

**Big Spring Firemen's Relief and Retirement Fund
Retiree Medical Subsidy Plan**

ACTUARIAL VALUATION REPORT

**Actuarial Valuation
as of January 1, 2019
for the Plan Year January 1, 2021 through December 31, 2021**

October 13, 2021

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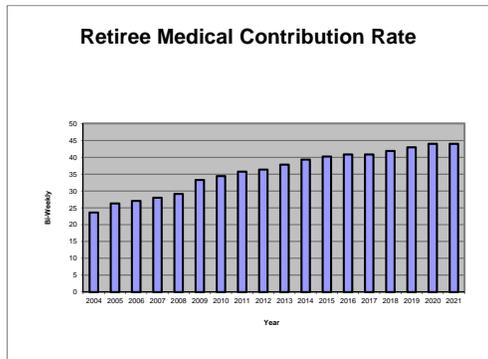
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**Big Spring Firemen's Relief and Retirement Fund
Retiree Medical Subsidy Plan**

HIGHLIGHTS

The bi-weekly contribution rate for the plan has been:

	<u>Contribution</u>	<u>Monthly Benefit</u>		<u>Contribution</u>	<u>Monthly Benefit</u>
1/1/2004	\$23.58	\$250	1/1/2013	\$37.77	\$325
1/1/2005	\$26.26	\$250	1/1/2014	\$39.28	\$340
1/1/2006	\$27.01	\$250	1/1/2015	\$40.18	\$340
1/1/2007	\$27.96	\$250	1/1/2016	\$40.82	\$414
1/1/2008	\$29.09	\$250	1/1/2017	\$40.82	\$414
1/1/2009	\$33.25	\$300	1/1/2018	\$41.84	\$495
1/1/2010	\$34.33	\$300	1/1/2019	\$42.92	\$495
1/1/2011	\$35.70	\$325	1/1/2020	\$43.99	No change
1/1/2012	\$36.32	\$325	1/1/2021	\$43.99	No change



As shown on page 3, the actuarially required contribution rate as of January 1, 2021 to meet the normal cost of the plan and amortize the unfunded actuarial liability over 10 years is \$37.55 per bi-weekly pay period. Increasing the benefit level from \$495 per month to \$530 per month (about a 7% increase) at the current contribution level results in an amortization period of 9.8 years.

Over the years of the plan's operation the funded level (assets divided by actuarial liability) has increased as follows:

		<u>Funded %</u>	
		<u>Retirees</u>	<u>Total</u>
	1/1/2006	141.9%	18.1%
	1/1/2008	66.9%	36.6%
	1/1/2010	74.1%	44.2%
	1/1/2012	97.0%	50.5%
	1/1/2013	102.7%	55.3%
\$340 level	1/1/2015	118.5%	73.8%
\$410 level	1/1/2015	98.3%	61.2%
\$414 level	1/1/2017	148.6%	74.9%
\$495 level	1/1/2017	124.3%	62.6%
\$495 level	1/1/2019	175.4%	60.4%
\$495 level	1/1/2021	256.9%	76.4%
\$530 level	1/1/2021	240.1%	71.4%

The automatic increase provision would allow the benefit level to be increased from \$495 per month to \$530 per month (7%) subject to approval by the trustees.

Big Spring Firemen's Relief and Retirement Fund

SUMMARY OF PLAN PROVISIONS

Form of Plan	<p>401(h) arrangement attached to the pension plan</p> <p>A sub-account is maintained in the pension trust fund. This account is credited with retiree medical contributions and a proportionate share of investment earnings. Only retiree medical benefits may be paid from the sub-account.</p>
Participants	<p>All active employees are eligible.</p>
Eligibility	<p>Members retiring at age 50 or older with at least 20 years of service. Benefits are not paid during the DROP period.</p>
Benefits paid	<p><i>After retirement up to age 65</i></p> <p>Reimbursement of retiree medical benefits are payable up to \$495 per month. A \$5,940 annual limit applies to all benefits (prorated in year of retirement and year of reaching age 65). Unused benefits do not carry forward from one year to the next.</p> <p>Qualifying retiree medical benefits include:</p> <ul style="list-style-type: none">- medical premium costs for retiree and spouse- coinsurance and deduction amounts paid by the retiree or spouse- prescription drugs not paid by insurance plan- dental costs not paid by insurance plan- other medical expenses that would be deductible for tax purposes regardless of the income tax threshold
Funding	<p>Contributions are a condition of employment, not optional. The same dollar contribution rate per pay period applies to all members. Contributions are not returned to members who terminate employment before retirement; only retiree medical benefits are paid.</p> <p>Funding may be provided by the members, the City or by both.</p> <p>Contributions are adjusted to meet the actuarial requirements of the plan and will be increased as average pay levels increase. Benefits will not be changed until and unless an actuarial surplus exists.</p> <p>Benefit increases may take place without a formal membership ballot under the following conditions:</p> <ol style="list-style-type: none">1 the benefit level is supported by the actuarial funding level of the plan based on 10-year amortization, consistently applied.2 the trustees approve the increase.3 the benefit level is rounded down to the lower multiple of \$5 per month.

Big Spring Firemen's Relief and Retirement Fund
DEVELOPMENT OF PLAN FUNDING REQUIREMENTS

	1/1/2008	1/1/2010	1/1/2012	1/1/2013	1/1/2015	1/1/2017	1/1/2019	1/1/2021	1/1/2021
Benefit Level									Study
Before age 65 (per month)	\$250	\$300	\$325	\$325	\$340	\$495	\$495	\$495	\$530
Age 65 and older	None	None	None	None	None	None	None	None	None
Present Value of Benefits									
Active employees									
Retirement	\$258,582	\$275,498	\$420,809	\$425,352	\$366,407	\$593,512	\$751,239	\$872,827	\$933,925
Disability	6,477	6,877	6,681	6,167	8,059	14,331	20,581	21,584	23,095
Total actives	\$265,059	\$282,375	\$427,489	\$431,519	\$374,466	\$607,843	\$771,821	\$894,410	\$957,019
Nonactive participants		0		0					
Retirees	63,633	71,447	127,630	177,866	178,580	395,026	280,396	266,674	285,341
Beneficiaries	0	0	0	0	0	0	0	0	0
Disabled	0	0	0	0	0	0	0	0	0
Deferred vested (DROP status)	164,051	227,809	209,401	195,649	217,740	0	0	0	0
Total nonactives	227,684	299,256	337,031	373,515	396,320	395,026	280,396	266,674	285,341
Total for all participants	\$492,743	\$581,631	\$764,520	\$805,034	\$770,786	\$1,002,869	\$1,052,217	\$1,161,084	\$1,242,360
Plan Assets	152,343	221,811	326,788	383,497	469,656	490,868	491,897	684,991	684,991
Present Value to be Funded	\$340,400	\$359,820	\$437,732	\$421,538	\$301,130	\$512,001	\$560,320	\$476,093	\$557,369
Defined Benefit Pension Funding (Entry Age Normal)									
Entry age normal cost	\$13,452	\$14,132	\$18,391	\$16,894	\$19,555	\$29,159	\$32,773	\$36,324	\$38,516
EAN Actuarial Liability	\$416,403	\$502,350	\$647,138	\$693,287	\$636,536	\$783,978	\$813,753	\$896,686	\$959,454
Plan Assets	\$152,343	\$221,811	\$326,788	\$383,497	\$469,656	\$490,868	\$491,897	\$684,991	\$684,991
Unfunded Actuarial Liability	\$264,060	\$280,539	\$320,350	\$309,791	\$166,880	\$293,110	\$321,857	\$211,694	\$274,462
Bi-weekly contribution									
Normal cost	\$9.58	\$9.88	\$11.79	\$11.60	\$12.75	\$17.80	\$19.70	\$21.49	\$22.79
9 - year amortization from valuation date	16.18	19.58	22.34	23.15	13.94	22.94	24.79	16.06	20.82
Total	\$25.76	\$29.46	\$34.13	\$34.75	\$26.69	\$40.74	\$44.49	\$37.55	\$43.61
Actuarial assumptions									
Interest	6% (set 2% less than the pension funding assumption)								
Pay increases	4% plus same select period increases as pension valuation								
Decrements	Same as pension valuation								
Expenses	\$5,000 per year								
Funding method									
Entry age normal cost plus 10 year amortization of the EAN actuarial liability									
The original amortization period was 13 years based on average period to eligibility.									
Ten year amortization is selected because it is the average remaining work life of the active employee group.									

Big Spring Firemen's
Relief and Retirement Fund - Retiree Medical Subsidy Plan

SUMMARY OF PLAN ASSETS

As of December 31, 2020

Category	12/31/2020		12/31/2019	
	Amount	Percent	Amount	Percent
Cash and Equivalents	\$ 19,601	3%	\$ 29,663	5%
Insurance Contracts	\$ -	0%	\$ -	0%
Equities				
Common Stock	\$ 53,962	8%	\$ 40,775	7%
Collective Funds	566,589	83%	494,149	88%
Foreign Equities	-	0%	-	0%
Total	\$ 620,551	91%	\$ 534,924	95%
Fixed Income				
Specialty	\$ -	0%	\$ -	0%
Corporate bonds	-	0%	-	0%
Other	44,839	7%	-	0%
Total	\$ 44,839	7%	\$ -	0%
Other - accrued income	-	0%	-	0%
Total Invested Assets	\$ 684,991	100%	\$ 564,587	100%
Contributions Receivable	-		-	
Payables	-		-	
Market Value of Assets	\$ 684,991		\$ 564,587	

Big Spring Firemen's
Relief and Retirement Fund - Retiree Medical Subsidy Plan

RECONCILIATION OF PLAN ASSETS

December 31, 2019 to December 31, 2020

Receipts

Contributions			
Employer	\$	-	
Employee		73,815	
Interest and Dividends		43,425	
Net Realized Appreciation/(Depreciation)		<u>17,314</u>	
Total			\$ 134,554

Disbursements

Benefit Payments	\$	60,598	
Expenses		<u>6,175</u>	
Total			\$ 66,772

Reconciliation

Market Value as of December 31, 2019	\$	564,587	
Excess of Receipts over Disbursements		67,781	
Unrealized appreciation during the year		<u>52,623</u>	
Market Value of Invested Assets as of December 31, 2020	\$	684,991	
Contributions Receivable			0
Payables			<u>0</u>
Market Value of Assets as of December 31, 2020	\$		684,991

Average return on assets (BAI method)	before expense	19.95%
	net of expense	18.87%

**Big Springs Firemen's
Relief and Retirement Fund - Retiree Medical Subsidy Plan**

AGE AND SERVICE OF ACTIVE PARTICIPANTS

1/1/2021

Age Group	Years of Service							All Service	
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34		35 -
14 - 19									
20 - 24	5	1							6
25 - 29	5		4						9
30 - 34	8	9	2						19
35 - 39	3	8	2	1					14
40 - 44		1	1		2				4
45 - 49			2	3	5	2			12
50 - 54									
55 - 59									
60 - 64									
65 - 69				1					1
70 -									
Totals	21	23	7	5	7	2			65

Age is in completed years (age last birthday) on the census date.
Service is completed years of vesting service on the census date.

DROP participants are not included above.

**Big Springs Firemen's
Relief and Retirement Fund - Retiree Medical Subsidy Plan**

SUMMARY OF NONACTIVE PARTICIPANTS

January 1, 2019

Age Group	Males			Females			Total		
	Count	Benefit	Weighted Ave Age	Count	Benefit	Weighted Ave Age	Count	Benefit	Weighted Ave Age
<i>Retired Participants in Payment Status</i>									
50 - 54	1	5,940	52.23				1	5,940	52.23
55 - 59	3	17,820	57.31				3	17,820	57.31
60 - 64	7	41,580	62.48				7	41,580	62.48
Totals	11	65,340	60.14	0	0		11	65,340	60.14
Ave amount		5,940			0			5,940	

**Big Spring Firemen's
Relief and Retirement Fund - Retiree Medical Subsidy Plan**

ACTUARIAL ASSUMPTIONS

Male

Interest Rates		Age	Rates per Thousand				Annual
			Mortality	Turnover	Disability	Retirement	Pay
<i>Purpose</i>	<i>Rate</i>						Increase
Basic valuation		20	0.410	173.86	0.60	0	4.00%
Before retirement	6.00%	21	0.410	167.66	0.66	0	4.00%
After retirement	6.00%	22	0.400	161.90	0.71	0	4.00%
		23	0.390	156.57	0.76	0	4.00%
Mortality Tables		24	0.380	151.71	0.81	0	4.00%
Before retirement	Pub2010PS	25	0.370	136.99	0.85	0	4.00%
After retirement	Pub2010PS	26	0.380	122.51	0.90	0	4.00%
with cohort projection MP-2020		27	0.390	107.97	0.95	0	4.00%
		28	0.400	93.51	1.00	0	4.00%
Pay Increase Assumption		29	0.410	79.19	1.05	0	4.00%
Annual rates of pay increase		30	0.410	75.01	1.10	0	4.00%
as shown		31	0.420	71.00	1.16	0	4.00%
		32	0.430	67.16	1.22	0	4.00%
Turnover		33	0.440	63.48	1.30	0	4.00%
Age-related rates as shown		34	0.450	59.95	1.38	0	4.00%
		35	0.470	56.56	1.47	0	4.00%
Retirement Age		36	0.490	53.31	1.58	0	4.00%
Rates of retirement as shown		37	0.500	50.18	1.71	0	4.00%
Rates are only applied if the employee		38	0.530	47.15	1.85	0	4.00%
is eligible to retire.		39	0.560	44.22	2.01	0	4.00%
		40	0.590	41.38	2.20	0	4.00%
Other Assumptions		41	0.620	38.58	2.42	0	4.00%
Percent married	100%	42	0.670	35.81	2.66	0	4.00%
Husband/wife age difference	3	43	0.710	33.05	2.93	0	4.00%
		44	0.760	30.30	3.24	0	4.00%
Increase in Social Security		45	0.820	27.54	3.60	0	4.00%
Wage Base	3.00%	46	0.880	24.79	3.99	0	4.00%
		47	0.950	22.01	4.43	0	4.00%
		48	1.020	19.22	4.92	0	4.00%
		49	1.110	16.39	5.46	0	4.00%
		50	1.200	13.53	6.06	0	4.00%
		51	1.290	10.61	6.72	0	4.00%
		52	1.400	7.64	7.45	1000	4.00%
		53	1.510	4.59	8.25	1000	4.00%
		54	1.620	1.67	9.13	1000	4.00%
		55	1.750	0.00	10.09	1000	4.00%

**Big Spring Firemen's
Relief and Retirement Fund - Retiree Medical Subsidy Plan**

CERTIFICATION

This report presents the funded status and plan funding requirements for the plan year ending December 31, 2021, based on an actuarial valuation as of the beginning of the year. This report applies to the Retiree Medical Subsidy Plan only.

Our calculations were based on actuarial assumptions and methods stated in this report, employee census information provided by the FRRF and asset information provided by the trustee.

Actuarial assumptions were updated with the prior valuation to reflect the recently published public mortality table for public safety participants (from the RP2000 table to the PUB2010 Public Safety table. The mortality improvement scale was updated to the latest version (MP2020) in this valuation

Plan provisions were last changed effective in 2018 to increase the monthly retiree medical subsidy to \$495 per month. Future increases are automatic if approved by the trustees. The amount of the monthly benefit is the level that can be supported on a 10 year funding basis rounded to the lower \$5. The benefit level determined on this basis is \$530 per month.

10/13/2021

DEAN ACTUARIES, LLC



Charles E. Dean, FSA



Sean M. Sullivan, FSA