June 2, 2016

City #00983

City Official
City of Pearland
3519 Liberty
Pearland, TX 77581-5416

Subject: 2017 Municipal Contribution Rate

Dear City Official:

Presented below are your city's contribution requirements to the Texas Municipal Retirement System (TMRS) for Plan Year 2017 (Calendar Year 2017, PY2017) as determined by the December 31, 2015 actuarial valuation. The actuarially determined contribution rates for retirement benefits and Supplemental Death Benefits (SDB), if any, are based on your city's plan provisions in effect as of April 1, 2016 and the actuarial assumptions and methods adopted by the TMRS Board. Effective January 1, 2017, your city's monthly contribution rates will be:

Normal Cost	10.20%
Prior Service	3.41%
Total Retirement Rate	13.61%
Supplemental Death Benefit	0.12%
Total Combined Contribution	13.73%

Your city's 2017 contribution rate exceeds the maximum contribution rate limit (Stat Max). See "The Statutory Maximum Contribution Rates" section for more information.

The Total Retirement Rate shown above represents the Actuarially Determined Employer Contribution (ADEC) for PY2017 based on current TMRS funding policy. The actuarial liabilities and contribution rates determined as part of the December 31, 2015 actuarial valuation reflect a change in actuarial assumptions based on the results of the 2015 experience study for the period ending December 31, 2014. Please see the "Actuarial Changes" section for more detailed information. Full information on your contribution rate, including an explanation of changes, is contained in the attached report.

IMPORTANT NOTE: The pension disclosure and financial statement information necessary to assist your city with the financial reporting requirements of the Governmental Accounting Standards Board (GASB) will be provided in a separate document available later this summer.

If you have questions about your rate or if you wish to evaluate potential changes in your TMRS plan, contact TMRS at 800-924-8677.

Sincerely,

Eric W. Davis

Eric W. Davis
Deputy Executive Director

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Amortization Bases and Payments	Information on the amortization bases and payments for your city.
Historical and Projected Accumulation of the BAF Balance	This schedule provides your city with historical cash flows, interest credits and the year-end balance of its Benefit Accumulation Fund (BAF), as well as projected values for calendar/plan years 2016 and 2017.
Reconciliation of Full Retirement Rate from Prior Actuarial Valuation Report	A detailed reconciliation of changes in your city's Full Retirement Rate (ADEC) since the prior valuation.
The Statutory Maximum Contribution Rate	An explanation of "Stat Max" and how it impacts your city, including related options available to address the "Stat Max" now that your City's Minimum Retirement Contribution Rate exceeds the limit.

Actuarial Changes

As part of their continued effort to ensure that TMRS is well funded and that members' benefits remain secure and sustainable over generations, the TMRS Board of Trustees adopted the actuarial changes summarized below at its December 2015 Board meeting, based on the results of the 2015 experience study and the recommendations of the System's consulting actuary, Gabriel Roeder Smith & Company (GRS). The combined impact of the following changes is shown in the "Reconciliation of Full Retirement Rate from Prior Actuarial Valuation Report" section of this letter.

Actuarial Assumption Changes

The TMRS Act requires that at least once every 5 years, the System's consulting actuary perform an actuarial experience study and make recommendations to the Board based on the results of that study. Current Board policy is to conduct an actuarial experience study every four years. Accordingly, during 2015, TMRS' consulting actuary, GRS, conducted an experience study for the period ending December 31, 2014. A single set of assumptions is not expected to be suitable forever. As the actual experience of a plan unfolds or the future expectations change, the assumptions should be reviewed and adjusted accordingly. The actuarial assumptions used in the annual actuarial valuations and reviewed as part of the experience study are generally grouped into the following two major categories:

1. Economic assumptions – investment return, salary increases, overall payroll growth, inflation
2. Demographic assumptions – rates of termination, forfeiture, service retirement, disability retirement, pre-retirement mortality, post-retirement mortality

The Board adopted several changes in actuarial assumptions including:

- Reduction in the investment return assumption from 7% to 6.75%
- Reduction in the inflation assumption from 3% to 2.5%
- Reduction in individual salary increases
- Reduction in projected cost of living adjustments (COLAs) consistent with lower inflation
- Reduction to the 3% payroll growth assumption for cities with patterns of population decline
- Reduction in the rates of termination and modification of classification and city multipliers
- Reduction in forfeiture rates (withdrawal of member deposits) for vested members not eligible for retirement
- Reduction in rates of disability

Asset Valuation (Smoothing) Method Modification

An asset smoothing method is the technique used in determining the Actuarial Value of Assets (AVA) which recognizes gains or losses in pension assets over some period of time in order to reduce the effects of normal market volatility on contribution rates. In TMRS, the AVA is based on the Market Value of Assets (MVA) with ten-year smoothing applied. This is accomplished by recognizing each year 10% of the difference between the MVA and the expected AVA, based on the assumed rate of investment return. The AVA is further adjusted by 33% of any difference between the initial value and a 15% corridor around the MVA. Effective with the December 31, 2015 actuarial valuation, a provision was added to the current 10-year smoothing method to ensure that an asset gain or loss from an individual year is fully recognized within 10 years. Also, beginning with the December 31, 2015 actuarial valuation, a System-wide calculation to determine the ratio of the smoothed value to the market value in aggregate will be performed and that ratio will then be applied to each city's MVA in determining their individual AVA. Previously, the AVA was determined for each individual city based on the cash flow and asset levels of that city.

Amortization Policy Modification

In TMRS, for underfunded plans, amortization of the Unfunded Actuarial Accrued Liability (UAAL) is a level percentage of payroll over a closed period using the process of "laddering" which separately tracks different amortization components or bases. For all new losses, including benefit enhancements, occurring after December 31, 2015, the maximum amortization period will be 25 years for all cities. Previously, some cities amortized their losses over a 30-year period. Bases created on or before December 31, 2015 will continue to be amortized on their original schedule. This change will have no impact on the December 31, 2015 actuarial valuation, but will affect future valuations for certain cities.

Executive Summary

Valuation as of TMRS Plan Year (PY) Ending	12/31/2015	12/31/2014
Membership as of the Valuation Date		
• Number of		
- Active members	605	561
- Retirees and beneficiaries	174	146
- Inactive members	256	226
- Total	1,035	933
• Prior year's payroll provided by TMRS	$ 35,545,557	$ 33,615,923
• Valuation Payroll	$ 35,972,887	$ 34,089,409
Benefit Accumulation Fund (BAF) Assets		
• Market BAF Balance	$ 95,046,483	$ 91,529,551
• BAF crediting rate for PY	0.06%	5.68%
• Interest credited on beginning BAF balance	$ 54,490	$ 4,707,896
• Municipal contributions	4,786,602	4,339,785
• Member contributions during year	2,498,961	2,355,095
• Benefit and refund payments	3,823,121	2,730,702
Actuarial Value of Assets (AVA)		
• Market BAF Balance	$ 95,046,483	$ 91,529,551
• Actuarial Value of Assets (AVA)	97,624,734	88,635,488
• AVA as a Percentage of BAF	102.7%	96.8%
• Return on AVA*	6.63%	7.41%
Actuarial Information		
• Actuarial accrued liability (AAL)	$ 119,050,823	$ 108,601,188
• Actuarial value of assets (AVA)	97,624,734	88,635,488
• Unfunded actuarial accrued liability (UAAL)	21,426,089	19,965,700
• UAAL as % of pay	60.3%	59.4%
• Funded ratio (AVA/AAL)	82.0%	81.6%
• Employer normal cost	10.20%	9.98%
• Prior Service Rate	3.41%	3.39%
Contribution Rates for TMRS Plan Year (PY)	2017	2016
• Member	7.00%	7.00%
• Full retirement rate (ADEC)	13.61%	13.37%
• Supplemental Death rate	0.12%	0.12%
Total Employer Contribution Estimates for PY	2017	2016
• Projected payroll	$ 37,052,074	$ 35,112,091
• Combined contribution rate	13.73%	13.49%
• Estimated employer contribution	$ 5,087,250	$ 4,736,621

Note: TMRS Plan Year coincides with Calendar Year

Results from prior year reflect the plan provisions used in the 12/31/2015 valuation report.

* Return on AVA is calculated prior to actuarial changes.

Calculation of Contribution Requirements

		December 31, 2015		December 31, 2014
		New Assumptions	Old Assumptions	
1.	Prior year's payroll provided by TMRS	$ 35,545,557	$ 35,545,557	$ 33,615,923
2.	Valuation payroll	35,972,887	35,972,887	34,089,409
3.	Employer normal cost rate	10.20%	9.92%	9.98%
4.	Actuarial liabilities			
	a. Present active members	$ 76,525,997	$ 77,311,874	$ 71,069,671
	b. Present inactive members	12,207,713	11,823,051	10,718,875
	c. Annuitants	30,317,113	30,220,718	26,812,642
	d. Total actuarial accrued liability	$ 119,050,823	$ 119,355,643	$ 108,601,188
5.	Actuarial value of assets	97,624,734	97,976,821	88,635,488
6.	Unfunded actuarial accrued liability (UAAL) (4d - 5)	$ 21,426,089	$ 21,378,822	$ 19,965,700
7.	Funded ratio (5 / 4d)	82.0%	82.1%	81.6%
8.	Equivalent Single Amortization Period*	28.1 years	28.0 years	28.9 years
9.	Assumed payroll growth rate	3.00%	3.00%	3.00%
	Contribution Rate for TMRS Plan Year:	2017		2016
10.	Full retirement rate			
	a. Normal cost	10.20%	9.92%	9.98%
	b. Prior service	3.41%	3.50%	3.39%
	c. Full retirement rate	13.61%	13.42%	13.37%
11.	Supplemental Death rate	0.12%	0.12%	0.12%
12.	Combined contribution rates (10c + 11)	13.73%	13.54%	13.49%

* New Losses are laddered on 25-year period.

Summary of Benefit Provisions

The plan provisions are adopted by the governing body of the City, within the options available in the state statutes governing TMRS. Plan provisions for the City were as follows:

	Plan Year 2016	Plan Year 2015
Employee deposit rate	7%	7%
Matching ratio (city to employee)	2 to 1	2 to 1
Years required for vesting	5	5
Retirement Eligibility (Age /Service)	60/5, 0/20	60/5, 0/20
Updated Service Credit	100% Repeating Transfers	100% Repeating Transfers
Annuity Increase (to retirees)	70% of CPI Repeating	70% of CPI Repeating
Supplemental Death Benefit to Active Employees	Yes	Yes
Supplemental Death Benefit to Retirees	Yes	Yes

Amortization Bases and Payments

Year Established	Description	Years Remaining	Base	Payment
2013	2013 Valuation (Fresh Start)	28	$20,562,794	$1,179,572
2014	2014 Experience	28	(393,676)	(22,583)
2015	2015 Experience	30	1,209,704	66,720
2015	2015 Actuarial Changes	30	47,267	2,606
	Total		21,426,089	1,226,315

Historical and Projected Accumulation of the BAF Balance

Year Ending December 31, (1)	Payroll for the Year (2)	Effective Retirement Contribution Rate [a] (3)	Employer Contributions for the Year (4)	Member Contributions for the Year (5)	Benefit Payments (6)	External Cash Flow for the Year (7)	Interest Credit (8)	BAF Balance [b] (9)
		(4) / (2)				(4) + (5) + (6)		
2013	$ 30,580,987	12.70%	$ 3,882,919	$ 2,151,549	$ (2,336,600)	$ 3,697,868	$ 7,002,508	$ 82,857,476
2014	$ 33,615,923	12.91%	$ 4,339,785	$ 2,355,095	$ (2,730,702)	$ 3,964,178	$ 4,707,896	$ 91,529,551
2015	$ 35,545,557	13.47%	$ 4,786,602	$ 2,498,961	$ (3,823,121)	$ 3,462,442	$ 54,490	$ 95,046,483
2016	$ 35,972,887	13.37%	$ 4,809,575	$ 2,518,102	$ (4,092,162)	$ 3,235,515	$ 6,415,638	$ 104,697,636
2017	$ 37,052,074	13.61%	$ 5,042,787	$ 2,593,645	$ (4,083,135)	$ 3,553,297	$ 7,067,090	$ 115,318,023

a. Effective retirement contribution rate is the actual rate determined by dividing the employer contribution received by the payroll paid.
b. BAF Balance may be off a dollar due to rounding.

Reconciliation of Full Retirement Rate from Prior Actuarial Valuation Report

Actuarial valuations are based on long-term assumptions, and actual results in a specific year can, and almost certainly will, differ as actual experience deviates from the assumptions. The following table provides a detailed breakdown of changes in the retirement portion of your city's contribution rate. This analysis reconciles the change in the retirement portion (ADEC) of your city's contribution rate from 2016 to 2017, but will not reflect any change in the cost of the Supplemental Death Benefit (SDB), if your city currently has this provision. (Any changes in the cost of the SDB are primarily due to the changes in the average age of your city's employee group and/or the number of covered retirees.) Following the table below is a brief description of the common sources for deviation from the expected.

Change in Full Retirement Rate				
Full Rate from 12/31/2014 Valuation (PY 2016 Rate)			13.37	%
Benefit changes	0.00	%		
Return on Actuarial Value of Assets	0.05			
Contribution lag	(0.04)			
Payroll growth	(0.08)			
Normal cost	(0.06)			
Liability growth	0.18			
Subtotal Experience Change	0.05	%		
Actuarial Changes	0.19			
Total change	0.24	%		
Full Rate from 12/31/2015 Valuation (PY 2017 Rate)			13.61	%

Benefit Changes - Shows the increase or decrease in the contribution rate associated with any modifications made to the member city's TMRS plan provisions. This will also include any changes to the amortization period adopted by ordinance.

Return on Actuarial Value of Assets (AVA) - Shows the change in the contribution rate associated with the return on the AVA being different than the assumed 7.0%. For the year ending December 31, 2015, the return on an AVA basis was 6.63%. The impact may show as 0.00% due to rounding.

Contribution Lag - Shows the total increase or decrease in the contribution rate associated with the phase in of contributions and/or any additional contributions above the full rate. The effect of the "Contribution Lag" is also included here and refers to the time delay between the actuarial valuation date and the date the contribution rate becomes effective. For TMRS member cities, the

“Contribution Lag” is one year (i.e., the Actuarial Valuation as of December 31, 2015 sets the rate effective for Calendar Year 2017). **The impact of the “Contribution Lag” is expected to become immaterial once a city is contributing the Full Rate and the Full Rate stabilizes.**

Payroll Growth - Shows the increase or decrease in the contribution rate associated with higher or lower than expected growth in the member city’s overall payroll. The amortization payments were calculated assuming payroll grows at 3.00% per year. Overall payroll growth in excess of 3.00% will typically cause a decrease in the prior service rate.

Normal Cost - Shows the increase or decrease in the contribution rate associated with changes in the average normal cost rate for the individual city’s population. The normal cost rate for an employee is the contribution rate which, if applied to a member’s compensation throughout their period of anticipated covered service with the municipality, would be sufficient to meet all benefits payable on their behalf. The salary-weighted average of the individual rates is the total normal cost rate.

Liability Growth - Shows the increase or decrease in the contribution rate associated with larger or lower than expected growth in the member city’s overall plan liabilities. The most significant sources for variance will be individual salary increases compared to the assumption and turnover.

Actuarial Changes - Shows the change in the contribution rate associated with the changes in actuarial assumptions based on the results of the 2015 experience study.

The Statutory Maximum Contribution Rate

The TMRS Act provides a limit to the maximum rate that a city can be required to contribute for the retirement portion of its plan (the cost of Supplemental Death Benefits is excluded from this limit) based on the combination of the employee deposit rate and the matching ratio. This limit, known as the statutory maximum, or "stat max," is not a limit of the cost of a plan, but rather is simply a limit on the maximum a city could be required to contribute for the plan. If the TMRS minimum required retirement contribution rate exceeds this limit, unless the city takes additional action as permitted under the TMRS Act, it will not be meeting the minimum contribution requirements for its TMRS plan. The TMRS Act provides several options for a city if the retirement portion of the contribution rate exceeds the statutory maximum contribution limit, as outlined below.

Because your city's 2017 minimum retirement contribution rate has exceeded the statutory maximum contribution rate limit, your city will need to consider adopting an ordinance to raise or repeal the limit. TMRS strongly recommends that you raise or remove the limit to ensure that your minimum contribution requirements are met. If you do not raise or repeal the limit, some benefits may be reduced or eliminated, as outlined below.

Options when Your City's Minimum Required Retirement Contribution Rate Exceeds the Statutory Maximum

Option 1. Remove the Statutory Maximum Contribution Rate Limit

To ensure proper funding of your city's pension plan, TMRS encourages each city to consider adopting an ordinance to permanently repeal this statutory maximum contribution rate. The System's actuary will calculate the cost of the plan benefits adopted by your city each year, and your city will be advised of the Full Rate and any Phase-in Rate, if applicable.

Option 2. Increase the Statutory Maximum Contribution Rate Limit (not available to cities with a 5% Employee Deposit Rate or a 1 to 1 city matching ratio.)

Your city can adopt an ordinance to increase its statutory maximum contribution rate. This option will raise your limit from the current statutory maximum to the increased maximum, as seen in the chart below. Your city will then pay the minimum required retirement contribution rate (either Full Rate or Phase-in Rate, as applicable). However, this may not be a permanent solution and will not prevent your retirement contribution rate from exceeding the increased statutory maximum limit in the future.

Option 3. Pay the Retirement Cost Contribution Rate

Your city can adopt an ordinance each year to pay the minimum required retirement contribution rate, provided that rate does not exceed the statutory maximum contribution rate plus 2.00%, plus the cost of Supplemental Death Benefits, if your city has that provision.

It is important to note, however, that if your city chooses this option, you cannot adopt any additional plan improvements, including USC or COLAs.

Also, if USC and COLAs have been adopted on an annually repeating basis, these options will be suspended until the minimum required retirement contribution rate drops below the statutory maximum contribution rate limit.

Option 4. Pay Only the Statutory Maximum Contribution Rate

Your city can elect to pay only the statutory maximum contribution rate, plus the cost of the Supplemental Death Benefit, if applicable. Refer to the chart below to determine your city's maximum contribution rate limit. **TMRS does not recommend this option.** If this option is chosen, your city will not be paying the minimum required retirement contribution rate for the plan of benefits adopted, and the funding status of your city's plan will decline. As a result, your city cannot adopt any additional plan improvements, including USC or COLAs. Also, if USC or COLAs have been adopted on an annually repeating basis, these options will be suspended until the minimum required retirement contribution rate drops below the statutory maximum contribution rate limit. This could lead to further funding difficulties in the future since your city will have to make up the unpaid amount at some later time. In addition, because your city is paying less than the retirement cost rate, this difference will be reflected as an increase in your city's unfunded actuarial liability and amortized accordingly. Paying less than the required retirement contribution rate will also result in a deterioration of your city's funded ratio.

STATUTORY MAXIMUM CONTRIBUTION RATES

	Matching Ratio		
Deposit Rate	1 to 1	1 ½ to 1	2 to 1
3%*	5.50%	7.50%	9.50%
5%	7.50%	9.50%	11.50%
6%	8.50%	10.50% / 11.00%	12.50% / 13.50%
7%	9.50%	11.50% / 12.50%	13.50% / 15.50%

For the four plans showing split limits, the left number is the base limit, and the right number is what the limit can be increased to.
*This deposit rate is no longer an option for new cities.

Ordinances to adopt any of the above options may be requested from TMRS. If you need further information, please call 800-924-8677.