GVS Minnesota Memorandum No. 73-4
October 18, 1973

TWIN CITY LINES VALUATION AS OF JANUARY 1, 1973

The purpose of this memorandum is to discuss the valuation report of the Twin City Lines Employees' Retirement Plan as of January 1, 1973. The valuation was made on the basis of the entry age normal cost method and assuming 3 1/2% interest. The current valuation was prepared by John H. Flittie and James R. Bordewick of George V. Stennes and Associates.

This memorandum contains the following:

1. Statistical and Valuation Data
2. Discussion of Valuation Results
3. Conclusion

1. Statistical and Valuation Data

Results of the valuation reports as of January 1, 1972 and January 1, 1973 are shown for comparative purposes. Figures are rounded where necessary for simplicity of presentation.

		As of January 1, 1972	As of January 1, 1973
(1)	Membership		
	Active Members	1,191	1,275
	Retired Members	611	589
	Disabled Members	134	129
	Deferred Annuitants	15	15
(2)	Payroll and Annuities Payable	(Thousands of Dollars)	
	Covered Payroll	$ 11,313	$ 13,033
	Annuities (Annual)	1,042	1,162
(3)	Valuation Balance Sheet	(Thousands of Dollars)	
	Accrued Liability	$ 22,110	$ 24,976
	Assets	7,161	8,208
	Unfunded Accrued Liability (Deficit)	$ 14,949	$ 16,768
	Funding Ratio (Assets/Accrued Liability)	32.4%	32.9%

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	As of January 1, 1972	As of January 1, 1973
(4) Normal Costs and Funding Costs	Percent of Payroll	Percent of Payroll
Normal Cost	5.33%	5.54%
Expenses	.07	.08
	5.40%	5.62%
Normal Cost Plus Expenses	5.40%	5.62%
Interest on Deficit	4.62	4.50
Minimum Contribution	10.02%	10.12%
Normal Cost Plus Expenses	5.40%	5.62%
Amortization by 1997	7.56	7.48
Total Contribution	12.96%	13.10%
(5) Current Contributions		
Employee	4.9%	4.9%
Employer	9.8	9.8
Total	14.7%	14.7%
(6) Estimated Investment Yield *	4.85%	4.93%

* Ratio of reported investment income to estimated mean assets for fiscal year.

2. Discussion of Valuation Results

The benefits and contributions under this plan are subject to bargaining but with the restriction that adequate financing must be maintained. The agreements provide for an employer contribution double that of the employee but without any allocation of specific portions between normal cost and amortization of the deficit. Thus, at the time of a valuation, the amortization period is the unknown quantity to be determined.

In recent years, the contribution rates have been 4.9% of pay by the employees and 9.8% by the employer. The results of the 1973 valuation indicate that the deficit will be retired by October 1, 1991; this compares with a date of November 1, 1990 shown on the 1972 valuation.

As a result of an Arbitration Award dated October 23, 1972, the Plan was amended as of January 1, 1972. The amendment made the following improvements:

(1) Introduction of an alternative benefit for an employee retiring at normal retirement equal to $8.00 per month per year of credited service up to 30 years of service plus $9.00 per month per year of credited service over 30 years.

(2) Establishment of a minimum benefit of $115.00 per month for an employee retiring at age 65 with 20 years of service. The minimum benefit is reduced pro rata for less than 20 years of service.

(3) Addition of a voluntary retirement provision to permit an employee to retire at age 62 with 30 years of service. The benefit will not be actuarially reduced.

(4) Establishment of a minimum disability benefit of $115.00 per month. In addition, upon recovery from disability, service credits will be computed from date of employment less the credits for the years and months for which the employee received a disability benefit from the Plan.

(5) Increase in benefits for employees retired as of December 31, 1971 subject to appropriate actuarial reduction if applicable in the computation of their original benefit: (a) $10.00 per month for employees who started to receive benefits on or after January 1, 1965 and prior to January 1, 1972; (b) $15.00 per month for employees who started to receive benefits prior to January 1, 1965; (c) if, after the increases in (a) and (b) above, the monthly benefit for a Normal Retiree with 20 years of service or any Disability Retiree was less than $100, the benefit was increased to $100 a month.

(6) Addition of actuarial equivalent forms of retirement allowances - Certain and Life and Joint and 50% to Joint Annuitant options.

The amendment has produced the increase in normal cost from 5.33% to 5.44% and added $2,189,433 to the Unfunded Accrued Liability. This also accounts for the extension of approximately one year in the predicted funding period. In the absence of the amendment, this period would have been shortened by about a year and a half.

A three-year study of deaths and non-vested terminations among active employees shows a ratio of actual to expected of 194% which indicates that the assumed rates are conservative. The deaths among non-disabled retirees exceeded the expected number, but the experience on disablements, both on the number of newly disabled and on the death rates of disabled retirees continued to be unfavorable. The average retirement age of normal retirements

continues to be in the neighborhood of age 65. However, the amendment which permits retirement without actuarial reduction at age 62 with 30 years of service may result in a lower average retirement age in the future.

The fund continues to earn just under 5%, and during 1972, capital gains of $126,472 were realized. However, at the end of 1972, the market value of the fund was about $546,000 less than the value at cost which is shown on page 1. Therefore, we are puzzled by the statement in the Report: "Also, any unrealized market appreciation can be thought of as a partial offset to the unfunded liability."

The unfunded accrued liability increased from $14,948,946 to $16,767,907, an increase of $1,818,961. The Actuaries for the Plan have prepared the following analysis of this change:

Increases:		
Improvements in Benefits	$2,189,433	
Actuarial Losses (Mainly Salary Increases)	608,937	
Total Increases		$2,798,370
Decreases:		
Amortization Contribution	$ 748,080	
Gain from Interest	104,857	
Realized Capital Gain	126,472	
Total Decreases		979,409
Net Increase		$1,818,961

3. Conclusion

As stated above, the bargaining agreement stipulates benefits and contribution rates, and the purpose of a valuation is to determine the period required to amortize the unfunded accrued liability. Since the valuation has been performed by the entry age normal cost method and is based upon an assumed interest rate of 3 1/2%, and since the results can be easily recast into the usual format, the report satisfies the requirements of the various statutes.

As indicated above, the present level of total support appears more than adequate to provide the normal cost and to amortize the deficit before 1997 (14.70% vs. 13.10%).

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