
2004					754,998	132.3%			(5,764,126)	68,500,985					
2005					782,234	3.6%			(6,070,139)	70,106,722					
2006					985,136	25.9%			(6,511,544)	76,878,378					
2007					1,494,518	51.7%			(6,843,367)	84,928,351					
2008					1,564,102	4.7%			(7,084,598)	54,557,461					
2009					1,567,216	0.2%			(7,490,300)	57,315,573					
2010					1,400,002	-10.7%	12,579,636	11.1%	(8,243,471)	58,336,221	154,000,000	95,663,779	37.9%		
2011					1,437,580	2.7%	11,773,994	12.2%	(8,705,932)	53,438,852	159,321,987	105,883,135	33.5%		
2012					1,500,000	4.3%	12,325,700	12.2%	(8,980,116)	52,047,080	164,802,828	112,755,748	31.6%		
2013	100%	1,893,623	5,631,765	7,525,388	7,525,388	401.7%	12,542,173	61.1%	(9,112,764)	54,889,100	168,082,404	113,193,304	32.7%	124,669,391	6.04%
2014	100%	1,950,978	6,004,495	7,955,473	7,955,473	5.7%	13,043,860	63.4%	(9,657,240)	57,841,713	171,427,244	113,585,532	33.7%	126,016,658	6.31%
2015	100%	2,034,842	6,214,983	8,249,826	8,249,826	3.7%	13,565,614	63.2%	(10,254,291)	60,725,293	174,838,646	114,113,353	34.7%	127,912,402	6.45%
2016	100%	2,116,236	6,438,833	8,555,069	8,555,069	3.7%	14,108,239	63.1%	(10,910,459)	63,488,494	178,317,935	114,829,441	35.6%	129,910,503	6.59%
2017	100%	2,200,885	6,670,721	8,871,607	8,871,607	3.7%	14,672,568	62.9%	(11,507,434)	66,195,347	181,866,462	115,671,115	36.4%	132,113,563	6.72%
2018	100%	2,288,921	6,910,935	9,199,856	9,199,856	3.7%	15,259,471	62.7%	(12,105,764)	68,854,033	185,485,605	116,631,571	37.1%	102,110,000	0.7270
2019	100%	2,380,478	7,159,773	9,540,251	9,540,251	3.7%	15,869,850	62.5%	(12,675,736)	71,503,478	189,176,768	117,673,291	37.8%		
2020	100%	2,475,697	7,417,543	9,893,240	9,893,240	3.7%	16,504,644	62.3%	(13,269,324)	74,133,708	192,941,386	118,807,678	38.4%		
2021	100%	2,574,724	7,684,565	10,259,290	10,259,290	3.7%	17,164,830	62.2%	(13,860,194)	76,760,957	196,780,920	120,019,963	39.0%		
2022	100%	2,677,713	7,961,170	10,638,884	10,638,884	3.7%	17,851,423	62.0%	(14,366,668)	79,484,752	200,696,860	121,212,107	39.6%		
2023	100%	2,784,822	8,247,700	11,032,522	11,032,522	3.7%	18,565,480	61.8%	(14,883,328)	82,317,176	204,690,727	122,373,551	40.2%		
2024	100%	2,896,215	8,544,511	11,440,726	11,440,726	3.7%	19,308,099	61.6%	(15,366,259)	85,315,611	208,764,073	123,448,462	40.9%		
2025	100%	3,012,063	8,851,969	11,864,032	11,864,032	3.7%	20,080,423	61.4%	(15,816,326)	88,540,972	212,918,478	124,377,506	41.6%		
2026	100%	3,132,546	9,170,456	12,303,002	12,303,002	3.7%	20,883,640	61.3%	(16,222,585)	92,069,770	217,155,556	125,085,785	42.4%		
2027	100%	3,257,848	9,500,365	12,758,213	12,758,213	3.7%	21,718,986	61.1%	(16,667,985)	95,901,275	221,476,951	125,575,676	43.3%		
2028	100%	3,388,162	9,842,105	13,230,267	13,230,267	3.7%	22,587,745	60.9%	(17, 157, 286)	100,030,625	225,884,343	125,853,717	44.3%		
2029	100%	3,523,688	10,196,098	13,719,786	13,719,786	3.7%	23,491,255	60.7%	(17,530,178)	104,613,657	230,379,441	125,765,785	45.4%		
2030	100%	3,664,636	10,562,783	14,227,419	14,227,419	3.7%	24,430,905	60.6%	(17,889,893)	109,713,988	234,963,992	125,250,004	46.7%		
2031	100%	3,811,221	10,942,612	14,753,833	14,753,833	3.7%	25,408,141	60.4%	(18,240,859)	115,395,768	239,639,775	124,244,007	48.2%		
2032	100%	3,963,670	11,336,055	15,299,725	15,299,725	3.7%	26,424,467	60.2%	(18,517,434)	121,793,808	244,408,607	122,614,799	49.8%		
2033	100%	4,122,217	11,743,598	15,865,815	15,865,815	3.7%	27,481,446	60.0%	(18,752,359)	129,019,890	249,272,338	120,252,448	51.8%		
2034	100%	4,287,106	12,165,744	16,452,850	16,452,850	3.7%	28,580,703	59.9%	(18,942,223)	137,197,433	254,232,858	117,035,425	54.0%		
2035	100%	4,458,590	12,603,016	17,061,605	17,061,605	3.7%	29,723,931	59.7%	(19,030,699)	146,515,204	259,292,092	112,776,888	56.5%		
2036	100%	4,636,933	13,055,951	17,692,885	17,692,885	3.7%	30,912,889	59.5%	(19,090,712)	157,102,412	264,452,004	107,349,592	59.4%		
2037	100%	4,822,411	13,525,111	18,347,521	18,347,521	3.7%	32,149,404	59.4%	(19,084,951)	169,135,052	269,714,599	100,579,547	62.7%		
2038	100%	5,015,307	14,011,073	19,026,380	19,026,380	3.7%	33,435,380	59.2%	(19,051,546)	182,763,579	275,081,920	92,318,341	66.4%		
2039	100%	5,215,919	14,514,436	19,730,356	19,730,356	3.7%	34,772,796	59.0%	(18,959,878)	198,180,012	280,556,050	82,376,038	70.6%		
2040	100%	5,424,556	15,035,823	20,460,379	20,460,379	3.7%	36,163,708	58.8%	(18,846,652)	215,553,392	286,139,115	70,585,723	75.3%		
0044	10001	5.044.500	45 575 075	01.017.110	01.017.110	0.704	07.040.050	50.70	(40,000,740)	005 000 105	004 000 004	50 747 450	00.004		
2041 2042	100% 100%	5,641,538 5,867,200	15,575,875 16,135,257	21,217,413 22,002,457	21,217,413 22,002,457	3.7% 3.7%	37,610,256 39,114,666	58.7% 58.5%	(18,690,748) (18,481,863)	235,086,125 257,005,413	291,833,284 297,640,766	56,747,158 40,635,353	80.6% 86.3%		
2042	100% Er NC	6,101,888	0	6,101,888	6,101,888	-72.3%	40,679,253	15.6%	(18,253,297)	264,806,663	303,563,817	38,757,154	87.2%		
2043	100% Er NC	6,345,963	0	6,345,963	6,345,963	4.0%	42,306,423	15.6%	(17,983,819)	273,747,611	309,604,737	35,857,127	88.4%		
2045	100% Er NC	6,599,802	0	6,599,802	6,599,802	4.0%	43,998,680	15.6%	(17,673,824)	283,957,873	315,765,871	31,807,998	89.9%		
2045	100% Er NC	6,863,794	0	6,863,794	6,863,794	4.0%	45,758,627	15.6%	(17,873,824)	295,576,578	322,049,612	26,473,034	91.8%		
						4.0%		15.6%	(16,938,399)	308,745,244	328,458,399	19,713,155	94.0%		
2047	100% Er NC	7,138,346	0	7,138,346	7,138,346		47,588,972								
2048	100% Er NC	7,423,880	0	7,423,880	7,423,880	4.0%	49,492,531	15.6%	(16,527,656)	323,607,985	334,994,722	11,386,736	96.6%		
2049	100% Er NC	7,720,835	0	7,720,835 8,029,668	7,720,835	4.0%	51,472,232	15.6% 15.6%	(16,087,094) (15,619,426)	340,322,611 359,055,266	341,661,117 348,460,173	1,338,506 (10,595,093)	99.6%		
2050	100% Er NC	8,029,668	U	0,029,008	8,029,668	4.0%	53,531,121	15.6%	(15,619,426)	339,033,200	340,400,173	(10,595,093)	103.0%	Page	11

Option 2 - Exhibit B

Assumed Interest Rate for Actuarial Valuation

7.50%

Actual Investment Return Realized

7.50%

Year															
Ending October 31	Payment Against The ARC	Employer Normal Cost	Amortization	ARC	Actual City Contribution	Annual % Increase	Payroll	Contribution as % of Payroll	Benefit Payments	Assets	Actuarial Accrued Liability	Unfunded Act'l Accrued Liability	Funded Ratio	Revenue Forecast	Contribution as a % of Revenue
2001					297,830				(4,888,271)	71.447.029					
2002					316,867	6.4%			(5,102,499)	63,246,850					
2003					325,051	2.6%			(5,467,561)	67,129,154					
2004					754,998	132.3%			(5,764,126)	68,500,985					
2005					782,234	3.6%			(6,070,139)	70,106,722					
2006					985,136	25.9%			(6,511,544)	76,878,378					
2007					1,494,518	51.7%			(6,843,367)						
2008					1,564,102	4.7%				84,928,351					
2009					1,567,216	0.2%			(7,084,598)	54,557,461					
2010					1,400,002	-10.7%	12,579,636	44 40/	(7,490,300)	57,315,573	454 000 000	05 000 770	07.004		
2011					1,437,580	2.7%	11,773,994	11.1% 12.2%	(8,243,471) (8,705,932)	58,336,221 53,438,852	154,000,000 159,321,987	95,663,779 105,883,135	37.9% 33.5%		
									(0,700,002)	00,400,002	100,021,007	100,000,100	33.376		
2012					1,500,000	4.3%	12,325,700	12.2%	(8,980,116)	52,047,080	164,802,828	112,755,748	31.6%		
2013	100%	1,893,623	5,631,765	7,525,388	7,525,388	401.7%	12,542,173	61.1%	(9,112,764)	55,149,336	168,082,404	112,933,069	32.8%	124,669,391	6.04%
2014	100%	1,950,978	6,004,495	7,955,473	7,955,473	5.7%	13,043,860	63.4%	(9,657,240)	58,394,870	171,427,244	113,032,374	34.1%	126,016,658	6.31%
2015	100%	2,034,842	6,214,983	8,249,826	8,249,826	3.7%	13,565,614	63.2%	(10,254,291)	61,606,933	174,838,646	113,231,713	35.2%	127,912,402	6.45%
2016	100%	2,116,236	6,438,833	8,555,069	8,555,069	3.7%	14,108,239	63.1%	(10,910,459)	64,736,358	178,317,935	113,581,578	36.3%	129,910,503	6.59%
2017	100%	2,200,885	6,670,721	8,871,607	8,871,607	3.7%	14,672,568	62.9%	(11,507,434)	67,849,251	181,866,462	114,017,211	37.3%	132,113,563	6.72%
2018	100%	2,288,921	6,910,935	9,199,856	9,199,856	3.7%	15,259,471	62.7%	(12, 105, 764)	70,956,341	185,485,605	114,529,263	38.3%		
2019	100%	2,380,478	7,159,773	9,540,251	9,540,251	3.7%	15,869,850	62.5%	(12,675,736)	74,099,320	189,176,768	115,077,449	39.2%		
2020	100%	2,475,697	7,417,543	9,893,240	9,893,240	3.7%	16,504,644	62.3%	(13,269,324)	77,271,372	192,941,386	115,670,014	40.0%		
2021	100%	2,574,724	7,684,565	10,259,290	10,259,290	3.7%	17,164,830	62.2%	(13,860,194)	80,492,064	196,780,920	116,288,856	40.9%		
2022	100%	2,677,713	7,961,170	10,638,884	10,638,884	3.7%	17,851,423	62.0%	(14,366,668)	83,864,573	200,696,860	116,832,287	41.8%		
2023	100%	2,784,822	8,247,700	11,032,522	11,032,522	3.7%	18,565,480	61.8%	(14,883,328)	87,405,388	204,690,727	117,285,340	42.7%		
2024	100%	2,896,215	8,544,511	11,440,726	11,440,726	3.7%	19,308,099	61.6%	(15,366,259)	91,176,671	208,764,073	117,587,402	43.7%		
2025	100%	3,012,063	8,851,969	11,864,032	11,864,032	3.7%	20,080,423	61.4%	(15,816,326)	95,244,746	212,918,478	117,673,732	44.7%		
2026	100%	3,132,546	9,170,456	12,303,002	12,303,002	3.7%	20,883,640	61.3%	(16,222,585)	99,692,217	217,155,556				
2027	100%	3,257,848	9,500,365	12,758,213	12,758,213	3.7%	21,718,986	61.1%	(16,667,985)	104,525,264	221,476,951	117,463,339 116,951,688	45.9%		
2028	100%	3,388,162	9,842,105	13,230,267	13,230,267	3.7%	22,587,745	60.9%	(17,157,286)	109,746,424	225,884,343	116,137,919	47.2% 48.6%		
2029	100%	3,523,688	10,196,098	13,719,786	13,719,786	3.7%	23,491,255	60.7%	(17,137,288)	115,519,430	230,379,441	114,860,011	50.1%		
2030	100%	3,664,636	10,562,783	14,227,419	14,227,419	3.7%	24,430,905	60.6%	(17,889,893)	121,917,139	234,963,992	113,046,853	51.9%		
2031	100%	2 244 224	40.040.040	44750000	44750000	0.704	05 100 111	00.404	(10.010.050)						
2032		3,811,221	10,942,612	14,753,833	14,753,833	3.7%	25,408,141	60.4%	(18,240,859)	129,013,913	239,639,775	110,625,862	53.8%		
	100%	3,963,670	11,336,055	15,299,725	15,299,725	3.7%	26,424,467	60.2%	(18,517,434)	136,955,820	244,408,607	107,452,787	56.0%		
2033 2034	100%	4,122,217	11,743,598	15,865,815	15,865,815	3.7%	27,481,446	60.0%	(18,752,359)	145,867,374	249,272,338	103,404,964	58.5%		
2035	100%	4,287,106	12,165,744	16,452,850	16,452,850	3.7%	28,580,703	59.9%	(18,942,223)	155,886,188	254,232,858	98,346,670	61.3%		
2036	100%	4,458,590	12,603,016	17,061,605	17,061,605	3.7%	29,723,931	59.7%	(19,030,699)	167,216,847	259,292,092	92,075,244	64.5%		
	100%	4,636,933	13,055,951	17,692,885	17,692,885	3.7%	30,912,889	59.5%	(19,090,712)	180,006,449	264,452,004	84,445,555	68.1%		
2037	100%	4,822,411	13,525,111	18,347,521	18,347,521	3.7%	32,149,404	59.4%	(19,084,951)	194,450,787	269,714,599	75,263,812	72.1%		
2038	100%	5,015,307	14,011,073	19,026,380	19,026,380	3.7%	33,435,380	59.2%	(19,051,546)	210,722,406	275,081,920	64,359,513	76.6%		
2039	100%	5,215,919	14,514,436	19,730,356	19,730,356	3.7%	34,772,796	59.0%	(18,959,878)	229,037,734	280,556,050	51,518,316	81.6%		
2040	100%	5,424,556	15,035,823	20,460,379	20,460,379	3.7%	36,163,708	58.8%	(18,846,652)	249,592,912	286,139,115	36,546,203	87.2%		
2041	100%	5,641,538	15,575,875	21,217,413	21,217,413	3.7%	37,610,256	58.7%	(18,690,748)	272,620,219	291,833,284	19,213,065	93.4%		
2042	100%	5,867,200	16,135,257	22,002,457	22,002,457	3.7%	39,114,666	58.5%	(18,481,863)	298,379,858	297,640,766	(739,092)	100.2%		
2043	100% Er NC	6,101,888	0	6,101,888	6,101,888	-72.3%	40,679,253	15.6%	(18,253,297)	310,403,720	303,563,817	(6,839,903)	102.3%		
2044	100% Er NC	6,345,963	0	6,345,963	6,345,963	4.0%	42,306,423	15.6%	(17,983,819)	323,906,092	309,604,737	(14,301,355)	104.6%		
2045	100% Er NC	6,599,802	0	6,599,802	6,599,802	4.0%	43,998,680	15.6%	(17,673,824)	339,046,345	315,765,871	(23,280,474)	107.4%		
2046	100% Er NC	6,863,794	0	6,863,794	6,863,794	4.0%	45,758,627	15.6%	(17,322,900)	355,996,120	322,049,612	(33,946,508)	110.5%		
2047	100% Er NC	7,138,346	0	7,138,346	7,138,346	4.0%	47,588,972	15.6%	(16,938,399)	374,932,457	328,458,399	(46,474,058)	114.1%		
2048	100% Er NC	7,423,880	0	7,423,880	7,423,880	4.0%	49,492,531	15.6%	(16,527,656)	396,038,217	334,994,722	(61,043,495)	118.2%		
2040	100% Er NC	7,720,835	0	7,720,835	7,720,835	4.0%	51,472,232	15.6%	(16,087,094)	419,513,429	341,661,117	(77,852,312)	122.8%		
2049															
2050	100% Er NC	8,029,668	0	8,029,668	8,029,668	4.0%	53,531,121	15.6%	(15,619,426)	445,570,245	348,460,173	(97,110,072)	127.9%	Page 1	

Option 2 - Exhibit C

Assumed Interest Rate for Actuarial Valuation

7.50%

Actual Investment Return Realized

7.80%

3															
Year Ending October 31	Payment Against The ARC	Employer Normal Cost	Amortization	ARC	Actual City Contribution	Annual %	Payroll	Contribution as	Benefit Payments	Assets_	Actuarial Accrued Liability	Unfunded Act'l Accrued Liability	Funded Ratio	Revenue Forecast	Contribution as a % of Revenue
			THE PERSON NAMED IN									resided Eldenity	<u>rtatio</u>	- Orocast	<u>or revendo</u>
2001					297,830				(4,888,271)	71,447,029					
2002					316,867	6.4%			(5,102,499)	63,246,850					
2003					325,051	2.6%			(5,467,561)	67,129,154					
2004					754,998	132.3%			(5,764,126)	68,500,985					
2005					782,234	3.6%			(6,070,139)	70,106,722					
2006					985,136	25.9%			(6,511,544)	76,878,378					
2007					1,494,518	51.7%			(6,843,367)	84,928,351					
2008					1,564,102	4.7%			(7,084,598)	54,557,461					
2009					1,567,216	0.2%			(7,490,300)	57,315,573					
2010					1,400,002	-10.7%	12,579,636	11.1%	(8,243,471)	58,336,221	154,000,000	95,663,779	37.9%		
2011					1,437,580	2.7%	11,773,994	12.2%	(8,705,932)	53,438,852	159,321,987	105,883,135	33.5%		
2012					1,500,000	4.3%	12,325,700	12.2%	(8,980,116)	52,047,080	164,802,828	112,755,748	31.6%		
2013	100%	1,893,623	5,631,765	7,525,388	7,525,388	401.7%	12,542,173	61.1%	(9,112,764)	55,305,477	168,082,404	112,776,927	32.9%	124,669,391	6.04%
2014	100%	1,950,978	6,004,495	7,955,473	7,955,473	5.7%	13,043,860	63.4%	(9,657,240)	58,728,014	171,427,244	112,699,230	34.3%	126,016,658	6.31%
2015	100%	2,034,842	6,214,983	8,249,826	8,249,826	3.7%	13,565,614	63.2%	(10,254,291)	62,139,914	174,838,646	112,698,732	35.5%	127,912,402	6.45%
2016	100%	2,116,236	6,438,833	8,555,069	8,555,069	3.7%	14,108,239	63.1%	(10,910,459)	65,493,600	178,317,935	112,824,335	36.7%	129,910,503	6.59%
2017	100%	2,200,885	6,670,721	8,871,607	8,871,607	3.7%	14,672,568	62.9%	(11,507,434)	68,856,739	181,866,462	113,009,724	37.9%	132,113,563	6.72%
2018	100%	2,288,921	6,910,935	9,199,856	9,199,856	3.7%	15,259,471	62.7%	(12,105,764)	72,241,931	185,485,605	113,243,674	38.9%	102,110,000	0.7270
2019	100%	2,380,478	7,159,773	9,540,251	9,540,251	3.7%	15,869,850	62.5%	(12,675,736)	75,692,911	189,176,768	113,483,857	40.0%		
2020	100%	2,475,697	7,417,543	9,893,240	9,893,240	3.7%	16,504,644	62.3%	(13,269,324)	79,205,188	192,941,386	113,736,198	41.1%		
2021	100%	2,574,724	7,684,565	10,259,290	10,259,290	3.7%	17,164,830	62.2%	(13,860,194)	82,800,796	196,780,920	113,980,124	42.1%		
2022	100%	2,677,713	7,961,170	10,638,884	10,638,884	3.7%	17,851,423	62.0%	(14,366,668)	86,585,627	200,696,860	114,111,233	43.1%		
2023	100%	2,784,822	8,247,700	11,032,522	11,032,522	3.7%	18,565,480	61.8%	(14,883,328)	90,579,394	204,690,727	114,111,334	44.3%		
2024	100%	2,896,215	8,544,511	11,440,726	11,440,726	3.7%	19,308,099	61.6%	(15,366,259)	94,847,770	208,764,073	113,916,303	45.4%		
2025	100%	3,012,063	8,851,969	11,864,032	11,864,032	3.7%	20,080,423	61.4%	(15,816,326)	99,461,036	212,918,478	113,457,442	46.7%		
2026	100%	3,132,546	9,170,456	12,303,002	12,303,002	3.7%	20,883,640	61.3%	(16,222,585)	104,506,246	217,155,556	112,649,309	48.1%		
2027	100%	3,257,848	9,500,365	12,758,213	12,758,213	3.7%	21,718,986	61.1%	(16,667,985)	109,994,608	221,476,951	111,482,343	49.7%		
2028	100%	3,388,162	9,842,105	13,230,267	13,230,267	3.7%	22,587,745	60.9%	(17,157,286)	115,934,075	225,884,343	109,950,267	51.3%		
2029	100%	3,523,688	10,196,098	13,719,786	13,719,786	3.7%	23,491,255	60.7%	(17,530,178)	122,494,207	230,379,441	107,885,234	53.2%		
2030	100%	3,664,636	10,562,783	14,227,419	14,227,419	3.7%	24,430,905	60.6%	(17,889,893)	129,754,608	234,963,992	105,209,383	55.2%		
2031	100%	3,811,221	10,942,612	14,753,833	14,753,833	3.7%	25,408,141	60.4%	(18,240,859)	137,797,106	239,639,775	101,842,669	57.5%		
2032	100%	3,963,670	11,336,055	15,299,725	15,299,725	3.7%	26,424,467	60.2%	(18,517,434)	146,776,011	244,408,607	97,632,596	60.1%		
2033	100%	4,122,217	11,743,598	15,865,815	15,865,815	3.7%	27,481,446	60.0%	(18,752,359)	156,825,127	249,272,338	92,447,211	62.9%		
2034	100%	4,287,106	12,165,744	16,452,850	16,452,850	3.7%	28,580,703	59.9%	(18,942,223)	168,092,417	254,232,858	86,140,441	66.1%		
2035	100%	4,458,590	12,603,016	17,061,605	17,061,605	3.7%	29,723,931	59.7%	(19,030,699)	180,793,996	259,292,092	78,498,096	69.7%		
2036	100%	4,636,933	13,055,951	17,692,885	17,692,885	3.7%	30,912,889	59.5%	(19,090,712)	195,089,957	264,452,004	69,362,047	73.8%		
2037	100%	4,822,411	13,525,111	18,347,521	18,347,521	3.7%	32,149,404	59.4%	(19,084,951)	211,190,494	269,714,599	58,524,105	78.3%		
2038	100%	5,015,307	14,011,073	19,026,380	19,026,380	3.7%	33,435,380	59.2%	(19,051,546)	229,284,204	275,081,920	45,797,716	83.4%		
2039	100%	5,215,919	14,514,436	19,730,356	19,730,356	3.7%	34,772,796	59.0%	(18,959,878)	249,605,272	280,556,050	30,950,778	89.0%		
2040	100%	5,424,556	15,035,823	20,460,379	20,460,379	3.7%	36,163,708	58.8%	(18,846,652)	272,369,561	286,139,115	13,769,554	95.2%		
2041	100%	5,641,538	15,575,875	21,217,413	21,217,413	3.7%	37,610,256	58.7%	(18,690,748)	297,831,118	291,833,284	(5,997,835)	102.1%		
2042	100%	5,867,200	16,135,257	22,002,457	22,002,457	3.7%	39,114,666	58.5%	(18,481,863)	326,274,224	297,640,766	(28,633,458)	109.6%		
2043	100% Er NC	6,101,888	0	6,101,888	6,101,888	-72.3%	40,679,253	15.6%	(18, 253, 297)	341,257,409	303,563,817	(37,693,592)	112.4%		
2044	100% Er NC	6,345,963	0	6,345,963	6,345,963	4.0%	42,306,423	15.6%	(17,983,819)	357,974,166	309,604,737	(48, 369, 429)	115.6%		
2045	100% Er NC	6,599,802	0	6,599,802	6,599,802	4.0%	43,998,680	15.6%	(17,673,824)	376,607,174	315,765,871	(60,841,303)	119.3%		
2046	100% Er NC	6,863,794	0	6,863,794	6,863,794	4.0%	45,758,627	15.6%	(17,322,900)	397,353,590	322,049,612	(75,303,978)	123.4%		
2047	100% Er NC	7,138,346	0	7,138,346	7,138,346	4.0%	47,588,972	15.6%	(16,938,399)	420,418,368	328,458,399	(91,959,969)	128.0%		
2048	100% Er NC	7,423,880	0	7,423,880	7,423,880	4.0%	49,492,531	15.6%	(16,527,656)	446,014,882	334,994,722	(111,020,161)	133.1%		
2049	100% Er NC	7,720,835	0	7,720,835	7,720,835	4.0%	51,472,232	15.6%	(16,087,094)	474,376,482	341,661,117	(132,715,365)	138.8%		
2050	100% Er NC	8,029,668	0	8,029,668	8,029,668	4.0%	53,531,121	15.6%	(15,619,426)	505,751,705	348,460,173	(157,291,532)	145.1%	Dogg	12
														Page :	13

Option 2 - Exhibit D

Assumed Interest Rate for Actuarial Valuation

7.50%

Actual Investment Return Realized

8.00%

7															
Year Ending October 31	Payment Against The ARC	Employer Normal Cost	Amortization	ARC	Actual City Contribution	Annual % Increase	Payroll	Contribution as % of Payroll	Benefit Payments	Assets	Actuarial Accrued <u>Liability</u>	Unfunded Act'l Accrued Liability	Funded Ratio	Revenue Forecast	Contribution as a % of Revenue
2001					297,830				(4,888,271)	71 447 020					
2001 2002					316,867	6.4%				71,447,029					
2002					325,051				(5,102,499)	63,246,850					
2003						2.6%			(5,467,561)	67,129,154					
					754,998	132.3%			(5,764,126)	68,500,985					
2005					782,234	3.6%			(6,070,139)	70,106,722					
2006					985,136	25.9%			(6,511,544)	76,878,378					
2007					1,494,518	51.7%			(6,843,367)	84,928,351					
2008					1,564,102	4.7%			(7,084,598)	54,557,461					
2009					1,567,216	0.2%	4.		(7,490,300)	57,315,573					
2010					1,400,002	-10.7%	12,579,636	11.1%	(8,243,471)	58,336,221	154,000,000	95,663,779	37.9%		
2011					1,437,580	2.7%	11,773,994	12.2%	(8,705,932)	53,438,852	159,321,987	105,883,135	33.5%		
2012					1,500,000	4.3%	12,325,700	12.2%	(8,980,116)	52,047,080	164,802,828	112,755,748	31.6%		
2013	100%	1,893,623	5,631,765	7,525,388	7,525,388	401.7%	12,542,173	61.1%	(9,112,764)	55,409,571	168,082,404	112,672,833	33.0%	124,669,391	6.04%
2014	100%	1,950,978	6,004,495	7,955,473	7,955,473	5.7%	13,043,860	63.4%	(9,657,240)	58,950,630	171,427,244	112,476,614	34.4%	126,016,658	6.31%
2015	100%	2,034,842	6,214,983	8,249,826	8,249,826	3.7%	13,565,614	63.2%	(10,254,291)	62,496,905	174,838,646	112,341,741	35.7%	127,912,402	6.45%
2016	100%	2,116,236	6,438,833	8,555,069	8,555,069	3.7%	14,108,239	63.1%	(10,910,459)	66,002,002	178,317,935	112,315,933	37.0%	129,910,503	6.59%
2017	100%	2,200,885	6,670,721	8,871,607	8,871,607	3.7%	14,672,568	62.9%	(11,507,434)	69,534,767	181,866,462	112,331,696	38.2%	132,113,563	6.72%
2018	100%	2,288,921	6,910,935	9,199,856	9,199,856	3.7%	15,259,471	62.7%	(12,105,764)	73,109,202	185,485,605	112,376,403	39.4%	102,110,000	0.7270
2019	100%	2,380,478	7,159,773	9,540,251	9,540,251	3.7%	15,869,850	62.5%	(12,675,736)	76,770,579	189,176,768	112,406,189	40.6%		
2020	100%	2,475,697	7,417,543	9,893,240	9,893,240	3.7%	16,504,644	62.3%	(13,269,324)	80,516,145	192,941,386	112,425,241	41.7%		
2020	100%	2,475,097	7,417,545	9,093,240	9,093,240	3.176	10,504,044	02.3%	(13,209,324)	60,516,145	192,941,300	112,425,241	41.770		
2021	100%	2,574,724	7,684,565	10,259,290	10,259,290	3.7%	17,164,830	62.2%	(13,860,194)	84,369,796	196,780,920	112,411,124	42.9%		
2022	100%	2,677,713	7,961,170	10,638,884	10,638,884	3.7%	17,851,423	62.0%	(14,366,668)	88,439,473	200,696,860	112,257,387	44.1%		
2023	100%	2,784,822	8,247,700	11,032,522	11,032,522	3.7%	18,565,480	61.8%	(14,883,328)	92,747,303	204,690,727	111,943,425	45.3%		
2024	100%	2,896,215	8,544,511	11,440,726	11,440,726	3.7%	19,308,099	61.6%	(15,366,259)	97,361,599	208,764,073	111,402,474	46.6%		
2025	100%	3,012,063	8,851,969	11,864,032	11,864,032	3.7%	20,080,423	61.4%	(15,816,326)	102,355,611	212,918,478	110,562,867	48.1%		
2026	100%	3,132,546	9,170,456	12,303,002	12,303,002	3.7%	20,883,640	61.3%	(16,222,585)	107,819,732	217,155,556	109,335,824	49.7%		
2027	100%	3,257,848	9,500,365	12,758,213	12,758,213	3.7%	21,718,986	61.1%	(16,667,985)	113,768,931	221,476,951	107,708,021	51.4%		
2028	100%	3,388,162	9,842,105	13,230,267	13,230,267	3.7%	22,587,745	60.9%	(17,157,286)	120,215,236	225,884,343	105,669,107	53.2%		
2029	100%	3,523,688	10,196,098	13,719,786	13,719,786	3.7%	23,491,255	60.7%	(17,530,178)	127,332,604	230,379,441	103,046,837	55.3%		
2030	100%	3,664,636	10,562,783	14,227,419	14,227,419	3.7%	24,430,905	60.6%	(17,889,893)	135,205,712	234,963,992	99,758,280	57.5%		
2031	100%	3,811,221	10,942,612	44752 022	14 752 922	3.7%	OF 400 444	CO 40/	(40.040.050)	4.42.000.000	220 220 775	05 747 770	00.404		
2032	100%	3,963,670	11,336,055	14,753,833	14,753,833		25,408,141	60.4%	(18,240,859)	143,922,003	239,639,775	95,717,773	60.1%		
2033				15,299,725	15,299,725	3.7%	26,424,467	60.2%	(18,517,434)	153,641,994	244,408,607	90,766,613	62.9%		
2034	100% 100%	4,122,217	11,743,598	15,865,815	15,865,815	3.7%	27,481,446	60.0%	(18,752,359)	164,506,477	249,272,338	84,765,862	66.0%		
		4,287,106	12,165,744	16,452,850	16,452,850	3.7%	28,580,703	59.9%	(18,942,223)	176,671,199	254,232,858	77,561,659	69.5%		
2035	100%	4,458,590	12,603,016	17,061,605	17,061,605	3.7%	29,723,931	59.7%	(19,030,699)	190,360,950	259,292,092	68,931,142	73.4%		
2036	100%	4,636,933	13,055,951	17,692,885	17,692,885	3.7%	30,912,889	59.5%	(19,090,712)	205,745,587	264,452,004	58,706,417	77.8%		
2037	100%	4,822,411	13,525,111	18,347,521	18,347,521	3.7%	32,149,404	59.4%	(19,084,951)	223,046,132	269,714,599	46,668,467	82.7%		
2038	100%	5,015,307	14,011,073	19,026,380	19,026,380	3.7%	33,435,380	59.2%	(19,051,546)	242,463,252	275,081,920	32,618,668	88.1%		
2039	100%	5,215,919	14,514,436	19,730,356	19,730,356	3.7%	34,772,796	59.0%	(18,959,878)	264,244,496	280,556,050	16,311,554	94.2%		
2040	100%	5,424,556	15,035,823	20,460,379	20,460,379	3.7%	36,163,708	58.8%	(18,846,652)	288,620,577	286,139,115	(2,481,462)	100.9%		
2041	100%	5,641,538	15,575,875	21,217,413	21,217,413	3.7%	37,610,256	58.7%	(18,690,748)	315,861,950	291,833,284	(24,028,667)	108.2%		
2042	100%	5,867,200	16,135,257	22,002,457	22,002,457	3.7%	39,114,666	58.5%	(18,481,863)	346,271,062	297,640,766	(48,630,296)	116.3%		
2043	100% Er NC	6,101,888	0	6,101,888	6,101,888	-72.3%	40,679,253	15.6%	(18,253,297)	363,426,555	303,563,817	(59,862,738)	119.7%		
2044	100% Er NC	6,345,963	0	6,345,963	6,345,963	4.0%	42,306,423	15.6%	(17,983,819)	382,510,681	309,604,737	(72,905,944)	123.5%		
2045	100% Er NC	6,599,802	0	6,599,802	6,599,802	4.0%	43,998,680	15.6%	(17,673,824)	403,724,414	315,765,871	(87,958,542)	127.9%		
2046	100% Er NC	6,863,794	0	6,863,794	6,863,794	4.0%	45,758,627	15.6%	(17,322,900)	427,284,954	322,049,612	(105,235,342)	132.7%		
2047	100% Er NC	7,138,346	0	7,138,346	7,138,346	4.0%	47,588,972	15.6%	(16,938,399)	453,419,223	328,458,399	(124,960,823)	138.0%		
2048	100% Er NC	7,423,880	0	7,423,880	7,423,880	4.0%	49,492,531	15.6%	(16,527,656)	482,364,638	334,994,722	(147,369,917)	144.0%		
2049	100% Er NC	7,720,835	0	7,720,835	7,720,835	4.0%	51,472,232	15.6%	(16,087,094)	514,380,849	341,661,117	(172,719,733)	150.6%		
2050	100% Er NC	8,029,668	0	8,029,668	8,029,668	4.0%	53,531,121	15.6%	(15,619,426)	549,745,157	348,460,173	(201,284,984)	157.8%	D	4
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Option 2 - Exhibit E

Assumed Interest Rate for Actuarial Valuation

7.50%

Actual Investment Return Realized

7.50%

Increase in ARC Contributions in 2015 - 60% Funded in 20 Years

0															
Year Ending	Payment Against	Employer			Actual City	Annual %		Contribution as	Benefit		Actuarial Accrued	Unfunded Act'l	Funded	Revenue	Contribution as a %
October 31	The ARC	Normal Cost	Amortization	ARC	Contribution	Increase	Payroll	% of Payroll	<u>Payments</u>	Assets	Liability	Accrued Liability	Ratio	<u>Forecast</u>	of Revenue
2001					297,830				(4,888,271)	71,447,029					
2002					316,867	6.4%			(5,102,499)	63,246,850					
2003					325,051	2.6%			(5,467,561)	67,129,154					
2004					754,998	132.3%			(5,764,126)	68,500,985					
2005					782,234	3.6%			(6,070,139)	70,106,722					
2006					985,136	25.9%			(6,511,544)	76,878,378					
2007					1,494,518	51.7%			(6,843,367)	84,928,351					
2008					1,564,102	4.7%			(7,084,598)	54,557,461					
2009					1,567,216	0.2%			(7,490,300)	57,315,573					
2010					1,400,002	-10.7%	12,579,636	11.1%	(8,243,471)	58,336,221	154,000,000	95,663,779	37.9%		
2011					1,437,580	2.7%	11,773,994	12.2%	(8,705,932)	53,438,852	159,321,987	105,883,135	33.5%		
2012					1,500,000	4.3%	12,325,700	12.2%	(8,980,116)	52,047,080	164,802,828	112,755,748	31.6%		
2013	100%	1,893,623	5,631,765	7,525,388	7,525,388	401.7%	12,542,173	61.1%	(9,112,764)	55,152,261	168,082,404	112,930,144	32.8%	124,669,391	6.04%
2014	100%	1,950,978	6,004,495	7,955,473	7,955,473	5.7%	13,043,860	63.4%	(9,657,240)	58,404,078	171,427,244	113,023,166	34.1%	126,016,658	6.31%
2015	100%	2,034,842	6,238,850	8,273,692	8,273,692	4.0%	13,565,614	63.4%	(10,254,291)	61,650,125	174,838,646	113,188,521	35.3%	127,912,402	6.47%
2016	100%	2,116,236	6,488,404	8,604,640	8,604,640	4.0%	14,108,239	63.4%	(10,910,459)	64,845,291	178,317,935	113,472,645	36.4%	129,910,503	6.62%
2017	100%	2,200,885	6,747,940	8,948,825	8,948,825	4.0%	14,672,568	63.4%	(11,507,434)	68,060,148	181,866,462	113,806,314	37.4%	132,113,563	6.77%
2018	100%	2,288,921	7,017,858	9,306,778	9,306,778	4.0%	15,259,471	63.4%	(12, 105, 764)	71,310,333	185,485,605	114,175,272	38.4%		
2019	100%	2,380,478	7,298,572	9,679,049	9,679,049	4.0%	15,869,850	63.4%	(12,675,736)	74,642,927	189,176,768	114,533,841	39.5%		
2020	100%	2,475,697	7,590,515	10,066,211	10,066,211	4.0%	16,504,644	63.4%	(13,269,324)	78,057,031	192,941,386	114,884,355	40.5%		
2021	100%	2,574,724	7,894,135	10,468,860	10,468,860	4.0%	17,164,830	63.4%	(13,860,194)	81,578,689	196,780,920	115,202,231	41.5%		
2022	100%	2,677,713	8,209,901	10,887,614	10,887,614	4.0%	17,851,423	63.4%	(14,366,668)	85,318,174	200,696,860	115,378,686	42.5%		
2023	100%	2,784,822	8,538,297	11,323,119	11,323,119	4.0%	18,565,480	63.4%	(14,883,328)	89,299,737	204,690,727	115,390,991	43.6%		
2024	100%	2,896,215	8,879,829	11,776,043	11,776,043	4.0%	19,308,099	63.4%	(15,366,259)	93,594,023	208,764,073	115,170,050	44.8%		
2025	100%	3,012,063	9,235,022	12,247,085	12,247,085	4.0%	20,080,423	63.4%	(15,816,326)	98,276,619	212,918,478	114,641,859	46.2%		
2026	100%	3,132,546	9,604,423	12,736,969	12,736,969	4.0%	20,883,640	63.4%	(16,222,585)	103,440,241	217,155,556	113,715,315	47.6%		
2027	100%	3,257,848	9,988,599	13,246,447	13,246,447	4.0%	21,718,986	63.4%	(16,667,985)	109,102,094	221,476,951	112,374,857	49.3%		
2028	100%	3,388,162	10,388,143	13,776,305	13,776,305	4.0%	22,587,745	63.4%	(17,157,286)	115,276,733	225,884,343	110,607,610	51.0%		
2029	100%	3,523,688	10,803,669	14,327,357	14,327,357	4.0%	23,491,255	63.4%	(17,530,178)	122,140,977	230,379,441	108,238,464	53.0%		
2030	100%	3,664,636	11,235,816	14,900,452	14,900,452	4.0%	24,430,905	63.4%	(17,889,893)	129,781,930	234,963,992	105,182,062	55.2%		
2031	100%	3,811,221	11,685,249	15,496,470	15,496,470	4.0%	25,408,141	63.4%	(18,240,859)	138,289,450	239,639,775	101,350,325	57.7%		
2032	100%	3,963,670	12,152,659	16,116,329	16,116,329	4.0%	26,424,467	63.4%	(18,517,434)	147,826,455	244,408,607	96,582,152	60.5%		
2033	100%	4,122,217	12,638,765	16,760,982	16,760,982	4.0%	27,481,446	63.4%	(18,752,359)	158,535,769	249,272,338	90,736,570	63.6%		
2034	100%	4,287,106	13,144,316	17,431,421	17,431,421	4.0%	28,580,703	63.4%	(18,942,223)	170,574,891	254,232,858	83,657,967	67.1%		
2035	100%	4,458,590	13,670,088	18,128,678	18,128,678	4.0%	29,723,931	63.4%	(19,030,699)	184,169,999	259,292,092	75,122,093	71.0%		
2036	100%	4,636,933	14,216,892	18,853,825	18,853,825	4.0%	30,912,889	63.4%	(19,090,712)	199,491,617	264,452,004	64,960,387	75.4%		
2037	100%	4,822,411	14,785,567	19,607,978	19,607,978	4.0%	32,149,404	63.4%	(19,084,951)	216,760,953	269,714,599	52,953,646	80.4%		
2038	100%	5,015,307	15,376,990	20,392,297	20,392,297	4.0%	33,435,380	63.4%	(19,051,546)	236,178,104	275,081,920	38,903,815	85.9%		
2039	100%	5,215,919	15,992,070	21,207,989	21,207,989	4.0%	34,772,796	63.4%	(18,959,878)	257,989,359	280,556,050	22,566,691	92.0%		
2040	100%	5,424,556	16,631,752	22,056,309	22,056,309	4.0%	36,163,708	63.4%	(18,846,652)	282,423,210	286,139,115	3,715,906	98.7%		
2041	100%	5,641,538	17,297,022	22,938,561	22,938,561	4.0%	37,610,256	63.4%	(18,690,748)	309,746,969	291,833,284	(17,913,686)	106.1%		
2042	100%	5,867,200	17,988,903	23,856,103	23,856,103	4.0%	39,114,666	63.4%	(18,481,863)	340,258,771	297,640,766	(42,618,005)	114.3%		
2043	100% Er NC	6,101,888	0	6,101,888	6,101,888	-74.4%	40,679,253	15.6%	(18,253,297)	355,537,754	303,563,817	(51,973,937)	117.1%		
2044	100% Er NC	6,345,963	0	6,345,963	6,345,963	4.0%	42,306,423	15.6%	(17,983,819)	372,546,650	309,604,737	(62,941,913)	120.3%		
2045	100% Er NC	6,599,802	0	6,599,802	6,599,802	4.0%	43,998,680	15.6%	(17,673,824)	391,463,826	315,765,871	(75,697,954)	124.0%		
2046 2047	100% Er NC	6,863,794	0	6,863,794	6,863,794	4.0%	45,758,627	15.6%	(17,322,900)	412,481,324	322,049,612	(90,431,712)	128.1%		
2048	100% Er NC 100% Er NC	7,138,346 7,423,880	0	7,138,346 7,423,880	7,138,346	4.0%	47,588,972	15.6%	(16,938,399)	435,798,095 461,620,532	328,458,399	(107,339,696)	132.7%		
2049	100% Er NC	7,423,880	0	7,423,880	7,423,880	4.0%	49,492,531	15.6% 15.6%	(16,527,656) (16,087,094)	490,173,932	334,994,722 341,661,117	(126,625,810)	137.8%		
2050	100% Er NC	8,029,668	0	8,029,668	7,720,835 8,029,668	4.0%	51,472,232 53,531,121	15.6%	(15,619,426)	521,697,581	348,460,173	(148,512,816) (173,237,408)	143.5% 149.7%		
2000	100% ET NC	0,029,000	U	0,029,000	0,029,000	4.0%	55,551,121	15.6%	(10,019,420)	021,097,001	340,400,173	(173,237,408)	149.7%	Page	15
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Option 3 - Exhibit A

Assumed Interest Rate for Actuarial Valuation

7.50%

Actual Investment Return Realized

7.00%

1															
Year Ending	Payment Against	Employer			Actual City	Annual %		Contribution as	Benefit		Actuarial Accrued	Unfunded Act'l	Funded	Revenue	Contribution as a %
October 31	The ARC	Normal Cost	<u>Amortization</u>	ARC	Contribution	Increase	Payroll	% of Payroll	Payments	Assets	Liability	Accrued Liability	Ratio	Forecast	of Revenue
2001					297,830				(4,888,271)	71,447,029					
2002					316,867	6.4%			(5,102,499)	63,246,850					
2003					325,051	2.6%			(5,467,561)	67,129,154					
2004					754,998	132.3%			(5,764,126)	68,500,985					
2005					782,234	3.6%			(6,070,139)	70,106,722					
2006					985,136	25.9%			(6,511,544)	76,878,378					
2007					1,494,518	51.7%			(6,843,367)	84,928,351					
2008					1,564,102	4.7%			(7,084,598)	54,557,461					
2009					1,567,216	0.2%			(7,490,300)	57,315,573					
2010					1,400,002	-10.7%	12,579,636	11.1%	(8,243,471)	58,336,221	154,000,000	95,663,779	37.9%		
2011					1,437,580	2.7%	11,773,994	12.2%	(8,705,932)	53,438,852	159,321,987	105,883,135	33.5%		
2012					1,500,000	4.3%	12,325,700	12.2%	(8,980,116)	52,047,080	164,802,828	112,755,748	31.6%		
2013	100%	1,893,623	5,631,765	7,525,388	7,525,388	401.7%	12,542,173	61.1%	(9,112,764)	54,879,838	152,830,931	97,951,093	35.9%	124,669,391	6.04%
2014	100%	1,950,978	6,004,495	7,955,473	7,955,473	5.7%	13,043,860	63.4%	(9,560,668)	57,909,289	155,658,303	97,749,014	37.2%	126,016,658	6.31%
2015	100%	1,434,825	6,739,424	8,174,249	8,174,249	2.8%	13,565,614	62.7%	(10,100,477)	60,845,957	158,537,982	97,692,024	38.4%	127,912,402	6.39%
2016	100%	1,492,218	6,906,823	8,399,040	8,399,040	2.8%	14,108,239	61.9%	(10,692,250)	63,638,551	161,470,934	97,832,384	39.4%	129,910,503	6.47%
2017	100%	1,551,906	7,078,108	8,630,014	8,630,014	2.8%	14,672,568	61.2%	(11,219,748)	66,348,817	164,458,147	98,109,330	40.3%	132,113,563	6.53%
2018	100%	1,613,983	7,253,357	8,867,339	8,867,339	2.8%	15,259,471	60.4%	(11,742,591)	68,983,150	167,500,623	98,517,473	41.2%		
2019	100%	1,678,542	7,432,649	9,111,191	9,111,191	2.8%	15,869,850	59.7%	(12,232,085)	71,577,259	170,599,384	99,022,125	42.0%		
2020	100%	1,745,684	7,616,065	9,361,749	9,361,749	2.8%	16,504,644	59.0%	(12,738,551)	74,119,091	173,755,473	99,636,382	42.7%		
2021	100%	1,815,511	7,803,686	9,619,197	9,619,197	2.8%	17,164,830	58.3%	(13,236,485)	76,621,509	176,969,949	100,348,440	43.3%		
2022	100%	1,888,131	7,995,594	9,883,725	9,883,725	2.8%	17,851,423	57.6%	(13,648,335)	79,175,993	180,243,893	101,067,900	43.9%		
2023	100%	1,963,657	8,191,871	10,155,527	10,155,527	2.8%	18,565,480	56.9%	(14,064,745)	81,789,633	183,578,405	101,788,772	44.6%		
2024	100%	2,042,203	8,392,602	10,434,804	10,434,804	2.8%	19,308,099	56.2%	(14,444,283)	84,511,648	186,974,605	102,462,957	45.2%		
2025	100%	2,123,891	8,597,871	10,721,761	10,721,761	2.8%	20,080,423	55.5%	(14,788,265)	87,393,421	190,433,636	103,040,214	45.9%		
2026	100%	2,208,847	8,807,763	11,016,610	11,016,610	2.8%	20,883,640	54.9%	(15,087,004)	90,499,651	193,956,658	103,457,007	46.7%		
2027	100%	2,297,200	9,022,366	11,319,567	11,319,567	2.8%	21,718,986	54.2%	(15,417,886)	93,822,167	197,544,856	103,722,689 103,850,719	47.5% 48.4%		
2028	100%	2,389,088	9,241,766	11,630,855	11,630,855	2.8%	22,587,745	53.6% 52.9%	(15,784,703)	97,348,717 101,213,844	201,199,436 204,921,625	103,707,782	49.4%		
2029 2030	100% 100%	2,484,652 2,584,038	9,466,051 9,695,310	11,950,703 12,279,348	11,950,703 12,279,348	2.8%	23,491,255 24,430,905	52.3%	(16,040,113) (16,279,803)	105,465,547	208,712,676	103,707,782	50.5%		
2031	100%	2,687,400	9,929,630	12,617,030	12,617,030	2.8%	25,408,141	51.6%	(16,507,977)	110,151,063	212,573,860	102,422,797	51.8%		
2032	100%	2,794,896	10,169,102	12,963,998	12,963,998	2.8%	26,424,467	51.0%	(16,665,691)	115,379,972	216,506,476	101,126,504	53.3%		
2033	100%	2,906,691	10,413,817	13,320,508	13,320,508	2.8%	27,481,446	50.4%	(16,783,361)	121,238,958	220,511,846	99,272,889	55.0%		
2034	100%	3,022,959	10,663,863	13,686,822	13,686,822	2.8%	28,580,703	49.8%	(16,858,578)	127,823,130	224,591,315	96,768,185	56.9%		
2035	100%	3,143,877	10,919,332	14,063,210	14,063,210	2.8%	29,723,931	49.2% 48.6%	(16,842,169)	135,283,357 143,715,079	228,746,255 232,978,060	93,462,898 89,262,981	59.1% 61.7%		
2036	100%	3,269,632	11,180,315	14,449,948	14,449,948	2.8%	30,912,889	48.0%	(16,799,827) (16,699,332)	153,252,580	237,288,155	84,035,575	64.6%		
2037	100% 100%	3,400,418	11,446,904	14,847,321 15,255,623	14,847,321 15,255,623	2.8%	32,149,404 33,435,380	47.5%	(16,574,845)	164,005,174	241,677,985	77,672,812	67.9%		
2038 2039		3,536,434 3,677,892	11,719,188 11,997,260	15,255,623	15,255,623	2.8%	34,772,796	46.9%	(16,400,294)	176,115,802	246,149,028	70,033,226	71.5%		
2040	100% 100%	3,825,008	12,281,211	16,106,219	16,106,219	2.8%	36,163,708	46.3%	(16,208,121)	189,704,749	250,702,785	60,998,036	75.7%		
												50 100 150	00.004		
2041	100%	3,978,008	12,571,132	16,549,140	16,549,140	2.8%	37,610,256	45.8%	(15,980,590)	204,918,328	255,340,787	50,422,459	80.3%		
2042	100%	4,137,128	12,867,113	17,004,241	17,004,241	2.8%	39,114,666	45.2%	(15,709,584)	221,920,996	260,064,591	38,143,596	85.3%		
2043	100% Er NC	4,302,613	0	4,302,613	4,302,613	-74.7% 4.0%	40,679,253 42,306,423	11.0% 11.0%	(15,515,302) (15,286,246)	227,598,998 234,115,078	264,875,786 269,775,988	37,276,788 35,660,910	85.9% 86.8%		
2044 2045	100% Er NC	4,474,718	0	4,474,718 4,653,707	4,474,718 4,653,707	4.0%	42,306,423	11.0%	(15,286,246)	241,567,583	274,766,844	33,199,261	87.9%		
2045	100% Er NC 100% Er NC	4,653,707 4,839,855	0	4,839,855	4,839,855	4.0%	45,758,627	11.0%	(14,724,465)	250.062.022	279,850,031	29,788,008	89.4%		
2047	100% Er NC	5,033,449	0	5,033,449	5,033,449	4.0%	47,588,972	11.0%	(14,397,639)	259,704,955	285,027,256	25,322,301	91.1%		
2048	100% Er NC	5,234,787	0	5,234,787	5,234,787	4.0%	49,492,531	11.0%	(14,048,508)	270,604,085	290,300,260	19,696,175	93.2%		
2049	100% Er NC	5,444,178	0	5,444,178	5,444,178	4.0%	51,472,232	11.0%	(13,674,030)	282,877,628	295,670,815	12,793,187	95.7%		
2050	100% Er NC	5,661,946	0	5,661,946	5.661.946	4.0%	53,531,121	11.0%	(13,276,512)	296,649,668	301,140,725	4,491,057	98.5%		

Option 3 - Exhibit B

Assumed Interest Rate for Actuarial Valuation

7.50%

Actual Investment Return Realized

7.50%

2															
Year Ending October 31	Payment Against The ARC	Employer Normal Cost	Amortization	ARC	Actual City Contribution	Annual % Increase	Payroll	Contribution as % of Payroll	Benefit Payments	Assets	Actuarial Accrued Liability	Unfunded Act'l Accrued Liability	Funded Ratio	Revenue Forecast	Contribution as a % of Revenue
2001					297,830				(4,888,271)	71,447,029					
2002					316,867	6.4%			(5,102,499)	63,246,850					
2003					325,051	2.6%			(5,467,561)	67,129,154					
2004					754,998	132.3%			(5,764,126)	68,500,985					
2005					782,234	3.6%			(6,070,139)	70,106,722					
2006					985,136	25.9%			(6,511,544)	76,878,378					
2007					1,494,518	51.7%			(6,843,367)	84,928,351					
2008					1,564,102	4.7%			(7,084,598)	54,557,461					
2009					1,567,216	0.2%			(7,490,300)	57,315,573					
2010					1,400,002	-10.7%	12,579,636	11.1%	(8,243,471)	58,336,221	154,000,000	95,663,779	37.9%		
2011					1,437,580	2.7%	11,773,994	12.2%	(8,705,932)	53,438,852	159,321,987	105,883,135	33.5%		
2012					1,500,000	4.3%	12,325,700	12.2%	(8,980,116)	52,047,080	164,802,828	112,755,748	31.6%		
2013	100%	1,893,623	5,631,765	7,525,388	7,525,388	401.7%	12,542,173	61.1%	(9,112,764)	55,140,073	152,830,931	97,690,858	36.1%	124,669,391	6.04%
2014	100%	1,950,978	6,004,495	7,955,473	7,955,473	5.7%	13,043,860	63.4%	(9,560,668)	58,462,400	155,658,303	97,195,903	37.6%	126,016,658	6.31%
2015	100%	1,434,825	6,739,424	8,174,249	8,174,249	2.8%	13,565,614	62.7%	(10,100,477)	61,727,886	158,537,982	96,810,096	38.9%	127,912,402	6.39%
2016	100%	1,492,218	6,906,823	8,399,040	8,399,040	2.8%	14,108,239	61.9%	(10,692,250)	64,887,326	161,470,934	96,583,608	40.2%	129,910,503	6.47%
2017	100%	1,551,906	7,078,108	8,630,014	8,630,014	2.8%	14,672,568	61.2%	(11,219,748)	68,004,448	164,458,147	96,453,699	41.4%	132,113,563	6.53%
2018	100%	1,613,983	7,253,357	8,867,339	8,867,339	2.8%	15,259,471	60.4%	(11,742,591)	71,088,075	167,500,623	96,412,548	42.4%		
2019	100%	1,678,542	7,432,649	9,111,191	9,111,191	2.8%	15,869,850	59.7%	(12,232,085)	74,176,549	170,599,384	96,422,835	43.5%		
2020	100%	1,745,684	7,616,065	9,361,749	9,361,749	2.8%	16,504,644	59.0%	(12,738,551)	77,260,817	173,755,473	96,494,655	44.5%		
2021	100%	1,815,511	7,803,686	9,619,197	9,619,197	2.8%	17,164,830	58.3%	(13,236,485)	80,356,894	176,969,949	96,613,055	45.4%		
2022	100%	1,888,131	7,995,594	9,883,725	9,883,725	2.8%	17,851,423	57.6%	(13,648,335)	83,559,697	180,243,893	96,684,196	46.4%		
2023	100%	1,963,657	8,191,871	10,155,527	10,155,527	2.8%	18,565,480	56.9%	(14,064,745)	86,880,460	183,578,405	96,697,945	47.3%		
2024	100%	2,042,203	8,392,602	10,434,804	10,434,804	2.8%	19,308,099	56.2%	(14,444,283)	90,372,872	186,974,605	96,601,733	48.3%		
2025	100%	2,123,891	8,597,871	10,721,761	10,721,761	2.8%	20,080,423	55.5%	(14,788,265)	94,093,350	190,433,636	96,340,285	49.4%		
2026	100%	2,208,847	8,807,763	11,016,610	11,016,610	2.8%	20,883,640	54.9%	(15,087,004)	98,112,242	193,956,658	95,844,415	50.6%		
2027	100%	2,297,200	9,022,366	11,319,567	11,319,567	2.8%	21,718,986	54.2%	(15,417,886)	102,427,750	197,544,856	95,117,106	51.9%		
2028	100%	2,389,088	9,241,766	11,630,855	11,630,855	2.8%	22,587,745	53.6%	(15,784,703)	107,034,408	201,199,436	94,165,028	53.2%		
2029	100%	2,484,652	9,466,051	11,950,703	11,950,703	2.8%	23,491,255	52.9%	(16,040,113)	112,073,962	204,921,625	92,847,663	54.7%		
2030	100%	2,584,038	9,695,310	12,279,348	12,279,348	2.8%	24,430,905	52.3%	(16,279,803)	117,602,803	208,712,676	91,109,872	56.3%		
2031	100%	2,687,400	9,929,630	12,617,030	12,617,030	2.8%	25,408,141	51.6%	(16,507,977)	123,677,392	212,573,860	88,896,468	58.2%		
2032	100%	2,794,896	10,169,102	12,963,998	12,963,998	2.8%	26,424,467	51.0%	(16,665,691)	130,417,426	216,506,476	86,089,051	60.2%		
2033	100%	2,906,691	10,413,817	13,320,508	13,320,508	2.8%	27,481,446	50.4%	(16,783,361)	137,920,970	220,511,846	82,590,876	62.5%		
2034	100%	3,022,959	10,663,863	13,686,822	13,686,822	2.8%	28,580,703	49.8%	(16,858,578)	146,295,761	224,591,315	78,295,554	65.1%		
2035	100%	3,143,877	10,919,332	14,063,210	14,063,210	2.8%	29,723,931	49.2%	(16,842,169)	155,706,660	228,746,255	73,039,595	68.1%		
2036	100%	3,269,632	11,180,315	14,449,948	14,449,948	2.8%	30,912,889	48.6%	(16,799,827)	166,264,854	232,978,060	66,713,207	71.4%		
2037	100%	3,400,418	11,446,904	14,847,321	14,847,321	2.8%	32,149,404	48.0%	(16,699,332)	178,121,963	237,288,155	59,166,191	75.1%		
2038	100%	3,536,434	11,719,188	15,255,623	15,255,623	2.8%	33,435,380	47.5%	(16,574,845)	191,406,547	241,677,985	50,271,439	79.2%		
2039	100%	3,677,892	11,997,260	15,675,152	15,675,152	2.8%	34,772,796	46.9%	(16,400,294)	206,282,699	246,149,028	39,866,330	83.8%		
2040	100%	3,825,008	12,281,211	16,106,219	16,106,219	2.8%	36,163,708	46.3%	(16,208,121)	222,894,074	250,702,785	27,808,712	88.9%		
2041	100%	3,978,008	12,571,132	16,549,140	16,549,140	2.8%	37,610,256	45.8%	(15,980,590)	241,412,618	255,340,787	13,928,169	94.5%		
2042	100%	4,137,128	12,867,113	17,004,241	17,004,241	2.8%	39,114,666	45.2%	(15,709,584)	262,030,973	260,064,591	(1,966,381)	100.8%		
2043	100% Er NC	4,302,613	0	4,302,613	4,302,613	-74.7%	40,679,253	11.0%	(15,515,302)	271,666,388	264,875,786	(6,790,602)	102.6%		
2044	100% Er NC	4,474,718	0	4,474,718	4,474,718	4.0%	42,306,423	11.0%	(15,286,246)	282,449,248	269,775,988	(12,673,260)	104.7%		
2045	100% Er NC	4,653,707	0	4,653,707	4,653,707	4.0%	43,998,680	11.0%	(15,022,750)	294,504,055	274,766,844	(19,737,211)	107.2%		
2046	100% Er NC	4,839,855	0	4,839,855	4,839,855	4.0%	45,758,627	11.0%	(14,724,465)	307,964,821	279,850,031	(28,114,790)	110.0%		
2047	100% Er NC	5,033,449	0	5,033,449	5,033,449	4.0%	47,588,972	11.0%	(14,397,639)	322,969,162	285,027,256	(37,941,906)	113.3%		
2048	100% Er NC	5,234,787	0	5,234,787	5,234,787	4.0%	49,492,531	11.0%	(14,048,508)	339,658,576	290,300,260	(49,358,316)	117.0%		
2049	100% Er NC	5,444,178	0	5,444,178	5,444,178	4.0%	51,472,232	11.0%	(13,674,030)	358,188,008	295,670,815	(62,517,193)	121.1%		
2050	100% Er NC	5,661,946	0	5,661,946	5,661,946	4.0%	53,531,121	11.0%	(13,276,512)	378,721,473	301,140,725	(77,580,748)	125.8%		

Option 3 - Exhibit C

Assumed Interest Rate for Actuarial Valuation

7.50%

Actual Investment Return Realized

7.80%

3															
Year Ending October 31	Payment Against The ARC	Employer Normal Cost	Amortization	ARC	Actual City Contribution	Annual % Increase	Payroll	Contribution as % of Payroll	Benefit Payments	Assets	Actuarial Accrued <u>Liability</u>	Unfunded Act'l Accrued Liability	Funded Ratio	Revenue Forecast	Contribution as a % of Revenue
2001					297,830				(4,888,271)	71,447,029					
2002					316,867	6.4%			(5,102,499)	63,246,850					
2003					325,051	2.6%			(5,467,561)	67,129,154					
2003					754,998	132.3%			(5,764,126)	68,500,985					
2004					782,234	3.6%			(6,070,139)	70,106,722					
					985,136	25.9%			(6,511,544)	76,878,378					
2006						51.7%				84,928,351					
2007					1,494,518				(6,843,367)						
2008					1,564,102	4.7%			(7,084,598)	54,557,461					
2009					1,567,216	0.2%	40 570 000	44.407	(7,490,300)	57,315,573	454 000 000	05 000 770	27.00/		
2010					1,400,002	-10.7%	12,579,636	11.1%	(8,243,471)	58,336,221	154,000,000	95,663,779	37.9%		
2011					1,437,580	2.7%	11,773,994	12.2%	(8,705,932)	53,438,852	159,321,987	105,883,135	33.5%		
2012					1,500,000	4.3%	12,325,700	12.2%	(8,980,116)	52,047,080	164,802,828	112,755,748	31.6%		
2013	100%	1,893,623	5,631,765	7,525,388	7,525,388	401.7%	12,542,173	61.1%	(9,112,764)	55,296,214	152,830,931	97,534,717	36.2%	124,669,391	6.04%
2014	100%	1,950,978	6,004,495	7,955,473	7,955,473	5.7%	13,043,860	63.4%	(9,560,668)	58,795,516	155,658,303	96,862,787	37.8%	126,016,658	6.31%
2015	100%	1,434,825	6,739,424	8,174,249	8,174,249	2.8%	13,565,614	62.7%	(10, 100, 477)	62,261,040	158,537,982	96,276,942	39.3%	127,912,402	6.39%
2016	100%	1,492,218	6,906,823	8,399,040	8,399,040	2.8%	14,108,239	61.9%	(10,692,250)	65,645,117	161,470,934	95,825,818	40.7%	129,910,503	6.47%
2017	100%	1,551,906	7,078,108	8,630,014	8,630,014	2.8%	14,672,568	61.2%	(11,219,748)	69,012,977	164,458,147	95,445,170	42.0%	132,113,563	6.53%
2018	100%	1,613,983	7,253,357	8,867,339	8,867,339	2.8%	15,259,471	60.4%	(11,742,591)	72,375,249	167,500,623	95,125,374	43.2%		
2019	100%	1,678,542	7,432,649	9,111,191	9,111,191	2.8%	15,869,850	59.7%	(12,232,085)	75,772,238	170,599,384	94,827,146	44.4%		
2020	100%	1,745,684	7,616,065	9,361,749	9,361,749	2.8%	16,504,644	59.0%	(12,738,551)	79,197,117	173,755,473	94,558,356	45.6%		
2021	100%	1,815,511	7,803,686	9,619,197	9,619,197	2.8%	17,164,830	58.3%	(13,236,485)	82,668,262	176,969,949	94,301,687	46.7%		
2022	100%	1,888,131	7,995,594	9,883,725	9,883,725	2.8%	17,851,423	57.6%	(13,648,335)	86,283,177	180,243,893	93,960,716	47.9%		
2023	100%	1,963,657	8,191,871	10,155,527	10,155,527	2.8%	18,565,480	56.9%	(14,064,745)	90,056,157	183,578,405	93,522,248	49.1%		
							19,308,099	56.2%	(14,444,283)	94,044,212	186,974,605	92,930,394	50.3%		
2024	100%	2,042,203	8,392,602	10,434,804	10,434,804	2.8%		55.5%	(14,788,265)	98,307,488	190,433,636	92,930,394	51.6%		
2025	100%	2,123,891	8,597,871	10,721,761	10,721,761		20,080,423					91,036,152	53.1%		
2026	100%	2,208,847	8,807,763	11,016,610	11,016,610	2.8%	20,883,640	54.9%	(15,087,004)	102,920,506	193,956,658				
2027	100%	2,297,200	9,022,366	11,319,567	11,319,567	2.8%	21,718,986	54.2%	(15,417,886)	107,886,162	197,544,856	89,658,694	54.6%		
2028	100%	2,389,088	9,241,766	11,630,855	11,630,855	2.8%	22,587,745	53.6%	(15,784,703)	113,204,025	201,199,436	87,995,411	56.3%		
2029	100%	2,484,652	9,466,051	11,950,703	11,950,703	2.8%	23,491,255	52.9%	(16,040,113)	119,021,235	204,921,625	85,900,391	58.1%		
2030	100%	2,584,038	9,695,310	12,279,348	12,279,348	2.8%	24,430,905	52.3%	(16,279,803)	125,400,395	208,712,676	83,312,280	60.1%		
2031	100%	2,687,400	9,929,630	12,617,030	12,617,030	2.8%	25,408,141	51.6%	(16,507,977)	132,404,814	212,573,860	80,169,046	62.3%		
2032	100%	2,794,896	10,169,102	12,963,998	12,963,998	2.8%	26,424,467	51.0%	(16,665,691)	140,161,710	216,506,476	76,344,767	64.7%		
2033	100%	2,906,691	10,413,817	13,320,508	13,320,508	2.8%	27,481,446	50.4%	(16,783,361)	148,777,584	220,511,846	71,734,263	67.5%		
2034	100%	3,022,959	10,663,863	13,686,822	13,686,822	2.8%	28,580,703	49.8%	(16,858,578)	158,369,527	224,591,315	66,221,789	70.5%		
2035	100%	3,143,877	10,919,332	14,063,210	14,063,210	2.8%	29,723,931	49.2%	(16,842,169)	169,112,772	228,746,255	59,633,483	73.9%		
2036	100%	3,269,632	11,180,315	14,449,948	14,449,948	2.8%	30,912,889	48.6%	(16,799,827)	181,130,137	232,978,060	51,847,923	77.7%		
2037	100%	3,400,418	11,446,904	14,847,321	14,847,321	2.8%	32,149,404	48.0%	(16,699,332)	194,586,073	237,288,155	42,702,082	82.0%		
2038	100%	3,536,434	11,719,188	15,255,623	15,255,623	2.8%	33,435,380	47.5%	(16,574,845)	209,623,366	241,677,985	32,054,620	86.7%		
2039	100%	3,677,892	11,997,260	15,675,152	15,675,152	2.8%	34,772,796	46.9%	(16,400,294)	226,421,782	246,149,028	19,727,246	92.0%		
2040	100%	3,825,008	12,281,211	16,106,219	16,106,219	2.8%	36,163,708	46.3%	(16,208,121)	245,142,297	250,702,785	5,560,488	97.8%		
2041	100%	3,978,008	12,571,132	16,549,140	16,549,140	2.8%	37,610,256	45.8%	(15,980,590)	265,975,893	255,340,787	(10,635,106)	104.2%		
2042	100%	4,137,128	12,867,113	17,004,241	17,004,241	2.8%	39,114,666	45.2%	(15,709,584)	289,136,167	260,064,591	(29,071,576)	111.2%		
2043	100% Er NC	4,302,613	0	4,302,613	4,302,613	-74.7%	40,679,253	11.0%	(15,515,302)	301,563,460	264,875,786	(36,687,674)	113.9%		
2044	100% Er NC	4,474,718	0	4,474,718	4,474,718	4.0%	42,306,423	11.0%	(15,286,246)	315,373,703	269,775,988	(45,597,715)	116.9%		
2045	100% Er NC	4,653,707	0	4,653,707	4,653,707	4.0%	43,998,680	11.0%	(15,022,750)	330,712,267	274,766,844	(55,945,423)	120.4%		
2045	100% Er NC		0	4,839,855	4,839,855	4.0%	45,758,627	11.0%	(14,724,465)	347,735,953	279,850,031	(67,885,922)	124.3%		
		4,839,855													
2047	100% Er NC	5,033,449	0	5,033,449	5,033,449	4.0%	47,588,972	11.0%	(14,397,639)	366,607,252	285,027,256	(81,579,996)	128.6%		
2048	100% Er NC	5,234,787	0	5,234,787	5,234,787	4.0%	49,492,531	11.0%	(14,048,508)	387,494,792	290,300,260	(97,194,532)	133.5%		
2049	100% Er NC	5,444,178	0	5,444,178	5,444,178	4.0%	51,472,232	11.0%	(13,674,030)	410,583,080	295,670,815	(114,912,265)	138.9%		
2050	100% Er NC	5,661,946	0	5,661,946	5,661,946	4.0%	53,531,121	11.0%	(13,276,512)	436,068,345	301,140,725	(134,927,619)	144.8%		

Option 3 - Exhibit D

Assumed Interest Rate for Actuarial Valuation

7.50%

Actual Investment Return Realized

8.00%

7															
Year Ending October 31	Payment Against The ARC	Employer Normal Cost	Amortization	ARC	Actual City Contribution	Annual % Increase	Payroll	Contribution as % of Payroll	Benefit Payments	Assets	Actuarial Accrued Liability	Unfunded Act'l Accrued Liability	Funded <u>Ratio</u>	Revenue Forecast	Contribution as a % of Revenue
2004					207 920				(4 000 074)	71 447 020					
2001					297,830 316,867	6.4%			(4,888,271) (5,102,499)	71,447,029 63,246,850					
2002															
2003					325,051	2.6%			(5,467,561)	67,129,154					
2004					754,998	132.3%			(5,764,126)	68,500,985					
2005					782,234	3.6%			(6,070,139)	70,106,722					
2006					985,136	25.9%			(6,511,544)	76,878,378					
2007					1,494,518	51.7%			(6,843,367)	84,928,351					
2008					1,564,102	4.7%			(7,084,598)	54,557,461					
2009					1,567,216	0.2%			(7,490,300)	57,315,573					
2010					1,400,002	-10.7%	12,579,636	11.1%	(8,243,471)	58,336,221	154,000,000	95,663,779	37.9%		
2011					1,437,580	2.7%	11,773,994	12.2%	(8,705,932)	53,438,852	159,321,987	105,883,135	33.5%		
2012					1,500,000	4.3%	12,325,700	12.2%	(8,980,116)	52,047,080	164,802,828	112,755,748	31.6%		
2013	100%	1,893,623	5,631,765	7,525,388	7,525,388	401.7%	12,542,173	61.1%	(9,112,764)	55,400,308	152,830,931	97,430,623	36.2%	124,669,391	6.04%
2014	100%	1,950,978	6,004,495	7,955,473	7,955,473	5.7%	13,043,860	63.4%	(9,560,668)	59,018,114	155,658,303	96,640,190	37.9%	126,016,658	6.31%
2015	100%	1,434,825	6,739,424	8,174,249	8,174,249	2.8%	13,565,614	62.7%	(10, 100, 477)	62,618,146	158,537,982	95,919,836	39.5%	127,912,402	6.39%
2016	100%	1,492,218	6,906,823	8,399,040	8,399,040	2.8%	14,108,239	61.9%	(10,692,250)	66,153,885	161,470,934	95,317,049	41.0%	129,910,503	6.47%
2017	100%	1,551,906	7,078,108	8,630,014	8,630,014	2.8%	14,672,568	61.2%	(11,219,748)	69,691,702	164,458,147	94,766,445	42.4%	132,113,563	6.53%
2018	100%	1,613,983	7,253,357	8,867,339	8,867,339	2.8%	15,259,471	60.4%	(11,742,591)	73,243,583	167,500,623	94,257,040	43.7%	102,110,000	0.0070
2019	100%	1,678,542	7,432,649	9,111,191	9,111,191	2.8%	15,869,850	59.7%	(12,232,085)	76,851,316	170,599,384	93,748,068	45.0%		
2020	100%	1,745,684	7,616,065	9,361,749	9,361,749	2.8%	16,504,644	59.0%	(12,738,551)	80,509,749	173,755,473	93,245,724	46.3%		
2020	10070	1,740,004	7,010,000	3,301,743	3,301,743	2.070	10,004,044	33.070	(12,700,001)	00,000,140	170,700,470	30,240,724	40.070		
2021	100%	1,815,511	7,803,686	9,619,197	9,619,197	2.8%	17,164,830	58.3%	(13,236,485)	84,239,048	176,969,949	92,730,901	47.6%		
2022	100%	1,888,131	7,995,594	9,883,725	9,883,725	2.8%	17,851,423	57.6%	(13,648,335)	88,138,680	180,243,893	92,105,213	48.9%		
2023	100%	1,963,657	8,191,871	10,155,527	10,155,527	2.8%	18,565,480	56.9%	(14,064,745)	92,225,244	183,578,405	91,353,161	50.2%		
2024	100%	2,042,203	8,392,602	10,434,804	10,434,804	2.8%	19,308,099	56.2%	(14,444,283)	96,558,262	186,974,605	90,416,343	51.6%		
2025	100%	2,123,891	8,597,871	10,721,761	10,721,761	2.8%	20,080,423	55.5%	(14,788,265)	101,200,694	190,433,636	89,232,941	53.1%		
2026	100%	2,208,847	8,807,763	11,016,610	11,016,610	2.8%	20,883,640	54.9%	(15,087,004)	106,230,211	193,956,658	87,726,447	54.8%		
2027	100%	2,297,200	9,022,366	11,319,567	11,319,567	2.8%	21,718,986	54.2%	(15,417,886)	111,653,246	197,544,856	85,891,610	56.5%		
2028	100%	2,389,088	9,241,766	11,630,855	11,630,855	2.8%	22,587,745	53.6%	(15,784,703)	117,473,180	201,199,436	83,726,256	58.4%		
2029	100%	2,484,652	9,466,051	11,950,703	11,950,703	2.8%	23,491,255	52.9%	(16,040,113)	123,841,253	204,921,625	81,080,372	60.4%		
2030	100%	2,584,038	9,695,310	12,279,348	12,279,348	2.8%	24,430,905	52.3%	(16,279,803)	130,824,778	208,712,676	77,887,898	62.7%		
2031	100%	2,687,400	9,929,630	12,617,030	12,617,030	2.8%	25,408,141	51.6%	(16,507,977)	138,492,251	212,573,860	74,081,609	65.2%		
2032	100%	2,794,896	10,169,102	12,963,998	12,963,998	2.8%	26,424,467	51.0%	(16,665,691)	146,976,601	216,506,476	69,529,876	67.9%		
2033	100%	2,906,691	10,413,817	13,320,508	13,320,508	2.8%	27,481,446	50.4%	(16,783,361)	156,390,730	220,511,846	64,121,116	70.9%		
2034	100%	3,022,959	10,663,863	13,686,822	13,686,822	2.8%	28,580,703	49.8%	(16,858,578)	166,858,827	224,591,315	57,732,488	74.3%		
2035	100%	3,143,877	10,919,332	14,063,210	14,063,210	2.8%	29,723,931	49.2%	(16,842,169)	178,563,998	228,746,255	50,182,257	78.1%		
2036	100%	3,269,632	11,180,315	14,449,948	14,449,948	2.8%	30,912,889	48.6%	(16,799,827)	191,637,883	232,978,060	41,340,178	82.3%		
2037	100%	3,400,418	11,446,904	14,847,321	14,847,321	2.8%	32,149,404	48.0%	(16,699,332)	206,254,667	237,288,155	31,033,488	86.9%		
2038	100%	3,536,434	11,719,188	15,255,623	15,255,623	2.8%	33,435,380	47.5%	(16,574,845)	222,567,945	241,677,985	19,110,040	92.1%		
2039	100%	3,677,892	11,997,260	15,675,152	15,675,152	2.8%	34,772,796	46.9%	(16,400,294)	240,769,396	246,149,028	5,379,632	97.8%		
						2.8%									
2040	100%	3,825,008	12,281,211	16,106,219	16,106,219	2.8%	36,163,708	46.3%	(16,208,121)	261,033,174	250,702,785	(10,330,388)	104.1%		
2041	100%	3,978,008	12,571,132	16,549,140	16,549,140	2.8%	37,610,256	45.8%	(15,980,590)	283,564,760	255,340,787	(28,223,974)	111.1%		
2042	100%	4,137,128	12,867,113	17,004,241	17,004,241	2.8%	39,114,666	45.2%	(15,709,584)	308,593,741	260,064,591	(48,529,149)	118.7%		
2043	100% Er NC	4,302,613	0	4,302,613	4,302,613	-74.7%	40,679,253	11.0%	(15,515,302)	323,078,081	264,875,786	(58,202,295)	122.0%		
2044	100% Er NC	4,474,718	0	4,474,718	4,474,718	4.0%	42,306,423	11.0%	(15,286,246)	339,126,562	269,775,988	(69,350,574)	125.7%		
2045	100% Er NC	4,653,707	0	4,653,707	4,653,707	4.0%	43,998,680	11.0%	(15,022,750)	356,901,090	274,766,844	(82,134,246)	129.9%		
2046	100% Er NC	4,839,855	0	4,839,855	4,839,855	4.0%	45,758,627	11.0%	(14,724,465)	376,576,552	279,850,031	(96,726,521)	134.6%		
2047	100% Er NC	5,033,449	0	5,033,449	5,033,449	4.0%	47,588,972	11.0%	(14,397,639)	398,335,209	285,027,256	(113,307,953)	139.8%		
2048	100% Er NC	5,234,787	0	5,234,787	5,234,787	4.0%	49,492,531	11.0%	(14,048,508)	422,367,288	290,300,260	(132,067,028)	145.5%		
2049	100% Er NC	5,444,178	0	5,444,178	5,444,178	4.0%	51,472,232	11.0%	(13,674,030)	448,880,875	295,670,815	(153,210,060)	151.8%		
2050	100% Er NC	5,661,946	0	5,661,946	5,661,946	4.0%	53,531,121	11.0%	(13,276,512)	478,097,938	301,140,725	(176,957,213)	158.8%		

Exhibit 4 - Actuarial Cost Method and Assumptions

1. Actuarial Cost Method

The entry age normal actuarial cost method. Under this method, the annual normal cost is determined for each active participant as of each valuation date, and represents the level percentage of pay from age at hire through retirement to fund the projected retirement benefit. The actuarial accrued liability is equal to the accumulated annual normal costs from entry through the valuation date. The unfunded actuarial accrued liability represents the excess of the actuarial accrued liability over the valuation assets. The projected unit credit actuarial cost method was previously used before 2011.

2. Interest

- 7.50% per annum (previously 8.50%).
- 3. Salary Increases

Future salaries expected to increase at rate of 4.25% per year (previously 5.00%).

4. Mortality

The RP-2000 Combined Healthy for Males and Females with Blue Collar adjustments, projected with Scale AA. Sample rates are as follows:

Age	Male	Female
25	.0004	.0002
35	.0008	.0004
45	.0014	.0008
55	.0036	.0020
65	.0135	.0100
75	.0369	.0283

5. Terminations

Rates based on years of service:

Service	Rate
1	.0400
5	.0314
10	.0207
15	.0100
20 or More	.0000

Exhibit 4 - Actuarial Cost Method and Assumptions (Continued)

6.	Retirement
0.	TEACHT CHILDING

The following annual rates of retirement age:

After Age 40	Annual Rate
With 20 Years	12%
21 - 23 Years	14%
24 - 26 Years	16%
27 - 29 Years	18%
30 Years or More	20%
Age 60 and Over	100%

7. Disability Rates based on attained age:

Age	Rate
25	.0050
35	.0075
45	.0180
55	.0300

8. Cost of Living In accordance with benefit provisions of the plan, 3%

annual

Adjustments

cost of living adjustments are assumed for the appropriate

categories of retired members.

9. Value of Assets Adjusted market value as of October 31, determined by replacing actual gains (losses) and unrealized gains (losses) by a 5 year average of such gains (losses). Allocation of assets between police and fire determined based on equivalent funded status of accrued benefits on a termination basis as of the valuation date.

Percent Married 10.

85% of participants are assumed to be married. Female spouses are assumed to be three years younger than male

spouses (previously 100% assumed).

11. Dates of Valuation October 31, 2011 and October 31, 2012.

Exhibit 5 - Summary of Principal Provisions of the Plan

1. Effective Date November 1, 1961

2. Eligibility for Participation Immediately upon becoming an employee of the police or fire department, and being sworn in as a police officer or fire fighter.

3. Definition of Salary

Salary including holiday pay (at 14 days for policemen and fire fighters) plus longevity payment based on schedule below.

For Police and Fire Fighters:

6% of base salary after 5 years of service 7% of base salary after 10 years of service 8% of base salary after 15 years of service 9% of base salary after 20 years of service

4. Cost of Living Adjustments
After retirement

For Police, participants who retire between November 1, 1982 and November 1, 1984 receive 3% compounded cost of living increase annually. Participants who retire after November 1, 1994 receive 3% compounded cost of living increase annually at or after age 51. After October 1, 1995 annual 3% compounded cost of living increase extended to disabled policemen prior to age 51.

For Fire Fighters, participants who retire after November 1, 1985 receive 3% compounded cost of living increase annually at or after age 51. Participants who retire after November 1, 1989 will receive 3% compounded cost of living increases annually regardless of age.

- 5. Normal Form of Pension
- Life annuity; optional non-spouse joint and survivor annuity available on actuarial equivalent basis.
- 6. Definition of Credited Service

Equals completed years and months from date of hire. For any month, 15 days or more is considered a full month of service.

Exhibit 5 – Summary of Principal Provisions of the Plan (Continued)

7. Participant Contributions

Police and Fire Fighters contribute 8% of compensation.

- 8. Service Retirement
 - a. Eligibility

Earlier of (i) or (ii):

- (i) Age 60 and 10 years of service, or
- (ii) 20 years of service
- b. Benefit Formula

For (i) above:

2% of salary for each year of credited service to a maximum of 70%.

For (ii) above:

2½% of salary for each of the first 24 years of credited service, plus 2% of salary for each of the next 4 years plus 1% of salary for each additional year of credited service to a maximum of 70% at 30 years of credited service).

- 9. Disability Retirement
 - a. Eligibility Service Related

Active participant.

b. Benefit Formula - Service Related

 $66^2/_3\%$ of salary at time of disability plus 10% of salary for each child under age 18 to a maximum of 80% of salary.

c. Eligibility - Non Service Related

10 years of service.

d. Benefit Formula - Non Service Related 1¾% of salary at time of disability for each year of service to date of disability, with minimum benefit of 25% of salary, and maximum benefit of 50% of salary. If credited service at date of disability is twenty years or more, at age 55, participant is entitled to a service retirement annuity.

Exhibit 5 - Summary of Principal Provisions of the Plan (Continued)

10. Termination of Service Prior to Retirement

a. Eligibility

10 years of service.

b. Benefit Provided

Accrued pension based on service and salary to date of termination. Payable at age 55.

c. Refund of Contributions

An employee who has not satisfied the vesting requirements will be entitled to a return of participant contributions without interest.

11. Death Benefits

a. Eligibility - Service Related

Death resulting from an act of duty.

 Benefits Provided -Service Related Depends on marital and dependent status:

- (i) With surviving spouse equals 50% of salary at time of death, plus 10% of salary for each child under age 18 to a maximum of 70% of salary
- (ii) Without surviving spouse equals 15% of salary at time of death for each child under the age of 18 with a maximum of 60% of salary.
- c. Eligibility Non Service Related

3 years of service.

d. Benefit Provided - Non Service Related Payable to surviving spouse as follows:

30% of salary increased by 1% for each year of service in excess of 3 years, to a maximum of 50% of salary, and beginning at the surviving spouse's age 55, plus 10% of salary for each child under age 18 to a maximum of 60% of salary, with benefits to spouse and children under age 18 beginning immediately.

e. R.I. State Mandated Spouse's Death Benefit Plan benefit above, or $67\frac{1}{2}\%$ of final pension payment, if provides a higher benefit.

July 28, 2012

Mr. B. Gene Patton
Assistant Deputy Chief
Asset Forfeiture and Money Laundering Section
US Department of Justice
1400 New York Avenue, NW
Suite 20100
Washington, DC 20530

Re:

Federal Equitable Sharing Program City of East Providence, RI Town of North Providence, RI

Dear Mr. Patton,

As you know, in August 2011, the U.S. Department of Justice announced that under the Federal Equitable Sharing Program, \$500 million would be distributed to state and federal agencies that participated in the investigation of Google, Inc. for allowing online Canadian pharmacies to place advertisements targeting consumers in the United States, resulting in the unlawful importation of prescription drugs. On April 2, 2012, United States Attorney issued a press release confirming that Rhode Island state and local law enforcement agencies would receive \$230 million that would be shared based upon the time and resources that the respective agencies provided to the investigation. Under this equitable sharing distribution, the City of East Providence and Town of North Providence would each receive \$60 million.

The Department of Justice's Asset Forfeiture and Money Laundering Section (AFMLS), which oversees the equitable sharing program, was previously asked by the Director of Revenue for the State of Rhode Island whether a portion of the Google forfeiture funds can be used by these two distressed communities to address the threat posed by their unfunded pension liabilities. We understand the official position of AFMLS that explains the general preclusion of funding compensation and benefits under the equitable sharing program so as not to jeopardize the standing of the program as an income generator for the public safety program. However, because this is one of the largest asset forfeitures in history, we strongly believe it merits special consideration due to the amount due to us relative to the budgets of our communities. As the Mayors of East Providence and North Providence, we are deeply concerned about the fiscal health of our communities, especially as it relates to unfunded pension obligations. We are requesting to use a portion of the asset forfeiture funds to finance the unfunded liability in the North Providence and East Providence Police Pension funds totaling \$49.2 million for East Providence, and \$20.6 million for North Providence. Governor Chafee is also strongly in favor of this request, as is the Director of Revenue who has oversight responsibilities for municipal finances.

The Google settlement, which represents the largest equitable sharing in history, results in \$60 million in funds available to these two communities. Section VIII, A.1.n of the Guidelines entitled "Windfall Situations" anticipated situations where the amount received within the fiscal year represents over 25 percent of the law enforcement agency's annual budget. While this provision relates to allowing the amount in excess of the 25 percent to be used to support

community based programs, it appears that the Guidelines contemplate unusually large dollar amounts.

	Google Equitable Sharing Amount	Annual Police Budget	25% of Police Budget	Equitable Sharing in excess of 25%	Waiver Request
City of East Providence	\$ 60,000,000	\$ 11,545,345	\$ 2,866,336	\$ 57,113,664	\$ 49.2 million
Town of North Providence	\$ 60,000,000	\$ 5,912,388	\$ 1,478,097	\$ 58,521,903	\$ 20.6 million

This would allow for stability for the pension funds, which will result in retention of current personnel and will also have a positive impact on the ability to recruit new and talented police officers. It would also have a positive impact on the operating budgets of both cities, which will allow the cities to avoid drastic cuts in services, including the Police Departments, which would need to be made in order to fund the annual required contribution, including the component related to the amortization of the large unfunded liability. The municipalities, through collective bargaining and with the assistance from the State of Rhode Island, will undertake efforts to ensure the future contributions to the local Police plans by potential path to membership in the public safety Municipal Employees Retirement System, which would prevent the underfunding from recurring.

East Providence and North Providence have locally administered Police Pension funds which are deemed by the state law to meet the definition of "critical status" pursuant to historic pension legislation enacted during the last session of the General Assembly. East Providence's Moody's credit rating is considered non investment grade at Ba1. North Providence's Moody's credit rating is Baa2 with a negative outlook. The East Providence Police Fund is only 33.7% funded, with an unfunded accrued liability of \$49.2 million. The annual required City contribution is 62.2% of pay. The North Providence Police Pension fund is only 40.0% funded with an unfunded accrued liability is \$20.6 million. The annual required Town contribution is 56.5% of pay.

The ultimate consequence of a poorly funded pension plan is that the plan will have insufficient assets to finance benefits contractually due to public safety personnel. This has already been realized in one Rhode Island community, where in the City of Central Falls, the two locally administered plans have insufficient assets to fund benefits. Consequently, a State appointed Receiver put the City into Chapter 9 bankruptcy and reduced current retiree pensions by 55 percent and restructured the pension benefits of active police and fire employees in order to sustain the viability of the City.

This waiver of certain restrictions relating to allowed uses of the equitably shared funds under Section VII, D.3 of the Guidelines is requested from the Deputy Attorney General or the Assistant Attorney General for the Criminal Division. The justification for this waiver is based in common sense principles which should be applied in the allocation of any funds under the control of governments, and the concept of the "Windfall Situation" contained within the Guidelines.

Governor Chafee, Director of Revenue and the leaders in East Providence and North Providence urge you to assist in avoiding the negative outcome if this waiver is not granted and to ensure a positive, sustainable Police pension plans in both municipalities. While the

municipalities continue to work with AFMLS on the originally submitted draft plans for the equitable sharing of funds under this windfall award, our primary use would be to stabilize the underfunded Police pension plans. We both feel that the most responsible expenditure of these funds would be first to address our unfunded pension systems while keeping in mind that this would be a one time contribution of forfeiture funds. To expend monies for any other programs or projects before addressing our pension obligation would be totally irresponsible.

Sincerely.

Mayor Charles Lombardi Town of North Providence Mayor Bruce W. Røgers City of East Providence

C: Lincoln D. Chafee, Governor of State of Rhode Island Rosemary Booth Gallogly, Director of Revenue Peter Graczykowski, East Providence City Manager Col. Joseph Tavares, East Providence Chief of Police Paul Martellini, North Providence Deputy Chief of Police

PRELIMINARY FY 2012 - 2013 GENERAL FUND BUDGET

DIV	ISION	FY 09-10 ACTUAL	FY 10-11 ACTUAL	FY 11-12 REVISED	FY 12-13 REQUEST	
700	POLICE					
50101	REGULAR SALARIES	5,900,895	5.958.844	6.024.334	6.229.272	
50102	TEMPORARY SALARIES	5,225	4,993	8.150	8.150	
50103	OVERTIME WAGES	964.745	1.319.451	1.180.991	1.154.991	
50104	LONGEVITY WAGES	395.232	353.196	365,488	382.997	
50105	ACTING WAGES	14.079	6.985	7,500	7.500	
50106	HOLIDAY WAGES	205.391	347.651	337.534	346.054	
50107	COURT PAY	39.553	41,278	41,200	41,200	
50108	SCHOOL CROSSING GUARDS	107.355	108.970	108.600	108.600	
50109	SPECIAL DETAIL	0	656,215	0	0	
50110	WORKER'S COMP WAGES	4.043	0	0	0	
50113	OUTSIDE SERVICES	50.283	15.105	60,000	60.000	
50115	VIN CHECKS	41,271	42,531	43,260	43,260	
50118	UNREIMBURSED MEDICAL EXPENSE	4,440	4,652	5,000	5,000	
50120	BLUE CROSS/DENTAL	1.435.628	1.520.806	1,646,243	1.384.294	
50121	SOCIAL SEC (FICA)	157.642	75.720	116.898	150.742	
50122	MUNICIPAL PENSION	146.726	142,800	137.043	156.799	
50123	POLICE & FIRE PENSION	620,862	673,980	898.001	3.748.796	
50124	EMPLOYEE ASSISTANCE	3.500	3,500	2,373	2,373	
50125	DEFERRED COMPENSATION	3.393	4,368	4.226	0	
50126	EMPL BEN PHYS FIT / FLEX	2,675	1.925	2,250	0	
50127	EMPLOYEE BENEFIT - CLOTHING	0	750	13,500	13,500	
50128	EMPLOYEE BENEFIT - TUITION	8,448	25.821	25,000	25,000	
50134	EMPLOYEE BENEFIT - GLI	0	0	0	-705	
50143	MED INS COPAY	-106.915	-102.260	-103.952	-90,197	
0152	REDUCTION	0	0	0	0.	
50155	TERMINATION PAY - VAC	228.674	38.470	1.933	0	
0156	TERMINATION PAY - SICK	140,128	28.688	334	0	
0157	TERMINATION PAY - LONGEVITY	30.121	2.762	242	0	
0158	TERMINATION PAY - COMP	21,506	2.845	0	0	
0170	ADJUSTMENT	0	0	-183.981	0	
0201	REPAIRS, BUILDINGS	12.034	5.215	7.013	5.013	
0205	OFFICE EQUIPMENT MAINTENANCE	2.597	2,095	2.600	2,600	
	REPAIRS, AUTO MAINT	151.427	207.210	140.000	100.000	
0208		1.890	2.670	2,100	2.100	
	OFFICE SUPPLIES	9,075	10.799	9.000	7,000	
	CLEANING/HSHLD SUPPLIES	5,358	5.210	5.000	5,000	
	UNIFORMS & PERS. EQUIP	91.706	130.327	212.609	290,803	

PRELIMINARY FY 2012 - 2013 GENERAL FUND BUDGET

DIVISION	FY 09-10 ACTUAL	FY 10-11 ACTUAL	FY 11-12 REVISED	FY 12-13 REQUEST		
50216 FOOD	2.486	2,009	2,000	2,000		
50218 GAS - OIL - LUBRICANTS	192.462	282.452	250,000	230,000		
50223 FUEL - HEATING	34.756	27,641	30.000	25.000		
50224 ELECTRICITY	57,062	67.322	50.000	13.900		
50225 TELEPHONE	105.037	116.295	28.828	23.828		
50226 WATER	2.575	2.536	2.728	2.728		
50228 TRAVEL & TRAINING	20.072	11.978	3,300	3.300		
50233 COMMUNICATION EXPENSES	10.327	13.304	19.000	17,000		
50250 DUES & SUBSCRIPTIONS	1.784	1.630	500	500		
50259 BOOKS	0	2.961	0	0		
50263 PRINTED FORMS	450	888	1.000	1.000		
50264 POLICE SUPPLIES	12.598	21.455	20.000	13.000		
50266 LEASE EQUIPMENT	119.183	7.800	6.000	6.000		
50401 OFFICE EQUIPMENT	1.374	3.272	1,500	1,500		
50402 POLICE EQUIPMENT	12.042	7.390	10.000	10.000		
50964 INSURANCE - MUNICIPAL	0	0	0	142,484		
TOTALS:	11,271,195	12,212,504	11,545,345	14,682,382		

PRELIMINARY FY 2012 - 2013 GENERAL FUND BUDGET

DIV	ISION	FY 09-10 ACTUAL	FY 10-11 ACTUAL	FY 11-12 REVISED	FY 12-13 REQUEST			
750	FIRE							
50101	REGULAR SALARIES	5.539.842	5.597.020	5.655.149	5.785.604			
50102	TEMPORARY SALARIES	20.795	19.895	0	100,100			
50103	OVERTIME WAGES	2.975.786	2.784.843	3.026.215	3.026.215			
50104	LONGEVITY WAGES	361.260	424,434	399.090	420,302			
50105	ACTING WAGES	268.090	315.869	203.812	207,570			
50106	HOLIDAY WAGES	362.907						
50107	COURT PAY	0						
50109	SPECIAL DETAIL	0	13,553	0	0			
50113	OUTSIDE SERVICES	-7.195	455	3,000	3.000			
50118	UNREIMBURSED MEDICAL EXPENSE	1.752	12.071	2,500	2.500			
50120	BLUE CROSS/DENTAL	1,319,686	1.506.998	1.339,166	1.026.370			
50121	SOCIAL SEC (FICA)	107.874	143.100	102.189	105.945			
50122	MUNICIPAL PENSION	16.883	21.600	22.623	25,899			
50123	POLICE & FIRE PENSION	743.099	763.600	842.218	3.977.261			
50124	EMPLOYEE ASSISTANCE	0	0	2.500	2,500			
50125	DEFERRED COMPENSATION	4.672	4.812	4,812	0			
50126	EMPL BEN PHYS FIT / FLEX	548	450	6.150	0			
50128	EMPLOYEE BENEFIT - TUITION	7,500	4.720	7.500	7,500			
50134	EMPLOYEE BENEFIT - GLI	0	0	0	-363			
50143	MED INS COPAY	-74.910	-194,644	-7.773	-5.101			
50152	REDUCTION	0	0	0	0			
50155	TERMINATION PAY - VAC	47.301	30.621	0	0			
50156	TERMINATION PAY - SICK	73.692	15.496	0	0			
50157	TERMINATION PAY - LONGEVITY	3.950	6.439	0	0			
50158	TERMINATION PAY - COMP	0	1.666	0	0			
50170	ADJUSTMENT	0	0	0	0			
50201	REPAIRS, BUILDINGS	40.949	42.457	50.000	90.395			
50204	REPAIRS - MEC-PORTEQUIP	403	510	500	500			
50205	OFFICE EQUIPMENT MAINTENANCE	18.623	32.396	20.000	20,000			
50206	MAINTENANCE - SIGNAL SYSTEM	125	632	500	500			
50207	REPAIRS, AUTO MAINT	82.427	123.950	100,000	100,000			
50208	POSTAGE	885	973	1.000	1.000			
50209		3.386	2.906	3.000	3.000			
	AGENCY SUPPLIES	0	0	0	0			
50211	MEDICAL SUPPLIES	40,968	43.086	40,000	40.000			
50212	SMALL TOOLS	208	10	100	100			
50213	ELEC-MECH SUPPLIES	371	952	1,000	1,000			

PRELIMINARY FY 2012 - 2013 GENERAL FUND BUDGET

DIVISION		FY 09-10 ACTUAL	FY 10-11 ACTUAL	FY 11-12 REVISED	FY 12-13 REQUEST	
50214	CLEANING/HSHLD SUPPLIES	6.339	7.825	7.000	7,000	
50215	UNIFORMS & PERS. EQUIP	411	136,208	55.000	129,115	
50216	FOOD	0	6	0	0	
50218	GAS - OIL - LUBRICANTS	96.079	127.925	100.000	100.000	
50219	PAINT	0	0	0	0	
50223	FUEL - HEATING	42,553	41,513	50.000	50.000	
50224	ELECTRICITY	53.004	51.749	45,000	45.000	
50225	TELEPHONE	9.406	5.791	8.000	8.000	
50226	WATER	8.465	8.955	8.500	8.500	
50227	ADVERTISING, PRINTING	870	0	500	500	
50228	TRAVEL & TRAINING	1.724	38	850	850	
50230	FIRE FIGHTING SUPPLIES	8.520	8,520 15,860		12.000	
50232	RENTAL OF SPACE & EQUPIMENT	4.050	4.050	4.050	4.050	
50233	COMMUNICATION EXPENSES	9.297	9.437	8.000	8.000	
50236	EDUCATION EXPENSES	1.590	900	1.000	1.000	
50240	OTHER PERSONNEL EQUIP	14.711	9,139	15,000	62.857	
50250	DUES & SUBSCRIPTIONS	950	950 724 20		200	
50259	BOOKS	975	75 585 1		1.000	
50260	FIRE PREVENTION EXPENSES	0	0	0	0	
50266	LEASE EQUIPMENT	0	0	0	0	
50280	PROGRAM COSTS	0	0	0	0	
50401	OFFICE EQUIPMENT	0	0	0	0	
50406	FIRE FIGHTING EQUIPMENT	326	0	5,000	62.002	
50407	COMMUNICATIONS EQUIPMENT	2.684	0	5.000	5.000	
50964	INSURANCE - MUNICIPAL	0	0	0	203.384	
	TOTALS:	12,223,831	12,512,131	12,521,760	16,022,257	

Exhibit 8 - Option 1

Current Forecast of Actuarial Valuation Results - Adopted Actuarial Assumptions - Prior to Benefit Changes

Assumed Interest Rate for Actuarial Valuation

7.50%

Actual Investment Return Realized

7.50%

Includes Waiver Transfer of \$ 52.7 Million as of October 31, 2012

5															
Year	Payment										Actuarial				Contribution
	Against	Employer			Actual City	Annual %		Contribution as	Benefit		Accrued	Unfunded Act'l	Funded	Revenue	as a %
Ending October 31	The ARC	Normal Cost	Amortization	ARC	Contribution	Increase	Payroll	% of Payroll	Payments	Assets	Liability	Accrued Liability	Ratio	Forecast	of Revenue
October 51	THE AIRC	Normal Cost	Amortization	AITO	CONTINUATION	Horodoo	1 dyron	70 OI 1 UYIOII	1 dymonts	7.00010	Liability	7 toor dod Eldomity	Itatio	1 Orocast	<u>or revende</u>
2001					297,830				(4,888,271)	71,447,029					
2002					316,867	6.4%			(5,102,499)	63,246,850					
2003					325,051	2.6%			(5,467,561)	67,129,154					
2004					754,998	132.3%			(5,764,126)	68,500,985					
2005					782,234	3.6%			(6,070,139)	70,106,722					
2006					985,136	25.9%			(6,511,544)	76,878,378					
2007					1,494,518	51.7%			(6,843,367)	84,928,351					
2008					1,564,102	4.7%			(7,084,598)	54,557,461					
2009					1,567,216	0.2%			(7,490,300)	57,315,573					
2010					1,400,002	-10.7%	12,579,636	11.1%	(8,243,471)	58,336,221	154,000,000	95,663,779	37.9%		
2011					1,437,580	2.7%	11,773,994	12.2%	(8,705,932)	53,438,852	159,321,987	105,883,135	33.5%		
2011					1,437,300	2.770	11,775,554	12.270	(0,700,302)	30,400,002	100,021,007	100,000,100	00.070		
2012					1,500,000	4.3%	12,325,700	12.2%	(8,980,116)	104,747,080	164,802,828	60,055,748	63.5%		
2013	100%	1,893,623	5,631,765	7,525,388	7,525,388	401.7%	12,542,173	61.1%	(9,112,764)	111,593,961	168,082,404	56,488,444	66.4%	124,669,391	6.04%
2014	100%	1,950,978	6,004,495	7,955,473	7,955,473	5.7%	13.043.860	63.4%	(9,657,240)	118,853,139	171,427,244	52,574,105	69.3%	126,016,658	6.31%
2015	100%	2,034,842	6,238,850	8,273,692	8,273,692	4.0%	13,565,614	63.4%	(10,254,291)	126,391,069	174,838,646	48,447,577	72.3%	127,912,402	6.47%
2016	100%	2,116,236	6,488,404	8,604,640	8,604,640	4.0%	14,108,239	63.4%	(10,910,459)	134,182,842	178,317,935	44,135,094	75.2%	129,910,503	6.62%
2017	100%	2,200,885	6,747,940	8,948,825	8,948,825	4.0%	14,672,568	63.4%	(11,507,434)	142,320,665	181,866,462	39,545,797	78.3%	132,113,563	6.77%
2018	100%	2,288,921	7,017,858	9,306,778	9,306,778	4.0%	15,259,471	63.4%	(12,105,764)	150,843,347	185,485,605	34,642,258	81.3%	102,110,000	0.1770
2019	100%	2,380,478	7,298,572	9,679,049	9,679,049	4.0%	15,869,850	63.4%	(12,675,736)	159,822,785	189,176,768	29,353,983	84.5%		
2020	100%	2,475,697	7,590,515	10,066,211	10,066,211	4.0%	16,504,644	63.4%	(13,269,324)	169,284,659	192,941,386	23,656,727	87.7%		
2020	10076	2,475,037	7,530,515	10,000,211	10,000,211	4.070	10,504,044	00.470	(10,200,024)	103,204,003	102,041,000	20,000,727	07.770		
2021	100%	2,574,724	7,894,135	10,468,860	10,468,860	4.0%	17,164,830	63.4%	(13,860,194)	179,283,478	196,780,920	17,497,441	91.1%		
2022	100%	2,677,713	8,209,901	10,887,614	10,887,614	4.0%	17,851,423	63.4%	(14,366,668)	189,960,004	200,696,860	10,736,856	94.7%		
2023	100%	2,784,822	8,538,297	11,323,119	11,323,119	4.0%	18,565,480	63.4%	(14,883,328)	201,371,136	204,690,727	3,319,591	98.4%		
2024	100%	2,896,215	8,879,829	11,776,043	11,776,043	4.0%	19,308,099	63.4%	(15,366,259)	213,622,492	208,764,073	(4,858,419)	102.3%		
2025	100% Er NC	3,012,063	0	3,012,063	3,012,063	-74.4%	20,080,423	15.6%	(15,816,326)	217,592,087	212,918,478	(4,673,609)	102.2%		
2026	100% Er NC	3,132,546	0	3,132,546	3,132,546	4.0%	20,883,640	15.6%	(16,222,585)	221,622,684	217,155,556	(4,467,129)	102.1%		
2027	100% Er NC	3,257,848	0	3,257,848	3,257,848	4.0%	21,718,986	15.6%	(16,667,985)	225,686,892	221,476,951	(4,209,941)	101.9%		
2028	100% Er NC	3,388,162	0	3,388,162	3,388,162	4.0%	22,587,745	15.6%	(17,157,286)	229,750,908	225,884,343	(3,866,565)	101.7%		
2029	100% Er NC	3,523,688	0	3,523,688	3,523,688	4.0%	23,491,255	15.6%	(17,530,178)	233,939,149	230,379,441	(3,559,708)	101.5%		
2030	100% Er NC	3,664,636	0	3,664,636	3,664,636	4.0%	24,430,905	15.6%	(17,889,893)	238,281,957	234,963,992	(3,317,965)	101.4%		
		-,,		-1	-1										
2031	100% Er NC	3,811,221	0	3,811,221	3,811,221	4.0%	25,408,141	15.6%	(18,240,859)	242,807,730	239,639,775	(3,167,954)	101.3%		
2032	100% Er NC	3,963,670	0	3,963,670	3,963,670	4.0%	26,424,467	15.6%	(18,517,434)	247,612,874	244,408,607	(3,204,267)	101.3%		
2033	100% Er NC	4,122,217	0	4,122,217	4,122,217	4.0%	27,481,446	15.6%	(18,752,359)	252,768,258	249,272,338	(3,495,920)	101.4%		
2034	100% Er NC	4,287,106	0	4,287,106	4,287,106	4.0%	28,580,703	15.6%	(18,942,223)	258,353,572	254,232,858	(4,120,714)	101.6%		
2035	100% Er NC	4,458,590	0	4,458,590	4,458,590	4.0%	29,723,931	15.6%	(19,030,699)	264,510,878	259,292,092	(5,218,787)	102.0%		
2036	100% Er NC	4,636,933	0	4,636,933	4,636,933	4.0%	30,912,889	15.6%	(19,090,712)	271,319,807	264,452,004	(6,867,803)	102.6%		
2037	100% Er NC	4,822,411	0	4,822,411	4,822,411	4.0%	32,149,404	15.6%	(19,084,951)	278,903,378	269,714,599	(9,188,779)	103.4%		
2038	100% Er NC	5.015.307	0	5,015,307	5,015,307	4.0%	33,435,380	15.6%	(19,051,546)	287,355,651	275,081,920	(12,273,731)	104.5%		
2039	100% Er NC	5,215,919	0	5,215,919	5,215,919	4.0%	34,772,796	15.6%	(18,959,878)	296,808,441	280,556,050	(16,252,392)	105.8%		
2040	100% Er NC	5,424,556	0	5,424,556	5,424,556	4.0%	36,163,708	15.6%	(18,846,652)	307,366,695	286,139,115	(21,227,580)	107.4%		
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