

## **COUNCIL WORKSHOP ITEM**

**ITEM:** ADVANCED REFUNDING OF G.O. BONDS SERIES 1996 AND 2000  
**DATE:** March 7, 2001  
**PREPARED BY:** Martin Lyons, Director of Financial services  
**PURPOSE:** Due to a change in interest rates, it has become financially advantageous for the Village to refund and advanced refund bonds from its 1996 and 2000 General Obligation Bond issues. From this analysis, we anticipate net savings of nearly \$175,000.

**DISCUSSION:** Please find attached an analysis prepared by Northern Trust, the Village's Financial Advisor, regarding potential savings through the refunding of current outstanding Village General Obligation Debt. As you may recall, the Village consistently places call provisions in its longer-term General Obligation Bond issues. These provisions allow the Village to pay off a General Obligation Bond issue in a time period shorter than the full term of the bonds.

The 1996 General Obligation Bonds for Library Renovation and the 2000 Central Business District General Obligation Bonds have several years in each issue that could be reissued at lower rates, effectively saving the Village interest costs on an annual basis. Northern Trust projections present value savings of \$174,806 over the life of the bonds. These savings are completely net of our fees to be paid to Northern Trust and our Bond Counsel, Chapman and Cutler. In effect, by processing this advanced refunding, we will reduce our annual debt service on this bond issue by \$10,000 - \$20,000 each year, depending on the bonds in question.

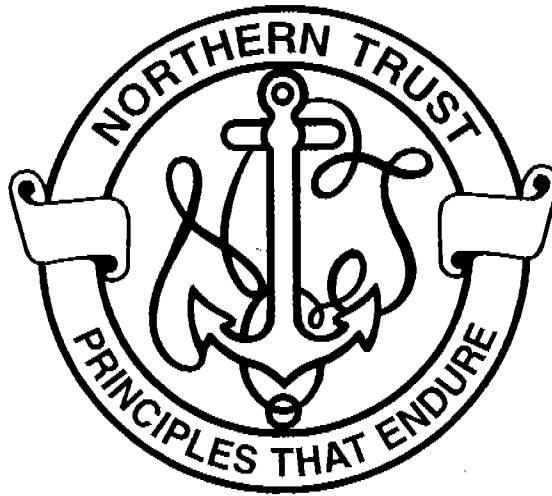
Chapman and Cutler has proposed a fee not to exceed \$25,000 for processing this refunding issue. Normally we use Northern Trust as our financial advisor, and sell new bonds competitively. In the case of this refunding, Northern Trust is acting as both the underwriter of the bonds and as financial advisor. As such their costs are contained in the underwriting portion of the bond sale.

Costs of Issuance are estimated at \$35,000 and include the following:

Ratings agency fee	\$7,000
Escrow verification	\$3,000
Escrow trustee fees	\$3,000
Bond Counsel	\$20,000
Bond Printing	\$2,000

### **RECOMMENDATION:**

We recommend proceeding with the refunding of bonds as outlined above and in the attached report from Northern Trust.



*Refunding Analysis  
for  
Village of Downers  
Grove  
DuPage County,  
Illinois*

*Investment Banking  
Services*

*February 1, 2001*

---

**The Northern Trust Company**

---



**Northern  
Trust**

*Investment Banking Services*

---

# Village of Downers Grove

## Table of Contents

---

***Outstanding General Obligation  
Bonds***

**One**

---

***Refunding Analysis of All Callable  
Bonds***

**Two**

---

***Northern's Recommendation***

---

**Three**

---



**Northern  
Trust**

*Investment Banking Services*

---

February 1, 2001

Mr. Martin Lyons  
Senior Director of Finance  
And Administrative Services  
Village of Downers Grove  
801 Burlington Avenue  
Downers Grove, Illinois 60515-4776

RE: Refunding Analysis

Dear Martin:

Pursuant to our recent conversations, we have computed the refunding analysis of the Village's outstanding debt. The analysis assumes current market interest rates and only callable bonds are refunded.

We have enclosed the following:

- ◆ Summary of Outstanding debt
- ◆ Sources and Uses
- ◆ Debt Service Schedule
- ◆ Debt Service Comparison
- ◆ Summary of Refunded bonds

In our recommendation, we summarize and set forth the steps that should be taken to maximize potential benefit to the Village. If you have any questions or need any additional information, please call me at (312) 557-0945. I look forward to working with you on this refunding opportunity.

Sincerely,

Allan Ambrose  
Vice President

---

Village of Downer's Grove  
DuPage County, Illinois  
General Obligation Bonds, Series 2001  
**TOTAL NET DEBT SERVICE**

DATE	Series 1996	Series 1998	Series 1999	Series 2000	TOTAL
1/01/2002	586,460.75	239,436.25	249,948.75	261,486.56	1,337,332.31
1/01/2003	681,251.00	269,995.00	403,265.00	433,648.76	1,788,159.76
1/01/2004	681,211.00	268,705.00	379,065.00	403,718.76	1,732,699.76
1/01/2005	680,298.50	267,230.00	396,315.00	400,118.76	1,743,962.26
1/01/2006	678,323.50	270,570.00	412,465.00	411,518.76	1,772,877.26
1/01/2007	682,300.00	273,540.00	412,515.00	367,018.76	1,735,373.76
1/01/2008	677,857.50	276,140.00	443,050.00	414,918.76	1,811,966.26
1/01/2009	677,257.50	273,160.00	501,940.00	469,818.76	1,922,176.26
1/01/2010	680,417.50	274,775.00	547,580.00	486,118.76	1,988,891.26
1/01/2011	681,832.50	281,000.00	605,330.00	530,918.76	2,099,081.26
1/01/2012	676,687.50	281,400.00	619,490.00	557,418.76	2,134,996.26
1/01/2013	680,227.50	281,400.00	651,990.00	597,313.76	2,210,931.26
1/01/2014	676,887.50	286,000.00	681,990.00	625,113.76	2,269,991.26
1/01/2015	676,912.50	-	809,265.00	740,403.76	2,226,581.26
1/01/2016	680,000.00	-	888,965.00	813,403.76	2,382,368.76
1/01/2017	675,840.00	-	942,400.00	850,403.76	2,468,643.76
1/01/2018	-	-	1,020,800.00	943,553.76	1,964,353.76
1/01/2019	-	-	1,052,500.00	933,553.76	1,986,053.76
1/01/2020	-	-	-	956,585.00	956,585.00
<b>Total</b>	<b>10,773,764.75</b>	<b>3,543,351.25</b>	<b>11,018,873.75</b>	<b>11,197,035.48</b>	<b>36,533,025.23</b>

**PAR AMOUNTS OF SELECTED ISSUES**

Series 1996.....	7,175,000.00
Series 1998.....	2,750,000.00
Series 1999.....	6,500,000.00
Series 2000.....	6,200,000.00
<b>TOTAL.....</b>	<b>22,625,000.00</b>

The Northern Trust Company  
Public Finance

File = DOWNERS GROVE REFUNDING ANALYSIS 1-25-01.SF-Aggregate-  
2/ 8/2001 10:41 AM

Village of Downer's Grove  
DuPage County, Illinois  
General Obligation Bonds, Series 2001

**TOTAL PRINCIPAL PAYMENTS**

DATE	Series 1996	Series 1998	Series 1999	Series 2000	TOTAL
1/01/2002	305,000.00	160,000.00	-	-	465,000.00
1/01/2003	320,000.00	170,000.00	70,000.00	85,000.00	645,000.00
1/01/2004	335,000.00	175,000.00	50,000.00	60,000.00	620,000.00
1/01/2005	350,000.00	180,000.00	70,000.00	60,000.00	660,000.00
1/01/2006	365,000.00	190,000.00	90,000.00	75,000.00	720,000.00
1/01/2007	385,000.00	200,000.00	95,000.00	35,000.00	715,000.00
1/01/2008	400,000.00	210,000.00	130,000.00	85,000.00	825,000.00
1/01/2009	420,000.00	215,000.00	195,000.00	145,000.00	975,000.00
1/01/2010	445,000.00	225,000.00	250,000.00	170,000.00	1,090,000.00
1/01/2011	470,000.00	240,000.00	320,000.00	225,000.00	1,255,000.00
1/01/2012	490,000.00	250,000.00	350,000.00	265,000.00	1,355,000.00
1/01/2013	520,000.00	260,000.00	400,000.00	320,000.00	1,500,000.00
1/01/2014	545,000.00	275,000.00	450,000.00	365,000.00	1,635,000.00
1/01/2015	575,000.00	-	600,000.00	500,000.00	1,675,000.00
1/01/2016	610,000.00	-	710,000.00	600,000.00	1,920,000.00
1/01/2017	640,000.00	-	800,000.00	670,000.00	2,110,000.00
1/01/2018	-	-	920,000.00	800,000.00	1,720,000.00
1/01/2019	-	-	1,000,000.00	835,000.00	1,835,000.00
1/01/2020	-	-	-	905,000.00	905,000.00
<b>Total</b>	<b>7,175,000.00</b>	<b>2,750,000.00</b>	<b>6,500,000.00</b>	<b>6,200,000.00</b>	<b>22,625,000.00</b>

**PAR AMOUNTS OF SELECTED ISSUES**

Series 1996.....	7,175,000.00
Series 1998.....	2,750,000.00
Series 1999.....	6,500,000.00
Series 2000.....	6,200,000.00
<b>TOTAL.....</b>	<b>22,625,000.00</b>

The Northern Trust Company  
Public Finance

File = DOWNERS GROVE REFUNDING ANALYSIS 1-25-01.SF-Aggregate-  
2/ 8/2001 10:42 AM

**\$18,815,000**  
**Village of Downer's Grove**  
**DuPage County, Illinois**  
**General Obligation Bonds, Series 2001**  
**REFUNDING ANALYSIS BY MATURITY**

ISSUE	Maturity	Type	Of Bond	Coupon	Principal	Call Date	Total \$ Savings	Base Savings	Yield Blending	Total % Savings	Cumulative	Total %
Series 1996	1/01/2017	Serial	COUPON	5.600%	640,000	1/01/2006	31,731	5.565%	-0.607%	4.958%	31,731	4.958%
Series 1996	1/01/2016	Serial	COUPON	5.600%	610,000	1/01/2006	30,116	5.133%	-0.196%	4.937%	61,846	4.948%
Series 1996	1/01/2015	Serial	COUPON	5.550%	575,000	1/01/2006	26,219	4.389%	0.171%	4.560%	88,066	4.826%
Series 1996	1/01/2014	Serial	COUPON	5.500%	545,000	1/01/2006	22,720	3.677%	0.492%	4.169%	110,786	4.675%
Series 1996	1/01/2013	Serial	COUPON	5.450%	520,000	1/01/2006	19,569	2.999%	0.764%	3.763%	130,355	4.511%
Series 1996	1/01/2012	Serial	COUPON	5.400%	490,000	1/01/2006	16,379	2.359%	0.984%	3.343%	146,734	4.341%
Series 1996	1/01/2011	Serial	COUPON	5.350%	470,000	1/01/2006	13,660	1.759%	1.147%	2.906%	160,393	4.166%
Series 2000	1/01/2020	Serial	COUPON	5.700%	905,000	1/10/2010	24,899	4.316%	-1.565%	2.751%	185,293	3.897%
Series 1996	1/01/2010	Serial	COUPON	5.300%	445,000	1/01/2006	10,921	1.204%	1.250%	2.454%	196,214	3.773%
Series 2000	1/01/2019	Serial	COUPON	5.625%	835,000	1/10/2010	18,669	3.539%	-1.303%	2.236%	214,883	3.561%
Series 2000	1/01/2018	Serial	COUPON	5.625%	800,000	1/10/2010	16,622	3.134%	-1.056%	2.078%	231,505	3.387%
Series 1996	1/01/2009	Serial	COUPON	5.200%	420,000	1/01/2006	7,868	0.586%	1.287%	1.873%	239,373	3.299%
Series 2000	1/01/2016	Serial	COUPON	5.500%	600,000	1/10/2010	9,831	1.840%	-0.202%	1.639%	249,204	3.173%
Series 2000	1/01/2017	Serial	COUPON	5.500%	670,000	1/10/2010	10,798	2.224%	-0.613%	1.612%	260,002	3.050%
Series 2000	1/01/2012	Serial	COUPON	5.700%	265,000	1/10/2010	3,595	0.353%	1.004%	1.357%	263,598	2.999%
Series 2000	1/01/2015	Serial	COUPON	5.400%	500,000	1/10/2010	6,554	1.150%	0.161%	1.311%	270,152	2.908%
Series 1996	1/01/2008	Serial	COUPON	5.150%	400,000	1/01/2006	5,238	0.165%	1.144%	1.310%	275,390	2.842%
Series 2000	1/01/2014	Serial	COUPON	5.400%	365,000	1/10/2010	4,625	0.782%	0.485%	1.267%	280,014	2.785%
Series 2000	1/01/2013	Serial	COUPON	5.375%	320,000	1/10/2010	3,553	0.351%	0.759%	1.110%	283,568	2.733%
Series 2000	1/01/2011	Serial	COUPON	6.000%	225,000	1/10/2010	2,495	-0.077%	1.186%	1.109%	286,063	2.699%
Series 1999	1/01/2018	Serial	COUPON	5.250%	920,000	1/01/2009	8,208	1.964%	-1.071%	0.892%	294,271	2.554%
Series 1999	1/01/2019	Serial	COUPON	5.250%	1,000,000	1/01/2009	8,897	2.203%	-1.313%	0.890%	303,168	2.421%
Series 1999	1/01/2017	Serial	COUPON	5.200%	800,000	1/01/2009	6,842	1.484%	-0.629%	0.855%	310,010	2.327%
Series 1999	1/01/2016	Serial	COUPON	5.150%	710,000	1/01/2009	5,806	1.042%	-0.224%	0.818%	315,816	2.251%
Series 1999	1/01/2012	Serial	COUPON	5.000%	350,000	1/01/2009	2,630	-0.206%	0.957%	0.751%	318,446	2.215%
Series 1999	1/01/2014	Serial	COUPON	5.050%	450,000	1/01/2009	3,325	0.278%	0.460%	0.739%	321,771	2.170%
Series 1996	1/01/2007	Serial	COUPON	5.050%	385,000	1/01/2006	2,787	-0.236%	0.960%	0.724%	324,557	2.133%
Series 1999	1/01/2013	Serial	COUPON	5.000%	400,000	1/01/2009	2,788	-0.036%	0.733%	0.697%	327,345	2.096%
Series 1999	1/01/2011	Serial	COUPON	4.950%	320,000	1/01/2009	2,159	-0.448%	1.123%	0.675%	329,504	2.068%
Series 1999	1/01/2015	Serial	COUPON	5.050%	600,000	1/01/2009	3,580	0.460%	0.137%	0.597%	333,084	2.014%
Series 1999	1/01/2010	Serial	COUPON	4.900%	250,000	1/01/2009	1,487	-0.635%	1.230%	0.595%	334,571	1.993%
Series 1998	1/01/2010	Serial	COUPON	3.900%	225,000	1/01/2009	-228	-1.279%	1.178%	-0.101%	334,343	1.966%
Series 1998	1/01/2011	Serial	COUPON	4.000%	240,000	1/01/2009	-1,451	-1.671%	1.066%	-0.605%	332,891	1.930%
Series 1998	1/01/2012	Serial	COUPON	4.000%	250,000	1/01/2009	-3,038	-2.106%	0.891%	-1.215%	329,854	1.885%
Series 1998	1/01/2013	Serial	COUPON	4.000%	260,000	1/01/2009	-4,833	-2.522%	0.663%	-1.859%	325,021	1.830%
Series 1998	1/01/2014	Serial	COUPON	4.000%	275,000	1/01/2009	-6,965	-2.919%	0.386%	-2.533%	318,055	1.764%
					18,035,000		318,055					

**REFUNDING ANALYSIS BY MATURITY**

Proposed Refunding Date..... 4/01/2001  
Yield on Escrow Investments..... 4.5926024%  
Present Value Savings Discount Rate..... 4.7098362%



**Northern  
Trust**

*Investment Banking Services*

## Recommendations

- ◆ Refund the following Maturities

Issue Series	Maturity	Coupon	Principal
1996	January 1, 2010	5.300%	\$ 445,000
	January 1, 2011	5.350%	470,000
	January 1, 2012	5.400%	490,000
	January 1, 2013	5.450%	520,000
	January 1, 2014	5.500%	545,000
	January 1, 2015	5.550%	575,000
	January 1, 2016	5.600%	610,000
	January 1, 2017	5.600%	640,000
Series 2000	January 1, 2018	5.625%	800,000
	January 1, 2019	5.625%	835,000
	January 1, 2020	5.700%	905,000

Refunding the above results in nominal savings of \$265,442.36 and present value savings of \$174,805.82.

**To complete this transaction, we will need to take the following steps:**

1. Instruct Northern to move forward on preparing bond issue documentation
2. Adopt a parameters ordinance setting the maximum size of bond issue and minimum savings criteria
3. Sell and close bond issue

**\$7,205,000**  
Village of Downer's Grove  
DuPage County, Illinois  
General Obligation Bonds, Series 2001

**SOURCES & USES**

Dated 04/01/2001

Delivered 04/01/2001

**SOURCES OF FUNDS**

Par Amount of Bonds..... \$7,205,000.00

**TOTAL SOURCES**..... \$7,205,000.00

**USES OF FUNDS**

Total Underwriter's Discount (0.700%)..... 50,435.00

Costs of Issuance..... 35,000.00

Deposit to Net Cash Escrow Fund..... 7,117,050.26

Rounding Amount..... 2,514.74

**TOTAL USES**..... \$7,205,000.00

The Northern Trust Company  
Public Finance

-25-01.SF-Series 2001 Proposal- SINGLE PURPOSE  
2/ 8/2001 11:14 AM

**\$7,205,000**  
**Village of Downer's Grove**  
**DuPage County, Illinois**  
**General Obligation Bonds, Series 2001**  
**DEBT SERVICE SCHEDULE**

Date	Principal	Coupon	Interest	Total P+I
1/01/2002	15,000.00	3.200%	254,947.50	269,947.50
1/01/2003	25,000.00	3.500%	339,450.00	364,450.00
1/01/2004	25,000.00	3.700%	338,575.00	363,575.00
1/01/2005	30,000.00	3.800%	337,650.00	367,650.00
1/01/2006	30,000.00	3.900%	336,510.00	366,510.00
1/01/2007	30,000.00	4.000%	335,340.00	365,340.00
1/01/2008	30,000.00	4.050%	334,140.00	364,140.00
1/01/2009	35,000.00	4.100%	332,925.00	367,925.00
1/01/2010	480,000.00	4.200%	331,490.00	811,490.00
1/01/2011	500,000.00	4.300%	311,330.00	811,330.00
1/01/2012	515,000.00	4.400%	289,830.00	804,830.00
1/01/2013	545,000.00	4.500%	267,170.00	812,170.00
1/01/2014	565,000.00	4.600%	242,645.00	807,645.00
1/01/2015	590,000.00	4.700%	216,655.00	806,655.00
1/01/2016	620,000.00	4.800%	188,925.00	808,925.00
1/01/2017	645,000.00	4.900%	159,165.00	804,165.00
1/01/2018	800,000.00	5.000%	127,560.00	927,560.00
1/01/2019	830,000.00	5.050%	87,560.00	917,560.00
1/01/2020	895,000.00	5.100%	45,645.00	940,645.00
<b>Total</b>	<b>7,205,000.00</b>	<b>-</b>	<b>4,877,512.50</b>	<b>12,082,512.50</b>

**YIELD STATISTICS**

Bond Year Dollars.....	\$101,573.75
Average Life.....	14.098 Years
Average Coupon.....	4.8019419%
Net Interest Cost (NIC).....	4.8515955%
True Interest Cost (TIC).....	4.8504268%
Bond Yield for Arbitrage Purposes.....	4.7804792%
All Inclusive Cost (AIC).....	4.8993498%
<b>IRS FORM 8038</b>	
Net Interest Cost.....	4.8019419%
Weighted Average Maturity.....	14.098 Years

The Northern Trust Company  
Public Finance

File = DOWNERS GROVE REFUNDING ANALYSIS 1-25-01.SF-Series 2001 Proposal- SINGLE PURPOSE  
2/ 8/2001 11:14 AM

**\$7,205,000**  
**Village of Downer's Grove**  
**DuPage County, Illinois**  
**General Obligation Bonds, Series 2001**

**DEBT SERVICE COMPARISON**

Date	Total P+I	Existing D/S	Net New D/S	Old Net D/S	Savings
1/01/2002	269,947.50	1,053,103.87	1,323,051.37	1,337,332.31	14,280.94
1/01/2003	364,450.00	1,409,188.50	1,773,638.50	1,788,159.76	14,521.26
1/01/2004	363,575.00	1,353,728.50	1,717,303.50	1,732,699.76	15,396.26
1/01/2005	367,650.00	1,364,991.00	1,732,641.00	1,743,962.26	11,321.26
1/01/2006	366,510.00	1,393,906.00	1,760,416.00	1,772,877.26	12,461.26
1/01/2007	365,340.00	1,356,402.50	1,721,742.50	1,735,373.76	13,631.26
1/01/2008	364,140.00	1,432,995.00	1,797,135.00	1,811,966.26	14,831.26
1/01/2009	367,925.00	1,543,205.00	1,911,130.00	1,922,176.26	11,046.26
1/01/2010	811,490.00	1,164,920.00	1,976,410.00	1,988,891.26	12,481.26
1/01/2011	811,330.00	1,273,695.00	2,085,025.00	2,099,081.26	14,056.26
1/01/2012	804,830.00	1,314,755.00	2,119,585.00	2,134,996.26	15,411.26
1/01/2013	812,170.00	1,387,150.00	2,199,320.00	2,210,931.26	11,611.26
1/01/2014	807,645.00	1,449,550.00	2,257,195.00	2,269,991.26	12,796.26
1/01/2015	806,655.00	1,406,115.00	2,212,770.00	2,226,581.26	13,811.26
1/01/2016	808,925.00	1,558,815.00	2,367,740.00	2,382,368.76	14,628.76
1/01/2017	804,165.00	1,649,250.00	2,453,415.00	2,468,643.76	15,228.76
1/01/2018	927,560.00	1,020,800.00	1,948,360.00	1,964,353.76	15,993.76
1/01/2019	917,560.00	1,052,500.00	1,970,060.00	1,986,053.76	15,993.76
1/01/2020	940,645.00	-	940,645.00	956,585.00	15,940.00
<b>Total</b>	<b>12,082,512.50</b>	<b>24,185,070.37</b>	<b>36,267,582.87</b>	<b>36,533,025.23</b>	<b>265,442.36</b>

**PRESENT VALUE ANALYSIS SUMMARY (NET TO NET)**

Net PV Cashflow Savings @ 4.899% (AIC).....	174,805.82
<b>NET PRESENT VALUE BENEFIT.....</b>	<b>\$174,805.82</b>
NET PV BENEFIT / \$6,835,000 REFUNDED PRINCIPAL.....	2.558%
NET PV BENEFIT / \$7,205,000 REFUNDING PRINCIPAL.....	2.426%

The Northern Trust Company  
Public Finance

NERS GROVE REFUNDING ANALYSIS 1-25-01.SF-Series 2001 Proposal- SINGLE PURPOSE  
2/ 8/2001 11:14 AM

**\$7,205,000**  
**Village of Downer's Grove**  
**DuPage County, Illinois**  
**General Obligation Bonds, Series 2001**  
**REFUNDING SUMMARY**

Dated 04/01/2001

Delivered 04/01/2001

**SOURCES OF FUNDS**

Par Amount of Bonds.....	\$7,205,000.00
<b>TOTAL SOURCES.....</b>	<b>\$7,205,000.00</b>

**USES OF FUNDS**

Total Underwriter's Discount (0.700%).....	50,435.00
Costs of Issuance.....	35,000.00
Deposit to Net Cash Escrow Fund.....	7,117,050.26
Rounding Amount.....	2,514.74
<b>TOTAL USES.....</b>	<b>\$7,205,000.00</b>

**FLOW OF FUNDS DETAIL**

State and Local Government Series (SLGS) rates for.....	1/25/2001
<b>NET CASH ESCROW FUND SOLUTION METHOD.....</b>	<b>Net Funded</b>
Total Cost of Investments.....	\$7,117,050.26
Interest Earnings @ 4.780%.....	2,095,867.10
<b>TOTAL DRAWS.....</b>	<b>\$9,212,917.36</b>

**ISSUES REFUNDED AND CALL DATES**

Series 1996.....	1/01/2006
Series 1998.....	1/01/2009
Series 1999.....	1/01/2009
Series 2000.....	1/10/2010

**PRESENT VALUE ANALYSIS SUMMARY (NET TO NET)**

Net PV Cashflow Savings @ 4.899% (AIC).....	174,805.82
<b>NET PRESENT VALUE BENEFIT.....</b>	<b>\$174,805.82</b>
<b>NET PV BENEFIT / \$6,835,000 REFUNDED PRINCIPAL.....</b>	<b>2.558%</b>
<b>NET PV BENEFIT / \$7,205,000 REFUNDING PRINCIPAL.....</b>	<b>2.426%</b>

**BOND STATISTICS**

Average Life.....	14.098 Years
Average Coupon.....	4.8019419%
Net Interest Cost (NIC).....	4.8515955%
Bond Yield for Arbitrage Purposes.....	4.7804792%
True Interest Cost (TIC).....	4.8504268%
All Inclusive Cost (AIC).....	4.8993498%