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This report summarizes valuation results for the Township of Bloomfield Retirement Income Plan based upon actuarial valuations as of January 1, 2012 and January 1, 2013.

	January 1, 2012	January 1, 2013
Contributions		
• Recommended Employer Contribution	$5,542,255	$10,742,763
Expressed as a percentage of payroll	*36.13%*	*72.28%*
• Estimated Employee Contribution	$371,498	$363,360
Pension Plan Asset Information		
• Market Value of Assets	$122,504,951	$128,978,134
• Actuarial Value of Assets	$123,454,716	$127,620,304
Liability Information		
• Present Value of Projected Benefits	$181,082,022	$251,374,095
• Present Value of Accrued Benefits	$143,716,585	$194,070,380
• Projected Unit Credit Liability	$152,669,192	$207,921,175
Participant Information		
• Active Participant Lifecount	221	213
• Total Participant Lifecount	474	473
• Total Covered Payroll	$15,338,979	$14,862,788

Pension Plan

Effective January 1, 2013, Division 001 is closed to new entrants. Due to this change, the entire plan is now closed to new entrants.

Actuarial Assumptions

Effective January 1, 2013, the assumed investment return was changed from 7.00% to 5.25%.
Also effective January 1, 2013, the applicable mortality table was changed from the RP-2000 Mortality Table projected to 2010 to the RP-2000 Generational Mortality Table projected with Scale BB.

Gain/Loss

Actuarial gains and losses are recognized with each valuation by routine application of the Actuarial Cost Method. Under your cost method, actuarial gains and losses are recognized with each valuation and amortized over 20 years.

Funding Method

There are no changes to the funding method with this valuation.

Demographics

Total participant lifecount decreased .2% when compared with last year. Within the total group, active lifecount decreased 3.6%.

This report relies on the census data submitted to us by the plan sponsor, as summarized in “Participant Data”, and the retirement plan as outlined in “Plan Provisions”. It also relies on the plan asset information as described in “Statement of Net Assets Available for Benefits”. Appropriate tests for consistency and reasonableness have been completed on the information relied on.

The liabilities and costs were determined using the method summarized in “Actuarial Cost Method” and the actuarial assumptions described in “Plan Assumptions”. In our opinion, the actuarial assumptions used in this report are reasonable and reflect our best estimate of the anticipated future experience under the plan.

I am the Enrolled Actuary for this plan, and have no other relationship with the plan or the plan sponsor, which may impair or appear to impair the objectivity of my work.

This report was completed in accordance with generally accepted actuarial standards and procedures, and conforms to the Guidelines for Professional Conduct of the American Academy of Actuaries. The undersigned credentialed actuary meets the qualification standards of the American Academy of Actuaries necessary to render the actuarial opinion contained herein.

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1. Market Value of Assets:

Description	January 1, 2012	January 1, 2013
George J. Schwartz & Co., Inc.	7,499,869	13,158,784
Total Market Value	**$ 7,499,869**	**$ 13,158,784**

2. Guaranteed Account (GA)

	January 1, 2012	January 1, 2013
a. Value as of Valuation Date	$115,005,082	$115,819,350
b. Receivables		
i. Investment Income	0	0
ii. Employer Contributions	0	0
c. Payables	0	0
d. Total Guaranteed Account 3(a) + 3(b) + 3(c)	**$115,005,082**	**$115,819,350**

4. Total Market Value of Assets	**$122,504,951**	**$128,978,134**
5. Total Actuarial Value of Assets	**$123,454,716**	**$127,620,304**
6. Rate of Return on Market Value of Assets during the preceding twelve month period	**5.77%**	**7.68%**

Contributions for the Preceding Plan Year

Date	Employee Contributions	Employer Contributions
June, 2010	$0.00	$124,934.00
November, 2010	0.00	599,472.00
June, 2011	0.00	4,000,000.00
December, 2011	0.00	284,131.00
January, 2012	27,485.70	0.00
February, 2012	54,893.75	0.00
March, 2012	27,310.57	0.00
April, 2012	27,371.85	171,141.00
June, 2012	40,972.40	0.00
July, 2012	54,235.54	0.00
August, 2012	26,952.36	0.00
September, 2012	26,923.60	0.00
November, 2012	40,238.22	0.00
December, 2012	68,677.38	0.00
Totals	**$395,061.37**	**$5,179,678.00**

Lifecount and Data Reconciliation:

Description	Actives	Vested Terms	Inactives	Disableds	Retireds	Total
Participants on January 1, 2012	221	9	1	0	243	474
New Beneficiaries	0	0	0	0	2	2
Transfers in Status	0	0	0	0	0	0
Vested Term	(1)	1	0	0	N/A	0
Non-vested Term	0	0	0	0	N/A	0
Inactive	0	0	0	0	0	0
Disabled	0	0	0	0	0	0
Retired	(7)	(1)	0	0	8	0
Cash Out	0	0	0	0	0	0
Death	0	0	0	0	(3)	(3)
Expired Payments	N/A	N/A	N/A	0	0	0
Data Correction	0	0	0	0	0	0
Participants on January 1, 2013	213	9	1	0	250	473

	January 1, 2012	January 1, 2013
AVERAGE AGES for active eligible lives		
Average attained age	44.00	44.65
Average service	14.80	15.57
PAYROLL for active eligible lives	$15,338,979	$14,862,788
Average annual earnings	$69,407	$69,778
RETIRED PARTICIPANTS		
Average attained age	68.60	69.07
Average annual benefit	$33,415	$34,170

Present Value of Projected Plan Benefits: (at 7.0% for the prior year and 5.25% for the current year)

Actives	January 1, 2012	January 1, 2013
Retirement Benefits	81,847,923	122,281,033
Withdrawal	933,614	1,524,766
Pre-retirement Spouse	1,323,723	2,041,075
Disability	3,097,086	4,358,605
Other	24,616	0
Subtotal for Actives	$87,226,962	$130,205,479
Inactives		
Retired Lives	$92,567,220	$119,784,309
Vested Terminated Participants	1,287,840	1,384,307
Disabled	0	0
Inactive Lives	0	0
Subtotal for Inactives	$93,855,060	$121,168,616
Total Present Value of Benefits	**$181,082,022**	**$251,374,095**

Present Value of Actuarial Accrued Liabilities: (at 7.0% for the prior year and 5.25% for the current year)

Actives	January 1, 2012	January 1, 2013
Retirement Benefits	54,387,962	80,254,419
Withdrawal	644,291	1,079,390
Pre-retirement Spouse	882,404	1,373,866
Disability	2,879,913	4,044,883
Other	19,562	0
Subtotal for Actives	$58,814,132	$86,752,558
Inactives		
Retired Lives	$92,567,220	$119,784,309
Vested Terminated Participants	1,287,840	1,384,308
Disabled	0	0
Inactive Lives	0	0
Subtotal for Inactives	$93,855,060	$121,168,617
Total Present Value of Benefits	**$152,669,192**	**$207,921,175**

Pension Contribution

	January 1, 2012	January 1, 2013
1. Employer Normal Cost Net of Employee Contributions	$2,505,838	$3,784,978
2. Amortization of Unfunded Actuarially Accrued Liability	2,643,840	6,391,923
3 Expenses	30,000	30,000
4. Recommended Employer Contribution at beginning of year (1+2+3)	$5,179,678	$10,206,901
5. Interest to the end of Plan Year	362,577	535,862
6. Total Recommended Employer Contribution at end of year (4 + 5)	$5,542,255	$10,742,763

Determination of Actuarial (Gain)/Loss for the plan year beginning January 1, 2013

1. Projected Unit Credit Liability as of January 1, 2012	$152,669,192
2. Actuarial Value of Pension Fund Assets as of January 1, 2012	123,454,716
3. Projected Unit Credit Liability minus Actuarial Value of Assets (1-2)	29,214,476
4. Employer Normal Cost with Expenses As of January 1, 2012	2,535,838
5. Interest at 7% (on 3 + 4)	2,222,522
6. Employer Contribution for the 2012 Plan Year with interest	5,538,263
7. Expected Unfunded Actuarial Accrued Liability as of January 1, 2013 (3 + 4 + 5 - 6)	$28,434,573
8. Projected Unit Credit Liability as of January 1, 2013 Before Assumption Changes	$157,732,226
9. Actuarial Value of Pension Fund Assets as of January 1, 2013	127,620,304
10. Actual Unfunded Actuarial Accrued Liability as of January 1, 2013	$30,111,922
11. Actuarial (Gain)/Loss as of January 1, 2013 (10 - 7)	$1,677,349

Description	Effective Date	Initial Amount	Remaining Balance	Years Remaining	Annual Payment
Initial Amount	1/1/2011	$28,709,989	$27,260,325	18	$2,259,178
Actuarial Loss - 2012	1/1/2012	1,259,512	1,174,248	19	94,207
Actuarial Loss - 2013	1/1/2013	1,677,349	1,677,349	20	130,606
Asmp. Change - 2013	1/1/2013	50,188,949	50,188,949	20	3,907,932
Total		$81,835,799	$80,300,871		$6,391,923

DIVISIONAL ALLOCATION OF CONTRIBUTIONS

The following percentages may be used to allocate contributions to each division. These percentages are based on the ratio of the liabilities for employees of each division to the liabilities for all divisions.

	Division	Percentage
000	Administration & Miscellaneous	33.57%
001	Library	3.04%
002	Fire Department – Bargaining Unit Members	14.69%
003	Police Department – Civilian	7.88%
004	Police Department – Command Officer	11.23%
005	Police Department – Bargaining Unit	17.00%
006	Village Police	0.18%
007	Fire Department – Command Officers	12.41%

I. ACTUARIAL COST METHOD

Costs have been computed in accordance with the Projected Unit Credit Level Dollar Funding Method using a 20-year amortization period and reflect the actuarial assumptions described in “Plan Assumptions” of this report.

NORMAL COST

The Normal Cost is the cost of benefits expected to accrue during the coming year for all Participants who are eligible for funding as of the valuation date.

ACTUARIAL ACCRUED LIABILITY

As of January 1, 2011, an Actuarial Accrued Liability is established which represents the value of accrued benefits. This Actuarial Accrued Liability is offset by assets, if any, and the remainder, the Unfunded Actuarial Accrued Liability, is amortized over a fixed number of years from the effective date.

Subsequent changes due to plan amendment or revised actuarial assumptions create increments of Actuarial Accrued Liability which will be amortized over a similar fixed period of years from their effective dates. Actuarial gains and losses will be recognized with each valuation and amortized over a 20-year period.

II. ASSET VALUATION METHOD

Assets have been valued in accordance with generally accepted procedures as described below.

All funds invested are valued in the following manner:

Definitions

i	assumed growth rate, set equal to the expected return on assets
C(t)	sum of contributions and other additions to the fund from all sources other than investment transactions in Plan Year t
W(t)	sum of all withdrawals and other decreases to the fund from all sources other than investment transactions in Plan Year t
AV(t)	Actuarial Value of Assets as of Plan Year t
MV(t)	Market Value of Assets as of Plan Year t
EV(t)	Expected Value of Assets as of Plan Year t
G/L(t)	Gain or Loss for Plan Year t

Method

Deferred Recognition Method, with no gain or loss recognition prior to January 1, 2002.
On January 1, 2002, let AV(t) = MV(t). For subsequent years, AV(t) is determined as follows:

$EV(t) = MV(t-1) * (1+i) + [C(t-1) – W(t-1)] * (1+i*m)$

where m represents a proportionate yield consistent with the portion of the year for which C and W are invested.

$G/L(t-1) = EV(t) – MV(t)$

$AV(t) = MV(t) + 4/5 * G/L(t-1) + 3/5 * G/L(t-2) + 2/5 * G/L(t-3) + 1/5 * G/L(t-4)$

Corridor Limits

The resulting Actuarial Value of Assets may not be less than 80% or more than 120% of the current market value of plan assets as of the applicable valuation date [as required by IRC Section 1.412(c)(2)(1)].

Determination of Actuarial Value

Market Value of Assets on 01/01/2013: $ 128,978,134

Plan Year	(Gain)/Loss	% Deferred	Deferred Recognition
2012	$ (670,812)	80.00%	$ (536,650)
2011	$ 1,591,426	60.00%	$ 954,856
2010	$ (3,934,275)	40.00%	$ (1,573,710)
2009	$ (1,011,631)	20.00%	$ (202,326)
			$ (1,357,830)

Market Value plus Deferred Recognition: $ 127,620,304

Corridor for Actuarial Value

80% of Market Value:	$ 103,182,507
120% of Market Value:	$ 154,773,761

Actuarial Value after Corridor: $ 127,620,304

Assumptions have been chosen to anticipate the long-range experience of the Plan. Consistency among assumptions is important as each interacts with the others; equally important is the recognition of inflationary trends in the economy.

The actuarial assumptions used to compute Plan costs are:

Mortality: RP-2000 Generational Mortality Table projected with Scale BB

Termination: 50% of Prudential Scale 1/2A

The probabilities that Participants at the ages indicated will terminate before reaching the assumed retirement age are:

Age	Male	Female
20	28.5%	35.8%
25	22.4%	29.7%
30	15.0%	20.9%
35	8.6%	13.2%
40	4.0%	6.5%
45	1.1%	1.9%
50 & Over	0.0%	0.0%

Retirement Age: Age 55 with 25 years of Service or Age 62. Participants at or beyond this age are assumed to retire immediately. Non-active, non-retired participants are assumed to retire at Normal Retirement Age.

Investment Return: 5.25% per annum.

Estimated Expenses: $30,000 per annum.

Annual Cost of Living Adjustment: All retirees and participants eligible to retire immediately receive a 1% annual cost of living adjustment for life.

Salary Scale:

Salaries are assumed to increase at an annual rate of 3.0%.

The salary at age 55 bears the following relationship to the current earnings of a Participant at the indicated age, except that for Participants with a later normal or assumed retirement date, salaries are assumed to increase to that date.

Age	Ratio
20 & under	2.81
25	2.43
30	2.09
35	1.81
40	1.56
45	1.34
50	1.16
55	1.00

Spouse's Benefit:

It is assumed that husbands are 3 years older than wives and that 80% of Participants who are or will become eligible for coverage under the Spouse's Benefit will be survived by an eligible spouse.

Disability:

Table C-4 of the Society of Actuaries Transactions Volume XXXIX, 100% of the 6-month rates. The probabilities the Participants at the ages indicated will terminate within the next year are:

Age	Male	Female
20	0.080%	0.100%
25	0.085%	0.110%
30	0.099%	0.140%
35	0.124%	0.201%
40	0.176 %	0.276%
45	0.294%	0.400%
50	0.540%	0.622%
55	0.977%	0.932%
60	1.477%	1.179%
62	1.671%	1.253%

Maximum Benefit and Maximum Compensation Limits:

Assumed to increase 3% per year.

Rate of Earnings: Basic compensation including longevity adjustments but excluding overtime, commissions, bonuses and any other additional compensation.

Final Earnings: Divisions 000, 003 and 004:

Average Rate of Earnings as of the highest three consecutive May 1's during the last 10 years before Retirement Date. If Service ceases more than three years before Retirement Date, Final Earnings is average Rate of Earnings as of the last three May 1's before Service ceases.

Divisions 002, 005 and 007:

Average Rate of Earnings as of the highest three May 1's.

Divisions 001 and 006:

Average Rate of Earnings as of the highest five consecutive May 1's during the last 10 years before Retirement Date. If Service ceases more than five years before Retirement Date, Final Earnings is the average Rate of Earnings as of the last five May 1's before Service ceases.

Service: All years of Service with the Employer from date of employment to the earlier of retirement, termination of employment or death (without regard to hours worked).

Credited Service: All years of Service with the Employer from date of employment to the earlier of retirement, termination of employment or death, counted in whole years and full months. Service prior to August 1, 1961 is excluded if the Employee was not a plan Participant at that time. Service while the Participant was eligible to make contributions but did not is also excluded. Service while the Participant is disabled is excluded.

Form of Annuity: Modified Cash Refund with a 50% Spouse Continuation. Participants who are not married receive an actuarially increased benefit.

Normal Retirement Date: Divisions 000 and 003:

The first day of the month coinciding with or next following the Participant's 52nd birthday and the completion of 8 years of Service, or the completion of 30 years of Service.

Division 001:

The first day of the month coinciding with or next following the Participant's 55th birthday and the completion of 8 Years of Service.

Division 002 and 007:

The first day of the month coinciding with or next following the Participant's 52nd birthday and the completion of 8 Years of Service.

Division 004 and 005:

The first day of the month coinciding with or next following the Participant's 50th birthday and the completion of 25 years of service or the Participant's 52nd birthday and the completion of 10 years of Service, if later.

Division 006:

The first day of the month coinciding with or next following the earlier of (a) the Participant's 55th birthday and the completion of 10 years of Service or (b) the Participant's 60th birthday and the completion of 8 years of Service.

A Participant who continues in employment after reaching Normal Retirement is considered to be in postponed Retirement status.

PENSION BENEFIT:

Normal Retirement:

Benefit Formula:

Divisions 001 and 006:

2.1% of Final Earnings multiplied by years of Credited Service.

Divisions 002 and 007:

2.75% of Final Earnings multiplied by years of Credited Service.

Divisions 000, 003:

2.85% of Final Earnings multiplied by years of Credited Service.

Divisions 004, 005:

3.00% of Final Earnings multiplied by years of Credited Service.

Divisions 000 and 003:

On and after June 1, 2005, the maximum benefit at retirement shall not exceed 90% of Final Earnings for any Participant with 36 or fewer Years of Credited Service on April 1, 1996.

Division 002:

On and after July 8, 1996, the maximum benefit at retirement shall not exceed 80% of Final Earnings.

Division 004:

On and after April 27, 2000, the maximum benefit at retirement shall not exceed 90% of Final Earnings.

Division 005:

On and after April 1, 1999, the maximum benefit at retirement shall not exceed 85% of Final Earnings.

Division 007:

On and after December 18, 1996, the maximum benefit at retirement shall not
exceed 80% of Final Earnings.

Cost of Living:	1% increase each January 1.
	Division 000 - Retirement Date on or before March 31, 2009 Division 001 - Retirement Date on or before March 31, 2009 Division 002 - Retirement Date on or before December 31, 2007 Division 003 - Retirement Date on or before March 31, 2009 Division 004 - Retirement Date on or before March 31, 2009 Division 005 - Retirement Date on or before March 31, 2009 Division 006 - Retirement Date on or before March 31, 2009 Division 007 - Retirement Date on or before December 31, 2007

Early Retirement :

Eligibility:	Age 50 with a Vesting Percentage of 100%
Benefit Formula:	Normal retirement benefit accrued to early retirement, reduced by .5% for each month Annuity Commencement Date precedes Normal Retirement Date.

Vesting:

Eligibility:	Divisions 000, 001, 002, 003, 006 and 007
	Eight years of Service or attainment of Normal Retirement Date equals 100% vesting.
	Divisions 004 and 005:
	Ten years of Service or attainment of Normal Retirement Age equals 100% vesting.
Benefit Formula:	Benefit accrued to date of termination adjusted by the appropriate vesting percentage.

SUPPLEMENTAL BENEFITS:

Preretirement Death Benefit:	Divisions 000, 002, 003, 004, 005 and 007:
Eligibility:	Active Employee who is eligible for vesting
Benefit Formula:	50% of the pension benefit accrued to date of death. If eligible for early retirement at time of death, 100% of the pension benefit accrued to date of death.
Preretirement Spouse Benefit:	Divisions 001 and 006
Eligibility:	Active employee eligible for early retirement and married
Benefit Formula:	50% of the pension benefit accrued to date of death. If eligible for early retirement at time of death, 100% of the pension benefit accrued to date of death.
Disability Benefit:	Only applies to Divisions 002, 004, 005 and 007.
Eligibility:	Participants are eligible immediately.
Benefit Formula:	• Duty Disability

2.75% (3.0% for Divisions 004 & 005) of Final Earnings equal to the rate of earnings immediately prior to disablement adjusted by increases negotiated for job classification between date of disablement and the earlier of the date the Participant is no longer disabled, or the Normal Retirement Date, multiplied by years of Credited Service. Credited Service is defined from employment date to the earlier of the date the Participant is no longer considered disabled or Normal Retirement Date. Final Earnings equals the Rate of Earnings immediately prior to disablement adjusted by increases negotiated for that job classification between the date of disablement and the earlier of the date the Participant is no longer disabled or Normal Retirement Date.

- Non-Duty Disability

2.75% (3.0% for Divisions 004 & 005) of Final Earnings multiplied by years of Credited Service. Final Earnings and Credited Service are as of date of disablement.

EMPLOYEE CONTRIBUTIONS

Amount:	Divisions 002 and 007: 1% of earnings Divisions 004 and 005: 3.5% of earnings Divisions 000 and 003: 2% of earnings Divisions 001 and 006: 5% of earnings
Interest Credits:	5% per annum

Death or Termination Refund:

Preretirement:	Refund of Employee Contributions with interest to date of termination or date of death
Postretirement:	Refund of Employee Contributions with interest over annuity payments made, unless the form of annuity elected is other than the normal form of annuity.